

Current as of 03/01/2021

## PARTS LISTING WITH MOUNTING AND OPERATING INSTRUCTIONS



### **Tiger Corporation**

3301 N. Louise Ave. Sioux Falls, SD 57107 1-800-843-6849 1-605-336-7900 www.tigermowers.com

06011048

## TO THE OWNER / OPERATOR / DEALER

All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached to minimize the chance of accidents.

**BEFORE YOU START!!** Read the safety messages on the implement and shown in this manual. Observe the rules of safety and use common sense!

READ AND UNDERSTAND THIS MANUAL! Non–English speaking operators will need to GET THE MANUAL TRANSLATED as needed!



recorded on the Warranty Card, and form that you retain.

## FORWARD

This manual contains information about many features of the Tiger mowing and roadside maintenance equipment. Some of these include: Safety precautions, Assembly instructions, Operations, Maintenance and Parts. This manual will also assist you in the proper break-in, daily care, and troubleshooting of your new mower.

We recommend that you read carefully the entire manual before operating the unit. Also, time spent in becoming fully acquainted with its performance features, adjustments, and maintenance schedules will be repaid in a long and satisfactory life of the equipment.

### Troubleshooting - Please, before you call, help us to help you!

Please look at the equipment to observe what is happening, then:

- Classify the problem
  - Hydraulic, electrical or mechanical Read the trouble shooting section
  - Tractor or Truck chassis Contact vehicle dealer
- If unable to correct the problem yourself, contact your local Tiger Dealer after gathering:
  - Machine model
  - Serial number \_\_\_\_\_
  - Dealer name
  - Detailed information about the problem including results of troubleshooting

Attention Owner / Operator / Dealer: It is your obligation to read, and understand, the warranty information section located at the back of this manual denoting that the purchaser understands the safety issues relating to this machine and has received and will read a copy of this manual.

If at any time, you have a service problem with your Tiger mower, Contact your local dealer for service and parts needed.

MANUFACTURED BY:	DISTRIBUTED BY:		
Tiger Corporation			
3301 N. Louise Ave.			
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1-800-843-6849	1		
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### TABLE OF CONTENTS

SAFETY SECTION	1
ASSEMBLY / MOUNTING SECTION	2
OPERATION SECTION	3
MAINTENANCE SECTION	4
PARTS SECTION	5
COMMON PARTS SECTION	6
WARRANTY INFORMATION	7



This symbol means: CAUTION – YOUR SAFETY IS AT RISK!

When you see this symbol, read and follow the associated instructions carefully or personal injury or damage may result.

Tiger is a registered trademark.



# **SAFETY SECTION**

### **GENERAL SAFETY INSTRUCTIONS AND PRACTICES**

A careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this Implement. This equipment should only be operated by those persons who have read the manual, who are responsible and trained, and who know how to do so responsibly.



The Safety Alert Symbol combined with a Signal Word, as seen below, is used throughout this manual and on decals which are attached to the equipment. The Safety Alert Symbol means: "ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!" The Symbol and Signal Word are intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this equipment.

Practice all usual and customary safe working precautions and above all--remember safety is up to <u>YOU</u>. Only <u>YOU</u> can prevent serious injury or death from unsafe practices.

🛕 DANGER

Indicates an imminently hazardous situation that, if not avoided, WILL result in DEATH OR VERY SERIOUS INJURY.

AWARNING

Indicates an imminently hazardous situation that, if not avoided, COULD result in DEATH OR SERIOUS INJURY.

**CAUTION** Indicates an imminently hazardous situation that, if not avoided, MAY result in MINOR INJURY.

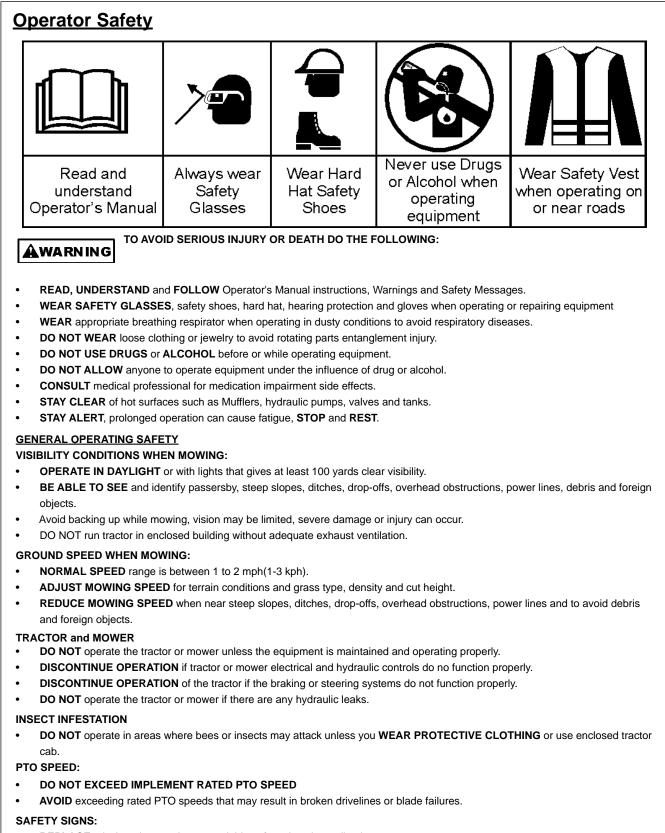
**Important** Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

NOTE: Identifies points of particular interest for more efficient and convenient operation or repair.

READ, UNDERSTAND, and FOLLOW the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in this Manual and in the Safety Messages on the implement. Always follow the instruction in this manual and use good common sense to avoid hazards.



NOTE: If you want a translation of this safety section in one of the following Languages, please contact: Translations at 1502 E. Walnut Street Seguin, TX 78155; Fax: (830) 372-9529; Safety Section Translations are available in Spanish, Portuguese, French, German, Russian. **PN GS01** 



• REPLACE missing, damaged or unreadable safety signs immediately. PN OSBM-01

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BOOM
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#### **CRUSHING HAZARDS** Pinch Point Hazard Crushing injury from Use Cab Always wear Crushing injury Keep Hands and seatbelt boom or mower from roll over Tractor With body parts clear of head falling Boom Mowers pinch points TO AVOID SERIOUS INJURY OR DEATH FROM FALLING OFF TRACTOR, EQUIPMENT RUN OVER, DANGER ROLLOVER AND CRUSHING BY FALLING WING OR IMPLEMENT:

- USE ROPS and SEAT BELT equipped tractors for mowing operations.
- KEEP ROPS lock in up position.
- ALWAYS BUCKLE UP seat belt when operating tractor and equipment.
- ONLY OPERATE tractor and equipment while seated in tractor seat.

#### WHEN RAISING BOOM MOWER:

- Raise or lower **ONLY WHILE SEATED** in tractor seat with seat belt buckled.
- KEEP BYSTANDERS CLEAR of area TO AVOID crushing.
- KEEP sufficient clearance around implement and wings TO AVOID contacting buildings or overhead power lines.

LIFTED Equipment can fall from mechanical or hydraulic failure or inadvertent Control Lever movement.

**AWARNING** TO AVOID EQUIPMENT FALLING while working near or under lifted boom, components and Mower Head:

- SECURELY SUPPORT or block up raised equipment, wings and components.
- BLOCK UP and securely support equipment before putting hands, feet or body under raised equipment or lifted components.
- KEEP BYSTANDERS CLEAR of raised boom or mower head until securely blocked up.

WHEN PARKING Implement and Tractor:

- LOWER Mower Head to the ground or BLOCK lifted parts before leaving equipment.
- **NEVER** leave implement unattended in a raised position.

#### TO AVOID CHILDREN FALLING OFF OR BEING CRUSHED BY EQUIPMENT:

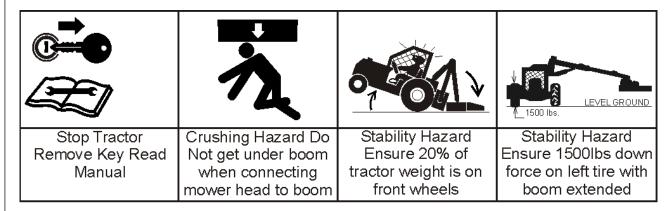
#### AWARNING

- NEVER ALLOW children to play on or around Tractor or Implement.
- DO NOT operate without operator CAB or OVERHEAD protection. Falling limbs and debris can cause injuries. PN CHBM-01

SAFETY

BOOM

### CONNECTING OR DISCONNECTING IMPLEMENT SAFETY



SAFETY

🛕 DANGER

## TO AVOID SERIOUS INJURY OR DEATH FROM BEING CRUSHED BY TRACTOR OR IMPLEMENT:

WHEN connecting mower head to the boom:

- KEEP BYSTANDERS AWAY from tractor and mower.
- Ensure there is enough room to lift and swing the boom with out hitting objects

BEFORE connecting and disconnecting the mower head or boom:

• STOP TRACTOR ENGINE, place transmission into park, engage parking brake and remove key.

WHEN connecting and disconnecting the mower head or boom:

• DO NOT crawl or walk under raised mower head or boom. (Refer to Instructions in Operation Section)

#### WHEN CONNECTING IMPLEMENT DRIVELINE:(If equipped)

#### TO AVOID implement driveline coming loose during operation:

- LUBRICATE yoke spring locking collar to ensure it freely slides on PTO shaft.
- **SECURELY** seat yoke locking balls in PTO shaft groove.
- PUSH and PULL DRIVELINE on both the tractor and implement PTO SHAFTS to ensure it is SECURELY ATTACHED.

#### TO AVOID broken driveline during operations:

- CHECK driveline for proper length between PTO shaft and implement gearbox shaft.(*Refer to Instructions in Operation Section*)
- Drivelines too short can pull apart or disengage.
- Drivelines too long can bottom out.
- Bottoming driveline telescoping assembly will stop sliding and become solid.
- Driveline bottoming can push through support bearings and break off PTO shaft.

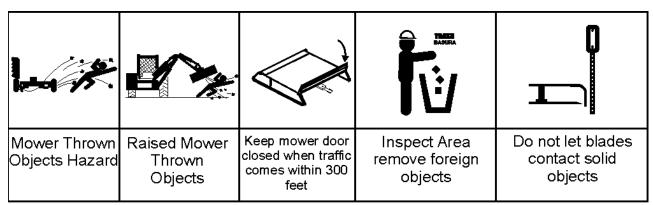
#### CONTACT DEALER if implement driveline does not match Tractor PTO shaft:

#### • DO NOT USE PTO ADAPTER.

Using a PTO adapter can cause:

- Excessive vibration, thrown objects, blade and implement failures by doubling operating speed.
- Increased working length exposing unshielded driveline areas and entanglement hazards. PN CDBM-01

### THROWN OBJECTS HAZARDS



SAFETY

A DANGER ROTARY MOWERS CAN THROW OBJECTS 300 FEET OR MORE UNDER ADVERSE CONDITIONS.

#### TO AVOID SERIOUS INJURY OR DEATH TO OPERATOR OR BYSTANDERS FROM THROWN OBJECTS:

KEEP bystanders 300 feet away

#### STOP MOWING IF PASSERSBY ARE WITHIN 300 FEET UNLESS:

- All THROWN OBJECT SHIELDING including, Front and Rear Deflectors, Chains Guards, Steel Guards, Bands, Side Skirts and Skid Shoes in place and in good condition when mowing.
- Mower is close and parallel to ground without exposing blades.
- **MOWING AREA** has been inspected and foreign materials and debris have been removed.
- DO NOT shred or mow loose or previously cut material if BYSTANDERS are within 300 feet.
- **PASSERSBY** are inside enclosed vehicle.

#### INSPECT AREA FOR POTENTIAL THROWN OBJECTS BEFORE MOWING:

- REMOVE debris, rocks, wire, cable, metal objects and other foreign material from area.
   Wire, cable, rope, chains and metal objects can be thrown or swing outside deck with great velocity:
  - 1. **MARK** objects that cannot removed.
  - 2. AVOID these objects when mowing.

#### HIGH GRASS and WEED AREA INSPECTION:

- **INSPECT** for and **REMOVE** any hidden large debris.
- **MOW** at Intermediate height
- INSPECT and remove remaining debris
- **MOW** at final height.

#### MOWER THROWN OBJECT SHIELDING:

- **KEEP** all thrown object shielding including, Front and Rear Deflectors, Chains Guards, Steel Guards, Bands, Side Skirts and Skid Shoes in place and in good condition when mowing.
- **DO NOT OPERATE** with any thrown object shielding missing, damaged or removed.

#### **RIGHT OF WAY (Highway) MOWING**

- Stop mowing if any bystander comes within 300 feet of the mower.
  - No shielding is 100% effective in preventing thrown objects. To Reduce Possibility of Injury:
  - 1. MAINTAIN MOWER SHIELDING, side skirts, skid shoes, and blades in good operational condition,
  - 2. RAISE CUTTING HEIGHT to 6 INCHES minimum,
  - 3. INSPECT AREA thoroughly before mowing to REMOVE potential THROWN OBJECT HAZARDS,
  - 4. NEVER ALLOW BLADES to CONTACT SOLID OBJECTS like wire, rocks, post, curbs, guardrails, or ground while mowing. *PN TOBM-01*

BOOM

### THROWN OBJECTS HAZARDS (Continued)

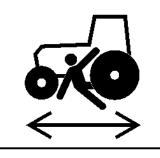
Mower Thrown Objects Hazard	Raised Mower Thrown Objects	Keep mower door closed when traffic comes within 300 feet	Inspect Area remove foreign objects	Do not let blades contact solid objects

#### **MOWER OPERATION:**

- **DO NOT** exceed mower's rated Cutting Capacity or cut non-vegetative material.
- USE ENCLOSED TRACTOR CABS when two or more mowers are operating in mowing area.
- Do Not mow in areas where bees or insects may attack unless you **WEAR PROTECTIVE CLOTHING** or use enclosed tractor cab.
- ADJUST mower head close and parallel to ground without exposing blades.
- **ADJUST** cutting **HEIGHT** to **AVOID BLADE CONTACT** with solid objects like wire, rocks, posts, curbs, guard rails and fixed obstructions.
- **CLOSE** Mower door and stop operating if bystanders come within 300 feet of the mower.
- Keep mower door closed when cutting close to the ground.
- Open door only to cut large brush or tree limbs. Close door immediately after cutting limb.
- **DO NOT** push mower head down onto material to cut it, use the front tips of the mower blades to cut into the material.
- **DO NOT** operate mower when mower is in transport position.
- **STOP MOWING** immediately if blades strike heavy objects, fixed structures, metal guard rails and concrete structures:
  - 1. BLADES CAN FAIL from impact and objects can be thrown with great velocity.
  - 2. **INSPECT** and **REPLACE** any damaged blades.
  - 3. CHECK blade carrier and REPLACE if damaged.
- DO NOT mow in standing water TO AVOID possible BLADE FAILURE.
- AVOID MOWING in reverse:
  - 1. **STOP PTO** and back up mower.
  - 2. LOWER mower, engage PTO and mow forward.
- **DISENGAGE** mower head and wait until **BLADES** stop rotating before raising mower to transport position.
- **DO NOT ENGAGE PTO** with mower in transport position.
- STOP mowing when EXCESSIVE VIBRATION occurs:
  - 1. STOP PTO and tractor ENGINE.
  - 2. **INSPECT** mower for vibration source.
  - 3. REPLACE any damage parts and bent or damaged BLADES. PN TOBM-02

BOOM

### **RUN OVER HAZARDS**







Operator run over hazard

Rider fall off run over hazard

Bystander run over hazard

TO AVOID SERIOUS INJURY OR DEATH FROM FALLING OFF TRACTOR OR EQUIPMENT RUN OVER:

- USE ROPS and SEAT BELT equipped tractors for mowing operations.
- KEEP ROPS locked in UP position.
- **ONLY** start tractor while seated in tractor seat.
- ALWAYS BUCKLE UP seat belt when operating tractor and equipment.
- ONLY OPERATE tractor and equipment while seated in tractor seat.
- NEVER ALLOW RIDERS on tractor or implement.
- When not mowing stow Boom and Mower head in transport location before moving.

#### WHEN MOUNTING AND DISMOUNTING TRACTOR:

- ONLY mount or dismount when tractor and moving parts are stopped.
- STOP ENGINE AND PTO, engage parking brake, lower implement, allow all moving parts to stop and remove key before dismounting from tractor. *PN ROBM-01*

BOOM

### PTO ENTANGLEMENT HAZARDS

	PTO (Barra Gitatoria)		
Entanglement hazard Do Not approach or touch a rotating PTO driveshaft	Make sure PTO shaft is securely attached Do Not Use PTO Adapter	DO NOT Operate if PTO shields are damaged or missing	Make sure PTO shafts are proper length

🛕 DANGER

## KEEP AWAY FROM ROTATING DRIVELINES AND ELEMENTS TO AVOID SERIOUS INJURY OR DEATH:

**STAY AWAY** and **KEEP** hands, feet and body AWAY from rotating blades, drivelines and parts until all moving elements have stopped.

- STOP, LOOK and LISTEN before approaching the mower to make sure all rotating motion has stopped.
- **ROTATING COMPONENTS CONTINUE** to **ROTATE** after the PTO is shut off.

#### PTO SHIELDING:

#### TO AVOID SERIOUS INJURY OR DEATH FROM ENTANGLEMENT WHEN OPERATING IMPLEMENT:

- KEEP PTO shields, integral driveline shields and input shields installed
- DO NOT OPERATE mower without shields and guards in place or missing
- **REPAIR OR REPLACE** if damage, broken or missing
- ALWAYS REPLACE GUARDS that have been removed for service or maintenance.
- Do Not use PTO or PTO guard as a step.

TO AVOID broken driveline during operations:

- CHECK driveline for proper length between PTO shaft and implement gearbox shaft.(*Refer to Instructions in Operation Section*)
- Drivelines too short can pull apart or disengage.
- Drivelines too long can bottom out.
  - Bottoming driveline telescoping assembly will stop sliding and become solid.
- Driveline bottoming can push through support bearings and break off PTO shaft
- AVOID sharp turns or lift mower to heights to cause driveline "knocking".
- Lubricate driveshaft-telescoping components weekly.

**CONTACT DEALER** if implement driveline does not match Tractor PTO shaft:

• DO NOT USE PTO ADAPTER.

Using a PTO adapter can cause excessive vibration, thrown objects, blade and implement failures by doubling operating speed. Increased working length exposing unshielded driveline areas. *PN PE01* 

BOOM

### **MOWER BLADE CONTACT HAZARDS**

Do not put fingers underneath mower	Do not put hands underneath Flail Mower	Do not put foot underneath mower	Do not put foot underneath Flail Mower	Shearing Hazard from Sickle blades	Stop Tractor Remove Key Read Manual

#### KEEP AWAY FROM ROTATING BLADES TO AVOID SERIOUS INJURY OR DEATH FROM 🛕 DANGER **BLADE CONTACT:**

- STAY AWAY and KEEP HANDS, FEET and BODY AWAY from rotating blades, drivelines and parts until all moving elements have stopped.
- DO NOT put hands or feet under mower decks
- STOP rotating BLADES disengage mower switch and PTO and wait for blade to stop rotating before raising mower • head.
- DO NOT approach Sickle Bar head until Tractor Engine has been shut off. .
- STOP LOOK and LISTEN before approaching the mower to make sure all rotating motion has stopped. PN MBBM-01 •

BOOM

### HIGH PRESSURE OIL LEAK HAZARD



- DO NOT OPERATE equipment with oil or fuel leaks.
- **KEEP** all hydraulic hoses, lines and connections in **GOOD CONDITION** and **TIGHT** before applying system pressure.
- **RELIEVE HYDRAULIC PRESSURE** before disconnecting lines or working on the system.
- **REMOVE** and replace hose if you suspect it leaks. Have dealer test it for leaks.

#### HIGH PRESSURE FLUID LEAKS CAN BE INVISIBLE.

#### WHEN CHECKING FOR HYDRAULIC LEAKS AND WORKING AROUND HYDRAULIC SYSTEMS:

- ALWAYS WEAR safety glasses and impenetrable gloves.
- USE paper or cardboard to search for leaks.
- **DO NOT USE** hands or body parts to search for leak.
- KEEP hands and body AWAY from pin holes and nozzles ejecting hydraulic fluid.
- Hydraulic fluid may cause gangrene if not surgically removed immediately by a doctor familiar with this form of injury.

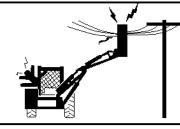
#### Use caution when removing Hydraulic Tank cap.

- Tank contents maybe under pressure
- Allow oil to cool before removing cap.
- Relieve oil pressure before removing cap slowly.
- Stay away from hot oil that may spray from tank. *PN HPBM-01*

BOOM

Safety Section 1-11

### ELECTRICAL & FIRE HAZARDS



Mower head or Boom contacting overhead electrical lines

Strike and explosion Hazard Blades Contacting Utility or Gas Lines

## TO AVOID SERIOUS INJURY OR DEATH FROM ELECTRICAL CONTACT WHEN WORKING AROUND ELECTRICAL POWER LINES, GAS LINES AND UTILITY LINES:

Fire Hazard Do Not operate near fires. Keep debris away from

hydraulic pumps and valves

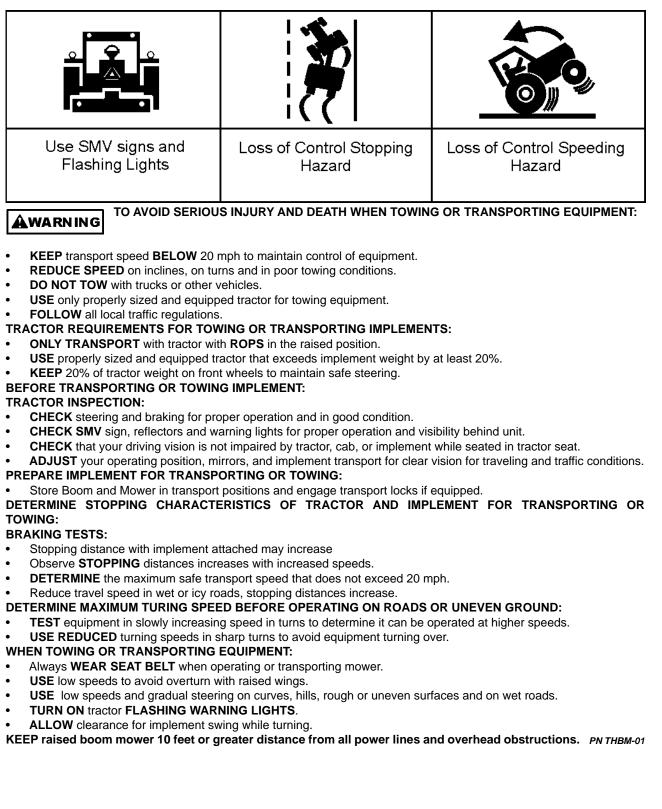
- **INSPECT** mowing area for overhead or underground electrical power lines, obstructions, gas lines, cables and Utility, Municipal, or other type structure.
- **KEEP** all raised wings at a 10 feet or greater distance from all power lines and overhead obstructions.
- DO NOT allow mower to contact with any Utility, Municipal, or type of structures and obstructions.
- CALL 811 and 1-800-258-0808 for identify buried utility lines.

## FIRE PREVENTION GUIDELINES while Operating, Servicing, and Repairing Mower and Tractor to reduce equipment and grass fire Risk:

- EQUIP Tractor with a FIRE EXTINGUISHER
- DO NOT OPERATE mower on a tractor equipped with under frame exhaust
- DO NOT SMOKE or have open flame near Mower or Tractor
- DO NOT DRIVE into burning debris or freshly burnt area
- AVOID FIRE IGNITION by not allowing mower blade to contact solid objects like metal or rock.
- DO NOT operate if oil is leaking. Repair oil leak and remove all accumulated oil before operating.
- CLEAR any grass clippings or debris buildup around mower hydraulic pumps, valves or tanks.
- SHUT OFF ENGINE while refueling. PN EFBM-01

BOOM

### TRANSPORTING HAZARDS



SAFETY

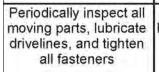
BOOM

### HAZARDS WITH MAINTENANCE OF IMPLEMENT

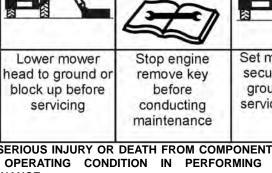


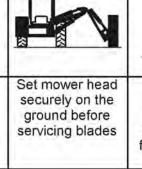


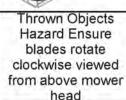
servicing



SAFETY







AVOID SERIOUS INJURY OR DEATH FROM COMPONENT FAILURE BY KEEPING IMPLEMENT IN **AWARNING** GOOD OPERATING CONDITION IN PERFORMING PROPER SERVICE, REPAIRS AND MAINTENANCE.

#### BEFORE PERFORMING SERVICE. REPAIRS AND MAINTENANCE ON THE IMPLEMENT:

- STOP ENGINE AND PTO, engage parking brake, lower implement, allow all moving parts to stop and remove key before dismounting from tractor.
- PLACE implement on ground or securely block up raised equipment. Use large blocks on soft or wet soil.
- PUSH and PULL Remote Hydraulic Cylinder lever to relieve hydraulic pressure.
- DISCONNECT Pump solenoid valve or PTO driveline connection before servicing mower head.
- WEAR SAFETY GLASSES, PROTECTIVE GLOVES and follow SAFETY PROCEDURES when performing service, repairs • and maintenance on the implement:
- Always WEAR protective GLOVES when handling blades, knives, cutting edges or worn component with sharp edges.
- Always WEAR GLOVES and SAFETY GLASSES when servicing hot components
- AVOID CONTACT with hot hydraulic oil tanks, pumps, motors, valves and hose connection surfaces.
- SECURELY support or BLOCK UP raised implement, framework and lifted components before working underneath equipment. .
- FOLLOW INSTRUCTIONS in maintenance section when replacing hydraulic cylinders to prevent component falling.
- STOP any implement movements and SHUT-OFF TRACTOR engine before doing any work procedures.
- USE ladder or raised stands to reach high equipment areas inaccessible from ground.
- ENSURE good footing by standing on solid flat surfaces when getting on implement to perform work.
- FOLLOW manufacturer's instructions in handling oils, solvents, cleansers, and other chemical agents.
- DO NOT change any factory-set hydraulic calibrations to avoid component or equipment failures.
- DO NOT modify or alter implement, functions or components.
- DO NOT WELD or repair rotating mower components. These may cause vibrations and component failures being thrown from mower.

#### PERFORM SERVICE, REPAIRS, LUBRICATION AND MAINTENANCE OUTLINED IN IMPLEMENT MAINTENANCE SECTION:

- **INSPECT** for loose fasteners, worn or broken parts, leaky or loose fittings, missing or broken cotter keys and washers on pins, and all moving parts for wear.
- **REPLACE** any worn or broken parts with authorized service parts.
- Inspect mower blade spindle to ensure bearing preload. If loose repair before operating.
- LUBRICATE unit as specified by lubrication schedule
- **NEVER** lubricate, adjust or remove material while it is running or in motion.
- TORQUE all bolts and nuts as specified.

#### **BLADE INSPECTION:**

- Inspect blade carrier and blades daily.
- Check blade and blade carrier BOLT TORQUE daily. Loose bolts can cause blade or blade bolt failures.
- REPLACE, bent, damage, cracked and broken blades immediately with new blades.
- AVOID blade failures and thrown broken blades. DO NOT straighten, weld, or weld hard-facing blades.

#### SAFETY SHIELDS, GUARDS AND SAFETY DEVICES INSPECTION:

- KEEP all Deflectors, Chain Guards, Steel Guards, Gearbox Shields, and PTO integral shields, Bands, Side Skirts and Skid Shoes in place and in good condition.
- REPLACE any missing, broken or worn safety shields, guards and safety devices.
- Engine Exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.
- Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer, birth defects or other reproductive harm. PN HMBM-01

BOOM

#### PARTS INFORMATION

#### PARTS INFORMATION

Tiger mowers use balanced and matched system components for blade carriers, blades, cuttershafts, knives, knife hangers, rollers, drivetrain components, and bearings. These parts are made and tested to Tiger specifications. Non-genuine "will fit" parts do not consistently meet these specifications. The use of "will fit" parts may reduce mower performance, void mower warranties, and present a safety hazard. Use genuine Tiger mower parts for economy and safety. (SPTM-1)

#### SEE YOUR TIGER DEALER

**Operator's & Parts Manuals** 



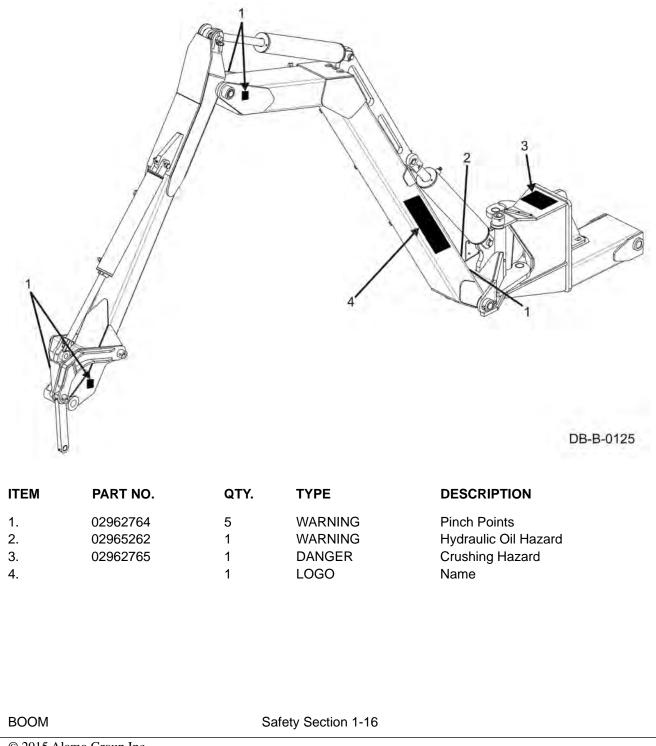
www.algqr.com/tpm

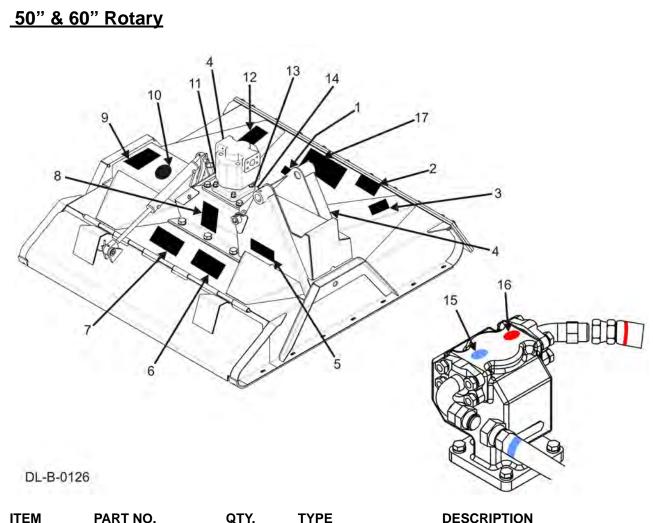
BOOM

### **Decal Location**

**NOTE:** Tiger supplies safety decals on this product to promote safe operation. Damage to the decals may occur while in shipping, use, or reconditioning. Tiger cares about the safety of its customers, operators, and bystanders, and will replace the safety decals on this product in the field, free of charge (Some shipping and handling charges may apply). Contact your Tiger dealer to order replacement decals.

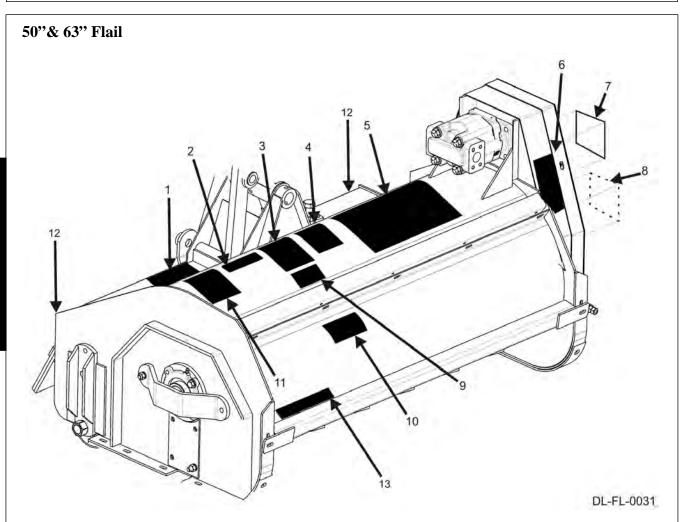
### <u>Boom Arm</u>





SAFETY

ITEM	PART NO.	QTY.	TYPE	DESCRIPTION
1.	6T3237	1	WARNING	Replace Blades
2.	24028	1	WARNING	Thrown Object Hazard
3.	D637	1	WARNING	Disconnect Hydraulic Solenoid
4.	42399	2	REFLECT	Red Reflector
5.	4240006	1	REFLECT	Amber Reflector
6.	D668	1	INSTRUCT	Lubrication Chart
7.	33224	1	DANGER	Blades, Thrown Object
8.	D619	1	WARNING	Blade Rotation
9.		1	LOGO	Made in the USA
10.		1	LOGO	Tiger Genuine Parts
11.	22839	1	INSTRUCT	Use Hand Grease Gun
12.	32709	1	WARNING	Use Genuine Tiger Parts
13.	6T3221	1	INSTRUCT	Lubrication Instructions
14.	nfs	1	SERIAL PLATE	Serial Number Plate
15.	06550058	1	INSTRUCT	Blue Dot
16.	06550057	1	INSTRUCT	Red Dot
17.		1	LOGO	Name
BOOM		Sa	afety Section 1-17	



ITEM	PART NO.	QTY.	ТҮРЕ	DESCRIPTION
1.	24028	1	DANGER	Thrown Object Hazard, Deflectors
2.	32709	1	WARNING	Use Genuine Tiger Parts
3.	33224	1	DANGER	Blades, Thrown Object
4.	D637	1	WARNING	Disconnect Hydraulic Solenoid
5.		1	LOGO	Tiger Logo
6.	00758194	1	WARNING	Pinch Point Hazard
7.		1	LOGO	50" Logo
		1	LOGO	63" Logo
8.	D646	1	DANGER	Guard Missing, Do Not Operate
9.	D655	1	INSTRUCT	Lube Chart
10.	TB1011	1	DANGER	Thrown Object Hazard, Shield
11.	6T3236	1	LOGO	Made in the USA
12.	42399	2	REFLECT	Red Reflector
13.	4240006	1	REFLECT	Amber Reflector
14.	nfs	1	SERIAL PLATE	Serial Number Plate
BOOM		Saf	ety Section 1-18	







02965262

Safety Section 1-19



SAFETY



BOOM

Safety Section 1-21



BOOM



BOOM

Safety Section 1-23

#### Federal Laws and Regulations

This section is intended to explain in broad terms the concept and effect of federal laws and regulations concerning employer and employee equipment operators. This section is not intended as a legal interpretation of the law and should not be considered as such.

#### **Employer-Employee Operator Regulations**

U.S. Public Law 91-596 (The Williams-Steiger Occupational and Health Act of 1970) OSHA

#### This Act Seeks:

"...to assure so far as possible every working man and woman in the nation safe and healthful working conditions and to preserve our human resources..."

#### DUTIES

#### Sec. 5 (a) Each employer-

(1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;

(2) shall comply with occupational safety and health standards promulgated under this Act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations and orders issued pursuant to this Act which are applicable to his own actions and conduct.

#### **OSHA** Training Requirements

#### Title 29, Code of Federal Regulations Part 1928.57(a)(6). www.osha.gov

Operator instructions. At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee who operates an agricultural tractor and implements in the safe operating practices and servicing of equipment with which they are or will be involved, and of any other practices dictated by the work environment.

Keep all guards in place when the machine is in operation;

Permit no riders on equipment

Stop engine, disconnect the power source, and wait for all machine movement to stop before servicing, adjusting, cleaning or unclogging the equipment, except where the machine must be running to be properly serviced or maintained, in which case the employer shall instruct employees as to all steps and procedures which are necessary to safely service or maintain the equipment.

Make sure everyone is clear of machinery before starting the engine, engaging power, or operating the machine.

#### **Employer Responsibilities:**

To ensure employee safety during Tractor and Implement operation, it is the employer's responsibility to:

- 1. Train the employee in the proper and safe operation of the Tractor and Implement.
- 2. Require that the employee read and fully understand the Tractor and Implement Operator's manual.
- 3. Permit only qualified and properly trained employees to operate the Tractor and Implement.
- 4. Maintain the Tractor and Implement in a safe operational condition and maintain all shields and guards on the equipment.
- 5. Ensure the Tractor is equipped with a functional ROPS and seat belt and require that the employee operator securely fasten the safety belt and operate with the ROPS in the raised position at all times.
- 6. Forbid the employee operator to carry additional riders on the Tractor or Implement.
- 7. Provide the required tools to maintain the Tractor and Implement in a good safe working condition and provide the necessary support devices to secure the equipment safely while performing repairs and service.
- 8. Require that the employee operator stop operation if bystanders or passersby come within 300 feet.

#### Child Labor Under 16 Years of Age

Some regulations specify that no one under the age of 16 may operate power machinery. It is your responsibility to know what these regulations are in your own area or situation. (Refer to U.S. Dept. of Labor, Employment Standard Administration, Wage & Home Division, Child Labor Bulletin #102.)

BOOM

# **ASSEMBLY SECTION**

Assembly Section 2-1

### Before attempting to mount your Tiger mower, it is important to read and understand all of the safety messages in the Safety Section of this manual.

Check complete shipment list against the packing list to make sure there are no shortages. Make certain the tractor model is the appropriate one for the mower received!

Always use a floor jack, hoist or fork lift to lift and raise heavy parts.

Read and understand the entire Assembly Section instructions before attempting to mount your Tiger mower. Refer to the Parts Section of this manual for detailed illustrations to locate all parts. (*ASM-C-0001*)

### **TRACTOR PREPARATION**

- A. Remove right and left hand steps.
- B. Disconnect battery cables from both batteries.
- C. Remove engine side panels, or raise hood to access front pulley.
- D. Remove plugs from tractor casting where mainframe and pump mount will be attached.
- E. Remove any front weights and weight supports.
- F. Raise the tractor onto jack-stands and remove the right and left rear wheels.

(ASM-JD-0001)

🗚 WARN IN G

### **CRANKSHAFT ADAPTER**

For JD6xxxD tractors with a front pump mount, install the John Deere pulley kit P/N: LVB24989 and follow the instructions. (ASM-JD-0250)

### **DRIVESHAFT AND FRONT PUMP MOUNTING**

Install driveshaft into the crankshaft adapter.

Slide splined driveshaft coupler onto the pump driveshaft. Install the pump onto the mounting bracket. NOTE: the pump is offset to one direction and the pump should be installed with the offset side on top. Install hardware for securing pump to the pump mount, DO NOT tighten.

Install pump and align so that splined coupling can be moved (FREE PLAY) back and forth by hand. Rotate coupler and check free play every 1/4 turn. Tighten pump mounting bolts in succession, rechecking for spline coupling free play. Remove the pump mounting bracket bolts one at a time and apply a thread locking agent. Tighten these bolts in succession, again checking for free play in the driveshaft. After all bolts are torqued, the end play on the driveshaft should be 1/16" to 1/8", and coupler should move freely with hand pressure. If end play is less than 1/16", grind the end of the shaft to achieve the proper end play. If there is more than 1/4" of end play, return the shaft with specifications for a longer shaft.

CAUTION: DO NOT START THE TRACTOR UNTIL ALL HOSES ARE ATTACHED,

### **ADJUSTING REAR WHEELS**

Raise rear of tractor onto jack-stands. **Follow the instructions in the tractor owner's manual for adjusting tires and rims**. The back wheels MUST be adjusted to the widest setting. NOTE: This may require switching the wheels to opposite sides of tractor. Also take note of any width restrictions when transporting by trailer. (For ease of installation, it is best to leave the rear wheels removed during installation of the mower.) (*ASM-B-0001*)

### POLYCARBONATE SAFETY WINDOW

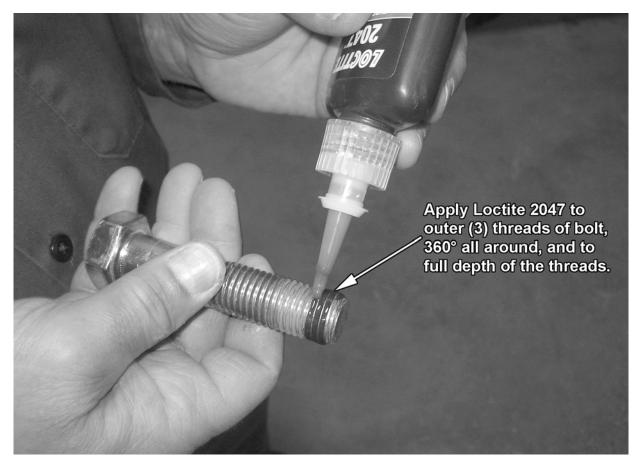
**NOTE**: Installing a boom mower requires that all right side windows be replaced or shielded by a lexan safety window. In most cases this should be done before mounting the mainframe. Carefully remove the existing right side cab windows, to be replaced with the matching polycarbonate windows provided.

Clean all of the surfaces around the window opening, once the right side windows are removed. Peel back the protective paper from the area around the window that will contact the window frame. Apply a bead of urethane window adhesive, supplied in kit, around the window opening. Carefully position the new window into position. Fill the remainder of the gap around the window with the adhesive to finish. Be sure to follow the instructions on the adhesive label when installing window.

Next, install the upper and lower door hinges along with the existing cab door hinges. To do this, you will remove the existing hinge hardware and install the existing hardware on the polycarbonate as shown in the Parts Section. Set the safety screen assembly on the hinges and attach the door to the tractor frame. Install the brackets with the hardware shown in the Parts Section. Assemble the rod with the vibration isolator and nuts and attach them to the brackets. Adjust the vibration isolator on the upper and lower brackets to achieve a good fit with the window. (ASM-JD-0061)

### APPLICATION OF LOCTITE 2047 MOWER MAINFRAME MOUNTING BOLTS

All mower mainframe mounting bolts shall be secured utilizing Loctite 2047 and torqued per the Torque Chart in the maintenance section. Shake bottle for 60 seconds before use. To prevent clogging of nozzle, do not allow tip to touch metal surfaces during application. If tip of nozzle becomes clogged, cut off tip as required. If female threads are contaminated or rusty, clean threads by using a thread chaser prior to installation of bolts. Apply thread locker to threads of bolts as shown below. The allowable fixture time is (1) hour maximum. Therefore bolts must be torqued within this time limit. The cure time is 72 hours at room temperature, therefore machine is not to be used in actual application, except for function testing, until the Loctite is allowed to cure.



(ASM-C-LOCTITE MNT BOLTS)

### MAINFRAME INSTALLATION

With an overhead hoist and / or jack-stands, raise one side of the frame up to the correctly matching mounting holes. Install capscrews and other hardware to secure the sides of the mainframe to the tractor casting, as shown on the tractor mount kit page in the Parts Section. DO NOT tighten at this time. Remove the capscrews one at a time and apply a thread locking agent. Reinsert the capscrews and tighten / torque to values noted in the torque chart located in the Maintenance Section of this manual. (*ASM-C-0003*)

### SWITCHBOX WIRING

Cover all wires with plastic wire wrap provided. Route the green wires along switchbox bracket and cab frame to the steering wheel console. Route the rest of the wires along the base of the right hand console and up to the rubber boot in the bottom right corner in the rear window of the cab. The red and black wires will be connected to the auxillary power plug in the back of the cab. After all wiring is complete, secure all wires to the console with zip ties and push mounts. Take up most of the slack so the wires are out of the way and tighten the zip ties.

With the panel under the steering wheel removed to access the wires, locate the brown wire and verify that this is the neutral safety wire with a test light or meter. Then cut the brown wire and connect a green wire from the switchbox to each end of the brown wire as shown in the wiring diagram. Cut a small hole for the green wires and the wire wrap to fit through and replace the console.

The red and black wires access power for the switchbox through a John Deere auxillary power plug in the rear of the cab.

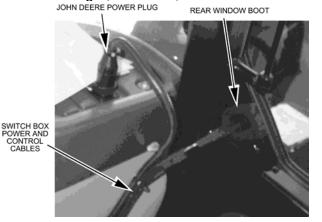
#### NOTE: The RED wire from the JD power plug should not be used because it is ALWAYS "Hot". +12 VOLTS ELECTRICAL POWER MUST BE TAKEN FROM A SOURCE LOCATION WHERE IT IS LIVE ONLY WHEN THE IGNITION SWITCH IS IN THE "ON" POSITION. THE RED WIRE MUST BE FUSED AT THE SOURCE LOCATION WITH A CLOSED END CONNECTOR (# 34538).

Connect the red wire from the switchbox to the orange wire from the JD power plug. Connect the black wire from the switchbox to the black wire from the JD power plug.

Two sets of wires have Metri-Pak ends on them. The white and black wires plug into the brake valve. The orange and black wires plug into the travel lock.

Cut a crosshair pattern in the rubber boot in the right bottom corner of the rear window. The wires can be routed through and the rubber falls back into position. The hole should only be large enough for the wires to go through easily.

Route the Metri-Pak wires from the window boot to their location on the unit. Coil the excess wire and secure it to the tractor frame with zip ties to eliminate vibration and rubbing. (ASM-JD-0078)



34538 - CLOSED END CONNECTOR



NOTE: When cutting or drilling a hole, be sure not to damage existing wires running behind panels.

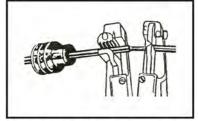
Assembly Section 2-6

## WEATHER-PACK / METRI-PACK ASSEMBLY

These instructions apply to both Weather-Pack and Metri-Pack connectors.

NOTE: Use the specific tool for the type of connector you are assembling.

(ASM-C-0009)



1. Apply seal to cable, before stripping insulation.



3. Put terminal in crimping tool, then position wire and seal in place.



2. Align seal with cable insulation.

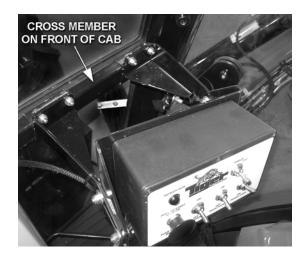


4. Crimp and visually inspect for a good crimp before installing in connector body.

18

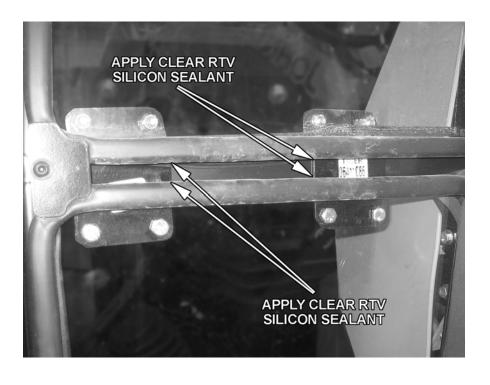
## JOYSTICK AND SWITCHBOX MOUNTING

The switchbox is attached to the cross member on the front of the cab, to the right of the steering console. The joystick is attached to existing bolt holes in the door frame on the right side of the cab. Cables are routed to the right of the driver's seat and out through the rubber boot in the corner of the rear window frame. When operating the joystick, make sure it is positioned where the rest of the controls are fully functional. See the illustration in the Parts Section for hardware used and additional information. (ASM-JD 0087 silicon )





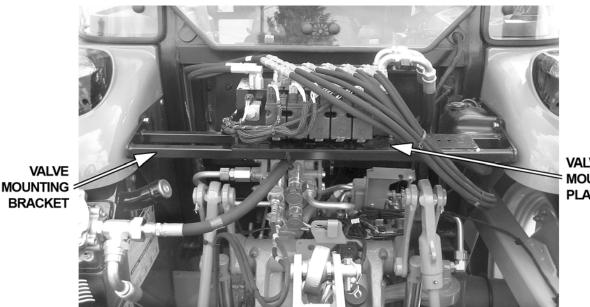
After installation of switchbox brackets 06411086, apply clear RTV (silicon) seal all around the outside of the bracket to prevent leaks.



## VALVE MOUNTING BRACKET

Attach the rear valve mounting bracket to the fender of the tractor by removing the two rear bolts on the left fender and the two rear bolts on the right fender. Use the hardware noted in the Parts Section to attach the valve mounting bracket to the tractor.

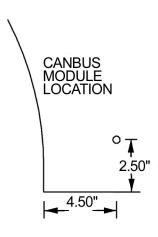
Next, attach the valve mounting plate to the mounting bracket. Align the holes on the plate to the holes on the bracket. Use the hardware shown in the Parts Section to attach the plate to the valve mounting bracket. Finally, place the valve on the valve mounting plate as shown in the Parts Section. Align the holes on the valve assembly to the holes on the plate. Use the hardware provided to secure the valve to the plate. Refer to the Parts Section for the placement of the valve and the hardware used. **Please handle the lift valve with care. It is extremely heavy and contains small parts.** (*ASM-JD-0088 JD6E T4F rss*)



VALVE MOUNTING PLATE

## **CANBUS MODULE MOUNT**

Place the Canbus Controller mounting bracket (#06411524) on the floor of the cab, 4.5 inches from the right side console and 2.5 inches from the right side door. Drill a 3/8" hole through the floor and secure the bracket using a 3/8" bolt (#21637), spacer (#27082B) and 3/8" nylock nut (#21627). Attach the Canbus Controller Module to the bracket as shown. See the Parts Section for additonal mounting information.





CANBUS CONTROLLER MOUNT

(ASM-JD-0087 canbus mount EFS).

Assembly Section 2-10

1

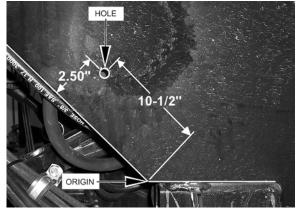
## HOSE AND WIRE ROUTING

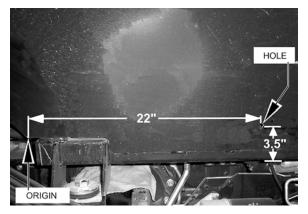
Attach two clamps to the right rear wheel well for proper hose/wire routing. Drill one hole for each clamp. Use the lower rear corner of the wheel well as an origin for measuring. The holes should be 10mm or 3/8" reamed to accept 3/8" hardware.

Measure along the back edge of the wheel well 10-1/2" from the origin. Use a square to measure  $2-\frac{1}{2}$ " up, from the last mark. Refer to the image below to see the first hole.

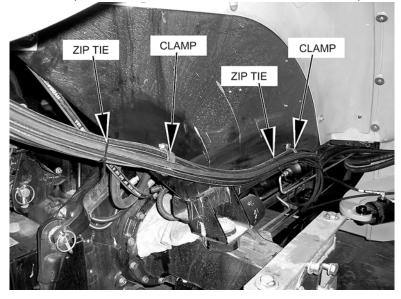
The second hole should run parallel to the bottom edge of the wheel well. Mark the hole 22" from the origin and  $3-\frac{1}{2}$ " from the bottom edge. Use the images below for reference.

#### NOTE: DO NOT CUT INTO TUBES / HOSES / WIRES WHEN DRILLING THROUGH METAL OR PLASTIC!. (ASM-JD-0068)





Place as many hoses in the clamp as will fit without compromising pressure. Then secure the (2) HOSE CLAMP (06520013) to the holes drilled with (1 EACH) CAPSCREW,3/8 X 1 NC (21630) and (1 EACH) NYLOCK NUT,3/8 NC (21627). The hoses that don't fit into the clamp are to be secured to the others with zip ties. For protection of hoses in contact with metal edges, wrap hoses with split hose sections and fasten with hose clamps or zip ties as needed.

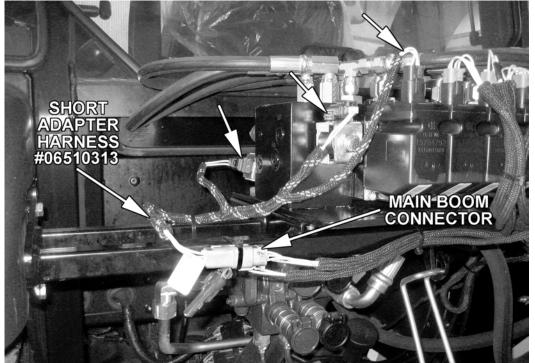


Assembly Section 2-11

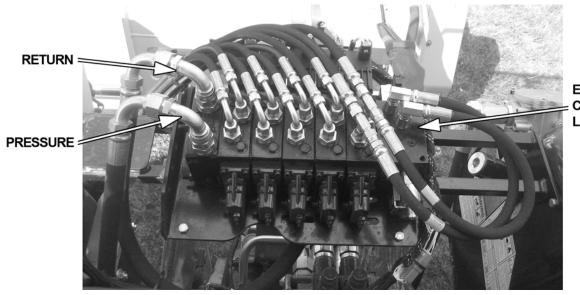
## **EFS ADAPTER HARNESS**

The EFS Canbus electronic lift valve used with the Tiger WildKat boom requires an addition to the wire harness used. The short adapter harness (Part # 06510313) is connected as shown in the photo below.

See the Parts Section for more information on the lift valve used. (ASM-C-RSS EFS 0001)



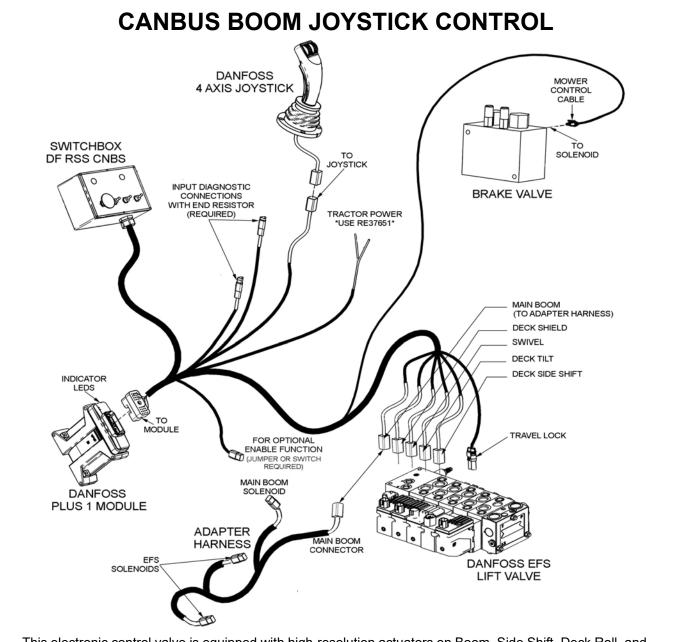
## ELECTRONIC CANBUS LIFT VALVE



(ASM-C-0089 rss)

EFS CANBUS LIFT VALVE

Assembly Section 2-12

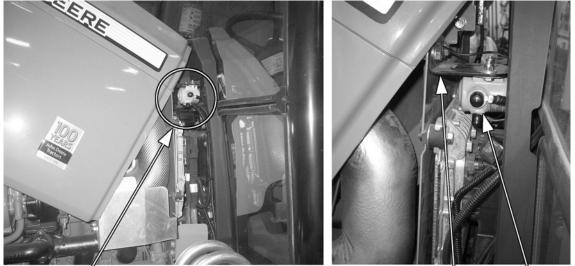


This electronic control valve is equipped with high-resolution actuators on Boom, Side Shift, Deck Roll, and Boom Swivel functions. These actuators have active fault monitoring. The Deck Shield section does not have active fault monitoring. The joystick provides a signal to the Plus-1 Module and the Module provides a ratio-metric voltage signal. The neutral signal voltage is half or 50% of tractor supply voltage. A 25% signal voltage will shift the valve spool to full A-Port, and 75% signal voltage will shift the spool to full B-Port in the Boom, Side Shift, Deck Roll and Boom Swivel valve sections. If an actuator with active fault monitoring receives a signal from the joystick that is less than 15% or greater than 85% of supply voltage the actuator will fault out and shut down. Also, if there is an internal failure in the actuator or if the spool position is greater than that specified by the signal voltage from the joystick, the actuator will "fault out" and shut down. An active fault condition causes the actuator to drive the spool to neutral, shut down, and activate a red LED on the top of the actuator. The active fault can be canceled by simply cycling the Master Switch OFF and then ON, which resets the fault monitoring, and causes the LED on top of the actuator be green again. The Plus-1 Module has two LED indicators which are utilized for diagnostics. (See troubleshooting). **Note: The joystick is factory set and no adjustments are required.** *(ASM-DF CANBUS EFS RSS).* 

Assembly Section 2-13

## **CONTINUOUS DUTY SOLENOID SWITCH**

To mount the solenoid switch, use the existing holes in location shown below. The bottom hole may need to be ground to obtain the correct hole spacing to match the solenoid switch mount. Secure with provided  $5/16^{\circ}$  x 1° capscrews, lockwashers, and hex nuts.

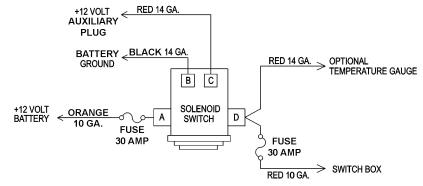


MOUNTING LOCATION OF SOLENOID SWITCH

MOUNTING SOLENOID BRACKET SWITCH

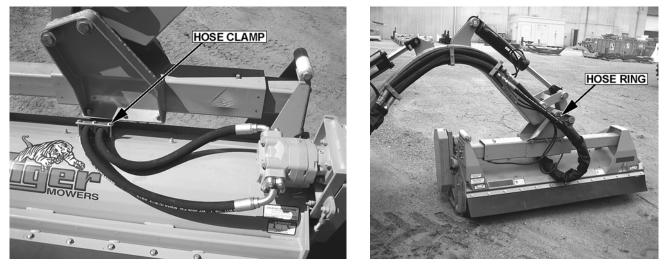
Route wires to and from the Continuous Duty Solenoid Switch as shown below.

- A.) ORANGE 10 GA. wire from terminal (A) to +12V battery fusible link.
- B.) RED 14 GA. wire from terminal (B) to tractor plug in cab.
- C.) BLACK 14 GA. wire from terminal (C) to -12V battery post.
- D.) RED 10 GA. wire from terminal (D) to switchbox.
- E.) RED 14 GA. wire from terminal (D) to temperature gauge. (optional). (ASM-JD-0083 JD6E)

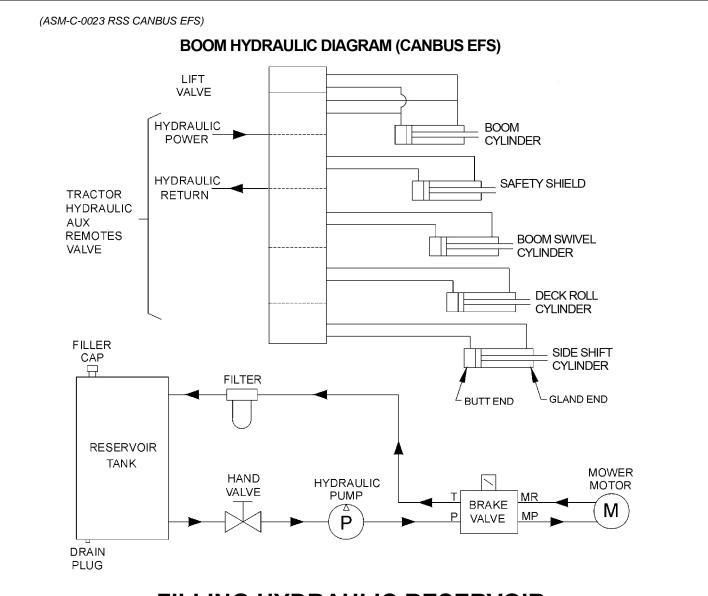


## **REAR STOW SIDE FLAIL HOSE ROUTING**

**WARNING NOTE:** The sudden release of hydraulic pressure could cause the sudden movement of very heavy parts. Anyone in the way of these parts could be severely hurt or killed. In order to prevent hydraulic failure, DO NOT ALLOW these hydraulic hoses to BREAK or BURST. Make sure the hoses do not pinch or stretch as boom moves. Measure TWICE, check TWICE, then proceed with caution.



Route the hoses from the flail motor through the space between the slider assembly and the flail deck as shown above. Clamp the hoses with hose clamp P/N 35131, but <u>do not</u> tighten at this time. Next, route the hoses from the hose clamp through the hose ring and attach them to the boom hoses. Before tightening the hose clamp, make sure the hoses do not pinch, stretch or rub on any edges when the flail head moves through its articulation and sliding. Finally, attach the hose cover P/N 06505020 between the hose clamp and the hose ring. Refer to the Parts Section for hardware. (ASM-RSS HOSE ROUTING-0002)



## FILLING HYDRAULIC RESERVOIR

Refer to the Maintenance Section for filling specifications and hydraulic oil requirements.

## NOTE: Starting or running your Tiger mower before filling reservoir will cause serious damage to the hydraulic pump.

(ASM-C-0004hydro resrv)

## WHEEL WELL HYDRAULIC TANK INSTALLATION

Install all fittings and tubes into tank and tank filter as shown in the Parts Section illustration. Insert tank sight glass onto the tractor side of the tank.

Place the tank in the mounting bracket on the axle brace as shown in the Parts Section. Secure the tank with the hardware provided.

Install the filter gauge into the filter housing so that it points to the rear of the tractor and is clearly visible to the operator. The tank breather cap is ready for use as the tank is filled. Some of these items may already be installed. (*ASM-C-0103*)

## WHEEL SPACERS

When mounting a boom mower, a spacer kit is needed for both rear wheels (part # 06200637). After removing the wheels attach the spacer to the wheel portion of the axle with the hardware provided. When you are ready to re-attach the wheel, the wheel goes on first then the reinforcement ring and finally the hardware provided. (*ASM-JD-0099*)

## **INSTALLING O-RING FITTINGS**

Installing straight, 45° and 90° O-rings requires that the O-ring and washer be up against the swivel body. Insert the swivel and turn in until the swivel is pointed in the desired direction and O-ring contact is made. Hold swivel in set direction with a wrench and turn the O-ring nut away from the swivel body and carefully tighten. (ASM-C-0056)

## **GENERAL HOSE INSTALLATION**

Refer to the Parts Section for detailed information about hoses and fittings for this application. (ASM-C-0011)

## **HOSE COVERING**

Secure hoses together with zip ties wherever loose. Wrap the hoses between the swivel and main boom with the hose cover provided. Wrap the hoses between the main boom and secondary boom with the hose cover provided. Where hoses may contact the frame or other edges, wrap with split hose and secure with hose clamps or zip ties.

On non-cab units, the pressure and return hoses from the control valve will also need to be routed inside the protective hose wrap. Cover the valve and valve fittings with the hose cover and secure with the string provided. (ASM-C-0058)

## TEMPERATURE GAUGE MOUNTING (OPTIONAL)

Mount the temperature gauge where it is clearly visible to the operator. Attach the green (-) wire from the negative post on the gauge to a grounded bolt on the tractor frame. Remove paint if needed to make a good ground. Remove the pipe plug from the side of the hydraulic reservoir and install the temperature sensor using thread sealing tape. Run the white wire from the (s) sensor post of the gauge to the temperature sensor on the hydraulic reservoir tank. (ASM-C-0051)

## WHEEL WEIGHT MOUNTING

For all tractors using a boom mower, a wheel weight will be required for the rear left side wheel. It will be necessary to mount the weight in the wheel using the long capscrews, lockwashers, flatwashers, spacers (if applicable), and hex nuts per the diagram in the Parts Section.

Installation is most easily done with a fork lift, inserting a fork in the center slot of the wheel weight. The head of the capscrews is to be toward the OUTSIDE of the weight, with flatwashers on both the inside and outside of the assembly.

The left rear tire may also be filled with a mixture of water and calcium chloride at about five pounds per gallon. Tire air pressure should be maintained according to the Maintenance Section. (ASM-C-0055)

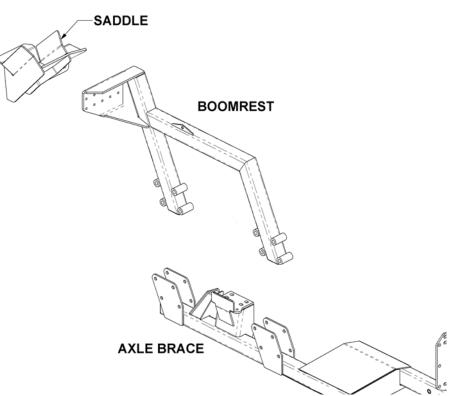
## **AXLE BRACE INSTALLATION**

With the tractor on jack-stands, remove the existing hardware on the rear axle where the axle braces will be mounted. Use a hoist to raise the axle braces to the correctly matching mounting holes on the rear axle and the mainframe. Use the hardware shown in the Parts Section to attach the braces to the tractor, DO NOT tighten until the mainframe has been positioned onto the axle braces. The mainframe hardware will not be tightened at this time.

When the mainframe is in position, remove the capscrews one at a time and apply a thread locking agent. Reinsert the capscrews and tighten / torque to values noted in the torque chart located in the Maintenance Section of this manual. (ASM-MF-0013)

## SINGLE COLUMN BOOMREST MOUNTING

Carefully lower the boomrest and align the holes with those of the axle brace. Now install all attaching hardware, as shown in the Parts Section, loosely, to allow for the alignment with the axle brace. Tighten / torque all hardware on the axle brace and the boomrest.



(ASM-JD-0251 rss bmrst)

## MAIN BOOM INSTALLATION

Using a hoist, install the boom swivel into the mainframe as shown in the Parts Section. Line up holes in swivel and mainframe for large swivel pin and insert pin. Secure with hardware as shown.

Attach the inner end of the main boom to the swivel bracket with the cylinder anchors positioned upward, and at a right angle to the tractor. Secure it with the horizontal hinge pin. Secure the hinge pin in the boss with capscrews, etc. (see Parts Section).

Attach the butt end of the main boom cylinder to the swivel with the cylinder pin and roll pins shown in the Parts Section.

Install the travel lock on the rod end of the main boom cylinder. This should be facing the butt end of the cylinder after installation.

Install the fittings and hoses to the main boom cylinder per Parts Section.

GREASE HINGE PIN ZERKS ON BOOM AFTER ASSEMBLY, ONCE UNDER LOAD WITH BOOM ELEVATED, AND AGAIN AT REST WITH BOOM SUPPORTED. (ASM-C-0013)

## SWIVEL BRACKET MOUNTING

Install the boom swivel bracket onto the boom mounting bracket with the swivel pin. Secure the pin in place using the capscrews, etc. through the hole in the boss and pin. NOTE: The head of the capscrew must be toward the front of the tractor.

Install all new swivels and fittings on the swing cylinder with swivel openings facing each other. Fittings will vary in type and direction depending on your application. Refer to the Parts Section for more detail. Assembly Section 2-19

Install bushings (with split facing the direction of the grease zerk hole) in the mainframe anchor for the swing cylinder. This may already be done for you.

## FINAL PREPARATION FOR OPERATION

Place operator's safety and operation decals on the steering column and side console where they are clearly visible to the operator. These decals should be understood by each operator of the machine in conjunction with the Safety and Operation Sections of this book. The decals are to be maintained in good condition as a reminder to the operator, and should be replaced if damaged.

All bosses, pins and pivot points will need to be greased as instructed in the Maintenance Section of this manual. The hydraulic reservoir can also be filled with the recommended fluid (see Maintenance Section) and the filter installed in the top of the tank. Double check all fittings and fasteners BEFORE starting tractor. Also secure any loose hoses together with zip ties and wrap with split hoses where friction may occur on the hoses.

**A**WARNING

BEFORE starting or operating the tractor you must read and understand the Safety and Operation Sections of this manual completely.

**BE SURE THE BALL VALVES ARE OPEN!** Start tractor and allow instruments to stabilize. Using a piece of paper or cardboard as noted in the Safety and Maintenance Sections, check all fittings and connections for hydraulic leaks.

If a leak is found, you must shut down the tractor and set the cutter on the ground. Before attempting to fix the leak, you must actuate the lift valve handles several times to relieve any pressure in the lines.

**Before operating the mower**, the cutter head and boom should be slowly moved throughout the full range of motion. Watch for any condition that would cause pinching or excess stress on the hoses. The steering and front axle travel should also be carefully moved through their full range of motion. If any condition occurs in which the hoses contact the tires, the steering and / or front axle travel may need to be limited as described in the tractor operator's manual. This should also be done if the tires rub, or are extremely close to any other part of the mower, such as the hydraulic tank or draft beam. This may include adding shims or adjusting stop bolts in the tractor front to solve the problem. While checking motion, you should also check that the control circuits are connected according to the operator's decal for the valve handles.

## **MOWER TESTING**

Take the tractor to a place free of loose objects on the ground. Operate the cylinders through their full range of motion again, to clear the lines of air. Follow the instructions in the Operation Section to operate the mower. Vibration of the mower should be minimal at all times. After a 5 minute test run, the knife bolts should be retorqued, and retorqued once again after the first few hours of operation.

If any parts of this Assembly Section, or any other section of this manual are not clearly understood you must contact your dealer or the address on the front of this manual for assistance!(ASM-C-0010)

## **OPERATION SECTION**

## TIGER BOOM MOWER OPERATING INSTRUCTIONS

Tiger Booms are manufactured with quality material by skilled workers. The Boom is designed to attach to a tractor and operate various heads for a wide range of vegetative maintenance applications. The boom and heads are equipped with safety warning decals, protective deflectors, shields, and other safety features to provide operator and passerby protection, however, no shielding is 100% accurate. ALL safety equipment and safety warning decals must be maintained on the unit in good operational condition at all times.

It is the operator's responsibility to be knowledgeable of all potential operating hazards and to take every reasonable precaution to ensure oneself, others, animals, and property are not injured or damaged by the boom unit, tractor or a thrown object. Do not operate the boom and attached head if bystanders, passersby, pets or livestock are within 300 feet of the unit.

This section of the Operator's Manual is designed to familiarize, instruct, and educate operators to the safe and proper use of the boom and attached head. Pictures contained in this section are intended to be used as a visual aid to assist in explaining the operation of a Boom and are not specific to a Boom. Some pictures may show shields removed to enhance visual clarity. NEVER operate the boom unit without all safety equipment in place and in good operational condition. The operator must be familiar with the boom unit and tractor operation and all safety practices before beginning operation. Proper operation, as detailed in this manual, will help ensure years of safe and satisfactory use of the Boom

**READ AND UNDERSTAND THE ENTIRE OPERATING INSTRUCTIONS AND SAFETY SECTION OF THIS MANUAL AND THE TRACTOR MANUAL BEFORE ATTEMPTING TO USE THE TRACTOR AND IMPLEMENT.** If you do not understand any of the instructions, contact your nearest authorized dealer for a full explanation. Pay close attention to all safety signs and safety messages contained in this manual and those affixed to the implement and tractor. (*OPS-U- 0001*)

<u>READ, UNDERSTAND, and FOLLOW</u> the following Safety Messages. Serious injury or death may occur unless care is taken to follow the warnings and instructions stated in the Safety Messages. Always use good common sense to avoid hazards. (SG-2)



A PELIGRO

Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad. (SG-3)



Operation	Section	3-2
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OPERATION

Boom

## **1.OPERATOR REQUIREMENTS**

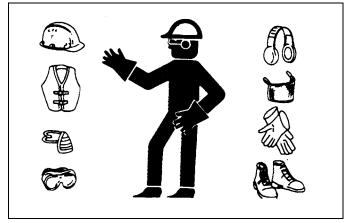
Safe operation of the unit is the responsibility of a qualified operator. A qualified operator has read and understands the implement and tractor Operator's Manuals and is experienced in implement and tractor operation and all associated safety practices. In addition to the safety messages contained in this manual, safety signs are affixed to the implement and tractor. If any part of the operation and safe use of this equipment is not completely understood, consult an authorized dealer for a complete explanation.

If the operator cannot read the manuals for themselves or does not completely understand the operation of the equipment, it is the responsibility of the supervisor to read and explain the manuals, safety practices, and operating instructions to the operator.

Safe operation of equipment requires that the operator wear approved Personal Protective Equipment (PPE) for the job conditions when attaching, operating, servicing, and repairing the equipment. PPE is designed to provide operator protection and includes the following safety wear:

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

- Always Wear Safety Glasses
- Hard Hat
- Steel Toe Safety Footwear
- Gloves
- Hearing Protection
- Close Fitting Clothing
- Respirator or Filter Mask (depends on operating conditions) (OPS-U- 0002)



#### A DANG ER

NEVER use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operator's alertness and coordination and therefore affect the operator's ability to operate the equipment safely. Before operating the Tractor or Implement, an operator on prescription or over-the-counter medication must consult a medical professional regarding any side effects of the medication that would hinder their ability to operate the Equipment safely. NEVER knowingly allow anyone to operate this equipment when their alertness or coordination is impaired. Serious injury or death to the operator or others could result if the operator is under the influence of drugs or alcohol. (SG-27)



Boom

## **2.TRACTOR REQUIREMENTS**

In addition to tractor horsepower and size required to operate the boom unit, the tractor must also be properly equipped to provide operator protection, to alert approaching vehicle drivers of the tractor's presence, and to ensure tractor stability when mowing with the boom fully extended.

#### **Tractor Requirements and Capabilities**

- ASAE approved Roll-Over Protective Structure (ROPS) or ROPS cab and seat belt.
- Operator Protection ...... Tractor must be equipped with protective structure such as operatorcage or lexan window to protect operator from thrown object and falling objects
- Tractor Ballast ......As required to maintain at least 1500 lbs. on left rear tire

#### 2.1 ROPS and Seat Belt

The tractor must be equipped with a Roll-Over-Protective-Structure (ROPS) (tractor cab or roll-bar) and seat belt to protect the operator from falling off the tractor, especially during a roll over where the driver could be crushed and killed. Only operate the tractor with the ROPS in the raised position and seat belt fastened. Tractor models not equipped with a ROPS and seat belt should have these life saving features installed by an authorized dealer. *OPS-U- 0003* 

#### **AWARNING**

Operate this Equipment only with a Tractor equipped with an approved rollover-protective system (ROPS). Always wear seat belts. Serious injury or even death could result from falling off the tractor--particularly during a turnover when the operator could be pinned under the ROPS. (SG-7)



#### 2.2 Operator Thrown Object Protection

The tractor must be equipped with protective equipment to shield the operator from falling and thrown objects. For cab tractors, the tractor must be equipped with an operator safety screen on its right side or the right side windows must be fitted with a shatter resistant safety window. For noncab tractors, the tractor must be equipped with a ROPS and operator protective safety cage that provides protection to the right and above the operator seat. DO NOT remove the ROPS from non-cab tractors to equip a safety cage.

OPS-B- 0001

Boom



**OPERATION** 

ADANGER Never operate the Tractor and Mower Unit without an OPS (Operators Protective Structure) or Cab to prevent injury from objects thrown from ground or from overhead trimming. Stop mowing if workers or passersby are within 300 feet. (SBM-9)



#### 2.3 Tractor Lighting and SMV Emblem

If the tractor will be operated near or traveled on a public roadway it must be equipped with proper warning lighting and a Slow Moving Vehicle (SMV) emblem which are clearly visible from the rear of the unit. Most tractor's have different settings for operating and transporting lighting. Refer to the tractor operator's manual for using the tractor's light switch and operating the turn signals.

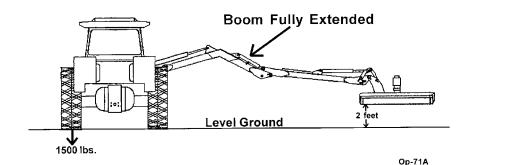
OPS-B- 0017



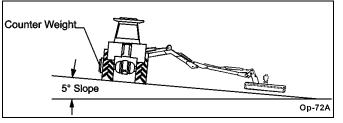
Boom

#### 2.4 Tractor Ballast

To ensure tractor stability when operating on flat surfaces the left rear tractor tire MUST exert a minimum down force (weight) of 1500 lbs. on the ground when the tractor is on level ground, its boom is fully extended and the mower head is horizontal and two feet above the ground. For units which have the ability to operate on either side of the tractor, these requirements must also be met for the right side tire when the boom is extended to the left side as described above. A tractor that does not meet this criteria is DANGEROUS and should not be operated as upset of the unit can occur resulting in possible serious injury and property damage. NOTE: All factory mounted units are tested and meet the ballast requirement before shipment; further testing is not required unless the unit is operated in a manner other than what is considered standard operating conditions.



If the unit is operated on slopes greater than 5°, additional counterweight will be required. Operation of the unit on slopes greater than 11 percent (6.4 degrees) is not recommended under any circumstances. On a tractor with a 96" outside to outside tire spread, an 11 percent (6.4 degrees) slope occurs when one rear tractor tire is about 8" lower than the other rear tire. *OPS-B- 0018* 



## **3.GETTING ON AND OFF THE TRACTOR**

Before getting onto the tractor, the operator must read and completely understand the implement and tractor operator manuals. If any part of either manual is not completely understood, consult an authorized dealer for a complete explanation. *OPS-U- 0007* 

**AWARNING** Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)



**OPERATION** 

Boom

#### 3.1 Boarding the Tractor

Use both hands and equipped handrails and steps for support when boarding the tractor. Never use control levers for support when mounting the tractor. Seat yourself in the operator's seat and secure the seat belt around you.

Never allow passengers to ride on the tractor or attached equipment. Riders can easily fall off and be seriously injured or killed from falling off and being ran over. It is the operator's responsibility to forbid all extra riders at all times. *OPS-U- 0008* 

ADANGER Never allow children to operate, ride on, or come close to the Tractor or Implement. Usually, 16-17 year-old children who are mature and responsible can operate the implement with adult supervision, if they have read and understand the Operator's Manuals, been trained in proper operation of the tractor and Implement, and are physically large enough to reach and operate the controls easily. (SG-11)

Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)

Do not mount or dismount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped. (SG-12)

#### 3.2 Dismounting the Tractor

A DANGER

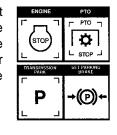
Before dismounting the tractor, idle the tractor engine down, disengage the head and retract the boom arm to the transport position. Park the tractor on a level surface, place the transmission in neutral and set the parking brake. Shut down the tractor engine, remove the key, and wait for all motion to come to a complete stop before exiting the operator's seat. NEVER leave the seat until the tractor, its engine, and mower head movement have come to a complete stop.

Use hand rails and extra steps when exiting the tractor. Be careful of your step and use extra caution when mud, ice, snow, and other matter has accumulated on the steps and handrails. Never rush or jump off the tractor. *OPS-B- 0002* 

BEFORE leaving the tractor seat, always set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)

**Operation Section 3-7** 

Boom



OPERATION





## **4.STARTING THE TRACTOR**

The operator must have a complete understanding of the placement, function, and operational use of all tractor controls before starting the tractor. Review the tractor operator's manual and consult an authorized dealer for tractor operation instructions if needed.

**Essential Tractor Controls:** 

- Locate the ignition key/switch
- Locate the engine shut off control
- Locate the hydraulic control levers
- Locate the light control lever
- Locate the brake pedals and clutch
- Locate the PTO control
- Locate the 3 point hitch control lever
- Locate the boom operating controls (joystick or valve bank)

Before starting the tractor ensure the following:

- Conduct all pre-start operation inspection and service according to the tractor operator's manual.
- Make sure all guards, shields, and other safety devices are securely in place.
- The parking brake is on.
- The tractor transmission levers are in park or neutral.
- The boom operating controls are in the neutral and off position.
- The PTO control lever is disengaged.
- The hydraulic remote control levers are in the neutral position.

Refer to the tractor owner's manual for tractor starting procedures. Only start the tractor while seated and belted in the tractor operator's seat. Never bypass the ignition switch by short circuiting the starter solenoid. After the tractor engine is running, avoid accidental contact with the tractor transmission to prevent sudden and unexpected tractor movement. *OPS-B- 0003* 



Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)



Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)



#### **5.CONNECTING ATTACHING HEADS TO THE BOOM**

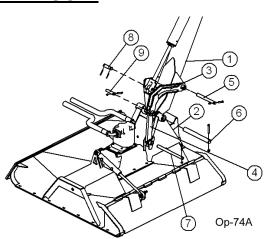
1. Start by attaching the pivot bracket(3) to the boom(1) using pin(5) and hardware. Next attach the cylinder to the pivot bracket(3) using pin(8) and roll pins.

2. Then attach the dogleg(4) to the mower(2) using pin(7) and hardware.

3. Use a hoist to lower the boom(1) down to the mower(2). Insert the upper pin(6) through the end of the boom and the mower. Attach with hardware.

4. Then align the dogleg(4) and the pivot bracket(3). Attach with pin(9) and hardware.

5. Finally make sure all bolts, nuts, and pins are tightened to recommended torque. *OPS-B- 0004\_D* 



Avoid contact with hot surfaces including hydraulic oil tanks, pumps, motors, valves and hose connections. Relieve hydraulic pressure before performing maintenance or repairs. Use gloves and eye protection when servicing hot components. Contact with a hot surface or fluid can cause serious injury from burns or scalding. (SG-34)

AWARNING

Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use Cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)



## **6.PRE-OPERATION INSPECTION AND SERVICE**

Before each use, a pre-operation inspection and service of the implement and tractor must be performed. This includes routine maintenance and scheduled lubrication, inspecting that all safety devices are equipped and functional, and performing needed repairs. DO NOT operate the unit if the pre-operation inspection reveals any condition affecting safe operation. Perform repairs and replacement of damaged and missing parts as soon as noticed. By performing a thorough pre-operation inspection and service, valuable down time and repair cost can be avoided. *OPS-U-0029* 

Boom

**AWARNING** Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have attaching hardware. Serious injury may occur from not maintaining this machine in good working order. (SG-21\_A)



A DANGER

All Safety Shields, Guards and Safety devices including (but not limited to) - the Deflectors, Chain Guards, Steel Guards, Gearbox Shields, PTO integral shields, and Retractable Door Shields should

be used and maintained in good working condition. All safety devices should be subjected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact. (SGM-3)

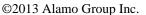
#### Tractor PTO PTO Integral Sheld Shield Shield Sheld Chain guard

#### 6.1 Tractor Pre-Operation Inspection/Service

Refer to the tractor operator's manual to ensure a complete pre-operation inspection and scheduled service is performed according to the manufacturers recommendations. The following are some of the items that require daily service and inspection:

- Tire condition/air pressure
- Wheel lug bolts
- Steering linkage
- PTO shield
- SMV sign is clean and visible
- Tractor's lights are clean and functional
- Tractor Seat belt is in good condition
- Tractor ROPS is in good condition
- ROPS is in the raised position
- No tractor oil leaks
- Radiator free of debris
- Engine oil level and condition
- Engine coolant level and condition
- Power brake fluid level
- Power steering fluid level
- Fuel condition and level
- Sufficient lubrication at all lube points
- Air filter condition OPS-U-0030

Boom





#### 6.2 Boom Unit Pre-Operation Inspection and Service

Inspect and service the boom arm and head prior to operation. Damaged and/or broken parts should be repaired and/or replaced immediately. To ensure the unit is ready for operation, conduct the following: *OPS-B- 0020* 

#### AWARNING

Periodically inspect all moving parts for wear and replace when necessary with authorized service parts. Look for loose fasteners, worn or broken parts, and leaky or loose fittings. Make sure all pins have attaching hardware. Serious injury may occur from not maintaining this machine in good working order. (SG-21\_A)





The operator's manual and safety signs affixed on the unit contain important instructions on the safe and proper use of the equipment. Maintain these important safety features on the implement in good condition to ensure the information is available to the operator at all times.

• Ensure all safety signs are in place and legible. Replace missing, damaged, and illegible decals. *OPS-U- 0011\_A* 



#### FRAME ASSEMBLY

- Inspect condition of mounting frame weldment.
- Inspect condition of Swivel Assy.
- Ensure all bolts and screws are in position and are properly torqued.
- Ensure all pins are in place and fastened with screws.
- Ensure frame is properly mounted to tractor and hardware is propely installed and tightened. OPS-B- 0021\_D



**Operation Section 3-11** 

OPERATION

Boom

Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Mower Head on the ground or securely supported on blocks or stands, disengage the PTO, and turn off the engine. Push and pull the control Levers or Joystick several times to relieve pressure prior to starting any maintenance or repair work. (SBM-6)



Never Leave the mower unattended while the head is in the raised position. The mower could fall causing serious injury to anyone who might inadvertently be under the mower. (SBM-4)



#### BOOM ARM ASSEMBLY

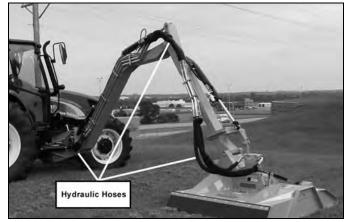
- Inspect condition of each arm section weldment
- Ensure all pins are in place.
- Ensure all bolts, nuts and rollpins are properly installed.
- Check condition of bushings at boom pivot points and hydraulic cylinder tangs.
- Ensure each hydraulic cylinder is installed and retained correctly. Ensure the proper size pins are used to retain the cylinders in place and are secured properly. *OPS-B-0022\_D*



**AWARNING** Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. (SG-20)

#### HYDRAULIC LINE INSPECTION

- Check for hydraulic leaks along hoses, cylinders and fittings. IMPORTANT: DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.
- Inspect the condition of the valve mounting.
- Ensure fittings are properly connected. *OPS-B- 0023\_D*



**Operation Section 3-12** 

**OPERATION** 

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Boom

#### **A**WARN IN G

Do not operate this Equipment with hydraulic oil or fuel leaking. Oil and fuel are explosive and their presence could present a hazard. Do not check for leaks with your hand! High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. To check for a hose leak, SHUT the unit ENGINE OFF and remove all hydraulic pressure. Wear oil impenetrable gloves, safety glasses and use Cardboard to check for evidence of oil leaks. If you suspect a leak, REMOVE the HOSE and have it tested at a Dealer. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure. (SG-15)

#### HYDRAULIC PUMP/OIL RESERVOIR

- Check oil reservoir level and oil condition. (Add specific type oil if low)
- Change hydraulic oil filter and hydraulic oil according to maintenance schedule.
- Ensure there are no oil leaks and fitting are properly connected
- Inspect overall condition of hydraulic pump.
- Inspect pump drive shaft.



Check the fluid level in the Hydraulic Tank on the

Tractor, and add oil if required. As the air has been forced out of the Cylinders and Hoses, it goes into the Hydraulic Tank and reduces the volume of oil. Maintain the oil level within the sight gauge located on the side of the reservoir. Never fill the tank above the sight gauge to allow for the expansion of the oil. The tank maintains pressure after the mower has been run. Stand off to one side when removing the breather cap element to prevent possible injury. *OPS-B 0024\_E* 

#### **AWARNING**

Attention: Oil Filler Cap is also the Pressure Relief Cap.

Remove cap slowly to relieve pressure before removing cap completely. Stay clear to prevent being scalded with hot oil that may spray out of the tank that is still pressurized and may cause serious injury to eyes, face, and exposed skin. (Ops-0001-MISC)

#### AWARNING

Avoid contact with hot surfaces including hydraulic oil tanks, pumps, motors, valves and hose connections. Relieve hydraulic pressure before performing maintenance or repairs. Use gloves and eye protection when servicing hot components. Contact with a hot surface or fluid can cause serious injury from burns or scalding. (sG-34)

Boom



#### ROTARY HEAD INSPECTION

- Inspect blades and blade bolts for looseness and excessive wear. Rotate to 90° to make for checking easier. Replace damaged, worn, and missing blades as complete sets to maintain rotary balance.
- Ensure motor bolts and nuts are tightened to the appropriate torque.
- Ensure rubber deflectors are in position and not damaged. Replace worn, broken, and missing sections immediately.
- Ensure hydraulic lines are properly connected to the hydraulic motor. Check for hydraulic leaks along hoses and fittings. DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.



• Inspect the condition of deck skid shoes and hardware. OPS-B- 0025

## **A**WARNING

Do not put hands or feet under mower decks. Blade Contact can result in serious injury or even death. Stay away until all motion has stopped and the decks are securely blocked up. (SGM-09)



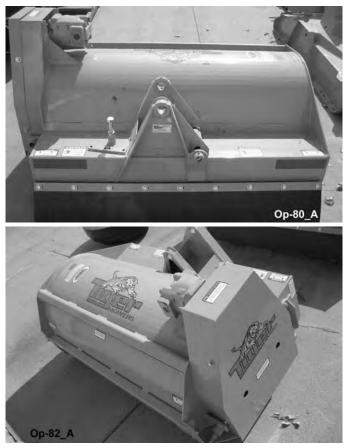
#### 🛦 DANG ER

All Safety Shields, Guards and other safety devices including (but not limited to) - Deflectors, Steel Guards and Gearbox Shields must be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact. (SSM-07)

Boom

#### FLAIL HEAD INSPECTION

- Inspect blades and blade bolts for looseness and excessive wear. Rotate to 90° to make for checking easier. Replace damaged, worn, and missing blades as complete sets to maintain cuttershaft balance.
- Ensure rubber deflectors are in position and not damaged. Replace worn, broken, and missing sections immediately.
- Ensure the rollers are in good condition and rotate freely.
- Inspect that all bolts and screws are in position and are properly torqued.
- Ensure hydraulic lines are properly connected to the hydraulic motor. Check for hydraulic leaks along hoses and fittings. DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.
- Inspect the condition of the drive belts.
- Ensure the drive belt shields are in place and in good repair.
- Remove any grass or other debris which may be wrapped around the cuttershafts ends.
- Inspect the condition of deck skid shoes and hardware. OPS-B- 0026\_B



#### A DANGER

Do not put hands or feet under mower decks. Blade Contact can result in serious injury or even death. Stay away until all motion has stopped and the decks are securely blocked up. (SFL-2)



#### A DANG ER

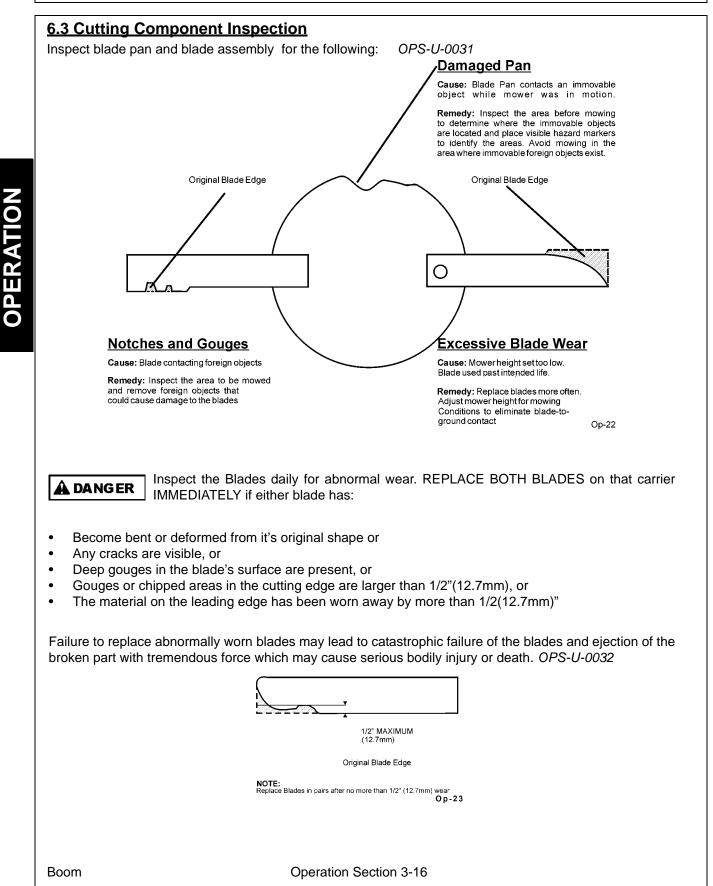
All Safety Shields, Guards and other safety devices including (but not limited to) -Deflectors, Steel Guards and Gearbox Shields must be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact. (SSM-07)

Boom

**Operation Section 3-15** 

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OPERATION



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#### **Tractor PRE-OPERATION Inspection**



Mower ID#\_\_\_\_\_

Make \_\_\_\_\_



Date:

Shift

Before conducting the inspection, make sure the tractor engine is off, all rotation AWARNING has stopped and the tractor is in park with the parking brake engaged. Make sure the mower is resting on the ground or securely blocked up and all hydraulic pressure has been relieved.

Item	Condition at Start of Shift	Specific Comments if not O.K.
The flashing lights function properly		
The SMV Sign is clean and visible		
The tires are in good condition with proper pressure		
The wheel lug bolts are tight		
The tractor brakes are in good condition		
The steering linkage is in good condition		
There are no visible oil leaks		
The hydraulic controls function properly		
The ROPS or ROBS Cab is in good condition		
The seatbelt is in place and in good condition		
The 3-point hitch is in good condition		
The drawbar pins are securely in place		
The PTO master shield is in place		
The engine oil level is full		
The brake fluid level is full		
The power steering fluid level is full		
The fuel level is adequate		
The engine coolant fluid level is full		
The radiator is free of debris		
The air filter is in good condition		

Operator's Signature:

## DO NOT OPERATE an UNSAFE TRACTOR or MOWER

This Inspection Form may be freely duplicated for extra copies.

Boom

#### **Boom PRE-OPERATION Inspection**



Mower ID#

Make \_\_\_\_\_



Shift

AWARNING

Before conducting the inspection, make sure the tractor engine is off, all rotation has stopped and the tractor is in park with the parking brake engaged. Make sure the mower is resting on the ground or securely blocked up and all hydraulic pressure has been relieved.

#### Condition at Start Specific Comments Item if not O.K. of Shift The Operator's Manual is in the tractor All safety decals are in place and legible The mounting frame bolts are in place and tight The boom connection bolts & pins are tight There are no cracks in boom The hydraulic cylinders pins are tight The hydraulic pump hose connections are tight The hydraulic valve controls function properly There are no leaking or damaged hoses The hydraulic oil level is full There is no evidence of hydraulic leaks The blades are not chipped, cracked or bent The blade bolts are tight The deflectors are in place and in good condition The boom shields are in place and in good condition The skid shoes are in good condition and tight There are no cracks or holes in boom deck The hydraulic motor mounting bolts are tight The boom head spindle housing is tight and lubricated

Table 1:

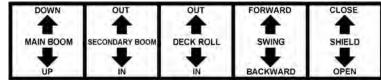
**Operator's Signature:** 

#### **DO NOT OPERATE an UNSAFE TRACTOR or MOWER**

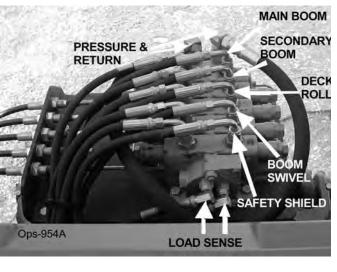
Boom

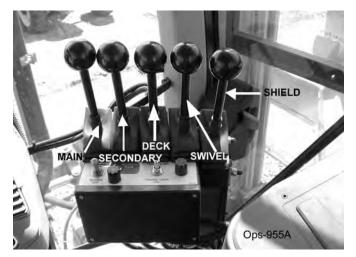
#### Cable Controlled Mowers

A control lever decal similar to the one shown below should be near the control valve to remind the operator of the lever functions.



The main control valve on the Tiger Boom Mower has four sections with tapered spools, located near the right side of the steering wheel. The malfunction of a section of the valve does not necessitate the replacement of the entire "bank", only the faulty section. Each section of the valve controls a certain position of the boom or deck. Seated in the operators seat, the controls from left to right are #1-primary (main) boom, #2-secondary boom, #3 -deck roll, #4boom (swivel) swing), and #5- boom (safety) shield.





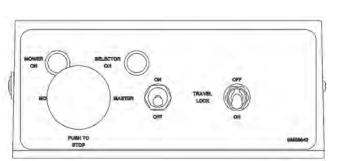
**Operation Section 3-19** 

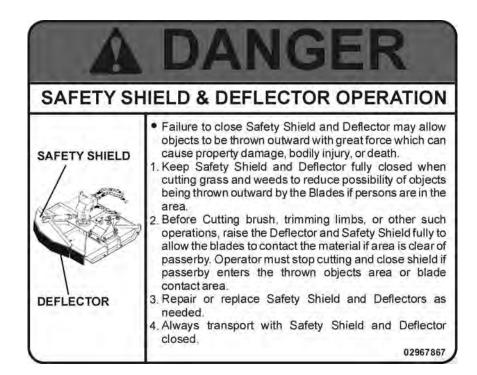
OPERATION

Boom

#### 6.4 Switchbox

The Safety Shield lever opens and closes the shield located on the front of the cutter head. When moving at or near the ground, always have the shield in th closed position. When mowing in the brush or in trees above ground level the shield may be opened for easier cutting. Read and follow the warnings on the decal shown below. Do not run the cutter head into material larger than 6" diameter.





**Operation Section 3-20** 

Boom

# DOWN Ops-956 oυī Ops-957 υл Ops-958

LEVER #2 SECONDARY BOOM

LEVER #1 MAIN BOOM

LEVER #3 DECK ROLL

**Operation Section 3-21** 

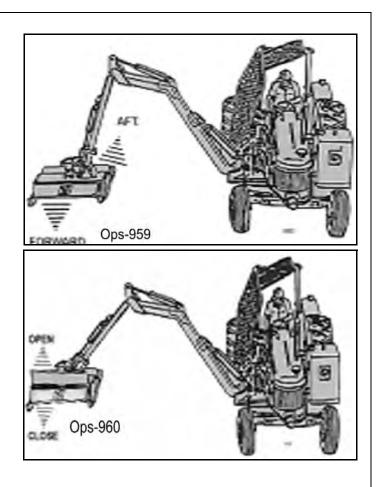
Boom

**OPERATION** 

#### LEVER #4 BOOM SWIVEL

**OPERATION** 

#### LEVER #5 BOOM SHIELD



Boom

**Operation Section 3-22** 

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#### 7.Joystick Controlled Mowers

**AWARNING** NOTE: **DO NOT** operate mower head while boom mower is in the boom rest, or in the stored position! Red "Mower Run" light indicates mower is "ON".

The boom functions are controlled by an electronic joystick. The Joystick Master Switch enables the joystick control for controlling the boom motion functions. This switch is to be in the "OFF" position when starting the tractor and when boom is stowed for transporting the machine.

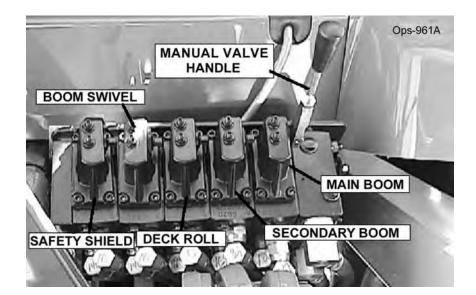
#### A CAUTION

If the joystick control is not operating properly, turn the master switchto the "OFF" position. Install the manual valve handle onto valve and operate the functions individually to stow boom. After boom is stowed in rest, transport the unit to the maintenance facility and contact your Tiger dealer for assistance.

#### A CAUTION

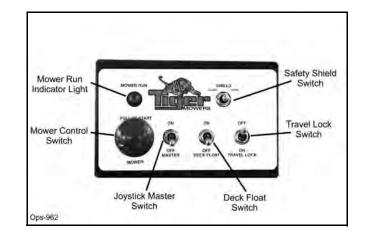
DO NOT attempt to operate the valve manually for mowing operations!

Note: Pushing manual valve handles "out" or "away" from the tractor cab will bring the main boom "up", secondary boom "out", roll deck "out", and swivel boom "aft". Pulling manual handles toward cab will let main boom "down", bring secondary boom "in", roll deck "in", and swivel boom "forward".



#### 7.1 Switch Box and Joystick Control

The diagrams below and on the next page show the functions that are performed through the use of the joystick controller.

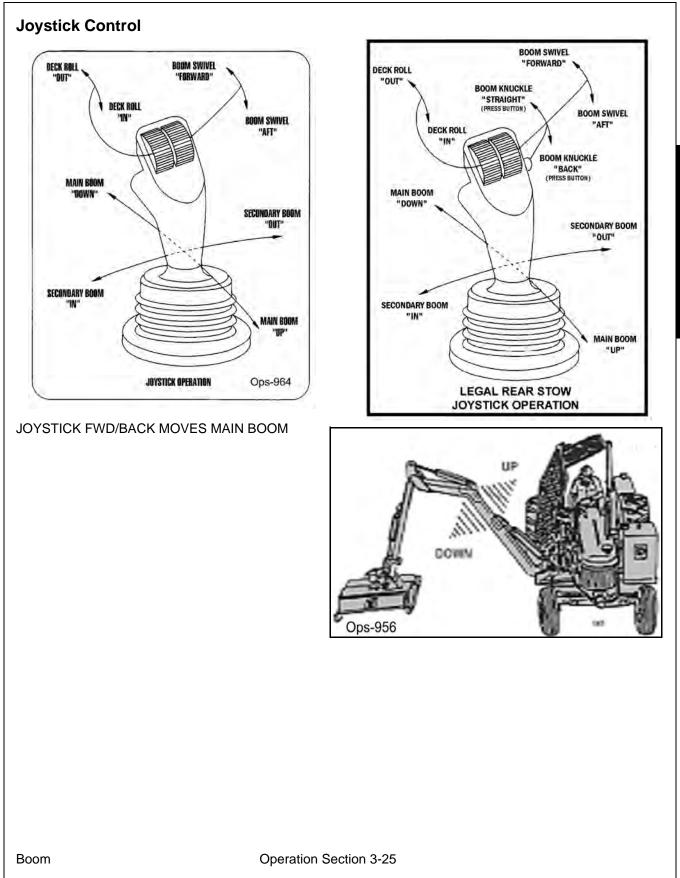


The Safety Shield switch opens and closes the shield located on the front of the cutter head. When moving at or near the ground, always have the shield in the closed position. When moving in brush or in trees above ground level the shield may be opened for easier cutting. Read and follow the warnings on the decal shown below. **Do not run the cutter into material larger than 6**" diameter.

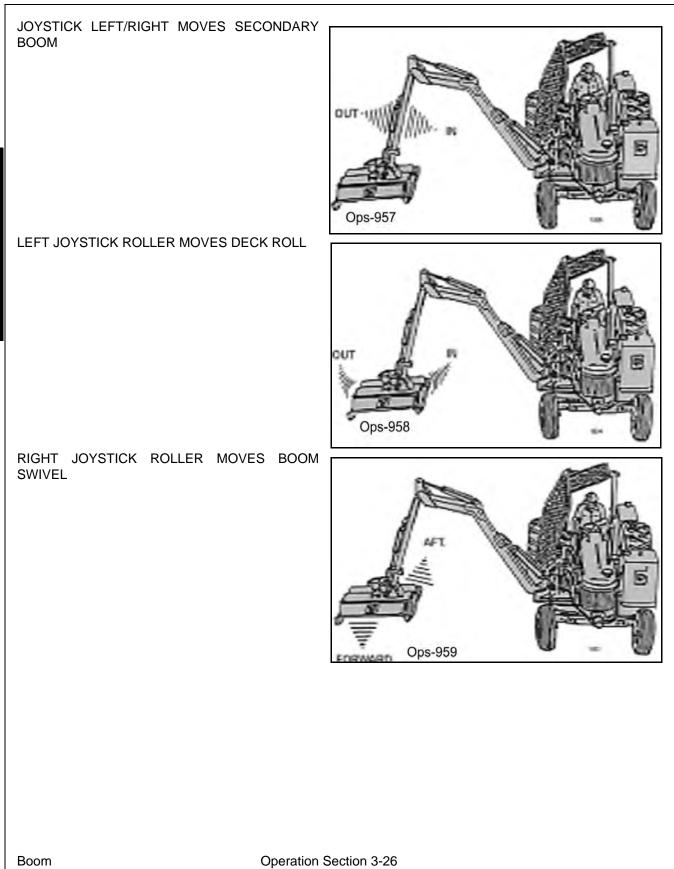


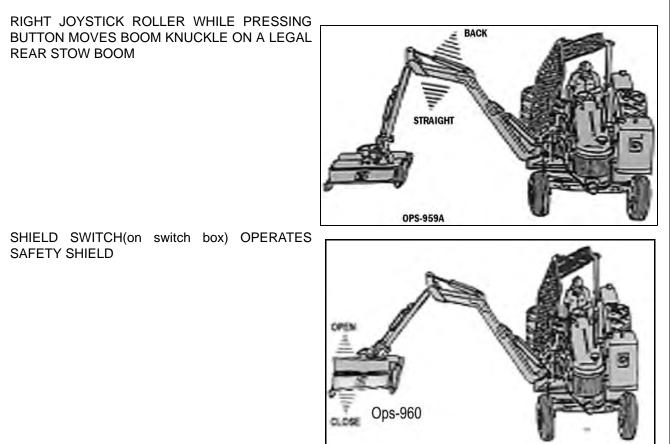
**OPERATION** 

Boom



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#### **8.DRIVING THE TRACTOR AND IMPLEMENT**

Safe tractor transport requires the operator to possess a thorough knowledge of the model being operated and precautions to take while driving with an attached implement. Ensure the tractor has the capacity to handle the weight of the boom and the tractor operating controls are set for safe transport. To ensure safety while driving the tractor with a boom, review the following.

Read all safety instructions. Decals on the Boom warn you of particular and multiple hazards. Some decals are attached close to part of the Boom where there is a possible hazard. Read and make sure you understand the safety messages before you operate the implement. Keep all decals clean and readable. Replace lost or damaged decals, refer to safety section for more information.

Keep all person's well clear of mower since blades can throw objects with great velocity for a considerable distance! KEEP CLEAR! *OPS-B- 0005* 

OPERATION

**MANGER** Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operator's Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced or untrained personnel to operate the Tractor or Implement without supervision. Make sure the operator has fully read and understood the manuals prior to operation. (SG-4)

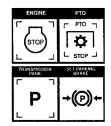




**G** Always maintain the safety signs in good readable condition. If the safety signs are missing, damaged, or unreadable, obtain and install replacement safety signs immediately. (SG-5)

A DANGER

BEFORE leaving the tractor seat, always set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



Boom

**AWARNING** Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and

how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.

Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

Test the tractor at a slow speed and increase the speed slowly. Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum transport speed not to exceed 20 mph (30 kph) for transporting this equipment.

Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that the equipment can be operated at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum turning speed for you and this equipment before operating on roads or uneven ground.

Only transport the Tractor and Implement at the speeds which allow you to properly control the equipment.

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes or worn tires. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (SG-19)

#### 8.1 Starting the Tractor

The procedure to start the tractor is model specific. Refer to the tractor operator's manual for starting procedures for your particular tractor. Consult an authorized dealer if the starting procedure is unclear. Ensure the 3-point control lever is in the lowered position and the PTO is disengaged before starting the tractor. *OPS-U-0033* 



Operation Section 3-29





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#### 8.2 Brake and Differential Lock Setting

Make sure the tractor brakes are in good operating condition. Tractor brakes can be set to operate independently allowing single rear wheel braking action or locked together to provide simultaneous rear wheel braking. FOR MOST DRIVING AND OPERATING CONDITIONS, THE BRAKE PEDALS SHOULD BE LOCKED TOGETHER TO PROVIDE THE MOST EFFECTIVE BRAKING ACTION.

Always disengage the tractor differential lock when turning. When engaged the differential lock will prevent or limit the tractor from turning. During normal cutting conditions, locking the differential provides no benefit and should not be used.



OPS-U- 0013

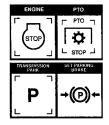
#### **AWARNING**

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases;

use extreme care and reduce your speed in these conditions. When operating in traffic, always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy. (Ops-0004-MISC)

#### A DANGER

BEFORE leaving the tractor seat, always set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (sg-9)



Boom

**Operation Section 3-30** 

OPERATION

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#### 8.3 Driving the Tractor and Boom

Start off driving at a slow speed and gradually increase your speed while maintaining complete control of the tractor. Never operate the tractor at speeds that cannot be safely handled or which will prevent the operator from stopping quickly during an emergency. If the power steering or engine ceases operating, stop the tractor immediately as the tractor will be difficult to control.

Perform turns with the tractor and mower at slow speeds to determine how the tractor with and attached implement handles a turn. Determine the safe speed to maintain proper control of the tractor when making turns. When turning with the implement the overall working length and width of the unit is increased. Allow additional clearance for the unit when turning or when passing large obstructions.

To avoid overturns, drive the tractor with care and at safe speeds, especially when operating over rough ground, crossing ditches or slopes, and turning corners. Use extreme caution when operating on steep slopes. Keep the tractor in a low gear when going downhill. DO NOT coast or freewheel downhill.

OPS-B- 0006



OPERATION

Boom

**Operation Section 3-31** 

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**AWARNING** Never Leave the mower unattended while the head is in the raised position. The mower could fall causing serious injury to anyone who might inadvertently be under the mower. (SBM-4)



A DANGER

Always keep a careful lookout and use extreme care when working around overhead obstructions. Never allow the Mower head or boom within 10 feet of any power line. When working close to overhead power lines consult your electric company for a safe code of operation. (SBM-7)



#### **9.OPERATING THE BOOM UNIT AND ATTACHED HEAD**

THE OPERATOR MUST COMPLETELY UNDERSTAND HOW TO OPERATE THE TRACTOR AND MOWER AND ALL CONTROLS BEFORE ATTEMPTING TO MOW. The operator must read and understand the Safety and Operation Sections of this manual and the tractor operator's manuals. These manuals must be read and explained to any operator who cannot read. Never allow someone to operate the unit without complete operating instructions.

To ensure safety to the operator, bystanders, and equipment and before starting any mowing operation. The operator must become familiar with the area to be mowed, and any obstacles and hazards contained within. Special attention should be paid to foreign debris, overhead obstructions, rough terrain, steep slopes, passersby and animals in the area.

Only operate the mower head from the tractor operator's seat with the seatbelt securely fastened. Only operate a boom and equipped head on cabbed tractor that is equipped with a polycarbonate safety-protected right side window or a non cabbed tractor equipped with a ROPS and operator safety screen.

Avoid operating in the reverse direction when possible. In situations where the boom and mower must be backed to access areas to be cut, make sure there are no persons or other foreign debris behind the tractor. When backing, operate the tractor at a much reduced ground speed to ensure complete control of the unit is maintained. *OPS-B- 0007* 

**A**WARN IN G

Do not mow with two machines in the same area except with Cab tractors with the windows closed.  $_{(SGM-11)}$ 

AWARNING

Mow only in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never mow in darkness or foggy conditions where you cannot clearly see at least 300 feet (90 m) in front and to the sides of the tractor and mower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see these type of items discontinue mowing. (SGM-01)

Boom

Avoid mowing in reverse direction when possible. Check to make sure there are no persons behind the mower and use extreme care when mowing in reverse. Mow only at a slow ground speed where you can safely operate and control the tractor and mower. Never mow an area that you have not inspected and removed debris or foreign material. (SGM-08)

#### **AWARNING**

Never operate the mower head tilted down where the operator can see the blades of the mower. The blade could throw an object toward the operator causing serious injury or death. Never operate the mower without an Operator Protective Structure. Always wear safety glasses and a hard hat. (Ops-0005-MISC)

#### 9.1 Foreign Debris Hazards/Overhead Obstructions

An area to be cut must first be inspected for objects that could be thrown or that could damage the machine. Walk through the area looking for fences, boulders, rocks, culverts, stumps or metal objects. Mark the inspected area with flags. If the area is dense and cannot be walked thoroughly it may be necessary to inspect a smaller area as well as possible, then trim away the part that has been inspected and can safely be removed. Walk each new area again and repeat the inspection before cutting more away. Repeat as often as necessary until the area is cleared. It can be damaging and/or dangerous to work the cutter in an area that has not been visually inspected.

Place DANGER signs at least 300 feet beyond the perimeter of the area to be worked, not just 300 feet from where the machine started operating! It is convenient in many cases to work in 300 foot sections. Move the first Danger sign to the beginning of the freshly cleared area, place it, then take the first cutting area flag up to the end of the freshly cleared area 300 feet away. Walk and inspect the next 300 feet and place the second cutting area flag. Pick up the second DANGER sign, and take it a further 300 feet along the road or trail. Note that in many cases the DANGER area will extend in front of and behind the machine as well as along each side. Post signs accordingly. *OPS-B- 0008* 

**Extreme care should be taken when operating near loose objects such** as gravel, rocks, wire, and other debris. Inspect the area before mowing. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop mowing immediately if blades strike a foreign object. Repair all damage and make certain rotor or blade carrier is balanced before resuming mowing. (SGM-05)



#### AWARNING

Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the mower head. These items could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the cutting area for such objects before mowing. Remove any like object from the site. Never allow the cutting blades to contact such items. (SGM-06)

Mow at the speed that you can safely operate and control the tractor and mower. The correct mowing speed depends on terrain condition and grass type, density, and height of cut. Normal ground speed range is from 2 to 5 mph(3-8 kph). Use slow mowing speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SGM-07)

#### 9.2 Operating Speed and Ground Speed

Ground speed for mowing will depend upon the height, type, and density of vegetation to be cut. Do Not exceed 5 MPH while operating. Operate the mower at its full rated PTO speed to maintain blade speed for a clean cut. Refer to the tractor operator's manual or the tractor instrument panel for the engine speed and gear to provide the required operating and desired ground speed. Make sure that the mower is operating at its full rated speed before entering the vegetation to be cut. Always start and stop cutting blades with engine near idle.

Ground speed is achieved by transmission gear selection and not by the engine operating speed. The operator may be required to experiment with several gear range combinations to determine the best gear and range which provides the most ideal performance from the implement and most efficient tractor operation. As the severity of cutting conditions increase, the ground speed should be decreased. *OPS-B- 0009* 

#### AWARNING

Mow at the speed that you can safely operate and control the tractor and mower. The correct mowing speed depends on terrain condition and grass type, density, and height of cut. Normal ground speed range is from 2 to 5 mph(3-8 kph). Use slow mowing speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SGM-07)

#### 9.3 Operating the Attached Mower Heads

The boom can attach to and operate multiple heads one at a time for a wide range of vegetation control applications. The attached heads are designed for different applications. The head should be selected based on the mowing application and the location that the unit is being operated.

Refer to the Assembly Section of this manual to ensure the head is properly attached to the boom hitch and hydraulic lines are properly connected. *OPS-B- 0010* 

**ADANGER** There are obvious and hidden potential hazards in the operation of this Mower. REMEMBER! This machine is often operated in heavy brush and in heavy weeds. The Blades of this Mower can throw objects if shields are not properly installed and maintained. Serious injury or even death may occur unless care is taken to insure the safety of the operator, bystanders, or passersby in the area. Do not operate this machine with anyone in the immediate area. Stop mowing if anyone is within 300 feet of mower. (SGM-02)



**Operation Section 3-34** 

#### 9.4 Mower Operation

The rotating parts in this machine have been designed and tested for rugged use. However, they could fail upon impact with heavy solid objects-such as steel guard rails, concrete abutments,etc., causing them to be thrown at a very high velocity. Never allow cutter head to contact such objects. Inspecting the cutting area for such objects and removing them prior to moving can help eliminate these potiential hazards.

Once on location, lower the mower deck slightly above the material to be cut, so the mower does not have to start under a load. With the tractor at an idle, engage mower. Bring tractor R.P.M. up to 1900-2200 R.P.M. and **slowly** lower deck to ground level.

A flail mower deck should be carried so that the part of the deck weight is carried by the boom and part carried by the ground roller, when moving on the ground. When the flail mower is carried this way, the ground roller follows the contour of the ground more easily during mowing operations.

The rotary mower deck should always be carried rather than dragged on the skid shoes when mowing on the ground. Dragging the rotary mower deck increases the side loads on the boom, decreases the horsepower available to the cutter head, and reduces the ability of the accumulator the carry part of the weight of the boom during mowing operations.

#### **AWARNING**

When rotating parts are in motion, serious injury may occur if caution is not used or danger is not recognized. Never allow bystanders within **300 feet** of the machine when in operation. Extreme care should be taken when operating near loose objects-such as gravel, rocks, and debris. These conditions should be avoided.

#### 9.5 50" & 60" Boom Rotary

The 50" & 60" boom rotary brush mower was designed for cutting brush and foliage up to 6 inches in diameter or multiple branches that have a total cross section area equivalent to one 6 inch branch.

During mower operation, the hand throttle must be used to maintain engine speed at 1900-2200 R.P.M. This prevents radical changes in mower spindles speed, reducing the possibility of cutter assembly damage.

The horizontal positioning action of the boom is designed to position the cutting head and provide a limited pressure relief when excessive pressure is applied to the boom. Do not force the cutting head



into heavy branches or stumps. Damage to the unit may result.

**A CAUTION** When using the rotary cutting head for trimming trees and shrubs, let the mower saw into them. Do not lower the mower head down directly into a tree or stump. The mower blades are designed to cut with the end, and misuse can cause damage to the blade and a hazardous situation for the operator.



Powering the boom down, forcing mower deck onto ground may damage mower deck and it's attachment to the boom, creating a potentially hazardous situation.

To ensure a clean cut, engine speed should be maintained at approximately 1900-2200 R.P.M. If the tractor slows to less than 1800 R.P.M., shift to the next lower gear. DO NOT ride the clutch, this will cause premature clutch failure. The engine should not be operated at any time at more than 2400 R.P.M. on the tractor tachometer.

Boom

For cutting brush, it is usually best to stop the tractor and swivel the boom and mower into foilage. The horizontal positioning action of the boom is designed to position the cutting head and provide a limited pressure relief when excessive pressure is applied to the boom.



**DO NOT** use excessive force when positioning cutting head into heavy branches or stumps. Damage to the unit may result. It is best to let the cutter head "eat away" slowly at heavy cutting jobs.



If foliage falls on top of mower deck causing tractor to become unstable, move the boom "Forward" and "Out" to relieve tipping of the tractor. Lower mower deck to ground and shut down unit. After all motion stops, remove foliage from mower deck.

The mower will operate more efficiently in tougher conditions and with less power if the knives are kept sharp. If the mower begins to vibrate, stop the tractor, check for wire wrapped in the spindle or damaged knives. When replacing knives, replace all knives with new knives to ensure proper balance so the mower will not vibrate. Severe vibration will result, if knives with unequal wear are used.

Begin a pass at the top side of the trees and work down with each consecutive pass. When cutting trees and shrubs, use a lower speed to allow the knives time to cut as well as mulch the foliage.



If bystanders approach within 300 feet while mower is in operation turn mower switch "OFF" immediately! After shutdown, never leave the tractor or allow bystanders to approach within **300 FEET** of the unit until all motion stops completely.

If cutter shaft jams and stops, turn mower switch to "OFF", and swivel boom "AFT". Normally this action will clear the cutter head. If not, roll mower deck until adjacent to the secondary boom, then lower boom to rest mower deck on ground. Shut off the tractor, set parking break, allow all motion to cease. At that point it is safe to leave the tractor and clear the cutter heads manually.

Begin each pass at the top side of the trees and work down with each consecutive pass. Use a low speed to allow the cutting blades time to mulch as well as cut the foliage. When the initial pass has been made, disengage the mower, and return boom to a safe travel position. Return to starting point and make next pass, etc..

After the first day of operation, all bolts should be checked and tightened securely. This should be done periodically to ensure the bolts do not become loose and cause damage to the tractor or mower, or injury to the operator.

**OPERATION** 

Boom

When cutting trees and brush approach material to be cut with the head perpendicular to material. The cutting edge of the blades should be the only elements in contact with material. The blade bar should not contact with material. The mower head and blades should be moved perpendicularly into the material rather lowering the mower head on top of material. If the blade bar edges are gouged or rounded from wear, the mower head is being used incorrectly in an abusive manner. The blade bar is not intended to cut material or to be a wear item like the blades. Do Not allow the blades or blade bar to contact the ground, rocks or solid objects. Contact with the ground can result in rocks and solid objects being thrown out from under the mower head which can cause serious injuries to the operator and bystanders. This type of operation can lead to bent or broken blade bars, broken blade bolts and broken blade bar assembly bolts which can be dangerous to the operator and bystanders.

CORRECT INCORRECT

The cutter deck should be level with the ground to reduce the work required by the cutter and tractor to minimize equipment wear and damage.

(OPS-R-220)

#### 9.6 50" Boom Flail

The 50' boom flail mower was designed for cutting brush and foliage up to 3 inches in diameter or multiple branches that have a total cross section area equivalent to one 3 inch branch. Cutting multiple limbs at the same time may overload the mower causing it to slow down or stall completely. Regardless of the size of material being cut, the cutter shaft speed must be maintained. To ensure that the cutter shaft is running at maximum speed, run the tractor at full throttle during mowing operations. If the cutter shaft slows to the point that the knives are folding back, move the mower head away from the foliage and allow the cutter shaft to regain full speed.



**A**WARN ING

Operating the mower in a manner that allows the knives to continually fold back or allowing knive lugs to contact foliage will cause permanent damage to the cutter shaft drum, knives, and knife attachment parts.

AWARNING

The 50" boom flail cutter shaft is designed for standard rotation (same rotation as the tractor wheels during forward travel). **Never operate the cutter shaft in reverse rotation.** Operating this mower in reverse rotation may cause objects to be thrown out the front of the mower head.

AWARNING

The 50" boom flail equipped with free swinging brush knives is intended for brush cutting only. Cutting grass is not recommended.

Boom

**AWARNING** Do not allow knives to cut down to the ground. Position ground roller to maintain knife arc at a minimum of 2 inches above the ground. Knife contact or lug contact with ground will cause permanent damage to cutter shaft, knives, and knife attachment parts.

#### 9.7 63" Boom Flail

The 63" boom flail mower was designed for cutting grass. The cutter shaft speed must be maintained for proper cutting. To insure that the cutter shaft is rotating at maximum speed, run tractor at full throttle during mowing operations. If cutter shaft slows to the point that the knives are folding back against the cutter shaft, move the mower head away from the foliage and allow the cutter shaft to regain full speed.



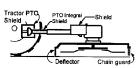
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The rotating parts of this machine have been designed and tested for rugged use. However, the blades could fail upon impact with heavy, solid objects such as metal guard rails and concrete structures. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce the possibility of property damage, serious injury, or even death, never allow the cutting blades to contact such obstacles. (SGM-4)

A DANGER

All Safety Shields, Guards and Safety devices including (but not limited to) - the Deflectors, Chain Guards, Steel Guards, Gearbox Shields, PTO integral shields, and Retractable Door Shields should

be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact. (SGM-3)



#### **AWARN IN G**

Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the mower head. These items could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the cutting area for such objects before mowing. Remove any like object from the site. Never allow the cutting blades to contact such items. (SGM-06)

OPERATION

#### 9.8 Shutting Down the Attached Head- For Standard Equipment

To shut down attached mower head, first bring the tractor to a complete stop. Decrease engine RPM to idle then disengage cutterhead. The mower head will come to a complete stop within a suitable amount of time. Do not engage or disengage the cutterheads at a high RPM unless there is an emergency situation.

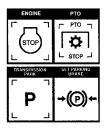
Park the tractor on a level surface, place the transmission in park or neutral and apply the parking brake, shut down the engine, remove the key, and wait for all motion to come to a complete stop before exiting the tractor. OPS-B-0011\_D





#### A DANGER

BEFORE leaving the tractor seat, always set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (SG-9)



Boom

### **10.TRACTOR, BOOM, AND ATTACHED HEAD STORAGE**

Properly preparing and storing the unit at the end of the season is critical to maintaining its appearance and to help ensure years of dependable service. The following are suggested storage procedures:

- Thoroughly clean all debris from boom and head to prevent damage from rotting grass and standing water.
- Lubricate all grease points and fill oil levels according to the maintenance lubrication schedule.
- Tighten all bolts to the proper torque. Ensure all pins and other hardware are in place.
- Check the boom arm and head for worn and damaged parts. Perform repairs and make replacements so that the mower will be ready for use at the start of the next season.
- Store the unit in a clean and dry location.
- Use spray touch-up enamel where necessary on bare metal surfaces to prevent rust and to maintain the appearance of the mower. OPS-B- 0012\_C



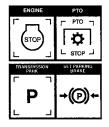
### 🛦 DANG ER

A DANGER

**OPERATION** 

Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be injured or killed. Children can cause the Implement to shift or fall crushing themselves or others. (SG-25)

BEFORE leaving the tractor seat, always set the parking brake and/or set the tractor transmission in parking gear, disengage the PTO, stop the engine, remove the key, and wait for all moving parts to stop. Place the tractor shift lever into a low range or parking gear to prevent the tractor from rolling. Never dismount a Tractor that is moving or while the engine is running. Operate the Tractor controls from the tractor seat only. (sG-9)



#### **AWARNING**

Perform service, repairs and lubrication according to the maintenance section. Ensure the unit is properly lubricated as specified in the lubrication schedule and all bolts and nuts are properly torqued. Failure to properly service, repair and maintain this Implement in good operating condition could cause component failure and possible serious injury or even death. (SG-35)

#### **11.TRANSPORTING THE TRACTOR AND IMPLEMENT**

Inherent hazards of operating the tractor and implement and the possibility of accidents are not left behind when you finish working in an area. Therefore, the operator must employ good judgement and safe operation practices when transporting the tractor and implement between locations. By using good judgement and following safe transport procedures, the possibility of accidents while moving between locations can be substantially minimized. *OPS-U- 0017* 

Boom

#### 11.1 Placing Boom Arm on Boom Arm Rest - For Standard Equipment

Before transporting tractor between locations, idle the tractor engine, disengage the attached head, and wait for all head motion to come to a complete stop. Place the boom in its storage cradle rest support and then turn the joystick master switch to the OFF position.

- Retract Deck Roll cylinder completely.
- Push Secondary cylinder approximately 1/2 way out.
- Raise Main boom approximately to 60°.
- Swing boom back slowly until it is straight back.
- For a 3-point boomrest or a single column boomrest, position the secondary in the cradle. Carefully avoid pinching any hoses.
- For a open stow style boomrest, lower the Main boom onto rest and bring the Secondary boom in until it is sitting on the boomrest.
- For a Legal Stow style boomrest, retract the secondary and knuckle cylinders completely. Lower the Main boom onto rest. Slowly extend the secondary cylinder until the



secondary boom contracts the side of the boomrest saddle. Next, slowly extend the knuckle cylinder until the secondary sets on the bottom part of the boomrest saddle.

The boom is now in the transport position. Turn on any electronic travel locks at the switchbox.

To remove the boom from the Boom Rest, first turn off any electronic travel locks at the switchbox then retract the knuckle cylinder (if applicable) then swing the Secondary boom out. Raise the Main boom approximately 6 inches. Swivel the boom forward to the desired position. *OPS-B- 0013\_D* 

#### 11.2 Transporting on Public Roadways

Extreme caution should be used when transporting the tractor and mower on public roadways. The tractor must be equipped with all required safety warning features including a SMV emblem and flashing warning lights to alert drivers of the tractor's presence. Remember that roadways are primarily designed for automotive drivers and most drivers will not be looking out for you, therefore, you must look out for them. Check your side view mirrors frequently and remember that vehicles will approach quickly because of the tractor's slower speed. Be extremely cautious when the piece of equipment that you are driving, is wider than the tractor tire width and/or extends beyond your lane of the road. *OPS-B- 0014* 

The SMV (Slow-Moving Vehicle) emblem is universal symbol used to alert drivers of the presence of equipment traveling on roadways at a slow speed. SMV signs are a triangular bright orange with reflective red trim for both easy day and night visibility. Make sure the SMV sign is clean and visible from the rear of the unit before transporting the tractor and implement on a public roadway. Replace the SMV emblem if faded, damaged, or no longer reflective. *OPS-U-0020* 



Make sure that all tractor flashing warning lights, headlights, and brake/taillights are functioning properly before proceeding onto public roads. While newer model tractors have plenty of lighting to provide warning signals and operating lighting, most older models where only equipped with operating lights. Consult an authorized tractor dealer for lighting kits and modifications available to upgrade the lighting on older tractor models. *OPS-B-0015* 



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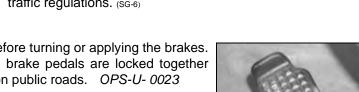
public When roads, operating on have consideration for other road users. Pull to the side of the road occasionally to allow all following traffic to pass. Do not exceed the legal speed limit set in your state or municipality for agricultural tractors. Always stay alert when transporting the tractor and mower on public roads. Especially in busy cities, the boom extends to right farther then the tractors width, so be careful there are no bystanders, poles, large obstructions or any vehicles that may be in path of the mower head or boom. Use caution and reduce speed if other vehicles or pedestrians are in the area. OPS-B-0016



Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)

Make certain that the "Slow Moving Vehicle" (SMV) sign is installed in AWARNING such a way as to be clearly visible and legible. When transporting the Equipment use the Tractor flashing warning lights and follow all local traffic regulations. (SG-6)

Reduce speed before turning or applying the brakes. Ensure that both brake pedals are locked together when operating on public roads. OPS-U- 0023





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Boom

A DANGER

#### **11.3 Hauling the Tractor and Implement**

Before transporting a loaded tractor and implement, measure the height and width dimensions and gross weight of the complete loaded unit. Ensure that the load will be in compliance with the legal limits set for the areas that will be traveled through. *OPS-U- 0024* 





#### A DANGER

When transporting Boom Mower on a truck or trailer, the height or width may exceed legal limits when the boom is in the transport position. Contact with side or overhead structures or power lines can cause property damage or serious injury or death. If necessary lower boom to reduce height and/or remove mowing head to reduce width to the legal limits. (SBM-8)



Use adequately sized and rated trailers and equipment to transport the tractor and implement. Consult an authorized dealer to determine the proper equipment required. Using adequately sized chains, heavy duty straps, cables and/or binders, securely tie down both the front and rear of the tractor utilizing the proper tie down locations as specified by the tractor manufacturer. *OPS-U- 0025* 



Arrange the chains so that when tightened, the chains are pulling downward and against themselves. Carefully tighten the securing chains or other fasteners using boomers or binders to apply maximum tension. Use extreme care when attaching and removing the securing devices as the extreme tension involved when released has the potential to inflict serious injury.

While hauling the tractor and implement, make occasional stops to check that the tractor and implement have not moved or shifted and that the securing chains have maintained tension. If during transport a hard braking, sharp turning, or swerving action was performed, stop at the next safe location to inspect the security of the load. *OPS-U- 0026* 



## **A**CAUTION

If trailer is not perfectly level, the boom will tend to swing towards the lower side. Have other personnel ready to control its swinging motion when cylinder pin is removed. Make sure the personel are not in a position to be hit or crushed by a swinging boom.

Retract swivel cylinder and secure to main frame. Pivot boom forward to the center of flat bed. Lower deck onto the trailer bed, and shut off the tractor. The tractor and the mower head should now be chained down securely to the trailer bed.

#### **A**CAUTION

If any part of this operating section, or any other section of this manual is not completely understood, contact your Tiger dealer or the address on the cover of this manual for assistance!

Boom

Boom

**Operation Section 3-46** 

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# **MAINTENANCE SECTION**

Maintenance Section 4-1

#### **General Instructions**

Tiger Mowers are designed for high performance and rugged durability, yet with simplified maintenance. The purpose of this section of the manual is to help the operator in the regular servicing of the mower. Regular maintenance at the intervals mentioned will result in the maximum efficency and long life of the Tiger Mower.

When you purchase a Tiger Mower you also acquire another valuable asset, Tiger's parts organization. Our rapid and efficent service has guaranteed the customer satisfaction for many years. Tiger parts keep up with the demands for efficiency, safety and endurance expected of the Tiger Mower.

#### **Maintenance Precautions**

- Be sure end of grease gun and zerks are clean before using. Debris injected into bearings, etc. with grease will cause immediate damage.
- DO NOT use a power grease gun to lubricate bearings. These require very small and exact amounts of lubrication. Refer to the detailed maintenance section for specific lubrication instructions. DO NOT overgrease bearings.
- Be alert to maintenance indicators such as the in-tank filter pressure gauge, hydraulic reservoir sight gauge, etc. Take the required action to correct any problems immediately.
- <u>Release of energy from pressurized systems may cause inadvertent actuation of cylinders, or sudden</u> <u>release of compressed springs.</u> Before disconnecting any hoses relieve pressure by shutting tractor off, setting cutter on ground and actuating lift valve handles.
- **DO NOT** use hands to check for suspected leaks in hydraulic hoses! Hydraulic fluid escaping under pressure can have sufficent force to penetrate skin and cause serious injury. If fluid is injected into skin, it must be surgically removed within a few hours or gangrene may result. Use a small piece of wood or cardboard, not hands, to sear ch for pin hose leaks. Be sure all connections are tight and hoses and lines are not damaged before applying pressure.

#### **Break in Period**

In addition to following the break in instructions for your particular tractor, the in-tank hydraulic fluid filter should be replaced after the first 50 hours of service. The reafter the filter should be replaced every 500 hours, or yearly, which ever comes first.

Re-torque wheel lugs after first five hours of operation and periodically thereafter. See torque specifications listed in the tractor's service manual for your particular model. Wheel lugs must always be re-torqued whenever a wheel is removed and reinstalled.

**DANGER** Never work under the Implement, the fr amework, or any lif ted component unless the Implement is securely supported or blocked up to prevent s udden or inadvertent falling which could cause serious injury or even death. (SG-14)



**AWARNING** Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)

WildKat

Maintenance Section 4-2

Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Mower Head on the ground or securely supported on blocks or stands, disengage the PTO, and turn off the engine. Push and pull the control Levers or Joystick several times to relieve pressure prior to starting any maintenance or repair work. (SBM-6)



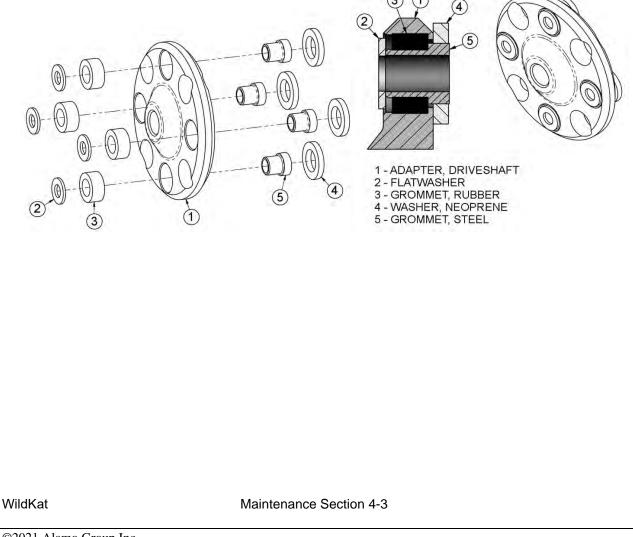
Always disconnect the wire leads from the mower pump solenoid before performing service on the Tractor or Mower. Use caution when working on the Tractor or Mower. Tractor engine must be stopped

before working on Mower or Tractor. The Mower Blades could inadvertently be turned on without warning and cause immediate dismemberment, injury or death. (SBM-12a)

# e turned on

#### MAINTENANCE OF CRANKSHAFT ADAPTER ASSEMBLY (RIGID ENGINE MOUNT TRACTORS ONLY)

If replacement of components of the crankshaft adapter assembly is required, follow the assembly procedures shown below. Seat rubber grommet completely into counterbore, then seat steel grommet completely into rubber grommet while rubber grommet is supported. (ASM-JD-0051 CRANKSHAFT ADAPTER MAINTENANCE)



#### **Regular Maintenance**

The intervals at which regular servicing should be done are based on hours of operation. Use the tractors hour meter to determine when regular servicing is required.

Refer to the Det ailed Maintenance section for futher instructions on greasing. Copy and use the Daily Maintenance sheet located at the end of this section.

#### **Daily or Every 8 Hours**

ITEM	SERVICE	COMMENTS		
Drive Shaft Yoke, U-Joint & Stub Shaft	Grease	Grease as instructed in detailed maint. section		
Pump Drive Shaft Coupler	Check and Lube	Insure drive shaft end play		
Crankshaft Adapter	Check rubber grommets	Replace grommets if damaged or missing		
Pivot Points	Lubricate	Inject grease until it appears at end		
Hydraulic Fittings	Check for leaks	Tighten when needed. Do Not use hands to check for leaks, see maint. Precautions		
Knives	Check	Inspect for missing or damaged knives, change as needed.		
Spindle mouting bolts spindle to deck)	Check	Torque to 331ft. lbs. lubricated Torque to 357ft. lbs. dry		
Knife mounting bolts (knife to disk or blade bar)	Check	Pre-lubricate threads, then torque to 800 ft. lbs.		
Disk/Blade Bar mounting bolts (disk/blade bar to spindle)	Check	Torque to 184ft. lbs. lubricated Torque to 180ft. lbs. dry		
Belts	Check/Adjust	Check if broken, tighten as required		
Main Frame and Deck	Check	Retorque bolts to torque specifications in this section		
Hydraulic Fluid Level	Check	Add if required per fluid recommendations		
Rear Flail Drive(if applicable) Bear Flange and Shaft Coupler	Lubricate	Grease as instructed in detailed maint. section		
Cutter Shaft and Ground Roller	Lubricate	Grease as instructed in detailed maint. section		
WildKat	Maintenance Section 4	1-4		

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	WEEKLY (	OR EVER	Y 40 HOURS	
ITEM	SERVICE		COMMENTS	
Rotary Spindle	Lubricate		Every 40 hours or weekly	
	WEEKLY (	OR EVER	Y 50 HOURS	
ITEM	SERVICE		COMMENTS	
In Tank Hyd. Fluid Filter <b>10 micron filter</b> )	Change		Change after first 50 hours only, then every 500 hours or yearly	
In-Line High Pressure Filter ( <b>10 micron filter</b> )	Change		Change after first 50 hours only, then every 500 hours or yearly	
	MONTHLY	OR EVER	Y 150 HOURS	
ITEM	SERVICE		COMMENTS	
Hydraulic Fluid Level	Check		Add as needed	
Hyd. Tank Breather	Clean/Check/Replace		Clean or replace Element as required	
Rear Tire Type 480/80R38 18.4-34 18.4-38	Max P.S.I. 29 26 26			
	YEARLY O	R EVER	7 500 HOURS	
ITEM	SERVICE		COMMENTS	
Spindle Grease Hyd. Tank Fluid In Tank Hyd. Fluid Filter ( <b>10 micron filter</b> )	Change Change Change			
In-Line HP Filter ( <b>10 micron filter</b> )	Change	or	Change when indicated by restriction indicator.	
Hyd. Tank Breather	Change			
WildKat	Maiate	enance Section		

MAINTENANCE

TROUBLESHOOTING						
SYMPTOMS	CAUSE	REMEDY				
Vibration	1. Loose Bolts	1. Check all bolts and tighten to				
	2. Cutter assembly	recommended torque specs. 2a. Check for damage blades, disc				
	Unbalanced	or cutter shaft. Replace if needed.				
	Chibalanood	2b. Check for wire, rope, etc.				
		entangled in the cutter assembly				
Mower will not lift	1. Hyd. Fluid Low	1. Check and refill Hyd Fluid				
	2. Leaks in line ROU	2. Tighten or replace fittings and hoses				
	3. Faulty relief valve	3. Check pressure in line. Line				
	ç	pressure in Control Valve should be				
		at least 2500 P.S.I.				
	5. Faulty cylinder	5. Inspect, repair or replace cylinder				
Mower will not start	1. Blown fuse	1. Check fuse between mower switch				
or run		and ignition/replace				
	2. Ball valves closed	2. Make sure valves are open				
	3. Low oil level	3. Check Hyd. tank and fill				
	4. Line leak	4. Check all fittings and lines,				
		re-tighten or replace				
	5. Electronic	5a. Without the tractor running, turn				
	solenoid faulty	the mower switch to on. A low				
		audible click should be heard if the				
		solenoid is engaging the solenoid				
		spool. If click is not heard, leave				
		switch in on position and with a				
		screwdriver or other steel object,				
		touch the small nut on the end of the				
		solenoid. If the metallic object is not				
		attracted to the nut, check the fuse				
		and wiring for an open circuit. If the				
		object is attracted but no "click" is				
		heard, replace the solenoid.				
		5b. Remove the four bolts holding the				
		small block to the main block. Lift				
		and remove small block being				
		careful not to damage O-rings/filter.				
		Clean filter and re-install.				
		5c. Remove large nut on side of large				
		valve block. Remove spring, and use				
		needle nose vise grip to pull spool from				
		block. Check block and spool				
		for contaminates and scratches.				
		Clean parts or replace if scratched.				

TROUBLESHOOTING

WildKat

Maintenance Section 4-6

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SYMPTOMS	CAUSE	REMEDY					
Motor runs but will not cut.	1. Belts	<ol> <li>Inspect belts and pulleys. Replace belts and repair as needed.</li> </ol>					
	2. Tensioner	<ol> <li>Adjust tensioner nuts tension should be 106 freq cyl/sec.</li> </ol>					
Mower turns slowly or not at all.	1. Contaminants restricting spool movement in valve body.	<ol> <li>Remove large nut on side of large valve block. Remove spring, and use needle nose vise grip to pull spool from block. Check block and spool for contaminates and scratches. Clean parts or replace if scratched.</li> </ol>					
	2. Suction lines obstructed	<ol><li>Check for kinks or obstructions in suction hose.</li></ol>					
	3. Low oil level	3. Check Hyd. tank level and fill.					
Pump will not work	1. Excessive wear on internal parts	1. Disassemble and repair.					
Motor will not work	1. Excessive wear on internal parts	1. Disassemble and repair.					

#### **TROUBLESHOOTING** (CONTINUED)

NOTE: If flow meter is available, check pressure and flow volume for all suspected hydraulic problems.

If the solution to your problem cannot be found in this section, call the Technical Service representative at the number shown on the front cover of this manual.

Maintenance Section 4-7

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9/16	18	59	-	71	78	91	103			128	146	171	151	171	201
5/8	18	82		99 173	110	127	253			315	204 357	240 420	211 369	239	281
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Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3.5 4 5	6-in ser formu Pitch 0.5 0.6 0.7 0.8	Tigs are in is T=KDF, Tigs Lubed K = 0.15 (ft-lbs) 0.24 0.66 1.3	inch-pounds where Class 4.6 4.6 Dry Plated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5	e-Tens e-Tens Dry plain K = 0.20 (ft-libs) 0.38 0.59 0.87 1.8	torque velue sion Re Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4	s are in foot lations Class 8.8 B.8 tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.9 1.9 3.9	pounds, hip for pry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5	K=0.15 K=0.17 K=0.20 Metr Luber K=0.1 (ft-lbs 1.0 1.6 2.4 4.9	for "lubricate for zinc plate for otein and ic Faste Class 10. 10.9 ightening Tc d Drs Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.2 1.2 5.5	d* conditions d and dry cc dry condition mers 9 Dry plain K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5	Class Clas Cla	$\begin{array}{c} D = NoiF = Cla \\ \hline 12.9 \\ g \\ y \\ \hline 107 rque \\ ry plain \\ K = 0.20 \\ \hline (ff-lbs) \\ \hline 1.6 \\ \hline 2.5 \\ \hline 3.8 \\ \hline 7.6 \\ \hline \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3.5 4 5 6	6-in se tormu Pitch 0.5 0.6 0.7 0.8	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3	inch-pounds where Class 4.6 4.6 httening Tor Drg Plated K = 0.17 0.32 0.50 0.32 1.5 2.6	aue aue aue Dry piein K = 0.20 (ft-lbs) 0.38 0.59 0.59 1.8 3.0	torque value sion Re Lubed K = 0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8	s are in foot lations Class 8.8	pounds. hip for Dry plein K = 0.20 (fi-lbs) 0.97 1.5 2.3 4.5 7.7	K=0.15 K=0.17 K=0.07 Metr Metr Luber K=0.1 (ft-lbs: 1.0 1.6 2.4 8.3	for "lubricale for zinc plate for claim and ic Faste Class 10, 10,9 ightening Tc d Dry Plated 5 K = 0,17 (ft-lbs) 1,2 2,7 5,5 9,4	at conditions and dry co dry condition eners 9 0 0 0 1 1 4 2.2 3.2 6.5 11	Class Class Class Tightening Lubed D (ft-lbs) 1.2 1.9 2.8 5.7 9.7	D = Nor F = Cla 12.9 9 12.9 9 12.9 9 12.9 9 12.9 12.9 1	minal Dia
Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3.5 4 5 6 8	6-in see 1 formu Pitch 0.5 0.6 0.7 0.8 1 1.25	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1	inch-pounds where Class 4.6 4.6 htening Tor Drg Plated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5 2.6 2.3	aue aue aue Dry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7	torque value sion Re Lubed K = 0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3	s are in foot lations: Class 8.8 8.8 tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.3 1.9 3.9 6.6 6.0	pounds, hip for Dry plein K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0	K=0.15 K=0.17 K=0.20 Metr Luber K=0.1 (ft-lbs 1.0 1.6 2.4 4.9 8.3 7.6	for "lubricale for zinc pilet for clain and ic Faste Class 10, 0.9 ightening Tc d Dry Plated 5 K = 0.1 (ft-lbs) 1.2 1.9 2.7 5.5 8.4 8.6	d* conditions d and dry co dry condition mers 9 0 rque 0 ry plain K = 0.20 (ft-libs) 1.4 2.2 3.2 6.5 1 1 1 0	Class Class Tightening Lubed D K = 0.15 (ft-lbs) 1.2 1.9 2.6 5.7 9.7 8.8	$\begin{array}{c} D = Not \\ F = Cla \\ \hline \\ 12.9 \\ g \\ \hline \\ y \\ Torque \\ \hline \\ Ty plain \\ K = 0.20 \\ (fit-lbs) \\ \hline \\ 1.6 \\ \hline \\ 2.5 \\ \hline \\ 3.8 \\ \hline \\ 7.6 \\ \hline \\ 13 \\ 12 \\ \hline \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/1 ated from lominal Dia. (mm) 3 3.5 4 5 6 6 6 7	0.5 0.6 0.7 0.8 1 1.25 1	Tigs are in is T=kDF, Tigs Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8	inch-pounds where Class 4.6 4.6 Therning Tor Dry Plated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5 2.6 4.3	que Ory piain K = 0.20 ((ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0	Tigb Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.3 9.7	s are in foot           lations           Class 8.8           B           Dry Plated           K = 0.17           (ft-lbs)           0.82           1.3           1.9           3.9           6.6           6.0           11	pounds. hip for Dry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13	K=0.15 K=0.20 Metr Lubee K=0.1 (ft-lbs 1.0 1.6 2.4 4.9 8.3 7.6 14	for "lubricate for zinc plate for otein and ic Faste Class 10, 10,9 ightening To d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.9 2.7 5.5 9.4 8.6 16	d* conditions id and dry co dry condition eners 9 0 0 0 1 4 2 2 3 2 6 5 11 10 19	Class Clas Cla	$\begin{array}{c} D = Noi \\ F = Cla \\ \hline 12.9 \\ g \\ y \\ \hline 107 qule \\ \hline 107 y plain \\ K = 0.20 \\ \hline (ft-lbs) \\ \hline 1.8 \\ \hline 2.5 \\ \hline 3.8 \\ \hline 7.6 \\ \hline 13 \\ \hline 12 \\ \hline 22 \\ \hline \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/1 ated from lominal Dia. (mm) 3.5 4 5 6 8 7 8 7 8	0.5 0.6 0.7 0.8 1 1.25 1	Tigs Tigs Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9	Inch-pounds where Class 4.6 4.6 Terning Tor Dry Plated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5 2.6 2.3 4.3 6.6	aue aue Dry plein K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8	Tigr Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15	s are in foot lations Class 8.8 tening Torr Dry Plate Dry Plate 1.3 1.9 3.9 6.6 6.0 11 17	pounds. hip for pry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20	K=0.15 K=0.17 K=0.20 Metr Luber K=0.1 (ft-lbs 1.0 1.6 2.4 4.9 8.3 7.6 14 22	for "lubricate for zinc plate for otein and ic Faste Class 10. 10.9 ightening Tc d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.9 2.7 5.5 9.4 8.6 16 24	d* conditions d and dry cc dry condition mers 9 Dry plein (ft-libs) 1.4 2.2 3.2 6.5 11 10 19 29	Class Class	D = Noi F = Cla 12.9 9 0 170rque 0 18 (11-lbs) 1.8 2.5 3.8 7.6 13 12 22 34	minal Dia
Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3.5 4 5 6 6 7 7 8 8 8	0.5 0.6 1.25 1 1.25	Tigi Tigi Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9 5.5	Inch-pounds where Class 4.6 4.6 Intering Tor Dry Plated K = 0.17 (R-Ibs) 0.32 0.50 0.74 1.5 2.6 2.3 4.3 6.8 6.2	e-Tens ory plain K = 0.20 (ft-lbs) 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.78 7.3	torque value sion Re Lubed K = 0.15 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 14	s are in foot lations Class 8.8	pounds. hip for Dry plain K = 0.20 (ft-libs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19	K = 0.15 K = 0.17 K = 0.20 Metr Luber K = 0.11 (ft-lbs: 1.0 1.6 1.0 1.8 3.7 6 14 22 20	for "lubricale for zinc plate for otein and ic Faste Class 10, 10,9 ightening Tc d Dry Plated 5 K = 0.17 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	d* conditions d and dry cc dry condition prefers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Class	$\begin{array}{c} D = Noin \\ F = Cla \\ \hline 12.9 \\ g \\ \hline \\ 9 \\ \hline \\ 9 \\ \hline \\ 9 \\ \hline \\ 12 \\ ry plain \\ \hline \\ Ns = 0.20 \\ \hline \\ (H-lbs) \\ \hline \\ 1.8 \\ \hline \\ 2.5 \\ \hline \\ 3.8 \\ \hline \\ 7.5 \\ \hline \\ 13 \\ \hline \\ 12 \\ \hline \\ 22 \\ 34 \\ \hline \\ 31 \\ \hline \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/1 ated from lominal Dia. (mm) 3.5 4 5 6 8 7 8 7 8	0.5 0.6 0.7 0.8 1 1.25 1	Tigs Tigs Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9	Inch-pounds where Class 4.6 4.6 Terning Tor Dry Plated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5 2.6 2.3 4.3 6.6	aue aue Cry plein K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8	Tigr Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15	s are in foot lations Class 8.8 B.8 tening Torr Dry Plated K = 0.17 (ft.lbs) 0.82 1.3 1.9 3.9 6.0 11 17 16 33	pounds. hip for pry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20	K=0.15 K=0.17 K=0.20 Metr Luber K=0.1 (ft-lbs 1.0 1.6 2.4 4.9 8.3 7.6 14 22	for "lubricate for zinc plate for claim and ic Faste Class 10. 10.9 ightening Tc d Drg Plated 5 K = 0.17 ) (ft-lbs) 1.9 1.9 2.7 5.5 9.4 8.6 16 24 24 24 48	d* conditions d and dry cc dry condition mers 9 Dry plein (ft-libs) 1.4 2.2 3.2 6.5 11 10 19 29	Class Class	D = Noi F = Cla 12.9 9 0 170rque 0 18 (11-lbs) 1.8 2.5 3.8 7.6 13 12 22 34	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/1 and 5/1 lominal Dia. (nm) 3 3 5 4 5 6 8 8 8 10	0.5 0.6 1.25 1 1.25 1 1.25	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.5 5.5 11	inch-pounds where Class 4.6 4.6 1000 Pipelated K = 0.17 (ft-lbs) 0.32 0.74 1.5 2.3 4.3 6.6 6.2 13	aue Dry piein K = 0.20 (ft-lbs) 0.39 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15	torque value sion Re Tigh Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.3 9.7 15 14 29	s are in foot lations Class 8.8	pounds. hip for Dry plain K = 0.20 (ft-libs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39	K = 0.15 K = 0.17 K = 0.20 Metr Lubee K = 0.1 (ft-lbs) 1.0 1.6 2.4 9 3.3 7.6 14 2.2 9 3.3 7.6 14 2.2 0 20 20 42	for "lubricale for zinc plate for otein and ic Faste Class 10, 10,9 ightening Tc d Dry Plated 5 K = 0.17 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2 1,2	d* conditions id and dry co dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Class (12) Tightening Lubed [C K = 0.15] (ft-lbs) 1.2 2.8 5.7 9.7 8.8 16 16 25 24 49	$\begin{array}{c} D = NO \\ F = Cla \\ \hline \\ 12.9 \\ g \\ y \\ \hline \\ y \\ y \\ \hline \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 $	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/11 lominal Dia. (mm) 3 3 5 6 6 7 7 8 8 10 10	0.5 0.6 0.7 0.8 1 1.25 1.25 1.25 1.5	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9 5.5 11 11	Inch-pounds where Class 4.6 4.6 Terning Tor DryPlated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5 2.6 6.8 6.2 13 12	aue ory piain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14	Tiggi Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.3 9.7 15 14 29 28	s are in foot lations Class 8.8 B.8 tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32	pounds. hip for Dry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 1.3 20 13 20 19 39 37	K = 0.15           K = 0.25           Metr           Metr           Lubec           K = 0.1           (ff-lbs)           1.0           1.0           1.0           4.9           8.3           7           14           22           42           40	for "lubricate for zinc plate for obin and ic Faste Class 10, 10,9 ightening Tc d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.9 2.7 5.5 9.4 8.6 16 16 24 23 48 48	d* conditions id and dry co dry condition mers 9 0 0 0 1 4 2 2 3 2 6 5 1 1 1 0 19 29 27 28 53	Class Class	$\begin{array}{c} D = Noi \\ F = Cla \\ \hline 12.9 \\ g \\ \hline 9 \\ \hline 9 \\ \hline 9 \\ \hline 9 \\ \hline 107 qule \\ 107 qule \\ \hline 107 qu$	minal Dia
Torque val	ues for 1 A ues calcul	and 5/11 lominal Dia. (mm) 3 3,5 4 5 6 6 7 7 8 8 8 10 10 12 12 12 12	0.5 0.6 0.7 0.8 1 1.25 1.25 1.25 1.5 1.25	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.1 3.8 5.9 5.5 5.1 11 11 21 20 19	Inch-pounds where Class 4.6 4.6 Thering Tor Drg Plated K = 0.17 (ft-lbs) 0.32 0.74 1.5 2.3 4.3 6.6 8.2 13 12 23 22 21	aue Dry plain K = 0.20 (ft-lbs) 0.39 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 28 25	Tigb Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.3 9.7 15 14 29 28 53 51 49	s are in foot lations Class 8.8 tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 60 55	pounds. hip for Dry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 68 65	K = 0.15 K = 0.17 K = 0.20 Metr Hetr K = 0.20 Metr K = 0.20 K = 0.10 K = 0.10 K = 0.10 K = 0.10 K = 0.10 K = 0.10 K = 0.20 K = 0.	for "lubricate for zinc plate for claim and class 10. (10.9) (10	d* conditions id and dry co dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Cl	$\begin{array}{c} D=N0\\ F=Cla\\ \hline \\ 12.9\\ g\\ \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	and 5/11 lominal Dia. (mm) 3 3.5 6 6 6 7 7 8 8 8 10 10 12 12 12 12 14	0.5 0.6 0.5 0.8 1 1.25 1.5 1.25 1.5 1.25 1.5 1.25	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9 5.5 11 11 21 21 20 19 26	Inch-pounds where Class 4.6 4.6 0 pg Plated K = 0.17 (ft-lbs) 0.32 0.50 0.74 1.5 2.6 6.8 6.2 3 4.3 6.6 6.2 13 12 23 22 21 21 29	aue ory pian K = 0.20 ((ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 28 26 25 34	Tigb Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 9.7 15 14 29 28 53 51 49 66	s are in foot lations Class 8.8 B.8 tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.3 1.9 3.9 6.8 6.0 11 17 16 33 32 60 55 55 75	pounds. hip for Dry plein K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 66 65 69	K = 0.15 K = 0.17 K = 0.20 Metr Luber K = 0.1 (ft-lbs k = 0.1) (ft-lbs k = 0.1 (ft-lbs k = 0.1 (ft-lbs k = 0.1 (ft-lbs k = 0.1) (ft-lbs k = 0.1 (ft-lbs k = 0.1) (ft-lbs k = 0.1) (ft-lbs f	for "lubricate for zinc plate for obin and ic Faste Class 10, 10,9 ightening Tc d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.9 2.7 5.5 9.4 8.6 16 24 23 86 16 24 23 86 52 79 108	d* conditions id and dry cc dry condition reque Dry plain K = 0.20 (ft-libs) 1.4 2.2 3.2 6.5 11 10 19 29 27 56 53 101 97 93 127	Class Class	$\begin{array}{c} D = Noi \\ F = Cla \\ \hline \\ 12.9 \\ g \\ \hline \\ 9 \\ \hline \\ 9 \\ \hline \\ 9 \\ \hline \\ 107 \\ cla \\ cl$	minal Dia
Torque val	ues for 1 A ues calcul	and 5/11 and 5/11 lominal Dia. (mm) 3 3.5 6 6 6 7 7 8 8 8 10 10 12 12 12 12 12 14 14	0.5 0.6 0.7 0.8 1 1.25 1.5 1.25 1.5 1.25 1.5 1.25 1.5 1.25 1.5 1.25 1.5 1.25	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.5 5.5 111 21 20 19 26 28	Inch-pounds where Class 4.6 4.6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	aue aue Crypiain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 28 26 25 34 37	Tigg Tigg Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 5.7 15 14 29 53 51 49 53 51 49 66 67 2	s are in foot lations Class 8.8 ■ tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.3 9 3.9 6.6 6.0 11 17 16 33 22 60 58 55 57 82	pounds. hip for pryplein K = 0.20 (fi-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 66 65 99 96	K = 0.15 K = 0.17 K = 0.20 Metr Metr Lubec K = 0.1 (ft-lbs 1.0 1.6 2.4 4.9 8.3 7.6 1.0 1.6 2.4 4.9 8.3 7.6 1.0 2.4 4.9 2.0 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6	for "lubricate for zinc plate for otein and ic Faste Class 10. 10.9 10.9 10.9 11.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.	at conditions and dry co- dry condition provession of the condition of the	Class Class	$\begin{array}{c} D = Nois \\ F = Cla \\ \hline 12.9 \\ g \\ \hline \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3.5 6 6 7 7 8 8 8 10 10 10 12 12 12 12 12 14 14	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.25 1.5 1.25 1.5 1.5 2	Tigs Tigs Lubed K = 0.15 (ft-lbs) 0.28 0.46 0.55 1.3 2.3 2.1 3.8 5.9 5.5 11 11 11 121 20 19 26 28 30	Inch-pounds where Class 4.6 4.6 0.7 0.7 0.7 0.7 0.3 0.5 0.5 0.5 0.5 0.5 0.5 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7 0.7	aue aue aue aue aue aue aue aue	torque value sion Re Tig/ Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 14 29 28 53 51 49 66 72 78	s are in foot lations Class 8.8 tering Tord Dry Plated K = 0.17 (ft.lbs) 0.82 1.3 1.9 3.9 6.8 6.0 11 17 16 33 32 60 58 55 75 82 88	pounds. hip for Dry plein K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 68 65 69 96 104	K = 0.15 K = 0.17 K = 0.20 Metr Luber Luber 1.0 1.6 2.4 4.9 9.3 7.6 2.4 4.9 9.3 7.6 2.4 4.9 2.0 4.2 2.0 4.2 2.0 4.2 2.0 4.2 2.0 7.6 7.7 7.0 9.5 3.7 1.0 3.10 7.10 7.10 7.10 7.10 7.10 7.10 7.10 7	for "lubricale for zinc plate for othin and ic Faste Class 10. (10.9) (1	d* conditions id and dry cc dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Class	$\begin{array}{c} D = NoiF = Cla\\ \hline F = Cla\\ \hline Torque\\ g \\ \hline \\ g \\ g \\ \hline \\ g \\ g \\ \hline \\ g \\ g $	minal Dia
Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3.3.5 4 5.6 6.6 7.7 8.8 8.8 10 10 10 12 12 12 12 14 14 14 14	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.25 1.5 1.25 1.5 1.5 2 1.5	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.1 3.8 5.9 5.5 5.5 11 11 11 21 20 20 19 26 28 30 50	Inch-pounds where Class 4.6 4.6 1200 Pieted K = 0.17 (ft-lbs) 0.32 0.74 1.5 2.3 4.3 6.6 8.2 13 12 23 22 21 29 32 21 29 32 21 29 32 34 57	aue Dry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 26 25 34 37 0 67	torque value sion Re Lubed K = 0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.3 9.7 15 14 29 28 53 9.7 15 14 29 28 53 51 14 29 28 53 51 15 14 29 28 53 51 15 14 29 28 53 51 15 14 29 28 53 51 15 14 29 28 53 51 15 14 29 28 53 51 51 51 51 51 51 51 51 51 51	s are in foot lations Class 8.8 tening Torr Dry Plated K = 0.17 (ft.lbs) 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 80 55 55 75 82 88 146	pounds. hip for Dry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 19 39 37 71 68 65 69 99 96 104 171	K = 0.15 K = 0.17 K = 0.20 Metr Metr Luber K = 0.1 (ft-lbs K =	for "lubricate for zinc plate for claim and ic Faste Class 10. 10.9 ightening Tc d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.9 2.7 5.5 4.8.6 16 24 24 48 45 86 85 85 85 22 79 108 117 128 208	d* conditions id and dry co dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Cl	$\begin{array}{c} D=N0\\ F=Cls\\ \hline \\ 12.9\\ g\\ \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/11 4 and 5/11 10minal Dia. (mm) 3 3 5 6 6 6 7 7 8 8 10 10 12 12 12 14 14 16 16	0.5 0.6 0.5 0.6 0.7 0.8 1 1.25 1.5 1.25 1.5 1.25 1.5 2 1.5 2	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.24 0.66 1.3 2.3 0.44 0.66 1.3 2.1 3.8 5.9 5.5 11 11 11 21 20 19 26 28 30 50 47	Inch-pounds where Class 4.6 4.6 0.50 0.74 1.5 2.6 6.6 6.2 13 12 23 22 21 21 29 32 34 357 53	aue Crypiain K = 0.20 ((ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 28 26 25 34 37 40 67 62	torque value sion Re Tigb Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 9.7 15 14 29 28 53 9.7 15 14 29 28 53 51 15 14 29 28 53 51 12 12 12 12 12 12 12 12 12 1	s are in foot lations Class 8.8 B.8 tening Torr Dry Plated K = 0.17 (ft-lbs) 0.82 1.3 1.9 3.9 6.8 6.0 11 17 16 6.0 50 55 75 82 88 146 137	pounds. hip for Dry plein K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 1.3 20 19 39 37 711 68 65 69 96 104 171 161	K = 0.15           K = 0.20           Metr           I           Lube           K = 0.1           (ff-lbs)           1.0           1.6           2.4           4.9           8.3           7.3           73           103           111           112	for "lubricate for zinc plate for othin and ic Faste Class 10. 10.9 ightening Tic d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.9 2.7 5.5 9.4 8.6 16 24 23 48 45 86 82 79 108 117 126 208	d* conditions id and dry cc dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Class	$\begin{array}{c} D=Noi \\ F=Cla \\ \hline \\ 12.9 \\ g \\ \hline \\ 9 \\ \hline \\ 9 \\ \hline \\ 9 \\ \hline \\ 107 \\ cla \\ $	minal Dia
Torque val	ues for 1 A ues calcul	4 and 5/11 4 and 5/11 10minal Dia. (mm) 3 3.5 6 6 7 8 8 10 10 12 12 12 12 12 14 14 16 16 18	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.25 1.5 2 1.5 2 1.5	Tigs are in a T=kDF, Tigs Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 2.1 2.3 2.1 3.8 5.5 11 11 21 20 19 26 28 30 50 50 47 73	Inch-pounds where Torqu Class 4.6 4.6 1.5 0.32 0.50 0.74 1.5 2.6 6.2 1.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.2 1.5 5.3 6.8 6.8 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	aue Ory plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 28 26 25 34 37 40 67 97	torque value sion Re Tigi Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 14 29 53 51 14 29 53 51 49 66 72 78 121 187	s are in foot           lations           Class 8.8           Bab           tening Torr           0.82           1.3           3.9           6.6           6.0           11           17           16           33           32           60           55           55           82           88           146           137           212	pounds. hip for hip for hi	K = 0.15           K = 0.17           K = 0.17           Metr           ILUbec           K = 0.1           (ft-lbs)           1.0           1.6           2.4           49           9.3           7.6           1.4           22           40           76           73           70           95           103           111           184           173           268	for "lubricate for zinc plate for othin and ic Faste Class 10. 10.9 ightening Tc d Dry Plated 5 K = 0.17 ) (ft-lbs) 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	d* conditions d and dry cc dry condition Prefs 9 0 0 1.4 2.2 6.5 11 10 19 29 27 56 53 101 97 93 27 56 53 101 97 93 27 56 53 101 97 93 27 53 53 101 97 93 27 53 53 101 97 93 27 53 53 101 97 28 27 53 53 101 53 53 53 53 53 53 53 53 53 53 53 53 53	Class Class	$\begin{array}{c} D = Nois \\ F = Cla \\ \hline \\ 12.9 \\ g \\ \hline \\ y \\ \hline \\ 12.9 \\ \hline \\ y \\ \hline \\ y \\ plain \\ K = 0.20 \\ \hline \\ (ff-lbs) \\ \hline \\ 1.6 \\ \hline \\ 2.5 \\ \hline \\ 3.8 \\ \hline \\ 7.6 \\ \hline \\ 13 \\ 12 \\ 22 \\ \hline \\ 3.8 \\ \hline \\ 7.6 \\ \hline \\ 13 \\ 12 \\ 22 \\ \hline \\ 3.4 \\ 31 \\ \hline \\ 66 \\ \hline \\ 119 \\ \hline \\ 113 \\ \hline \\ 106 \\ \hline \\ 148 \\ \hline \\ 161 \\ \hline \\ 173 \\ \hline \\ 289 \\ \hline \\ 289 \\ \hline \\ 417 \\ \hline \end{array}$	minal Dia
Torque val	ues for 1 A ues calcul	and 5/11 lominal Dia. (mm) 3 3.5 6 6 6 7 7 8 8 8 10 10 10 12 12 12 12 12 12 12 12 12 14 14 14 16 16 18 18	Pitch 0.5 0.6 1 1.25 1.25 1.5 1.25 1.5 1.5 1.5 1.5 2 1.5 2 1.5 2.5 2.5	Tigs are in a T=kDF, ia T=kDF, is a T=kDF, is a t-kDF, is a t-kDF	Inch-pounds where Class 4.6 4.6 0.7 0.7 0.7 0.3 0.5 0.5 0.7 0.3 0.5 0.5 0.7 0.7 1.5 2.6 0.7 0.7 1.5 2.6 2.3 4.3 6.6 6.2 13 12 23 22 21 29 32 32 34 57 53 53 62 73	aue aue aue Dry plein (ft-lbs) 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 28 26 25 34 0 67 67 67 67 67 67 80 7.8 7.3 15 14 28 26 25 34 0 97 80 7.8 7.3 15 14 28 26 25 34 0 97 80 7.8 7.3 15 14 28 26 25 34 0 97 80 7.8 7.3 15 14 80 25 97 80 87 18 18 18 18 18 18 18 18 18 18	torque value sion Re Tigr Lubed K=0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 14 29 28 53 51 49 66 53 51 49 66 72 78 129 121 187 167	s are in foot lations Class 8.8 tering Torr Dry Plated N = 0.17 (ft-lbs) 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 60 58 55 55 75 75 82 88 146 137 148 148 148 148 148 148 148 148	pounds. hip for pry plein K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 68 65 89 96 104 171 161 249 222	K = 0.15           K = 0.17           K = 0.17           K = 0.20           Metr           Lube           K = 0.1           (rt-lbs)           1.0           1.6           2.4           4.9           9.3           7.6           1.2           20           42           40           76           73           70           76           103           111           184           173           239	for "lubricale for zinc plate for othin and ic Faste Class 10. (10.9) (1	d* conditions d and dry cc dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Class	$\begin{array}{c} D = Noin \\ F = Cla \\ \hline \\ 12.9 \\ g \\ \hline \\ y \\ p \\ \hline \\ 107 \\ rque \\ ry \\ plain \\ K = 0.20 \\ (ft-lbs) \\ \hline \\ 1.6 \\ 2.5 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 2.2 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 3.8 \\ \hline \\ 7.6 \\ 13 \\ 12 \\ 22 \\ 23 \\ 119 \\ 113 \\ 106 \\ 148 \\ 173 \\ 287 \\ 289 \\ 287 \\ 289 \\ 287 \\ 289 \\ 287 \\ 289 \\ 287 \\ 289 \\ 2417 \\ 372 \\ 100 \\ $	minal Dia
Torque val	ues for 1 A ues calcul	lominal Dia. (mm) 3 3,5 4 5 6 6 6 7 7 8 8 8 7 7 8 8 8 10 10 12 12 12 12 12 12 14 14 16 16 18 18 20	0.5 0.6 0.5 0.6 0.7 0.8 1 1.25 1.25 1.25 1.25 1.5 1.5 2 1.5 2.5 1.5	Tigg Tigg Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9 5.5 11 11 11 21 20 19 26 28 30 50 47 73 65 101	Inch-pounds where Class 4.6 4.6 11 12 12 12 12 12 12 12 12 12 12 12 12	aue Dry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 7.3 15 14 26 25 34 37 15 14 26 25 34 37 67 62 97 86 135	torque value sion Re Lubed K = 0.15 (ft-lbs) 0.73 1.1 1.7 3.4 5.3 9.7 15 14 29 28 53 9.7 15 14 29 28 53 51 14 29 28 53 51 14 29 28 53 51 15 16 72 78 129 121 167 270	s are in foot lations Class 8.8 tening Torr Dry Plated K = 0.17 (ft.lbs) 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 80 55 75 82 88 146 137 212 189 306	pounds. hip for pry plain K = 0.20 (ft-lbs) 0.97 1.5 2.3 4.5 7.7 7.0 13 20 19 39 37 71 68 65 69 99 66 65 69 99 96 68 104 171 161 2422 360	K         = 0.15           K         = 0.17           K         = 0.20           Metr         Image: Constraint of the second secon	for "lubricate for zinc plate for zinc plate for zinc plate for claim and ic. Faste Class 10. (10.9) (10.9	d* conditions id and dry co dry condition mers 9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Class Cl	$\begin{array}{c} D=N0\\ F=Cls\\ \hline \\ F=Cls\\ \hline \\ 12.9\\ g\\ y\\ \hline \\ y\\ y\\ \hline \\ 12.9\\ \hline \\ y\\ y\\ \hline \\ 12\\ \hline \\ 12\\ \hline \\ 25\\ \hline \\ 3.8\\ \hline \\ 7.6\\ \hline \\ 13\\ \hline \\ 12\\ \hline \\ 22\\ \hline \\ 3.8\\ \hline \\ 7.6\\ \hline \\ 13\\ \hline \\ 113\\ \hline \\ 106\\ \hline \\ 148\\ \hline \\ 161\\ \hline \\ 148\\ \hline \\ 173\\ \hline \\ 287\\ \hline \\ 289\\ \hline \\ 287\\ \hline \\ 289\\ \hline \\ 287\\ \hline \\ 289\\ \hline \\ 312\\ \hline \\ 583\\ \hline \end{array}$	minal Diar
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Description	Application	General Specification	Recomended Mobil Lubricant
Tractor Hydraulics	Reservoir	JD-20C MF M1135,M1141 FNHM2C134D (FNH201)	Mobilfluid 424
Mower Hydraulics Cold Temperatures 0° F Start-Up	Reservoir	ISO 46 Anti-Wear-Low Temp	Mobil DTE 15M
Normal Temperatures 10° F Start-Up		JD-20C MF M1135,M1141 FNH M2C134D(FNH201)	Mobilfluid 424
Normal Temperatures 15° F Start Up		ISO 46 Anti-Wear	Mobil DTE 25
High Operating Temp. Above 90° F		ISO 100 Anti-Wear	Mobil DTE 18M
Flail Rear Gearbox	Grease	PAO Synthetic Extreme Pressure Gear Lube	Mobil SHC 75W-90 Mobil 1 Synthetic Gear
Cutter Shaft & Ground Roller Shaft(Flail)	Grease Gun	Lithium-Complex Extreme Pressure NLGI-ISO 320	Mobilgrease CM-S
Drive Shaft Coupler (Flail and Rotary)	Grease Gun	Lithium-Complex Extreme Pressure NLGI2-ISO 320	Mobilgrease CM-S
Drive Shaft Yoke, U-joint & Stub Shaft	Grease Gun	Lithium-Complex Extreme Pressure NLGI2-ISO 320	Mobilgrease CM-S
Boom Swivel Boom Cylinder Pivots (Rotary & Flail Boom)	Grease Gun	Lithium Complex Extreme pressure NLGI2-ISO 320	Mobilgrease CM-S
Deck Boom Pivot & Deck Stop Adjustment Rotary & Flail)	Grease Gun	Lithium Complex Extreme Pressure NLGI-ISO 320	Mobilgrease CM-S
Deck Spindle(Rotary)	Grease Gun	Tiger Spindle Lubricant part number 06540000	Mobilith SHC 220

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Maintenance Section 4-9

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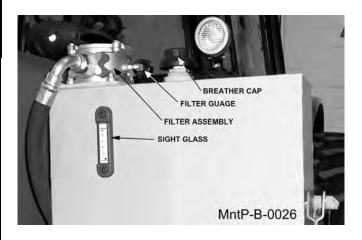
#### **GRAFFITI REMOVAL**

Butyl cellosolve (for removal of paints, marking pen inks, lipstick, etc.) The use of masking tape, adhesive tape or lint removal tools work well for lifting off old weathered paints.

To remove labels, stickers, etc., the use of kerosene or VM&P naphtha are generally effective. When the solvent will not penetrate sticker material, apply heat (hair dryer) to soften the adhesive and promote removal.

IMPORTANT: If a material is found to be incompatible in a short-term test, it will usually be found to be incompatible in the field. The converse, however, is not always true. Favorable performance is no guarantee that actual end-use conditions have been duplicated. Therefore, these results should be used as a guide only and it is recommended that the user test the products under actual end-use conditions.

## RECOMMENDED FILLING INSTRUCTIONS FOR HYDRAULIC RESERVIORS



The reservior should be filled to the center of the sight glass on the side of the tank. Do not over-fill. If the tank has too much oil, the excess may be expelled through the pressurized breather.

#### **DETAILED MAINTENANCE**

#### **REPLACING IN-TANK HYDRAULIC FILTER:**

Loosen the four bolts on the top cover of the filter housing. Turn cover counter-clockwise until cover is free. Remove and replace filter. Replace top cover and cover bolts in opposite order as removed.



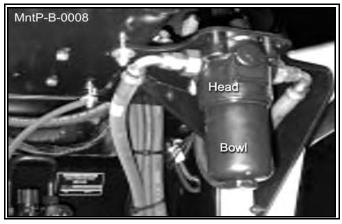
Maintenance Section 4-10

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#### **DETAILED MAINTENANCE**

## REPLACING HIGH PRESSURE HYDRAULIC FILTER ELEMENT:

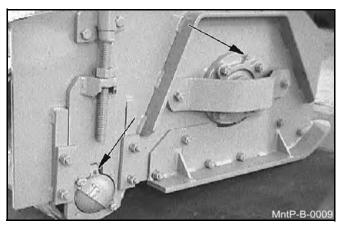
Ensure the system has been shut down and depressurized. Locate High Pressure Filter housing. Confirm that the element that is a bout to be installed matches the element p/n on the filter model tag. *Example: V3.0510-06 (world line 100, HD049 model)*. Locate the bottom of the High Pressure Bowl. Using the appropriate spanner wrench or ratchet and turning in a counterclockwise rotation, (looking at the bottom of the bowl) remove the bowl from the head. The first couple rotations will seem tight as the o-ring passes the sealing flats. Once the o-ring has cleared the sealing flats the



bowl should spin freely. Taking care not to drop the bowl, finish removing the bowl from the head. **WARNING: bowl will be full of oil!** Pour the oil from the bowl into a container. This oil should be considered contaminated due to the ou tside-in flow direction through the element. Clean the inside of the bowl if "dirt" is present. Remove the old element from the filter head by pulling with a rot ation motion. Dispose of the us ed element properly. Remove the new element from the packaging. Using your finger, dab and lubricate the o-ring in the top of the new element with oil. Install the new element into and on the mounting boss within the head. Ensure that the element is fully seated on the boss. Clean and inspect the o-ring that is affixed in the bowl and lubricate with oil. Using a clockwise rotation, screw the bowl back into the head, ensuring that the bowl has not been cross-threaded into the head. Continue to tighten the bowl into the head, using the spanner wrench or ratchet. The rotation of the bowl will become tighter once the o-ring engages the sealing flats. Once the bowl has bottomed out, back-off the bowl by 1/6 tur n. This ensures that the o-ring is seated properly within the sealing flats. Element change out and re-assembly is now complete. Start the machine and inspect the filter area, checking that there is no oil leaking from the filter assembly. Replace the filter element for the first time at 50 hours of operation, then yearly (500 hours) or when indicated by restriction indicator.

#### **GREASING CUTTER SHAFT-FLAIL MOWERS**

Locate grease zerks on each end of cutter shaft(s), these are located on the bearing cover. Normal conditions require one or two pumps in each bearing, using Lithium-Complex Extreme Pressure grease confirming to NLGI2-ISO 320 specifications. This is to be done with a standard grease gun daily or at 8 hour intervals. CAUTION: Over greasing may cause premature seal failure.

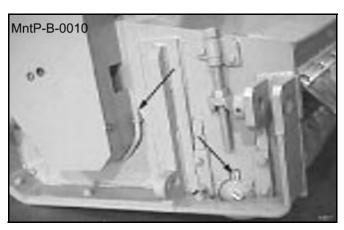


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Maintenance Section 4-11

#### **GREASING GROUND ROLLER SHAFT-FLAIL**

Locate grease zerks on eack end of roller tube at lower end of head. Normal conditions require one or two pumps in each bearing, using Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications. This is to be do ne with a standard grease gun daily or at **8 hour intervals. CAUTION: Over greasing may cause premature seal failure**.

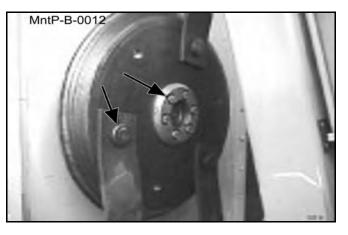


#### TIGHTENING KNIFE BOLTS AND DISK BOLTS:

After every 8 hours of operation or daily, the Knife Bolts and Disk Bolts should be tightened as follows:

Knife mounting bolts torque to 800 oiled ft. lbs.

Disk mounting bolts (6ea.) torque to 204 dry or 180 oiled ft. lbs.



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Maintenance Section 4-12

#### **GREASING POINTS ON BOOM AND PIVOT**

Locate grease zerks on deck pivot assembly, on the deck end of the boom, and at swivel end of main boom. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications until grease begins to protrude from ends.



#### **GREASING SPINDLE**

Locate grease fitting on inside of deck hou sing. Inject Tiger Spindle Lubricant, part number 06540000 into s pindle housing. Fill with lubricant until lubricant weeps out of to p spindle seal. Lubricate spindle weekly or every 40 hours of use.



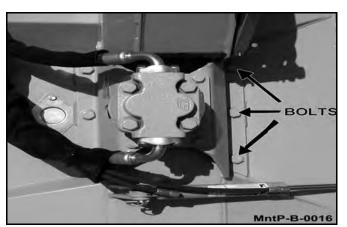
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Maintenance Section 4-13

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#### **TIGHTENING SPINDLE BOLTS**

The spindle mounting bolts should be checked and retorqued daily or every 8 hours of service. Torque the (6) bolts shown below to 357 dry or 315 ft. lbs. lubricated.



#### **GREASING PUMP DRIVE SHAFT COUPLER**

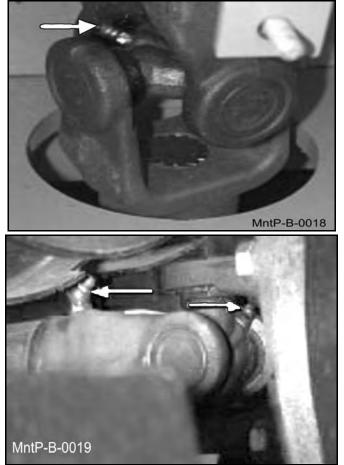
With engine stopped, ensure drive shaft alignment by grasping coupler and sliding back and forth. Coupler should slide freely with approximately 1/8" of end play. If coupler does not slide freely, inspect for loose pump mount bolts, or damaged or loose crank shaft adapter. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications into coupler until grease begins to protrude from ends. Grease daily or every 8 hours. Do not over grease.



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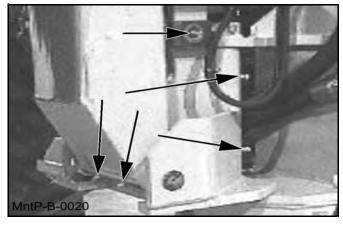
#### **DRIVE SHAFT YOKE, U-JOINT STUB SHAFT**

With engine stopped, inject Lithium-Complex extreme pressure grease confirming to NLGI2-ISO 320 specifications into universal joints and slip yoke until grease appears at the seal. Grease them daily or every 8 hours.



#### **GREASING THE BOOM SWIVEL**

Locate the zerks on the main swivel boss (if applicable), main boom pivot boss (if ap plicable) and on both ends of the boom swivel cyl inder. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specification until grease begins to protrude from ends.



Maintenance Section 4-15

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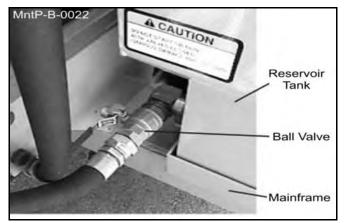
#### **GREASING BOOM CYLINDER(S) PIVOT POINTS**

Locate the zerk on the butt end tang of cylinder and on rod end tang. Inject Lithium-Complex Extreme Pressure grease confirming to NLGI2- ISO 320 specifications until grease begins to protrude from ends. This procedure is to be used on the main boom cylinder, secondary boom cylinder, deck pivot, and swivel cylinders daily or at 8 hour intervals.



### **BALL VALVES**

The ball valve at the hydraulic reservoir may need to be closed during certain maintenance or repair procedures. THE BALL VALVES MUST BE OPEN (handle parallel with valve) WHEN TRACTOR IS RE-STARTED OR PUMP IS COUPLED TO MOTOR OR P.T.O.! Failure to do so will result in component failure!



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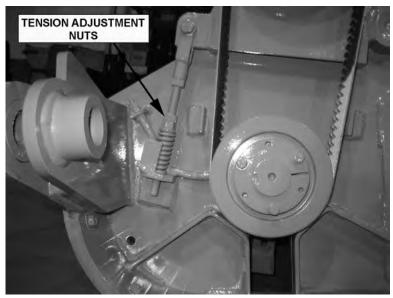
Maintenance Section 4-16

MAINTENANCE

#### **BELT TENSION ADJUSTMENT**

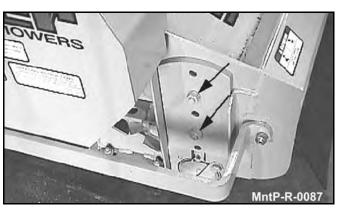
Locate the tensioning rod for the flail. Loosen the top tension adjustment nut. To tighten the belt, turn the bottom tension nut to compress the spring. To loosen the belt tension, turn the tension nut up to relax the spring. After adjustment, test the belt tension.

The tension should be 207Lbf or 106 freq cyl/sec. If the tension is as desired, turn the top tension nut down to lock the bottom tension nut into place.



## ADJUSTING RSS FLAIL CUT HEIGHT

To adjust the cutting height of the Rear Side Stow flail head the two nuts on the roller shaft brackets must be t aken off and moved to the desired location/height. Be sure that both sides of the shaft are adjusted to corresponding holes so the shaft remains level.

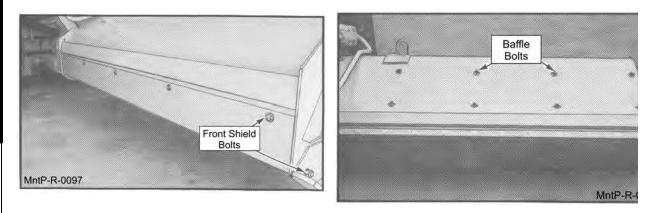


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#### **REVERSING MOWER ROTATION OF RSS FLAIL MOWERS**

To reverse the rotation of the Rear Side Stow flail, you need to switch the pressure and return motor hoses at the brake valve. Make sure the tractor is shut off and the ball valve is closed. Relieve the hydraulic pressure in the system first before removing any hoses. After switching the hoses, make sure you open the ball valve or serious damage can be done to the hydraulic pump.

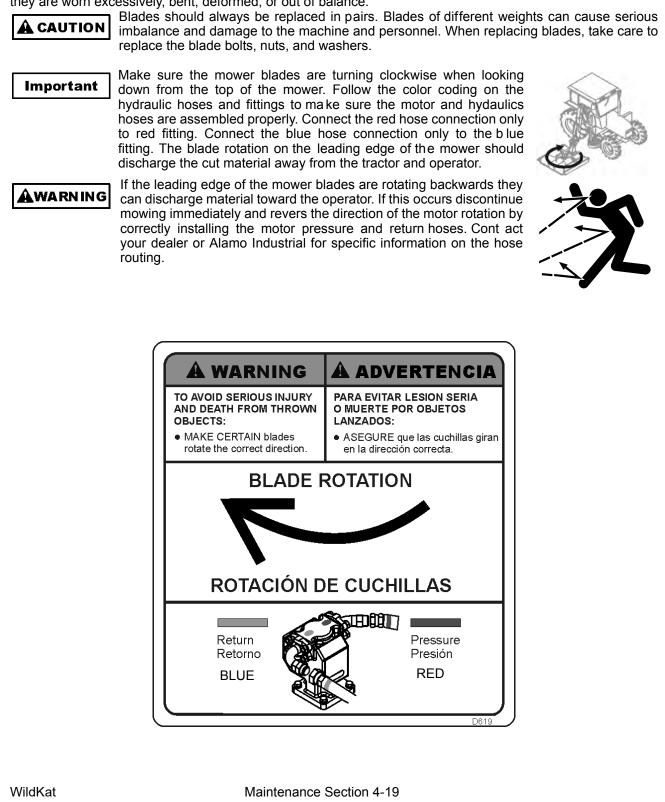
When operating in standard rotation, the front shield must be removed and the baffle installed. When operating in reverse rotation, remove the baffle and install the front shield. Finally, reposition the wear pads on the hoses and replace the zip ties as needed to prevent the hydraulic hoses from rubbing or chafing.



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#### Blades

Check the Blades for cracks and wear and Blade Bolts for tightness, daily. Blades should be replaced when they are worn excessively, bent, deformed, or out of balance.



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#### **ROTARY KNIFE REPLACEMENT**

- 1. Be sure you have a complete matching set of new knives for replacement.
- 2. Remove knives and inspect holes for damage. Also watch for cracks in the disk (if applicable) around the holes.
- 3. Lube threads with anti-seize. Install bolts through knife and disk from bottom side of disk/blade bar. Install new self-locking nuts and torque them to 800 ft. lbs.
- 4. The knives should swing freely to absorb shocks from impact when striking objects.

WHEN CUTTING HEAVY BRUSH, KNIFE BOLTS SHOULD BE INSPECTED HOURLY AND RETORQUED TO 1070 DRY OR 800 OILED FT. LBS.

### **REPLACEMENT OF ROTARY DISK**

**A** CAUTION Failure to follow the following warnings and instructions may result in serious injury or damage to the equipment or property!

- 1. The bolts that attach the disk to the spindle must be grade 8. These 5/8 inch bolts are to be torqued to 204 dry or 184 oiled ft. lbs.
- 2. A thread locking agent may be applied to threads of all mounting bolts before they are installed.
- 3. Disks must be inspected daily for hairline cracks between spindle mounting bolts or around the knife mounting bolts. These cracks indicate metal fatigue caused by severe abuse. If cracks are present the disk must be replaced.
- 4. Inspect the disk mounting bolts daily when checking tightness of knife mounting bolts. If a disk mounting bolt is loose, it must be removed, threads cleaned, fresh thread locking agent applied, and tightened to proper torque value.
- 5. If a knife mounting bolt is loose, the self locking nut must be replaced as a safety precaution. Lubricate threads with an ti-seize. Install bolts through knife and disk/blade bar from bottom side. Install self locking nuts and torque them to 800 ft. lbs.

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#### Flail Blades Inspection

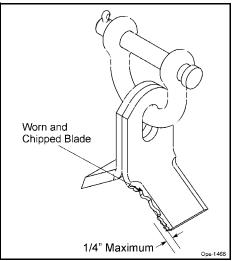
A DANGER

Inspect the Blades daily for ab normal wear. REPLACE ALL BLADES on the carrier IMMEDIATELY if any blades have:

- · Become bent or deformed from its original shape, or
- Wear inside the blade bolt hole, or
- Any cracks are visible, or
- Deep gouges in the blade's surface are present, or
- Gouges or chipped areas in the cutting edge are larger than 1/4"(8mm), or
- The material on the leading edge has been worn away by more than 1/4"(8mm)

**DO NOT** straighten, sharpen, weld or hard-face blades

Failure to replace worn or damaged blades may lead to catastrophic failure of the blades and ejection of the broken part with tremendous force which may cause serious bodily injury or death.



Always replace blades in sets

- Blades that are damaged may indicate severe service or abuse. If one blade is worn or damaged other blades on the same shaft will have been subjected to the same severe service or abuse.
- The Flail rotor turns at speeds exceeding 2000 RPM and is dynamically balanced at the factor y. Differences in blade weight between used blades with loss of material from gouges or wear as compared to new blades can cause severe vibration and damage to the Flail rotor. Always replace blades as complete sets.

Important

Use only genuine Alamo Industrial replacement blades and fasteners. Other blades and fasteners may not meet the Alamo Industrial requirements and could fail during operation. resulting in part being thrown out from under the mower.



Never attempt to sharpen blades. OPS-U-0044

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Maintenance Section 4-21

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#### Blade Pins and D-Ring Inspection

Inspect Blade Pins and D-Rings daily for wear or damage as follows:

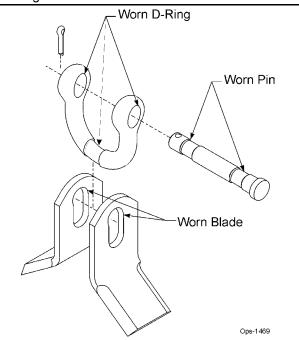
A DANGER

Inspect the Blade pins and D-Rings daily for abnormal wear. Make sure the cotter pins are in place and properly spread. REPLACE BLADE Pins and D-Rings IMMEDIATELY if they have:

- Visible cracks or
- If a Pin or D-Ring has visible worn areas, or
- If a Pin or D-Ring has gouges or chipped areas

Failure to replace abnormally worn pins or D-Rings may lead to catastrophic failure and ejection of the broken part, which may cause serious bodily injury or death.

Always replace the pins and D-Rings whenever excessive wear is noticed.



#### Important

If the cotter pins are broken by contact with other flail blades, remove the pin and reverse the direction the pin is inserted through the D-Ring so that the cotter pin is on the opposite side of the D-Ring. This will prevent the next set of blades from swinging back and hitting the cotter pin. *ops-u-0045* 

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Maintenance Section 4-22

MAINTENANCE

#### **BOOM FLAIL KNIFE REPLACEMENT**

- 1. If knives are damaged or badly worn, they will need to be replaced as a set. Replacing a single knife can cause severe vibration and possible damage to the mower.
- 2. Assemble knives, clevis, bolts and nuts as shown in part section of manual.
- 3. Install locking hex nut so that the flat face of nut is towards the knife.
- 4. Apply loctite "271" or equivalent to threads.
- 5. Torque nut to 35 FT. LBS. Knife must swing freely.

#### AWARNING

DO NOT re-use the locking hex nuts for mounting the knives. If hex nut become loose, or require removal for knife replacement or any other reason, they must be discarded and replaced with new nuts.

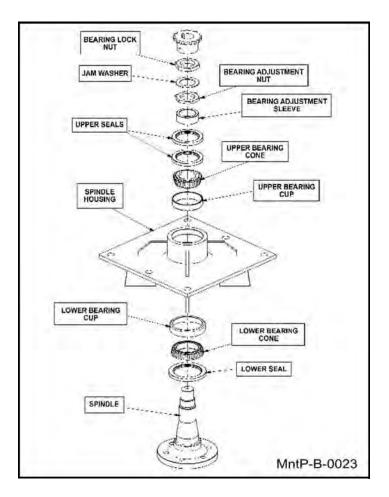
**A**WARN IN G

Knives should not be welded on for any reason.

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#### THE SPINDLE ASSEMBLY

See the diagram below for identification of spindle parts, while servicing.



MAINTENANCE

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Maintenance Section 4-24

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#### **BEARING INSTALLATION**

- 1. Press upper bearing cup in to the spindle housing.
- 2. Turn the spindle housing over and press in the lower bearing cup.
- 3. Place the lower bearing cone in the bearing cup. Next press t he seal into the s pindle housing. The inner lip of the seal must be DOWN, towards the bearing, so lubricant is sealed inside the housing.
- 4. Install the spindle in the housing. Lightly press the spindle to seat the cone onto the spindle.
  - spindle.
    Support the bottom of the spindle and press
    the upper bearing cone and bearing adjustment sleeve onto the spindle
- the upper bearing cone and bearing adjustment sleeve onto the spindle.
- 6. NOTE: The spindle housing must turn freely when seating the bearing cone and sleeve.
- 7. Press the two upper seals into the spindle housing. The inner lip of the seals must be UP, away from the bearing, so excess lubricant can escape.
- 8. Install the bearing adjustment nut (thin nut) so there is 1-1/6" clearance between the nut and the sleeve. Install the jam washer, placing the tab into the key-way. Install the bearing lock nut (thin nut) and hand tighten against jam washer and adjustment nut. See the following section for bearing adjustment.
- 9. Position the spindle housing horizontally with the drain hole oriented "up". Grease through the zerk with Tiger Spindle Lubricant (part number 06540000) until the grease purges from the drain hole.
- 10. Install the plug into the drain hole.

#### **BEARING ADJUSTMENT**

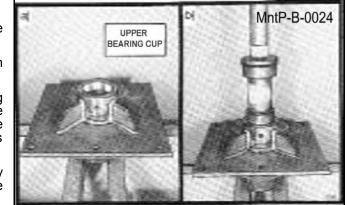
- 1. Clamp the bottom end of the spindle securely in a v ise so the spindle housing turns freely.
- 2. Position a magnetic base dial indicator on the outer diameter of the spindle housing. Locate the end of the dial indicator against the flat end of the spindle shaft. The dial indicator will now measure ac curately bearing end play.
- 3. Tighten the bearing adjustment nut until there is .012 inch mov ement when the spindle housing is pried upward away from the vise jaws.
- Spindle housing can turn freely Dial indicator set to read end play
- 4. When there is .012 inch free play between the spindle and housing, install the bearing lock nut (thick nut). Hold the adjusting nut securely and tighten the lock nut to 300 ft. lbs. of torque.
- 5. After the lock nut is tightened, there must be .001 inch to .003 inch of free play when lightly prying up on the spindle housing.

If the end play is correct, .001 inch to .003 inch, bend tabs up on jam washer to prevent the lock nut from loosening.

If the end play is NOT correct, loosen the lock nut and turn the adjustment nut as required and re-tighten the lock nut. Repeat first part of step 5.

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5.



#### **Boom Cylinder Removal and Replacement Instructions**

- 1. Clear the area of all personnel before lowering the boom mower head.
- 2. From the tractor seat with your seat belt fastened around you, Lower the boom mower head to the ground. Extend the boom to the furthest reach and lower the mower head flat on the ground. DO NOT attempt to replace the cylinders with the boom in the raised or transport position.
- 3. Shut off the tractor, engage the parking brake, place the tractor transmission in the park position, and remove the key before dismounting.
- 4. Allow the system to cool to room temperature before removing any hydraulic components
- 5. Wear safety glasses and impenetrable gloves when working with hydraulic hoses and fittings.
- 6. Release all oil pressure from the hydraulic circuit by manually stroking each valve section with the tractor engine off. Utilize the Manual Override function if the unit is equipped with an electric over hydraulic valve.
- 7. Utilize blocks, jack stands or a suitable over head hoist to support the weight of the boom section and remove pressure form the cylinder mounting pins.
- 8. Check to see that the cylinder to be replaced is not under pressure by moving the cylinder pins by hand. The pins should be loose and should slide from the pin bore easily. If the pins are tight and cannot be moved, the cylinder may be under pressure. Make sure the boom components are properly supported and that the pressure is relived from the circuit.
- 9. Cylinder assemblies are heavy and can fall when the pins are removed. Support the hydraulic cylinder with a suitable hoist or jack.
- 10. Slowly loosen the hydraulic connections to the cylinder. Carefully unscrew hose fitting and allow any remaining pressure to bleed off. Use Extreme Care. Oil must be cool, and the technician should stand to the side to prevent exposure to any hydraulic oil. Always consult the Material Safety Data Sheet and wear any required Personal Protective Equipment. A catch pan may be required to retain any spilled oil.
- 11. Cap both ends of the fitting with suitably sized metal caps.
- 12. Remove the cylinder pins starting with the ROD end cylinder pin. Make sure the cylinder is properly supported, and remove the base end cylinder pin. The cylinder may be heavy, use proper lifting techniques to lift and handle the cylinder. If needed, get assistance from another person to safely lift the cylinder from the machine.
- 13. Measure the distance between the cylinder pin holes and extend the new cylinder the correct length prior to attempting an installation.
- 14. Install the new cylinder in place and install both cylinder pins and retaining hardware.
- 15. Remove the metal caps, and re-install the hydraulic hoses.
- 16. Check the hydraulic reservoir of the boom mower to ensure there is sufficient oil. Follow the manufactures recommendations for proper oil type and filtering techniques and requirements to add oil to the system.
- 17. Clear the area of all persons prior to starting the tractor.
- 18. Consult the Operator's Manual for instruction in regard to the proper operating procedure.
- 19. From the tractor seat, with the seat belt fastened, operate the boom to ensure proper operation of the boom function.
- 20. From the tractor seat, with the seat belt fastened, operate the boom controls to fully extend and retract the new cylinder several times to purge any trapped air from the system.
- 21. From the tractor seat, with the seat belt fastened, look for signs of and oil leak. If an oil leak is observed, shut the tractor down and follow the steps to remove pressure from the hydraulic circuit. Identify the source of the leak and resolve the issue.
- 22. Upon completion of the required repairs, return to Step # 16 to recheck the cylinder for proper operation.

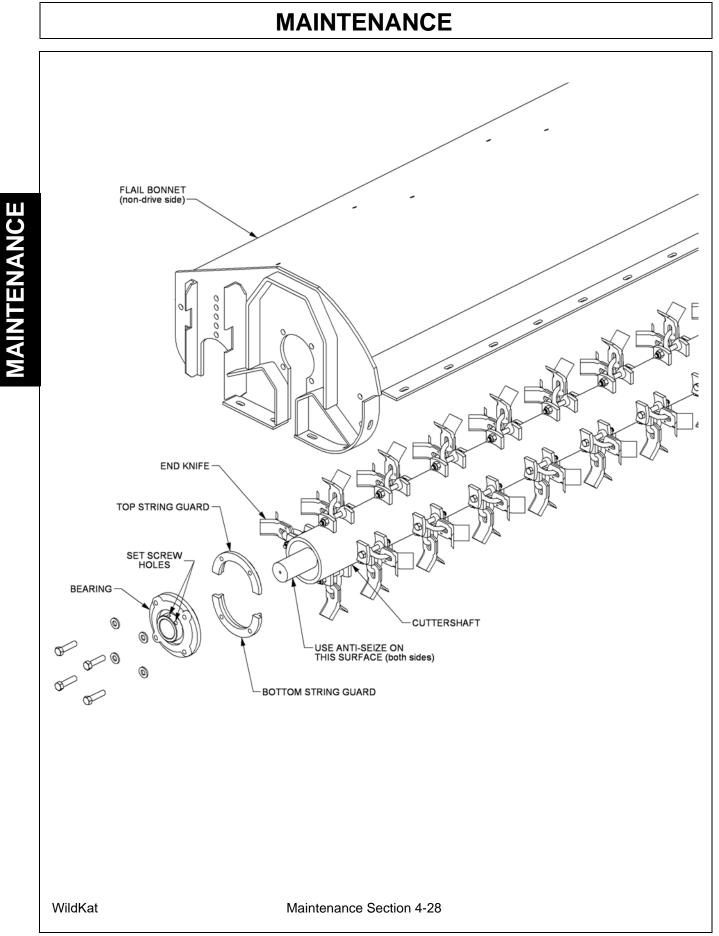
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## **CUTTERSHAFT BEARING REPLACEMENT**

- 1. Remove existing cuttershaft, bearings and string guards.
- 2. Make sure that the end knives on each end of the cuttershaft are oriented as shown.
- 3. Apply anti-seize on cuttershaft as shown on next page.
- 4. Before installation the bearings must be fully greased per the following protocol: 1.Add 2 or 3 pumps of grease, 2. Spin the bearing 2 or 3 times. 3. Add 2 or 3 pumps of grease. 4. Spin the bearing 2 or 3 times. 5. Add 2 or three pumps of grease. Continue this procedure until you can visually confirm that grease is purging from the entire circumfrence of the seal.
- 5. Install non-drive side bearing first.
- 6. Install the top of the string guard on the non-drive side first. Use Loctite 271 or equivalent and torque (95 ft-lb or 104ft-lb if you use an extension).
- 7. Install the bearing and top string guard on the drive side.
- 8. Center the cuttershaft between the string guards. Use Loctite 271 or equivalent and torque (95ft-lb or 104ft-lb if you use an extension) the top string guard on the drive side.
- 9. Install, use Loctite 271 or equivalent, and torque (95ft-lb or 104ft-lb if you use an extension) the bottom string guard on both sides.
- 10. Make sure the cuttershaft is centered. On the non-drive side, tighten one set-screw in the bearing onto the cuttershaft.
- 11. Remove the other set screw and drill a 5/16" hole into the cuttershaft 3/16" deep through the hole in the bearing. BE CAREFUL NOT TO DAMAGE THE THREADS IN THE BEARING HOLE.
- 12. Replace the set screw in the bearing, use Loctite 271 or equivalent, and tighten onto the cuttershaft through the new hole.
- 13. Remove the other set screw and repeat the drilling procedure (Step 10). Replace the set screw as stated in Step 11.
- 14. Repeat steps 9 through 12 on the drive side.

#### See illustration on next page

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## **GROUND ROLLER BEARING REPLACEMENT**

- 1. Remove existing ground roller brackets, bearings, and ground roller.
- 2. Remove bearings from stub shafts and ground roller brackets.
- 3. Clean stub shafts thoroughly, and apply anti-seize to O.D. of outer end.
- 4. Before installation, bearings must be fully greased per the following protocol: 1.Add 2 or 3 pumps of grease, 2. Spin the bearing 2 to 3 times. 3. Add 2 or 3 pumps of grease. 4. Spin the bearing 2 to 3 times. 5. Add 2 or 3 pumps of grease. Continue this procedure until you can visually confirm that grease is purging from the entire circumference of the seal.
- 5. Install bearing onto ground roller brackets using existing hardware and Loctite 271.
- 6. Slide bearing-ground roller bracket assemblies onto stub shafts of ground roller.
- 7. Install ground roller brackets onto flail bonnet using existing hardware.
- 8. Insure that ground roller brackets are set to the same elevation on both sides.
- 9. Center ground roller in bearings.
- 10. Tighten one setscrew in one bearing onto stub shaft of ground roller.
- 11. At the other end, remove the setscrew collar and drill 5/16" holes in both setscrew locations into the stub shaft 3/16" dear (or align setscrew holes in bearing collar with existing countersinks in stub shaft.
- 12. Reinstall setscrew collar on drilled-end. Remove both setscrews, apply Loctite 271 or equivalent, and tighten setscrews into stub shaft.
- 13. Then remove setscrew collar from other end, and repeat the drilling procedure from Step 11. Reinstall setscrew collar and install setscrews per Step 12.

#### See illustrations in the Common Parts Section.

DAILY MAINTENANCE SCHEDULE	
The following services should be performed daily or every 8 hours of services maintenance instructions in the operator's manual.	ice, following the detailed
Pump driveshaft: If required with drive shaft/coupler check for end play a	nd lubricate at zerks.
Crankshaft adapter: If equipped with rubber grommets check condition, re	eplace if missing or
damaged.	
Pivot points: Inject grease until it appears at ends.	
Hydraulic fittings: Check for leaks with paper or cardboard. Tighten immediately.	fittings or replace hoses
Knives: Inspect for missing or damaged knives, change (only complete s	ets) as needed.
Belts: Check/tighten/replace belts as needed.	
Mainframe/deck: Unless otherwise specified retorque bolts according to section.	torque specifications in this
Hydraulic fluid level: Add, if required, per fluid recommendations.	
Rear flail drive, bearing flange and shaft couplers: Grease as instructed i section.	n the detailed maintenance
Cuttershaft and ground roller: Grease as instructed in the detailed mainter	enance section.
**This page may be copied and used as part of the daily maintenance routine.	
WildKat Maintenance Section 4-30	

# PARTS SECTION

## PART NAME INDEX

PARTS ORDERING GUIDE	. 3
TRACTOR MOUNT KIT	. 4
TRACTOR MOUNT KIT - HYDRAULICS	
ELECTRONIC PROPORTIONAL LIFT VALVE MOUNT	. 8
JOYSTICK AND SWITCHBOX MOUNT	10
CANBUS JOYSTICK CONTROL	12
CANBUS ELECTRONIC LIFT VALVE SWITCHBOX	14
CANBUS JOYSTICK ELECTRICAL TROUBLESHOOTING	15
CANBUS ELECTRICAL SCHEMATIC	16
NOTES	17
COOLER MOUNT	18
BATTERY RELOCATION	20
SINGLE COLUMN BOOMREST	22
	24
WHEEL SPACER	26
WHEEL WEIGHT	27
NOTES 1	28

#### PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this manual.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.

2. The Purchase Order must indicate the Name and Address of the person or organization ordering the parts, who should be charged, and if possible, the serial number of the machine for which the parts are being ordered.

3. The purchase order must clearly list the quantity of each part, the complete and correct part number, and the basic name of the part.

4. The manufacturer reserves the right to substitute parts where applicable.

 Some parts may be unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending a purchase order.

6. The manufacturer reserves the right to change prices without prior notice.

NOTE: When ordering replacement decals, refer to the part numbers and descriptions listed in the safety section in the front of this manual.



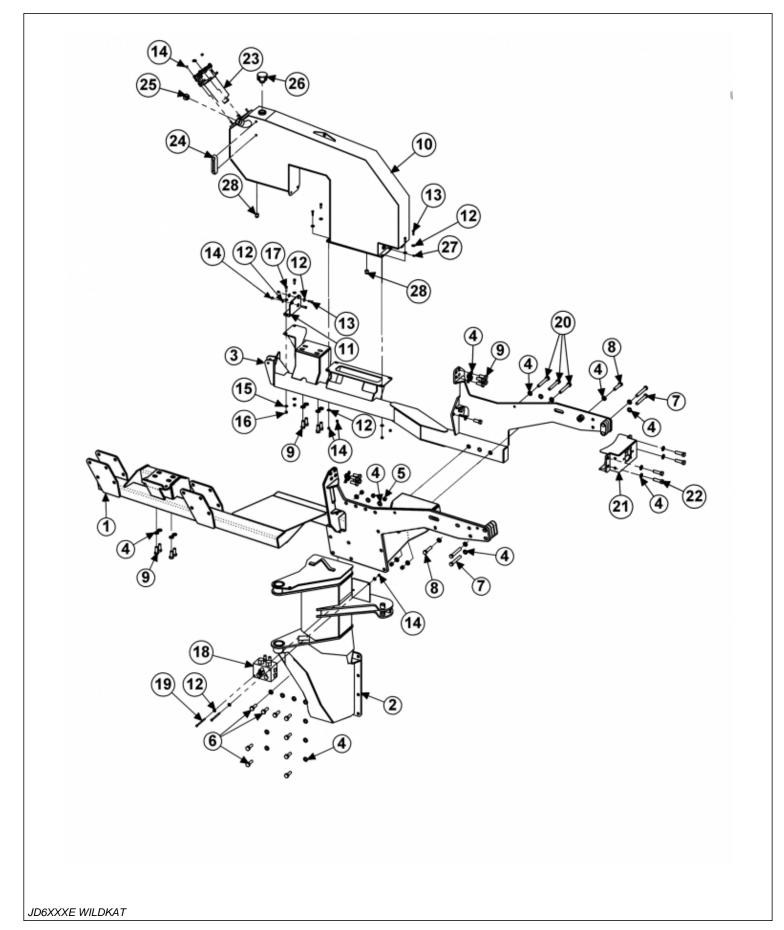
For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

Direct any questions regarding parts to:

#### **Tiger Corporation**

3301 N. Louise Ave. Sioux Falls, SD 57107 1-800-843-6849 1-605-336-7900

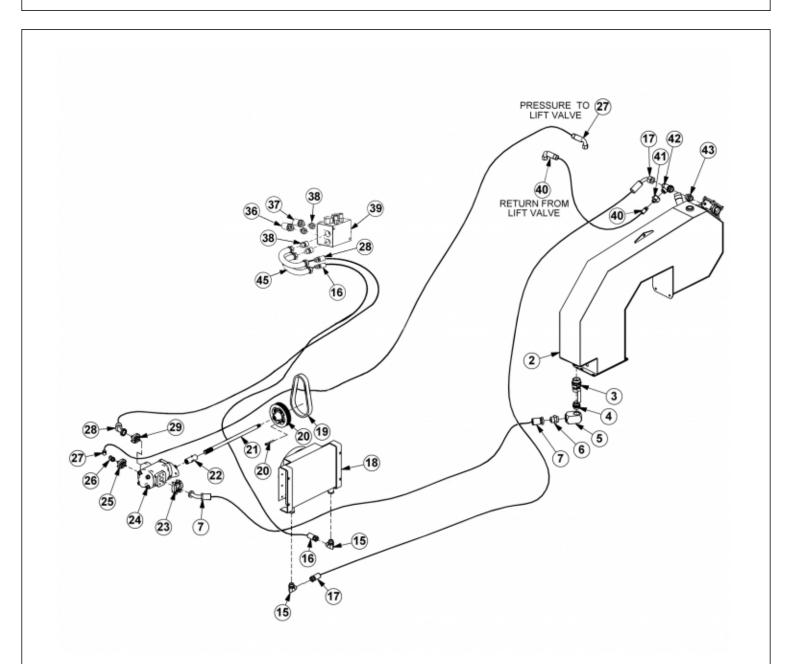
#### TRACTOR MOUNT KIT



#### Continued...

1       06300405       1       MNFRM, MNT, JD6E, T4F         2       06300406       1       AXLE BRACE, LH, JD6E, T4F         3       06300316       1       AXLE BRACE, LH, JD6E, T4F         4       33880       54       FLATWASHER, 3/4", GR8, SAE         5       21825       12       HEX NUT, 3/4" NC         6       06530237       9       CAPSCREW, 20MM X 140MM (2.5 PITCH)         8       30708       2       CAPSCREW, 20MM X 90MM (2.5 PITCH)         9       31731       20       CAPSCREW, 20MM X 50MM (2.5 PITCH)         10       06700228       1       TANK, RES, JD6E, T4F         11       06411779       1       MOUNT         12       22016       16       FLATWASHER, 3/8" GR8         13       21631       6       CAPSCREW, 3/8" X 1-1/4" NC         14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 3/8" X 5" NC         20       672309       3       CAPSCREW, 3/8" X 5" NC         21       06380061       1       MNT, PUMP, H	ITEM	PART NO.	QTY.	DESCRIPTION
3         06300316         1         AXLE BRACE, LH, JD6E, T4F           4         33880         54         FLATWASHER, 3/4", GR8, SAE           5         21825         12         HEX NUT, 3/4" NC           6         06530237         9         CAPSCREW, 3/4" X 2-1/4", GR8           7         06530242         4         CAPSCREW, 20MM X 140MM (2.5 PITCH)           8         30708         2         CAPSCREW, 20MM X 90MM (2.5 PITCH)           9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           10         06700228         1         TANK, RES, JD6E, T4F           11         06411779         1         MOUNT           12         22016         16         FLATWASHER, 3/8" GR8           13         21631         6         CAPSCREW, 3/8" X 1-1/4" NC           14         21627         12         NYLOCK NUT, 7/16"           15         22017         4         FLATWASHER, 7/16"           16         21677         2         NYLOCK NUT, 7/16"           17         21680	1	06300405	1	MNFRM, MNT, JD6E, T4F
4       33880       54       FLATWASHER, 3/4", GR8, SAE         5       21825       12       HEX NUT, 3/4" NC         6       06530237       9       CAPSCREW, 3/4" X 2-1/4", GR8         7       06530242       4       CAPSCREW, 20MM X 140MM (2.5 PITCH)         8       30708       2       CAPSCREW, 20MM X 90MM (2.5 PITCH)         9       31731       20       CAPSCREW, 20MM X 50MM (2.5 PITCH)         10       06700228       1       TANK, RES, JD6E, T4F         11       06411779       1       MOUNT         12       22016       16       FLATWASHER, 3/8" GR8         13       21631       6       CAPSCREW, 3/8" X 1-1/4" NC         14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 3/8" X 5" NC         18       06510083       1       VALVE, BRAKE         19       21644       2       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20	2	06300406	1	MNFRM, JD6E, T4F
5       21825       12       HEX NUT, 3/4" NC         6       06530237       9       CAPSCREW, 3/4" X 2-1/4", GR8         7       06530242       4       CAPSCREW, 20MM X 140MM (2.5 PITCH)         8       30708       2       CAPSCREW, 20MM X 90MM (2.5 PITCH)         9       31731       20       CAPSCREW, 20MM X 50MM (2.5 PITCH)         9       31731       20       CAPSCREW, 20MM X 50MM (2.5 PITCH)         10       06700228       1       TANK, RES, JD6E, T4F         11       06411779       1       MOUNT         12       22016       16       FLATWASHER, 3/8" GR8         13       21631       6       CAPSCREW, 3/8" X 1-1/4" NC         14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 3/8" X 5" NC         20       6510083       1       VALVE, BRAKE         19       21644       2       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCR	3	06300316	1	AXLE BRACE, LH, JD6E, T4F
6         06530237         9         CAPSCREW, 3/4" X 2-1/4", GR8           7         06530242         4         CAPSCREW, 20MM X 140MM (2.5 PITCH)           8         30708         2         CAPSCREW, 20MM X 90MM (2.5 PITCH)           9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           10         06700228         1         TANK, RES, JD6E, T4F           11         06411779         1         MOUNT           12         22016         16         FLATWASHER, 3/8" GR8           13         21631         6         CAPSCREW, 3/8" X 1-1/4" NC           14         21627         12         NYLOCK NUT, 3/8" NC           15         22017         4         FLATWASHER, 7/16"           16         21677         2         NYLOCK NUT, 7/16"           17         21680         2         CAPSCREW, 3/8" X 5" NC           18         06510083         1         VALVE, BRAKE           19         21644         2         CAPSCREW, 3/4" X 5-1/2" NC           21         06380061         1         MNT, PUMP, HYDRO, T4, JD6XXXD           22         25341         4 <td>4</td> <td>33880</td> <td>54</td> <td>FLATWASHER, 3/4", GR8, SAE</td>	4	33880	54	FLATWASHER, 3/4", GR8, SAE
7       06530242       4       CAPSCREW, 20MM X 140MM (2.5 PITCH)         8       30708       2       CAPSCREW, 20MM X 90MM (2.5 PITCH)         9       31731       20       CAPSCREW, 20MM X 50MM (2.5 PITCH)         10       06700228       1       TANK, RES, JD6E, T4F         11       06411779       1       MOUNT         12       22016       16       FLATWASHER, 3/8" GR8         13       21631       6       CAPSCREW, 3/8" X 1-1/4" NC         14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 3/8" X 5" NC         18       06510083       1       VALVE, BRAKE         19       21644       2       CAPSCREW, 3/4" X 5" NC         20       6T2309       3       CAPSCREW, 3/4" X 5" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505044       1       FILTER ASSY, IN-TANK         24       06505067       1       SIGHT	5	21825	12	HEX NUT, 3/4" NC
8         30708         2         CAPSCREW, 20MM X 90MM (2.5 PITCH)           9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           10         06700228         1         TANK, RES, JD6E, T4F           11         06411779         1         MOUNT           12         22016         16         FLATWASHER, 3/8" GR8           13         21631         6         CAPSCREW, 3/8" X 1-1/4" NC           14         21627         12         NYLOCK NUT, 3/8" NC           15         22017         4         FLATWASHER, 7/16"           16         21677         2         NYLOCK NUT, 7/16"           17         21680         2         CAPSCREW, 7/16" X 1-1/4" NC           18         06510083         1         VALVE, BRAKE           19         21644         2         CAPSCREW, 3/8" X 5" NC           20         6T2309         3         CAPSCREW, 3/4" X 5-1/2" NC           21         06380061         1         MNT, PUMP, HYDRO, T4, JD6XXXD           22         25341         4         CAPSCREW, 20MM X 70MM (2.5 PITCH)           26         06505067         1         SIGHT GAGE           25         06505127         1         PLUG, SA	6	06530237	9	CAPSCREW, 3/4" X 2-1/4", GR8
9         31731         20         CAPSCREW, 20MM X 50MM (2.5 PITCH)           10         06700228         1         TANK, RES, JD6E, T4F           11         06411779         1         MOUNT           12         22016         16         FLATWASHER, 3/8" GR8           13         21631         6         CAPSCREW, 3/8" X 1-1/4" NC           14         21627         12         NYLOCK NUT, 3/8" NC           15         22017         4         FLATWASHER, 7/16"           16         21677         2         NYLOCK NUT, 7/16"           17         21680         2         CAPSCREW, 7/16" X 1-1/4" NC           18         06510083         1         VALVE, BRAKE           19         21644         2         CAPSCREW, 3/8" X 5" NC           20         6T2309         3         CAPSCREW, 3/4" X 5-1/2" NC           21         06380061         1         MNT, PUMP, HYDRO, T4, JD6XXXD           22         25341         4         CAPSCREW, 20MM X 70MM (2.5 PITCH)           26         06505067         1         SIGHT GAGE           25         06505127         1         PLUG, SAE #20           26         06505077         1         CAP, BREATHER     <	7	06530242	4	CAPSCREW, 20MM X 140MM (2.5 PITCH)
10067002281TANK, RES, JD6E, T4F11064117791MOUNT122201616FLATWASHER, 3/8" GR813216316CAPSCREW, 3/8" X 1-1/4" NC142162712NYLOCK NUT, 3/8" NC15220174FLATWASHER, 7/16"16216772NYLOCK NUT, 7/16"17216802CAPSCREW, 7/16" X 1-1/4" NC18065100831VALVE, BRAKE19216442CAPSCREW, 3/8" X 5" NC206T23093CAPSCREW, 3/4" X 5-1/2" NC21063800611MNT, PUMP, HYDRO, T4, JD6XXXD22253414CAPSCREW, 20MM X 70MM (2.5 PITCH)26065050441FILTER ASSY, IN-TANK24065050671SIGHT GAGE25065051271PLUG, SAE #2026065050771CAP, BREATHER276T42002PLUG, PIPE 3/4	8	30708	2	CAPSCREW, 20MM X 90MM (2.5 PITCH)
11064117791MOUNT122201616FLATWASHER, 3/8" GR813216316CAPSCREW, 3/8" X 1-1/4" NC142162712NYLOCK NUT, 3/8" NC15220174FLATWASHER, 7/16"16216772NYLOCK NUT, 7/16"17216802CAPSCREW, 7/16" X 1-1/4" NC18065100831VALVE, BRAKE19216442CAPSCREW, 3/8" X 5" NC206T23093CAPSCREW, 3/4" X 5-1/2" NC21063800611MNT, PUMP, HYDRO, T4, JD6XXXD22253414CAPSCREW, 20MM X 70MM (2.5 PITCH)26065050441FILTER ASSY, IN-TANK24065050671SIGHT GAGE25065051271PLUG, SAE #2026065050771CAP, BREATHER276T42002PLUG, PIPE 3/4	9	31731	20	CAPSCREW, 20MM X 50MM (2.5 PITCH)
12       22016       16       FLATWASHER, 3/8" GR8         13       21631       6       CAPSCREW, 3/8" X 1-1/4" NC         14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 7/16" X 1-1/4" NC         18       06510083       1       VALVE, BRAKE         19       21644       2       CAPSCREW, 3/8" X 5" NC         20       6T2309       3       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	10	06700228	1	TANK, RES, JD6E, T4F
13       21631       6       CAPSCREW, 3/8" X 1-1/4" NC         14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 7/16" X 1-1/4" NC         18       06510083       1       VALVE, BRAKE         19       21644       2       CAPSCREW, 3/8" X 5" NC         20       6T2309       3       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	11	06411779	1	MOUNT
14       21627       12       NYLOCK NUT, 3/8" NC         15       22017       4       FLATWASHER, 7/16"         16       21677       2       NYLOCK NUT, 7/16"         17       21680       2       CAPSCREW, 7/16" X 1-1/4" NC         18       06510083       1       VALVE, BRAKE         19       21644       2       CAPSCREW, 3/8" X 5" NC         20       6T2309       3       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	12	22016	16	FLATWASHER, 3/8" GR8
15220174FLATWASHER, 7/16"16216772NYLOCK NUT, 7/16"17216802CAPSCREW, 7/16" X 1-1/4" NC18065100831VALVE, BRAKE19216442CAPSCREW, 3/8" X 5" NC206T23093CAPSCREW, 3/4" X 5-1/2" NC21063800611MNT, PUMP, HYDRO, T4, JD6XXXD22253414CAPSCREW, 20MM X 70MM (2.5 PITCH)26065050441FILTER ASSY, IN-TANK24065050671SIGHT GAGE25065051271PLUG, SAE #2026065050771CAP, BREATHER276T42002PLUG, PIPE 3/4	13	21631	6	CAPSCREW, 3/8" X 1-1/4" NC
16216772NYLOCK NUT, 7/16"17216802CAPSCREW, 7/16" X 1-1/4" NC18065100831VALVE, BRAKE19216442CAPSCREW, 3/8" X 5" NC206T23093CAPSCREW, 3/4" X 5-1/2" NC21063800611MNT, PUMP, HYDRO, T4, JD6XXXD22253414CAPSCREW, 20MM X 70MM (2.5 PITCH)26065050441FILTER ASSY, IN-TANK24065050671SIGHT GAGE25065051271PLUG, SAE #2026065050771CAP, BREATHER276T42002PLUG, PIPE 3/4	14	21627	12	NYLOCK NUT, 3/8" NC
17216802CAPSCREW, 7/16" X 1-1/4" NC18065100831VALVE, BRAKE19216442CAPSCREW, 3/8" X 5" NC206T23093CAPSCREW, 3/4" X 5-1/2" NC21063800611MNT, PUMP, HYDRO, T4, JD6XXXD22253414CAPSCREW, 20MM X 70MM (2.5 PITCH)26065050441FILTER ASSY, IN-TANK24065050671SIGHT GAGE25065051271PLUG, SAE #2026065050771CAP, BREATHER276T42002PLUG, PIPE 3/4	15	22017	4	FLATWASHER, 7/16"
18         06510083         1         VALVE, BRAKE           19         21644         2         CAPSCREW, 3/8" X 5" NC           20         6T2309         3         CAPSCREW, 3/4" X 5-1/2" NC           21         06380061         1         MNT, PUMP, HYDRO, T4, JD6XXXD           22         25341         4         CAPSCREW, 20MM X 70MM (2.5 PITCH)           26         06505044         1         FILTER ASSY, IN-TANK           24         06505067         1         SIGHT GAGE           25         06505127         1         PLUG, SAE #20           26         06505077         1         CAP, BREATHER           27         6T4200         2         PLUG, PIPE 3/4	16	21677	2	NYLOCK NUT, 7/16"
19       21644       2       CAPSCREW, 3/8" X 5" NC         20       6T2309       3       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505044       1       FILTER ASSY, IN-TANK         24       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	17	21680	2	CAPSCREW, 7/16" X 1-1/4" NC
20       6T2309       3       CAPSCREW, 3/4" X 5-1/2" NC         21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505044       1       FILTER ASSY, IN-TANK         24       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	18	06510083	1	VALVE, BRAKE
21       06380061       1       MNT, PUMP, HYDRO, T4, JD6XXXD         22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505044       1       FILTER ASSY, IN-TANK         24       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	19	21644	2	CAPSCREW, 3/8" X 5" NC
22       25341       4       CAPSCREW, 20MM X 70MM (2.5 PITCH)         26       06505044       1       FILTER ASSY, IN-TANK         24       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	20	6T2309	3	CAPSCREW, 3/4" X 5-1/2" NC
26       06505044       1       FILTER ASSY, IN-TANK         24       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	21	06380061	1	MNT, PUMP, HYDRO, T4, JD6XXXD
24       06505067       1       SIGHT GAGE         25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	22	25341	4	CAPSCREW, 20MM X 70MM (2.5 PITCH)
25       06505127       1       PLUG, SAE #20         26       06505077       1       CAP, BREATHER         27       6T4200       2       PLUG, PIPE 3/4	26	06505044	1	FILTER ASSY, IN-TANK
26         06505077         1         CAP, BREATHER           27         6T4200         2         PLUG, PIPE 3/4	24	06505067	1	SIGHT GAGE
27 6T4200 2 PLUG, PIPE 3/4	25	06505127	1	PLUG, SAE #20
	26	06505077	1	CAP, BREATHER
28 6T4197 1 PLUG, PIPE 1/8	27	6T4200	2	PLUG, PIPE 3/4
	28	6T4197	1	PLUG, PIPE 1/8

#### **TRACTOR MOUNT KIT - HYDRAULICS**

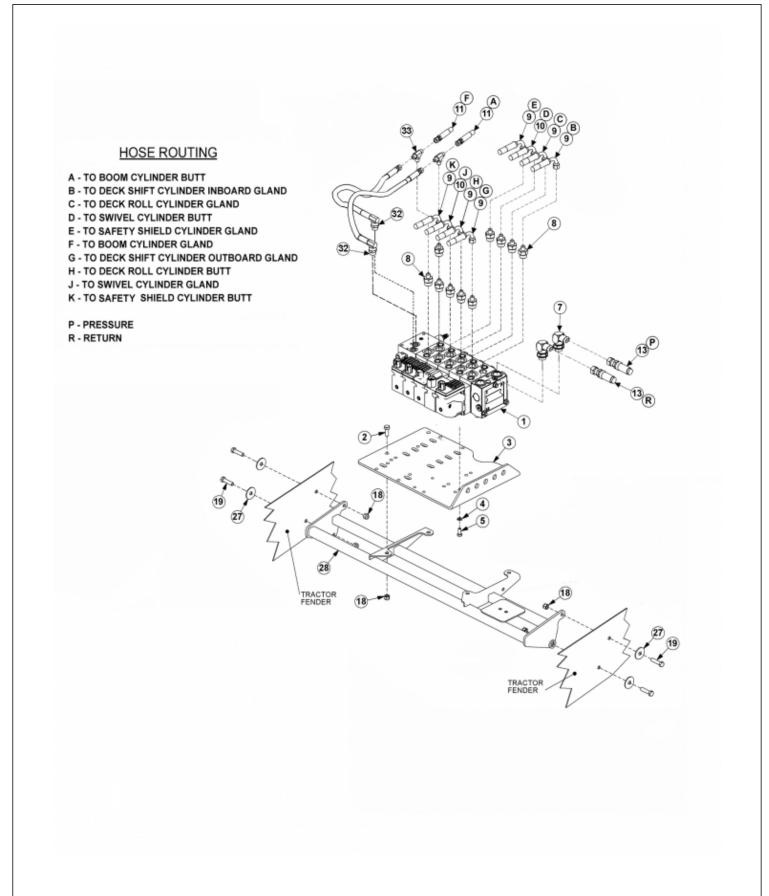


ITEM	PART NO.	QTY.	DESCRIPTION
2	06700213	1	TANK, HYDRAULIC, WHEEL WELL
3	34309	1	BALL VALVE,1 - 1/2" FOR
4	06503083	1	ADAPTER,1-1/2"ORB X 1-1/2"ORB
5	06503084	1	ELBOW,1-1/2" FB X 1-1/2" FB
6	34710	1	ADAPTER,1-1/2"ORB X 1-1/2"MJ
7	06500918	1	HOSE,1-1/2" X 114
8	32382	2	BRACKET,HOSE
15	34117	3	ELBOW,1"MB X 1"MJ,FORGED
16	06500243	1	HOSE,1" X 97"
17	06400812	1	HOSE,1" X 197"

#### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
18		1	COOLER, FRONT MNT ASSEMBLY
19		1	JOHN DEERE BELT (EXISTING)
20	SJ23950	1	JOHN DEERE PULLEY KIT
21	06420116	1	DRIVE SHAFT
22	6T0375B	1	COUPLING
23	TF4854	1	KIT,FLANGE #24
24	23438	1	PUMP, TANDEM
25	06503174	1	KIT,FLANGE,#12
26	06503198	1	ELBOW,3/4" MJ X 12FL45°
27	06500811	1	HOSE,1" X 182"
28	06500744	1	HOSE,1" X 71"
29	TF4852	1	KIT,FLANGE,#20
30	30708	1	CAPSCREW,20MM X 90MM, 2.5P
31	33880	1	FLATWASHER,3/4"
32	TB3012	2	CLAMP,CROSSOVER TUBE
33	21727	1	NYLOCK NUT,1/2", NC
34	22018	1	FLATWASHER,1/2",WIDE
35	21732	1	CAPSCREW,1/2" X 1- 3/4" NC
36	06500684	1	HOSE,1" X 96"
37	06500683	1	HOSE,1" X 93"
38	33555	3	ADAPTER,1"MB X 1"MJ
39	06510083	1	BRAKE VALVE
40	06500496	1	HOSE,3/4" X 50"
41	35280	1	ADAPTER, 1-1/4"FJ X 3/4" MJ
42	34656	1	TEE,RUN,1-1/4" ORB X 1-1/4" MJ X 1-1/4"
45	06506012	2	U-TUBE, PREFORMED

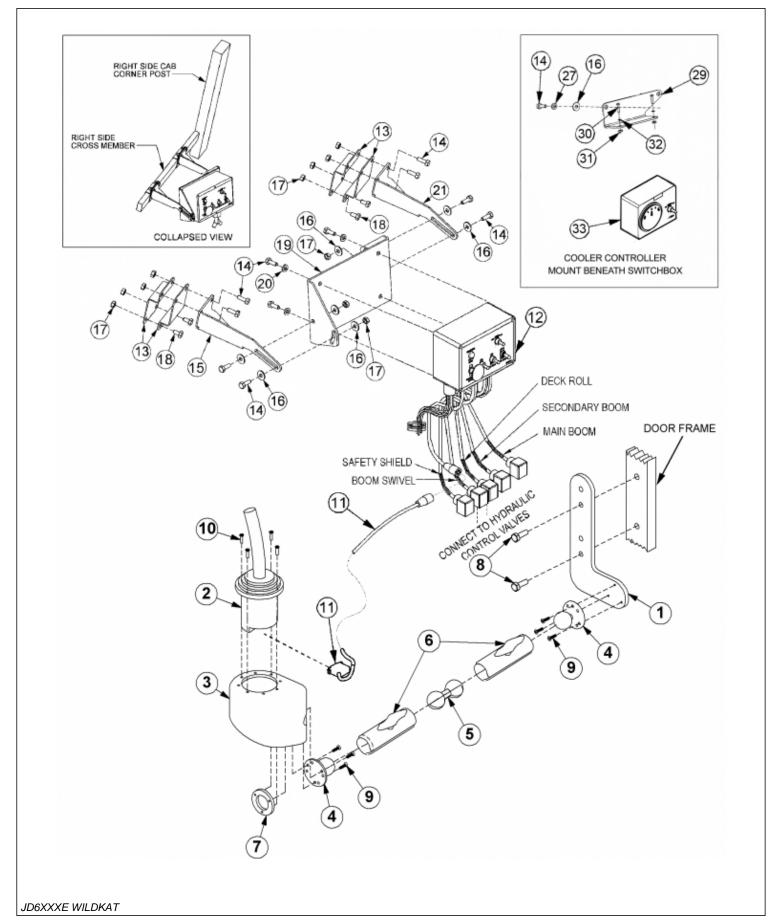
#### **ELECTRONIC PROPORTIONAL LIFT VALVE MOUNT**



#### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06700230	1	ELECTRONIC VALVE
2	21630	4	CAPSCREW,3/8" X 1",NC
3	34622	1	PLATE, VALVE, REAR MNT
4	21987	4	LOCKWASHER,5/16"
5	21579	4	CAPSCREW,5/16" X 3/4",NC
8	32807	10	ADAPTER,5/8"MB X 3/8"MJ
9	06500687	6	HOSE,1/4" X 268"
10	06500697	2	HOSE,1/4" X 210"
11	06500688	2	HOSE,1/4" X 288"
13	06500496	1	HOSE,3/4" X 53"
14	06503023	2	ADAPTER, 3/4" MB X 3/4"MJ
15	06503041	1	ADAPTER 5/8" ORB X 1/2" FJX
18	21627	9	NYLOCK NUT,3/8",NC
19	21632	5	CAPSCREW, 3/8" X 1-1/2" NC
22	21631	4	CAPSCREW, 3/8" X 1-1/4" NC
27	6T2615	4	WASHER, FENDER, 3/8"
28	06340033	1	VALVE MOUNT
32	06500922	2	HOSE, 3/8" X 23"
33	34128	2	TEE, BRANCH 3/8" X 3/8" X 3/8"
34	06500811	1	HOSE, 3/4" X 182"

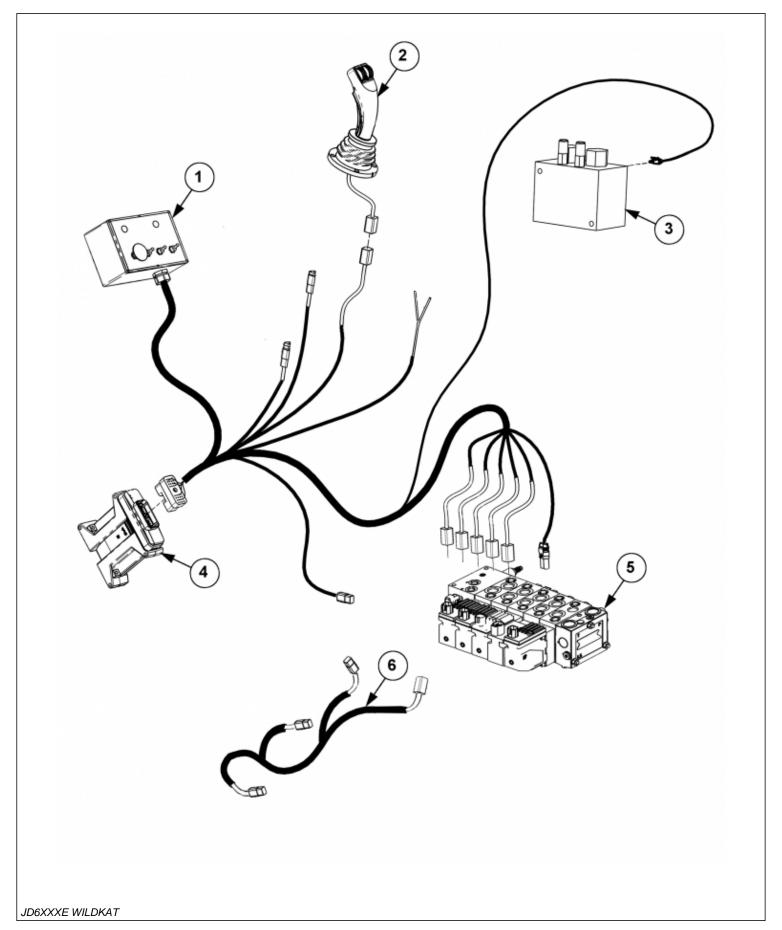
#### JOYSTICK AND SWITCHBOX MOUNT



#### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06340031	1	MT,BRKT,JYSTK
2	06510285	1	JOYSTICK, CANBUS
3	06770022	1	CAN,JOYSTICK
4	06520019	2	MOUNT,RAM BALL,1-1/2" FLANGE
5	06520290	1	MOUNT,RAM,BALL,DBL,1-1/2"
6	06520020	2	MOUNT,RAM,ARM,1-1/2" X 4-5/8",STD
7	06400882	1	RING,BOLT,MNT,JYSTK
8	23113	2	CAPSCREW,10MM X 30MM,1.5P
9	32990	6	SCREW, MACHINE, 10-32 X 1/2", RD HD
10	32829	4	SCREW, MACHINE, 10-32 X 3/4", FLT HD
12	06510286	1	SWITCH BOX,RSS, CANBUS
13	06411086	4	BRKT,MNT
14	21529	8	CAPSCREW,1/4" X 3/4",NC
15	06411087	1	BRKT,STABILIZING,LT
16	22014	8	FLATWASHER,1/4"
17	21527	14	NYLOCK NUT,1/4",NC
18	21528	4	CAPSCREW,1/4" X 1/2",NC
19	06411116	1	BRKT,MNT,SWITCH BOX
20	21986	4	LOCKWASHER,1/4"
21	06411378	1	BRKT,STABILIZING,RT
23	06510315	1	CONTROLLER, CANBUS, EFS
24	06411524	1	MNT, CONTROLLER, CANBUS
25	21534	2	CAPSCREW, 1/4" X 2" NC
27	21986	6	LOCKWASHER, 1/4"
29	06412310	1	MOUNT, 06380080
30	32359	2	SCREW, MACHINE
31	32360	2	LOCKWASHER, #8
32	32361	2	HEX NUT, #8 (INSIDE BOX)
33	06510045	1	CONTROLLER, COOLER FAN

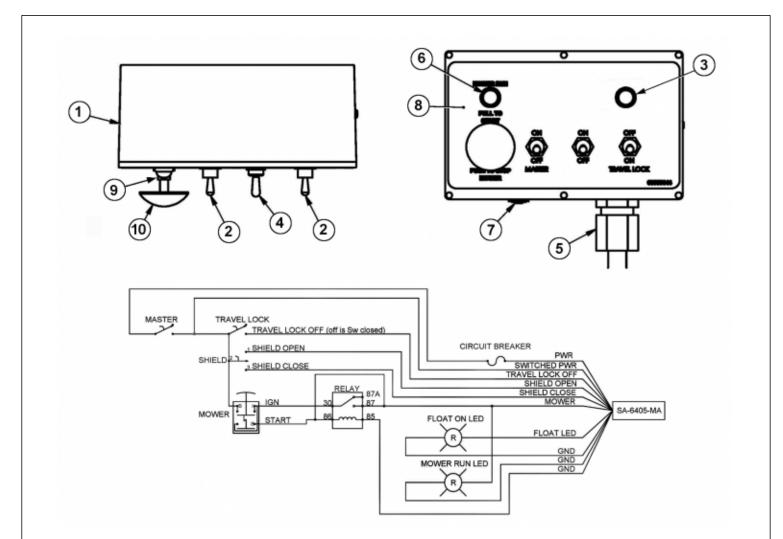
#### **CANBUS JOYSTICK CONTROL**



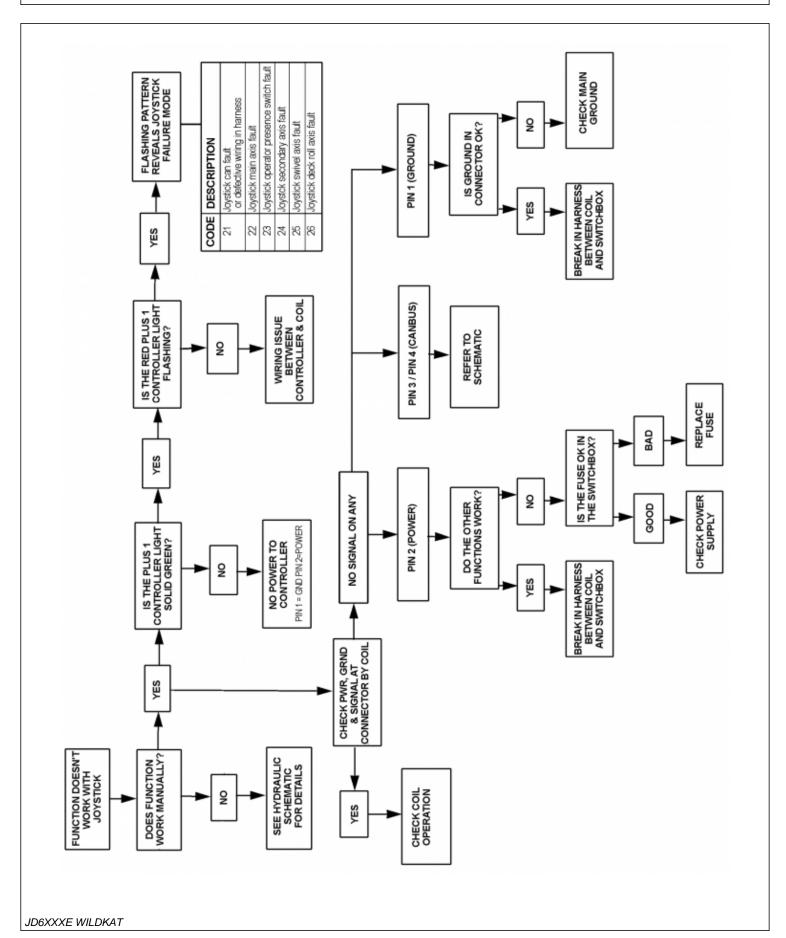
#### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06510286	1	SWITCHBOX, DF, RSS, CNBS
2	06510285	1	JOYSTICK, RH, DF, CNBS
3	06510083	1	VALVE, BRAKE, SOL, 3000PSI
4	06510315	1	CONTROLLER, SWBX, CNBS, EFS
5	06700230	1	VALVE, 5SPL, DF, CNBS, O.C., EFS
6	06510313	1	ADAPTER HARNESS

#### CANBUS ELECTRONIC LIFT VALVE SWITCHBOX



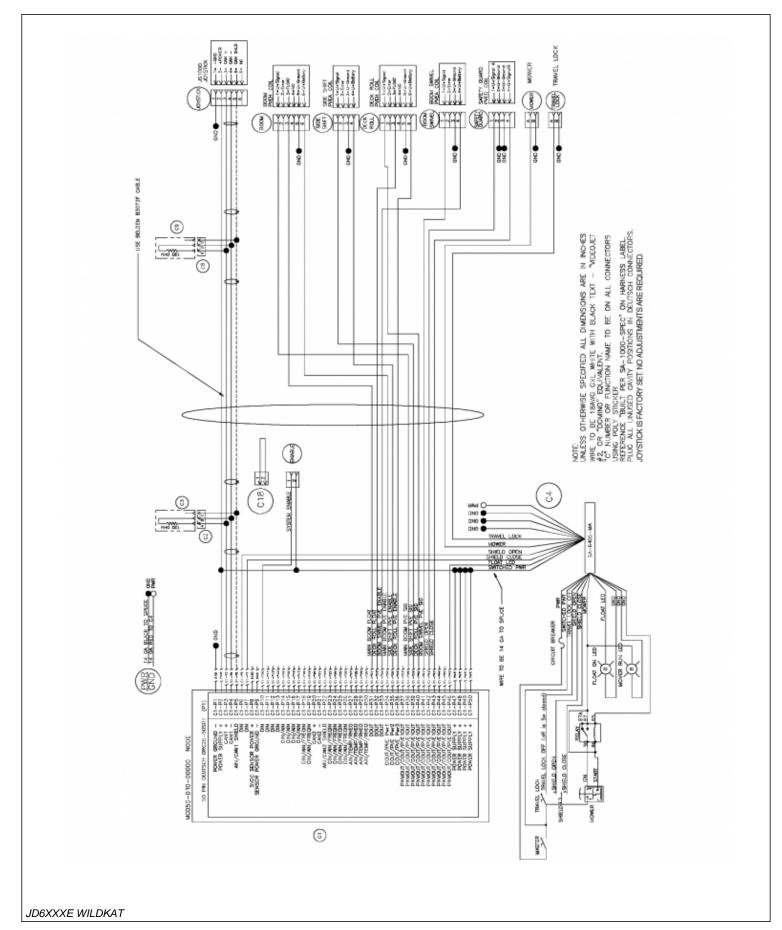
ITEM	PART NO.	QTY.	DESCRIPTION
1	06510286	1	SWITCHBOX ASSY
2	06502171	2	SWITCH, MASTER, TRAVEL LOCK
3	06502172	1	INDICATOR LIGHT, FLOAT, GREEN
4	06502170	1	SWITCH, SHIELD
5	34540	1	STRAIN RELIEF, 3/4" BLACK
6	06502174	1	INDICATOR LIGHT, ON, RED
7	06502169	1	CIRCUIT BREAKER, 15A
8	06550044	1	LABEL, SWBX
9	35226	1	SWITCH, MOWER, COLEHERSEE
10	02964063	1	KNOB, RED

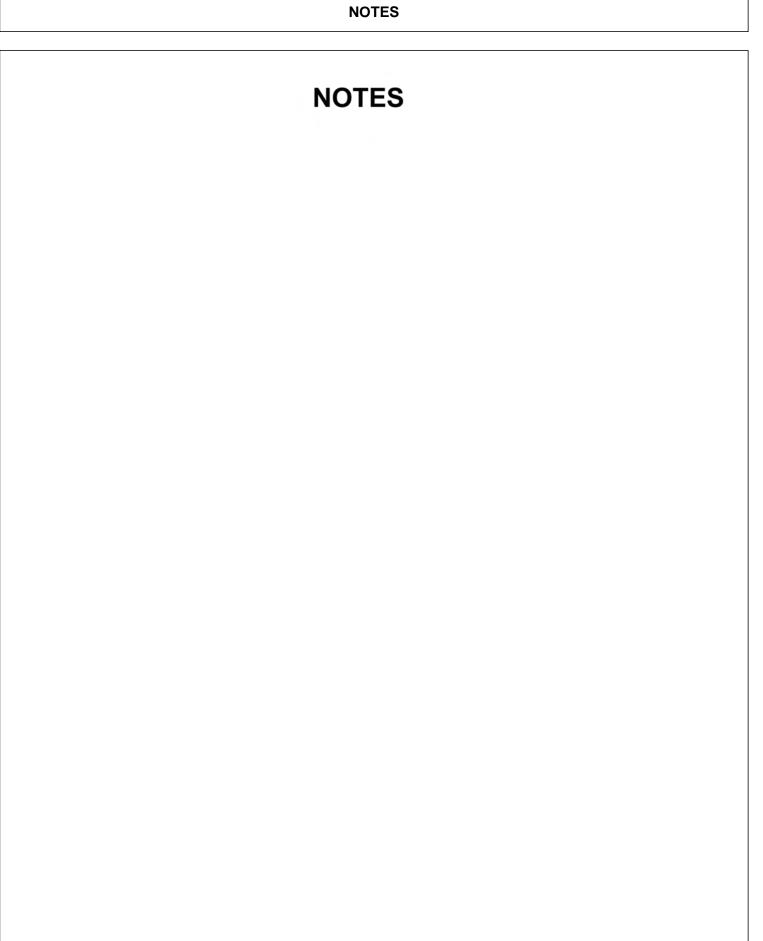


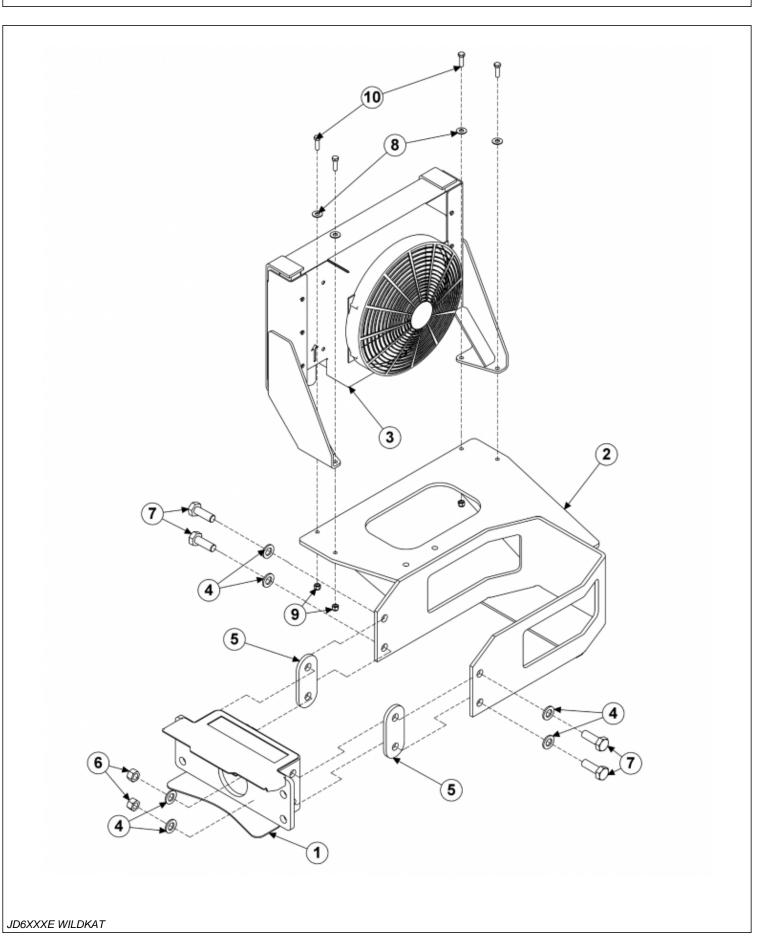
#### CANBUS JOYSTICK ELECTRICAL TROUBLESHOOTING

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#### CANBUS ELECTRICAL SCHEMATIC



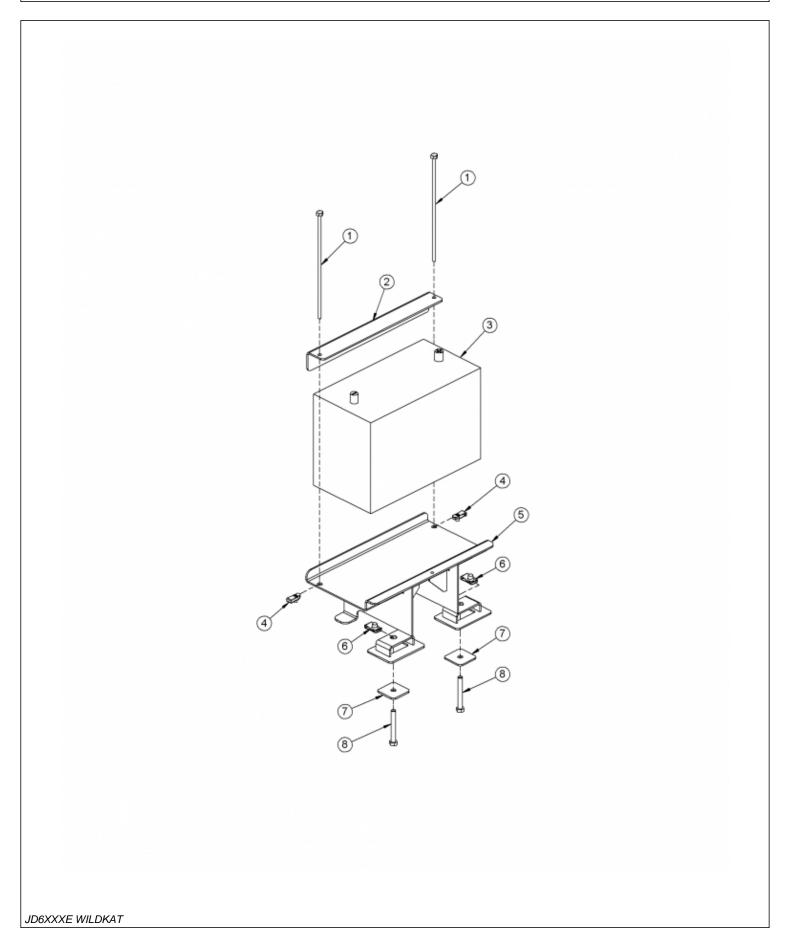




**COOLER MOUNT** 

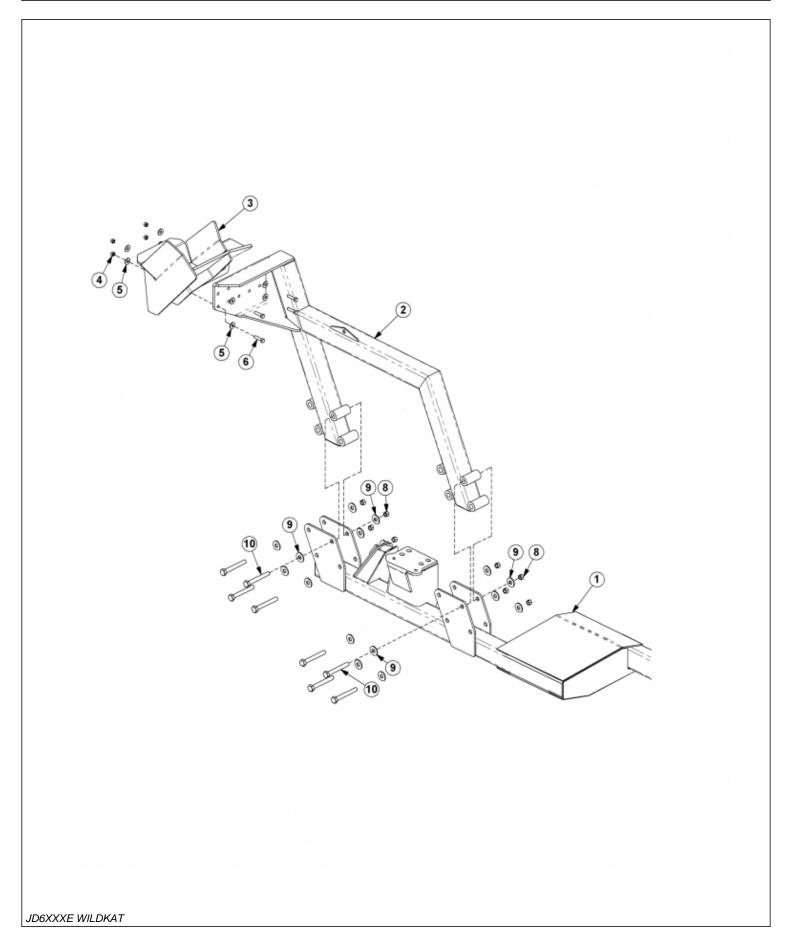
ITEM	PART NO.	QTY.	DESCRIPTION
1	06380061	1	MNT, PUMP, HYDRO, T4, JD6XXXD
2	06380102	1	MNT, COOLER, FRONT, 6E, TWIN
3	06510350	1	COOLER
4	33880	8	FLATWASHER, 3/4" GR8 SAE
5	06400165	2	SPACER, COOLER, FRONT
6	21825	4	HEX NUT, 3/4" NC
7	21834	4	CAPSCREW, 3/4" X 2-1/2" NC
8	22016	4	FLATWASHER, 3/8" GR8
9	21627	4	NYLOCK NUT, 3/8" NC
10	21631	4	CAPSCREW, 3/8" X 1/4" NC, GR8

# **BATTERY RELOCATION**



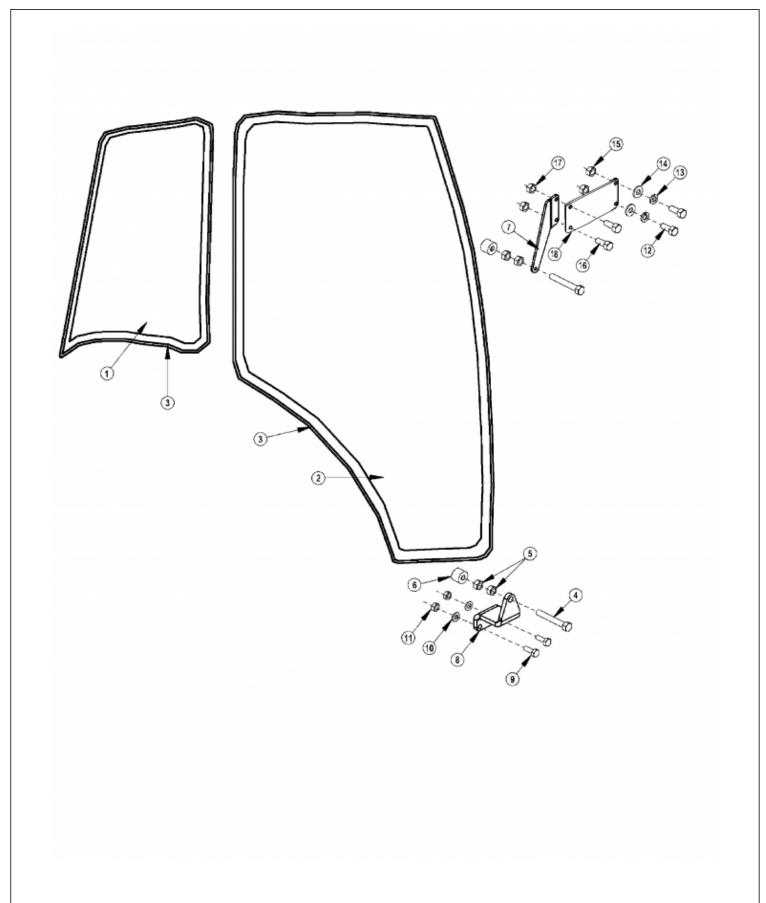
ITEM	PART NO.	QTY.	DESCRIPTION
1	06530234	2	CAPSCREW,1/4" X 10",NC
2	06411429	1	ANGLE
3		-	BATTERY *EXISTING PART
4	35176	2	NUT CLIP,1/4",NC
5	06370231	1	RELOCATION BRACKET
6	06537029	2	NUT CLIP,3/8",NC
7	06401784	2	SQUARE PLATE
8	21638	2	CAPSCREW,3/8" X 3",NC

# SINGLE COLUMN BOOMREST

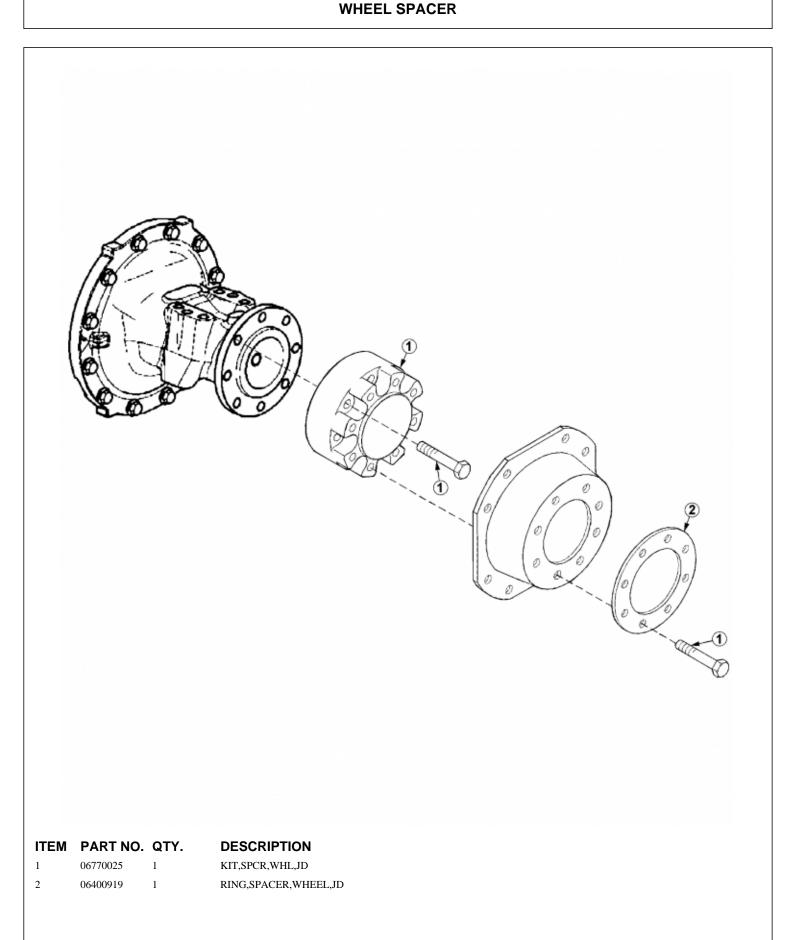


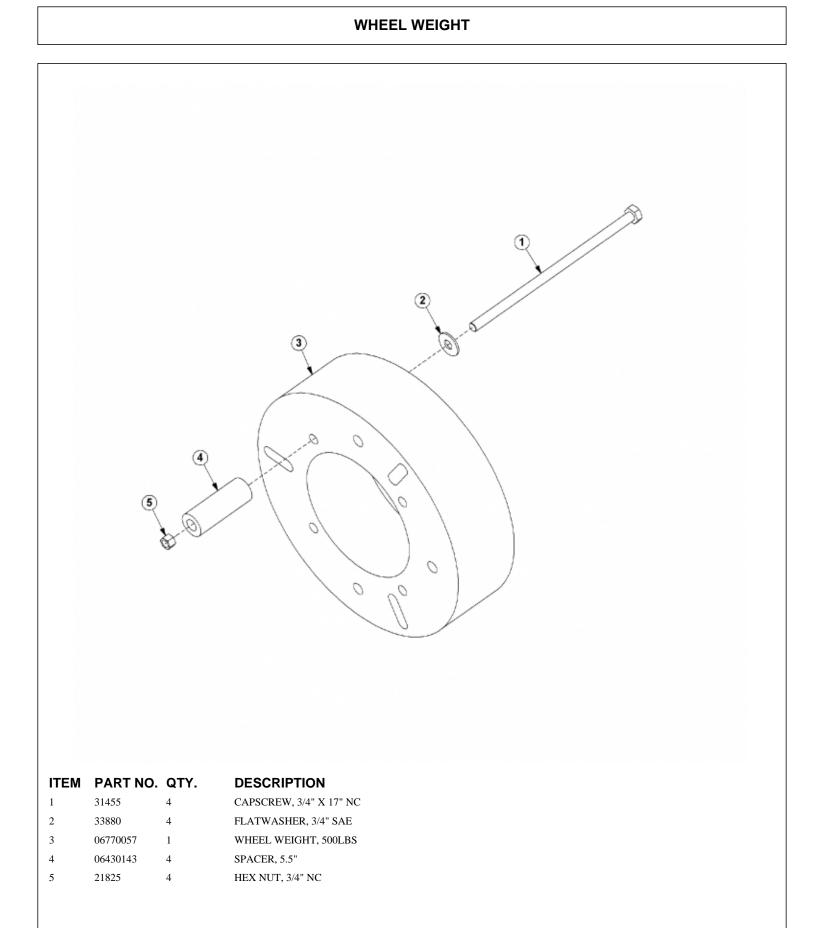
ITEM	PART NO.	QTY.	DESCRIPTION
1	06300405	1	MAINFRAME MOUNT, JD6E, SC
2	06310074	1	BOOMREST, SINGLE COLUMN
3	06310116	1	BOOMREST ADAPTER
4	21725	4	HEX NUT,1/2",NC
5	22018	8	FLATWASHER,1/2",WIDE
6	21733	4	CAPSCREW,1/2" X 2",NC
8	21825	8	HEX NUT,3/4",NC
9	22021	16	FLATWASHER,3/4"
10	21843	8	CAPSCREW,3/4" X 6",NC

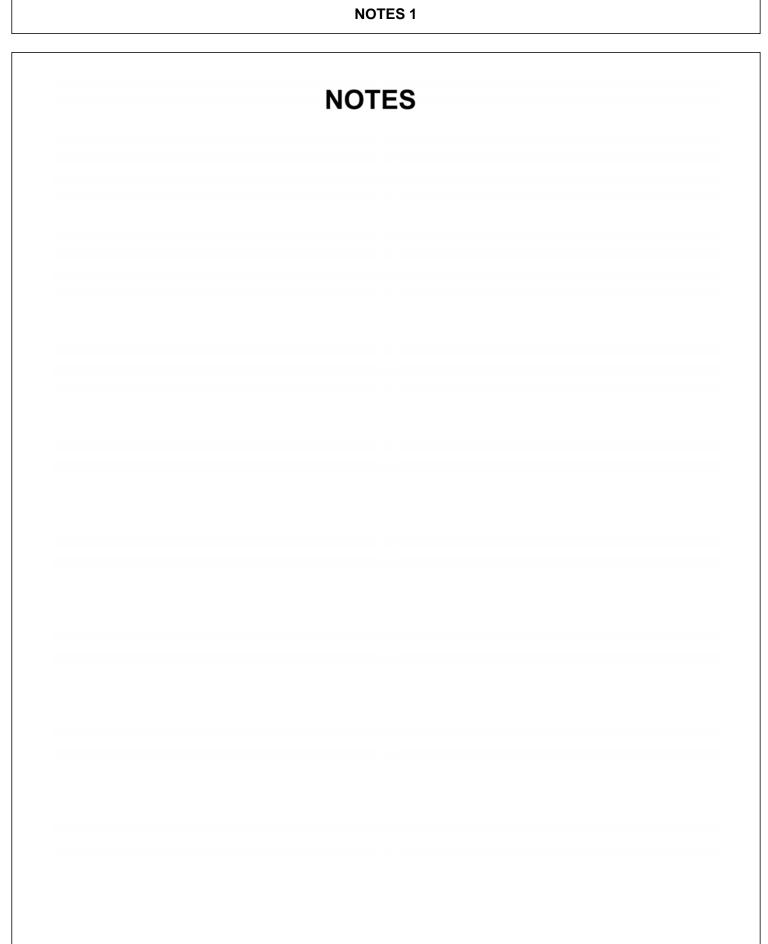
# POLYCARBONATE SAFETY WINDOW



1 06490	0014 1	POLYCARB, FRMD, REAR
2 06490	0013 1	POLYCARB, FRMD, DOOR
3 31965	5 25	TRIM SEAL (IN FEET)
4 21584	4 2	CAPSCREW, 5/16" X 2",NC
5 21575	5 6	HEX NUT, 5/16" NC
6 33477	2	VIBRATION ISOLATOR
7 06410	0268 1	TOP BRACKET
8 06410	0269 1	BOTTOM BRACKET
9 21529	2	CAPSCREW,1/4" X 3/4",NC
10 21986	5 2	LOCKWASHER,1/4"
11 21525	5 2	HEX NUT,1/4",NC
12 21581	2	CAPSCREW,5/16" X 1-1/4",NC
13 6T26	19 2	LOCKWASHER,8MM
14 34948	3 2	WASHER,8MM
15 21577	2	NYLOCK NUT,5/16",NC
06537	7005 1	3M ADHESIVE
16 6T24	91 2	CAPSCREW,8MM X 30MM,1.25P
17	-	HEX NUT (EXISTING HARDWARE)
18 06402	2263 1	BRKT,MIRROR,RELOCATING







**COMMON REAR STOW SIDE** 

# PARTS SECTION

Common Section 6-1

# PART NAME INDEX

PARTS ORDERING GUIDE	. 4
BOOM MOUNT KIT	. 5
NOTES 2	. 7
BOOM ASSEMBLY - FLAIL	. 8
BOOM ASSEMBLY - ROTARY	10
60IN ROTARY MOWER	12
60IN ROTARY DISK AND KNIVES	14
60IN BLADE BAR AND KNIVES	16
NOTES	17
ROTARY MOWER SPINDLE ASSEMBLY	18
75IN FLAIL - STANDARD ROTATION	20
75IN FLAIL - REVERSE ROTATION	22
FLAIL DRIVE ASSEMBLY	24
BOOM PIVOT ASSEMBLY	26
SLIDE ASSEMBLY	28
HOSE RING ASSEMBLY	30
2-1/2IN X 30IN CYLINDER BREAKDOWN	31
3IN X 15IN CYLINDER BREAKDOWN	32
4IN X 14IN CYLINDER BREAKDOWN	33
4IN X 15IN CYLINDER BREAKDOWN	34
NOTES 1	35
FRONT PUMP BREAKDOWN	36
ROTARY MOTOR BREAKDOWN	38
FLAIL MOTOR BREAKDOWN	40
COOLER ASSEMBLY - OPTION	42
RESERVOIR TANK FILTER ASSEMBLY	44
PUMP AND GRILL GUARD OPTIONS	45
MANUAL LIFT VALVE SWITCH BOX	46
MANUAL LIFT VALVE SWITCH BOX SCHEMATIC	47
ELECTRONIC LIFT VALVE SWITCH BOX	48
ELECTRONIC LIFT VALVE SCHEMATIC	49
SOLENOID SWITCH BOX AND WIRING	50
BRAKE VALVE ASSEMBLY	51
BRAKE VALVE HYDRAULIC SCHEMATIC	52
ELECTRICAL TROUBLESHOOTING GUIDE	53
HYDRAULIC TROUBLESHOOTING GUIDE	54
TROUBLESHOOTING	55
TROUBLESHOOTING - CONTINUED	56
FIRE SUPPRESSION SYSTEM	57
FIRE SUPPRESSION 3-POINT MOUNT	58

# PART NAME INDEX

FIRE SUPPRESSION FRONT MOUNT	60
FIRE SUPPRESSION SYSTEM ELECTRICAL SCHEMATIC	62
WETCUT	63
WETCUT 50 GALLON TANK - 3PNT MOUNT	64
WETCUT 100 OR 150 GALLON TANK - 3PNT MOUNT	65
WETCUT 3PNT PLUMBING - 50IN MOWERS	66
WETCUT 3PNT PLUMBING - LARGE MOWERS	68
WETCUT FRONT PLUMBING - 50IN MOWERS	70
WETCUT FRONT PLUMBING - LARGE MOWERS	72
WETCUT 50IN SPRAYER HEAD ASSEMBLY	74
WETCUT 60IN SPRAYER HEAD ASSEMBLY	76
WETCUT CABLES	78

#### PARTS ORDERING GUIDE

The following instructions are offered to help eliminate needless delay and error in processing purchase orders for the equipment in this manual.

1. The Parts Section is prepared in logical sequence and grouping of parts that belong to the basic machine featured in this manual. Part Numbers and Descriptions are given to help locate the parts and quantities required.

2. The Purchase Order must indicate the Name and Address of the person or organization ordering the parts, who should be charged, and if possible, the serial number of the machine for which the parts are being ordered.

3. The purchase order must clearly list the quantity of each part, the complete and correct part number, and the basic name of the part.

4. The manufacturer reserves the right to substitute parts where applicable.

 Some parts may be unlisted items which are special production items not normally stocked and are subject to special handling. Request a quotation for such parts before sending a purchase order.

6. The manufacturer reserves the right to change prices without prior notice.

NOTE: When ordering replacement decals, refer to the part numbers and descriptions listed in the safety section in the front of this manual.

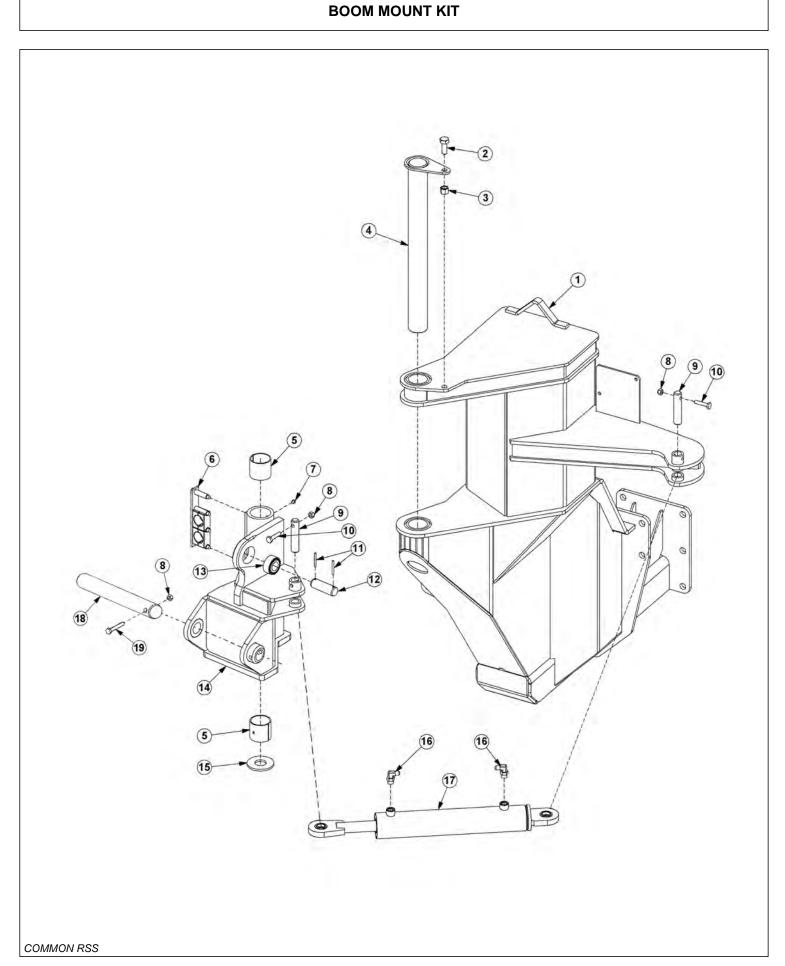


For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

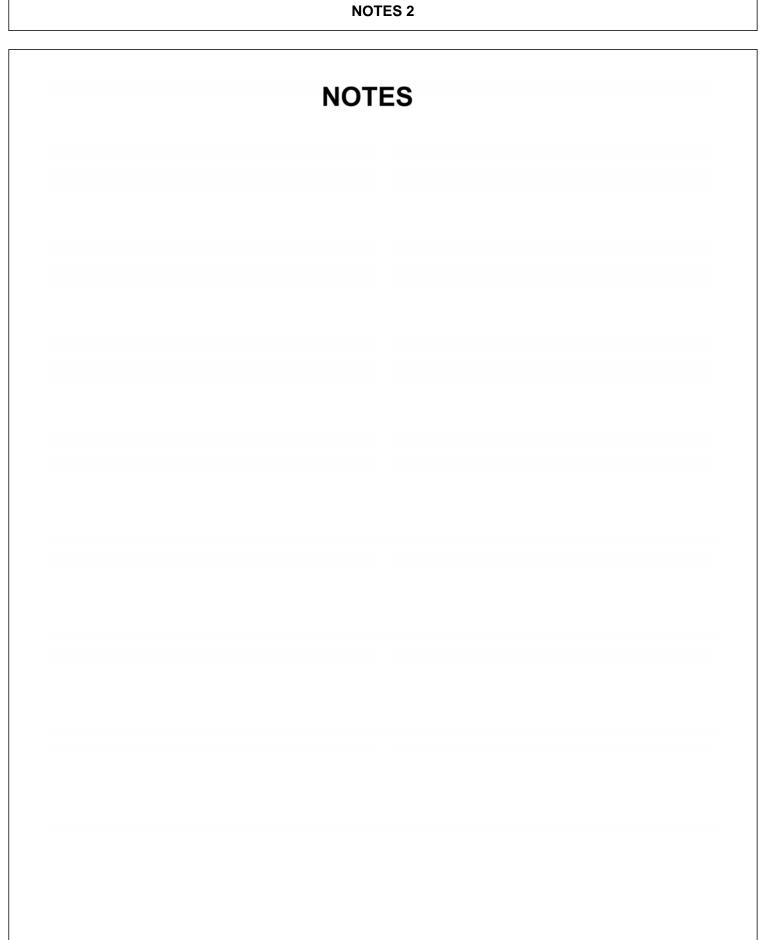
Direct any questions regarding parts to:

#### **Tiger Corporation**

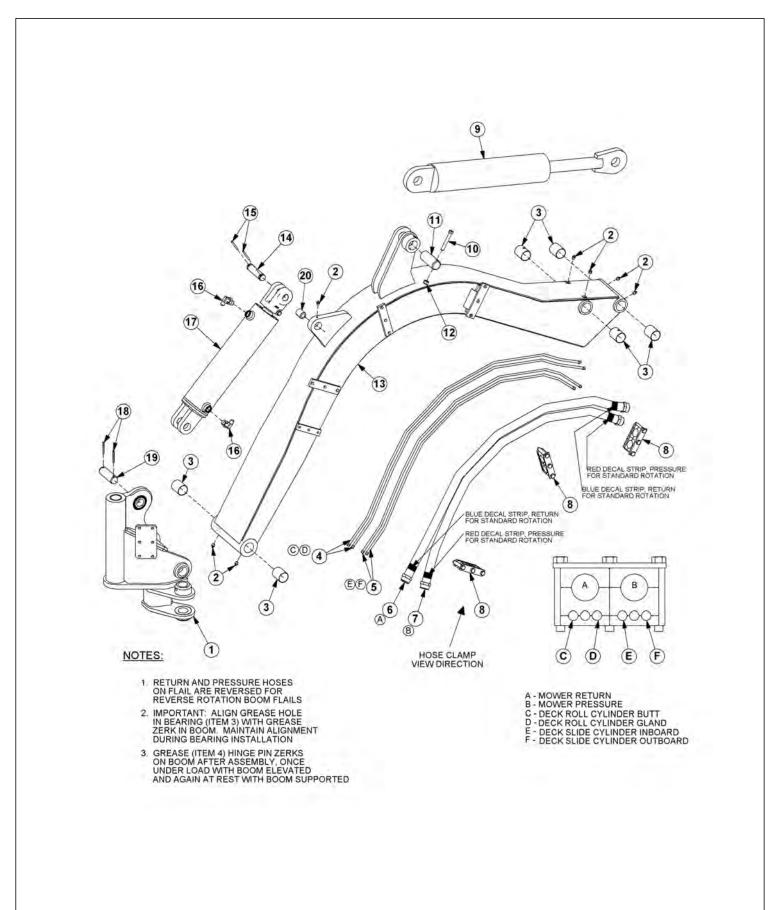
3301 N. Louise Ave. Sioux Falls, SD 57107 1-800-843-6849 1-605-336-7900



ITEM	PART NO.	QTY.	DESCRIPTION
1		-	MAINFRAME *REFER TO TRACTOR MOUNT KIT
2	21782	1	CAPSCREW,5/8" X 1-3/4",NC
3	21777	1	NYLOCK NUT,5/8",NC
4	32381	1	PIN,CAPPED
5	32322	2	BUSHING
6	06505185	1	CLAMP KIT
7	6T3211	2	GREASE ZERK,1/8"NPT
8	21677	3	NYLOCK NUT,7/16",NC
9	32380	2	PIN,1"
10	21683	2	CAPSCREW,7/16" X 2",NC
11	TB1023	2	ROLL PIN
12	06420100	1	PIN,1-1/4"
13		-	SPHERICAL BEARING *NOT FOR SALE
14	06700221	1	SWIVEL ASSEMBLY
15	06520250	1	BEARING, WASHER
16	32810	2	ADAPTER, ELBOW
17	06501029	1	CYLINDER,3" X 13.88"
18	06420022	1	PIN, 1/5" X 12"
19	21688	1	CAPSCREW, 7/16" X 3-1/4"

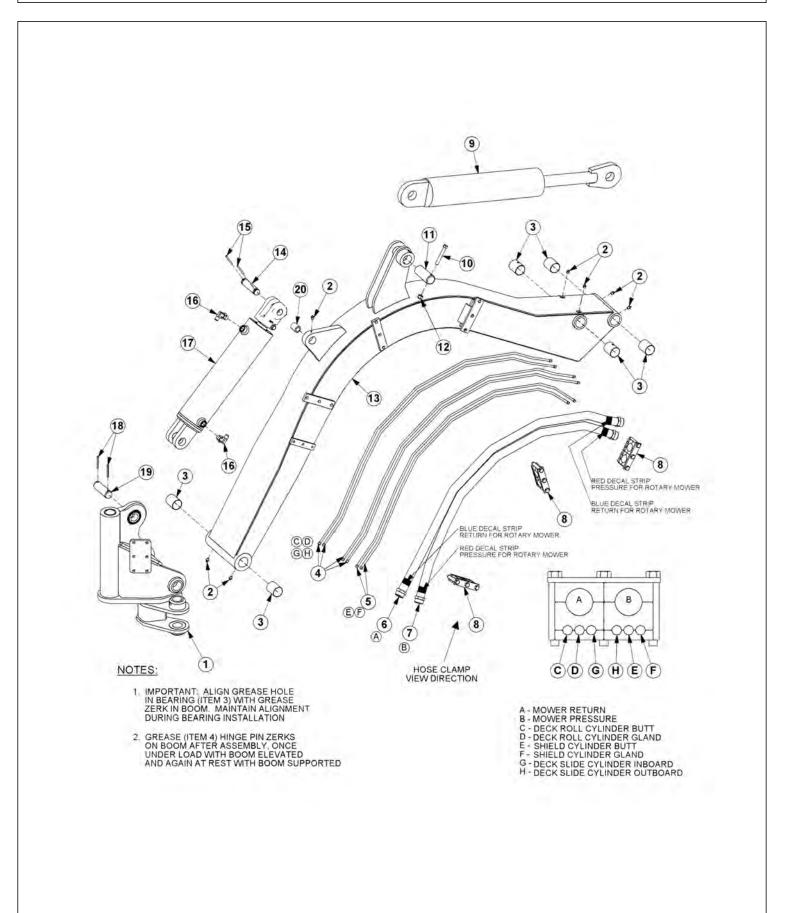


#### **BOOM ASSEMBLY - FLAIL**



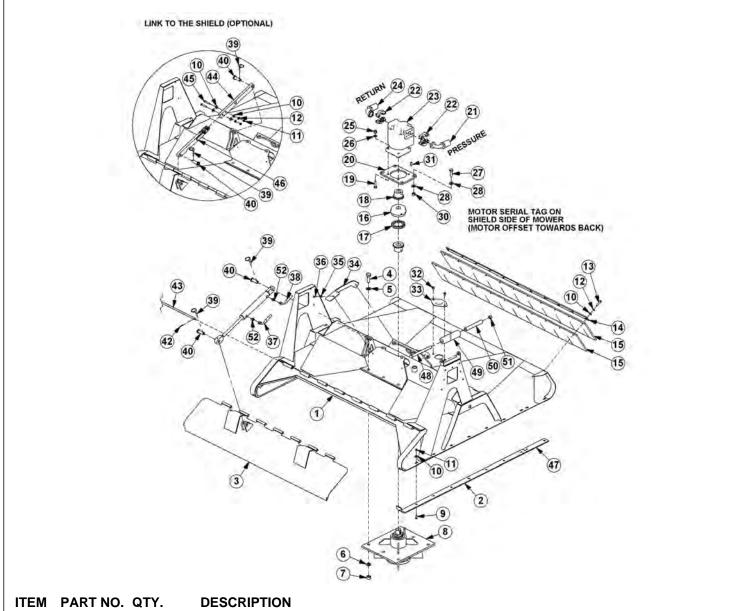
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	ITEM	PART NO.	QTY.	DESCRIPTION
	1		-	SWIVEL ASSY *REFER TO BOOM MOUNT KIT PAGE
	2	6T3211	7	GREASE ZERK,1/8"
	3	32321	6	BEARING
	4	06500723	2	HOSE,1/4" X 52"
	5	06500724	2	HOSE,1/4" X 70"
	6		1	HOSE *REFER TO TRACTOR SPECIFIC PARTS
	7		1	HOSE *REFER TO TRACTOR SPECIFIC PARTS
	8	06505116	3	HOSE CLAMP
	9	32365	1	CYLINDER,4" X 15",WELDED
	10	21687	1	CAPSCREW,7/16" X 3",NC
	11	32375	1	PIN,1-1/2"OD
	12	21677	1	NYLOCK NUT,7/16"
	13	06700000	1	BOOM ASSEMBLY, COMPLETE
		35331	1	BOOM WELDMENT
	14	TB1033	1	PIN,CLEVIS
	15	06537021	2	ROLL PIN,5MM
	16	32810	2	ELBOW
	17	06501028	1	CYLINDER,4" X 14",WELDED
	18	TB1023	2	ROLL PIN,7/16"
	19	06420100	1	PIN,1-1/4"OD
	20	TB3010	1	SPLIT BUSHING
1				





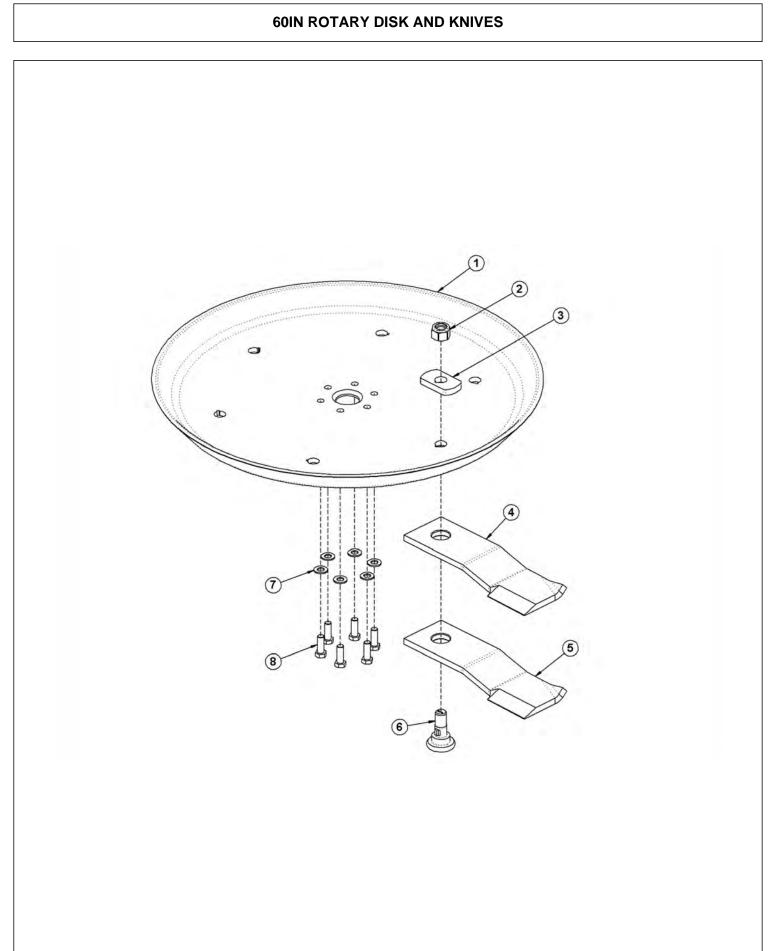
	ITEM	PART NO.	ΟΤΥ	DESCRIPTION
	1 <b>E IVI</b>	I ANT NO.	w.II.	SWIVEL ASSY *REFER TO BOOM MOUNT KIT PAGE
			-	
	2	6T3211	7	GREASE ZERK,1/8"
	3	32321	6	BEARING
	4	06500723	4	HOSE,1/4" X 52"
	5	06500724	2	HOSE,1/4" X 70"
	6		1	HOSE *REFER TO TRACTOR SPECIFIC PARTS
	7		1	HOSE *REFER TO TRACTOR SPECIFIC PARTS
	8	06505116	3	HOSE CLAMP
	9	32365	1	CYLINDER,4" X 15",WELDED
	10	21687	1	CAPSCREW,7/16" X 3",NC
	11	32375	1	PIN,1-1/2"OD
	12	21677	1	NYLOCK NUT,7/16"
	13	06700000	1	BOOM ASSEMBLY, COMPLETE
		35331	1	BOOM WELDMENT
	14	TB1033	1	PIN,CLEVIS
	15	06537021	2	ROLL PIN,5MM
	16	32810	2	ELBOW
	17	06501028	1	CYLINDER,4" X 14",WELDED
	18	TB1023	2	ROLL PIN,7/16"
	19	06420100	1	PIN,1-1/4"OD
	20	TB3010	1	SPLIT BUSHING
L				

#### **60IN ROTARY MOWER**



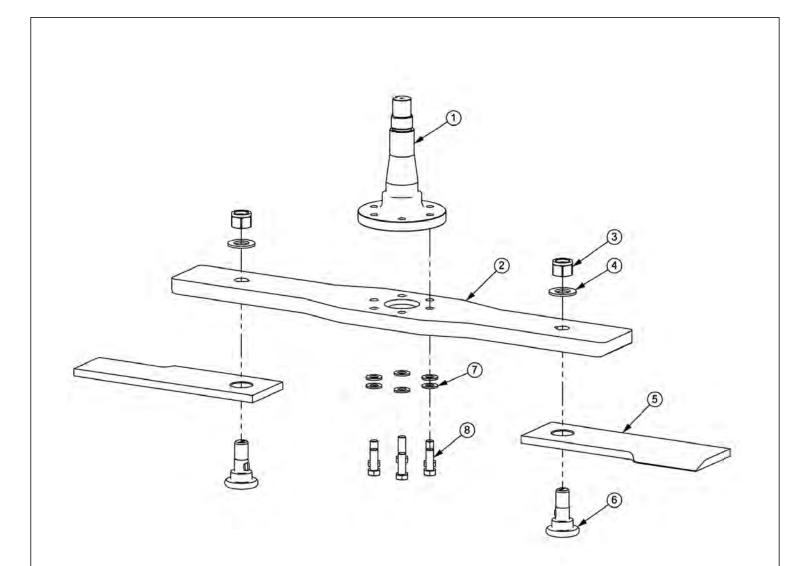
1	06320183	1	DECK,WLDMNT,60" RTRY,RSS
2	33777	2	SKID SHOE,RTRY
3	06320162	1	SHIELD,60"RTRY
4	33879	6	CAPSCREW,3/4" X 2-1/4",NF,GR 8
5	33880	6	FLATWASHER,3/4",GR 8,SAE
6	21993	6	LOCKWASHER,3/4",GR 8
7	6T2413	6	HEX NUT,3/4",NF,GR 8
8	6T1024H5	1	SPINDLE ASSY,CPLT,HD,5/8 HOLES
9	6T2270	16	PLOW BOLT,3/8" X 1",NC
10	22016	33	FLATWASHER,3/8"
11	21625	20	HEX NUT,3/8",NC
12	21988	11	LOCKWASHER,3/8"

ITEM	PART NO.	QTY.	DESCRIPTION
13	21633	11	CAPSCREW,3/8" X 1-3/4",NC
14	6T0823	1	FLAP RETAINER,60" RTRY
15	06520238	2	FLAP,60" RTRY
16	6T1033	1	COUPLER COVER
17	6T1029	1	COUPLER CHAIN
18	21223	1	SPROCKET
19	21733	4	CAPSCREW,1/2" X 2",NC
20	33776	1	MOTOR MOUNT, PLATE, RTRY
21	06500458	1	HOSE,1" X 95" (PRESSURE)
22	TF4852	2	FLANGE KIT,#20
23	06504011	1	MOTOR
24	06500613	1	HOSE,1" X 87" (RETURN)
25	21727	4	NYLOCK NUT,1/2",NC
26	06533004	4	FLATWASHER,1/2"
27	6T2290	4	CAPSCREW,5/8" X 2",NF,GR 8
28	33764	8	FLATWASHER,5/8",GR 8,SAE
29	21992	4	LOCKWASHER,5/8"
30	6T2408	4	HEX NUT,5/8",NF
31	TF1124	1	SQUARE KEY
32	33881	4	CAPSCREW,FLG,3/8" X 3/4",NC
33	33779	1	PLATE,COVER,KNF HOLE
34	06410439	2	COVER
35	22014	2	FLATWASHER,1/4"
36	21530	2	CAPSCREW,1/4" X 1",NC
37	06500141	1	HOSE,1/4" X 92"
38	06500443	1	HOSE,1/4" X 83"
39	RD1032	2	LYNCH PIN
40	33984	2	PIN,SHIELD
41	33785	1	CYLINDER,1-1/2" X 8"
42	6T3017	2	ROLLPIN
43	06420139	1	HINGE PIN,60" RTRY
44	33772	1	LINK,SHIELD,RTRY
45	21634	2	CAPSCREW,3/8" X 2",NC
46	33773	1	LINK 2,SHIELD,RTRY
47	06401245	2	SKID SHOE, TRB60
48	06530226	1	CAPSCREW,3/4" X 8-1/2",NC
49	35340	1	ROLLER
50	35339	1	BUSHING
51	21825	1	HEX NUT,3/4",NC
52	06503057	2	ADAPTER,1/4"MOR X 3/8"MJ

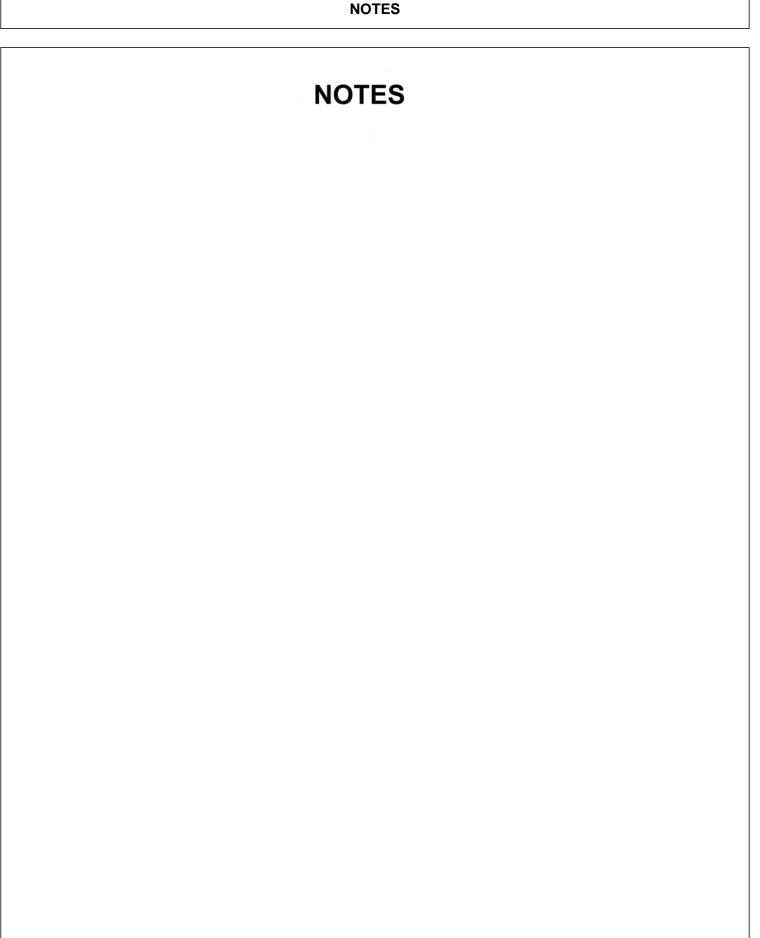


ITEM	PART NO.	QTY.	DESCRIPTION
	27167	1	BOLT KIT (INCLUDES ITEMS 7, 8 & LOCTITE)
1	34876	1	BLADE MOUNTING DISK
2	6T1023R	2	NYLOCK NUT,1-1/8",NF
3	34878	2	SPACER
4	34684	2	STANDARD GRASS KNIFE
5	34685	2	HIGH SUCTION GRASS KNIFE (OPTIONAL)
6	34497	2	KNIFE MOUNTING BOLT
7	25270	6	FLATWASHER,5/8",GR8,USS
8	6T2259	6	CAPSCREW,5/8" X 1-3/4",NF
	6T1825	1	LOCTITE (USED ON ITEM 8)
	33893	1	KNIFE KIT (ITEMS 2,4 & 6)

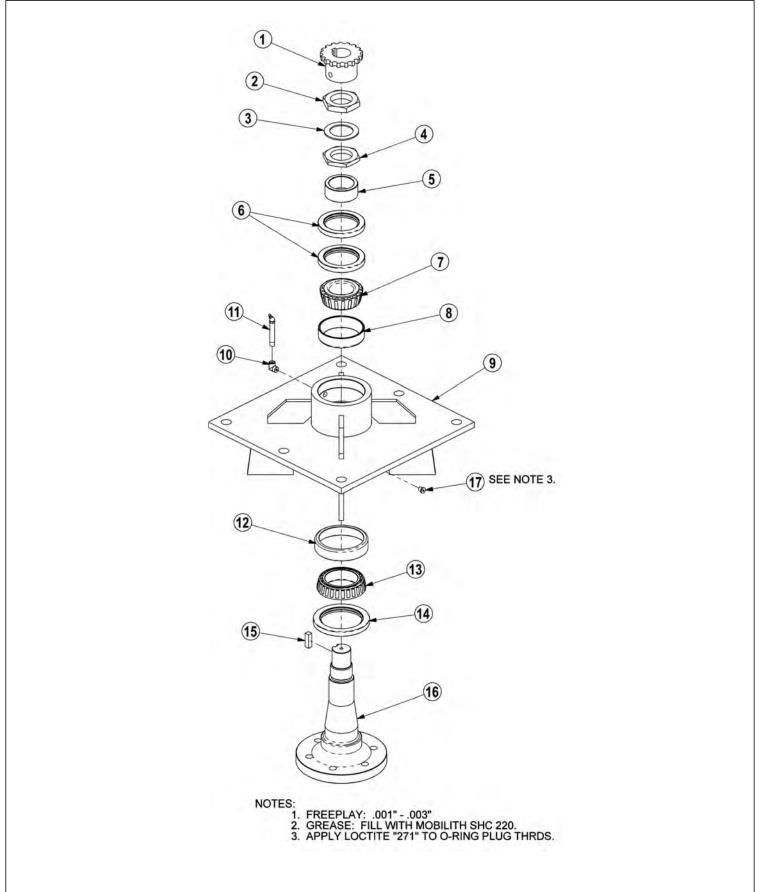
# **60IN BLADE BAR AND KNIVES**



ITEM	PART NO.	QTY.	DESCRIPTION
1	PT1018H5	1	SPINDLE
2	06400690	1	BAR,BLADE,RTRY60
3	6T1023R	2	KNIFE MTG NUT,1-1/8,NYLOCK,NF
4	06533002	2	FLATWASHER,1-1/8,GR8
5	06521001	2	KNIFE,TRB50,5/8
6	06538000	2	KNIFE MTG BOLT,5/8 SHOULDER
7	33764	6	FLATWASHER,5/8,GR 8,SAE
8	6T2259	6	CAPSCREW,5/8 X 1-3/4,NF,GR8

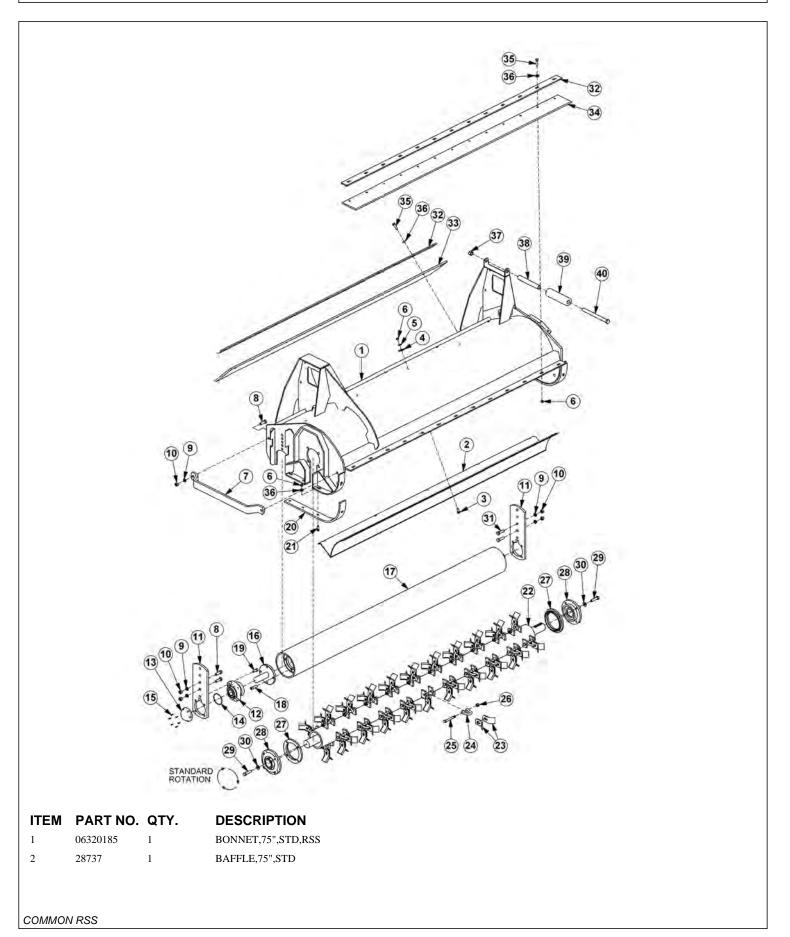


#### **ROTARY MOWER SPINDLE ASSEMBLY**



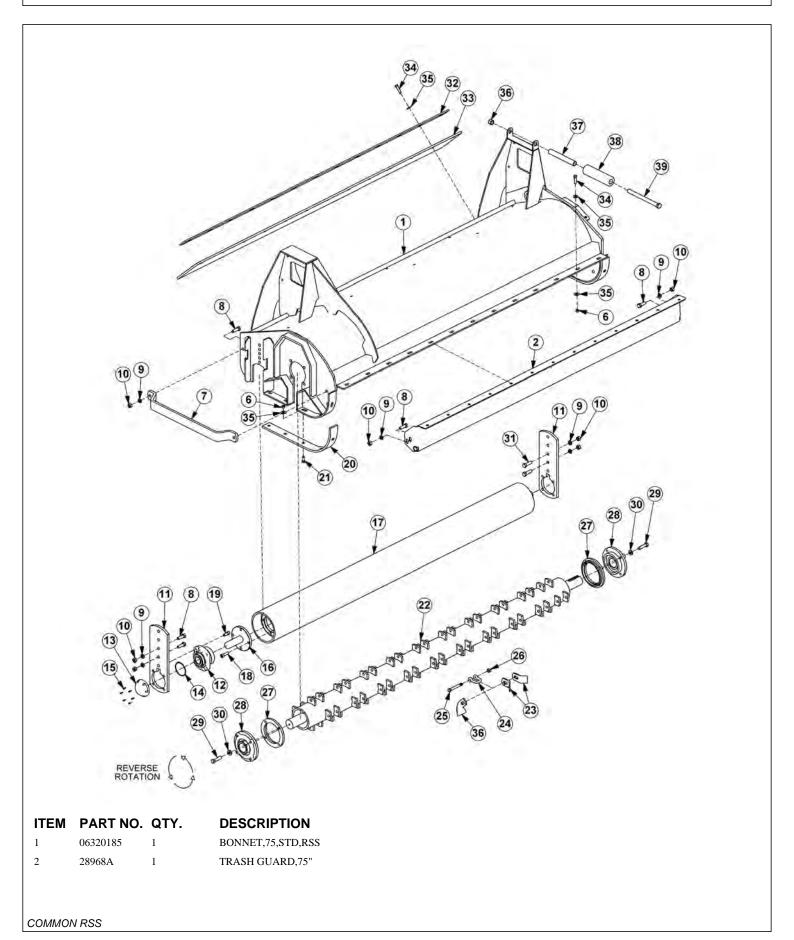
ITEM	PART NO.	QTY.	DESCRIPTION
	6T1024H5	-	SPINDLE ASSEMBLY COMPLETE
1	6T1031	1	SPROCKET
2	6T1016	1	BEARING LOCK NUT - THICK
3	22596	1	JAM WASHER
4	6T1015	1	BEARING ADJUSTMENT NUT - THIN
5	6T1014	1	BEARING ADJUSTMENT SLEEVE
6	6T1011	1	UPPER SEAL - SET OF 2
7	6T1012	1	BEARING CONE
8	6T1013	1	BEARING CUP
9	6T1010H	1	SPINDLE HOUSING
10	30570	1	FITTING STREET ELBOW
11	33990	1	GREASE ZERK
12	6T1013H	1	BEARING CUP
13	6T1012H	1	BEARING CONE
14	6T1011H	1	LOWER SEAL
15	6T1019	1	SPINDLE KEY
16	PT1018H-5	1	SPINDLE
17	06503064	1	O-RING PLUG, 1/8"
	31771	-	SPINDLE REBUILD KIT (INCLUDES ITEMS 2 - 8 AND 12 - 15)

#### **75IN FLAIL - STANDARD ROTATION**



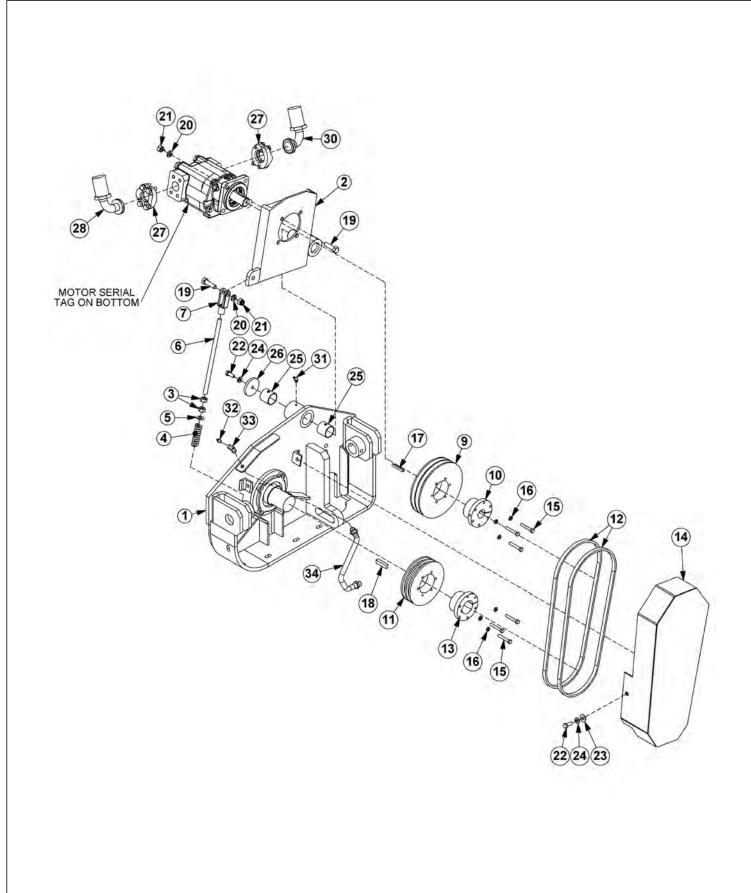
3         6T2283         10         CARRIAGE BOLT,3/8" X 1",NC           4         6T2615         10         WASHER,FENDER,3/8"           5         21988         10         LOCKWASHER,3/8"           6         21625         46         HEX NUT,3/8",NC           7         27975A         1         GUARD,CUTTERSHAFT           8         21731         4         CAPSCREW,1/2" X 1-1/2",NC           9         21990         6         LOCKWASHER,1/2"           10         21725         6         HEX NUT,1/2",NC           11         28735         2         GROUND ROLLER ADJ BRKT,STD DTY           12         06520028         2         BEARING,FLANGE,1-3/8,GRNDRLR           13         0652007         2         O-RING,2-3/4 X 3/32",AS568A-148           15         0653001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747	ITEM	PART NO.	QTY.	DESCRIPTION
5         21988         10         LOCKWASHER,3/8"           6         21625         46         HEX NUT,3/8",NC           7         27975A         1         GUARD,CUTTERSHAFT           8         21731         4         CAPSCREW,1/2" X 1-1/2",NC           9         21990         6         LOCKWASHER,1/2"           10         21725         6         HEX NUT,1/2",NC           11         28735         2         GROUND ROLLER ADJ BRKT,STD DTY           12         06520027         2         CAP,BEARING,GRNDRLR           14         06520027         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B	3	6T2283	10	CARRIAGE BOLT,3/8" X 1",NC
6         21625         46         HEX NUT,3/8",NC           7         27975A         1         GUARD,CUTTERSHAFT           8         21731         4         CAPSCREW,1/2" X 1-1/2",NC           9         21990         6         LOCKWASHER,1/2"           10         21725         6         HEX NUT,1/2",NC           11         28735         2         GROUND ROLLER ADJ BRKT,STD DTY           12         06520028         2         BEARING,FLANGE,1-3/8,GRNDRLR           13         06520027         2         CAP,BEARING,GRNDRLR           14         06520029         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         672330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B	4	6T2615	10	WASHER, FENDER, 3/8"
7         27975A         1         GUARD, CUTTERSHAFT           8         21731         4         CAPSCREW, 1/2" X 1-1/2", NC           9         21990         6         LOCKWASHER, 1/2"           10         21725         6         HEX NUT, 1/2", NC           11         28735         2         GROUND ROLLER ADJ BRKT, STD DTY           12         06520028         2         BEARING, FLANGE, 1-3/8, GRNDRLR           13         06520027         2         CAP, BEARING, GRNDRLR           14         06520029         2         O-RING, 2-3/4 X 3/32", AS568A-148           15         06530001         12         CAPSCREW, SKT HD, 8-32 X 1/2", SS           16         TF1045B         2         STUB SHAFT, GROUND ROLLER           17         28738         1         GROUND ROLLER, 75"           18         6T2330         8         CAPSCREW, SKT HD, 7/16" X 1-1/2", NC           19         6T2331         8         CAPSCREW, SKT HD, 7/16" X 1-1/2", NC           20         28086A         2         SKID SHOE, STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT, 3/8" X 1-1/4", NC, GR5            28747         -         CUTTERSHAFT ASSY, STANDARD	5	21988	10	LOCKWASHER,3/8"
8         21731         4         CAPSCREW,1/2" X 1-1/2",NC           9         21990         6         LOCKWASHER,1/2"           10         21725         6         HEX NUT,1/2",NC           11         28735         2         GROUND ROLLER ADJ BRKT,STD DTY           12         06520028         2         BEARING,FLANGE,1-3/8,GRNDRLR           13         06520027         2         CAP,BEARING,GRNDRLR           14         06520029         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28066A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT,75"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011	6	21625	46	HEX NUT,3/8",NC
9         21990         6         LOCKWASHER,1/2"           10         21725         6         HEX NUT,1/2",NC           11         28735         2         GROUND ROLLER ADJ BRKT,STD DTY           12         06520028         2         BEARING,FLANGE,1-3/8,GRNDRLR           13         06520027         2         CAP,BEARING,GRNDRLR           14         06520029         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT,57"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020<	7	27975A	1	GUARD,CUTTERSHAFT
10         21725         6         HEX NUT,1/2",NC           11         28735         2         GROUND ROLLER ADJ BRKT,STD DTY           12         06520028         2         BEARING,FLANGE,1-3/8,GRNDRLR           13         06520027         2         CAP,BEARING,GRNDRLR           14         06520029         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT,75"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         <	8	21731	4	CAPSCREW,1/2" X 1-1/2",NC
11       28735       2       GROUND ROLLER ADJ BRKT,STD DTY         12       06520028       2       BEARING,FLANGE,1-3/8,GRNDRLR         13       06520027       2       CAP,BEARING,GRNDRLR         14       06520029       2       O-RING,2-3/4 X 3/32",AS568A-148         15       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         16       TF1045B       2       STUB SHAFT,GROUND ROLLER         17       28738       1       GROUND ROLLER,75"         18       6T2330       8       CAPSCREW,SKT HD,7/16" X 1-1/2",NC         20       28086A       2       SKID SHOE,STD DUTY REAR FLAIL         21       30013       10       PLOW BOLT,3/8" X 1-1/4",NC,GR5          28747       -       CUTTERSHAFT,75"         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28	9	21990	6	LOCKWASHER,1/2"
12         06520028         2         BEARING,FLANGE,1-3/8,GRNDRLR           13         06520027         2         CAP,BEARING,GRNDRLR           14         06520029         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT,75"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16", X 2.7/16",STD,TSF	10	21725	6	HEX NUT,1/2",NC
13         06520027         2         CAP,BEARING,GRNDRLR           14         06520029         2         O-RING,2-3/4 X 3/32",AS568A-148           15         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT,75"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16",NC            06200639         -         STRING GUARD,STD           28         2	11	28735	2	GROUND ROLLER ADJ BRKT,STD DTY
14       06520029       2       O-RING,2-3/4 X 3/32",AS568A-148         15       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         16       TF1045B       2       STUB SHAFT,GROUND ROLLER         17       28738       1       GROUND ROLLER,75"         18       6T2330       8       CAPSCREW,SKT HD,7/16" X 1-1/2",NC         19       6T2331       8       CAPSCREW,SKT HD,7/16" X 1",NC         20       28086A       2       SKID SHOE,STD DUTY REAR FLAIL         21       30013       10       PLOW BOLT,3/8" X 1-1/4",NC,GR5          28747       -       CUTTERSHAFT ASSY,STANDARD         22       28643B       1       CUTTERSHAFT,75"         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16", X 3-7/16",NC,GR8         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         31	12	06520028	2	BEARING,FLANGE,1-3/8,GRNDRLR
15       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         16       TF1045B       2       STUB SHAFT,GROUND ROLLER         17       28738       1       GROUND ROLLER,75"         18       672330       8       CAPSCREW,SKT HD,7/16" X 1-1/2",NC         19       672331       8       CAPSCREW,SKT HD,7/16" X 1",NC         20       28086A       2       SKID SHOE,STD DUTY REAR FLAIL         21       30013       10       PLOW BOLT,3/8" X 1-1/4",NC,GR5          28747       -       CUTTERSHAFT ASSY,STANDARD         22       28643B       1       CUTTERSHAFT,75"         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         31 <t< td=""><td>13</td><td>06520027</td><td>2</td><td>CAP,BEARING,GRNDRLR</td></t<>	13	06520027	2	CAP,BEARING,GRNDRLR
16         TF1045B         2         STUB SHAFT,GROUND ROLLER           17         28738         1         GROUND ROLLER,75"           18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT,75"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16",NC            06200639         -         STRING GUARD,STD           28         28683         2         BEARING,FLANGE,1-15/16",STD,TSF           29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732	14	06520029	2	O-RING,2-3/4 X 3/32",AS568A-148
17       28738       1       GROUND ROLLER,75"         18       6T2330       8       CAPSCREW,SKT HD,7/16" X 1-1/2",NC         19       6T2331       8       CAPSCREW,SKT HD,7/16" X 1",NC         20       28086A       2       SKID SHOE,STD DUTY REAR FLAIL         21       30013       10       PLOW BOLT,3/8" X 1-1/4",NC,GR5          28747       -       CUTTERSHAFT ASSY,STANDARD         22       28643B       1       CUTTERSHAFT,75"         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016	15	06530001	12	CAPSCREW,SKT HD,8-32 X 1/2",SS
18         6T2330         8         CAPSCREW,SKT HD,7/16" X 1-1/2",NC           19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT,75"           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16",NC            06200639         -         STRING GUARD KIT,SD (ITEMS 27,29,30)           27         33863         2         BEARING,FLANGE,1-15/16",STD,TSF           29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32         TF1029         2         BAR,FLAP,TSF/TBF,75"           33	16	TF1045B	2	STUB SHAFT, GROUND ROLLER
19         6T2331         8         CAPSCREW,SKT HD,7/16" X 1",NC           20         28086A         2         SKID SHOE,STD DUTY REAR FLAIL           21         30013         10         PLOW BOLT,3/8" X 1-1/4",NC,GR5            28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT ASSY,STANDARD           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16",NC            06200639         -         STRING GUARD KIT,SD (ITEMS 27,29,30)           27         33863         2         STRING GUARD,STD           28         28683         2         BEARING,FLANGE,1-15/16",STD,TSF           29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32	17	28738	1	GROUND ROLLER,75"
20       28086A       2       SKID SHOE,STD DUTY REAR FLAIL         21       30013       10       PLOW BOLT,3/8" X 1-1/4",NC,GR5          28747       -       CUTTERSHAFT ASSY,STANDARD         22       28643B       1       CUTTERSHAFT ASSY,STANDARD         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,0EFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	18	6T2330	8	CAPSCREW,SKT HD,7/16" X 1-1/2",NC
21       30013       10       PLOW BOLT,3/8" X 1-1/4",NC,GR5          28747       -       CUTTERSHAFT ASSY,STANDARD         22       28643B       1       CUTTERSHAFT ASSY,STANDARD         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,75",FRONT	19	6T2331	8	CAPSCREW,SKT HD,7/16" X 1",NC
28747         -         CUTTERSHAFT ASSY,STANDARD           22         28643B         1         CUTTERSHAFT ASSY,STANDARD           23         33713         80         KNIFE,FLAIL,SHORT           24         TF1020         40         KNIFE,MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16",NC            06200639         -         STRING GUARD KIT,SD (ITEMS 27,29,30)           27         33863         2         STRING GUARD,STD           28         28683         2         BEARING,FLANGE,1-15/16",STD,TSF           29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32         TF1029         2         BAR,FLAP,TSF/TBF,75"           33         TF1016         1         FLAP,75",FRONT	20	28086A	2	SKID SHOE, STD DUTY REAR FLAIL
22       28643B       1       CUTTERSHAFT,75"         23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,0EFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	21	30013	10	PLOW BOLT,3/8" X 1-1/4",NC,GR5
23       33713       80       KNIFE,FLAIL,SHORT         24       TF1020       40       KNIFE MTG CLEVIS,FLAIL         25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,0EFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT		28747	-	CUTTERSHAFT ASSY,STANDARD
24         TF1020         40         KNIFE MTG CLEVIS,FLAIL           25         34011         40         CAPSCREW,7/16" X 3-7/16",NC,GR8           26         21677         40         NYLOCK NUT,7/16",NC            06200639         -         STRING GUARD KIT,SD (ITEMS 27,29,30)           27         33863         2         STRING GUARD,STD           28         28683         2         BEARING,FLANGE,1-15/16",STD,TSF           29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32         TF1029         2         BAR,FLAP,TSF/TBF,75"           33         TF1016         1         FLAP,0EFLECTOR,TSF,75"           34         06520242         1         FLAP,75",FRONT	22	28643B	1	CUTTERSHAFT,75"
25       34011       40       CAPSCREW,7/16" X 3-7/16",NC,GR8         26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,0EFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	23	33713	80	KNIFE,FLAIL,SHORT
26       21677       40       NYLOCK NUT,7/16",NC          06200639       -       STRING GUARD KIT,SD (ITEMS 27,29,30)         27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,DEFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	24	TF1020	40	KNIFE MTG CLEVIS,FLAIL
06200639         -         STRING GUARD KIT,SD (ITEMS 27,29,30)           27         33863         2         STRING GUARD,STD           28         28683         2         BEARING,FLANGE,1-15/16",STD,TSF           29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32         TF1029         2         BAR,FLAP,TSF/TBF,75"           33         TF1016         1         FLAP,0EFLECTOR,TSF,75"           34         06520242         1         FLAP,75",FRONT	25	34011	40	CAPSCREW,7/16" X 3-7/16",NC,GR8
27       33863       2       STRING GUARD,STD         28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,DEFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	26	21677	40	NYLOCK NUT,7/16",NC
28       28683       2       BEARING,FLANGE,1-15/16",STD,TSF         29       06530217       8       CAPSCREW,1/2" X 2",NC,L9         30       06533006       8       FLATWASHER,1/2",SAE,L9         31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,DEFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT		06200639	-	STRING GUARD KIT,SD (ITEMS 27,29,30)
29         06530217         8         CAPSCREW,1/2" X 2",NC,L9           30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32         TF1029         2         BAR,FLAP,TSF/TBF,75"           33         TF1016         1         FLAP,DEFLECTOR,TSF,75"           34         06520242         1         FLAP,75",FRONT	27	33863	2	STRING GUARD,STD
30         06533006         8         FLATWASHER,1/2",SAE,L9           31         21732         2         CAPSCREW,1/2" X 1-3/4",NC           32         TF1029         2         BAR,FLAP,TSF/TBF,75"           33         TF1016         1         FLAP,DEFLECTOR,TSF,75"           34         06520242         1         FLAP,75",FRONT	28	28683	2	BEARING,FLANGE,1-15/16",STD,TSF
31       21732       2       CAPSCREW,1/2" X 1-3/4",NC         32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,DEFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	29	06530217	8	CAPSCREW,1/2" X 2",NC,L9
32       TF1029       2       BAR,FLAP,TSF/TBF,75"         33       TF1016       1       FLAP,DEFLECTOR,TSF,75"         34       06520242       1       FLAP,75",FRONT	30	06533006	8	FLATWASHER,1/2",SAE,L9
33         TF1016         1         FLAP, DEFLECTOR, TSF, 75"           34         06520242         1         FLAP, 75", FRONT	31	21732	2	CAPSCREW,1/2" X 1-3/4",NC
34 06520242 1 FLAP,75",FRONT	32	TF1029	2	BAR,FLAP,TSF/TBF,75"
	33	TF1016	1	FLAP, DEFLECTOR, TSF, 75"
35 21632 26 CAPSCREW,3/8" X 1-1/2",NC	34	06520242	1	FLAP,75",FRONT
	35	21632	26	CAPSCREW,3/8" X 1-1/2",NC
36 22016 36 FLATWASHER,3/8"	36	22016	36	FLATWASHER,3/8"
37 21825 1 HEX NUT,3/4",NC	37	21825	1	HEX NUT,3/4",NC
38 35339 1 BUSHING	38	35339	1	BUSHING
39 35340 1 ROLLER	39	35340	1	ROLLER
40 06530226 1 CAPSCREW,3/4" X 8-1/2",NC	40	06530226	1	CAPSCREW,3/4" X 8-1/2",NC

#### **75IN FLAIL - REVERSE ROTATION**



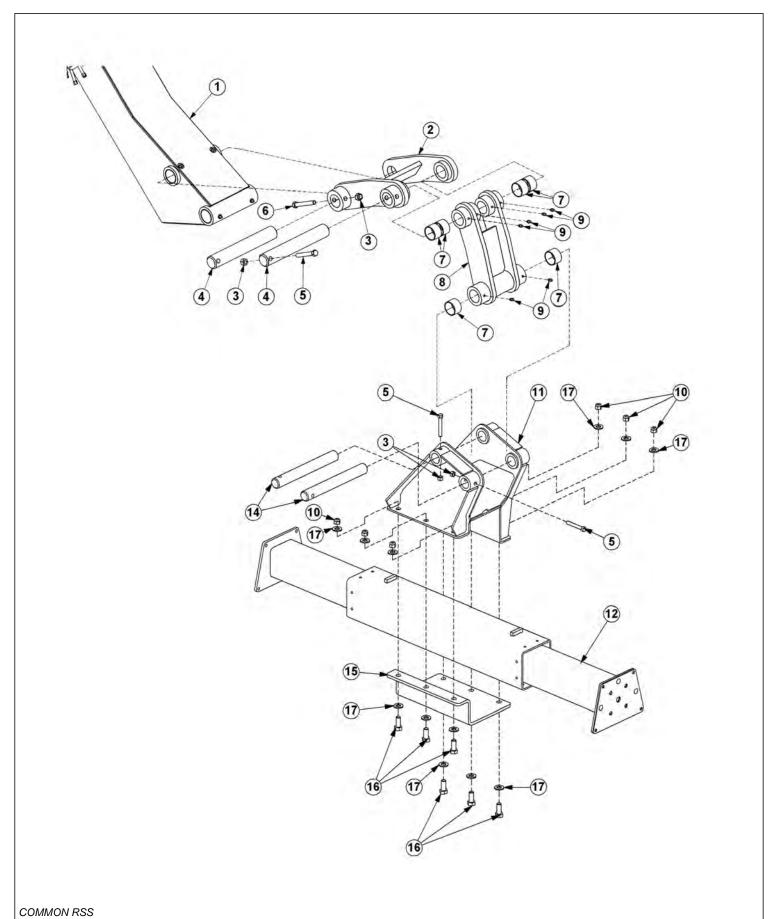
ITEM	PART NO.	QTY.	DESCRIPTION
3	6T2283	10	CARRIAGE BOLT,3/8" X 1",NC
4	6T2615	10	WASHER,FENDER,3/8"
5	21988	10	LOCKWASHER,3/8"
6	21625	36	HEX NUT,3/8",NC
7	27975A	1	GUARD,CUTTERSHAFT
8	21731	6	CAPSCREW,1/2" X 1-1/2",NC
9	21990	8	LOCKWASHER,1/2"
10	21725	8	HEX NUT,1/2",NC
11	28735	2	GROUND ROLLER ADJ BRKT,STD DTY
12	06520028	2	BEARING,FLANGE,1-3/8",GRNDRLR
13	06520027	2	CAP,BEARING,GRNDRLR
14	06520029	2	O-RING,2-3/4" X 3/32",AS568A-148
15	06530001	12	CAPSCREW,SKT HD,8-32 X 1/2",SS
16	TF1045B	2	STUB SHAFT, GROUND ROLLER
17	28738	1	GROUND ROLLER,75"
18	6T2330	8	CAPSCREW,SKT HD,7/16" X 1-1/2",NC
19	6T2331	8	CAPSCREW,SKT HD,7/16" X 1",NC
20	28086A	2	SKID SHOE,STD DUTY REAR FLAIL
21	30013	9	PLOW BOLT,3/8" X 1-1/4",NC,GR5
	28747	-	CUTTERSHAFT ASSY,STANDARD (22, 23, 24, 25 & 26)
	28748	-	CUTTERSHAFT ASSY,SMOOTH (22, 23, 24, 25 & 37)
22	28643B	1	CUTTERSHAFT,75"
23	33713	80	FLAIL KNIVES (STANDARD CUT)
24	TF1020	40	KNIFE MTG CLEVIS,FLAIL
25	34011	40	CAPSCREW,7/16" X 3-7/16",NC,GR8
26	21677	40	NYLOCK NUT,7/16",NC
	06200639	-	STRING GUARD KIT, SD (ITEMS 27,29,30)
27	33863	2	STRING GUARD,STD
28	28683	2	BEARING,FLANGE,1-15/16",STD,TSF
29	06530217	8	CAPSCREW,1/2" X 2",NC,L9
30	06533006	8	FLATWASHER,1/2",SAE,L9
31	21732	2	CAPSCREW,1/2" X 1-3/4",NC
32	TF1029	1	BAR,FLAP,TSF/TBF,75"
33	TF1016	1	FLAP,DEFLECTOR,TSF,75"
34	21632	22	CAPSCREW,3/8" X 1-1/2",NC
35	22016	49	FLATWASHER,3/8"
36	28184A	40	FLAIL KNIVES (SMOOTH CUT)
37	35339	1	BUSHING
38	35340	1	ROLLER
39	06530226	1	CAPSCREW,3/4" X 8-1/2",NC

# FLAIL DRIVE ASSEMBLY



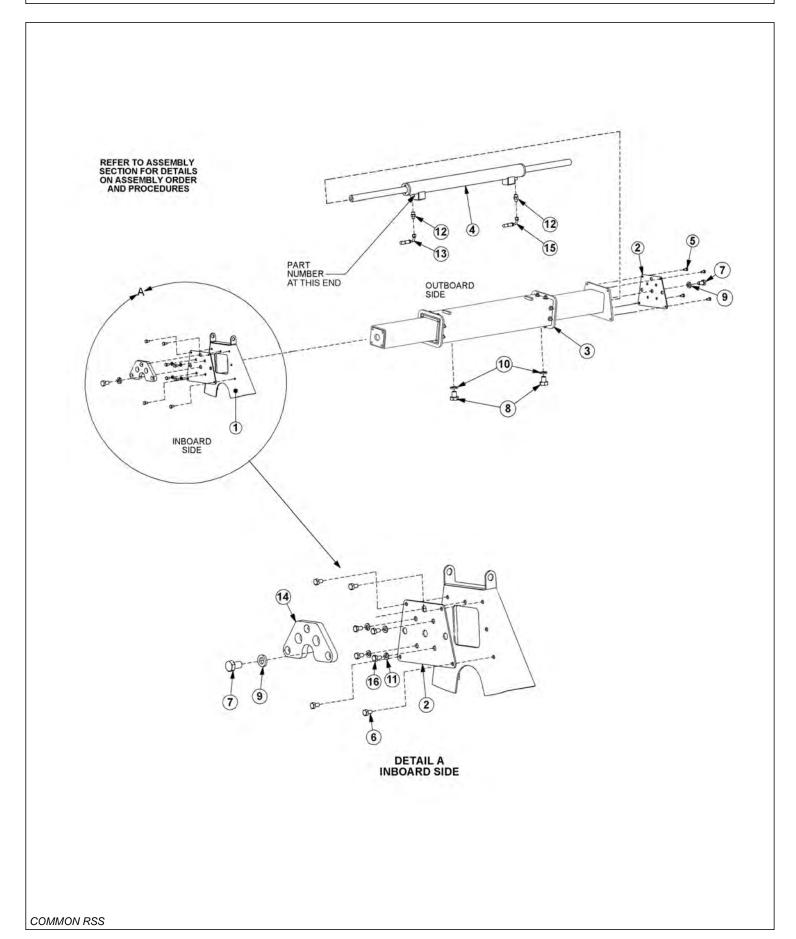
ITEM	PART NO.	QTY.	DESCRIPTION
1		-	BONNET *REFER TO HEAD PARTS
2	32287	1	MOTOR CHANNEL
3	21700	2	HEX NUT,1/2",NF
4	TF3620A	1	SPRING, TENSIONER
5	27938	1	BUSHING,MACH,1"OD X 1/2"ID X 14GA.
6	40496	1	ROD, THREADED, 1/2"NF X 8"
7	PT3611A	1	CLEVIS,6"
8	06504013	1	MOTOR
9	TF3044	1	SHEAVE,8.0"
10	TF3013	1	BUSHING,QD,SK 1-1/4",1/4" KEY
11	TF3040	1	SHEAVE,6.3"
12	28702	2	V-BELT (500)
13	28723	1	BUSHING,QD,SK 1-15/16"
14	32569	1	GUARD,BELT
15	21584	6	CAPSCREW,5/16" X 2",NC
16	21987	6	LOCKWASHER,5/16"
17	06504028	1	KEY (KEY FROM MOTOR)
18	26142A	1	KEY,1/2" X 1/2" X 2"
19	21732	5	CAPSCREW,1/2" X 1-3/4",NC
20	21990	5	LOCKWASHER,1/2"
21	21725	5	HEX NUT,1/2",NC
22	21630	3	CAPSCREW,3/8" X 1",NC
23	22016	2	FLATWASHER,3/8"
24	21988	3	LOCKWASHER,3/8"
25	27580	2	BEARING,DX,1-1/2",GRM
26	28682	1	RETAINING,WASHER,2-1/2" X 5/16"
27	TF4852	2	KIT,FLANGE,#20
28	06500616	1	HOSE,1" X 104" (RETURN FOR STANDARD ROTATION)
30	06500617	1	HOSE,1" X 106" (PRESSURE OF STANDARD ROTATION)
31	6T3204	1	GREASE ZERK,1/4" X 90°
32	6T3211	1	GREASE ZERK,1/8"
33	22085	1	ELBOW,1/8" X 90°
34	TF1032	1	GREASE HOSE

## **BOOM PIVOT ASSEMBLY**



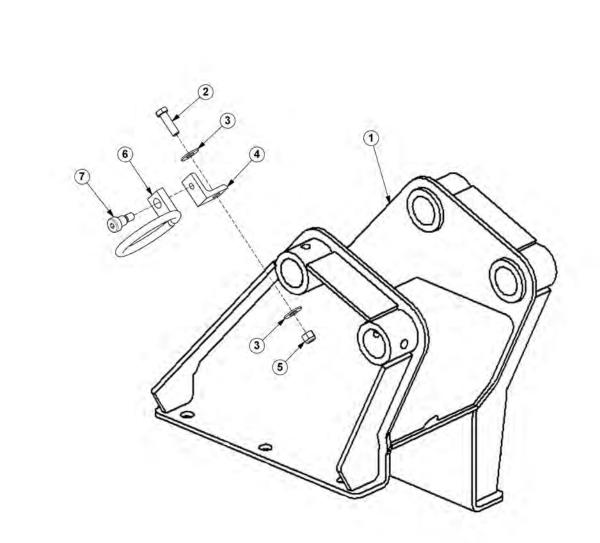
ITEM	PART NO.	QTY.	DESCRIPTION
1		1	BOOM *REFER TO BOOM ASSEMBLY
2	32316	1	LINKAGE, BOOM TO CYLINDER
3	21677	4	NYLOCK NUT, 7/16",NC
4	32319	2	PIN,LINKAGE
5	21687	3	CAPSCREW, 7/16" X 3" NC
6	21688	1	CAPSCREW, 7/16" X 3-1/4" NC
7	32318	6	BEARING
8	32745	1	LINKAGE, CYLINDER TO TREE
9	6T3207	6	GREASE ZERK, 1/4"
10	32838	6	HEX NUT, 5/8" NC
11	06310181	1	TREE, WILDKAT
12	06770096	1	SLIDE ASSEMBLY
14	32313	2	PIN,TREE
15	06412199	1	CLAMP, TREE, WILDKAT
16	06530208	6	CAPSCREW,5/8" X 1-1/2",NC
17	33764	-	FLATWASHER, 5/8" SAE

#### SLIDE ASSEMBLY



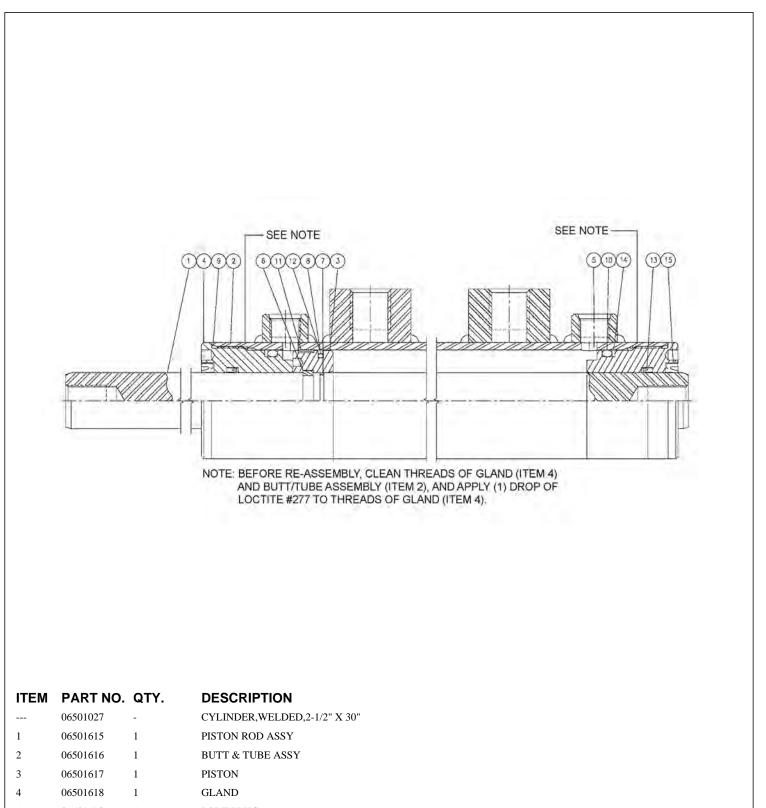
ITEM	PART NO.	QTY.	DESCRIPTION
1		-	MOWER *REFER TO MOWER ASSEMBLY PAGE
2	35336	2	CAP
3	06770096	1	SLIDE ASSEMBLY
4	06501027	1	CYLINDER, 2-1/2" X 30"
5	21632	4	CAPSCREW, 3/8" X 1-1/2" NC
6	21630	4	CAPSCREW, 3/8" X 1" NC
7	21804	2	CAPSCREW, 3/4" X 1-1/4" NF
8	21929	2	CAPSCREW, 1" X 1-1/4" NC
9	21993	2	LOCKWASHER,3/4"
10	21995	2	LOCKWASHER,1"
11	21990	4	LOCKWASHER,1/4"
12	33271	2	ADAPTER,1/2"MOR X 3/8"MJ
13	35109	1	HOSE,1/4" X 126" (ROTARY MOWERS)
	06500449	1	HOSE,1/4" X 53" (FLAIL MOWERS)
14	06497006	1	BUMPER,RSS
15	06500480	1	HOSE,1/4" X 107" (ROTARY MOWERS)
	06500449	1	HOSE,1/4" X 53" (FLAIL MOWERS)
16	21729	4	CAPSCREW,1/2" X 1"

## HOSE RING ASSEMBLY



ITEM	PART NO.	QTY.	DESCRIPTION
1		-	TREE *REFER TO BOOM PIVOT ASSY PAGE
2	21631	1	CAPSCREW,3/8" X 1-1/4",NC
3	22016	2	FLATWASHER,3/8"
4	06460043	1	ANGLE, MOUNT
5	21627	1	NYLOCK NUT,3/8",NC
6	6310117	1	RING,HOSE
7	06530003	1	CAPSCREW,SHOULDER,SKT HD
	06505021	1	COVER, HOSES (BOOM TO HOSE GUIDE) *NOT SHOWN
	06505020	1	COVER, HOSES (HOSE GUIDE TO DECK) *NOT SHOWN

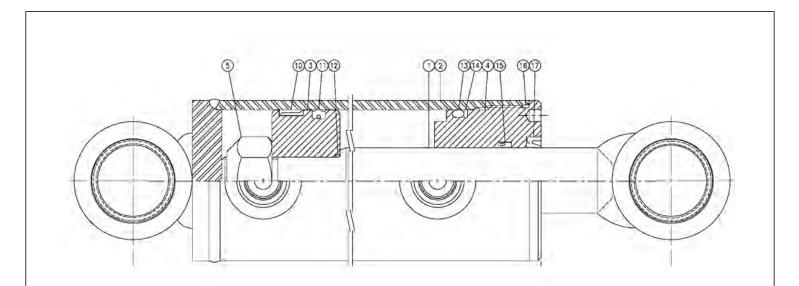
#### 2-1/2IN X 30IN CYLINDER BREAKDOWN

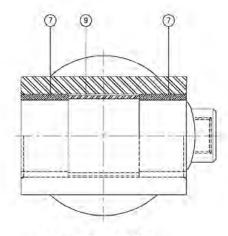


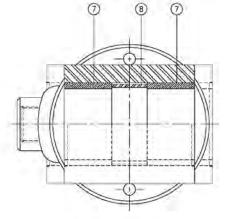
5 06501598 1 PORT PLUG

6-15 06501619 1 SEAL KIT

#### **3IN X 15IN CYLINDER BREAKDOWN**







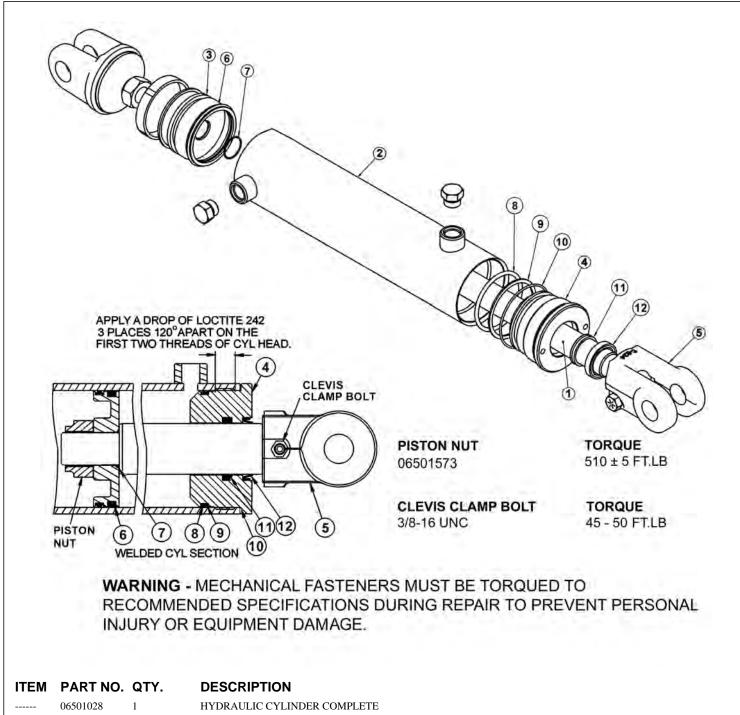
ROD END VIEW

## BUTT END VIEW

ITEM	PART NO.	QTY.	DESCRIPTION
	06501026	-	CYLINDER,WELDED,3" X 15"
1	06501608	1	PISTON ROD ASSY
2	06501609	1	BUTT & TUBE ASSY
3	06501610	1	PISTON
4	06501563	1	GLAND
5	6T0179	1	LOCK NUT,1-1/4"-12 UNF (TORQUE TO 315 FT.LB.)
6	06501598	2	PORT PLUG (NOT SHOWN)
7	06501611	4	BUSHING
8	06501612	1	SPACER,ROD END
9	06501613	1	SPACER,BUTT END
10-17	06501614	1	SEAL KIT

COMMON RSS

#### **4IN X 14IN CYLINDER BREAKDOWN**



1 06501623 1 ROD

2 06501624 1 TUBE WELDMENT

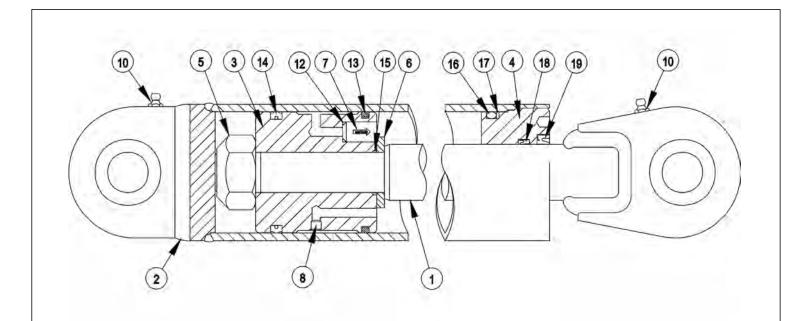
 3
 06501558
 1
 PISTON

 4
 06501607
 1
 CYLINDER HEAD

5 6T0172 1 CLEVIS

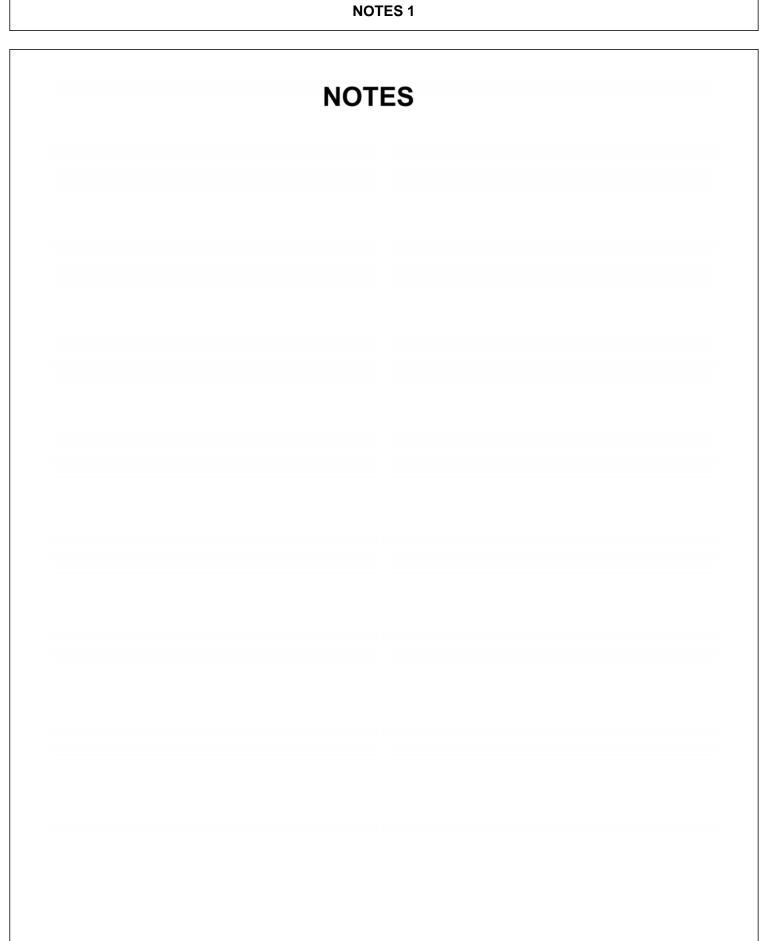
----- 06501560 1 SEAL REPAIR KIT (ITEMS 6 THROUGH 12)

#### **4IN X 15IN CYLINDER BREAKDOWN**

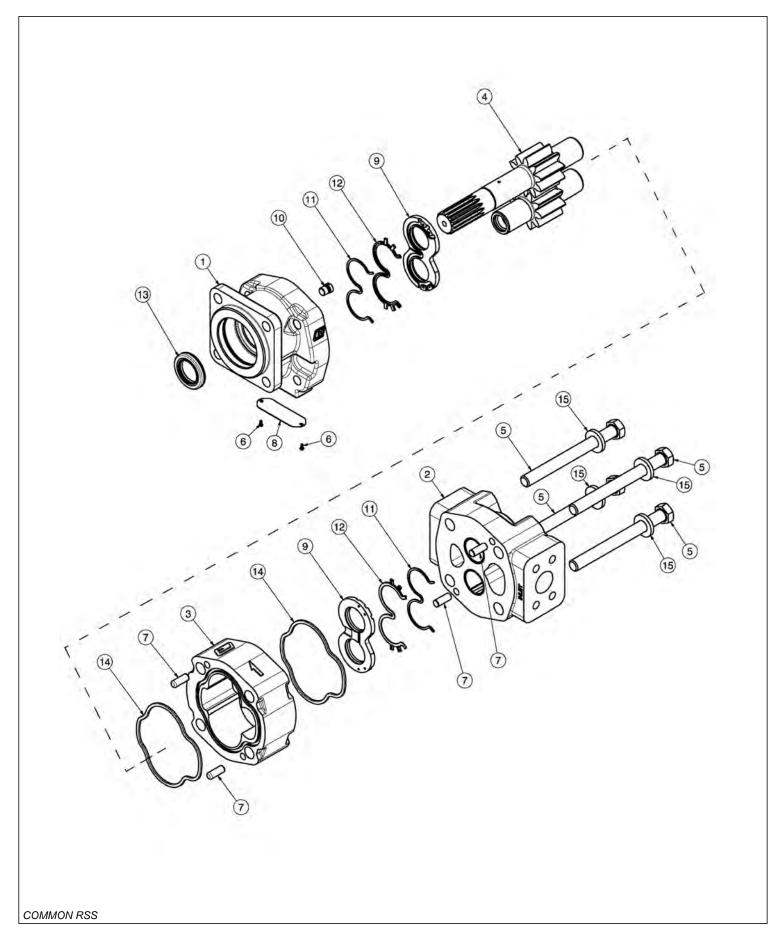


**WARNING -** MECHANICAL FASTENERS MUST BE TORQUED TO RECOMMENDED SPECIFICATIONS DURING REPAIR TO PREVENT PERSONAL INJURY OR EQUIPMENT DAMAGE.

32365       -       CYLINDER,WELDED,4" X 15"         1       06501604       1       PISTON ROD ASSY         2       06501605       1       BUTT & TUBE ASSY         3       06501606       1       PISTON         4       06501607       1       GLAND         5       06501753       1       LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)         9       33757       1       SEAL KIT,PACKING (ITEMS 12 THRU 19)         10        2       GREASE ZERK         12        1       O - RING         13        1       CROWN SEAL         14        1       O - RING         15        1       O - RING         16        1       O - RING
2       06501605       1       BUTT & TUBE ASSY         3       06501606       1       PISTON         4       06501607       1       GLAND         5       06501753       1       LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)         9       33757       1       SEAL KIT,PACKING (ITEMS 12 THRU 19)         10        2       GREASE ZERK         12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
3       06501606       1       PISTON         4       06501607       1       GLAND         5       06501753       1       LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)         9       33757       1       SEAL KIT,PACKING (ITEMS 12 THRU 19)         10        2       GREASE ZERK         12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
4       06501607       1       GLAND         5       06501753       1       LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)         9       33757       1       SEAL KIT,PACKING (ITEMS 12 THRU 19)         10        2       GREASE ZERK         12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
5       06501753       1       LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)         9       33757       1       SEAL KIT,PACKING (ITEMS 12 THRU 19)         10        2       GREASE ZERK         12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
9       33757       1       SEAL KIT,PACKING (ITEMS 12 THRU 19)         10        2       GREASE ZERK         12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
10        2       GREASE ZERK         12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
12        1       O - RING         13        1       CAST IRON PISTON RING         14        1       CROWN SEAL         15        1       O - RING
13      1     CAST IRON PISTON RING       14      1     CROWN SEAL       15      1     O - RING
14      1     CROWN SEAL       15      1     O - RING
15 1 O - RING
16 1 O DING
17 1 BACK - UP WASHER
18 1 U - CUP
19 1 WIPER
20 34335 2 SPHERICAL BEARING (NOT SHOWN)

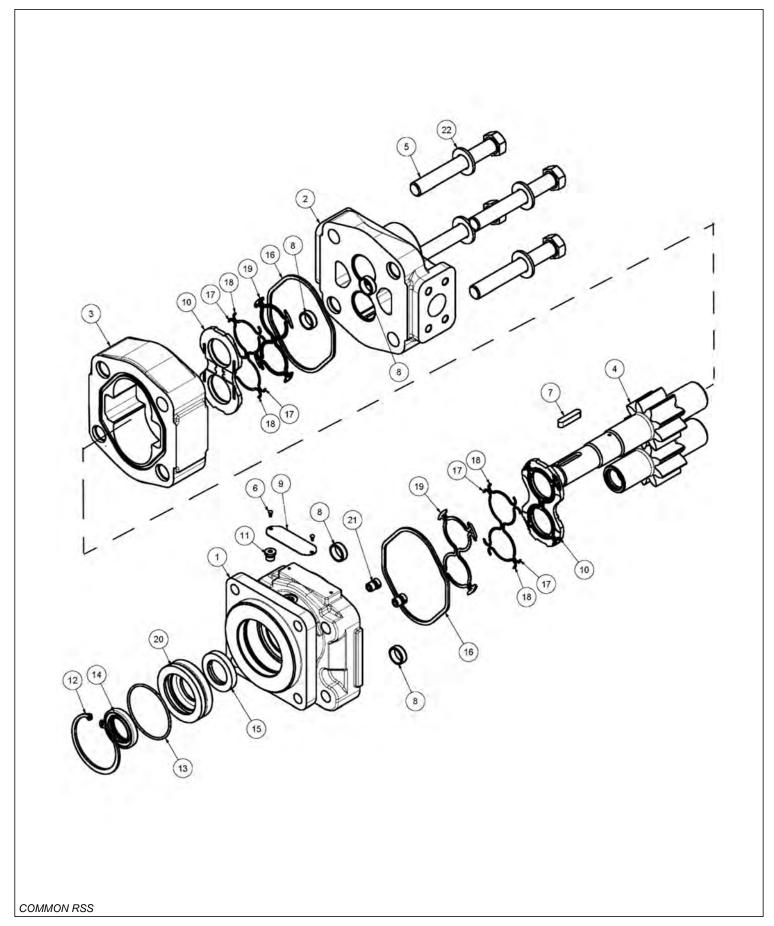


## FRONT PUMP BREAKDOWN



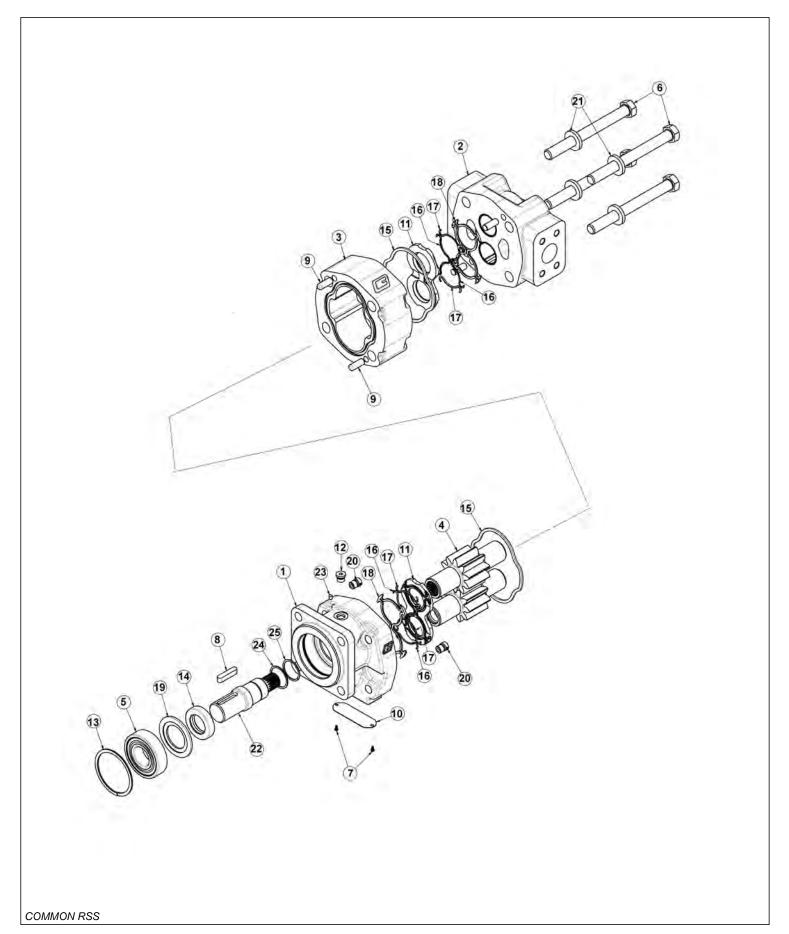
ITEM	PART NO.	QTY.	DESCRIPTION
	23152	1	PUMP ASSEMBLY,1-3/4",COMPLETE
1	22766	1	SHAFT END COVER
2	22779	1	PORT END COVER
3	22774	1	GEAR HOUSING,1-3/4"
4	22771	1	GEAR SET
5	23824	4	CAPSCREW
6	06504078	2	SCREW, DRIVE
7	22773	4	DOWEL PINS
8	06504077	1	NAMEPLATE
9	22770	2	THRUST PLATE
10	22767	1	PLUG
11	06504075	2	SEAL,BK-UP
12	06504074	2	SEAL,CHAN
13	22765	1	SEAL,LIP
14	06504076	2	SEAL,SQ-R
15	02961917	4	WASHER
	24150	1	SEAL KIT (INCLUDES 11, 12, 13 AND 14)

## **ROTARY MOTOR BREAKDOWN**

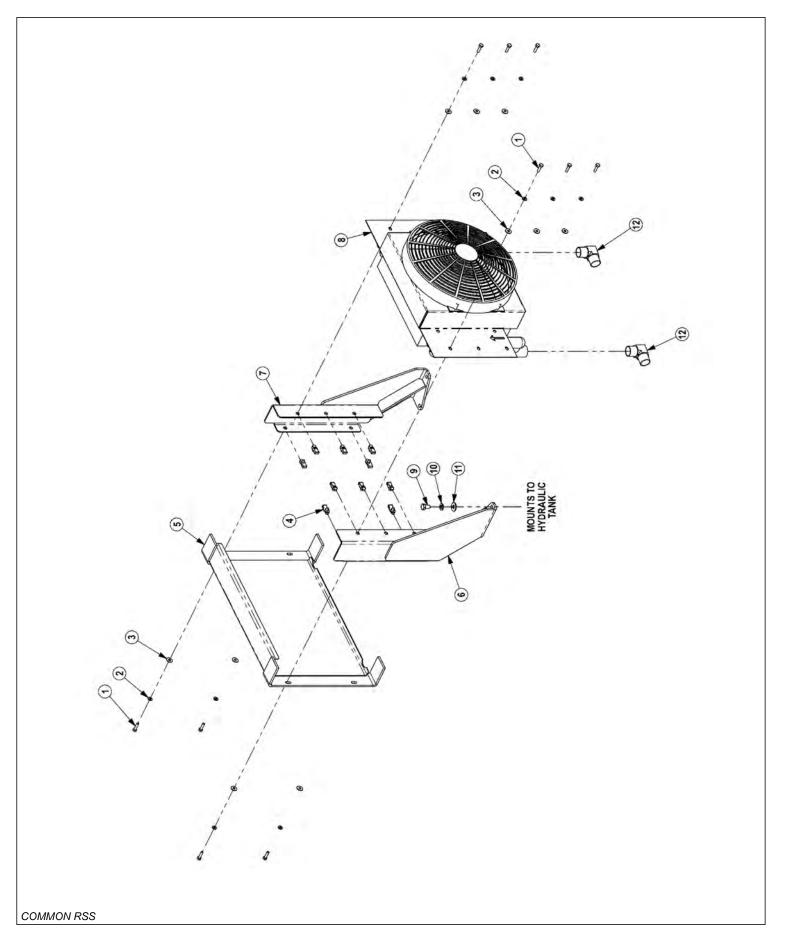


ITEM	PART NO.	QTY.	DESCRIPTION
	06504011	-	MOTOR ASSEMBLY, TRB60
1	22790	1	END,COVER
2	06504088	1	HOUSING, PEC
3	06504062	1	HOUSING, GEAR, TRB60
4	06504090	1	SET, GEAR SHAFT
5	06504104	4	CAP SCREW, TRB60
6	06504078	2	SCREW, DRIVE
7	06504092	1	KEY
8	06504093	4	PIN, DOWEL
9	06504094	1	NAME PLATE
10	06504095	2	THRPL
11	2961940	1	PLUG, ODT
12	2962200	1	RING, SNAP
13	06504096	1	O RING
14	6T5101	1	SEAL, LIP
15	06504097	1	SEAL, LIP
16	22797	2	SEAL, SQ-R
17	06504098	4	SEAL, SIDE CHAN
18	06504099	4	SEAL, END CHAN
19	06504100	2	SEAL, BK-UP
20	06504101	1	RTNR, SEAL
21	6T5809	2	CHECK ASS'Y
22	06504102	4	WASHER
	06504103	1	SEAL KIT

## FLAIL MOTOR BREAKDOWN

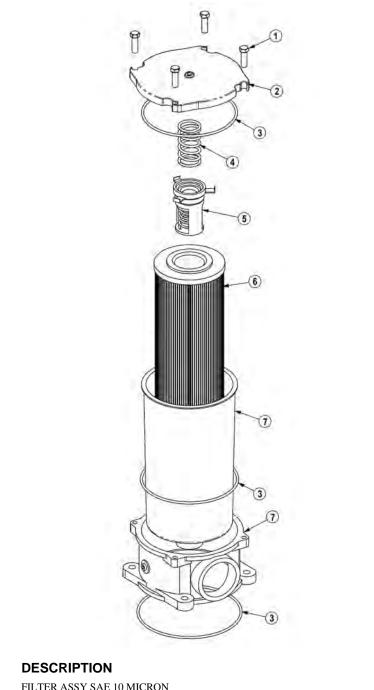


ITEM	PART NO.	QTY.	DESCRIPTION
	06504132	1	MOTOR ASSEMBLY 350 - TBF50, TBF63
1	06504141	1	SHAFT END COVER
2	06504040	1	PORT END COVER
3	06504041	1	GEAR HOUSING
4	06504117	1	MATCHED GEAR SET
5	TF4402	1	BALL BEARING
6	06504043	4	CAP SCREW
7	06504044	2	SET SCREW
8	06504028	1	KEY
9	06504045	4	DOWEL PIN
10		1	NAMEPLATE
11	0763759	1	THRUSTPLATE
12	02961940	1	PLUG, ODT (0.25)
13	TF4401	1	SNAP RING
14	06504142	1	LIP SEAL
15	TF4410	2	GASKET SEAL
16	06504046	4	SIDE SEAL
17	06504047	4	END SEAL
18	TF4407	2	BACK-UP SEAL
19	06504122	1	SEAL RETAINER
20	6T5809	2	CHECK ASSEMBLY
21	02961917	4	WASHER
22	06504140	1	SHAFT
23	06504139	1	BREATHER
24	06504121	1	SPACER, BRG
25	06504119	1	SNAP RING
	06504022	1	SEAL KIT



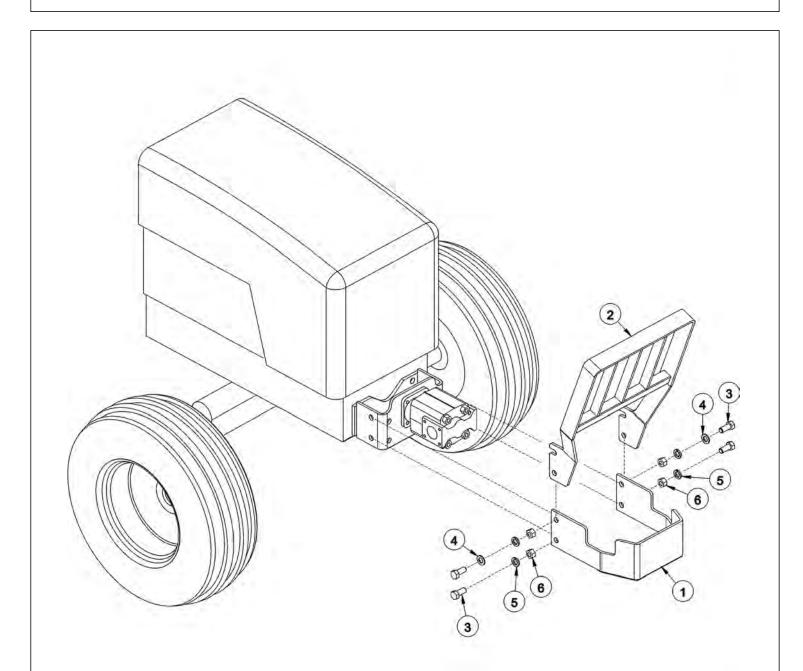
ITEM	PART NO.	QTY.	DESCRIPTION
1	21530	10	CAPSCREW,1/4 X1 NC
2	21986	10	LOCKWASHER,1/4
3	22014	10	FLATWASHER,1/4
4	35176	10	1/4 U-NUT
5	06370015	1	SCREEN,COOLER,FRNT
6	06380006	1	MNT,COOLER,BUMPER TANK,RH
7	06380007	1	MNT,COOLER,BUMPER TANK,LH
8	06510026	1	COOLER, FRONT MNT
	06510029	1	FAN ASSY, ONLY
9	21629	4	CAPSCREW,3/8 X 3/4 NC
10	21988	4	LOCKWASHER,3/8
11	22016	4	FLATWASHER,3/8
12	34117	2	ELBOW,1MOR X 1MJ90,FORGED

## **RESERVOIR TANK FILTER ASSEMBLY**



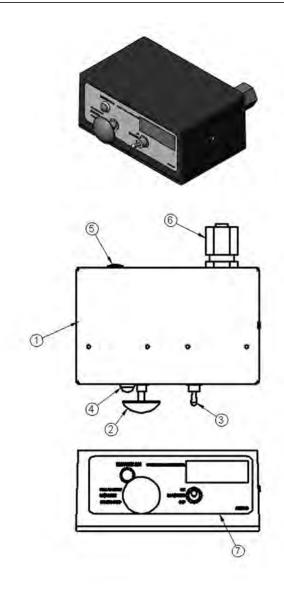
ITEM	PART NO.	QTY.	DESCRIPTION
	06505044	-	FILTER ASSY SAE 10 MICRON
1	28583	4	CAPSCREW,8MM X 25MM(1.25 PITCH)
2	06505045	1	COVER
3	06505046	1	SEAL KIT
4	06505047	1	SPRING
5	06505048	1	BYPASS
6	35259	1	FILTER,10 MIC,RETURN LINE
7	06505049	1	CAN/BODY

## PUMP AND GRILL GUARD OPTIONS



ITEM	PART NO.	QTY.	DESCRIPTION
1	32430	1	UNIVERSAL PUMP GUARD
2	32737	1	UNIVERSAL GRILL GUARD
3	21833	4	CAPSCREW,3/4" X 2-1/4",NC
4	22021	2	FLATWASHER,3/4"
5	21993	4	LOCKWASHER,3/4"
6	21825	4	HEX NUT,3/4",NC

## MANUAL LIFT VALVE SWITCH BOX



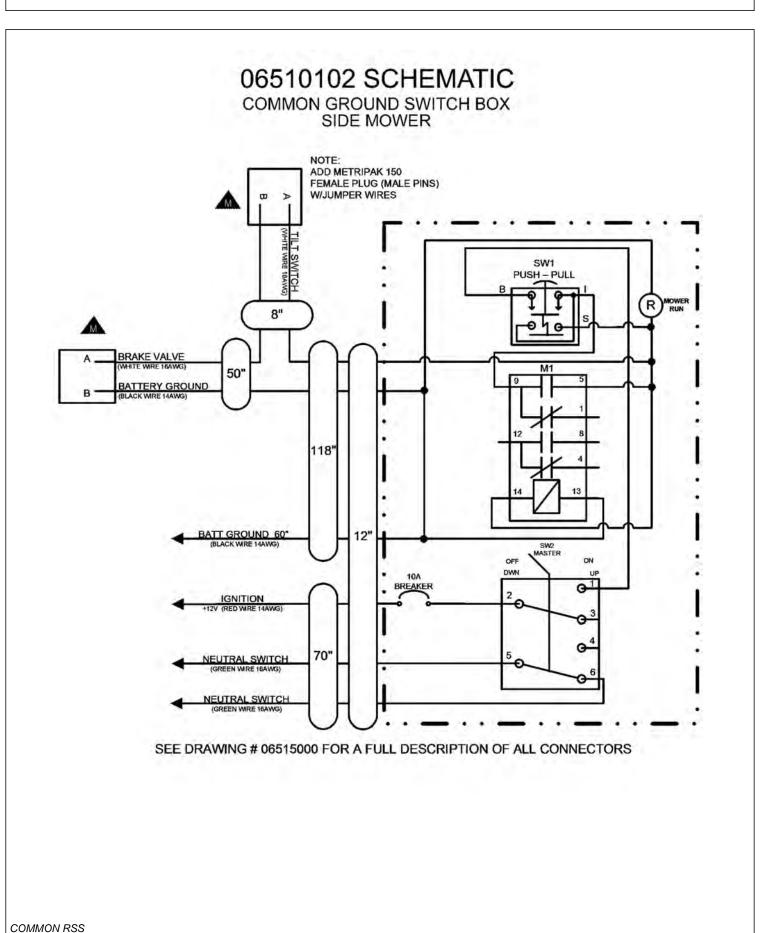
ITEM	PART NO.	QTY.
1	06514013	1
2	35226	1

6T3923

#### DESCRIPTION

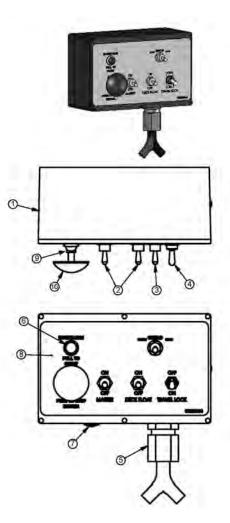
SWBX,ALUM,BLK,06510102
SWITCH, MOWER, COLEHERSEE
SWITCH, MASTER/DECK FLOAT
INDICTATOR LIGHT, ON, RED
BREAKER,10A,SWBX
STRAIN RELIEF,3/4,BLACK,NYLON
DECAL,SWTCHBX,TM/TSF,CG

35227 1 RELAY,DP,DT,12V,LY2F,35226



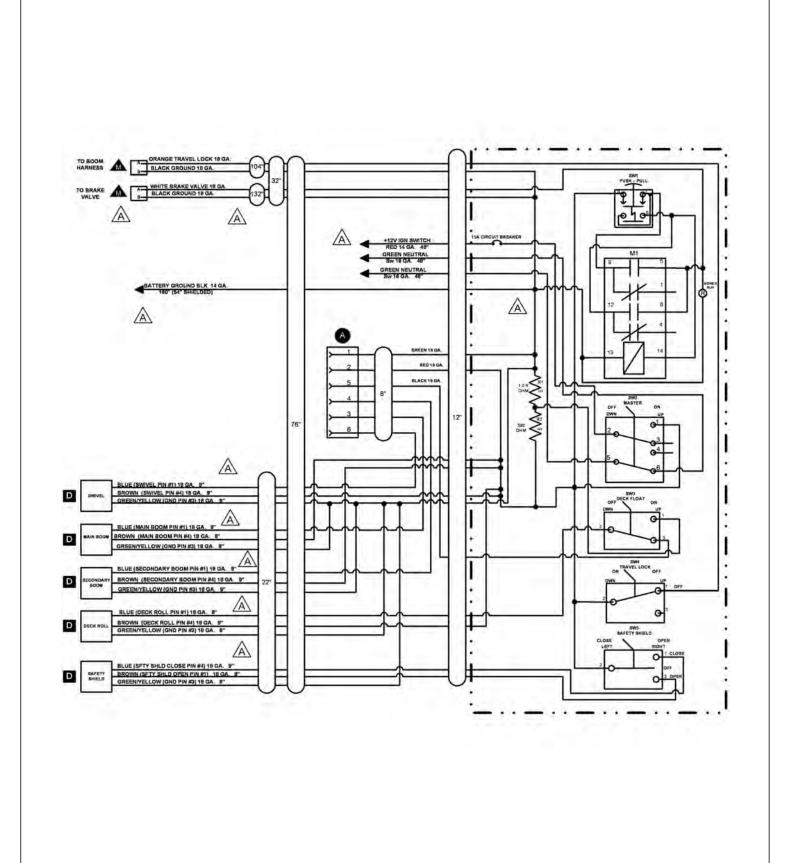
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## **ELECTRONIC LIFT VALVE SWITCH BOX**

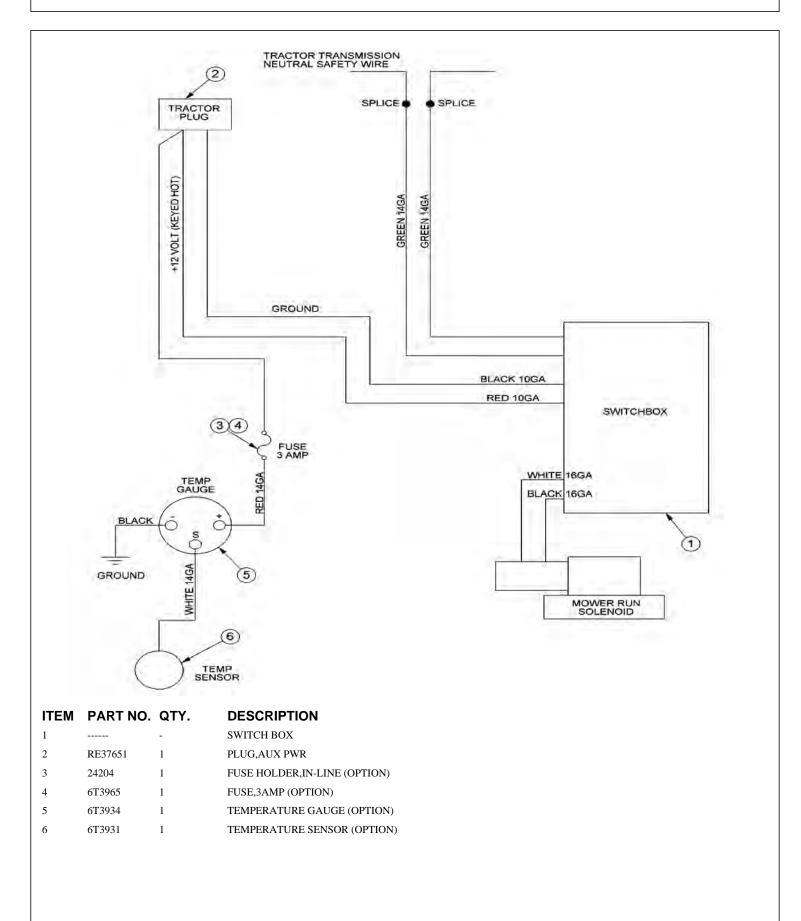


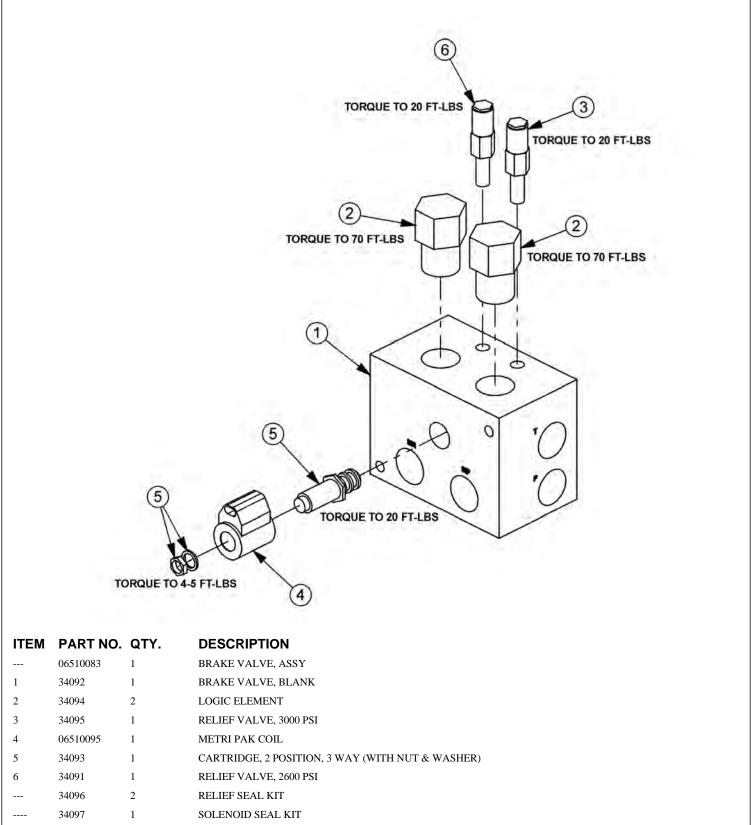
ITEM	PART NO.	QTY.	DESCRIPTION
1	06510196	1	SWBX,ASSY
2	33811	2	SWITCH, MASTER/DECK FLOAT
3	33813	1	SWITCH,SFTY SHIELD
4	34532	1	SWITCH, TRVL LCK
5	34540	1	STRAIN RELIEF,3/4",BLACK,NYLON
6	6T3923	1	INDICTATOR LIGHT, ON, RED
7	06514006	1	BREAKER,15A,SWBX
8	06550044	1	DECAL,SWBX,06510047
9	35226	1	SWITCH, MOWER, COLEHERSEE
10	35227	1	RELAY,DP,DT,12V,LY2F,35226

#### ELECTRONIC LIFT VALVE SCHEMATIC

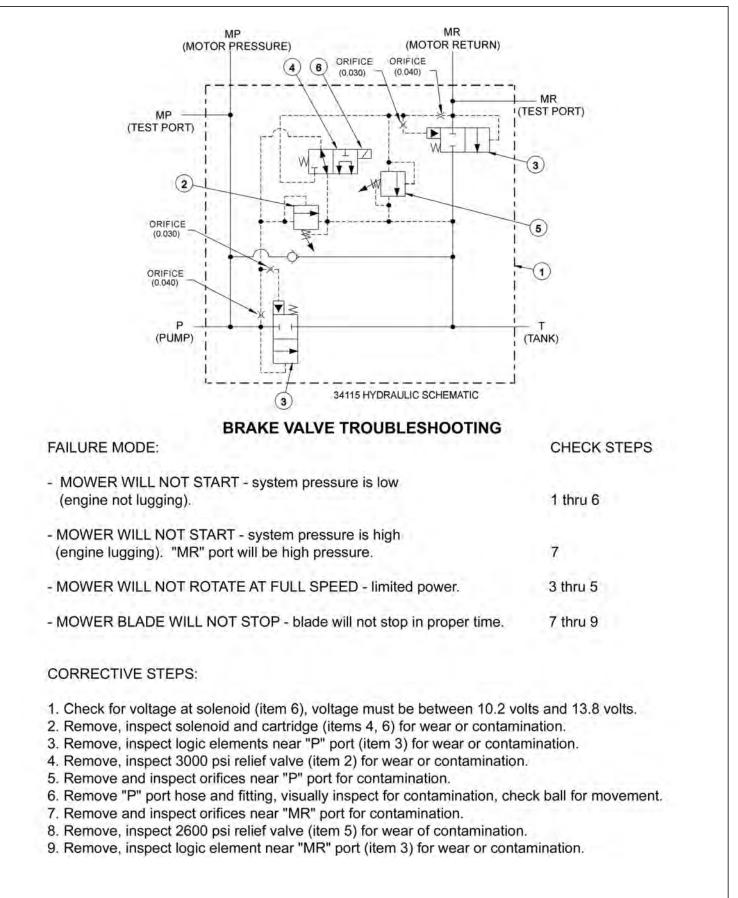


#### SOLENOID SWITCH BOX AND WIRING

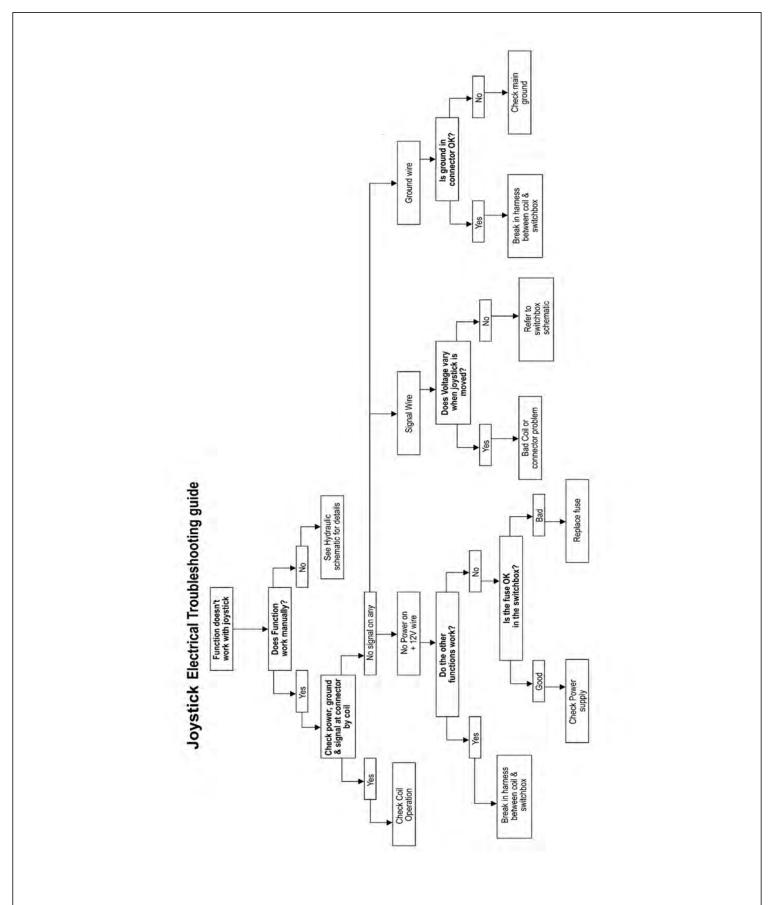


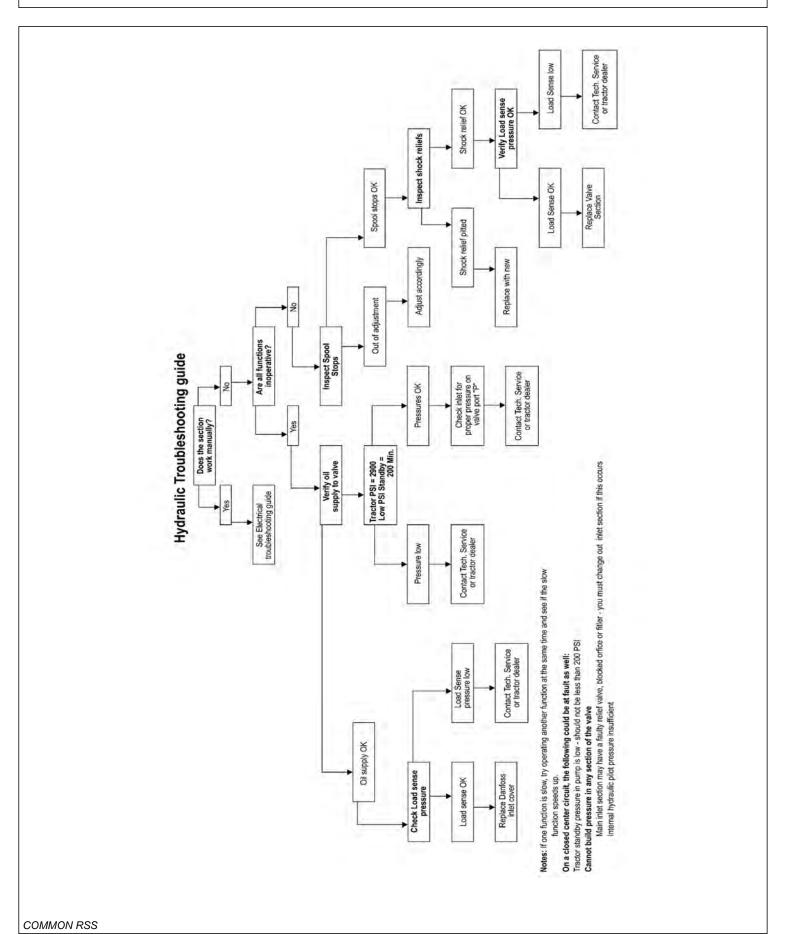


--- 34098 2 ELEMENT SEAL KIT



#### ELECTRICAL TROUBLESHOOTING GUIDE





## HYDRAULIC TROUBLESHOOTING GUIDE

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#### TROUBLESHOOTING

## JOYSTICK TROUBLESHOOTING

#### Boom operation not responding to joystick movement.

Isolate hydraulic vs. electronic symptom.

Turn off electronic master switch (preventing electronic actuator on valve from attempting to hold spool in neutral position). With tractor engine running, operate the valve section with the manual handle. If function operates normally, continue with electronic inspection. If function does not operate normally, continue with hydraulic inspection.

#### Electronic inspection.

Connect a voltmeter to the cable connector of the valve section that is not operating. This will allow you to measure supply and signal voltage when the joystick is operated.

Main, Secondary, and Swivel Valves – signal voltage should be 50% of supply voltage with joystick in Neutral position, up to 75% of supply voltage in B direction, down to 25% of supply voltage in A direction. Signal voltage should change smoothly with lever movement. Pin #1 – Signal Voltage, Pin #4 – Power Voltage, Pin #3 – Ground

Deck Roll Valve or Float Valve – signal voltage should be 50% of supply voltage with joystick in Neutral position, up to 65% of supply voltage in B direction, down to 35% of supply voltage in A direction. Signal voltage should change smoothly with lever movement. Signal voltage should be approximately 75% of supply voltage when float switch is operated. Pin #1 – Signal Voltage, Pin #4 – Power Voltage, Pin #3 – Ground

Shield Valve or On/Off Valve – Voltage on pin #1 should be equal to supply voltage when switch is operated in A direction. Voltage on pin #4 should be equal to supply voltage when switch is operated in B direction.

Pin #1 - Signal Voltage (Shield Open), Pin #4 - Signal Voltage (Shield Close), Pin #3 - Ground

If none of the valve will operate with electrical signal, verify that there is oil pressure at the valve inlet. Electrical Valves must have pilot supply oil to move the spools.

#### Possible electronic problems.

Open circuit (broken wire, bad connection or loose connection in switchbox). Shorted to positive, ground, or other. Incorrect voltage signal from joystick.

#### Continued on next sheet

Hydraulic inspection.

Install 3 pressure gauges, on the valve inlet (use M port, or tee into hose supplying oil from the pump to the inlet), on the workport that is not operating, and on the LS port.

With the spools in Neutral

Gear pump – P should be approximately 200 psi, LS = 0, workport – pressure on cylinder or function.

LS pump – P should equal pump standby pressure, LS = 0, workport – pressure on cylinder or function.

Pressure Comp pump – P should equal pump standby pressure, LS = 0, workport – pressure on cylinder or function.

Gear pump – P should be approximately 200 psi higher than LS, LS should equal workport, workport – pressure on cylinder or function.

LS pump – P should be LS + standby, LS should equal workport, workport – pressure on cylinder or function.

Pressure Comp pump – P should equal pump standby pressure, LS should equal workport, workport – pressure on cylinder or function.

Operate one spool, measure pressures with function at end of travel or stop

Gear pump – P should equal valve relief setting or workport shock valve setting. LS should equal workport. Workport should equal relief setting or workport shock valve setting.

LS pump – P should equal valve relief setting, pump max pressure setting, or workport shock valve setting. LS should equal workport. Workport should equal relief setting, pump max pressure setting, or workport shock valve setting.

Pressure Comp pump – P should equal pump standby pressure, LS should equal workport. Workport should equal pump standby pressure or workport shock valve setting.

Operate more than one spool.

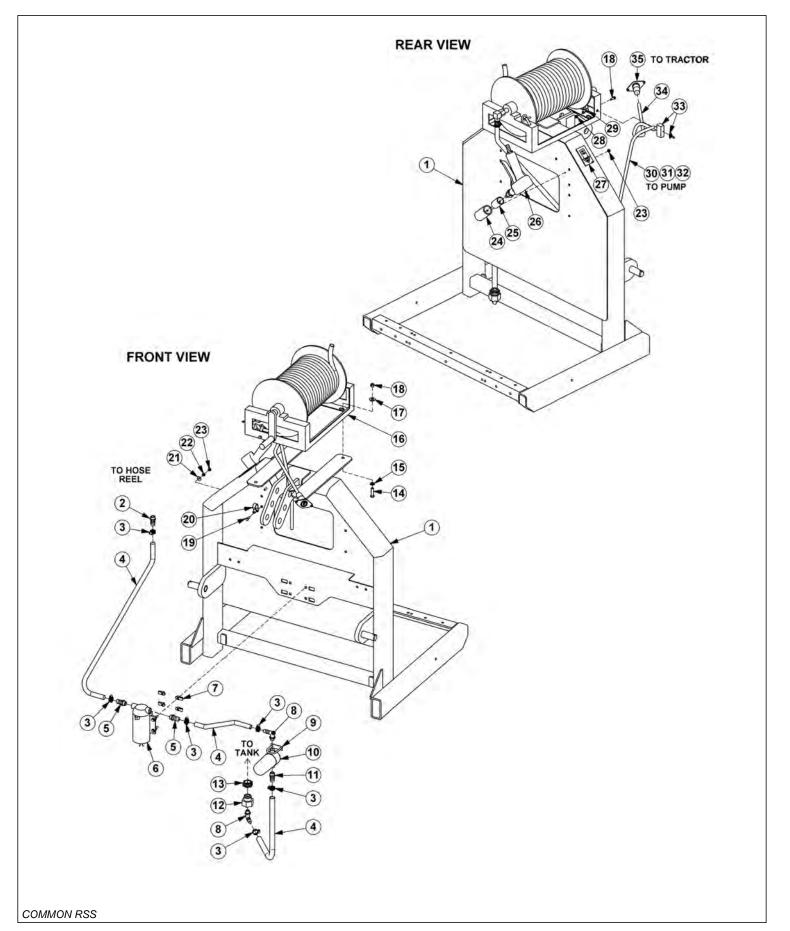
Gear pump – P should approximately 200 psi higher than LS. LS should equal highest workport pressure. Workport – pressure on cylinder or function. LS pump – P should be LS + standby pressure. LS should equal highest workport pressure. Workport – pressure on cylinder or function. Pressure Comp pump. P should equal pump standby pressure. LS should equal highest workport pressure. Workport – pressure on cylinder or function.

Possible hydraulic problems.

Cylinder leak.

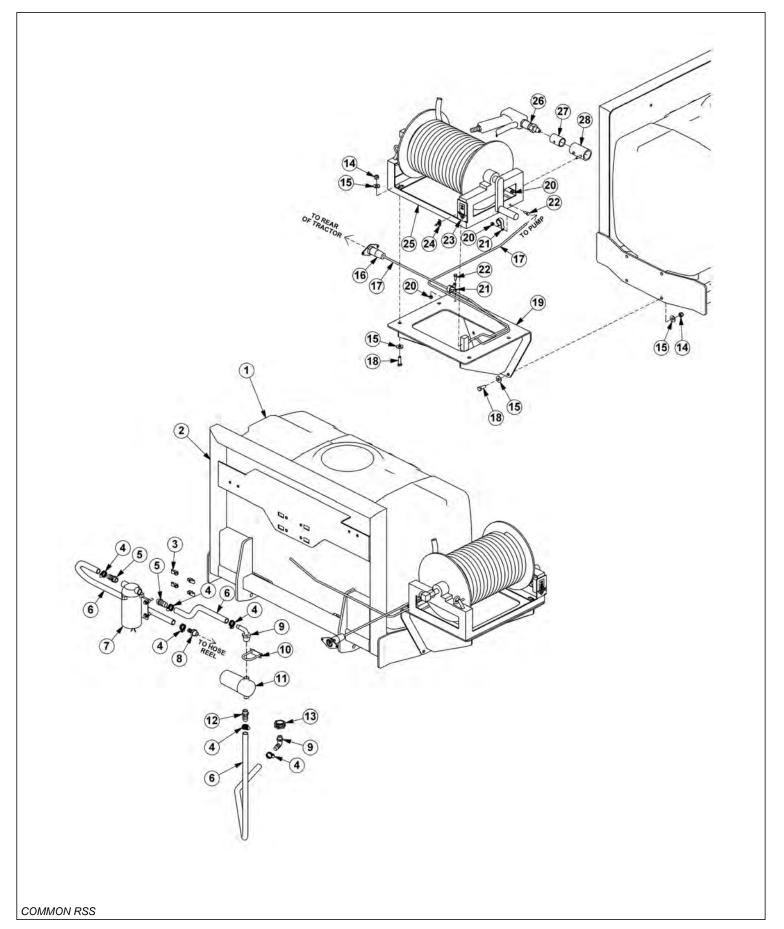
LS signal leaking to tank before reaching pump LS port. Hydraulic system or pump not supplying flow to valve.

# FIRE SUPPRESSION SYSTEM SECTION



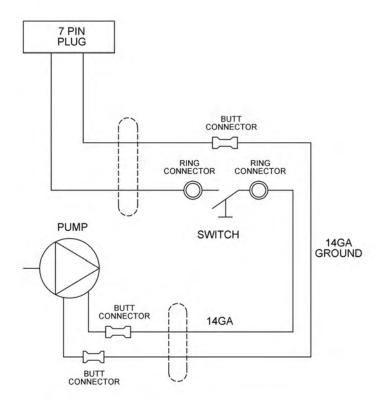
ITEM	PART NO.	QTY.	DESCRIPTION	
1	06370137	1	MOUNT,3PNT,FIRE SYS	
2	06503108	1	FITTING,1/2"BARB X 1/2"MP	
3	35091	6	CLAMP,HOSE,#6	
4	06520469	5	HOSE,1/2",BULK (FEET)	
5	06503168	2	SWIVEL,1/2"STR,POLY	
6	06520359	1	PUMP,LARGE	
7	35176	4	U-NUT,1/4"	
8	06520367	2	ELBOW,1/2"BARB X 1/2"MP,POLY	
9	27329	1	U-BOLT,1/4"	
10	06520361	1	FILTER	
	06520351	1	ELEMENT, FILTER	
11	06520349	1	FITTING,BARB,HOSE	
12	06503169	1	REDUCER, BUSHING (100 & 150 GALLON TANKS ONLY)	
13	06520346	1	FITTING,BULKHEAD (50 GALLON TANKS ONLY)	
14	21632	4	CAPSCREW,3/8" X 1-1/2",NC	
15	21988	4	LOCKWASHER,3/8"	
16	06520360	1	HOSE REEL	
17	22016	4	FLATWASHER,3/8"	
18	21627	4	NYLOCK NUT,3/8",NC	
19	21529	2	CAPSCREW,1/4" X 3/4",NC	
20	06510258	1	CLAMP,3/4"	
21	22014	1	FLATWASHER,1/4"	
22	21986	1	LOCKWASHER,1/4"	
23	21525	2	HEX NUT,1/4",NC	
24	06370121	1	HOLSTER	
25	06430090	1	SLEEVE	
26	06520366	1	GUN,FIRE SYS	
27	6T3222	1	DECAL	
28	21527	1	NYLOCK NUT,1/4",NC	
29	06510257	1	CLAMP,3/8"	
30	28055	5	WIRE,BLACK,14GA (FEET)	
31	24200	5	WIRE,RED,14GA (FEET)	
32	22802	5	WIRE WRAP (FEET)	
33	PT3905A	1	SWITCH	
34	06510256	4	CABLE,14GA,4WIRE (FEET)	
35	06510255	1	PLUG,7PIN,TRCTR	

## FIRE SUPPRESSION FRONT MOUNT



ITEM	PART NO.	QTY.	DESCRIPTION
1	06520342	1	TANK,50 GALLON
2	06370204	1	MNT,TANK,FRNT,50 GALLON
3	35176	4	U-NUT,1/4,3/4 TO CENTER
4	35091	6	CLAMP,HOSE,#6
5	06503168	2	SWIVEL,1/2 STR,POLY
6	06520469	8	HOSE,1/2,SPRAYER
7	06520359	1	PUMP,FIRE KIT
8	06503108	1	FITTING,1/2"BARB X 1/2"MP
9	06520367	2	ELBOW,1/2MPX1/2BARB,POLY
10	27329	1	U-BOLT,1/4X2X1
11	06520361	1	FILTER, FIRE KIT, RAILKUT
	06520351	1	STRAINER,40 MESH
12	06520349	1	FITTING,BARB,HOSE,WETCUT
13	06520346	1	FITTING,BULKHEAD
14	21627	8	NYLOCK NUT,3/8 NC
15	22016	16	FLATWASHER,3/8,GR8
16	06510255	1	PLUG,7PIN,TRCTR
17	06510256	22	WIRE,14GA,4WIRE (FEET)
18	21631	8	CAPSCREW,3/8X1 1/4, NC,GR8
19	06370207	1	MNT, FIRE SUPPRESSION
20	21527	3	NYLOCK NUT,1/4 NC
21	06510257	2	CLAMP,3/8X1/4,INS
22	21529	2	CAPSCREW,1/4 X 3/4 NC
23	6T3222	1	DECAL,CONTROL,ON-OFF SWITCH
24	PT3905A	1	SWITCH, MOWER
25	06520360	1	HOSE REEL,FIRE KIT,RAILKUT
26	06520366	1	GUN,FIRE KIT,RAILKUT
27	06430090	1	SLEEVE,GUN,FIRE SYS
28	06370121	1	HOLSTER, FIRESYS, RAILKUT

#### FIRE SUPPRESSION SYSTEM ELECTRICAL SCHEMATIC

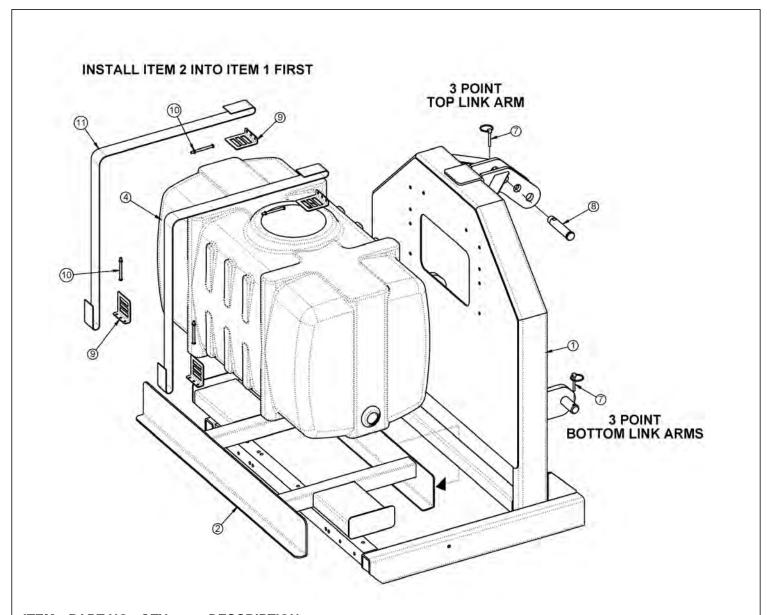


#### WETCUT

		WETCUT SECTION
COMMON RSS		

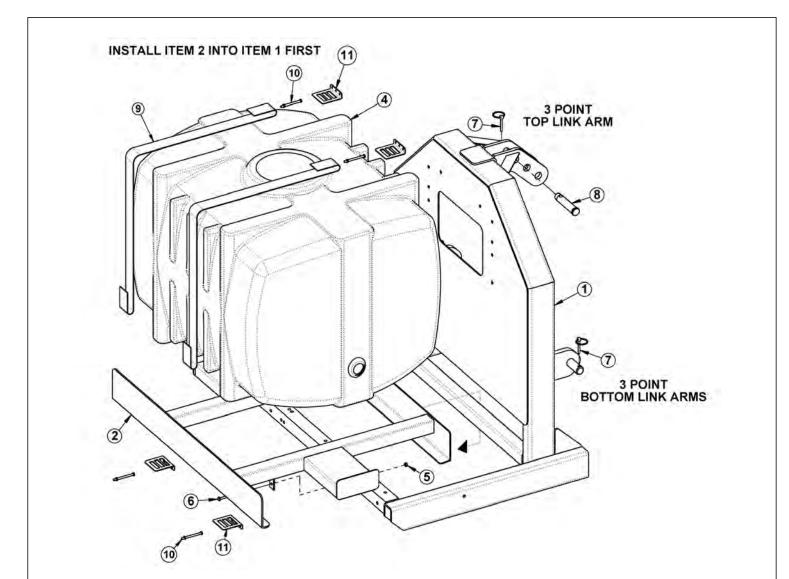
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#### WETCUT 50 GALLON TANK - 3PNT MOUNT

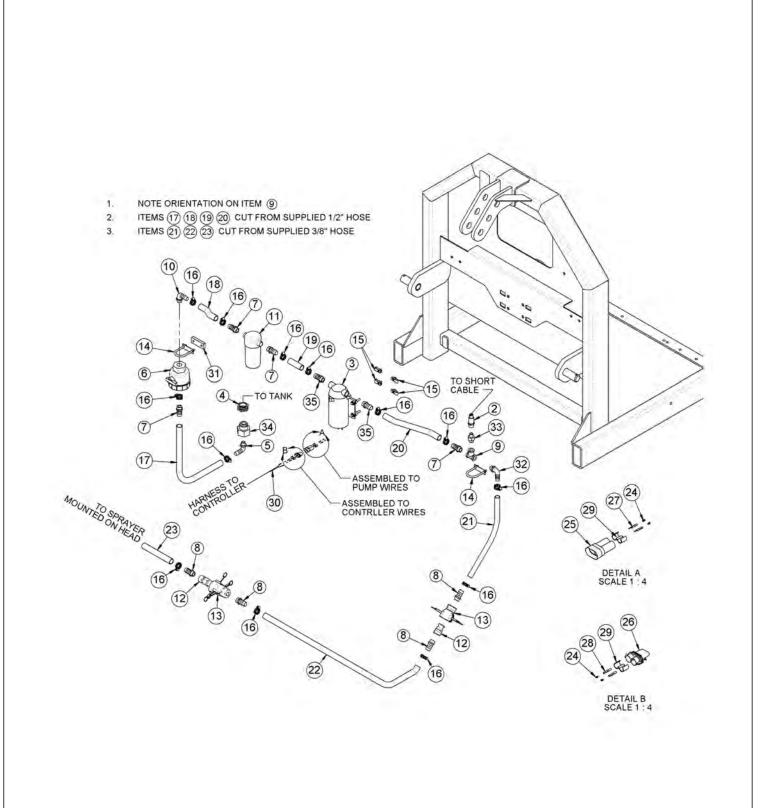


ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06370136	1	MNT,TANK,50GAL,WETCUT
4	06520342	1	TANK,50GA.,WETCUT
7	RD1032	3	PIN,LYNCH,1/4" X 2"
8	TB1036	1	PIN,SEC BOOM SWIV,1" X 4-11/16"
9	06520343	4	ANCHOR, STRAP, WETCUT
10	06520344	4	BOLT,STRAP,TANK,WETCUT
11	06520345	2	STRAP, TANK, WETCUT

#### WETCUT 100 OR 150 GALLON TANK - 3PNT MOUNT

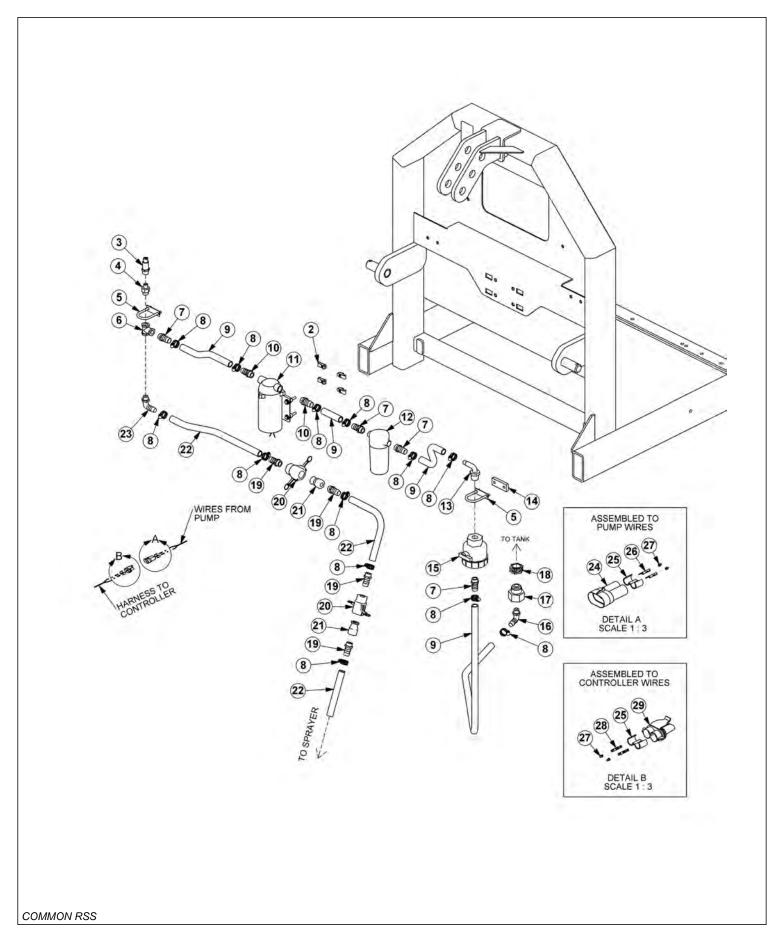


ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06370138	1	MNT,TANK,100GAL,WETCUT
	06370139	-	MNT,TANK,150GAL,WETCUT
4	06520372	1	TANK,100GA.,WETCUT
	06520373	-	TANK,150GA.,WETCUT
5	21527	2	HEX NUT,NYLOCK,1/4",NC
6	21530	2	CAPSCREW,1/4" X 1",NC
7	RD1032	3	PIN,LYNCH 1/4" X 2"
8	TB1036	1	PIN,SEC BOOM SWIV,1" X 4-11/16"
9	06520345	2	STRAP, TANK, WETCUT
10	06520344	4	BOLT,STRAP,TANK,WETCUT
11	06520343	4	ANCHOR,STRAP,WETCUT



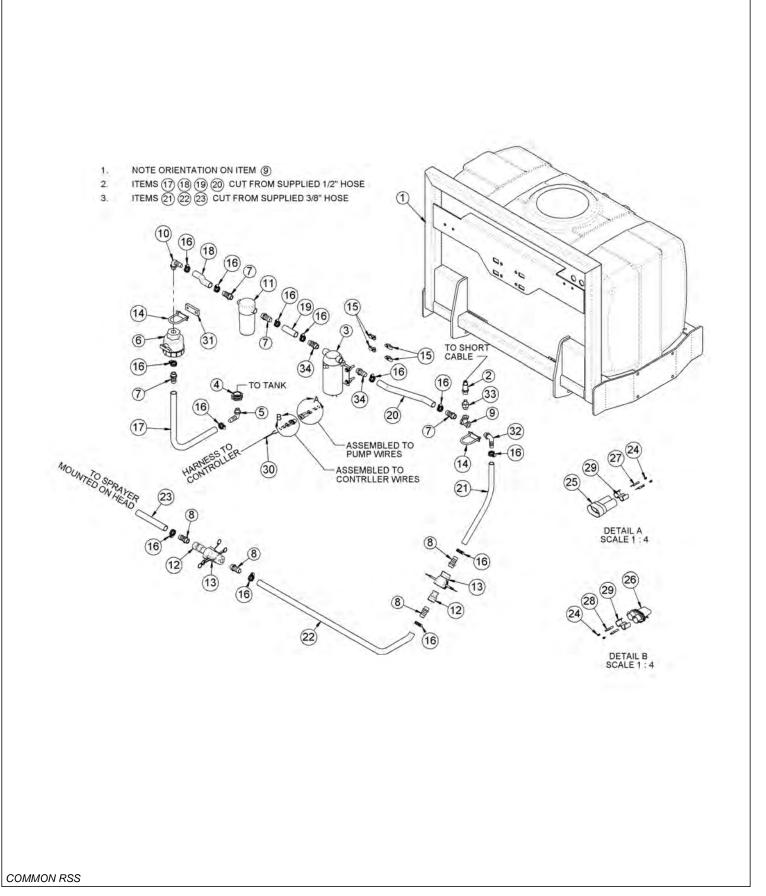
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06520336	1	CNTRLR,SENSOR,06520333
3	06520341	1	PUMP,WETCUT
4	06520346	1	FITTING,BULKHEAD,WETCUT (50 GALLON TANKS ONLY)
5	06520347	1	FITTING,ELBOW,WETCUT
6	06520348	1	VLV,BALL,WETCUT
7	06520349	4	FITTING,BARB,HOSE,WETCUT
8	06503173	4	FITTING,1/2MP X 3/8"BARB
9	06520353	1	FITTING, TEE, WETCUT
10	06520367	1	ELBOW,1/2" X 1/2"BARB,POLY
11	06520361	1	FILTER,FIRE KIT,RAILKUT
12	06520400	2	QUIK CPLR,MALE,1/2",WETCUT
13	06520401	2	QUIK CPLR,FEM,1/2",WETCUT
14	27329	2	U-BOLT,1/4" X 1" X 2"
15	35176	4	U-NUT,1/4",3/4" TO CENTER
16	35091	13	CLAMP, HOSE #6
17 - 20	06520469	5	1/2" HOSE (FEET)
21 - 23	06520316	-	3/8" HOSE (INCLUDED WITH SPRAYER)
24	06510051	4	SEAL,16-18GA,METPAK
25	06510052	1	CONN.,BODY,MALE,METRIPACK 150
26	06510053	1	CONN.,BODY,FEM,METRIPACK 150
27	06510054	2	TERMINAL, MALE, 16/18GA. METPAK
28	06510055	2	TERMINAL,FEM,16/18GA.METPAK
29	06510056	2	TPA
30	06520337	1	INCLUDED WITH CONTROLLER
31	06401133	1	SPACER,Ø.31" X 1.75" X .38"
32	06503165	1	ELBOW,1/2"MP X 3/8"BARB
33	06520354	1	BUSHING,REDUCER,WETCUT
34	06503169	1	BUSHING,1"MP X 1/2"FP (100 & 150 GALLON TANKS ONLY)
35	06503176	2	FITTING,BARB,3/8"MP X 1/2"BARB

#### WETCUT 3PNT PLUMBING - LARGE MOWERS



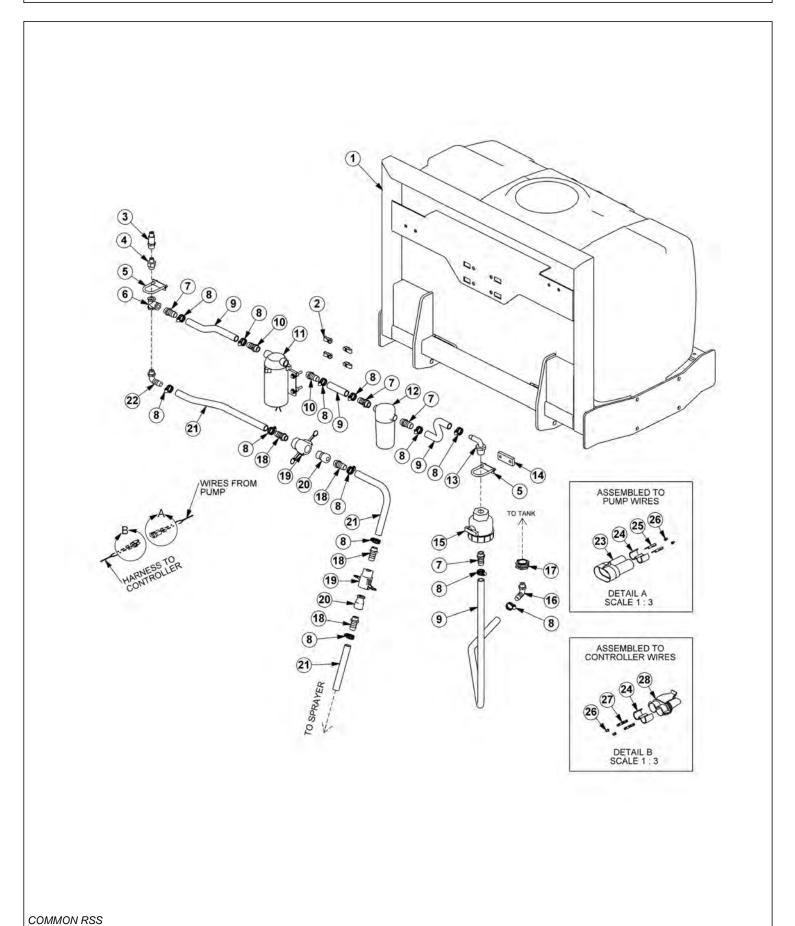
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	35176	4	U-NUT,1/4,3/4 TO CENTER
3	06520336	1	CNTRLR,SENSOR,06520333
4	06520354	1	BUSHING,REDUCER,WETCUT
5	27329	2	U-BOLT,1/4" X 1" X 2"
6	06520353	1	FITTING, TEE, WETCUT
7	06520349	4	FITTING,BARB,HOSE,WETCUT
8	35091	13	CLAMP, HOSE #6
9	06520469	5	1/2" HOSE (FEET)
10	06503168	2	SWIVEL,1/2" STR
11	06520359	1	PUMP,LARGE
12	06520361	1	FILTER,FIRE KIT,RAILKUT
	06520351	1	STRAINER,40MESH
13	06520367	1	ELBOW,1/2X1/2BARB,POLY
14	06401133	1	SPACER,Ø.31X1.75X.38
15	06520348	1	VLV,BALL,WETCUT
16	06520347	1	FITTING, ELBOW, WETCUT
17	06503169	1	BUSHING,1MPX1/2FP (100 & 150 GALLON TANKS ONLY)
18	06520346	1	FITTING,BULKHEAD,WETCUT (50 GALLON TANKS ONLY)
19	06503173	4	FITTING,BARB,1/2X3/8,WETCUT
20	06520401	2	QUIK CPLR,FEM,1/2,WETCUT
21	06520400	2	QUIK CPLR,MALE,1/2,WETCUT
22	06520316	-	3/8" HOSE (INCLUDED WITH SPRAYER)
23	06503165	1	ELBOW,1/2X3/8BARB,POLY
24	06510052	1	CONN.,BODY,MALE,METRIPACK 150
25	06510056	2	TPA
26	06510054	2	TERMINAL, MALE, 16/18GA. METPAK
27	06510051	4	SEAL,16-18GA,METPAK
28	06510055	2	TERMINAL,FEM,16/18GA.METPAK
29	06510053	1	CONN.,BODY,FEM,METRIPACK 150

#### WETCUT FRONT PLUMBING - 50IN MOWERS



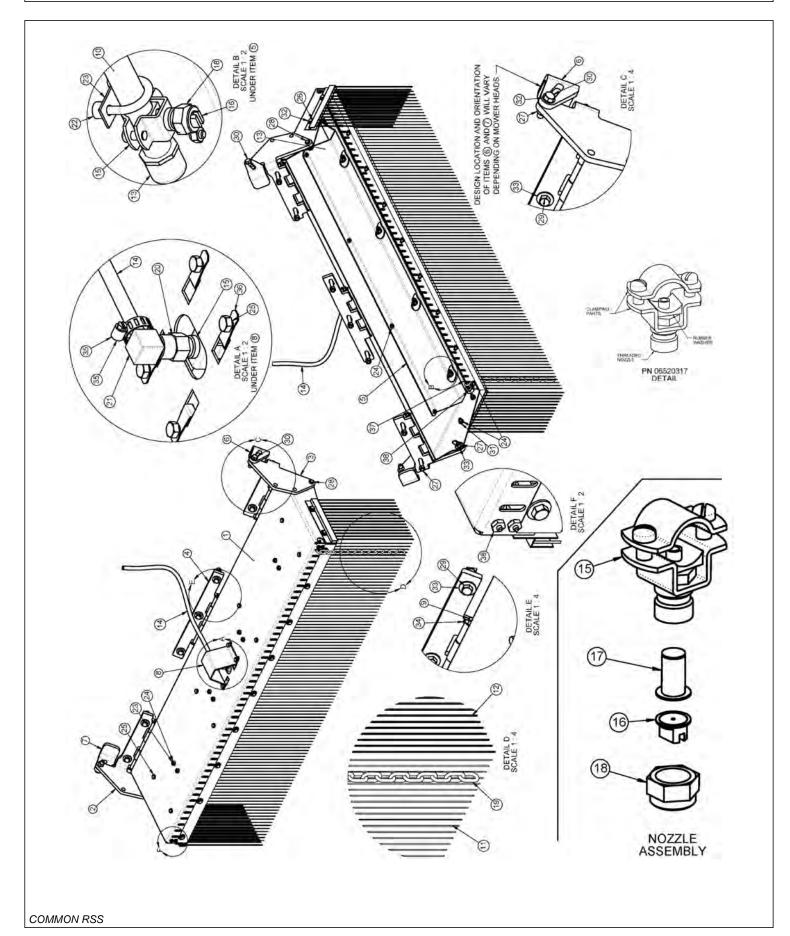
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370204	1	MNT,FRONT,UNI
2	06520336	1	CNTRLR,SENSOR,06520333
3	06520341	1	PUMP,WETCUT
4	06520346	1	FITTING,BULKHEAD,WETCUT
5	06520347	1	FITTING,ELBOW,WETCUT
6	06520348	1	VLV,BALL,WETCUT
7	06520349	4	FITTING,BARB,HOSE,WETCUT
8	06503173	4	FITTING,1/2"MP X 3/8"BARB
9	06520353	1	FITTING,TEE,WETCUT
10	06520367	1	ELBOW,1/2"MP X 1/2"BARB,POLY
11	06520361	1	FILTER, FIRE KIT, RAILKUT
	06520351	1	STRAINER,40MESH
12	06520400	2	QUIK CPLR,MALE,1/2",WETCUT
13	06520401	2	QUIK CPLR,FEM,1/2",WETCUT
14	27329	2	U-BOLT,1/4" X 1" X 2"
15	35176	4	U-NUT,1/4",3/4" TO CENTER
16	35091	13	CLAMP,HOSE #6
17 - 20	06520469	5	1/2" HOSE (FEET)
21 - 23	06520316	-	3/8" HOSE (INCLUDED WITH SPRAYER)
24	06510051	4	SEAL,16-18GA,METPAK
25	06510052	1	CONN.,BODY,MALE,METRIPACK 150
26	06510053	1	CONN.,BODY,FEM,METRIPACK 150
27	06510054	2	TERMINAL,MALE,16/18GA.METPAK
28	06510055	2	TERMINAL,FEM,16/18GA.METPAK
29	06510056	2	TPA
30	06520337	1	INCLUDED WITH CONTROLLER
31	06401133	1	SPACER,Ø.31" X 1.75" X .38"
32	06503165	1	ELBOW,1/2"MP X 3/8"BARB,POLY
33	06520354	1	BUSHING,REDUCER,WETCUT
34	06503176	2	FITTING,3/8"MP X 1/2"BARB

#### WETCUT FRONT PLUMBING - LARGE MOWERS



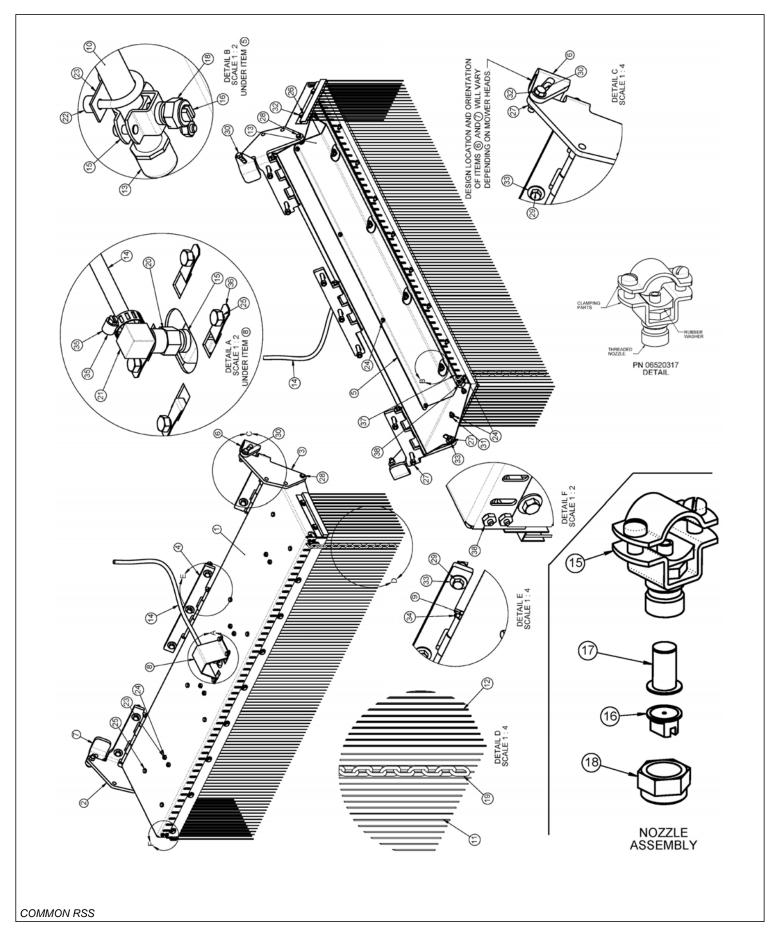
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370204	1	MNT,FRONT,UNIV
2	35176	4	U-NUT,1/4,3/4 TO CENTER
3	06520336	1	CNTRLR,SENSOR,06520333
4	06520354	1	BUSHING,REDUCER,WETCUT
5	27329	2	U-BOLT,1/4" X 1" X 2"
6	06520353	1	FITTING, TEE, WETCUT
7	06520349	4	FITTING,BARB,HOSE,WETCUT
8	35091	13	CLAMP, HOSE #6
9	06520469	5	1/2" HOSE (FEET)
10	06503168	2	SWIVEL,1/2" STR
11	06520359	1	PUMP,LARGE
12	06520361	1	FILTER, FIRE KIT, RAILKUT
	06520351	1	STRAINER,40MESH
13	06520367	1	ELBOW,1/2X1/2BARB,POLY
14	06401133	1	SPACER,Ø.31X1.75X.38
15	06520348	1	VLV,BALL,WETCUT
16	06520347	1	FITTING, ELBOW, WETCUT
17	06520346	1	FITTING,BULKHEAD,WETCUT
18	06503173	4	FITTING,BARB,1/2X3/8,WETCUT
19	06520401	2	QUIK CPLR,FEM,1/2,WETCUT
20	06520400	2	QUIK CPLR,MALE,1/2,WETCUT
21	06520316	-	3/8" HOSE (INCLUDED WITH SPRAYER)
22	06503165	1	ELBOW,1/2X3/8BARB,POLY
23	06510052	1	CONN.,BODY,MALE,METRIPACK 150
24	06510056	2	TPA
25	06510054	2	TERMINAL, MALE, 16/18GA. METPAK
26	06510051	4	SEAL,16-18GA,METPAK
27	06510055	2	TERMINAL, FEM, 16/18GA. METPAK
28	06510053	1	CONN.,BODY,FEM,METRIPACK 150

#### WETCUT 50IN SPRAYER HEAD ASSEMBLY



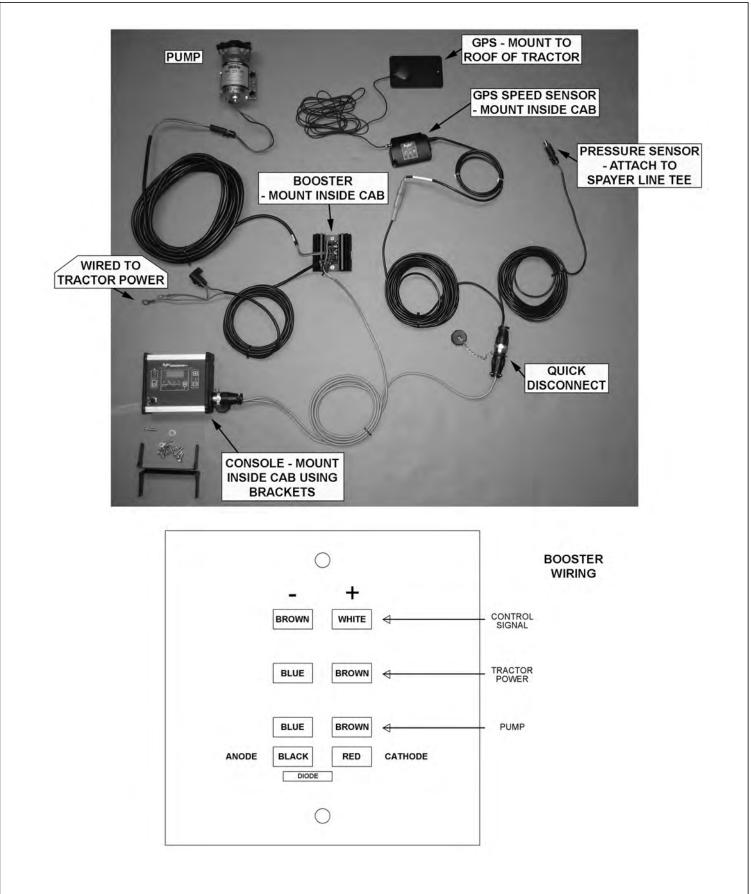
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370105	1	HOOD,SPRAYER
2	06370106	1	HINGE,LH,SPRAYER
3	06370107	1	HINGE,RH,SPRAYER
4	06370108	1	HINGE,CNTR,SPRAYER
5	06410668	1	GUARD,SPRAYER,WETCUT
6	06410753	1	MNT,RH,WET CUT (FLAIL)
	06410942	1	MNT,RH,WET CUT (ROTARY)
7	06410754	1	MNT,LH,WET CUT (FLAIL)
	06410943	1	MNT,LH,WET CUT (ROTARY)
8	06410796	1	GUARD,HOSE,WETCUT
9	06420069	3	PIN,HINGE,WET CUT
10	06497003	1	TUBE,LG,SPRAYER
11	06499012	1	SKIRT,ANTI SPRAY,50
12	06499013	2	SKIRT,ANTI SPRAY,7
13	06520314	2	TUBE,CAP,SPRAYER
14	06520316	15	HOSE, SPRAYER (FEET)
15	06520317	5	NOZZLE,SPRAYER
16	06520319	4	TIP,NOZZLE,SPRAYER
17	06520320	4	FILTER,NOZZLE,SPRAYER
18	06520321	4	NUT,NOZZLE,SPRAYER
19	06520322	49	CHAIN,.18" X 1.31" X 13LINKS
20	06520381	1	ADAPTER,1/4"NPT,WETCUT
21	06520382	1	ELBOW,BARB,3/8" X 1/4"NPT
22	06520383	8	SPACER,.50"O.D. X .252"I.D. X .38",NYLON
23	32550	4	U-BOLT,1/4" X 1" X 1" X 1-3/4"
24	21527	29	HEX NUT,NYLOCK,1/4",NC
25	21528	12	CAPSCREW,1/4" X 1/2",NC
26	21529	13	CAPSCREW,1/4" X 3/4",NC
27	21625	11	HEX NUT,3/8",NC
28	21630	2	CAPSCREW,3/8" X 1",NC
29	21634	7	CAPSCREW,3/8" X 2",NC
30	21632	2	CAPSCREW,3/8" X 1-1/2",NC
31	21986	4	LOCKWASHER,1/4"
32	22014	15	FLATWASHER,1/4"
33	22016	9	FLATWASHER,3/8",GR8
34	34698	6	ROLL PIN, PLAIN, 3/16" X 7/8"
35	35091	1	CLAMP,HOSE #6
36	35176	4	U-NUT,1/4",3/4" TO CENTER
37	06520376	5	CABLE,3/16"
38	06537022	2	U-BOLT,CABLE,3/16"

#### WETCUT 60IN SPRAYER HEAD ASSEMBLY



ITEM	PART NO.	QTY.	DESCRIPTION
1	06370210	1	HOOD,SPRAYER
2	06370106	1	HINGE,LH,SPRAYER
3	06370107	1	HINGE,RH,SPRAYER
4	06370108	1	HINGE,CNTR,SPRAYER
5	06411234	1	GUARD,SPRAYER,WETCUT
6	06410753	1	MNT,RH,WET CUT (FLAIL)
	06410942	1	MNT,RH,WET CUT (ROTARY)
7	06410754	1	MNT,LH,WET CUT (FLAIL)
	06410943	1	MNT,LH,WET CUT (ROTARY)
8	06410796	1	GUARD,HOSE,WETCUT
9	06420069	3	PIN,HINGE,WET CUT
10	06497009	1	TUBE,LG,SPRAYER
11	06499018	1	SKIRT,ANTI SPRAY,60
12	06499013	2	SKIRT,ANTI SPRAY,7
13	06520314	2	TUBE,CAP,SPRAYER
14	06520316	15	HOSE, SPRAYER (FEET)
15	06520317	6	NOZZLE,SPRAYER
16	06520319	5	TIP,NOZZLE,SPRAYER
17	06520320	5	FILTER,NOZZLE,SPRAYER
18	06520321	5	NUT,NOZZLE,SPRAYER
19	06520322	61	CHAIN,.18" X 1.31" X 13LINKS
20	06520381	1	ADAPTER,1/4"NPT,WETCUT
21	06520382	1	ELBOW,BARB,3/8" X 1/4"NPT
22	06520383	10	SPACER,.50"O.D. X .252"I.D. X .38",NYLON
23	32550	5	U-BOLT,1/4" X 1" X 1" X 1-3/4"
24	21527	33	HEX NUT,NYLOCK,1/4",NC
25	21528	15	CAPSCREW,1/4" X 1/2",NC
26	21529	13	CAPSCREW,1/4" X 3/4",NC
27	21625	13	HEX NUT,3/8",NC
28	21630	2	CAPSCREW,3/8" X 1",NC
29	21634	7	CAPSCREW,3/8" X 2",NC
30	21632	4	CAPSCREW,3/8" X 1-1/2",NC
31	21986	4	LOCKWASHER,1/4"
32	22014	33	FLATWASHER,1/4"
33	22016	11	FLATWASHER,3/8",GR8
34	34698	6	ROLL PIN, PLAIN, 3/16" X 7/8"
35	35091	1	CLAMP,HOSE #6
36	35176	4	U-NUT,1/4",3/4" TO CENTER
37	06520376	6	CABLE,3/16" (FEET)
38	06537022	2	U-BOLT,CABLE,3/16"

#### WETCUT CABLES



# WARRANTY SECTION

Warranty Section 7-1

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### WARRANTY INFORMATION

Tiger Corporation, 3301 N. Louise, Sioux Falls, South Dakota, warrants to the original Retail Customer, the new Tiger equipment is free of defects in material and workmanship. Any part of equipment that in Tiger's judgement, show evidence of such defects will be repaired or replaced without charge, provided that the failure of part(s) shall have occurred within twelve (12) months from the date of delivery of said equipment to the Retail Customer. Expendable components such as knives, oil, chain sprockets, skid shoes, knife mounting disks and the like are excluded but not limited to this warranty.

The Retail Customer must pay the transportation cost to and from the Tiger Dealer's service shop for warranty service. Warranty service will be performed by the Tiger Dealer from whom the equipment was purchased, during service shop regularly scheduled days and hours of operation.

All Tiger obligation under this warranty shall be terminated if the equipment is modified or altered in ways not approved in writing by Tiger, if repair parts other than genuine Tiger repair parts have been used, or if the equipment has been subject to misuse, neglect, accident, improper maintenance or improper operation.

Tiger Corporation reserves the right to make improvements in design or changes in specification at any time without incurring any obligation to owners of equipment previously sold.

No agent or person has authority to alter, add to or waive the above warranties which are agreed to be in the only warranties, representations or promises, expressed or implied, as to the quality or performance of the products covered and which do not include any implied warranty of merchantability or fitness. In no event will Tiger be liable for incidental or consequential damages or injuries, including, but not limited to, loss of profits, rental or substitute equipment or other commercial loss.

#### THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSED HEREIN.

It is the Purchasers obligation to sign the warranty registration form **AFTER** he / she has Read and Understands the Operation and Safety Instructions stated within this manual.

#### **ONE LAST WORD**

This manual cannot possibly cover all of the potentially hazardous situations you will encounter. By being familiar with the safety rules, operating and maintenance instructions in this manual you can help prevent accidents. The objective of this manual is to help make you a better operator. Remember, **SAFETY IS YOU!** 



Your safety and the safety of those around you depends on **YOU**. Common sense should play a large role in the operation of this machine.

Since we at Tiger Corporation are constantly striving to improve out products, we reserve the right to change specifications or design at any time.

## TO THE OWNER / OPERATOR / DEALER



To keep your implement running efficiently and safely, read your manual thoroughly and follow these directions and the Safety Messages in this manual and on the machine. The table of contents clearly identifies each section where you can easily find the information you need.

The Occupational Safety and Health Act (OSHA 1928.51 subpart C) makes the following minimum requirements for tractor operators.

#### **OWNER REQUIREMENTS:**

- 1. Provide a Roll-Over-Protective Structure that meets the requirements of this Standard; and
- 2. Provide Seatbelts that meet the requirements of this Standard and SAE J3C; and
- 3. Ensure that each employee uses such Seatbelt while the tractor is moving; and
- 4. Ensure that each employee tightens the Seatbelt sufficiently to confine the employee to the protected area provided by the ROPS.

#### **OPERATOR REQUIREMENTS:**

- 1. Securely fasten seatbelt it the tractor has a ROPS.
- 2. Where possible, avoid operating the tractor near steep ditches, embankments, and holes.
- 3. Reduce speed when turning, crossing slopes, and on rough, slick, or muddy surfaces.
- 4. Stay off slopes too steep for safe operation.
- 5. Watch where you are going especially at row ends, on roads, and around trees.
- 6. Do Not permit others to ride.
- 7. Operate the tractor smoothly no jerky turns, starts, or stops.
- 8. Hitch only to the draw-bar and hitch points recommended by the tractor manufacturer.
- 9. When the tractor is stopped, set brakes securely and use park lock, if available



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