

SABER BOOM ASSEMBLIES

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 Tiger Corporation

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 www.tiger-mowers.com

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TO THE OWNER / OPERATOR / DEALER

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



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.		
Sioux Falls, SD 57107	1	
1-800-843-6849	1	
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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.

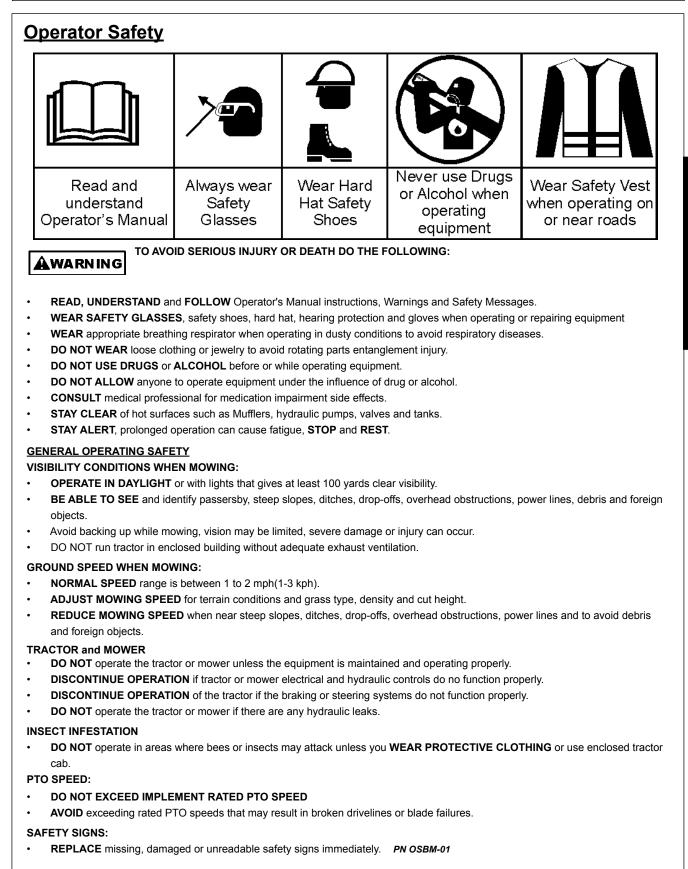
Important Identifies special instructions or procedures that, if not strictly observed, could result in damage to, or destruction of the machine, attachments or the environment.

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



CRUSHING HAZARDS Pinch Point Hazard Crushing injury from Always wear Crushing injury Use Cab Keep Hands and boom or mower from roll over Tractor With seatbelt 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.

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

🛕 WARN IN G

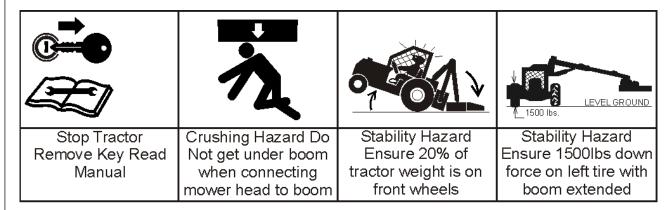
- NEVER ALLOW children to play on or around Tractor or Implement.
- DO NOT operate without operator CAB or OVERHEAD protection. Falling limbs and debris can cause injuries. PN CHBM-01

SAFETY

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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.

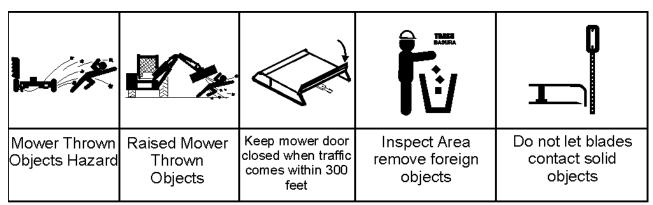
CONTACT DEALER if implement driveline does not match Tractor PTO shaft:

• 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	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

Safety Section 1-8

PTO ENTANGLEMENT HAZARDS

	PTO (Barra Gitatoria)	ſ ġĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨĨ	BOTTOMING OUT
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

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:

A DANGER

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 PEO1

BOOM

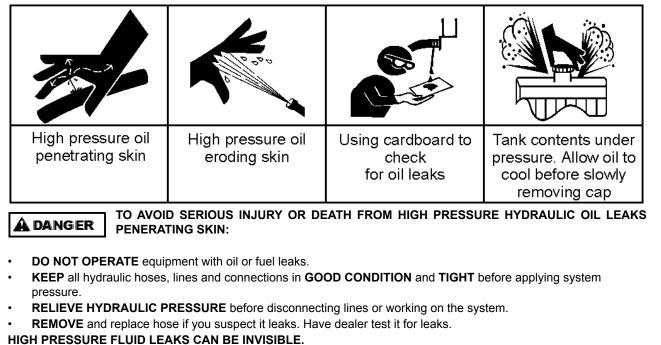
MOWER BLADE CONTACT HAZARDS

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 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

HIGH PRESSURE OIL LEAK HAZARD



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.

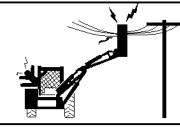
Use caution when removing Hydraulic Tank cap.

- 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 Fire Hazard Do Not operate near fires. Keep debris away from hydraulic pumps and valves

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

- **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.

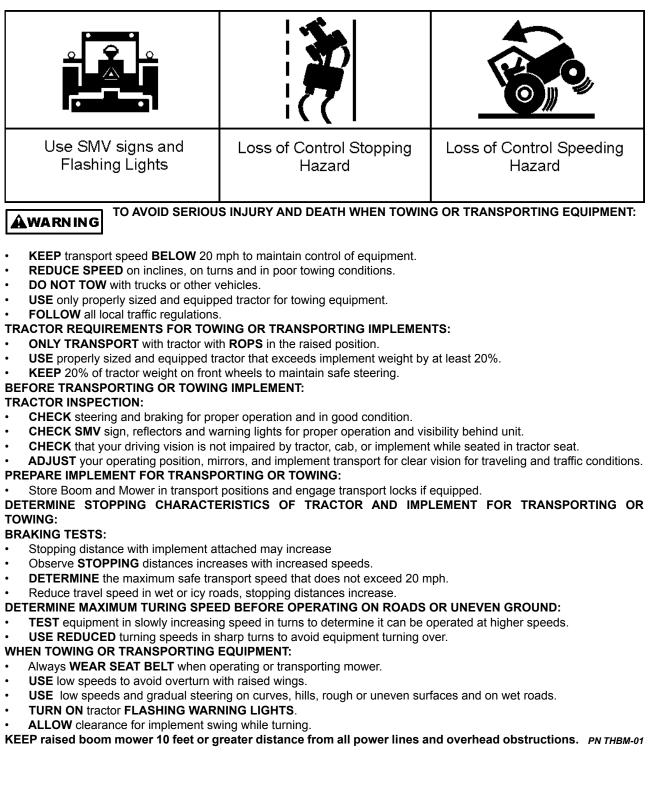
FIRE PREVENTION GUIDELINES while Operating, Servicing, and Repairing Mower and Tractor to reduce equipment and grass fire Risk:

- 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

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BOOM

TRANSPORTING HAZARDS

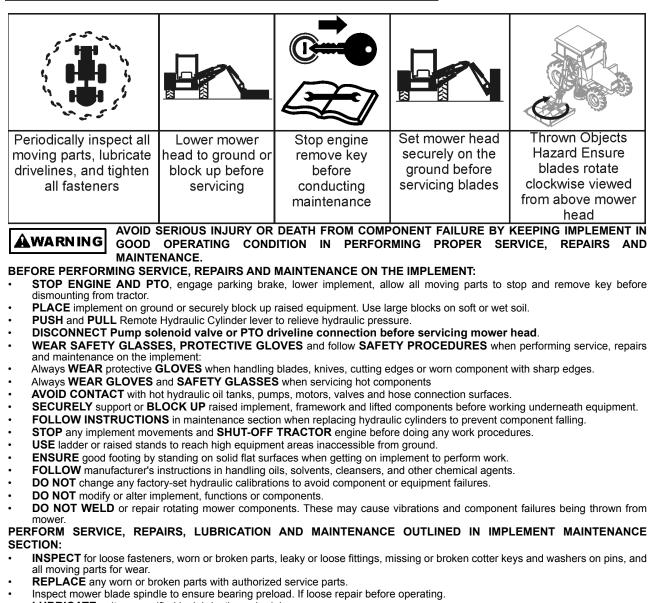


SAFETY

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BOOM

HAZARDS WITH MAINTENANCE OF IMPLEMENT



- 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:

SAFETY

- 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

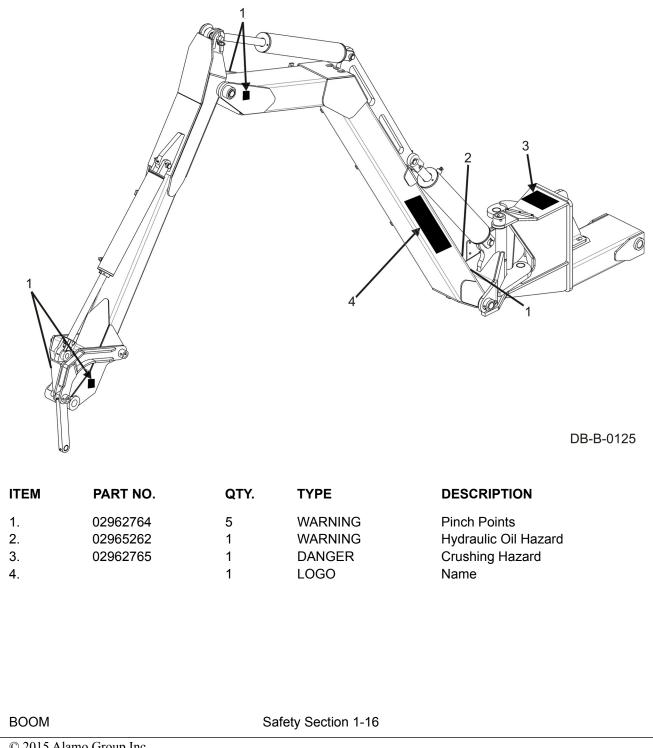
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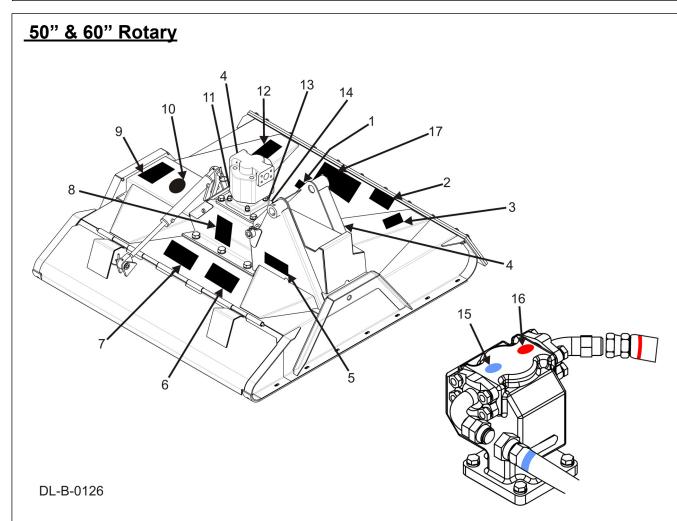
Safety Section 1-15

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.

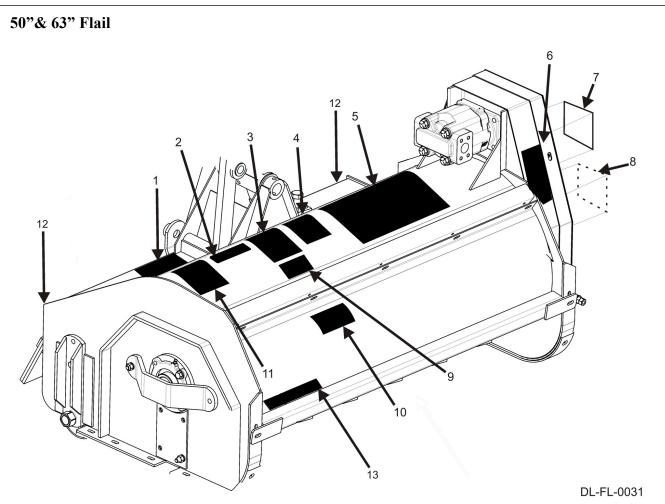
Boom Arm





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		S	afety Section 1-17	
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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



A WARNING

- 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.

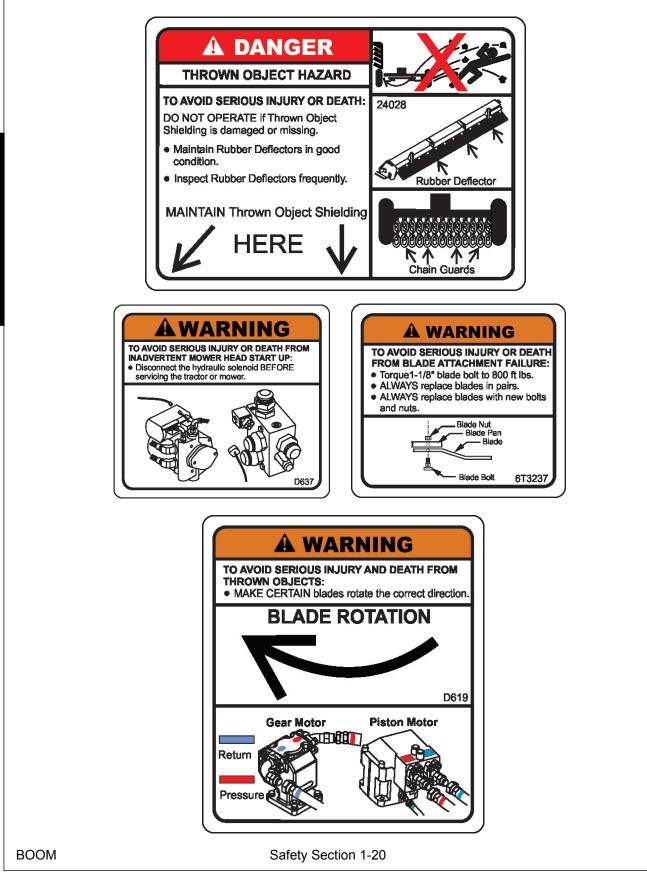
HIGH PRESSURE FLUID LEAKS CAN BE INVISIBLE. WHEN CHECKING FOR HYDRAULIC LEAKS AND WORKING AROUND HYDRAULIC SYSTEMS:

- DO NOT use hands to check for leaks.
- ALWAYS WEAR safety glasses and impenetrable gloves.
- USE paper or cardboard to search for leaks.
- 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. 02965262





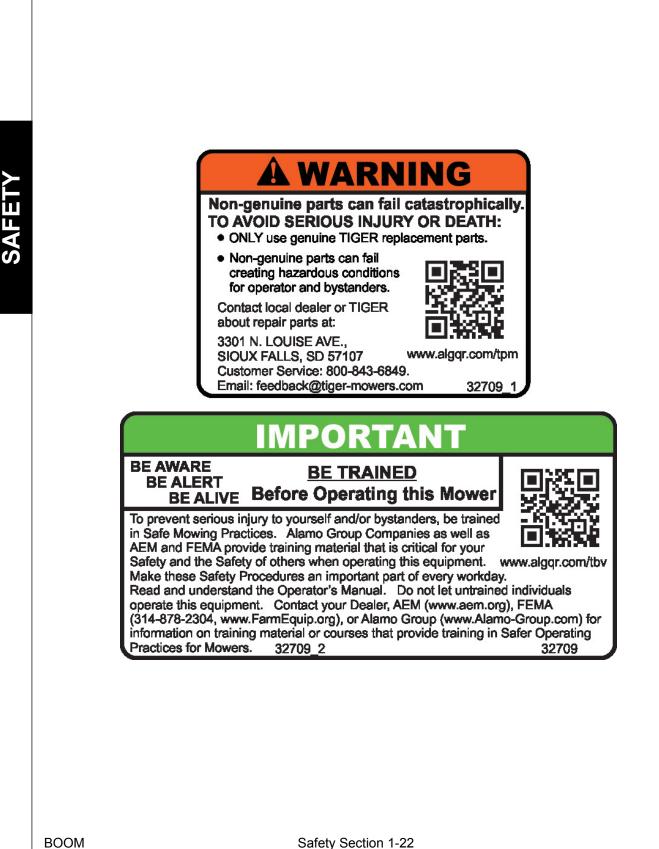


SAFETY



BOOM

Safety Section 1-21



AWARNING **PINCH POINT HAZARD** TO AVOID SERIOUS INJURY: DO NOT OPERATE with Belt Shield removed. 00758194 **A** DANGER D646 **GUARD MISSING DO NOT OPERATE**

SAFETY



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.)

ASSEMBLY SECTION

O⊡••^{à|^ÂÛ^&cã[}}ÁGËF

ASSEMBLY

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.

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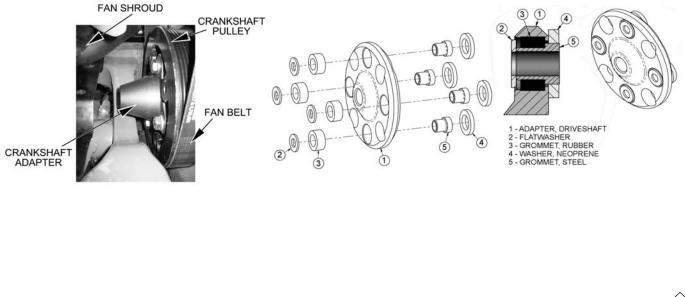
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TRACTOR PREPARATION

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- ÖÈ Ü^{ [ç^Á,|`*•Á¦[{ Ád:æ&d[¦Á&æed]*Á, @;¦^Á;æa], ⊰æ{ ^Áæ), åA,`{] Á; [`}dÁ, a]|Áa^Áæææ&@åÈ
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(ASM-JD-0001)

CRANKSHAFT ADAPTER



ASSEMBLY

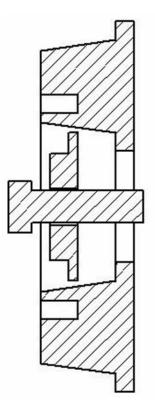
FRONT CRANKSHAFT PULLEY

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PARTS REQUIRED TO PURCHASE FROM JOHN DEERE:

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Solution:

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(ASM-JD-0080)

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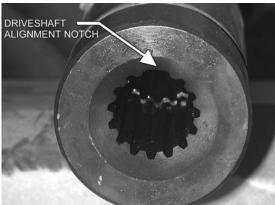
DRIVESHAFT AND FRONT PUMP MOUNTING

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CAUTION: DO NOT START THE TRACTOR UNTIL ALL HOSES ARE ATTACHED, TANK IS FILLED WITH PROPER OIL AND BALL VALVES ARE OPEN! STARTING AT THIS TIME WILL CAUSE SERIOUS DAMAGE TO THE PUMP. (ASM-JD-0007)

DRIVE SHAFT ALIGNMENT NOTCH





ADJUSTING REAR WHEELS

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ASSEMBLY

POLYCARBONATE SAFETY WINDOW

NOTE: Installing a boom mower requires that all of the right side windows be replaced or protected with a polycarbonate window. This should be done before mounting the mainframe.

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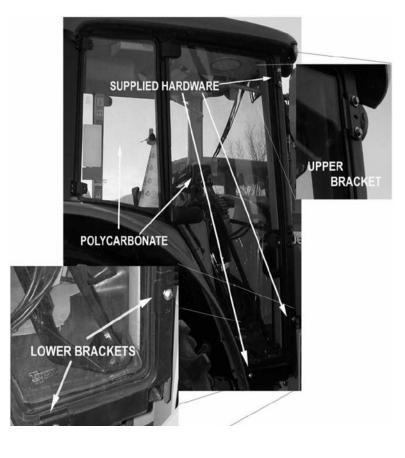
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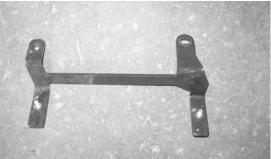
ASSEMBLY

TIGER TUBE GUIDE INSTALLATION

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When removing heat shield parts from the tractor exhaust, save all hardware to re-install the heat shield after the John Deere tube bracket has been replaced



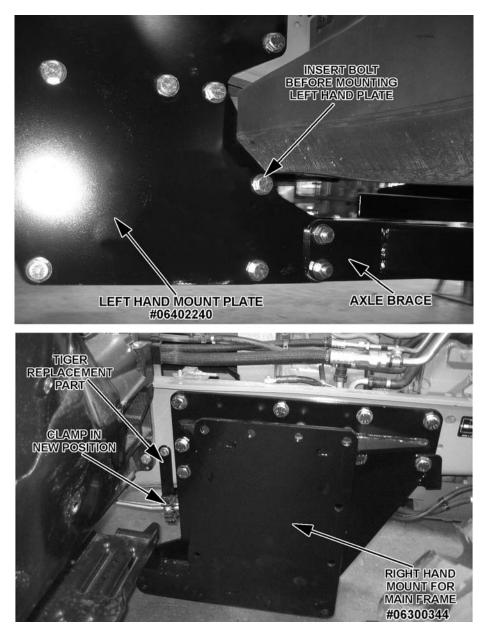
John Deere bracket to be replaced



Tiger replacement bracket

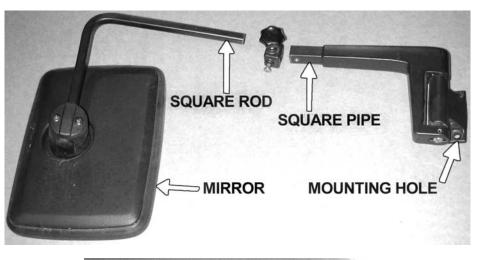
MOUNTING PLATE INSTALLATION

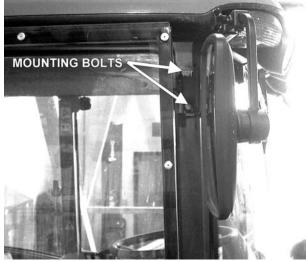
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SIDE MIRROR MOUNTING

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MAINFRAME INSTALLATION

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SWITCHBOX WIRING

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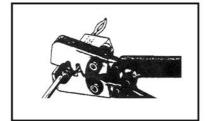
WEATHER-PACK / METRI-PACK ASSEMBLY

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NOTE: Use the specific tool for the type of connector you are assembling. (ASM-C-0009)



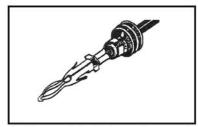
1. Apply seal to cable, before stripping insulation.



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

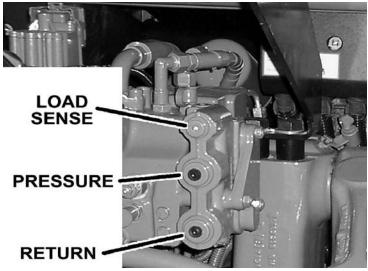


2. Align seal with cable insulation.



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

HYDRAULIC PORTS



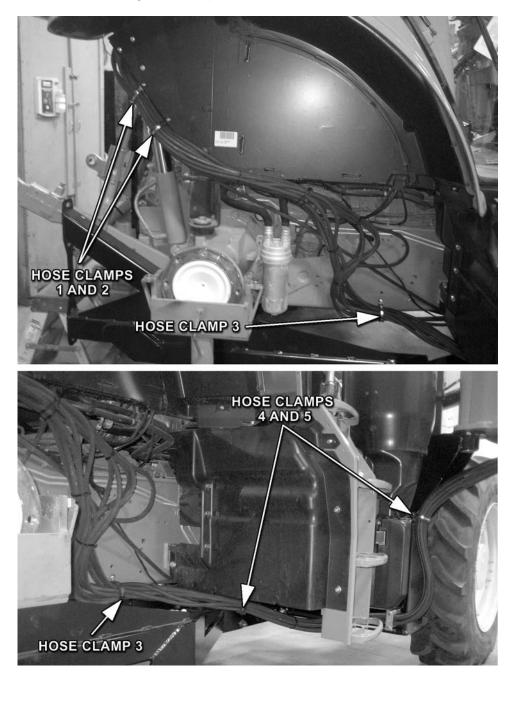
PRESSURE LINE INSTALLATION

RETURN LINE INSTALLATION

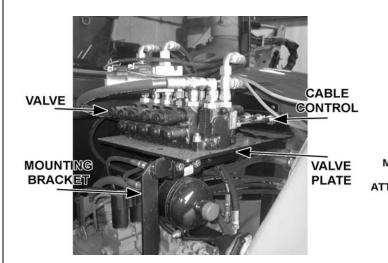
LOAD SENSE LINE INSTALLATION

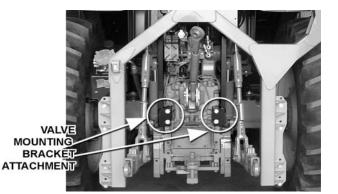
HOSE ROUTING

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VALVE MOUNTING

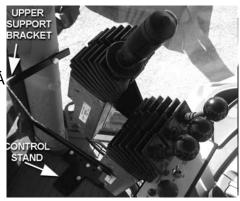




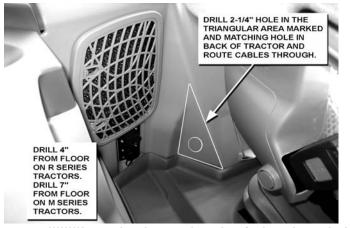
CABLE CONTROL LEVER STAND

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NOTE ON HUSCO CONTROL VALVES

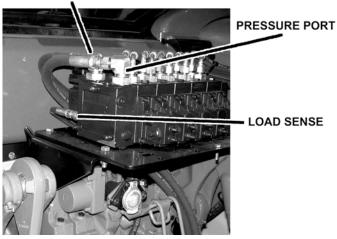


ELECTRONIC LIFT VALVE PORTS

(ASM-C-0089)Å

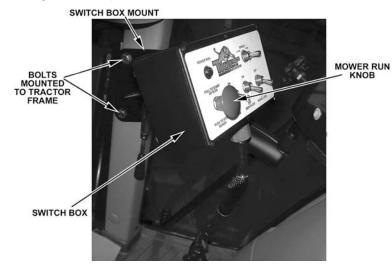
DANFOSS VALVE

RETURN PORT



JOYSTICK SWITCHBOX MOUNTING

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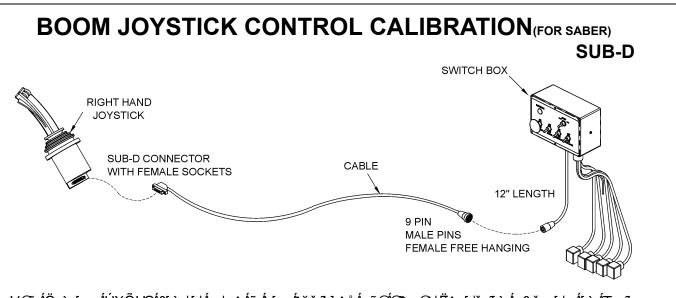


JOYSTICK CONTROL MOUNTING

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BRACKET



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Ü`}Aslæ&a{[¦AseeA,[|{ aqA,]^\æand; *ÄÜÚT A{ Asedib • oAs@A ^ cand; * • Asee A{ [[[, • È

Set the dead band compensation potentiometer first.

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MAIN BOOM: ‰EÁÚ[¦dÊÓ[[{ÁV.ÚK ÌĒF€ÁÛ^&[}å•

(Note: Extend secondary boom completely; roll deck to be level with ground, and lower main boom until deck is on ground. Now index main boom "up" function and determine the time required for main boom to rise completely.)

%Ó→ÁÚ[¦dÊÁÓ[[{ ÁÖ[, } K ÎĖÌÁÛ^&[}å•

(Note: Extend secondary boom completely, roll deck to be level with ground, and raise the main boom to "full up". Then index the main boom "down" function to determine the amount of time required for the deck to contact the ground. CAUTION: Stop the boom just as the deck contacts the ground.)

SECONDARY

BOOMK^{MA} % EAU[$d \Delta O[(AU d K)] = AU d K$ d = AU d K d = AU

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DECK ROLL: %GEÁÚ[¦dÉÖ^&\ÁUčdK ÏËJÁÙ^&[}å•

(Raise main boom to vertical, extend secondary boom out slightly so that deck can be articulated without contacting the main boom, and roll deck in until deck cylinder is completely extended. Then index the deck roll "out" function and determine the time required for the deck to roll out.)

%G+ÁÚ[¦dÉÄÖ^&\ÁQ;kÁ/æ*^oÁ\ÉİÁÙ^&[}å•ÁÇa`óÄÖUÁ>UVÁ •^ÁŠąĩ ãAÛ&\^, D

(Raise main boom to vertical, extend secondary boom out slightly so that deck can be articulated without contacting the main boom, and roll deck out until deck cylinder is completely retracted. Then index the deck roll "in" function and determine the time required for the deck to roll in.)

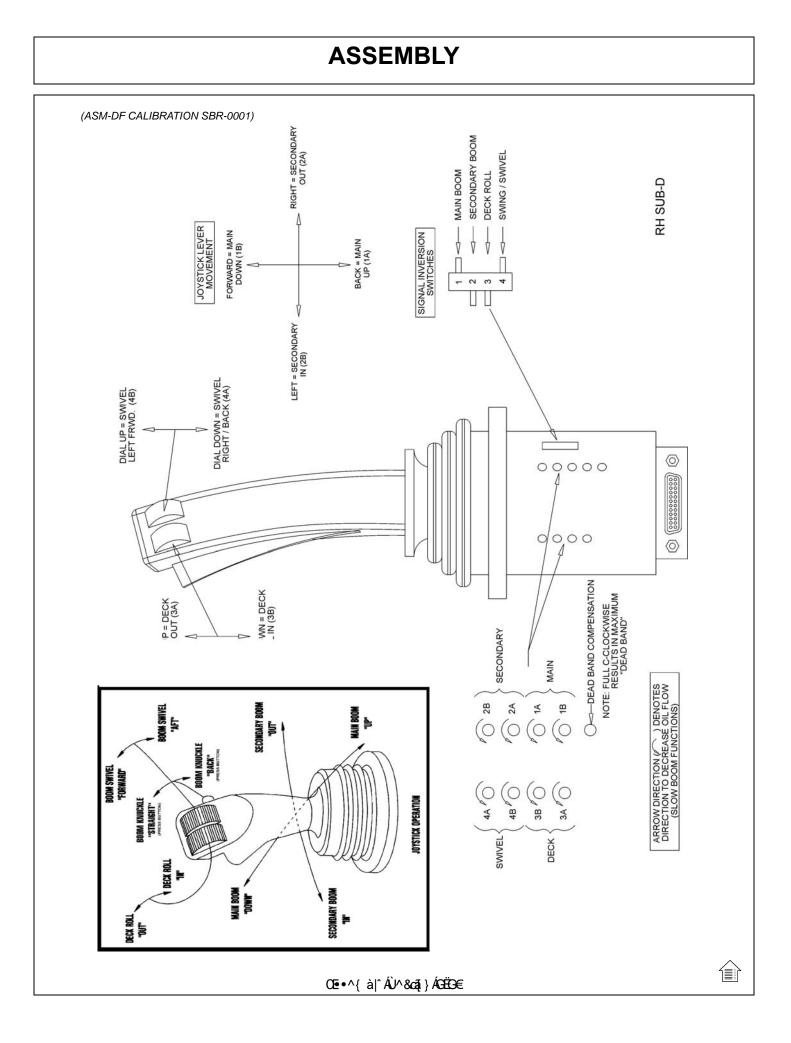
BOOM

SWIVEL: %GEÁÚ[¦dĚÁÓ[[{ÁCEdK FFËFHÂÙ^&[}å•

(Extend booms completely; rotate head to be level with ground, lower main boom until deck is just above ground, and swivel boom full forward. Then index the boom swivel "aft" function and determine the time required for the boom to swivel full aft. Use caution when doing this, stop boom before main boom contacts tire.)

%Á→ÁÚ[¦ÓÉÁÓ[[{Á2[¦, æ+åK FFËFHÁÙ^&[}å•Á

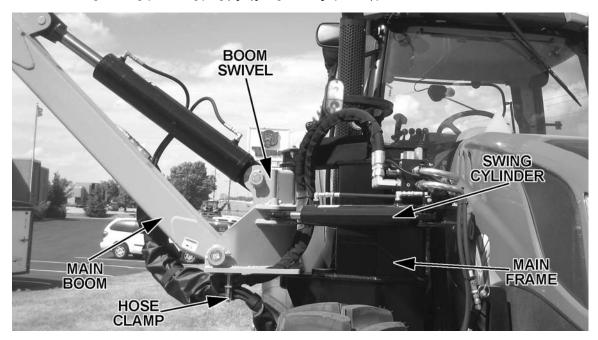
(Extend booms completely, rotate head to be level with ground, lower main boom until deck is just above ground, and swivel boom full aft and until near tire. Then index the boom swivel "forward" function and determine the time required for the boom to swivel full forward.)

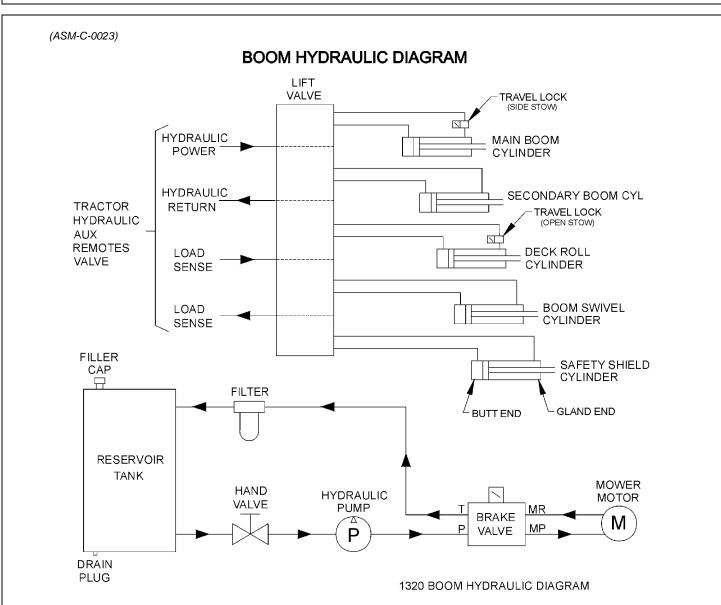


SABER SWIVEL BRACKET MOUNTING

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WHEEL WELL HYDRAULIC TANK INSTALLATION

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WHEEL SPACERS

FILLING HYDRAULIC RESERVOIR

Ü^^\{Á[Ác@ÁTæaj;c^}æaj&^ÁÛ^&caj;}Á[¦Áaj|aj*Á]^&ãa8æaaj;}•ÁæjåÁ@妿ĕ|a&Aj;aÅ^ččā^{^}œÈ

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

(ASM-C-0004hydro resrv)

INSTALLING O-RING FITTINGS

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INSTALLING NATIONAL PIPE FITTINGS

Y@}^ç^¦Áş)•czeļlāj*Ázzájā]^Áãzáj*Éş, ¦æşiÁc@Ás@^æå•Á&[8,] قَلْمَ *Ázzáj*Éş, ¦æşiÁc@Ás@^æå•Á&[8,] قَلَمُ *Ázð (Å] cæġ^ĚÁQ,Ác@ārÁ, æÊÉx@Ázæj^Á,ájlÁs^Ázð @^}^åÁ,@}}Áşi•cæġ|^åĚÁPUVÒKÁKQÁsārÁ,[cÁ,^&^••æ}ÁţiÁzej*ÁUË ¦āj*Ázãaj*•Éậ,¦Ác@,•^Áşi•cæġ|^åÁşiÁ;āç^|•ĚÁ(AS*M-C-0088*)

PREFORMED TUBE INSTALLATION

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GENERAL HOSE INSTALLATION

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HOSE COVERING

Ù^&`¦^ÁQ • ^ • Ág * ^ c@ ¦ Á ão@Á ĝ Ázð • Á @ ¦^c^ ¦ Áj [• ^ ÈÁÁY ¦ æj Ás@ ÁQ • ^ • Ás^c, ^ } Ás@ Á, ãç^ | Áz) å { æği Áà] [{ Á ão@Ác@ ÁQ • ^ Á&[c^ ¦ Á] ! [çãa ^ à ÈÁÝ ¦ æ] Ác@ ÁQ • ^ • Áà^c, ^ } Ác@ Á, æği Áz]] [á Áz) å • ^ &[} åz= ^ Áa[{ Á ão@Ác@ ÁQ • ^ Á&[c^ ¦ Á] ! [çãa ^ à ÈÁÝ @ !^ ^ ÁQ • ^ AAc, az] / Az) } [{ Áz} å * ^ &* ^ EÁ ; æj Á ão@Á] [ãAQ • ^ Áz] å Á ^ &` | ^ Á ão@AQ • ^ Áz] • Á ã ĝ Ac * Az] } [á Áz • È

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ACCUMULATOR INSTALLATION

 $OE \cdot ^{\{ a \mid \hat{A} \mid A \in A \in A \}} A \in B$

SOLENOID BRAKE VALVE

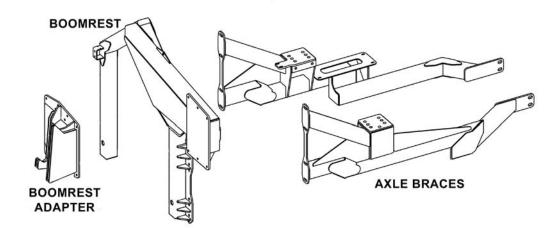
TEMPERATURE GAUGE MOUNTING QUÚVQUÞOCŠD

WHEEL WEIGHT MOUNTING

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RS AXLE BRACE MOUNTING

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SABER BOOMREST MOUNTING

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DECK ATTACHMENT

MAIN BOOM INSTALLATION

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

FINAL PREPARATION FOR OPERATION

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BE SURE THE BALL VALVES ARE OPEN! Ùcæ oʻk tæstof ¦Ása) å Ásahl[, Ásj, • d`{ ^} • Ást Áscæà ậã ^ È W• ậ * ÁsaÁ, âð &^ Á, -Á, æ] ^ ¦Á; ¦Ásæ à à [æ à Ásæ Á, [د à Ásj Ás@ Á Jæ^ ĉ Ása) à ÁT æ j د } & A Á J ^ & & A - هَدْعَهَا * • Ása) à ÁT æ j & A (¦Ásæ à à [æ à Åæ Á] = È

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Before operating the mowerÉx@ Á& cc\ delta de

MOWER TESTING

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

U]^¦æaāį}ÂÛ^&cāį}Á+ËF

TIGER BOOM MOWER OPERATING INSTRUCTIONS

Vă ^ ¦ÁÓ[[{ • Ásel^Á; að) ^{*} -æ&c ¦^ å Á ãu@Á ^{*} adjāc Á; azer ¦ãadyÁs Á \āļ/å Á [¦\^¦• ÈÁV@ ÁÓ[[{ Ášer Ás-^ā } ^ å Á [Ásecca& @Á [Ásecca& [AseA]] [& Asecca& A [] ^ Ase

QÁā Ác@ Áį]^¦æq Á'^•][}•āaājāč Áqi Áà^Á }[, |^å*^æai|^Á[-Áæqi|Á][c^}[āæqi * Á@e æså•Áæi) å Áqi Ácæa ^ Árç^¦^ ¦^æe[}æai|^Á]¦^&æč qā]}Áqi Á^}•`¦^Á[}^•^|-É[c@]!•ÉÉæijā[æt*Éæijä Aji][]^¦cč Áæd^Á}[cÁsijb`¦^åA[¦Åæaqi æt*^å Áa`Ác@ à[[{ Á`}ādÉkiæ&qi ¦Á[¦Áæk@[, } Á_i àb% & ÉÉKÖ[Á,[cÁ]]^¦æt*Ác@ Áa[[{ Áæijå Áæcæ&@ å Á@ æå ÁāiÁa^•cæijå^\•É5]æ••^¦•à^Ê]^o•Á[¦Áāç^•qi&\Áæc^A,ão@jÁ==€Á^^qÁ_AœÁ}ãÈ

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. $Q^{A}[\ A^{a}[A] [\ A^{a}] \ A^{a} \ A^$

<u>ÜÒŒÖÉÁWÞÖÒÜÙVŒÞÖÉÆæ</u>) å ÁZUŠŠUY Áv@ Á{ ||[, 引 * ÁÙæ^ ć ÁT ^••æt ^•ĚÁŴ/ \lətə`•Áşı b´ |^ Á; | å^æc@Á, æĉ Á; &&` | Á` } |^•• Ásæł^Ása Ásæi ^ } Á{ [Á{ ||[, Áv@ Á, æ}] 引 * •Áæj å Áşi • d` &a‡i } • Á ææv å Áşi Áv@ Ùæ^ ć ÁT ^••æt ^•ĚÁŴŒ, æĉ • Á • ^Át [[å Á&] { { [} Á ^} • ^ Át [Áæç[ãā Á@æ æså • Ĕ&vö⊞ami



A PELIGRO

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1.OPERATOR REQUIREMENTS

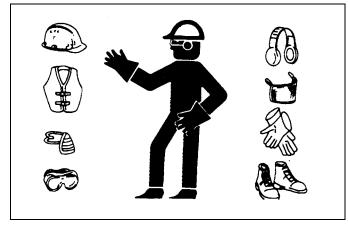
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Ùæ^Á;]^¦æaā;}Á;~Á``ā;{^}ơA^``ā;^+ÁœæÁ@A;]^¦æaā;\Á;Aæaā;}]¦[ç^åÁÚ^¦•[}æ4ÁÚ¦[ơ&aã;^ÁÒ``ā;{^}óQÚÚÒE -{¦ÁœA4;àÁ&[}åãaā;}•Á,@}Áœææ&@3;*Ê4;]^¦æaā;*Ê4;^¦çã&3;*Ê4∞}åÁ^]æ3iā;*ÁœA^``ā;{^}œÁÚÚÚÒÁa;Áå^•ã;}^åÁ]¦[çãå^Á;]^¦æa[¦Á;|[ơ&aā;}Áæ3;åÅ3;&]`å^•Ás@Á[||[;ā;*Áæ^ĉÁ;^æK

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- ″ 0Ę, æ̂∙Á⁄^æÂĴæ^ĉ ÃÕ|æ•^•
- ″ PælåÁPæc
- ″ Ùơ^^|Á[^ÂÙæ^ĉÂ∅[[ç,^æ
- ″ Õ∥ ç^•
- ″ P^æia],*ÁÚ¦[c^&ca[]}
- ″ Ô|[•^ÁØãcã]*ÁÔ|[cœ];*
- "Ü[^]•] ālæe[¦Á₁ ¦Á2ä]ac ¦ÁT æ \Á2à^] ^} å•Á₁ } Á
 [] ^ ¦æeā] * ÁS[} å ãeā] DÁ(OPS-U-0002)



A DANGER



2.TRACTOR REQUIREMENTS

Tractor Requirements and Capabilities

- ´ OÈÙOEÒÁ&]]¦[ç^åÁÜ[||ЁJç^¦ÁÚ¦[ơ & cã;^ÁÙd č & cỉ^ÁÇÜUÚÙDÁ;¦ÁÜUÚÙ/Á& æàÁ&)åÁ ^æxÁ&^|cÈ
- []^\zet[\&z*^At]_At^cza)A_ja_a[__At[A][_cv&o4]^\zet[\A+[{ Ac@[__}}At`ab&o*] At`ab &o*
- V¦æ&q[¦ÁÛæ^cÂÖ^ça&^•Á
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2.1 ROPS and Seat Belt

V@Átæst[¦Á[`•oÁs^Ár``ā]]^åÁj ãr@næfÜ[||ËUç^¦ËÚ¦[c^&ããç^ËÙd`&č¦^ÁÇÜUÚÙDÁQ:æstd[¦Á&æaàA[¦Á[||ËaæbDáæ)åÁ*^æc à^|cÁ[Á]¦[c^&cÁc@A[]^¦æt[¦Á+[{ Áæ|a]*A[~Ác@Átæstd[¦ÉA+]^&ããe|^As`¦ā]*ÁæaA[||Á[ç^¦Áj@!^Ác@Áslãç^\AS[`|åAs^ &\`•@åÁæ)åÁā|^åÈÁU}|^ Á[]^¦æt^Ác@Átæstd[¦Áj ãr@næfa@AÜUÚÙÁsjÁc@Áaãa*^åA][•ããa]}Áæ)åÁ*^æefa*Á*æefa* V¦æstd[¦Á[[å^|+Á][cÁ*``ā]]^åÅj ãr@næfüUÚÙÁæ)åÁ*^æefa*|cÁ:@2`|åÁ@æç^Ás@•^Áãe^A;æçā]*Á*æči^+Asj•cæ|^åÆsiAs æčc@¦ã^å&s~æ*\EÁOPS-U-0003

AWARNING

U]^¦æe^Ac@arAO``āj{^}@{}^A;}A; [ç^\H];[c^&c@arAO``āj{^}A; [ç^\H];[c%&c@arAO``A; [ç^\H];[c%&c@arAO'*O'{ACUUÚUDĂACH; zê •A; ^æAA`^æA`à^|orEĂAÙ^;aj`*Aajb`;^A[; ^ç^}&a^ae@&a[`|åA^•`|o4;[{ Áæ|j}*A; ~á@A:ae&q[;H];æca&`|æ|^&a`;ij*Ae&b`;}[ç^; _@}Ac@A;]^!æe[;A&[`|åAa^A;ij}^åA`;A;@AUUÚUDĂ4;ofio





2.2 Operator Thrown Object Protection

V@Ádæ&q[¦Á{ `•oÁà^Á^``ā]]^åÁ,ão@h;¦ [c^&cāç^ ^``ā]{ ^}oÁq[Á@h|åÁs@Á[]^¦æq[¦Á¦[{ Áæ|jā * Áæ]å c@[, }A[àb%o ÈÁQ[¦Á&æàÁtæ&q[¦A[č éc à^Ár``ā]]^åÅ,ão@hæjA[]^¦æq[¦Áæ^c Á &i^>A[Å] Áão iā @Á*ãa^A[¦Á@A ã @A*ãa^A]ā], •Á[`*oAà^Áāc*å ,ão@Ákbá*@æc*¦Á^•ã æa)o4 æ^c Á ā]å[, ÈÁAQ[¦A][}Ë &æàÁtæ&q[¦•Êó@Atæ&q[¦A[`*oAà^Ár``ā]]^åÅ,ão@æ ÜUÚÚÚAæ]åA[]^¦æq[¦A] ¦[c*&cãç^A é æ^c Á &æ* ^Ác@æ]![çãa^*A]![c*&cã]}Aq[Ác@A ã @Aæ]åAæa][ç^Ác@ []^¦æq[¦A*^æEÁYÖUÁ;UVÁ ~{ [ç^Ác@AÜUÚÚA;[{ }]] ÉBæàÁtæ&q[!*Á[Áč ă] Áæá æ^c Á &æ* ^ÉÁ

OPS-B- 0001

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▲ DANGER ▷^ç^¦Ą[]^¦æɛ^Ac@AV¦æ&q[¦Aæ}åAT[, ^¦AW}ãA,ãc@[`oAæ}AUUUAQU]^¦æq[i• Ú![c^&cāç^ÁÙd`&c`¦^DĄ[¦ÁÔæàÁq[Á,!^ç^}oAġbŏ¦^Á+[{ Á[àb^&c•Ác@[, }Á+[{ *![`}åÁ,!Á+[{ Á[ç^!@æåÁslā[{ ā]*ĚÙq[]Á,[, ā]*ÁāÁ,[!\^!•Á,!Á]æ•^\+à` æ^Á,ãc@3,Á+E€Á^^dĚ¢ior≞b



2.3 Tractor Lighting and SMV Emblem

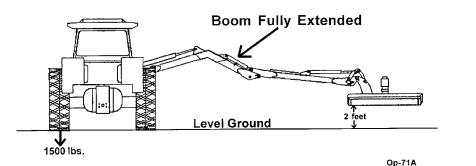
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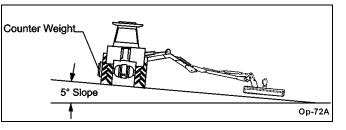


2.4 Tractor Ballast

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GÁc@ Á`} ãiÁā Á[] ^¦æe^åÁ[} A*|[] ^• Á'¦^æe^¦Ác@e) Á' °Ê æååãāā] ≥æļÁ &[`} c'¦^ ^∄ @A´, āļÁ à^Á^`čā^åÈ U] ^¦æaā] } Á[-Á@^A`}ãiA[} Á*|[] ^• Á'¦^æe^¦Ác@e) ÁFF]^¦&^} cÁÇ È Áå^*¦^^• DÁā Á'[cÁ'^&[{ { } å^åA`}å^\ æ) ^Á&ā&`{ • cæ} &^• ĚÁU} Áæki æ&q[¦Á ã@Áæki] +Á` o ãa^ q[Á] `o ãa^Áāā^Á;] ¦^æåÉæa ÁFFÁ]^¦&^} cÁÇ È Áå^*¦^^• D • [[] ^Á] &&` ↓ @} Á; }^Á^æáCí æ&q[¦Áā^Áā Áæa][`c + [__^|Á@e) Á@ Á; c@¦Á^æáÁā^ÈKOPS-B-0018



3.GETTING ON AND OFF THE TRACTOR

Ó^-{¦^Á*^cca}*Á;}q[Ác@-Átaesd[¦Éb@-Á;]^¦æe[¦Á; `•OÁ^æåÁæ)åÁ&[{]|^c^|^Á}å^¦•cæ)åÁc@-Áã[]|^{{ ^}ofæ}åÁtæsd[¦ []^!æe[¦Á;æ)`æ†ÞĚÁQÁæ)^Ájæed,-Áñão@¦Á;æ)`æþÁãrÁ;[of&[{]|^c^|^Á}å^¦•q[[åÉ8&[}•`|oÁæ)Áæčo@[¦ã^åÁå^æ†^¦Á[¦ æf&[{]|^c^Á¢]]æ)æaã]}ÈÉAOPS-U-0007

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O[A][O4][O4][`}O4[Ååã*{[`}O4;@A/¦æ&q[¦A];@A;Ac@A;læ&q[¦Aā;A[[çā]*E4T[`}c
@@ÁV¦æ&q[¦Á[]|`Á]@}Ác@ÁV¦æ&q[¦Áæ)åÁæ|Á{[çā]*Á]æboÁæ^Á&[{]|^c^\^
•q[]]^åÉ¢نö⊯co
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3.1 Boarding the Tractor

 $W \bullet \land A \doteq [co A deap a \bullet A deap a A \land \check{a}] \land a A deap a | a deap a \land a deap a |^c^\+Á[¦Ár`]][¦cÁ, @}Ă([`}cā]*Ác@Áciæ&qi ¦ĔÁÙ^æÁ`[`¦+^|,Áā,Ác@Á(]^¦æ[¦q/Ár^æÁæ) åÁr^&`¦^Ác@Ár^æÁa^|c æ¦[`}åÁ[`È

Þ^ç^¦Áæq|[, Á] æ••^}*^¦•Áq[Á'ãå^Á[} Ác@Ád æ&q[¦Á[¦Áæææ&@åÁ^˘˘ā] { ^} dĚÁÜãå^¦•Á&a) Á^æaj á^ ÁæqlÁ[~Áæq) áÁà^ •^¦ā[`•|^Áājb`¦^åÁ;¦Áāj|^åÁ;¦{ Áæ;jā]*Á;~Áæ;jåÁsi^ā]*Áæ;jÁ;ç^\ÈXAQ/ãrÁs@/Á;]^¦æa;¦qnÁ^•][}•ãaājācîÁa;Á[;Á[¦àãaÁæ;jÁ;¢dæ; ¦ãå^¦•ÁædÁæd|Áxã] ^•ĚÁOPS-U-0008

A DANGER

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Þ^ç^¦Aædi[, A&@Aäi^}A, ¦A; c@;'A, ^!•[}•A; Aãa^A; }Ac@A/;a&d; ¦A; AQ,] |^{ ^} CE

Øædeljā,*Á,--Á&æd) Á^•ĭ loÁs, Á ^ ¦ā,ĭ•Ás, bǐ ¦^Á, lÁs,^æc@ezÁs,ö≣re⊡

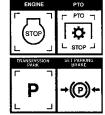
Ö[A}[oA{[`}oA{\A\$iã{[`}}oAo@A/\a&a{[\A}@aAc@Ac@a&da&a{\AšiA{[ca]*EAT[`}}c AWARNING c@AV¦æ&qt¦A(}|^A, @}Ac@AV¦æ&qt¦Aæ}åAæ|A([çā]*A)æbo•Aæb^A&[{]|^c^\^ •d]]^寢ùõ⊯⊡

3.2 Dismounting the Tractor

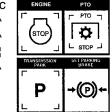
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{ ǎà Đấa& Đấy [, Đấa) à Á, co@ ¦Á, asex ¦Á œe Áas& { `|asex à Á, } Á co@ Á co.] • Áa) à Á@a) à Áœa) à Lasp Đấh> ^ co.' LÁ` • @Á, LÁŏ {] Á, ~Áco@ ; dæ&d;¦È₩OPS-B-0002

OOQUUOA/\æçā,*As@Aslæ&q[¦A\^æE&eq, æî•A\^oks@Ajæk\āj*Aslæk,^Aæjå⊕[¦A\^c c@ Ád æ&d[¦Ád æ}•{ã•ã[}ÁājÁ] æ\āj*Á*^æÉÅåã^}*æ*^Ác@ ÁÚVUÉA•d[]Ác@ ^}*āj^É4/{[ç^Ác@A^^Ééee)åÁ, aãeóA{¦Áee|A{,[çāj*AjæslorÁt[Áqt]]ĚÁÚ|æ&Ac@^ dæ&q[¦Á+;@ãoÁ/^ç^¦Áājq[ÁæÁy[, Á'æ)*^Á[¦Ájæ{\āj*Á*^æAq[Á]¦^ç^}]oÁc@Adæ&q[¦ ãrÁ`}}āj*ĚÁU]^¦æe^Áo@Á/¦æ&q[¦Á&[}d[|●Á+[{Áo@Ád;æ&q[¦Á+^æeA[}|^ȱçiöööo







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U]^¦æeá)}ÂÛ^&cá)}ÅHË

4.STARTING THE TRACTOR

V@?Á[]^¦æq[¦Á(`•oÁ@eqc^ÁæxÁ&[{]|^cvÁ`}å^\+oæa)åā]*Á[Áo@A]|æ&?{^}dÊA~}&aā]}ÊÁæa)åÁ[]^¦æqā]}æÁ`•^Á[Áæ4| dæ&d[¦Á&[}d[|•Áà^-{|'^Årœdrā]*Ár@?Ádæ&d[¦ÈÁÜ/çã}, Ár@?Ádæ&d[¦Á[]^¦æq[¦qrÁ(æa)`æ4Áæa)åÁ&[}•`|oÁæa)Aeĕc@[¦ã^å å^æ4^¦Á{¦Ádæ&d[¦Á[]^¦æqā]}Á\$4,•d`&aā]}•ÁšaÁ,^^å^åÈ

Ò••^} œãe‡Á/¦æ&q[¦ÁÔ[}d[|•K

- ´Š[&æe^Ás@∘Ást}ãaāį}Á^^Đ,ãa&@Á
- ″Š[&æer^Ás@°Á^}*ā)^Á @o4[,~-Á&[}d[|
- ´ŠĮ & æe¢ Ác@ Á@ 妿ĕ |ã& Á&[}d[|Ắ/`ç^¦•Á
- ´Š[&æe^Ác@·Áaª@Á&[}d[|Á́^ç^¦
- ´Š[&æe^Ás@^Ás¦æè^Áj^åæ∳Áse}åÁsqĭc&@Á
- ″Š[8ææ∿Ác@AŰVUÁ&[}d[|Á
- Ś[&æec^Ás@^Á+lÁ,[ā), Œá@ã&@Á&[}d[|Á(^ç^\
- ´Š[&æe^Áo@Áa[[{´Á,]^¦æeā;*Á&[}d[|́•Á0,2)^•cā&∖Á,¦Áçæqç^Áa;æ}∖D

Ó^{{ |^Â^;cæ;cā;*Á@^;Á;æ&q[|Â`} • ` |^Á;@^;Á[||[,ā;*KÁ

- ´Ô[}å`&oÁse||Á, !^Ë-cæioÁ,]^¦æaā[}Á5j•]^&cā[}Áse)åÁ<^¦ç3&^Áse&&{[¦åā]*Á5[Ás@/Ástæ&c[¦Á,]^¦æa[¦q+Á, æ)`æ|ÈÁ
- ´ Tæ\^Á`¦^Áæ|Á`æ\å•ÊA@?\|å•Ê&; å\; @?\|å•Ê&; å\; @?\Áæ^ĉÁ&^ç&?^A^&`¦^|^Á; Á|; æ&^È
- ″ V@∿Ájæd∖āj*Á妿d∘ÁásÁj}ÈÁ
- ´ V@^Ádæ&d(¦Ádæ)∙{ã•ã(}Á^ç^¦∙Áæ^Á§)Ájæ\Áj¦Á,^`dæ†Ä
- ´ V@^Áa[[{̈́́́Ąi]^ˈlæaā);*Á&[́}d[ĺ•Áad^Á5),Áố@^Á,^`dæaÁad);åÁ,⊶Á,[•ãaāį}È
- Ź V@^ÁŰVÜÁ&[}d[|Á∱ç^¦Áãááå^}*æť^åÈ
- ´ V@^Á@/妿ĕĬjã&Á^{[c^Á&[}d[|Á^ç^\+•Áæ<^ÁajÁx@~Á,^čdæa∯,[•ãaā]}ÈĂ

Ü^~\A[Á@Adæ&q[|Á[,]}^\qA(æ)`æAA[|Átæ&q[|Átæ&q[|Áræed@]*Á]|[&^å`|^•ÈÁU}|^Á\œedoó@Adæ&q[|Á]@4^Ar^æe^åAe)å à^|c^åA9jAx@Adæ&q[|Á[]^\æq[\qA*^æEŹAP^ç^|Áà^]æ•A@Af#}ãa]}Arjãa&@Ar@Adæ&q[|Atæ}*A@Aræedo\Ar[|^}[ãàÈ CEe^\Ar@Adæ&q[|ÁY]*3]^A#rÁ*}}3]*ÉAeq[[ãaAæ&&ãa^}œAk@[]æ&Ar@Adæ&aq[|Atæ}+{ã•a]}Af[Aj\^ç^}oAr*åå^} æ)åA{}^¢]^&c^åAdæ&q[|Á[[ç^{ ^}c^{ }]

Ac@eAV¦æ&q[¦A^}*āj^AājAæA&q[•^åAà`ājåāj*A[¦A,ão@t`oAæå^`čæe^Aç^}cājæaāj}EAA/@ ^¢@eĕ•Aç`{^•Á&aa}Áå^Á@ee æbå[č•Áξ[Á[č¦Á@ a¢c@eAquo®ea

À DANGER UæłoÁd æ&d[¦Á]} / Å @} Á] ¦[] ^¦/ Å æ&*åÅj Á@^ÁV¦æ&d[¦Á+^æ£ÄÅÜæłd] * Áæ d æ&d[¦Á] Á* ^æłÁ&a) Á^• č | Á] Á] b`¦^Á[¦Áå*^æc@ÉÁÜ^æåÁœAV¦æ&d[¦Á]] ^¦æ[[+ { هُؤْ مُؤْلُمُ الْمُؤْلُمُ اللَّهُ مُؤْلُمُونَ * Á] • Č & d] } • ÉÁ@ö≞HD



OPERATION

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5.CONNECTING ATTACHING HEADS TO THE BOOM

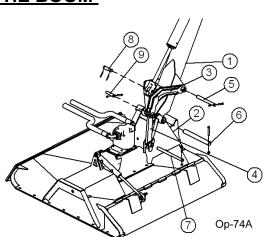
FĚÁÚ cæłoÁà Áxecca&@3;*Ác@ Á;ãç[oÁà¦æ&\^Q-DÁq Áx@^Áà[[{ (ÇFD *•ā]*Á]ā) (Ç DÁa) å Á@eelå, æł^ĚÁÞ^¢oÁxecca&@Ác@ Á&`|ā]å^¦Áq Ác@]ãç[oÁa:¦æ&\^Q-DÁ*•ā]*Á;āj (Ç DÁa) å Á[||Á;ā]•È

GĐĂÁ/@}}Áæccæ&@Ác@Aå[*|^*ÇDÁq[Ác@A{{[, ^¦ÇĐÁ(•ā]*Á]ā],ÇD æ)åÁ@æåa,æ^È

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Í ÉÁZABjæl¦^Á(æl:^Á*`¦^ÁseljÁsi[|o•É4),`o•É5ee)åÁj,3]•Áset^Áset@c^}^åÁ(; ¦^&[{ { ^}å^åÁsi[;``^ÉOPS-B-0004_D



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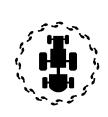


6.PRE-OPERATION INSPECTION AND SERVICE

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 LO^¦ąį å å&æql^A ā, •]^&oAæqlĄ[[çā]*A] ælor A-[¦A, ^ælAæ) åA¦^] æ&A, @} A&•• æ^ Á, ão@éeč c@ ¦ã ^åAi^¦çã&^Áj ælor ÈÁŠ[[\Á[| •^Áæe c^}^!•ĒÅ, [¦} [¦Áà![\^} Á] ælor ÉÆæ) åÁ/^æà ^Á[¦Á[[•^Ááœā]*•ĒÁT æ\^Á+` ¦^ÁæqlÁ] ā, •Á@æç^ æccæ&@3, *Á@ælå, æl^ÈÁÛ^¦ąī`•Á§ Ď ¦^Á(æĉ Á; &&` ¦Á+[{ Á, [cÁ(æē) cæē) ā, *Ác@æ { æ&@3, ^Á§ Á[[åÅ, [¦] a, 4, lèÁşiö⊞= œ

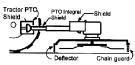




A DANGER

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à^Á*•^åÁæ)åÁ{ ænajcænaj^åÅÁnjÁ*[[ắÁ [¦ˈå, Kk]}åãúā]}ÈÁÁOE[|Áævóc*Á å^ça& v•Á•@;*|åÁà/s[™] ĵj•]^&c*åÁ&æa*^~||^Á∞eÁ/>æ=oÁaæanj^Á{[¦Á{ ãr•đj*Á¦¦Áa¦[\^}Á&[{][}^}œEÁATã+đj*Éáa|[\^}Ê [¦ÁÁj[!}Ásc*{•Á{ *•oÁa^Á^]|æ&våÁ∞eÁ{}&vá{áÁ∞eÁ}}&vá{áA*á*&^Ác@Aj[••āađãa*Á[-Á54]b`!^Á[¦Áa^æa@ --{[{Ác@[,}}Á;àb*&o=ÉÁ}cæ)*|^{ ^}cÉá, iÁa|æa*^Á&[}cæ&dÉşiör#e



6.1 Tractor Pre-Operation Inspection/Service

Ü^_^!Á[Á@^Átæ&q[!Á[]^!æq[!qrÁ(æ)`æфÁ[Á*}•`!^Áæ &[{]|^c^Á]!^Ë[]^!ææā[}Áāj•]^&cā[}AæjåÁ*&@å`|^å •^!çã&^Á ãrÁ]^! -{!{ ^åA æ&&[!åā]*Á q[Ás@ {æ)`æ&c`!^!•Á!^&[{ { ^}åææā[}•ĚÁAV@`Á-[||[],ā]* æ^A[{ ^A[.-Ás@.Ásc~{ •Ás@ææÁ^``ā^Ašaæãî^Á^!çã&^Áæjå å]•]^&cā[}K

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- ″ Y @^^ĺÁľ * Áàĺ ĺœ Á
- ‴ Ùc^^¦ậໍ*Áậ∖æ*^
- ″ ÚVUÁ @a∖¦åÁ
- ‴ ÙT XÁ:ã∄ ¦Áã; Á&∥^æ); Áæ); åÁçã; ãâ |^
- ″ V¦æ&d[¦qnÁðã@orÁsel^Á&l|^æ)áAž}åÁž}&að[}æ
- ✓ V¦æ&q[¦ÁÜUÚÙÁáāÁðajÁ*[[åÁ&[}åãaða]}
- ″ÜUŲ́ÙÁaiÁajÁc@ÁæaiĄ`^åAj[•ãaj]}
- ‴Þ[Áda&a{¦Áįã¦Áràà•Á
- Űæåãæq[¦Á¦^^Á[,≁åå∧à¦ã⊧Á
- ´´ Ò} * ã} ^ Áj ā Á/^ç^ |Áæ) å Á&[} å ããã[}
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- Ű Ú[^¦Áà¦æà^Á¦ĭãâÁ^ç^|Á
- ŰĹĹŶŀŔĊ^ŀą*ÁŀĭãaÁ^ç^ĮÁ
- ∅ ^ |Á&[} åãtā[} Áse) å Á^ ç^ |Á
- ‴Ù`~a&a^},oĄ`à¦a&aœaậ,}A∞eoAva¢lĄ`à^A,[ậ.o•



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6.2 Boom Unit Pre-Operation Inspection and Service

Q•]^&oÁæ)åÁ•^¦çã&^Ác@^Áà[[{ Áæ4{ Áæ)åÁ@ æåÁ]¦ā[¦Á{[Á[]^¦æaā]}}ÈÁÁÖæ{ æ*^åÁæ)åÐ[¦Áà¦[\^}Á] æ±oÁ•@[`|åÁà^ ¦^]æã^åÁæ)åÐ[¦Á¦^]|æ&^åÁã[{ ^åãæe^|îÈÁÁKV[Á^}•`¦^Ác@?Á`}ãxÁãa Á¦^æå^Á{[¦Á[]^¦æaā]}ÊÁ&[}å`&oÁc@?Á{[||[¸i]]*K OPS-B-0020Á

AWARN IN G

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V@^A[]^¦æɛ[¦q^A[æ)`æþAæ)åA+æ^ćA+ãt}•Áæ-ã¢^åA[} c@A`}ãuA&[}cœâjÁā[][¦œa)oÁg•d`&cãt}•A[}Ac@A+æ^ æ)åAj![]^¦A`•^A[-Ác@A^``ā]{^}dĚATæājœæâjÁc@•^ ã[][¦œa)oA+æ^ćA^æɛ`¦^•A[}Ác@A5t[]|^{^}d5tATæājœæâjÁc@•^ ã[][¦œajoA+æ^ćA^æɛ`¦^•A;}Ac@A5t[]|^{^}d5tAT &[]åãāt]}Ac[A^}•`¦^Ác@A5t-{!{aæāt}}Ace;æãtaæa]^Ac[c@At]^!æɛ[¦ÁœacA¢]Ace[



ØÜCEF ÒÁCEÙÙÒT ÓŠŸ

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- ″ Q•]^&o%&[}åããį}Áį́~ÁŲ,ãç^|ÁOE•^È
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OPERATION

Þ^ç^¦ÁŚ^æç^Ác@`Á([, ^¦Áǐ}æcc^}å^åÅ, @ǎ/Ác@`Á@`æåÁã;Ág`Ác@`Á'æãi*^å][•ãīā]}ÈÁÁ/@^Á([, ^¦Á&[`|åÁæ||Á&æ*•ā]*´Ár^¦ā[`*Áā)b`¦^Á[[Áæ;)^[}^Á, @ { 着 @Á\$jæå;ç^¦c^}d^´Áà^Á`}å^¦Ás@^Á([、^!_Aùon'ito



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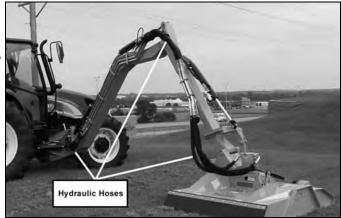
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- ‴Ó}•`¦^ÁæļÁjāj•Áæ‡^Á§jÁj|æ&∧È



♦^ç^¦Aæecv{]oAq[A]ĭàlä&æevEæåbö•dE4[¦A!^{[ç^A{; æev¦ãæ4A+[[{ Ao@·AQ,]|^{{ ^} 64, @afvAãoAã;A§} { [cā] }Á;¦Á, @afvÁsiæ&d[¦Á*}*ā]×ÁásÁĭ }}ā]*ÉÁşüöö⊞en

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- ²⁷ Ô@&\Áţ¦Á@妿`j&Aţ^æ Áæţ} * Á@ ^ ÉA & ĵajå^¦• ÁæjåÁãœaj* • È IMPORTANTHÁÖUÁ>UVÁ č • ^ Á [č ¦Áœajå• ÁţÁ&@&\Áţ¦Áţā4^æ • ÈÁ\\• ^ ÁæÁ] ār & ^ Á[~á@æç^ Ájæaj^¦Áţ¦Á&æååà[æååÁţÁ&@&&\Áţ¦Á @妿čj&AţÁţÅA* • ĚÁ



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PŸÖÜŒWŚOŎÁUWT UÐU ŚŚĂŬÓUÓÜXU OŬ

- Ô@ &\ Á; ā,Á^•^¦ç[ā,Á^ç^|Áæ); å Á; ā,Á&[}åãa; } ÈÁÇEå å Á
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- ″ Q.•]^&oĄ́`{]Åå¦ãç^Á; @eedÈ



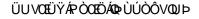
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Ü^{ [ç^Á&æ];Á|[, |^ Áq[Á'.^|ã^ç^Á];^••`;^Áà^-{;^Á'^{ [çā] \* Á&æ];Á&[{]|^c^|^ÈÀÙæê`Á&|^æ;Áq ]¦^ç^}ơ\$a^ā] \* Á&æ‡å^åÅ;ão@^@;ơ[;ā%o@æo%;æ`Á];æ`Á;`ơ[;~ć@;Áæ);\Áo@æc%a;Á;cā||4;;'^••`;ã^å;Áæ);å {æî Á&æě •^Á^;ā;`•Áā;b`;^Áq[Á^^•EÁæ&^Ê&æ];e^å;Á`;ā;E%ops-0001-MISC)

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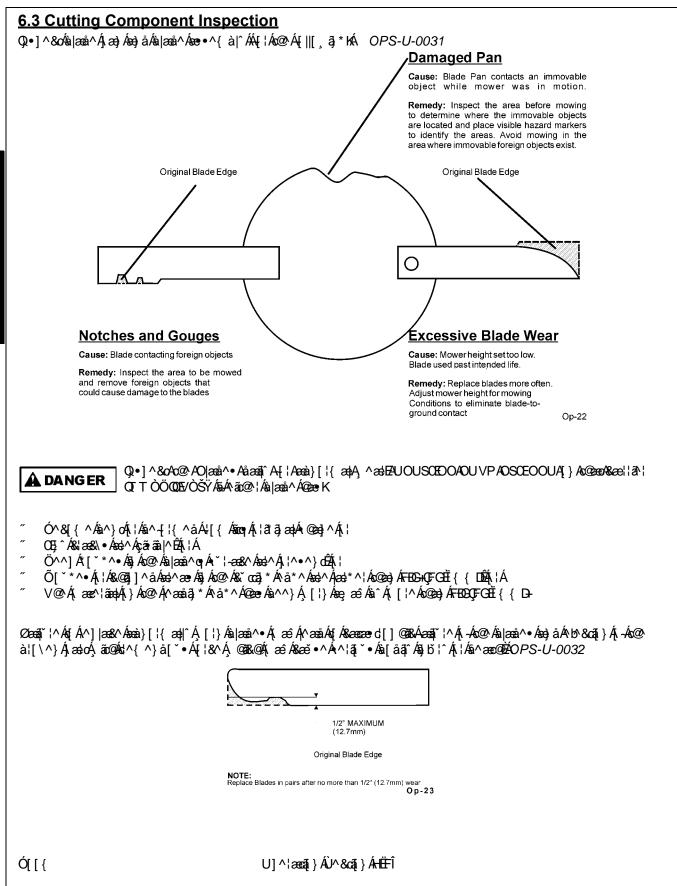
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CEĮÁÙæ^ĉ ÁÙ@A\*|å•ĒÁÖ ٘æå•Áæ)åÁ[c@ł¦Á•æ^ĉ Áå^çæX^•Á§j&|ĭåā] \*ÁÇā ʿd›[cÁļā[æč^åÁq[DÁË Ö^-∤^&q[¦•ĒÁÙơ^|ÁÕ ੱæå•Áæ)åÁÕ^æà[¢ÁÙ@A\*|å•Á{ ੱ•oÁà^Áĭ•^åÁæ)åÁ{ æaj ææaj^åÁājÁť[[å ,[¦\ā]\*Á&[}åãāt]}ÈÁCEĮÁ(æ^ĉ Áå^çæX^•Á @[ĭ]åÁa^Áş]•]^&ơàÁ&æ^<"||^Áæeá/>æ•dáæajîÁt[¦Á[æ•ā]\* [¦Áa¦[\^}Á&[{][}^}@ĖÁT ã•ā]\*Éáak[[\^}Êák¦ÁX[]}Áæ^{ eA; č•dá^ÁA]]æ&^åÁæeá[}&A(a^å & c@Á][••ãaātãc Á[-Ás]b'i^Á;¦Áå^æe@Ák[{ Ás@[]}Átàb%&o•ÉA}æeá\*|{ {} 6dá}¦Ás]æå^Á&[}ææôA&[}æædÉábut≊io

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U]^¦æetāj}ÂÛ^&cāj}ÅHËFÍ



**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

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OPERATION

Boom	PRE-C	<b>PER</b>	ATION	<b>Inspection</b>
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Mower ID#\_\_\_\_\_

Make \_\_\_\_\_

Shift

Date:

Before conducting the inspection, make sure the tractor engine is off, all rotation has AWARNING 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 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:

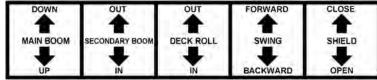
#### **DO NOT OPERATE an UNSAFE TRACTOR or MOWER**

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Cable Controlled Mowers

CEAS[]d[|Á^ç^¦Á\$^8aabÁā[ābabÁt[Ás@At]}^Á@t,}AA@t,}Aba^|[,Á@t`|åÁs^Á,^æAs@AS[}d[|Áçæqc^Át[Á^{ ājåÁs@At]}^¦æet[¦Át~ o@^Á^ç^¦Á¥}&cãį}∙È

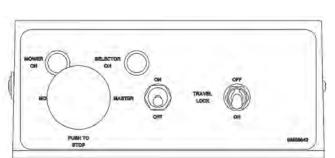


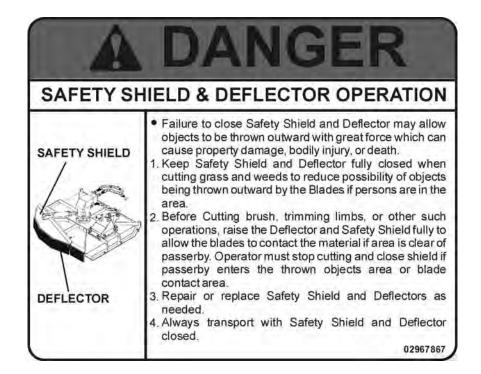


**OPERATION** 

#### 6.4 Switchbox

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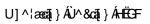
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**OPERATION** 

## ŠÒXÒÜÂÄGÂÙÒÔUÞ֌ܟÁÓUUT

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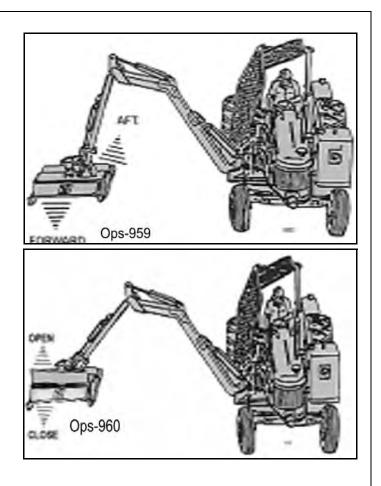
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#### ŠÒXÒÜÂN ÁÓUUT ÁÙY Q(ÒŠ

**OPERATION** 

#### ŠÒXÒÜÂÁÍ ÁÓUUT ÁÙP (ÒŠÖ



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#### 7.Joystick Controlled Mowers

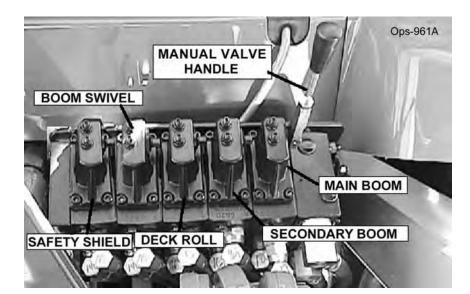
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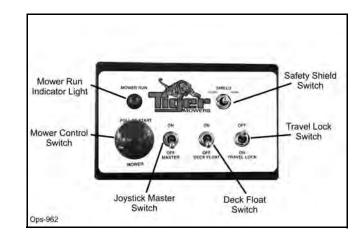
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Þ[ cʰk4Úǐ•@ā)\*Á{ æ) ǎækýæ; æç^Á@æ)å|^•Ákjoč c⊮Át¦Á‰æç æî+Á+[{ Ác@Atlæ&d[ ¦Á&æàÁ, ā|lÁaliā)\*Ác@A{ æāj à[{ Á‰j +HŽ4^&[} åæô^Áa][{ Ávőj «HŽ4[]|lÁa^&\Áv[oč eHŽ4ē)å/4•, ãç^|Ab][{ Ávæe+HŽ4Úĭ ||ā]\*Á{ æ) ǎækÁ@æ)å|^•Át[, ælåÁ&ææù , ā|lÁ∿oÁt æāj Áa[{ { Áváj } ±LŽ4alia] \*Ár^&[} åæb^Áa]]] á æls Ásig ±LŽ4alia]] Åa sa áká a a a a a a a a a a a , ālÁ∿oÁt æāj Áa]]] { Áváj } ±LŽ4alia] \*Ár^&] }



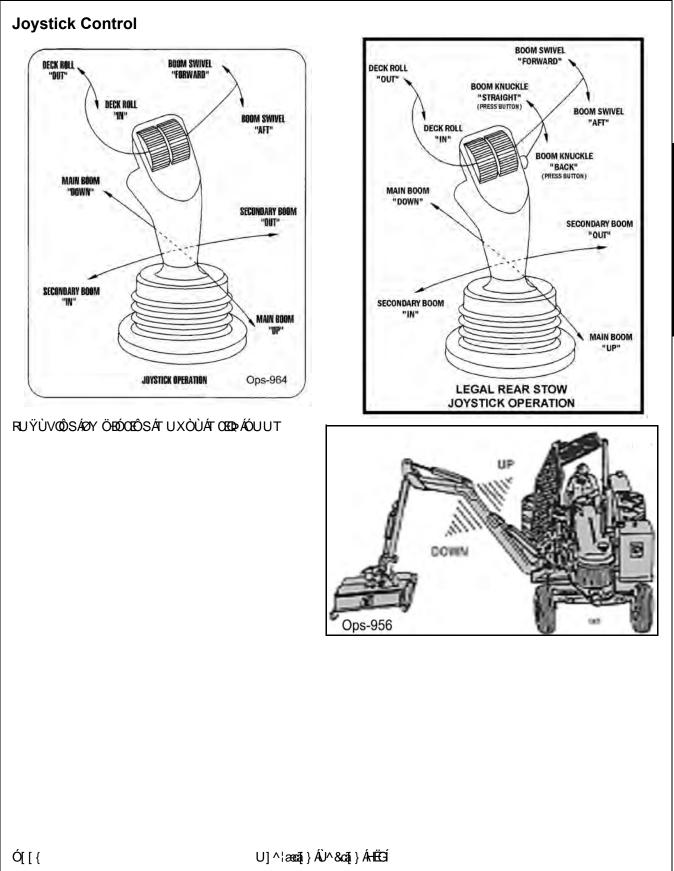
#### 7.1 Switch Box and Joystick Control

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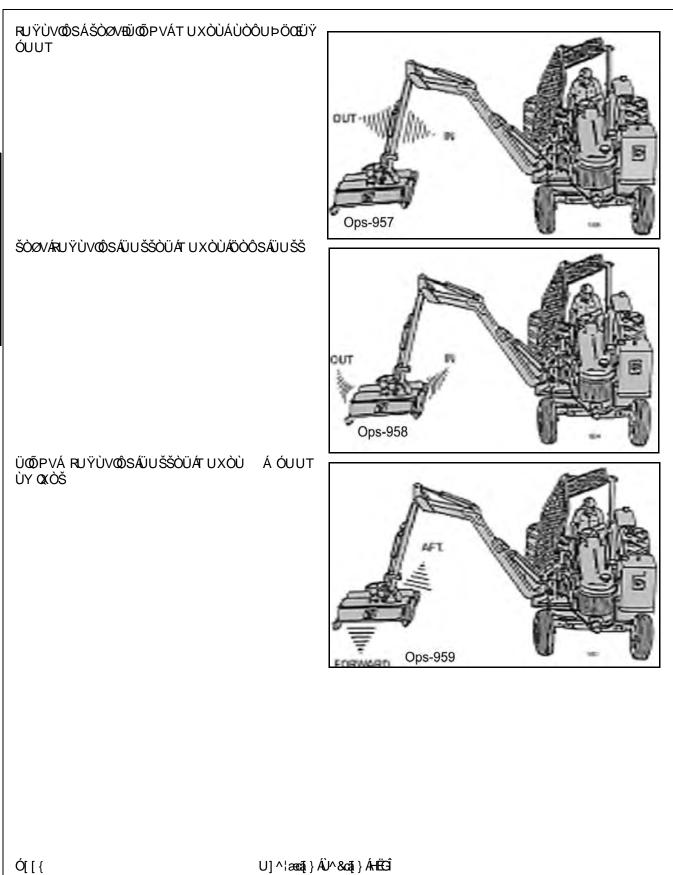


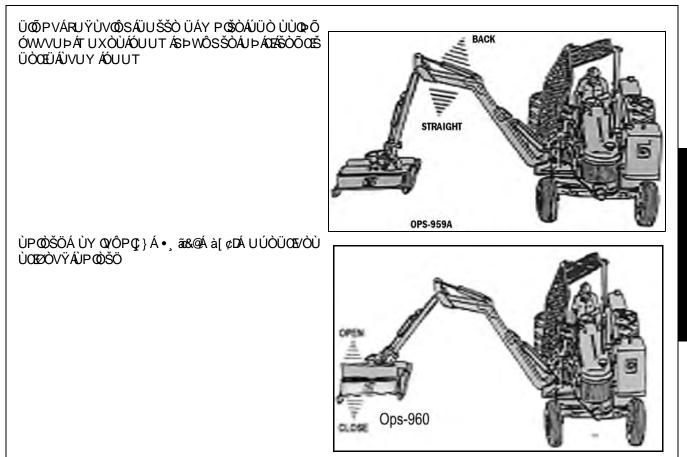
V@ÂÜæ^ĉÂÜ@A\åA, ã&@4[]^}•Aæ}åA&[[•^•AœA @A\åA] & @avåA[ & aævåA[ } AœA+[ } A¢@A& œvÅæ œvÅÆ @ } A[ [çā]\*Aæ [¦Á]^æAœA\*[[`}åÊæ; æ•Aœe,^Ac@A\*@A\åA]A@A@A&[[•ãā] } Ě¥ @ } A{ [çā]\*ÁB}Aà¦`•@4[ ¦ÁB}Ad^^•Aæ] ç^ \*¦[`}åA/^ç^|Ac@A\*@A\åA{ æAà^A[]^}^åA{ ¦A\*æa\*}A& @ \*ÊÜ^æåAæ}åA; [M], As@A, æ}}] ] \*•A[ } AœAå^&@, } à^|[,ÈDo not run the cutter into material larger than 6" diameter.





OPERATION





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

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Ó^-{¦^Át}æ}•][¦@}\*Ác@Á/¦æ&q[¦Áæ}åÁQ]|^{ ^}dÉå^ơ';{ā}^Ác@Á;![]^¦Átæ}•][¦Ó4]^^å•Á{[ ^[`Áæ}åÁ@Á``ā]{ ^}dÉÁT æ}^Á`',^Á[`Áœàãå^Áa^Á@^Á{["[,ā}\*Á`|^•K

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8.1 Starting the Tractor

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U]^¦æeāį}ÂÛ^&cāį}ÁHËGJ

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#### 8.2 Brake and Differential Lock Setting

Tæ\^Á\`¦^Áo@^Átæ&d;¦Áà¦æ\^•Áæ\^Áa;Á`[[åÁ;]^¦ææa;' &[}åãdā[}ÈÁV¦æ&d[¦Áà¦æà^•Á&æa)Áà^Á•^oÁd[Á]]^¦æe^ ājå^]^}å^}d^ Áæll[,ā]\*Á•ā]\*|^Á\^ælÁ,@^|Áàlælā]\* æ&cā[}Á[¦Á|[&\^åÁg\*^c@\¦Ág'Á|¦[çãå^Á+a]`|œa}^[`• ¦^ælÁ @^|Áà¦ælā]\*ĚÁ∕QUÜÁTUÙVÁÖÜQ∢OpÕÁOD∋Ö UÚÒÜŒVQÞÕÁÔUÞÖQVQUÞÙÊÁ/PÒÁÓÜŒSÒÁÚÒÖŒŠÙ ÙPUWŠÖÁÓÒÁŠUÔSÒÖÁ/UÕÒVPÒÜÁ/UÁÚÜUXØÒ VPÒÁT UÙVÁÒØØÒÔVQ\ÒÁÓÜOESQEÕÁQEÔVQUÞĚÁ

OE, æ°•Áåãa^}\*æ\*^Ác@Ad;æ&d;¦Áåã-^¦^}aãedÁ[&\Á @^} č¦}ā[\*ÈÁY@^}Á^}\*æ\*\*^åÁo@^Áåã--^¦^}oãæ‡Á∥[&∖Á,ã∥ ] ¦^ç^} oÁ[ ¦Á|ã[ ãoÁo@•Ád æ&d[ ¦Á-¦[ { Áč ¦} ā] \* ĚÁÖ` ¦ā] \* }[¦{ aqkÁ&` ccāj \* Á&[} å ãcāj }• ÊÁ|[ & \āj \* Ác@• Áåã--^\^} cãaq) ] ¦[çãå^•Á,[Áà^} ^~ãoÁse) åÁ @[`|åÁ,[oÁà^Á •^åÈÁ

OPS-U- 0013



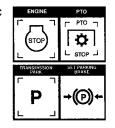
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æļ æì•Áí•^Ás@^Á/¦æ&q[¦q:Á¦æ:@āj\*Áj æ}ðj\*Ájæ; ðj\*Áði @erÁæjåÁ/^åč &^Á[č¦Á+]^^åÈÓ^Áæjæ^Aá[~Ádæ-ðeAæd[č}åÁ[čÁæ)å , arese of `of | f of the coll of ``De the coll of the

#### A DANGER

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#### 8.3 Driving the Tractor and Boom

Ùœekof{,~~Ás¦āçāj\*ÁæekkeA;|[,, Ár]^^åAeejåÁt¦æatĭætiĭætiĭætiïætiætiä dæeko[¦ĚÁh⊃^ç^¦Á;]^¦æe^Ác@Átæeko[¦ÁeeeÁi]^^å•Ás@eerÁsæej}[oAs^Áræ^|îÁ@eejå|^åÁt¦Á;@as@ájāj\*Ás[{]|^c^Ás[}<[d[|Á;-Ás@ -{[{Árc[]]āj\*Á´ăs\|îÅsĭ¦āj\*ÁeejÁt{^\!\*^}&îĚÁkQÁs@Aj[,^\Árc^^¦āj\*Át¦Ár}}\*āj^ÁsAæ^•Át]^¦æeāj\*ÉArc[]Ás@Átæeko[¦ ā[{^åãees^|îÁeeÁs@Átæeko[¦Á;āj|Ás^Ásã=asč|oÁt[Ás[}d[|È

V[Áæç[ãáÁ[ç^\č \] ● ÉÉå \ãç^Ác@ Ádæst [ \Á ão@kæd^Áæ) å æcÁ•æ^Á]^^ å• ÉÁ^]^&ãæq\^ @} Á[]^\æag}\* Á[ç^\ \[`\*@Á\*\[`} åÉÁ&\[••ā]\* Áåãa&@• Á[ \Á•|[]^• ÉÁæ) å č \}ā]\* Á &[ \}^\•ÈÁ W•^A ^¢d^{ ^A &æč qā} A @ []^\æag}\* Á] Á c^] Á [[]^• ÈŠ^^] Á@ Ádæst [ \Á9 Áæ4[ \*^æÁ @} A [] ]\* (Å[] ]\* (Å[]) @ EŠS^^] Á@ Ádæst [ \Á9 Áæ4[ \*^æÁ @} A [] ]\* (Å[] } @ EŠA^] ÚDU A DUVA&[æ of, \Á+^~Ë , @^|Áa[] } @ E

OPS-B- 0006



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▲WARNING
▷^ç^¦ÁŠ^æç^Ác@^Á([, ^¦Á`}ææc^}å^åÅ, @ậ^Ác@ Á@ æåÁã Á§ Ác@ Á'æãa ^å ][•ãāậ}ÈÁÁ/@^Á([, ^¦Á8[`|åÁæ≱|Á&æč•ð]\*Ár^¦ð[`•Áð;b`¦^Á(fáæ)^[}^Á, @ { ðt @Á§ æåç^¦c^}d^Ás\A´}å^¦Ás@A´([, ^¦.4pört≝p





CĘ, æ̂•Á\^^]ÁæÁ&æk^~`|Á|[|\[`Óæ)åÁ`•^Áv¢d^{ ^Á&æk^Á @}}Á [¦\ā)\* æl[`}åÁ[ç^¦@æåÁ[à•d`&æā[}•ĚÁÞ^ç^¦Áæa|[, Ác@ ÁT [, ^¦Á@æåÁ[¦Áà[[{ ĵāc@jÁF€Á^^cÁ[-Áæ]^Á][, ^¦Á[ā]^ĚÁÝ@}Å [¦\ā)\*Á&|[•^Áa[Á[ç^!@æå ][, ^¦Áā]^•Á&[}•`|cÁ[č`¦Áv|^&dã&Á&[{]æ}^Á{[¦Áæá+æ^Á&[å^Á]-¦ææā]}È ç⊎orfio



## 9.OPERATING THE BOOM UNIT AND ATTACHED HEAD

V[ÁY}•` ¦^Á;æ^cî Áţi Ás@ Áţi]^¦æqi ¦Ébàa) å^\'•Êba) åÁ`` ä] { ^} ofea) åÁbà^-{ ¦^Á;œcd;ä \* Ába) ^ Áţi [ , ā] \* Áţi]^¦æqāt } ÈÁ/@ []^¦æqi ¦Áţi \*•ofbà^&[ { ^Áæqi äjäæd Áj äc@ks@ Ábd^æAqi Ába^Áţi [ , ^åÊba) åÁba) ^ Áţi à•œa&|^•Ába) åÁ@e ædå•Á&[ }œæāt Åj äc@3) È Ù] ^&äæqbÁææc^} cāti } Á•@2 ` |åÁà^Á] æäña Áqi Á+[ ¦^ât } Áå^à lã ÊA[ ç^¦@ æåA[ à•d \* &cāti }•ÊA'[ \* @Ác^¦¦æab;ÊA•c^^] Á•|[ ] ^•Ê ] æ•^\'•à Âba) åÁba) áţi 懕Ábj Ás@ Ába^æÈ

U}|^Á[]^¦æe^Ác@Á{[, ^¦Á@zæåÁ+[{ Ác@Átæ&q[¦Á[]^¦æe[¦qA+^æAýãc@Áv~æà^|có+^&`¦^|^Áæec^}^åÈAÁU}|^ []^¦æe^ÁæÅi[[{ Áse}åÁ``ā]]^åÁ@zæåÁ;}Á%zæàà^åÁktæ&q[¦Ás@zec≸aÁ``ā]]^åÁjãc@ÁseÁi[|î&zeàà[}æe^Áæ^cĖË;¦[c^&c^å ¦ã®cÁãà^Ájā]å[, Á¦ÁseAj[}Ászæàà^åÁstæ&q[¦Á``ã]]^åÁjãc@ásaÁÜUÚÚÁse}åÁj]^¦æe[¦Á;æ^cÁ&k'^}ÈA

Cīç[āāÁ]]^¦ææ]\*Ájā Ás@Á\^ç^!•^Áåāl^&cāļ}Á @}Áj[••āà|^ÈÁQ)Áāč ææāj}•Á @¦^Ác@Áà[[{{Áæ}}åÁ;[, ^¦Á;`•óÁà^ àæ&\^åÁt[Áæ&&^••Áæ'^æ•Át[Áà^Á&`dÊ4;æ\*^Á\*`¦^Ác@¦^Áæ\*^Á;[Áj^!•[}•Á;¦Á;c@¦Á{¦^ã}}Áå^à¦ārÁà^@jåÁc@Átæ&d;¦È Y@}Áàæ&\āj\*Ê4j]^¦æe\*Ás@Átæ&d;¦ÁæeÁæ4(`&@4\^å`&^åÁt¦[`}åÁ]^^åÁt[Á\>•`¦^Á&[{]|^c^Á&[}d[|Á;Ác@Á'}ãAá {æājcæāj^åÉÁOPS-B-0007

▲WARNING T[, Ą; }|^ Ą; &&[ } åãāţ } • Ą, @: |^ A[ ` A@æç^A&|^ æi Aşãā âţāĉ Aş Aåæê | â @Aţ | Ą, ão@heeå^`` ær Aædcãa&ãa¢ | â @ā \* ĔĂ⊃^ç^! Áţ [, Áş Aåæd\ } • • Áţ ! Áţ \*\* ^ Á&[ } åãāţ } • Á, @: |^ Á[ ` Á&æ) } [ óÆ|^ æi | Ár ^^ Áædf^æ c H∈€Á^^ÁÇ] €Áţ DÁş Á½[ } óÆag å Áξ Á∞@ Á ãå^• ∱ţ - Á∞@ Át æ&q[ ! Áæg å Áţ [, ^ | ĔÁKT æb ^ Á ` !^ Ás@æd [ ` Á&æg &|^ æi | Ár^^Áæg å Áæi ^} æi • ^ i a` Âţ æo • ^ ! • à` ÊÁ c^] Á![] ] • ÊÅa ãæ (• ÊÅa] å Áţ [, ^ | ĚÁKT æb ^ Á ` !^ Ás@æd [ ` Á&æg &|^ æi | Ár^^Áæg å Áæi ^} æi • ^ ! • à` ÊÁ c^] Á![] ] • ÊÅa ãæ (• ÉÅa] [] Ё -• ÊÅa ; c^! @ æå Áţ à• d` & cāţ } • É ] [, ^ ! Áġ -• ÊÅa à !ā Áæg à Áξ ! ^ ā } Áţ àb & e ĚQA [ ` Áæb^ Á } æà |^ Áξ Á&|^ æb |^ Ár^^ Ás@• ^ Ác ] ^ Áţ - Ær { • àã &[ } cġ ` ^ Áξ [, ġ \* ĔÅo<sup>™</sup> #PD

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 Clē;[âāA; [ , ] \* A], A^ ç^!•^Aåā^&cā]; A] @} A] [••âa|^EAAO @&\A[A; A; æh^A+`!^Ac@;'^AæhA}; [ ]^!•[]•Áa^@]; åÁc@; Á; [ , ^!Áæ); åÁ •^Ár¢d^{ ^Á&æh^Á; @} Á; [ , ] \* Á§; Á^ç^!•^ÈÁŤ [ , Á; }]^ÁæeÁæ •[[ , Á\*![ ` } åÁ\*]^^åÁ, @:\^Á^[ ` Á&æ; Á\*æ^] Á; [ Å] \*!æe^Áæ; åÁ&]; d[ |Ác@:Adæ&c[ !Áæ; åA{; ] ^!È ▷^ç^!Á; [ , Áæ; Áæ; ÆdoœæA[ ` Á@æç^Á; [ Á], •]^&c^âÁæ; åÁæ; àÁa; àÁa; àíã Á; !Á; !^â; Á; æe^!ãæ;È çiðT É D

#### AWARNING

Þ^ç^¦Á[]^¦æe∿Á@Á{[, ^¦Á@ æåÁða¢ åÁå[, }Å, @\'^ÁœAí]]^¦æe[¦Á&æ}Áv^^ÁœÁa|æå^•Á, Ác@ {[, ^¦ĚW@Áa|æå^Á&[`|åÁc@[, Áæ)Á; àb/&cÁe[, æååÁc@Á[]^¦æe[¦Á&æĕ•ā]\*Á•^¦ā[`•Áā]b`¦^Á[¦ å^æe@ĚÞ^ç^¦Á[]^¦æe^Ác@Á{[, ^¦Á, ão@[`cÁæ)ÁU]^¦æe[¦ÁÚ¦[c^&cãç^ÁÙd`&c`¦^ÈÆE]; æê•Á, ^æ •æ^c´Á\*|æe•^•Áæ}åÁxa4@æåÁ@æEÄÇU]•Ë€€€ÉËT©UÔD

#### 9.1 Foreign Debris Hazards/Overhead Obstructions

 $\begin{array}{l} CE_{Abb}^{*} & = Ab_{Abb}^{*} &$ 

 $\begin{array}{l} & (|aschAOODEOOUAT) \\ & (AsceAAT) \\$ 



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 Image: Accade at a Af, a by &or Et+ & @Asser A, a A EA& accade | AEX[] A EA

 Image: Accade at a Af, a by &or Et+ & @Asser A, a A EA& accade | AEX[] A EA

 Image: Accade at a Af, a by &or Et+ & @Asser A, a A EA& accade | AEX[] A EA

 Image: Accade at a Af, a by &or Af, Accade 
**A**WARNING
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 **&**WARNING
 T[, AcceAc@ A+] ^^ å Ac@eceAc[ ` A&ce) A+ ceAc[ A+ (] ^ lceAceAce) å A&[ } d[ |Ac@ Ad ce&c{ lAce} à A([, ^ lEW @

 && dÉMAP[ ! { 3] \* Á+] ^^ å A&a) ^ å • Á; } Ác ! lce3j Á&[ } ácaí] } Ácaj à A&[ } d[ |Ac@ Ad ce&c{ lAce} à A([, ^ lEW @

 && dÉMAP[ ! { 3] \* Á+] ^^ å A
 A\* (A + (] A\* (A + () A\* (A +

#### 9.2 Operating Speed and Ground Speed

Õ¦[`}åÁ•]^^åÁã Áæ&@aç^åÁà^Ádæ)•{ã•āį}Á\*^æA\*^|^&aāj ÁæjåÁ}[óÁà ÁœA\*}\*ā]^Áā]^A@aāj\*A\*]]^\azāj\*Á•]^^åÈÁV@ []^¦æa[¦Á;æâÁà^Á^``ã^åÁų[Á\*¢]^¦ã[^}o4,ão@á^ç^¦æ4\*^æÁæj\*^Á&[{à3jæaãi}}•Áų[Áå^cv¦{ã}^ÁœAà^•o4\*^æ4Áæjå ¦æj\*^Á,@a&@á;¦[çãå^•Á∞A¼[[•d%aå^æ4Á,^¦-{¦{ æj&A4[[{Á∞Aãi]}^\*A&[{ Ac@Aāj]}^\*AæjåÅ,[•d%-æ8æi}}o4sæad[¦Á]]^¦æaãi}ÈÁOE c@Á^ç^¦ãĉÁj-Á&čcãj\*Á&[}åãaãj}•Á§&\^æ^Ê&@Á\*![`}åÁ]^^åÁ@2`|åÁà^Áå^&\&Aa\*^àÈOPS-B-0009

#### **AWARNING**

T[, AæeAc@A•]^^äAc@eeA`[`A&aa)A•æ^|^A[]^¦æeYAæ)äA&[}d[|Ac@Ac!æ&d[¦Aæ)äA{[, ^¦E4W@ &{|¦^&cA[, ā,\*A]^^åAa^]^}å•Á;}Ác^¦¦æajÁ&[}åããā;}Áæ)åA\*¦æ•Ác`]^É&a^}aÁ@`ā\*@A;~ &`dĚMAP['{ æ\$A\*]^^åAa]^^åAa}\*^ÁæA'![{ ÁcAá[ĂÁ]]@Q=HÊ Á]@DĚMAV•^ÁA|[, Á; [, ā,\*Á]^^å• , @}Á;]^¦ææā]\*Á;}Á;¦Á;^æAA`c^]Á\*|[]^•É&åãã&@•É&a¦[]Ё,~=ÉÅ;ç^¦@æåA;à•d`&cã;}•ÉA;[, ^¦ ]ā,^•ÉÅ;¦Á;@}&å^à¦ã~Áæ)åÁ{['^ã;}Á;àb\*&c\*Áæ/Á¢[Áa^Áæç[ãa^åÉAçö⊺⊞D

#### 9.3 Operating the Attached Mower Heads

V@Áà[[{ { Á&a}, Áæccæ&@Áq Áa) åÁ[]^¦æe^Á{ `|ca]|^Á@æå•Á[}^ÁæéAæáæáa[ ^Á[¦ Áæá, ãå^Á!æ}\*^Á[ ~Áç^\*^cæaā[}Á&[}d[| æ]]]a&æaā[}•ĚÁV@Áœcæå@åÁ@æå•Áæ^Áå^•ã}}åÁ[¦Áåã-^¦^}oÁæ]]]a&æaā[}•ĚÁV@Á@æåÁ@[`|åÁà^Á^|^&c\*åÅaæ\*^å [}Ás@Á[[, 3]\*Áæ]]]a&æaā[}Áæ}åÁ@A[&ææá§}Ás@æá@Á] ãóÆæÁs@á]\*Ás]^]\*/æe\*åÈ

Ü^^¦ÁţĺÁ@ÁŒ•^{ à|^ÂÙ^&qāţ}Á, ÁœãÁ, æ) ǎæjÁţĺÁ}•`¦^ÁœA@æåÁārÁj¦[]^¦|^Áæcæ&@åÁţĺÁœAå[[{ Áœã&@Áæ)å @妿ĕ|ã&Áāj^•Áæ'^Á;¦[]^¦|^Á&[}}^&cåĚÁÁOPS-B-0010



#### 9.4 Mower Operation

V@ Á [ cæcaði \* Á) ætor Áði Ás@án Á( æ&@ði ^ Á@æçi ^ Áè^ ? ði ^ á á é aði á Ác • c\* á Á[ ¦ Ái \* \* \* å Á • ^ ÈÁP[, ^ c,^ ¦ É c@ ^ Á&[ ` | å Áæði `] [ } Áði ] æ&o Á, ão @ é@æçi Ár [ |ãá Ái à b\* &or Ё ` & @ Áær Ár c\* ^ | Á\* ` ætå Ál æði • É &[ } & \ ~ c Áæà` q ^ } or Ê c& ÈÉ &@ ` & a Á aæði c@ [ , } Á Æe Áæði @ Áç ^ |[ & ãc ÈÉ P ^ c,^ ¦ Áed|[, Á&` cc \ Á@ æði Ái [ Ás[ } æ& cá ` & @ Ái à b\* &or É Qe ] \* Ác@ Á&` ccði \* Ác@ A&` ccði \* Ác@ Á&` ccði \* Ác@ Á&` ccði \* Ác@ Á&` ccði \* Ác@ A&` ccði \* Ác@ Á&` ccði \* Ác@ Á&` ccði \* Ác@ Á&` ccði \* Ác@ A&` ccði \* Ác@ A • ` & @ Ái à b\* &or Ácði & ách ~ [ [ cji \* Ác@ A` [ Ái [ Ái [ Ái [ Ái ] \* A& A@ A@ A@ ]] Á\* [ ái ] æcr Ác@ • ^ Ái [ cði } cān¢ A@ a& a\* È

U}&^Á;}Á[&ææā;}ÊÁ[,^\Áo@^Á;[,^\Áå^&\Á|ê\*@{^Áæà;[ç^Áo@^Á;æe^¦ãæþÁt;Áà^Á&`dÊ4;[Áo@Á;[,^\Áå;[^•Á;[d´@æç^Át; •œe'd´}å^\ÁæÁ[æåÈÁYāo@Áo@Átæ&d;¦ÁæÁæ}Áãa|^Ê4^}\*æ\*^Á;[,^\ÈÁO;∄\*Átæ&d;¦ÁÜÈÚÈTÈ≾]Át;ÁFJ€€ËOG€€ÁÜÈÚÈTÈáæ}å slowlyÁ[, ^¦Áå^&\Át;[´}åÁ^ç^|È

V@Á[cæ¦Át [, ^¦Áå^&\Á:@, `|åÁæd, æ`•Áà^Á&æd;lātàÁæc@¦Áv@æ)Aålæt\*^åÁt}Á@ Á\ābÁ:@, A·A, @)At[, 3;\*Á;}Á@ \*'[`}åÈÖ'æt\*3;\*ÁœAt[cæ^Át[c, ^¦Áå^&\Á3;&\^æ^•ÁœÁ\*aã^Át[æt•Át]}ÁœAa[[{ ÉÉå^&\~æ^•ÁœÁ@;!•^][, ^' æçænafæbi|^Át[Áv@Á&`cc\¦Á@æbÉæb)åÁ^å`&^•Ás@Áæbà7jaĉ:Át.Áv@Áæ&&`{ `|æt[¦Áv@Á&æd;^Át]æbAt,Áv@Á,^ãt@At,Áv@Áb[[{ å`¦3;\*Át[,3;\*Át]^¦æant}}•È

#### **AWARNING**

Y@}Á[cæcaj\*Ájædo/Áed^ÁsjÁt[cat]}ÉAr^lat`+Ásjb`l^ÁtælÁt&&X`lÁãvÁsæčcat]}ÁñrÁt[cÁt+Aåæ)\*^lÁñr }[cÁl^&[\*}ã^åÈAÞ^ç^lÁæd|[, Áà^+cæ)å^l+Á, ãrc@)Á300 feetÁt[-Árc@A(æ&c@)^Á,@}A3jÁt]^læcat]}È Ò¢d^{ ^A&ed^Ar@\_`|åÁa^Áæai^}Á,@}Át]^læcat]\*Ás^ælÁt[[+^Átiàb\*&orë=`&@ÁæeAt'læç^|ÉAt[&\+ÉAea)å å^àlãrĚA/@+^Á&t]}áñaat]+Ar@\_č|åÁsa^Áæç[ãa^åÈ

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

V@ÁÍ €+ÁBÁÎ €+Áà[[{ Á¦[œa+^Áà¦`•@Á{ [, ^¦Á, æ å^•ā\*}^åÁ-{¦Á&čœa}\*Áà¦`•@Áæ)åÁ-{|ãæ\*^Á`]Ád[Áî ãj &@•Á§jÁåãæ{ ^c^¦Á¦¦Á[`|cā]|^Áà¦æ}&@•Áœæo⁄@æç^Áæ d[œa‡Á&[••Á•^&cā]}Áæ4^æÁ^č`ã;æ†^}cÁd[Á[}^ÁÌÁāj&@ à¦æ)&@È

Ö`¦āj\*Á([,^¦Á]^¦æaā) È Co@Á@ee) å Ác@[cd^Á(`• Aé `•^åÁ([Á, æað) cæað) Á'}\*āj^Á]^^åÁacaÁrJ€⊟ECCC€ÁÜÈÚÈÈÈ V@ārÁ]¦^ç^}orÁ'æaåa8ca4Á&@ee)\*^•ÁājÁ([,^¦Á•]ājå|^• •]^^åÉA'^å`&āj\*Ás@A,[••ãàā)aācÁ[-Á&čcc^¦Áæ•^{{à|^ åæ{e\*^È

V@Á@;¦ã[}œ4Á][•ãa];}ā]\*Áæ&a];Á[-ÁœAà [[{ Áā å^•ã}}^åÁ[Á][•ãa];}ÁœÁ& ca]\*Á@æåÁæ)åÁ;¦[çãå^Áæ |ā[ãc^åÁ]¦^••`¦^Á^|ã-Á]@}Á^¢&^••ãç^Á]¦^••`¦^Áa æ]][ðråÁ[ÁœÁa][{ ÉČŐ[Á][oÁ[¦&^ÁœÁ& ca]\*Á@æå ã]dÁ@æç^Áa;æ)&@•Á;[Ácč{]•ÉÖæ;æ\*Aá[ÁœÁ]ãaÁ æêÁ^•`]dÈ



Ú[,^¦ā]\*Ác@Áà[[{Áå[,}ÉÁv{¦&ā]\*Áv[,^\Áå^&\Á;]d[Á\*¦[`}åÁvæā;æ\*^Áv[,^\Áå^&\Áæ)åÁāce; هو جمعان المعند هو جمعان المعند المع

V[Ár}•`¦^Áæá&|^æjÁ&`dÊr\}\*∄^Ár]^^åÁr@[`|åÁa^Á{æãjæãj^åÁæækæ]]¦[¢ã[ææ^|^ÁFJ€€ЁЭЭ€€ÁÜÈLÈ ŘQÁ@ Ádæ&d[¦ •[[,•Át[Ár••Á@æjÁrÌ€€ÄÜÈLÈ ÉÉA @ãoÁt[Á@Á^¢c4[,^¦Á^æÈLÖUÁ>UVÁãa^Á@ Á&]`&@ÉA@ãrÁ,ã|Á&æĕ•^Á,¦^{ æč¦^ &]`c&@Áæãj`¦^ÉAThe engine should not be operated at any time at more than 2400 R.P.M. on the tractor tachometer.

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U]^¦æcāj}ÂÛ^&cāj}ÁHËHÍ

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2(¦Á&`ccā)\*Áà¦`•@ÉÁãoÁaē,Á`•`æa¦^Áà^•oÁq[Á+q[]Ác@·Áslæ&aq[¦Áæa)åÁ+,ãç^|Ác@·Áà[[{ Áæa)åÁ([,^\Áā)a[Á+[ãpæt\*^ÉAV@ @[¦ã[}cæa‡Á][•ãnā]}ð]\*Áæ&cā[}Á[ Ác@·Áà[[{ ÁãrÁå^•ã}}^åÁq[Á][•ãnā]}Ác@·Á&čcā]\*Á@ æaåÁæa)åÁ]¦[çãa^ÁæáA]ã[ãc^å ]¦^••č¦^Á^|ã∿-Á; @}Á\¢&^••ãç^Áj¦^••č¦^ÁārÁæa]]]ð\åÅA[Ás@-Áà[[{ È



b[à•È ÁQÁų[lãæ\*^Á-æak)•Á[}Áq[]Á[-Á[[\_^¦Áå^&\Á&æš•ā]\*Ádæ&q[¦Áq[Áà^&[{ ^Á`}•œæà|^É4([ç^Ác@Aà[[{ %@[¦\_æbå+Áæa}åÁ%uJ`c=Áq[Á'^|ã∿ç^Ácā]]ā]\*Á[-Áv@^Ádæ&q[ŀÉ4Š[\_^\á\&\Aq[A`}+@a\*&\Áq[Á'\[`}åÁæa}åÁ•@c å[\_}}Á`}äñE4OEev¦Áæa|Á\_[[qā]}Á-q]•É4^{[[ç^Á4[]ãæ±^Á4;[{ Á[[\_^\á&^&\È

DO NOTÁ •^Á \cdot & 4 \cdo

Ó^\*ā)ÁæAjæ•ÁæAv@Át[]Á:ãå^Át-Ác@Át^^•Áæ)åÁ [¦\Áå[,}Á,ãc@Ávæ&@4&[}•^&čaĩç^Ájæ•ĚAv@}Á&čaāj\*Át^^•Áæ)å •@čà•Ê4`•^ÁæAt[,^¦Á]^^åÁt[Áæ‡|[,Ác@Á;ãç^•Áæ] ^Át[Á&čoÁæÁ,^||ÁæAt[`]&@ác@Át[1ãæt^È



\_\_\_\_\_QÁà°•cæ)å^\•Áæ]]¦[æ&@Á;ãc@3;ÁH⊖∈Á^^cÁ;@4;^{[,^\Áā;Áā;Á;]^¦æaā;}Áč'¦}Áč';}Á([,^\Á;ā&@Ád,202+ •G\_\_\_ā{{^åāeev|^Âk0Eev¦Á;@:cå[,}ÉÅ,^ç^¦Á;^æç^Ás@:Ád;æsd;¦Á;¦Áæ|[, Áà°•cæ)å^\•Át;Áæ]]¦[æ&@Á;ãc@3;Ás00 FEETÁ;Ás@Á;3áÁ;dáÁæ|Á;[cā;}Á:d;]•Ás[{]|^c^|^È

GÁ& cơ ¦Á @eo đượt • Áeo) ả Á ([] • Éếc ¦} Á([, ^ ¦Á, ã& GÁt Ábu) 2024 Đảo) ả Á•, ãç / Áèi[[{ ÁGĐZV-HĚÞ-[¦{ æ|î Áơ@ár Áæ&a‡i} Á, ậ| &|^æ Áơ@ Á& cơ ¦Á@ æå ĚGA‡[ (IÁt [, ^ ¦Áå ^ &, Ă'; cā Áæå bæ& } cÁt Áo@ Á• ^ &[} å æå ^ Aèi[[{ Éốc@}} ÁI, ^ \Aèi[{ Á( Á^• c { [, ^ ¦Áå ^ &, Á;} Á\* ![ `} å ĚÀU@ cá ~Áx@ Ástæ&qt ¦É¤ ^ cá, æð ` æ¦ à k à Êæ‡|[, Áæ‡IÁt [ cāt } Át Á& ?æ ^ ĚÓDA Gæed, [ ā) cástár Á æ^ q Ár æç ^ Áx@ Ástæ&qt ¦Áæ) à Á& |^ æ Ás@ Á& cơ ¦ Á@ æå • Át æ) čá #] ` È

Ó^\*∄ Á\æ&@\$jæ•Áæók@`A[]Á\ãa^A[, Áo@At^^•Áæjå4, [¦\Áå[, }Á,ão@Az&@4&[}•^&`cãç^Ajæ•ÈA\+^Áæ4[, A`]^^åA[ æ‡|[, Áo@Á&`ccāj\*Áa |æå^•Ácãi ^Ác[Á(`|&@ÁæeÁ, ^||ÁæeÁ&`cÁc@Á-[|ãæt\*AEAY\_@}Ác@Á3jãnãæ‡Ajæ•Á@æeÁà^^}A; æå^Ê åã\*^}\*æt\*Ác@Á[[, ^¦É&ejåÅ^č¦}Áa[[{ Át[ÁæÁ;æ^Ástæç^|Aj[•ãnã]}ÈÄÜ^č¦}Át[Áicæ+c3j\*Aj[3jcAe)åA(;æ\^Á,^¢cAjæ•Ê ^c&ÈE

CEe^¦Ác@ Áđ•ofá æ Á[-Á]^¦æaā] كَلْحَطْمُ اللَّهُ [ اِنْ أَجْ وَلَا الْمُعْمَامُ الْحَالَةُ الْمُعَامُ الْحَالَ ]^¦āj å گھطاٍ^Ág[Á] • ` ¦^Áo@ Áa[ اِن الأَمَارِ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ []^¦æag[ الكُ

**OPERATION** 

Y@}}Á&`ccāj\*Ád:^^•ÁæjåÁà¦`•@Áæj]¦[æ&@Á(æe^¦ãæ) (fÁa^Á&č oÁ, ãc@ás@cÁ@cæåÁ,^¦]^}åã&č |ælÁa[Á, æc^¦ãædÈ V@^Á&`ccaj`\*Á^å\*^Á[~Ác@^Áà|æå^•Á•@[``|åÁà^Ác@^ [}|^Á\|^{ ^} @ Á\$JÁ&J}œa&CÁ,ãc@Á,æe^¦ãæd-ÉÁ/@ Á\$u|æå^ àæ¦Ár@[č|åÁ;[cÁ&[}cæ&cÁ;ãc@A;æe^¦ãæ;HÉA/@:Á;[、^¦ @׿åÁ æ}åÁ à|æå^•Á •@2ĭ|åÁ à^Á {[ç^å ]^¦]^}å&&`|æ|^Á&jq[Ác@^Á(æe^¦ãæe|Á/æe@^¦Á[[,^¦ðj\* c@^Á{ [ ^ \ Á@ æåÁ[ } Á{ ] Á{ ~Á{ æ^\ ﷺEA@ Aa|æå^ àæłÁ<sup>\*</sup>å\*^•Áæ<sup>\*</sup>A<sup>\*</sup>[<sup>\*</sup>\*^åÁ<sub>t</sub>¦Á[<sup>\*</sup>}å^åÁ<sub>t</sub>'[{Á, ^æÉa@ { [ , ^¦Á@zæåÁã;Áà^ą] \* Á` • ^åÁą] &[ ||^&d^ Áā;Áæ) æà`●ãç^Á(æ)}^\ÈÁ/@\Áa|æå^Áaæ¦ÁārÁ,[oÁajc^}å^åAí{ &`oA, æe^¦ãæaþA,¦Áq,ÁaoÁ,^æa∮ÁaeA, ^æeÁãer{ Áã.^Áo@•Áa|æå.^•È Ö[ÁÞ[ Áæ|[ 、Ác@ Áà|æå^• Á[ ¦Áà|æå^ ÁàæłÁ[ Á&[ } æ&c c@^Á\*¦[`}åÊÅ[&\•Á¦¦Á[|ãåÁ¦àb^&c•ĚÔ[}œa&oÁ,ão@ `à^āj\*Ác@[()}Á[čoÁ+¦[{ Áĭ}å^¦Ác@^Á{ [(^\¦Á@>æå , @3&@4&æ) Á&æĕ • ^ Á• ^ ¦ãį č • Áāj lŏ ¦ã• Á[Ác@ Á;] ^ ¦æe[ ¦ æ) å Áà^∙ œa) å^¦• ÈÁ/@ã Áĉ]^Á[, -Á[, -Á[]^¦æaã[}}Á&æ), Á^ æå [ Áà^} ơ¼ ¦ Áà¦[ \^} Áà|æå^ Áàæ + Éà¦[ \^} Áa|æå^ Áà[ |œ æ) å Áà¦[∖^} Áà|æå^ Áàæi Áæ••^{ à|^ Áà[ |o• Á @&&@4&æ) à^Ásaa) \*^¦[ĭ •Ás[Ás@?Ás] ^¦æe[¦Ása) åÁsì^•œa) å^¦•È

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-1480

(OPS-R-220)

#### 9.6 50" Boom Flail

 $\begin{array}{l} & \forall @ Ai \in chi [ [ { A|adjAi [ ^ | Aj æ Ai^ + ai } a Ai [ | Ai to adj a  



AWARNING

U]^¦ææāj\*Ác@Á{[, ^¦ÁðjÁæá{æ}}}^¦Ác@æeÁæ|[, •Ác@Á}ãç^•Á{jÁ&[}œ3, `æ|^Á{[|å.Ásaæ&\Á[!Áæ+|[, ð]\* \}ãç^Áj\*•Á{[Á&[}œæ&cÁ{[|ãæ\*^Á; ã||Á&æ\*•^Á]^¦{æ}^}c%sæ{{æ\*^Á{[Ás@/Á&\*cc^!Á\*@æeó/ssi\*{Êá}}ãç^•Êáæ)å \}ã^Áæccæ&@{^}c∱,ætorÈ

AWARNING

**AWARNING** 

V@ÁI€+Áa[[{ { Á|æaājÁ&: cc\¦Á•@eceÁārÁå^•āt}^åÁ[¦Á•cæa}åædåÁ[[cæaāt]}Á@iæa{ A^Á[[cæaāt]}ÁœiÁc@A{:æaāt]}ÁœiÁc@A{:æa&d[¦ ,@^|•Áa`¦ā]\*Á[¦,ædåÁtæç^|DĚANever operate the cutter shaft in reverse rotation.ÁU]^¦æaā]\* c@aiÁ[[,^¦ÁaJÁ^ç^\•^Á[[cæaāt]}Á[æáA&æi•^Á[àb/&coÁt[Áa^A&@[,]A[`cÁs@A\[}oA[-Ás@A[[,^¦Á@iæabÈ V@AĨ€+Áa[[{ Á|æaājÁ^`čāt]]^åÁjão@Á\^^Á;jaj\*ja\*Áa¦`•@Á}}ãç^•ÁārÁajc^}å^åÁ{{¦Áa¦`•@A&`caaj\*Á;}|^È Ô`ccāj\*Á'¦æ•ÁárÁ[cÁ^&[{ { ^}a^à

U]^¦æcāj}ÂÛ^&cāj}Á+ËHÏ

©2013 Alamo Group Inc.

Ó[ [ {

AWARNING

Ö[Á][oÁæd|[, Á}ãç^•Áţ[Á&čoÁŝ[, }Áţ[Ác@Á\*¦[č}åÈÁÚ[•ããậ]}Á\*¦[č}åÁ[||^¦Áţ[Á;æ3];æ3d,Á}ã^Áæd&ÁædÁæ {ā}āįč{Á[-ÁGÁsj&@•Áæà[ç^Ác@Á\*¦[č}åÉS}ã^Á&{];æ3doÁ[}æ3dA[}æ3dA[}ãcAstil] ]^¦{æ}^}oásæ{æ\*^Áţ[Á&čcc^\Á;@ecÉÅ}ãç^•ÉæbjåÁ}ãc^ædæ3dA[ã^Áæcæ&@[^}oá];æ3doÈ

#### 9.7 63" Boom Flail

V@AÎ HHÁL[[{ { Á|æalÁ[ ], ^| Á] æ Áå^•ā] } ^å Á[ ¦Á&` œ] \* \* |æ•ÈÁV@Á&` œ^! Á @œeó4] ^^å Á{`•óhà^Á{ æij æaij ^å - [ ¦Á] ![] ^| Á&` œ] \* ÈÁV[ Áij •` ' ^A@æeᜠÁ&` œ'! Á @æeóÆ ![ œeā] \* Áæcá{ æ¢ā[ ` { Á•] ^^åÊA!` } Á dæsd[ !Áæcá~ || c@[ œd^Áå` !ā] \* Á{ [ ,ā] \* Á[] ^!æati] • ÈÁQÁ&` œ^! Á @æe c • [[ ,•Át[ Áœ Á] [ā] óÁc@æác@Á } ãç^• Áæ ^Á[ åā] \* ÁàæsA æª æaij • oÁc@ Á&` œ^! Á• @æedÊA{ [ ç^Ác@ Át [ ,^!Á@æati æ; æê Á+[ { Ác@ Át [ãæt ^ Áæ) å Áæ][ , Ác@ Á&` œ^! Á @æe oÁt !^\* æaij Á` ||Á] ^^åÈ



A DANGER

V @ A¦[cæcā]\*A] æ to A[-AcoãrA[:æ&@ā]^A@eçr^Aà^^} Aå^•ā\*}^åAæ) å Aco•oto\*àA-[¦A¦`\*\*^åA`•^E P[,^ç^¦Éx@ Aà|æå^•Á&[`|åÁæajÁ][} Áā[] æ&oÁ;ão @ @e æçîÊ4[|ãáÁ;àb & or Á`&@ £æ Á[^cæbá\*`æå ¦æā]•Áæ) å Á&[} & \^c^Árd`&c`¦^•ÉÁÙ`&@ \$a[] æ&oÁ&[`|åÁ&æě •^Ác@ Áà:[\^} Á[`àb & or Ář`&@ £æ Á[ Áa\*Áco@[, } [č;æååÁæeAç^\?Á@a\*@ £¢/[&ãazð•ĚÁV[Á^å`&^Ác@ Á][• •ãa ãjāč Á[-Á];[]^¦c`Áåæąiæ\*^É4e^¦ā]`• āj b`¦^Ê4j;¦Árç^} Áå^ææ Œ£j^^c^¦Áæh[],Ác@ Á&`caā]\*Áà|æå^•Áq[ & æ&oÁ`&@ fa`i] a to ææ Á\* Ě4cuör # D

à^Áĭ•^åÁag) åÁ{ ænāj cænāj ^åÁāj Át[[åÁ, [¦\ā]\*Á&[}åãnāj}ÈŹÁCE[|Á\æe^c Áå^ça& ^•Á•@[`|åÁà^ āj•]^&cråÁsæah~~||^Áeená/ræe có‰æanāj Át[¦Át;ã•ā]\*Át]¦Áalt[\^}Á&[{][}^}or ÈŹÁTā\*•āj\*É&alt[\^}Ê [¦ÁÁş[!}Áñac{•Át`•có‰^Á^]|æ&råÁæenát}&cráfiáArá\*&rÁc@?Áj[••āaājāč Át;-Á5gböl:^Át]¦Á&ræe@ --{[{Ác@[]}Átàb\*&or ÉA\*} cæa)\*|^{{}^}dětiáAaænák}}æará&[}cæ&dĚkyör #o

Tractor PTO PTO Integral Shield Shield Shield Chain guard

**AWARNING** 

Tæ) ^ Açæiðt ä A[ à bh & or E4+ `& @ Aser A, ã ^ EA&æa | ^ E4[ ] ^ E4[ ] ^ A&@æið, • E4&æð, Asi ^ & [ { ^ A^} æð, \* | ^ ä A B, A @ [] ^ | ææið, \* Áj ædor Á[ ^ Ac@ Á[ [ , ^ | Á@ æa ĚÉÁV @ • ^ Áar { • Á&[ ` | å Ác@ } Á , ` @ ãa ^ Á, ` @ ãa ^ Ác@ ÁQ ` • ð ð \* Áær \* ! ^ ææ^! Áç^ |[ & ãa ð • Ác@ Á [ [ , ^ | Á@ æa ĚÉÁV @ • ^ Áar { • Á&[ ` | å Ác@ } Á , ` @ ãa ^ Á, ` @ ãa ^ Ác@ ÁQ ` • ð ð \* Áær \* ! ^ ææ^! Áç^ |[ & ãa ð • Ác@ Á a @ Áa | æa ^ • ĚÁÚ ` & @ Áæá \* ã č ææið } Áar Acd ^ { ^ | Â@æe æð [ ` • Áæð å Á&[ ` | å Á^• ` | c ð Á \* ^ ¦ð \* • Áð b ! ^ Á[ ! Ár ç^ } Åa ^ æc @ ÉÁQ • ] ^ & & c áæ ^ æá \* Áæ ^ æá [ ! Ár ` & @ Át & de ^ æ A ` 4 [ ] ç^ Áæð ` Áða ^ Át à bh & c Á! [ { Ác@ Ár ã \* ĚÁD ^ ç^ ! Áæ] [ , Ác@ Á&` cað \* Áa | æå ^ • Át [ Ác[ } æ&c Á` & @ Áær { • È çið t ei D

U]^¦æaāį}ÂÛ^&cāį}ÁHËHÌ

**OPERATION** 

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

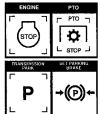
V[Á\*@ Ó+å[ ] Áæccæ&@ åÁ [ ] ^¦Á@ æåÊÁã• ó+à¦ã \* Ác@ dæ&d[¦Á[ÁæÁ&[{]|^c^Á;d]]ĚÖ^&¦^æ^Á?}\*ā]^ÁÜÚT d[Á&áļ^Áx@)}Áåãa^} \* æ\* ^ & čc^¦@æåĚAV@A([ [ ^ ^ ¦Á@æå ,ā||Á&[{^Áq[ÁæÁ&[{]|^c^Á•q[]Á,ãc@3],ÁæÁ\*ĭãcæà|^ æŧ [`} œ́[-Áœ̃] ^ĖĚÖ[ Á} [ œ́^} \* æ\* ^Á[ ¦Áåæ̃ ^} \* æ\* ^Áœ® & cc^¦@>aaa•AaaaÁaeA@tt @ÁÜÚTÁ } |^••Ac@o\\^ÁãaÁae} ^{ ^ \\* ^ } & Á ãč ædā } È

Úæl\Ác@At æ&q ¦Á[}ÁæÁ|^ç^|Á\*`¦ æ&^ÉA]|æ&^Ác@ dæ)•{ã•ã}}Áã;Á]æ\Á[¦Á}^čdæ)Áæ}åÁæ]]^Ác@ ] æk \ ðj \* Áa ¦ æk ^ É 🖗 @ o Áa [ , ] Á ó @ Á^ } \* ðj ^ É A \ { [ ç^ Á c @ \^^ÉÁce)åÁ, zaãoÁ[¦Áce|Á, [cã[}Ác[Á&[{ ^Áo[ÁceÁ&[{ ]|^c^ • (] Áa^+ |^ Á¢ãã; \* Ás@ Ás æso( ¦È OPS-B-0011\_D

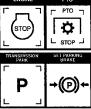




#### A DANGER



OOQUUOA(^æçā) \* As@ Aslæa&d[¦Al^æEBæd], æê • Al^oAs@ Aj, æk \āj \* Asi¦æk ^Aæ) å⊕[¦Al^c c@ Ádæ&q[¦Ádæ]•{ã•ã[}Áã]Á]æ{\ã]\*Á\*^æÉÅåã^}\*æ\*^Ác@ ÁÚVUÉ¥•q[]Ác@ ^}\*ā)^ÉA(^{ [ç^Ác@^Á\_^Éeee)åÅ, zaãcÁ{¦Áee|/Á([çā)\*Á),zetorÁt[Á:d[]ĚÁÚ|ze&^Ác@^ dæ&d; ¦Á•@ãoÁ^ç^¦Áājd[ÁæÁ][, Á/æ)\*^Á[; Á]æ\āj\*Á\*^æAá[Á]; ^c^} oÁc@Adæ&d; ¦ ãrÁ`}}ā;\*ĚÁU]^¦æe^Áo@Á/¦æ&o[¦Á&]}d[|•Á+[{Ás@Á;æ&o[¦Á×?aæA[}^Èòùööö



**OPERATION** 

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

Ú¦[]^¦|^Á;|^]æðið \* Áxeð å Árd[¦ðð \* Áx@ Ár}ãnÁxænÁ@ Ár}å Ár Áx@ Ár^æer[}Ánárá&lána8ænÁk[Ár, æðinæðiðð \* Ánáráæði}^æðeð) a Axeð å Ák[ @|]Ár}•`¦^Ár^æð•Ár,Ánár^]^}åæði|^Ár\ça&rÈÁV@Ár[||[¸ðð \* ÁxeðrÁ`\*\*\*^•c\*å Árd[¦æð ^Ár,[[&\*å`¦^•K

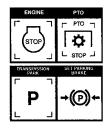
- ″ V@;¦[`\*@;Á&,\^æ)Áæ;|Áå^à¦ãrÁ+[{Áà[[{Áæ)åÁ @^æåá{[Á],\^ç^}cAåæ; æ\*^Á+[{Á[ccā],\*Á\*¦æe●Áæ)åÁ ●cæ)åā]\*Á,æe^\È
- ŠšálāšæevÁædļÁl^æevÁj[ājœÁæ)åÁālÁjāÁvç^l•Á æ&&[låāj\*ÁjÁœAjæa;ev}æ)æ)&vÁjälã&ææaj}Å •&@ašl/E
- ″ Vāt@c^}ÁæļAáj[|o•ÁţÁ@cAjl[]^lÁţ['`^ÈÁÒ}●`l^Á æljÁjā,●Áæ}åAjœc@lÁ@æåå,æh^ÁæAájÁ|æ&cÈ
- ″ Ù¢[¦^Ás@∘Á`}ãx/\$jÁsz48|^æ), Åse) å/\$s|^Áy[&æea]} ÈÈ
- W \* ^ Á; ] & â Á[ ` & @ É ] Á} æ; ^ | Á, @ | ^ Á, ^ & \* æ ^ Á [ } Á; æ ^ Á; ^ œ Á ` | -æ \* • Á; Á; !^ ç^ } ó \* • ó \* ø å Å; Á { æ; œ; Å: ^ œ Á \* ] ^ æ æ; & ^ Á; - Á: @ Á; [ , ^ | È OPS-B-0012\_C



A DANG ER

Þ^ç^¦Áæq|[, Á&@4å¦^}Át[Á] |æĉÁ;}Át]:Áæd[`}åÁ/!æ&d[`}åÁ/!æ&d['Á;!ÁQ;]|^{ ^} dÐÖ@4å¦^}Áæq): c@ÁŎ``ā] { ^}oÁæyi åÁs/Áā;b`!^åÁt[¦Á;a]|^åÈĐÔ@4å¦^}Á&æyi Á&æyi Á&æč•^Áo@ÁQ;]|^{ { ^}oÁt[Á;@a-oÁt[¦Áæq] &l``•@3j\*Ás@{ •^|ç^•Á;lÁ;c@¦•ÈÁspiö⊞i⊳

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

Q,@;\^}cÁ@ee æåå•Á[-Á[]^¦ææä]\*Ás@ Át æ&d[¦ÁæajåÁā[]|^{{ ^}}cáæjåáks@;Á,[••āaājāčÁ[-Áæ&&&äa^}@;Á,[o/A~~óAa^@3jå ]@}Á[`Áājār@Á,[¦\āj\*ÁajÁæajÁæa>aæbÁ/@;!~-{¦^Êks@;Á,]^¦ææ[¦Át``•oÁv{]][^Át[[åA5`å\*^{ ^}oÁæjåÁ;ææ^Át]^¦ææā] ]!æ&cā&^•Á]@}Ad;æj•][¦cāj\*Áo@Ad;æ&d[¦ÁæajåÁā[]|^{{ ^}cáec\_\_\_^ ]#&&cā&^\*Á;æ}^Ad;æj•][¦cāj\*Áo@Ad;æ&d[¦ÁæajåÁā[]|^{{ ^}cáec\_\_\_^ Af[]]]a\*Á\*æ~Ád;æj•][¦cáj\*Ía\*Ac@Ad;æ&d[¦ÁæajåÁā[]]^{{ ^}cáec\_\_\_^ Af[]]]a\*Á\*æ~Ád;æj•][¦cáj\*Ía\*Ac@Ad;æ&d[¦ÁæajåÁā[]]^{{ ^}cáec\_\_\_^ Af[]]]a\*Á\*æ~Ád;æj•][¦cáj\*Áa^\*]^\*Ac@Ad; Af[] \* Á\*æ^Ád;æj•][¦cáj\*Áa]\*Ac@Ad; Af[] \* Á\*æaAd;æj•][¦cáj\*Áa]\*Ac@Ad; Af[] \* Á\*æaAd;æj•][¦cáj\*Áa]\*Ac@Ad; Af[] \* Á\*æaAd;æj•][¦cáj\*Áa]\*Ac@Ad; Af[] \* Á\*æAd;æj•][¦cáj\*Áa]\*Ac@Ad; Af[] \* Á\*æaAd;æj•][¦cáj\*Áa]\*Ac@Ad; Af[] \* Á\*æAd; Af[] \* Af[]

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

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#### 11.2 Transporting on Public Roadways

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**AWARNING** 

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OPERATION

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

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## **MAINTENANCE SECTION**

Maintenance Section 4-1

## MAINTENANCE

#### **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 efficiency 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 efficient 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.
- Lexan windows should be washed with mild soap or detergent and luke warm water, using a soft clean sponge or soft cloth. DO NOT use abrasive or alkaline cleaners or metal scrapers on lexan windows!
- 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 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 you r 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)



#### **Break in Period**

WARNING

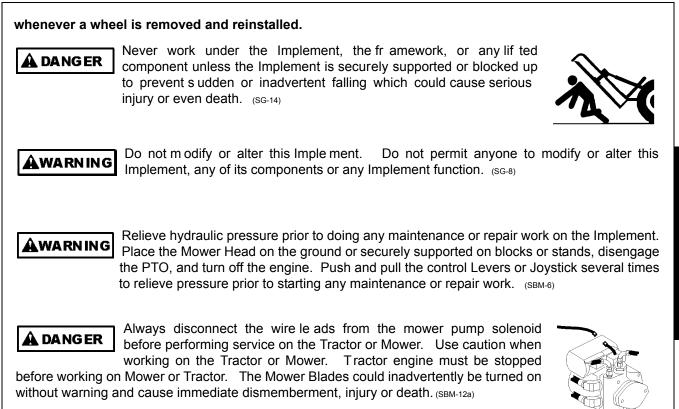
In addition to following the break in instructions for your particular tractor, the in-tank hydraulic fluid filter should be replaced after the first 50 hours of service. The reafter the filter should be replaced every 500 hours, or yearly, which ever comes first.

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

Saber

Maintenance Section 4-2

## 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.

Daily or Every 8 Hours		
ITEM	SERVICE	COMMENTS
Drive Shaft Yoke, U-Joint & Stub Shaft	Grease	Grease as instructed in detailed maintenance section
Pump Drive Shaft Coupler	Check and Lube	Insure drive shaft end play
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 maintenance precautions
Saber	Maintenance Section	4-3

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## MAINTENANCE

ITEM	SERVICE	COMMENTS
Knives	Check	Inspect for missing or damaged knives, change as needed or sharpen as needed.
Spindle mounting bolts spindle to deck)	Check	3/4" x 2" torque or 3/4" x 2-1/2" bolts to 331ft. lbs.
Knife mounting bolts (knife to disk or blade bar)	Check	Pre-lubricate threads, then torque: 1-1/8" bolts to 800 ft. lbs. 1-3/4" bolts to 2,000 ft. lbs.
Disk or blade bar mntg bolts (disk or blade bar to spindle)	Check	Retorque bolts 3/4" bolts to 500 dry or 330 oiled ft. lbs. 5/8" bolts to 204 dry or 184 oiled ft. lbs.
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) Bearing Flange and Shaft Coupler	Lubricate	Grease as instructed in detailed maintenance section
Cutter Shaft	Lubricate	Grease as instructed in detailed Maintenance Section
Ground Roller Bearings	Lubricate	Grease as instructed in detailed Maintenance Section
	WEEKLY OR EV	ERY 40 HOURS
ITEM	SERVICE	COMMENTS
Rotary Spindle	Lubricate	Grease as instructed in detailed Maintenance Section
ITEM Rotary Spindle		Grease as instructed in
Saber	Maintenance S	ection 4-4

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ITEM	WEEKLY OR EVER SERVICE	COMMENTS
	SERVICE	COMMENTS
In Tank Hyd. Fluid	Change	Change after first 50 hours only, then
Filter 10 micron filter)		every 500 hrs. yearly or if indicated by the restriction indicator.
	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	Max P.S.I.	
480/85R34 16.9-38	26 29	
	YEARLY OR EVER	7 500 HOURS
ITEM	SERVICE	COMMENTS
Spindle Grease	Change	
Hyd. Tank Fluid	Change	
In Tank Hyd. Fluid Filter ( <b>10 micron filter</b> )	Change	
Hyd. Tank Breather	Change	
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Saber	Maintenance Section	JII 4-0

MAINTENANCE

	TROUBLESH	OUTING
SYMPTOMS	CAUSE	REMEDY
Vibration	<ol> <li>Loose Bolts</li> <li>Cutter assembly Unbalanced</li> </ol>	<ol> <li>Check all bolts and tighten to recommended torque specifications</li> <li>Check for damage blades, disc or cutter shaft. Replace if needed.</li> </ol>
		2b. Check for wire, rope, etc. entangled in the cutter assembly
Mower will not lift	<ol> <li>Hyd. Fluid Low</li> <li>Leaks in line</li> <li>Faulty relief valve</li> </ol>	<ol> <li>Check and refill Hyd Fluid</li> <li>Tighten or replace fittings and hoses</li> <li>Check pressure in line. Line pressure in Control Valve should be</li> </ol>
	4. Kinked or blocked 5. Faulty cylinder	at least 2500 P.S.I. 4. Clean or replace lines 5. Inspect, repair or replace cylinder
Mower will not start or run	<ol> <li>Blown fuse</li> <li>Ball valves closed</li> <li>Low oil level</li> <li>Line leak</li> <li>Electronic solenoid faulty</li> </ol>	<ol> <li>Check fuse between mower switch and ignition/replace</li> <li>Make sure valves are open</li> <li>Check Hyd. tank and fill</li> <li>Check all fittings and lines, re-tighten or replace</li> <li>Without the tractor running, turn the mower switch to on. A low audible click is not 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.</li> <li>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.</li> <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 for contaminates and scratches.</li> </ol>

#### 

Saber

Maintenance Section 4-6

Motor runs but will not cut.	1. Belts 2. Tensioner	<ol> <li>Inspect belts and pulleys. Replace belts and repair as needed.</li> <li>Adjust tensioner nut flat washer washer is flush with top of guide.</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 obstruction 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.

**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.

Saber

## LUBRICATION RECOMMENDATIONS

15° F Start-Úp         Cutter Shaft & Ground Roller Shaft(Flail)       Grease Gun Grease Gun       Lithium-Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S         Drive Shaft Coupler (Flail and Rotary)       Grease Gun Grease Gun       Lithium-Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S         Drive Shaft Yoke, U-joint & Stub Shaft       Grease Gun Grease Gun       Lithium-Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S         Boom Swivel Boom Cylinder Pivots (Rotary & Flail Boom)       Grease Gun Lithium Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S	Description	Application	General Specification	Recommended Mobil Lubricant
Cold Temperatures 0° F       ISO 46 Anti-Wear-Low Temp Mobil DTE® 15M         Start-Up       ISO 46 Anti-Wear       Nuto®H46, Mobil E         15° F Start-Up       ISO 46 Anti-Wear       Nuto®H46, Mobil E         Cutter Shaft & Ground       Grease Gun       Lithium-Complex       Mobil Delvac® Xtre         Roller Shaft Coupler       Grease Gun       Lithium-Complex       Mobil Delvac® Xtre         Prive Shaft Coupler       Grease Gun       Lithium-Complex       Mobil Delvac® Xtre         (Flail and Rotary)       Grease Gun       Lithium-Complex       Mobil Delvac® Xtre         Drive Shaft Yoke,       Grease Gun       Lithium-Complex       Mobil Delvac® Xtre         U-joint & Stub Shaft       Grease Gun       Lithium-Complex       Mobil Delvac® Xtre         Boom Swivel       Grease Gun       Lithium Complex       Mobil Delvac® Xtre         Boom Swivel       Grease Gun       Lithium Complex       Mobil Delvac® Xtre         NLGI 2-ISO 320       Mobil grease CM-S       Mobil grease CM-S         Deck Boom Pivot &       Grease Gun       Lithium Complex       Mobil grease CM-S         Deck Stop Adjustment       Grease Gun       Lithium Complex       Mobil Delvac® Xtre         NLGI 2-ISO 320       Mobil grease CM-S       Mobil grease CM-S	Tractor Hydraulics	Reservoir	JD-20C	Mobilfluid® 424
Roller Shaft(Flail)       NLGI 2-ISO 320       Mobilgrease CM-S         Drive Shaft Coupler (Flail and Rotary)       Grease Gun       Lithium-Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S         Drive Shaft Yoke, U-joint & Stub Shaft       Grease Gun       Lithium-Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S         Boom Swivel Boom Cylinder Pivots (Rotary & Flail Boom)       Grease Gun       Lithium Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S         Deck Boom Pivot & Deck Stop Adjustment       Grease Gun       Lithium Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S	Cold Temperatures 0° F Start-Up Normal Temperatures	Reservoir		Mobil DTE® 15M Nuto®H46, Mobil DTE®25
(Flail and Rotary)NLGI 2-ISO 320Mobilgrease CM-SDrive Shaft Yoke, U-joint & Stub ShaftGrease GunLithium-Complex NLGI 2-ISO 320Mobil Delvac® Xtre Mobilgrease CM-SBoom Swivel Boom Cylinder Pivots (Rotary & Flail Boom)Grease Gun Streamed Complex NLGI 2-ISO 320Mobil Delvac® Xtre Mobil Delvac® Xtre Mobilgrease CM-SDeck Boom Pivot & Deck Stop AdjustmentGrease Gun Grease Gun Lithium Complex NLGI 2-ISO 320Mobil Delvac® Xtre Mobilgrease CM-S		Grease Gun		Mobil Delvac® Xtreme Grease Mobilgrease CM-S
U-joint & Stub Shaft NLGI 2-ISO 320 Mobilgrease CM-S Boom Swivel Grease Gun Lithium Complex Mobil Delvac® Xtre Boom Cylinder Pivots (Rotary & Flail Boom) Deck Boom Pivot & Grease Gun Lithium Complex NLGI 2-ISO 320 Mobilgrease CM-S Deck Stop Adjustment Grease Gun Lithium Complex Mobil Delvac® Xtre NLGI 2-ISO 320 Mobil Delvac® Xtre NLGI 2-ISO 320 Mobil Delvac® Xtre		Grease Gun		Mobil Delvac® Xtreme Grease Mobilgrease CM-S
Boom Cylinder Pivots (Rotary & Flail Boom)       NLGI 2-ISO 320       Mobilgrease CM-S         Deck Boom Pivot & Deck Stop Adjustment       Grease Gun       Lithium Complex NLGI 2-ISO 320       Mobil Delvac® Xtree Mobilgrease CM-S		Grease Gun		Mobil Delvac® Xtreme Grease Mobilgrease CM-S
Deck Stop Adjustment NLGI 2-ISO 320 Mobilgrease CM-S	Boom Cylinder Pivots	Grease Gun		Mobil Delvac® Xtreme Grease Mobilgrease CM-S
	Deck Stop Adjustment	Grease Gun		Mobil Delvac® Xtreme Grease Mobilgrease CM-S
Deck Spindle(Rotary) Grease Gun Lithium Complex Mobilith SHC 220, NLGI 2-ISO 220, PAO Tiger Part #065400 Synthetic Grease	Deck Spindle(Rotary)	Grease Gun	NLGI 2-ISO 220, PAO	Mobilith SHC 220, Tiger Part #06540000
	Saber	Ма	intenance Section 4-8	

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### **TORQUE SPECIFICATIONS**

	(1) 22		1	>		K	7		ET	\$		63	<b>b</b>	
Nominal Dia.	threads per				Grade		1	Grade		/	Grade 8			Grade 9
Dia.	inch			tening Tor			Tightening T			ightening To			ightening Tor	
(in )		K = 0.	d L 15	Plated	Dry plair		Dry Plate	Ury plan	Lubed	Dry Plater	Dry plain	Lubed	Dry Plated	
(in.)		[K=U.	10	N = 0.17	K = 0.2L		nified Co				[ K = 0.20	T K = 0.15	1 K - 0.17	_ K = 0.20
1/4	20	49 in-	lhe	59 in-Ibs	66 in th	s 76 in-lt					143 in the	126 in th	s 143 in-lbs	168 in the
5/16	18	101	105	122	135	157	178	209	221	251	295	259	294	346
3/8	16	15 ft-	bs		20 ft-lb					s 37 ft-lbs			s 43 ft-lbs	
7/16	14	24		29	32	37	42	49	52	59	70	61	70	82
1/2	13	37		44	49	57	64	75	80	90	106	94	106	125
9/16 5/8	12	53	+	63 87	70	82	92	109	115	130	154	135	153	180 248
3/4	11 10	73	+	155	97 172	200	128	150 267	159 282	320	212 376	186 331	211 375	441
7/8	9	125		150	167	322	365	429	455	515	606	533	604	710
1	8	187		225	250	483	547	644	681	772	909	799	905	1065
1 1/8	7	266		319	354	596	675	794	966	1095	1288	1132	1283	1510
1 1/4	7	375		450	500	840	952	1121	1363	1545	1817	1597	1810	2130
1 1/2	6	652		783	869	1462	1657	1950	2371	2688	3162	2779	3150	3706
							Fine 7	hread S	eries					
1/4	28	56 in-	lbs	68 in-lhe	75 in-lb	s 87 in-1				s 139 in-lho	164 in-lhs	144 in-lh	s 163 in-Ibs	192 in-lhe
5/16	24	112		135	150	174	197	231	245	278	327	287	325	383
3/8	24	17 ft-		20 ft-lbs	23 ft-lb	s 26 ft-lb	s 30 ft-lbs	35 ft-lb	s 37 ft-lb	s 42 ft-lbs	49 ft-lbs	43 ft-lb	s 49 ft-lbs	58 ft-lbs
7/16	20	27	1	32	36	41	47	55	58	66	78	68	78	91
1/2	20	41	+	49	55	64	72	85	90	102	120	105	120	141
9/16 5/8	18	59	+	71 99	78	91	103	121	128	146 204	171 240	151 211	171 239	201 281
3/4	16	144	+	173	192	223	253	297	315	357	420	369	418	492
7/8	14	138		165	184	355	403	474	502	568	669	588	666	784
1	14	210		252	280	542	614	722	765	867	1020	896	1016	1195
1 1/8	12	298		357	397	668	757	890	1083	1227	1444	1269	1439	1693
1 1/4	12	415		498 880	553 978	930	1055	2194	1509	1710	2012 3557	1768 3127	2004	2358 4169
Torque valu				ries are in i da T=KDF, v	where				K = 0 K = 0	.15 for "lubrica .17 for zinc pla .20 for plain an	ted and dry co d drv conditio	onditions		minal Diamete mp Load
forque vali				lla T=KDF, v	where		ion Rela		K = 0 K = 0	.17 for zinc pla .20 for plain an	ted and dry ci d drv conditio <b>eners</b>	onditions ns		
forque vali				lla T=KDF, v	where Torque		ion Rela	tionshi	K = 0 K = 0	.17 for zinc pla .20 for plain an tric Fast	ted and dry ci d drv conditio <b>eners</b>	Class	F = Cla	
forque vali	ues calcul	ated from	form	da T=KDF, v	Torque Class 4.6	e-Tens		ass 8.8 8.8	κ=0 κ=0 p for Me	17 for zinc plain an 20 for plain an Atric Fast Class 11	ted and dry condition eners	Class	F = Cla	
forque valu	ues calcul	ated from		Ia T=KDF, V	Torque Class 4.6 4.6 ttening Tor	e-Tens	ion Rela	ass 8.8 8.8 ning Torque	K = 0 K = 0 P for Me	17 for zinc pla 20 for plain an tric Fast Class 11 (10.9 Tightening 1	ted and dry ci d dry condition eners 0.9	Class	F = Cla	
forque valu	ues calcul	lated from	form	ta T=KDF, \ Tight	Torque Class 4.6 4.6 ttening Tor Dry Plated	e-Tens	ion Rela	ning Torque y Plated D	K = 0 K = 0 P for Me	17 for zinc pla 20 for plain an tric Fast Class 10 10.9 Tightening 1 Ded Dry Plate	ted and dry ci d dry condition eners 0.9 0.9 0 orque d Dry plain	Class Class Tightenin Lubed	F = Cla	
forque valu	ues calcul	ated from	form	Tight Lubed K = 0.15 (ft-lbs)	Torque Class 4.6 4.6 ttening Tor	e-Tens	Tighte Lubed Dr K = 0.15 K (ff-lbs)	ning Torque y Plated D = 0.17 K (ft-lbs) (	K = 0 K = 0 P for Me P for Me = 0.20 K = ft-lbs) (ft-l	17 for zinc pla 20 for plain an tric Fast Class 10 10.9 Tightening 1 Ded Dry Plate 0.15 K = 0.1	eners 0.9 0.9 0.9 0.9 0.9 0 0 0 0 0 0 0 0 0 0	Class Class Tightenin Lubed	F = Cla	
forque valu	ues calcul	Nominal Dia. (mm) 3	Pitch	Tigh Lubed K = 0.15 (ft-lbs) 0.28	Vhere Torque Class 4.6 4.6 Atening Tor Dry Plated K = 0.17 (ff-lbs) 0.32	e-Tens	ion Rela Cl Tighte Lubed Dr K = 0.15 k (ft-lbs) 1 0.73	tionshi	K = 0 K = 0 P for Me = 0.20 K = ft-lbs) (ft-1 0.97 1	17 for zinc pla 20 for olain ar tric Fast Class 11 (10.9 Tightening 1 Drg Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2	eners ad drv conditio eners 0.9 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4	Class Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2	F = Cla $g Torque$ $g Torque$ $K = 0.20$ $(ff-lbs)$ $1.6$	
orque valu	ues calcul	Nominal Dia. (mm) 3 3.5	Pitch	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44	Annu Class 4.6           4.6           4.6           0ry Plated           K = 0.17           (ft-lbs)           0.32           0.50	e-Tens	Tighte Lubed Dr K = 0.15 K (ft-lbs) 1.1	tionshi ass 8.8 8.8 y Plated D = 0.17 K (t-lbs) ( 0.82 1.3	K = 0 K = 0 P for Me P for Me = 0.20 K = ft-lbs) (ft-1 0.97 ft-1 0.97 ft-1 1.5 ft-1	17 for zinc pla 20 for olain ar tric Fast Class 11 Class 11 10.9 Tightening 1 9ed Dry Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9	ted and dry co d dry conditio eners 0.9 0 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9	F = Cla $g Torque$ $Dry plain$ $K = 0.20$ (ff-lbs) $1.6$ $2.5$	
orque valu	ues calcul	Nominal Dia. (mm) 3 3.5 4	0.5 0.6 0.7	Ite T=KDF, v Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.24 0.44	Vere Torque Class 4.6 4.6 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1	e-Tens que Dry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87	ion Rela Cl Tighte Lubed Dr K = 0.15 k (ft-lbs) 1 0.73 1.1 1.7	tionshi ass 8.8 8.8 y Plated D = 0.17 K (ft-lbs) ( 0.82 1.3 1.9	K = 0 K = 0 P for Me = 0.20 K = ft-lbs) (ft- 0.97 1 1.5 1 2.3 2	17 for zinc pla 20 for olein er tric Fast Class 11 10.9 Tightening 1 9ed Dry Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9 4 2.7	ted and dry ci d drv conditio eners ).9 ).9 ) orque d Dry plain 7 K = 0.20 (ft-libs) 1.4 2.2 3.2	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8	F = Cla g Torque Dry plain K = 0.20 (ff-lbs) 1.6 2.5 3.8	
orque valu	ues calcul	Nominal Dia. (mm) 3 3.5	Pitch	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44	Annu Class 4.6           4.6           4.6           0ry Plated           K = 0.17           (ft-lbs)           0.32           0.50	e-Tens	Tighte Lubed Dr K = 0.15 K (ft-lbs) 1.1	tionshi ass 8.8 8.8 y Plated D = 0.17 K (t-lbs) ( 0.82 1.3	K = 0 K = 0 P for Me P for Me = 0.20 K = ft-lbs) (ft-1 0.97 ft-1 0.97 ft-1 1.5 ft-1	17 for zinc pla 20 for plain ar tric Fast Class 11 (10.9 Tightening 1 ped Dry Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9 4 2.7 9 5.5	ted and dry co d dry conditio eners 0.9 0 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9	F = Cla $g Torque$ $Dry plain$ $K = 0.20$ (ff-lbs) $1.6$ $2.5$	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 6	Pitch 0.5 0.6 0.7 0.8 1 1.25	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1	Arrow         Arrow           Class 4.6         4.6           Arrow         4.6           Mening Tor         Dry Plated           K = 0.17         (ft-lbs)           0.50         0.74           1.5         2.6           2.3         2.3	e-Tens pry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7	Tighter Lubed Dr K = 0.15 k (ft-lbs) 1.1 1.7 3.4 5.8 5.3	tionshi ass 8.8 8.8 9.9 9 Plated D = 0.17 K (1-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.0	K = 0 K = 0 F = 0	17 for zinc pla 20 for olein er tric Fast Class 11 10.9 Tightening 1 0ed Drg Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6	ted and dry c d dry conditio eners 0.9 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 1.1 11	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8	F = Cla g Torque Dry plain K = 0.20 (ft-lbs) 1.6 2.5 3.8 7.6 13 12	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 6 7	Pitch 0.5 0.6 0.7 0.8 1 1.25 1	Tigt Lubed K = 0.15 (ft-lbs) 0.24 0.66 1.3 2.3 2.1 3.8	Arrow           Class 4.6           4.6           4.6           0.70           Dry Plated           K = 0.17           (ft-lbs)           0.32           0.50           0.74           1.5           2.8           4.3	e-Tens py plain K = 0.20 (ft-lbs) 0.58 0.59 0.87 1.8 3.0 2.7 5.0	ion Relz	tionshi ass 8.8 8.8 9.7 10 pt ated D = 0.17 K (t-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.0 11	K = 0 K = 0 For Me Typlain Lul = 0.20 K = ft-lbs) (ft-l 0.97 1 1.5 1 2.3 2 4.5 4 7.7 8 7.0 7 13 1	17 for zinc pla 20 for olein er tric Fast Class 11 0.9 Tightening 1 10.9 Tightening 1 10.9 (ft-lbs; 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16	ted and dry c d dry conditio eners 0.9 0 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 11 10 19	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.2 1.2 2.8 5.7 9.7 8.8 16	F = Cla (12.9 2.9 2.9 2.9 2.9 2.9 2.9 1.6 2.5 3.8 7.6 13 12 22	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 7 8	Pitch 0.5 0.6 0.7 0.8 1 1.25 1 1	Tigh Lubed K = 0.15 (ff-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9	Arrow           Class 4.6           4.6           Drg Plated           K = 0.17           (ft-lbs)           0.32           0.50           0.74           1.5           2.6           4.3           6.6	e-Tens pry plain K = 0.20 (ft-lbs) 0.38 0.59 1.8 3.0 2.7 5.0 7.8	Tighte Lubed Dr K = 0.15 k (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15	tionshi ass 8.8 8.8 y Plated D = 0.17 K (ft-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.0 11 17	K = 0 K = 0 F = 0 F = 0 F = 0.20 F = 0.20 K = 1 ft-lbs) (ft-l 0.97 1 1.5 1 2.3 2.3 2.4 5 4 7,7 8 7,0 7 1 3 1 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	17 for zinc pla 20 for olein er tric Fast Class 11 (10.9 Tightening 1 bed Dry Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 2 24	ted and dry c d drv conditio eners 0.9 0 d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 6.5 11 10 19 29	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25	F = Cla g Torque Dry plain K = 0.20 (ft-lbs) 1.6 2.5 3.8 7.6 13 12 22 34	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 6 7 7 8 8 8	Pitch 0.5 0.6 0.7 0.8 1 1.25 1 1.25	Tigr Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9 5.5	Arrive           Torqui           Class 4.6           4.6           1           0.50           0.74           1.5           2.6           2.3           4.6           6.6           6.2	e-Tens que 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	Tighte Lubed Dr K = 0.15 k (ft-lbs) 10 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 14	tionshi ass 8.8 8.8 9.1 9.1 9.1 1.0 1.9 1.3 1.9 3.9 6.6 6.6 6.0 11 17 15	K = 0 K = 0 For Me ry plain Lul = 0.20 K = ft-lbs) (ft- 0.97 1 1.5 1 2.3 2 4.5 4 7.7 8 7.0 7 13 1 20 2 19 22	17 for zinc pla 20 for olain ar tric Fast Class 11 0.09 Tightening 1 0.09 Tightening 1 0.09 0.15 K = 0.15 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 24 0 23	ted and dry or d dry conditionent eners 1.3 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 11 10 19 29 27	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25 24	F = Cla $g Torque$ Dry plain $K = 0.20$ (ft-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 6 7 7 8 8 8	Pitch 0.5 0.6 0.7 0.8 1 1.25 1 1	Tigh Lubed K = 0.15 (ff-lbs) 0.28 0.44 0.66 1.3 2.3 2.1 3.8 5.9	Arrow           Class 4.6           4.6           Drg Plated           K = 0.17           (ft-lbs)           0.32           0.50           0.74           1.5           2.6           4.3           6.6	e-Tens pry plain K = 0.20 (ft-lbs) 0.38 0.59 1.8 3.0 2.7 5.0 7.8	Tighte Lubed Dr K = 0.15 k (ft-lbs) 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15	tionshi ass 8.8 8.8 y Plated D = 0.17 K (ft-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.0 11 17	K = 0 K = 0 For Me Pyplain Lut = 0.20 K = ft-lbs) (ft-1 0.97 1 1.5 1 1.5 1 1.5 1 1.5 4 7.7 8 7.7 8 7.7 7 13 1 20 2 39 4	17 for zinc pla 20 for olein er tric Fast Class 11 (10.9 Tightening 1 bed Dry Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 2 24	ted and dry c d drv conditio eners 0.9 0 d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 6.5 11 10 19 29	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25	F = Cla g Torque Dry plain K = 0.20 (ft-lbs) 1.6 2.5 3.8 7.6 13 12 22 34	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 6 6 7 8 8 8 10 10 12	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.25 1.5 1.25	Tigt 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	Organization           Class 4.6           4.6           0.7           0.7           0.50           0.52           0.52           0.53           0.74           1.5           2.6           4.3           6.6           6.2           13           12           23	e-Tens py 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	ion Relz	tionshi ass 8.8 8.8 y Plated D = 0.17 K (tt-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 60	K = 0 K = 0 For Me For Me = 0.20 K = tt-lbs) (tt-l 0.97 1 1.5 1 2.3 2 4.5 4 7.7 8 7.0 7 13 1 1 20 2 19 2 39 4 37 4 71 7	17 for zinc pla 20 for plain ar tric Fast Class 11 Class 11 10.9 Tightening 1 10.9 Tightening 1 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9	ted and dry ci d dry conditio eners 0.9 0 1.9 1.4 2.2 6.5 111 10 10 19 29 27 56 53 101	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 2.8 5.7 9.7 8.8 16 25 24 49 47 89	F = Cla $g Torque$ $Dry plain$ $K = 0.20$ (ff-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$	
forque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 7 8 8 10 10 10 12 12	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.25 1.5 1.25 1.5 1.5 1.5	Tigh 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 11 21 20	Torqui           Class 4.6           .4.6           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .1000           .10	e-Tens py 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	ion Relz Tighte Lubed Dr K = 0.15 k (ft-lbs) f 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 14 29 28 53 51	tionshi ass 8.8 8.8 9.9 9 Plated D = 0.17 K (t-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 60 58	K = 0 K = 0 F = 0	17 for zinc pla 20 for plain ar tric Fast Class 11 (10.9) Tightening 1 ped Dry Plate 0.15 K = 0.15 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 24 0 23 2 48 0 45 6 86 3 82	ted and dry or d dry conditio eners 1.9 0 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 111 10 19 29 27 56 53 53 101	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25 24 49 47 89 85	F = Cla $g Torque$ Dry plain $K = 0.20$ (ff-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 7 7 8 8 10 10 10 12 12 12	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.5 1.5 1.5 1.75	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.666 1.3 2.3 2.1 3.8 5.9 5.5 5.5 11 11 21 20 20 19	Torqui           Class 4.6           4.6           4.6           4.6           4.6           0.32           0.50           0.74           1.5           2.6           2.3           4.3           6.6           1.2           2.3           1.2           2.3           2.2	e-Tens pry 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	ion Relz	tionshi ass 8.8 8.8 8.8 9 9 Plated D = 0.17 K (1-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.6 6.6 6.0 11 17 16 33 32 60 55	K = 0 K = 0 F = 0	17 for zinc pla 20 for olein ar tric Fast Class 11 10.9 Tightening 1 10.9 Tightening 1 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10.9 10	ted and dry cc d dry conditio eners 3.9 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 1.1 11 10 19 29 29 29 56 53 101 19 97 93	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25 49 47 89 85 81	F = Cla $g Torque$ Dry plain $K = 0.20$ (ft-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $108$	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 7 8 8 8 0 10 10 12 12 12 12 14	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.25 1.5 1.25 1.75 1.25	Tigt           Lubed           K = 0.15           (ft-lbs)           0.24           0.666           1.3           2.3           2.1           3.8           5.9           5.5           11           21           3.8           5.9           5.5           11           21           23	Arrow         Arrow           Class 4.6         4.6           4.6         4.6           4.6         1.5           0.32         0.50           0.74         1.5           2.6         6.6           6.2         1.3           1.2         2.3           4.3         6.6           6.2         1.3           1.2         2.3           2.3         2.2           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         2.3           2.3         3           3.5         3           3.6         5           3.3         3           3.4         3           3.6         5           3.7         3           3.8         3           3.9         3           3.8	e-Tens py plain K = 0.20 (ft-lbs) 0.38 0.69 0.87 1.8 3.0 2.7 5.0 7.8 7.3 7.3 14 28 26 25 34	ion Relz	tionshi ass 8.8 8.8 8.8 8.8 9.1 1.1 1.9 1.9 1.9 1.3 1.9 1.9 3.9 6.6 6.0 11 17 16 3.9 6.6 6.0 11 17 16 58 55 75	K = 0 K = 0 F = 0	17 for zinc pla 20 for olein er tric Fast Class 11 0.9 Tightening 1 0.09 Tightening 1 0.09 0.12 0 1.9 1.9 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 24 0 243 0 45 6 86 3 82 0 79 5 108	ted and dry ci d dry conditio eners 3.9 7 7 4 Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 11 10 19 29 27 56 53 101 97 93 93 127	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 2.8 5.7 9.7 8.8 16 25 24 47 89 85 111	F = Cla $g Torque$ $Dry plain$ $K = 0.20$ (ff-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $106$ $148$	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 7 7 8 8 10 10 10 12 12 12	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.5 1.5 1.5 1.75	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.666 1.3 2.3 2.1 3.8 5.9 5.5 5.5 11 11 21 20 20 19	Torqui           Class 4.6           4.6           4.6           4.6           4.6           0.32           0.50           0.74           1.5           2.6           2.3           4.3           6.6           1.2           2.3           1.2           2.3           2.2	e-Tens pry 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	ion Relz	tionshi ass 8.8 8.8 8.8 9 9 Plated D = 0.17 K (1-lbs) ( 0.82 1.3 1.9 3.9 6.6 6.6 6.6 6.0 11 17 16 33 32 60 55	K = 0 K = 0 F = 0	17 for zinc pla 20 for plain ar tric Fast Class 11 (10.9 Tightening 1 ped Dry Plate 0.15 K = 0.1 bs) (ft-lbs) 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 24 0 23 8 8.6 4 16 2 24 0 45 6 86 3 82 0 79 5 108 0 17 109 109 109 109 109 109 109 109	ted and dry cc d dry conditio eners 3.9 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 1.1 11 10 19 29 29 29 56 53 101 19 97 93	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25 49 47 89 85 81	F = Cla $g Torque$ Dry plain $K = 0.20$ (ft-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $108$	
orque valu	ues calcul	Nominal Dia. (mm) 3.5 4 5 6 6 7 7 8 8 10 10 10 12 12 12 12 12 14 14 14 14 14	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.25 1.5 1.25 1.5 1.5 1.5 2 1.5	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.666 1.3 2.3 2.1 3.8 5.5 5.5 11 11 11 21 20 19 26 28 20 50 50	Arrow         Arrow           Class 4.6         4.6           Arrow         4.6           Arrow         707 Plated           K = 0.17         0.32           0.50         0.74           1.5         2.6           2.3         4.3           6.6         6.2           13         12           23         22           21         29           32         34           57         57	e-Tens pry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 1.5 14 28 26 25 34 37 40 67	ion Relz	tionshi ass 8.8 8.8 8.8 8.8 8.8 8.8 8.8 1.3 1.9 3.9 6.6 6.6 6.6 11 17 16 33 32 60 55 55 75 82 88 146	K = 0           K = 0           p for Me           g           ry plain         Lut           = 0.20         K = 1           t-lbs         (ft-1)           0.97         1           1.5         1           2.3         2           4.5         4           7.7         8           7.7         13         1           20         2         19         2           39         4         37         4           71         7         68         7           89         9         9         9           96         11         104         11           104         11         11         11	17 for zinc pla 20 for olein ar tric Fast Class 11 10.9 Tightening 1 0.0 10.9 Tightening 1 0.0 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 6 1.2 7 9 5.5 1.9 4 2.2 4 1.9 4 2.7 9 5.5 6 8.6 4 1.6 8.6 4 1.6 8.6 8 6 8.6 8 8 1.7 9 5.5 6 8.6 8 8 1.9 1.2 6 8.6 8 1.9 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	ted and dry ci d dry conditio eners 3.9 orque 4 Dry plain 7 K = 0.20 (ft-lbs) 4 1.4 2.2 3.2 6.5 53 101 19 29 27 56 53 101 19 93 127 138 148 245	Class Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25 9.7 8.8 16 25 49 47 89 85 81 111 121 24 49 47 89 25 81 111 121 130 215	$F = Cla$ $rac{12.9}{2.9}$ $g Torque$ $Dry plain$ $K = 0.20$ $(ft-lbs)$ $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $108$ $148$ $161$ $173$ $287$	
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orque valu	ues calcul	Add from Additional Dia. (mm) 3.5 4 5 6 6 7 8 8 6 6 7 8 8 8 10 10 12 12 12 12 12 12 12 12 12 14 14 14 14 14 16 16 18	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.25 1.25 1.5 2 1.5 2 1.5	Tigt 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 20 19 26 28 30 50 50 50 50 50 77 3	Attening Tor           Dry Plated           Kening Tor           Dry Plated           K = 0.17           (ft-lbs)           0.50           0.74           1.5           2.6           2.3           4.3           6.6           6.2           13           12           23           22           21           23           32           34           57           53           82	e-Tens py 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 62 97	ion Relz	tionshi has 8.8 8.8 9 10 10 10 10 10 10 10 10 10 10 10 10 10	K = 0           K = 0           For Me           yyplain Lut           = 0.20 K =           ft-lbs) (ft-l0)           0.97 1           1.5 1           2.3 2           4.5 4           7.7 8           39 4           37 4           71 7           68 7           65 7           89 9           96 111           104 11           1171 10           161 11           249 249	17 for zinc pla 20 for olain ar tric Fast Class 11 0.09 Tightening 1 0.09 0.15 K = 0.1 0.15 K = 0.15 K = 0.1	ted and dry ci d dry conditio eners 1.3 7 7 8 1.4 7 8 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4 1.4	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.2 1.2 1.2 1.2 1.2 1.2 1.2	F = Cla $g Torque$ $Dry plain$ $K = 0.20$ ((ft-lbs)) 1.6 2.5 3.8 7.6 13 12 22 34 31 66 62 119 113 108 148 161 173 287 269 417	
orque valu	ues calcul	Nominal Dia. (mm) 3 3.5 4 5 6 6 7 8 8 10 10 12 12 12 12 12 12 12 12 14 14 14 14 16 16 18 18	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.5 1.5 1.5 1.5 2 1.5 2.5 2.5	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.666 1.3 2.3 2.1 3.8 5.5 5.5 11 11 21 20 19 26 28 30 50 47 73 65	Arrive           Torqui           Class 4.6           4.6           1           0.32           0.50           0.74           1.5           2.3           4.3           6.6           13           12           23           32           34           57           53           73	e-Tens que Dry plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 2.7 5.0 7.8 3.0 2.7 5.0 7.8 15 14 28 26 25 34 37 40 67 62 97 86	ion Relz Tighte Lubed Dr K = 0.15 K (ft-lbs) fr 0.73 1.1 1.7 3.4 5.8 5.3 9.7 15 5.8 5.3 9.7 15 14 29 28 53 51 14 29 28 53 51 14 29 28 53 51 14 29 28 53 51 14 29 28 53 51 14 129 129 129 129 129 167 167 167 167 167 17 17 17 17 17 17 17 17 17 1	tionshi ass 8.8 8.8 8.8 8.8 8.8 9.0 9.10 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	K = 0           K = 0           p for Me           9           ry plain Lui           = 0.20 K =           ft-lbs) (ft-l           0.97 1           1.5 1           2.3 2           4.5 4           7.7 8           7.7 13 1           20 2           39 4           37 4           71 7           68 7 7           89 9           96 11           104 11           11           101 11           249 222 22	17 for zinc pla 20 for olain ar tric Fast Class 11 Class 11 0.19 Tightening 1 0.15 K = 0.15 0 1.2 6 1.9 4 2.7 9 5.5 3 9.4 6 8.6 4 16 2 24 0 23 2 48 0 45 6 86 3 82 0 79 5 108 117 11 126 34 208 73 196 6 83 39 270	ted and dry or d dry conditio eners	Class           Tightenin           Lubed           K = 0.15           (ft-lbs)           1.2           1.8           5.7           8.8           16           25           24           49           47           89           85           81           1111           120           215           202           313           279	F = Cla $g Torque$ Dry plain $K = 0.20$ (ff-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $108$ $148$ $161$ $173$ $287$ $269$ $2417$ $372$	
orque valu	ues calcul	Nominal Dia. (mm) 3 3.5 4 5 6 6 7 8 8 10 10 12 12 12 12 12 12 12 12 12 12 12 12 12	Pitch 0.5 0.6 0.7 0.8 1 1.25 1.5 1.5 2 1.5 2.5 1.5 2.5 1.5 1.5 1.5 1.5 2.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1	Tigh Lubed K = 0.15 (ft-lbs) 0.28 0.44 0.666 1.3 2.3 2.1 3.8 5.9 5.5 11 11 11 20 19 26 28 28 30 50 47 73 65 101	Arrow         Arrow           Class 4.6         4.6           Arrow         4.6           Arrow         707 Plated           K = 0.17         (ft-lbs)           0.32         0.50           0.74         1.5           2.6         2.3           4.3         6.6           6.2         13           12         23           221         22           21         32           32         32           34         57           53         82           73         115	e-Tens py 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 62 97 86 135	ion Relz	tionshi ass 8.8 8.8 8.8 8.8 8.8 8.8 8.8 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 60 55 75 82 88 146 137 212 189 306	K = 0           K = 0           p for Me           g           ry plain         Lut           = 0.20         K = 1           thiss (ft-1)         0.20           0.977         1           1.5         1           2.3         2           4.5         4           7.7         8           7.7         8           7.7         13           120         2           39         4           37         4           7.7         68         7           89         9         9           96         11           104         1         1           1249         22         222         360         33	1.17 for zinc plain ar         2.20 for olein ar         tric Fast         Class 11         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.12         0.15         0.12         0.13         0.14         0.15         1.9         4         2.7         9         5.5         3         9.4         6         8.6         4         16         2         248         0         23         2         48         0         23         2         48         0         3         11         126         38         200         73         11         126         38         39         270         74         424	ted and dry ci d dry conditio eners 3.9 orque d Dry plain 7 K = 0.20 (ft-lbs) 1.4 2.2 3.2 6.5 (ft-lbs) 1.4 1.4 1.4 1.1 1.0 1.9 29 27 56 55 53 101 19 93 127 138 127 138 127 138 127 138 148 245 230 357 357	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 1.9 2.8 5.7 9.7 8.8 16 25 9.7 8.8 16 25 81 111 121 24 49 47 89 85 81 111 121 224 49 47 89 85 81 111 122 437	$F = Cla$ $rac{12.9}{2.9}$ $g Torque$ $Dry plain$ $K = 0.20$ $(ft-lbs)$ $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $108$ $148$ $161$ $173$ $287$ $269$ $417$ $372$ $583$	
Torque valu		Nominal Dia. (mm) 3.5 4 5 6 6 7 7 8 8 10 10 12 12 12 12 12 12 14 14 14 14 14 14 14 14 14 14 14 14 14	Pitch 0.5 0.6 0.7 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.5 2.5 2.5	Tigt           Lubed           K = 0.15           (ft-lbs)           0.24           0.666           1.3           2.3           2.1           3.8           5.9           5.5           5.1           11           21           28           30           50           47           73           65           101           91	Organization           Class 4.6           4.6           4.6           4.6           0.70           Dry Plated           K = 0.17           (ft-lbs)           0.32           0.50           0.74           1.5           2.6           1.3           1.2           2.3           4.3           6.6           6.2           1.3           1.2           2.3           4.3           6.6           5.7           5.3           82           73           115           104	e-Tens py plain K = 0.20 (ft-lbs) 0.38 0.59 0.87 1.8 3.0 0.87 1.8 3.0 0.7 5.0 7.8 7.3 7.3 15 14 28 26 25 34 37 40 67 62 97 86 135 122	ion Relz	tionshi ass 8.8 8.8 8.8 8.8 8.8 8.8 8.8 1.9 1.3 1.9 3.9 6.6 6.0 11 17 16 33 32 60 55 55 75 82 88 146 137 1212 189 306 267	K = 0           K = 0           p for Me           g           ry plain         Lul           = 0.20         K = 1           1.5         1           2.3         2           4.5         4           7.7         13         1           20         2         13         1           20         2         13         1           20         2         13         1           20         2         13         1           20         2         13         1           20         2         13         1           39         4         37         4           37         4         37         4           104         17         11         11           111         11         12         22         22           360         31         314         33	1.17 for zinc plain ar         2.20 for olein ar         tric Fast         Class 11         0.15         0.15         0.15         0.15         0.15         0.15         0.15         0.12         0.15         0.12         0.13         0.14         0.15         1.9         4         2.7         9         5.5         3         9.4         6         8.6         4         16         2         248         0         23         2         48         0         23         2         48         0         3         11         126         38         200         73         11         126         38         39         270         74         424	ted and dry ci d dry conditio eners 3.9 7 4 Dry plain 7 K = 0.20 (ft-lbs) 1.4 8.5 5 5 5 3 101 19 29 29 5 5 5 5 3 101 19 29 29 27 5 5 5 3 3 101 9 3 3 127 138 148 245 230 357 318	Class Tightenin Lubed K = 0.15 (ft-lbs) 1.2 2.8 5.7 9.7 8.8 16 25 24 47 89 85 111 121 130 215 202 313 279 394	F = Cla $g Torque$ Dry plain $K = 0.20$ (ff-lbs) $1.6$ $2.5$ $3.8$ $7.6$ $13$ $12$ $22$ $34$ $31$ $66$ $62$ $119$ $113$ $108$ $148$ $161$ $173$ $287$ $269$ $2417$ $372$	
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### **POLYCARBONATE CARE & MAINTENANCE**

The proprietary UV and Abrasion Resistant Surface coating on SHIELDS® SUPERCOATED<sup>™</sup> polycarbonate significantly improves performance. Periodic cleaning using proper procedures and compatible cleaners are recommended to prolong service life. Tiger Corp. polycarbonate is SUPERCOATED<sup>™</sup> on both sides.

CLEANING THE SUPERCOAT™ HARD-COAT

- 1. Wash with a mild solution of soap or detergent and lukewarm water.
- 2. Using a soft cloth or sponge, gently wash the sheet to loosen dirt and grime and rinse well with clean water.
- 3. To prevent water spotting, thoroughly dry with chamois or cellulose sponge.
- 4. Avoid the use of abrasive cleaners, squeegees and/or other cleaning implements that may mar or gouge the coating.

CLEANING AGENTS W HICH HAVE BEEN FOUND TO BE COMPATIBLE UNDER LABORATORY CONDITIONS:

#### • Aqueous Solutions of Soaps and Detergents

Windex(1)	Top Job(2)	Joy(2)	Mr Clean(2)
Fantastik(3)	Formula 409(4)	Sumalight D12	Brucodecid
Organic Solvents			
Butyl Cellosolve	Kerosene	Hexel, F.O. 554	Naphtha (VM&P grade)
Neleco-Placer	Turco 5042		
Alcohols			
Methanol	Isopropyl		

All residual organic solvents should be removed with a secondary rinse.

### **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 inc ompatible in a short-term test, it will usually be found to be incompatible in the field. The conv erse, 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.

Saber

# RECOMMENDED FILLING INSTRUCTIONS FOR HYDRAULIC RESERVIORS

When filling or checking the oil level, the unit should be parked on a level surface, shut "**OFF**", and allow sufficient time to cool to ambient temperature. Use caution when removing the pressurized breather. Do not place face over opening when removing breather.

The reservior should be filled to the middle of the sight glass on the side of the tank. Do not over-fill. The reservoir has been over-filled when oil completely covers sight glass. If tank has too much oil, the excess may be expe led 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.

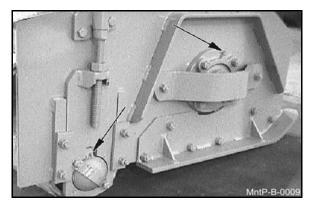


Saber

Maintenance Section 4-11

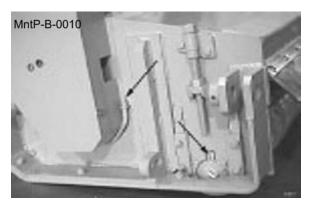
### **GREASING CUTTER SHAFT-FLAIL MOWERS**

Locate grease zerks on each end of cutter shaft(s), these are located on the bearing cover. Normal conditions require one or two pump 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.* 



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

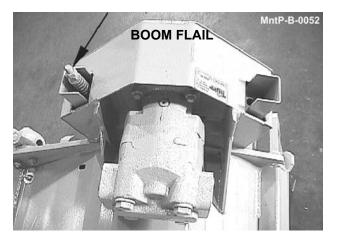
Locate grease zerks on each end of roller tube at lower end of head. Normal conditions require one or two pump in each be aring, using Lithium-Complex Extreme Pressure grease conforming to NLGI2- ISO 320 specifications. This is to be done with a standard grease gun daily or at **8 hour intervals**. *CAUTION: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



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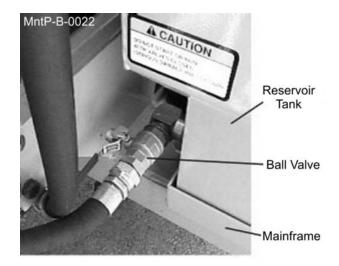
# **ADJUSTING/CHECKING BELT TENSION**

To adjust belt tension or replace belts on flail cutter head, remove four bolts that secure belt to cover and remove cover. The hex nuts shown below can be adjusted to in crease/decrease the belt tension as needed. (*NOTE:* Location of adjustment nuts may vary on flail cutter heads.) Be sure to replace the belt cover BEFORE operating mower!



# **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 COU PLED TO MOTOR OR P.T.O.! Failure to do so will result in component failure!



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### TIGHTENING KNIFE BOLTS AND DISK BOLTS:

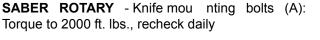
**BOOM ROTARY** - After every 8 hours of operation or daily, the Knife Bolts and Disk Bolts should be tightened as follows:

Knife mounting bolts (2ea.) torque to 1070 ft. lbs. dry.

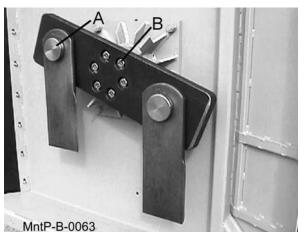
Disk mounting bolts (6ea.) torque to 204 ft. lbs. dry.



**BOOM ROTARY** 



Disk mounting bolts (B): Torque to 330-360 ft. lbs. lubed (Locktite® 271) or 500 ft. lbs. dr y (plated bolts), recheck daily

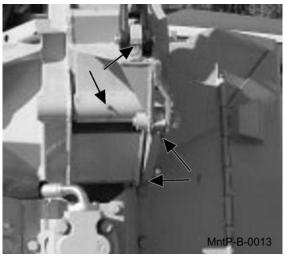


SABER ROTARY

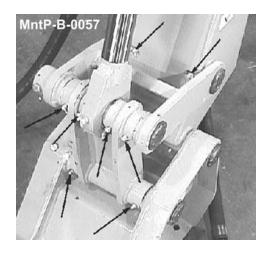
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## **GREASING POINTS ON BOOM AND PIVOT**

Locate grease zerks (8) on deck pivot assembly, (2) on the deck end of secondary boom, (2) at main/ secondary boom joint, and (2) 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.



**BOOM / CHEETAH** 



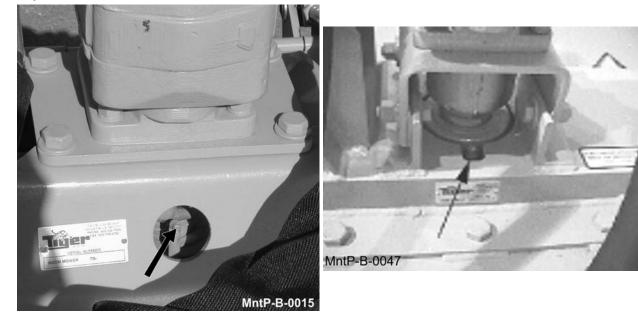




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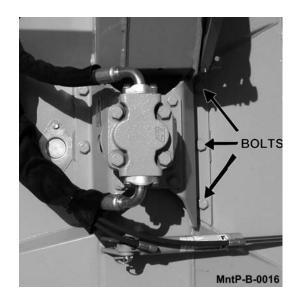
### **GREASING SPINDLE**

Locate grease fitting on inside of deck housing. Inject Tiger Spindle Lubricant, part number 06540000 into spindle housing. Fill with lubric ant until lubricant weeps out of top spindle seal. Lubricate spindle weekly or every 40 hours of use.



# **TIGHTENING SPINDLE BOLTS**

The spindle mounting bolts should be checked and retorqued daily or every 10 hours of service. Torque the (6) bolts shown below to 331 ft. lbs.

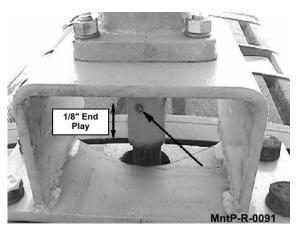


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Maintenance Section 4-16

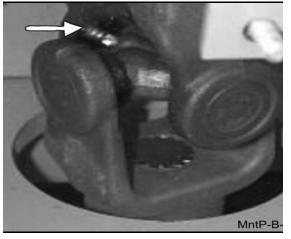
### **GREASING PUMP DRIVE SHAFT COUPLER**

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.



## **DRIVE SHAFT YOKE, U-JOINT 7STUB 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.



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Maintenance Section 4-17

MAINTENANCE

### **GREASING THE BOOM SWIVEL**

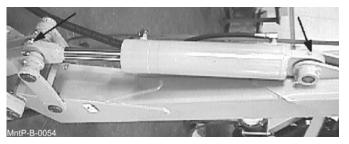
Locate the zerks on the main swivel boss (2) (see next page), main boom pivot boss (2) and on both ends of the boom swivel cylinder. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications until grease begins to protrude from ends.



С

### **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.

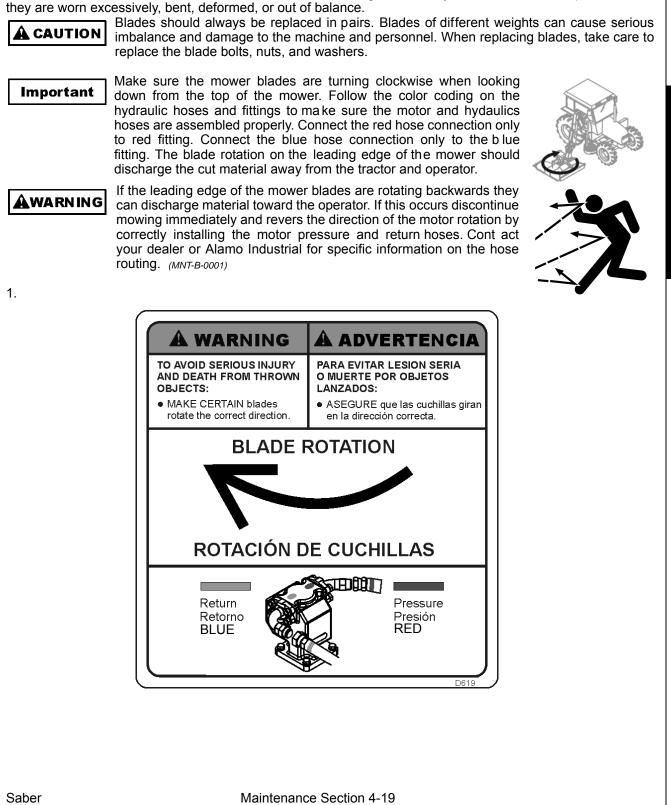


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Maintenance Section 4-18

### 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.



## **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 around the holes.
- 3. Lube threads with anti-seize, motor oil or grease. Install bolts through knife and disk from bottom side of disk. 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.

**WARNING** 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 anti-seize, grease or motor oil. Install bolts through knife and disk from bottom side of disk. Install self locking nuts and torque them to 800 ft. lbs.

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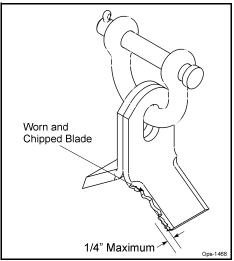
#### Flail Blades Inspection

Inspect the Blades daily for abnormal 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

Saber

Maintenance Section 4-21

### Blade Pins and D-Ring Inspection

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

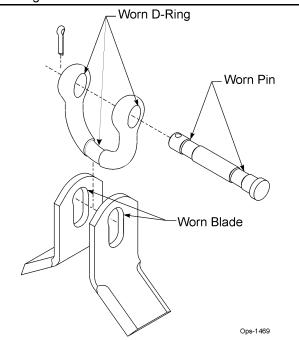
A DANGER

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* 

MAINTENANCE

Saber

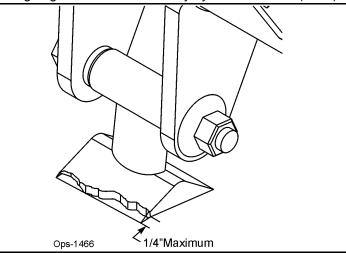
Maintenance Section 4-22

#### Flail Axe 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
- · Oval shape 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)



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 Axe rotor turns at speeds exceeding 2000 RPM and is dynamically balanced at the factory. 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 Axe rotor. Always replace blades as complete sets.

#### Important

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

**A**CAUTION

Never attempt to sharpen blades. OPS-U-0042

Saber

Maintenance Section 4-23

MAINTENANCE

### Flail Axe Blade Bolt Inspection

Inspect Blade Bolts daily for wear or damage as follows:

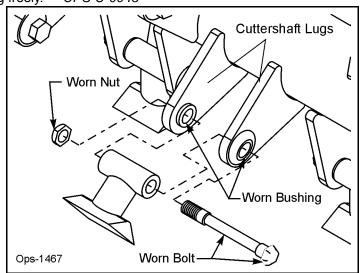
A DANG ER

Inspect the Blade Bolt daily for abnormal wear. REPLACE ALL BL ADE BOLTS on the carrier IMMEDIATELY if any bolts have:

- Visible cracks or
- If the blade bolt is worn or any recessed area is visible on the bolt, or
- If Blade Bolt has gouges or chipped areas. or
- If Bushing fits loose in the Rotor Shaft.

Failure to replace abnormally worn bolts or bushings may lead to catastrophic failure of the blades and ejection of the broken part, which may cause serious bodily injury or death.

Always replace Blade Bolts with new bolts and new bushings whenever replacing the Blades. To tighten bolts and nuts, first apply thread lock to nut. Make sure to tighten bolts and nuts just enough to allow the blades to swing freely and not bend the cuttershaft lugs. If cuttershaft lugs are bent together because of over tightening the blades will not swing freely. *OPS-U-0043* 



# **50" FLAIL KNIFE BLADE 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. The knife should <u>not</u> be welded on for any reason.
- Always replace the knife bolts when replacing the knives. DO NOT REUSE THE KNIFE BOLTS OR NUTS.
- 3. Assemble knives, bushings, bolts and nuts as shown in part section of the manual.
- 4. Install the locking hex nut so that the flat face of the nut is towards the knife.
- 5. Apply Loctite® "271" or equivalent to threads.
- 6. Torque nut to 52 ft. lbs. Knife must swing freely.

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

Saber

AWARNING

Knives should not be welded on for any reason.

# 50" FLAIL KNIFE BLADE REPLACEMENT (Light Brush Grass)

- 7. If knives are damaged or badly worn, they will need to be replaced as a set. Replacing a single knife can cause severe knife can cause severe vibration and possible damage to the mower. The knife should <u>not</u> be welded on for any reason.
- 8. Always replace the knife bolts when replacing the knives. DO NOT REUSE THE KNIFE BOLTS OR NUTS.
- 9. Assemble knives, bushings, bolts and nuts as shown in Parts Section of the manual.
- 10. Install the locking hex nut so that the flat face of the nut is towards the knife.
- 11. Apply Loctite 271 or equivalent to threads.
- 12. Torque nut to 50 ft. lbs. Knife must swing freely.

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

# 50" FLAIL KNIFE BLADE REPLACEMENT (Medium Brush Grass)

- 13. If knives are damaged or badly worn, they will need to be replaced as a set. Replacing a single knife can cause severe knife can cause severe vibration and possible damage to the mower. The knife should <u>not</u> be welded on for any reason.
- 14. Always replace the knife bolts when replacing the knives. DO NOT REUSE THE KNIFE BOLTS OR NUTS.
- 15. Assemble knives, bushings, bolts and nuts as shown in Parts Section of the manual.
- 16. Install the locking hex nut so that the flat face of the nut is towards the knife.
- 17. Apply Loctite 271 or equivalent to threads.
- 18. Torque nut to 120 ft. lbs. Knife must swing freely.

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

# 50" FLAIL KNIFE BLADE REPLACEMENT (Heavy Duty Brush)

- 19. If knives are damaged or badly worn, they will need to be replaced as a set. Replacing a single knife can cause severe knife can cause severe vibration and possible damage to the mower. The knife should <u>not</u> be welded on for any reason.
- 20. Always replace the knife bolts when replacing the knives. DO NOT REUSE THE KNIFE BOLTS OR NUTS.
- 21. Assemble knives, bushings, bolts and nuts as shown in Parts Section of the manual.
- 22. Install the locking hex nut so that the flat face of the nut is towards the knife.
- 23. Apply Loctite 271 or equivalent to threads.
- 24. Torque nut to 176 ft. lbs. Knife must swing freely.

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

Saber

Maintenance Section 4-25

### **63" 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 52 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.

AWARNING

Knives should not be welded on for any reason.

# FLAIL AXE KNIFE REPLACEMENT

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. The knives should not be welded on for any reason. When replacing knives, replace bushings, bolts and locknuts.

Apply Loctite® "271" or equivalent to threads and install the locking hex nuts so that the flat face of the nut is towards the knife. Torque the hex nut to 159 ft. lbs.

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

**A**WARNING

Knives should not be welded on for any reason.

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# HEAVY DUTY SPINDLE ASSEMBLY INSTALLATION AND BEARING ADJUSTMENT

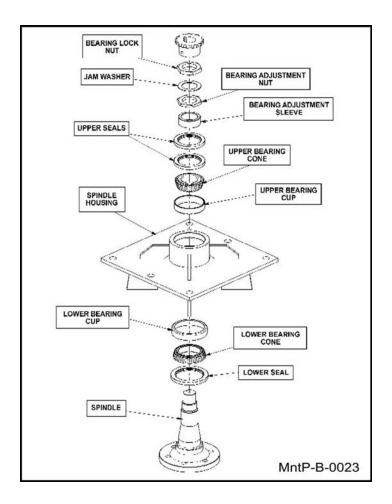
**A** press MUST be used to install bearing cups, bearing cones, and seals. DO NOT use a hammer to install races, bearings, or seals. The parts of assembly may be damaged.

**NOTE**: The grease zerk and gussets are located on the top side of the spindle housing. Be sure the spindle is assembled correctly.

Be sure to wear eye protection and other protective equipment as needed when working on spindle assembly.

## THE SPINDLE ASSEMBLY

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

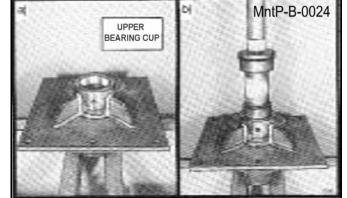


MAINTENANCE

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### SWIVEL 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 tap the end of the spindle with a sof t faced hammer to sea t the spindle against the bearing inner race.



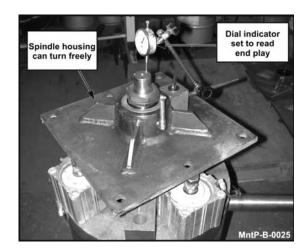
- 5. Turn the spindle housing over (up position) and fill with T iger Spindle Lubricant (part number 06540000) to the top edge of the upper bearing cup.
- 6. Support the bottom of the spindle and press the upper bearing cone and bearing adjustment sleeve onto the spindle.

**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 locknut (thin nut) and hand tighten against jam washer and adjustment nut. See the following section for bearing adjustment.

### SWIVEL 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.
- 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 locknut from loosening.

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

Maintenance Section 4-28

MAINTENANCE

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### **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 p ark 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 suit able 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 form 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 cylind er pins starting with the ROD en d cylinder pin. Make sur e 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.(*MNT-B-0002*

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Maintenance Section 4-29

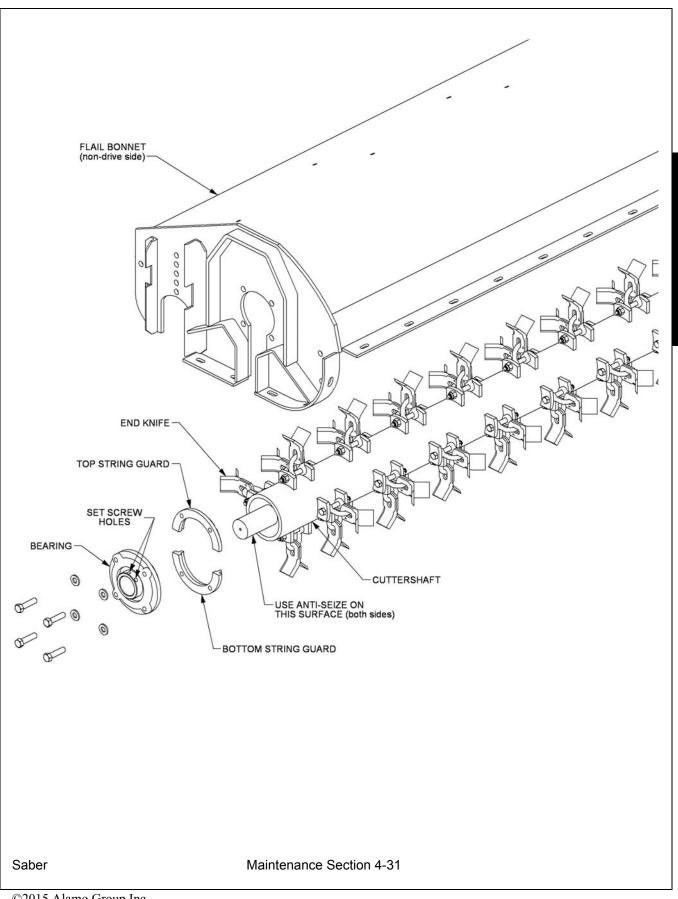
### **CUTTERSHAFT BEARING REPLACEMENT**

- 1. Remove existing cuttershaft, bearings and string guards.
- 2. Make sure that the end knives on each end of the cuttershaft are orientated as shown.
- 3. Apply anti-seize on cuttershaft as shown on next page.
- 4. Install non-drive side bearing first.
- 5. Install the top of the string guard on the non-drive side first. Use loctite-271 or equvalent and torque (95 ft-lb or 104ft-lb if you use an extension).
- 6. Install the bearing and top string guard on the drive side.
- 7. 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.
- 8. 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.
- 9. Make sure the cuttershaft is centered. On the non-drive side, tighten one set-screw in the bearing onto the cuttershaft.
- 10. 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.
- 11. Replace the set-screw in the bearing, use loctite-271 or equivalent, and tighten onto the cuttershaft through the new hole.
- 12. Remove the other set- screw and repeat the drilling proc edure (Step 10). Replace the set screw as stated in Step 11.
- 13. Repeat steps 9 through 12 on the drive side.
- 14. Grease both bearings properly.

### See illustration on next page

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Maintenance Section 4-30



### DAILY MAINTENANCE SCHEDULE

The following services should be performed daily or every 8 hours of service, following the detailed maintenance instructions in the operators manual.

\_ Pump Drive Shaft: If required with drive shaft/coupler check for end play and lubricate at zerks.

Crankshaft adapter: If eq uipped with r ubber grommets check cond ition, replace if m issing or damaged.

Pivot points:	Inject grease	until it appears at en	ds.

- \_\_\_ Hydraulic fittings: Check for leaks with p aper or cardboard. Tighten fittings or replace hoses immediately.
- Knives: Inspect for missing or damaged knives, change (only complete sets) as needed.
- \_\_\_\_ Knife Bolts (SABER 1-3/4"): Check/Torque to 2,000 ft. lb.
- Bolts Disk/Spindle (SABER 3/4" x 2"): Check/Torque to 331 ft. lb.
- \_\_\_\_ Belts: Check/Tighten/Replace belts as needed.
- Main Frame/Deck: Unless otherwise specified retorqued bolts according to torque specifications in this section.
- \_\_\_\_\_ Hydraulic Fluid Level: Add, if required, per fluid recommendations.
- \_\_\_\_\_ Rear Flail Drive, Bearing Flange and Shaft Couplers: Grease as instructed in the detailed maintenance section.
- \_\_\_\_ Cutter Shaft and Ground Roller: Grease as instructed in the detailed maintenance section.

Service performed by: \_\_\_\_\_ Date: \_\_/ \_\_/ Hour

Meter:

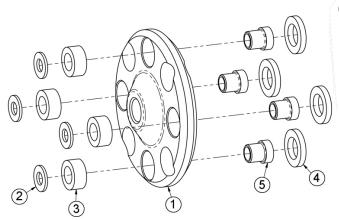
Maintenance Section

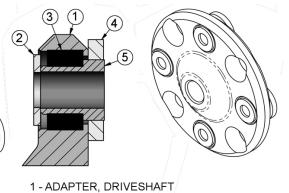
\*\*This page may be copied and used as part of the daily maintenance routine.

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#### 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)





- 2 FLATWASHER
- 3 GROMMET, RUBBER
- 4 WASHER, NEOPRENE
- 5 GROMMET, STEEL

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Maintenance Section 4-33

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Maintenance Section 4-34

# PARTS SECTION

# PART NAME INDEX

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JOYSTICK AND SWITCHBOX MOUNT	2
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POLYCARBONATE SAFETY WINDOW	9
WHEEL SPACER 20	0
WHEEL WEIGHT - SABER	
WHEEL WEIGHT - SABER BAR AXLE	
WHEEL WEIGHT - SABER XB	3
WHEEL WEIGHT - SABER XB BAR AXLE	4

#### 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.

5. 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 or dering replacement decals, refer to the part numbers and descriptions listed in the safety section in the front of this manual.



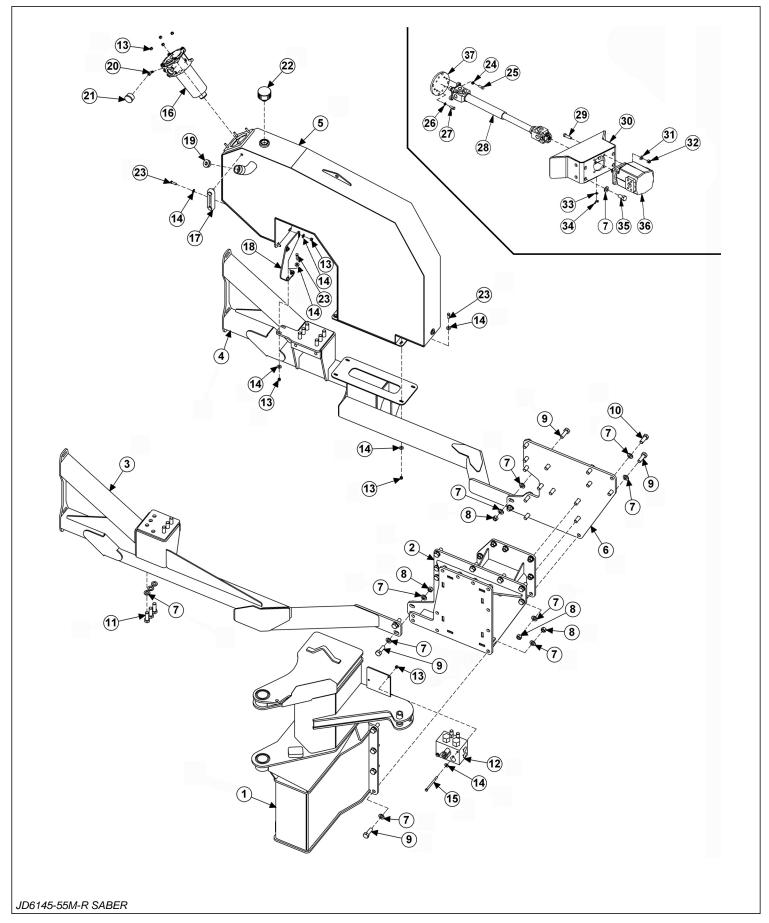
For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

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

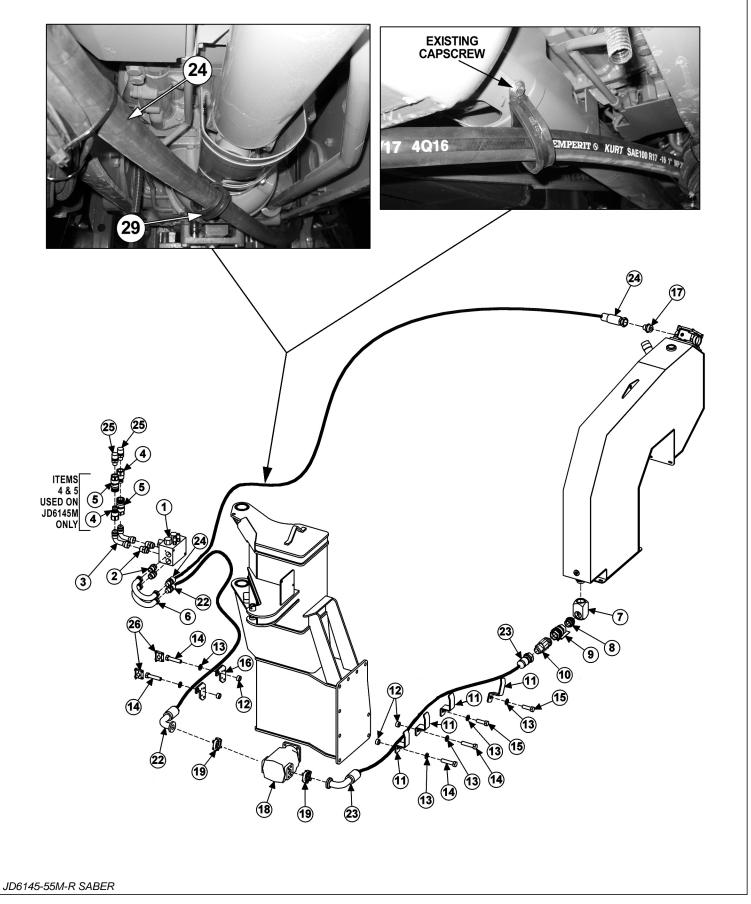


#### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06300348	1	MAINFRAME, TB, JD6145-55M/R T4F
2	06300344	1	MAINFRAME MNT, JD6145-55M/R
3	06300345	1	AXLE BRACE, RH, JD6145M
	06300356	1	AXLE BRACE, RH JD6155M, JD6145-55R
4	06300346	1	AXLE BRACE, LH, JD6145M
	06300357	1	AXLE BRACE, LH, JD6155M, JD6145-55R
5	06380084	1	TANK, RES, JD6M, T4F
6	06402240	1	UPRIGHT, LH, JD6150R
7	33880	68	FLATWASHER, 3/4" GR8, SAE
8	21825	20	HEX NUT, 3/4" NC
9	21833	20	CAPSCREW, 3/4" X 2-1/4" NC
10	31731	16	CAPSCREW, 20MM X 50MM (2.5 PITCH)
11	27281	12	CAPSCREW, 20MM X 60MM (2.5 PITCH)
12	06510083	1	VALVE, BRAKE, SOL, 3000PSI
13	21627	14	NYLOCK NUT, 3/8" NC
14	22016	18	FLATWASHER, 3/8" GR8
15	21644	2	CAPSCREW, 3/8" X 5" NC
16	06505044	1	FILTER ASSY, IN-TANK, CPLT, SAE 10
17	06505067	1	SIGHT GAUGE
18	06412418	1	SUPPORT, TANK, JD6145M
	06411929	1	SUPPORT, TANK JD6155M, JD6145-55R
19	06505127	1	PLUG, SAE #20
20	TF4888	1	STREET ELBOW, 1/8"
21	6T0649	1	FILTER GAUGE
22	06505077	1	CAP, BREATHER, 1-5/8MB
23	21631	8	CAPSCREW, 3/8" X 1-1/4" NC, GR8
24	21989	4	LOCKWASHER, 7/16"
25	21680	4	CAPSCREW, 7/16" X 1-1/4" NC
26	32691	4	LOCKWASHER, 10MM
27	23113	4	CAPSCREW, 10MM X 30MM 1.5P
28	34999	1	DRIVESHAFT, U-JOINT
29	21733	4	CAPSCREW, 1/2" X 2" NC
30	34993	1	PUMP MOUNT
31	06533004	4	FLATWASHER, 1/2" SAE
32	21727	4	NYLOCK NUT, 1/2" NC
33	22014	1	FLATWASHER, 1/4"
34	32519	1	WING NUT, 1/4"
35	24860	4	CAPSCREW, 20MM X 40MM 2.5P
36	23152	1	PUMP
37	34998	1	SPACER, DRIVESHAFT

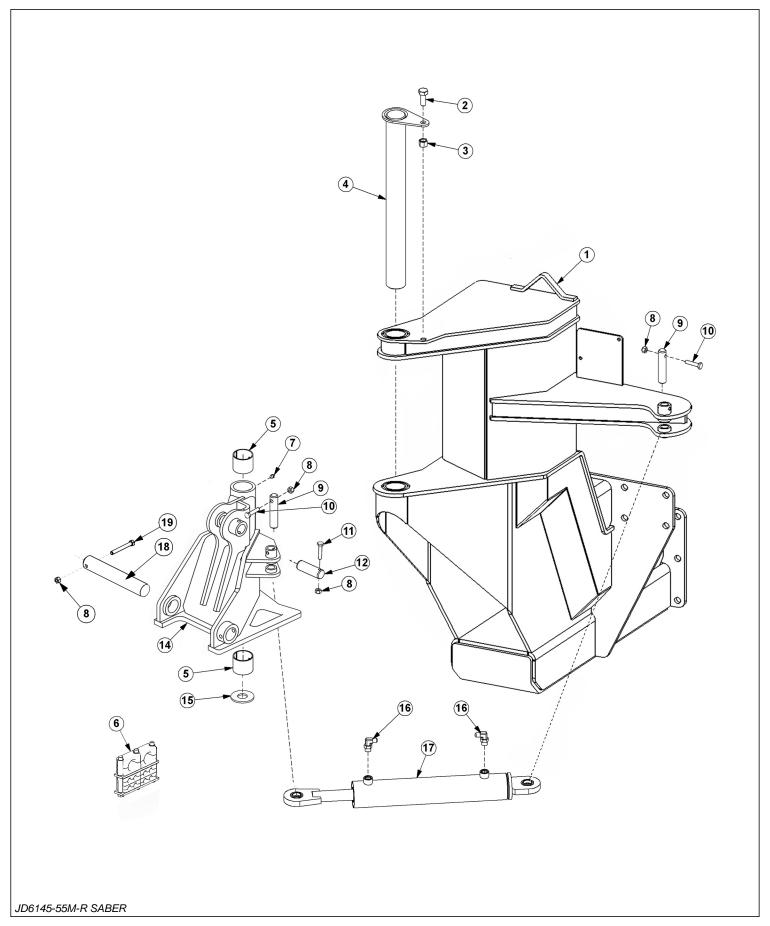
JD6145-55M-R SABER

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



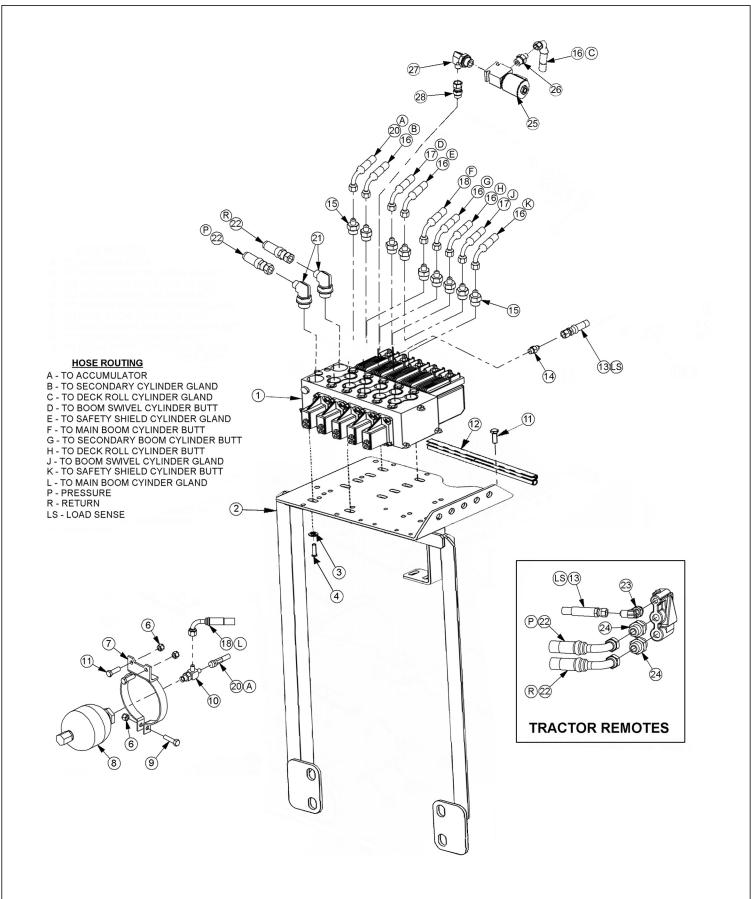
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	ITEM	PART NO.	QTY.	DESCRIPTION
	1	06510084	1	BRAKE VALVE
	2	33555	4	ADAPTER, 1MB X 1MJ
	3	06503200	2	ELBOW, 16MJ X 16FJX, BT90
	4	06503028	2	QUICK COUPLER 1" SAE, MALE, FLAT (JD6145M ONLY)
	5	06503027	2	QUICK COUPLER, 1" SAE, FEM, FLAT (JD6145M ONLY)
	6	06506012	2	PREFORMED TUBES
	7	06503084	1	ELBOW, 1-1/2FOR X 1-1/2FOR
	8	06503083	1	ADAPTER, 1-1/20RB X 1-1/20RB
	9	34309	1	BALL VALVE, 1-1/2"
	10	34710	1	ADAPTER, 1-1/2ORB X 1-1/2MJ
	11	32382	4	BRACKET, HOSE
	12	24849	4	SPACER
	13	33880	6	FLATWASHER, 3/4" GR8, SAE
	14	30708	4	CAPSCREW, 20MM X 90MM (2.5 PITCH)
	15	21834	2	CAPSCREW, 3/4" X 2-1/2" NC
	16	34626	2	CLAMP BRACKET
	17	34064	1	ADAPTER, 1-1/4MOR X 1 MJ
	18	23152	1	PUMP, P350-1-3/4 GEAR
	19	TF4852	2	FLANGE KIT #20
	22	06500827	1	HOSE, 1" X 97"
	23	06500701	1	HOSE, 1-1/2" X 126"
	24	06500960	1	HOSE, 1" X 203"
	25	33546	2	HOSE, 1" X 94"
	26	34076	1	CLAMP KIT
	29	06520536	1	CLAMP, HOSE 2-1/2" INS

### SABER BOOM MOUNT



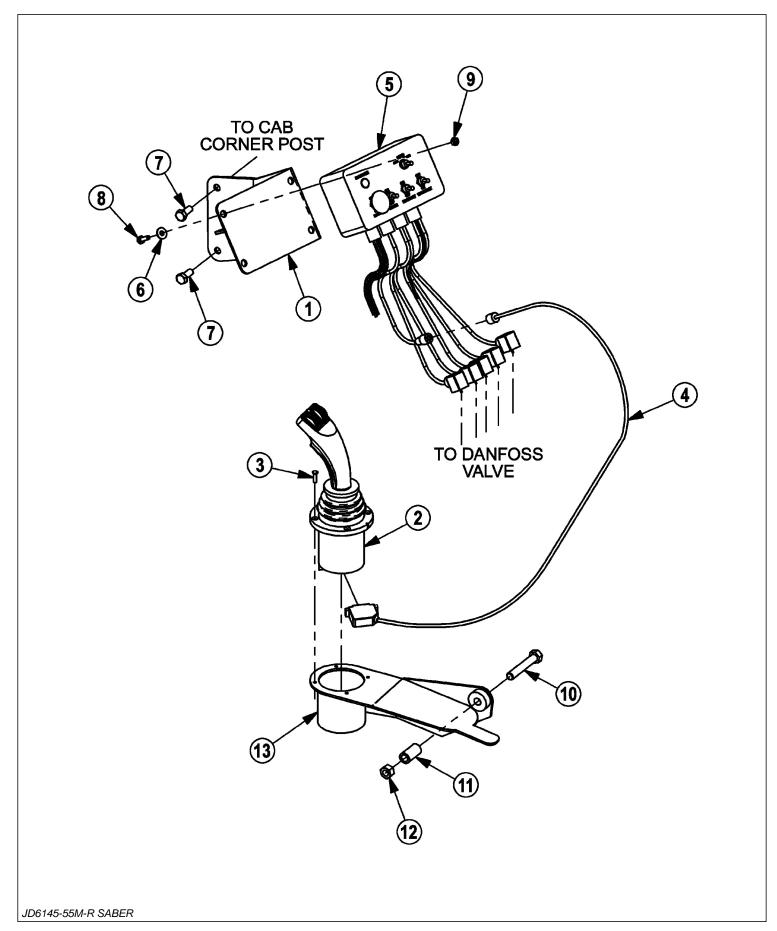
ITEM	PART NO.	QTY.	DESCRIPTION	
1		-	MAINFRAME *REFER TO TRACTOR MOUNT KIT	
2	21782	1	CAPSCREW, 5/8" X 1-3/4" NC	
3	21777	1	NYLOCK NUT, 5/8" NC	
4	32381	1	PIN, 2/5" X 24.75", CAP	
5	32322	2	BUSHING	
6	06505193	1	CLAMP KIT	
7	6T3211	2	GREASE ZERK, 1/8" NPT	
8	21677	4	NYLOCK NUT, 7/16"	
9	32380	2	PIN, 1"	
10	21683	2	CAPSCREW, 7/16" X 2" NC	
11	21687	1	CAPSCREW, 7/16" X 3" NC	
12	32372	1	PIN, 1-1/2"	
13		-	SPHERICAL BEARING *NOT FOR SALE	
14	06700222	1	SWIVEL, T4F, SABER	
15	06520250	1	BEARING, WASHER, SWING, SBR	
16	33259	2	ELBOW	
17	06501029	1	CYLINDER, 3" X 13.88"	
18	32378	1	PIN, 2" X 12.97"	
19	21688	1	CAPSCREW, 7/16" X 3-1/4"	

### ELECTRONIC PROPORTIONAL LIFT VALVE MOUNT



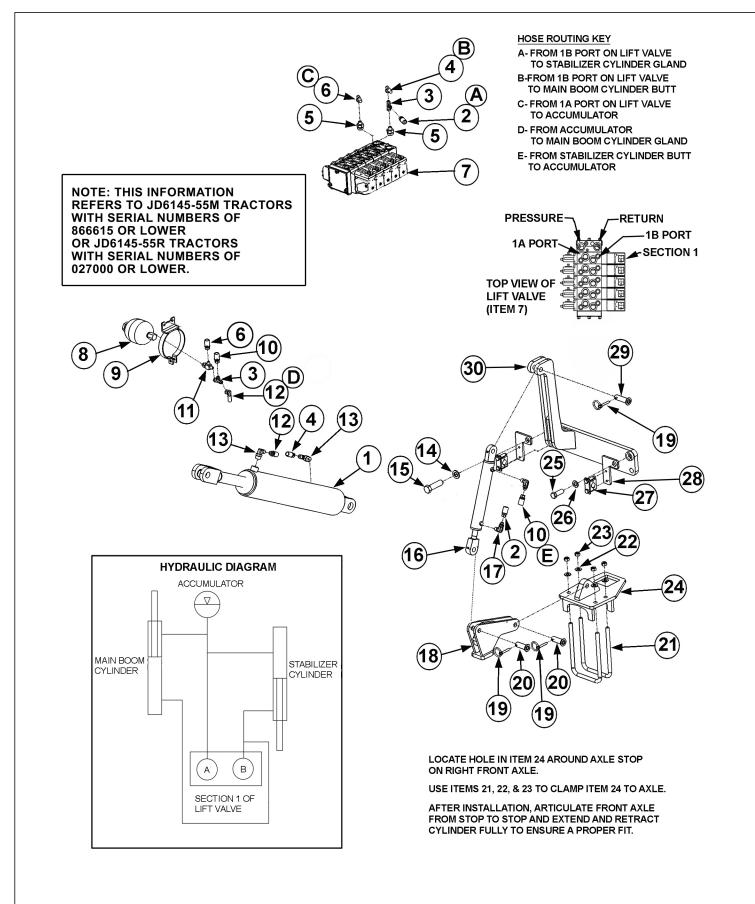
ITEM	PART NO.	QTY.	DESCRIPTION
1	06502146	1	ELECTRONIC LIFT VALVE
2	06340048	1	PLATE, VALVE, JD6XXXR
3	21987	4	LOCKWASHER,5/16"
4	21579	4	CAPSCREW,5/16" X 3/4",NC
6	21627	5	NYLOCK NUT,3/8",NC
7	23888	1	BRKT, ACCUMULATOR
8	24300	1	ACCUMULATOR
9	21632	1	CAPSCREW,3/8" X 1-1/2",NC
10	06503029	1	TEE,RUN
11	21631	4	CAPSCREW,3/8" X 1-1/4",NC
13	06500400	1	HOSE,1/4" X 30"
14	33392	1	ADAPTER
15	32807	9	ADAPTER
16	06500914	6	HOSE,1/4" X 282"
17	06500697	2	HOSE,1/4" X 210"
18	06500915	2	HOSE,1/4" X 296"
20	33744	1	HOSE,1/4" X 34"
21	33294	2	ELBOW
22	06500171	2	HOSE,1/2" X 36"
23	06503013	1	ELBOW,14MM MOR X 5/16"MJ
24	33463	2	ADAPTER,22MM MOR X 1/2"MJ
25	06510050	1	TRAVEL LOCK, METRIPACK COIL
26	33271	1	ADAPTER, 1/2" MOR X 3/8" MJ
27	33382	1	ELBOW, 1/2" MB X 1/2" MJ
28			

### JOYSTICK AND SWITCHBOX MOUNT



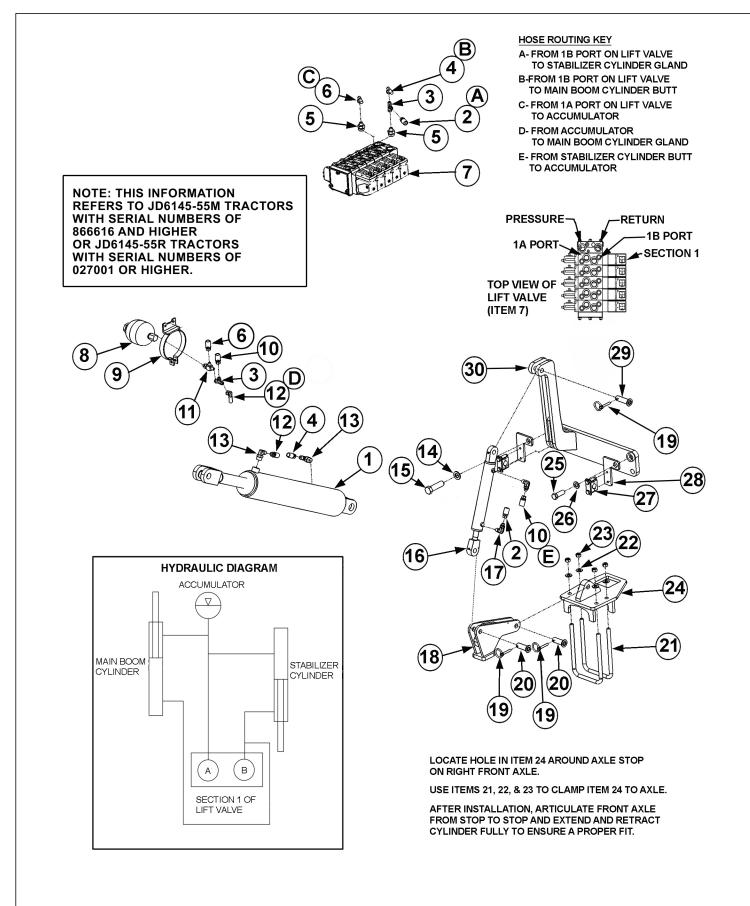
ITEM	PART NO.	QTY.	DESCRIPTION
1	33355	1	MNT,BRKT,SWITCH BOX
2	06510046	1	JOYST,4AXIS,RH,DF
3	32829	4	SCREW, MACHINE, 10-32 X 3/4", FLTHD
4	33693	1	CBL,EXT,4FT,JOYST
5	06510195	1	SWITCH BOX
6	22014	4	FLATWASHER, 1/4"
7	27513	2	CAPSCREW, 10MMX25MM (1.5 PITCH)
8	21529	4	CAPSCREW, 1/4" X 3/4" NC
9	21527	4	NYLOCK NUT, 1/4" NC
10	21737	1	CAPSCREW,1/2" X 3",NC
11	33359	1	TUBE,SPACER
12	21727	1	NYLOCK NUT,1/2",NC
13	33356	1	ARMREST, JOYSTICK

### **AXLE STABILIZER - VERSION ONE**



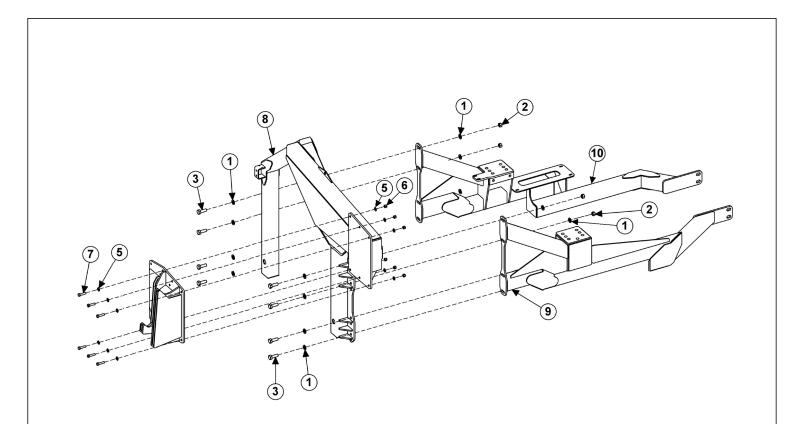
ITEM	PART NO.	QTY.	DESCRIPTION
1		-	BOOM CYLINDER *REFER TO COMMON SECTION
2	06500730	1	HOSE,3/8" X 227"
3	06503048	2	RUN TEE,3/8"MJ X 3/8"FJX X 3/8"MJ
4		-	HOSE *REFER TO LIFT VALVE PAGE
5		-	ADAPTER *REFER TO LIFT VALVE PAGE
6		-	HOSE *REFER TO LIFT VALVE PAGE
7		-	LIFT VALVE *REFER TO LIFT VALVE PAGE
8		-	ACCUMULATOR *REFER TO LIFT VALVE PAGE
9		-	ACCUMULATOR BRKT *REFER TO LIFT VALVE PAGE
10	06500731	1	HOSE,3/8" X 234"
11		-	RUN TEE *REFER TO LIFT VALVE PAGE
12		-	HOSE *REFER TO LIFT VALVE PAGE
13		-	ELBOW *REFER TO LIFT VALVE PAGE
14	33880	2	FLATWASHER,3/4",SAE
15	32703	1	CAPSCREW,20MM X 100MM,2.5P
16	33785	1	CYLINDER,1-1/2" X 8"
17	06503055	2	ELBOW,1/4"MOR X 3/8"MJ
18	06310132	1	LINK,PIVOT,STABILIZER
19	RD1032	3	LYNCH PIN
20	33984	2	PIN,3/4" X 2-7/16"
21	06420164	2	U-BOLT
22	06533004	4	FLATWASHER,1/2",SAE
23	21700	4	HEX NUT,1/2",UNC
24	06310133	1	MOUNT,AXLE
25		-	CAPSCREW *REFER TO LIFT VALVE PAGE
26		-	FLATWASHER *REFER TO LIFT VALVE PAGE
27		-	CLAMP KIT *REFER TO LIFT VALVE PAGE
28		-	BRACKET *REFER TO LIFT VALVE PAGE
29	34799	1	PIN,3/4" X 2-15/16"
30	06310177	1	STABILIZER,AXLE,CYL MNT

### **AXLE STABILIZER - VERSION TWO**



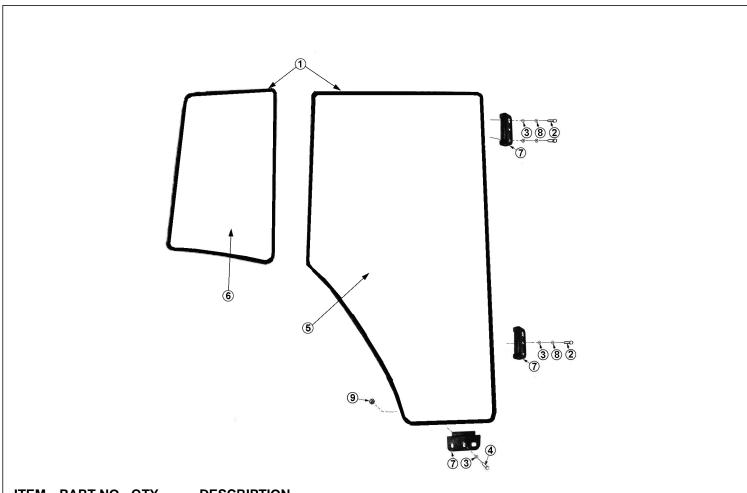
ITEM	PART NO.	QTY.	DESCRIPTION
1		-	BOOM CYLINDER *REFER TO COMMON SECTION
2	06500730	1	HOSE,3/8" X 227"
3	06503048	2	RUN TEE,3/8"MJ X 3/8"FJX X 3/8"MJ
4		-	HOSE *REFER TO LIFT VALVE PAGE
5		-	ADAPTER *REFER TO LIFT VALVE PAGE
6		-	HOSE *REFER TO LIFT VALVE PAGE
7		-	LIFT VALVE *REFER TO LIFT VALVE PAGE
8		-	ACCUMULATOR *REFER TO LIFT VALVE PAGE
9		-	ACCUMULATOR BRKT *REFER TO LIFT VALVE PAGE
10	06500731	1	HOSE,3/8" X 234"
11		-	RUN TEE *REFER TO LIFT VALVE PAGE
12		-	HOSE *REFER TO LIFT VALVE PAGE
13		-	ELBOW *REFER TO LIFT VALVE PAGE
14	33880	2	FLATWASHER,3/4",SAE
15	32703	2	CAPSCREW,20MM X 100MM,2.5P
16	33785	1	CYLINDER,1-1/2" X 8"
17	06503055	2	ELBOW,1/4"MOR X 3/8"MJ
18	06310204	1	LINK, PIVOT, STABILIZER
19	RD1032	3	LYNCH PIN
20	33984	2	PIN,3/4" X 2-7/16"
21	06420164	2	U-BOLT
22	06533004	4	FLATWASHER,1/2",SAE
23	21700	4	HEX NUT,1/2",UNC
24	06310203	1	MOUNT,AXLE
25		-	CAPSCREW *REFER TO LIFT VALVE PAGE
26		-	FLATWASHER *REFER TO LIFT VALVE PAGE
27		-	CLAMP KIT *REFER TO LIFT VALVE PAGE
28		-	BRACKET *REFER TO LIFT VALVE PAGE
29	34799	1	PIN,3/4" X 2-15/16"
30	06310177	1	STABILIZER,AXLE,CYL MNT

### SABER BOOMREST



ITEM	PART NO.	QTY.	DESCRIPTION
1	33880	16	FLATWASHER, 3/4" GR8, SAE
2	21825	8	HEX NUT, 3/4" NC
3	06530237	8	CAPSCREW, 3/4" X 2-1/4" NC GR8
4	06310192	1	ADAPTER, BOOMREST, SABER, T4F
5	06533004	12	FLATWASHER, 1/2" GR8, SAE
6	21727	6	NYLOCK NUT, 1/2" NC
7	21733	6	CAPSCREW, 1/2" X 2 NC
8	06310158	1	BOOMREST, SABER, T4
9	06300345	1	AXLE BRACE, RH, JD6145M, T4F, RS
10	06300346	1	AXLE BRACE, LH, JD6145M, T4F, RS

### POLYCARBONATE SAFETY WINDOW



ITEM	PART NO.	QTY.	DESCRIPTION
1	31965	22	TRIM SEAL,3/8" CLIP X 3/4"OD (FEET)
2	27508	3	CAPSCREW,8MM X 20MM,1.25P
3	22015	4	FLATWASHER,5/16"
4	21581	1	CAPSCREW,5/16" X 1-1/4",NC
5	06490005	1	POLYCARB,FRMD,DOOR,RH
6	06490027	1	POLYCARB,FRMD,REAR,RH
7	06520040	3	BRKT, JD, POLY, RETAIN
8	6T2619	3	LOCKWASHER,8MM
9	21577	1	NYLOCK NUT,5/16",NC

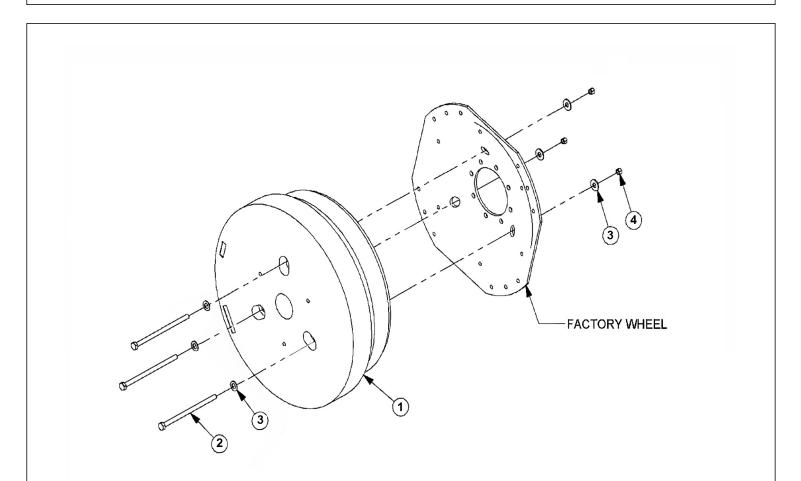
# WHEEL SPACER € ĩ. Ø 3 Ð Ð **(2**) Ø Ð a C. R

ITEM	PART NO.	QTY.
1	AL156779	1
2	06400919	1
3	6T2548	16

### DESCRIPTION

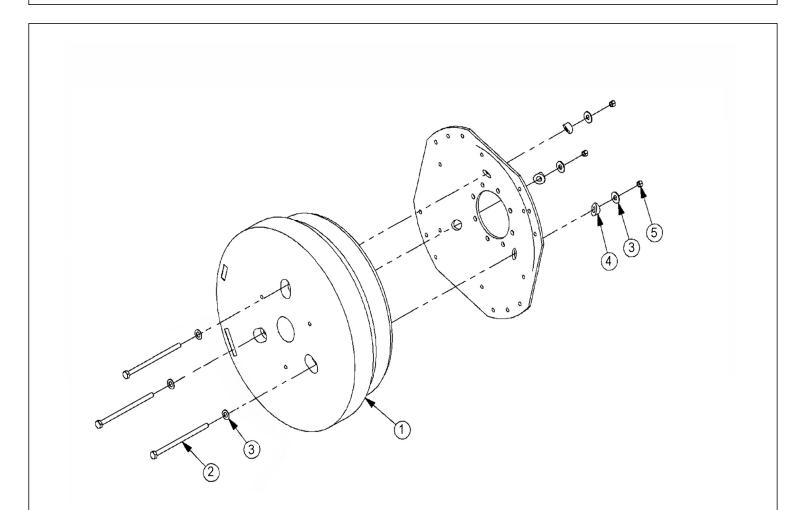
SPACER, WHEEL, JD, 1.732
RING, SPACER, WHEEL, JD
CAPSCREW, 20MM X 60MM

### WHEEL WEIGHT - SABER



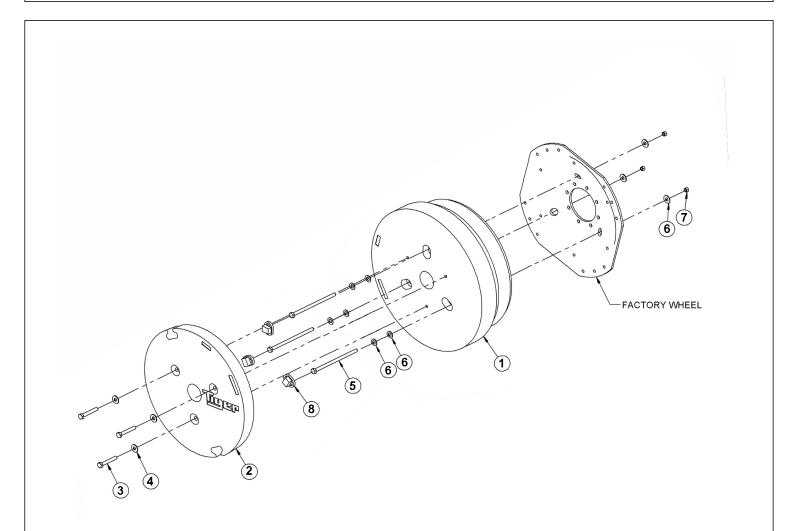
ITEM	PART NO.	QTY.	DESCRIPTION
1	06700108	1	3400# WEIGHT, TAPPED
2	06530227	3	CAPSCREW, 1" X 20",NC
3	06533007	6	FLATWASHER, 1"
4	31581	3	HEX NUT, 1",NC

### WHEEL WEIGHT - SABER BAR AXLE



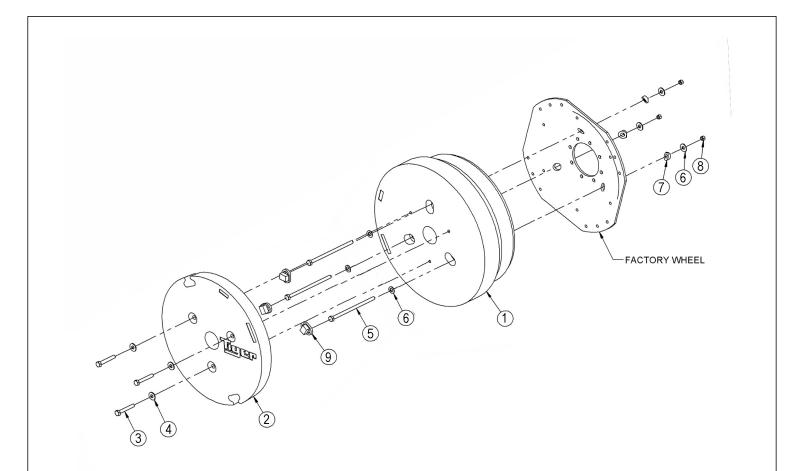
ITEM	PART NO.	QTY.	DESCRIPTION
1	06700108	1	3400# WEIGHT, TAPPED
2	06530227	3	CAPSCREW, 1" X 20",NC
3	06533007	6	FLATWASHER, 1"
4	06430183	3	SPACER, WHEEL WEIGHT, BAR AXLE
5	31581	3	HEX NUT, 1",NC

### WHEEL WEIGHT - SABER XB



ITEM	PART NO.	QTY.	DESCRIPTION
1	06700108	1	3400# WEIGHT, TAPPED
2	32518	1	850# WEIGHT
3	21842	3	CAPSCREW,3/4" X 5",NC
4	33626	3	FLATWASHER,3/4",USS
5	06530227	3	CAPSCREW,1" X 19-1/2",NC
6	06533007	6	FLATWASHER,1"
7	31581	3	HEX NUT, 1",NC
8	06370223	3	SPACER, WHEEL WEIGHT

### WHEEL WEIGHT - SABER XB BAR AXLE



ITEM	PART NO.	QTY.	DESCRIPTION
1	06700108	1	3400# WEIGHT, TAPPED
2	32518	1	850# WEIGHT
3	21842	3	CAPSCREW,3/4" X 5",NC
4	33626	3	FLATWASHER,3/4",USS
5	06530227	3	CAPSCREW,1" X 20",NC
6	06533007	6	FLATWASHER,1"
7	06430183	3	SPACER, BAR AXLE
8	31581	3	HEX NUT, 1",NC
9	06370223	3	SPACER, WHEEL WEIGHT

## COMMON SABER BOOM'H

# PARTS SECTION

### PART NAME INDEX

S WE ME OWNOT LOW MINIMUM M 821P 'TQVCT[ 'MP K+G'CP F 'F KJ 'QRVKP()) 7 KP 'Z '47 KP 'Y GNF GF 'E [ NKP F GT 'DT GC MF QY POMMINIMUM MINIMUM 

### PART NAME INDEX

J [ FTCWNKE "VTQWDNGUJ QQVKPI "I WKF COMMINIANIAMIANIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMIAMIANIAMIANIAMIANIAMIANIAMIANIAMIANIAMI GNGE VT ÆCN'VT QWDNGUJ QQV Æ I 'I WÆ COMMINIUM MINIUM MINI ENGCP 'EWVVGT 'DNCF G'CP F 'VGGVJ 'RCT VU( 

#### 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.

5. 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 or dering 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:

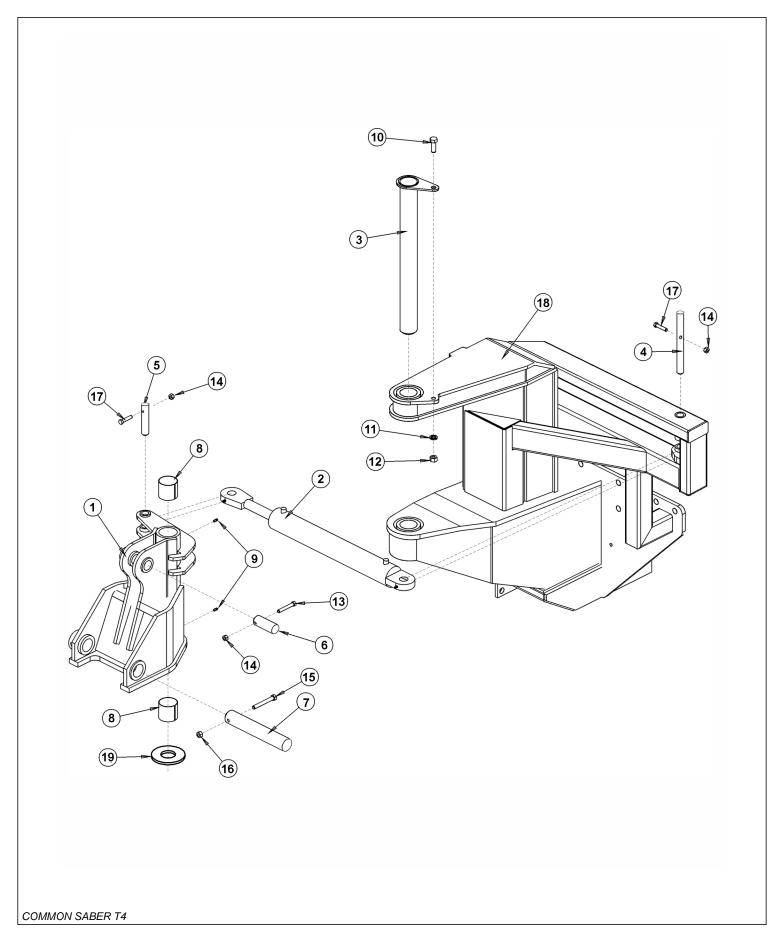
### Tiger Corporation

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

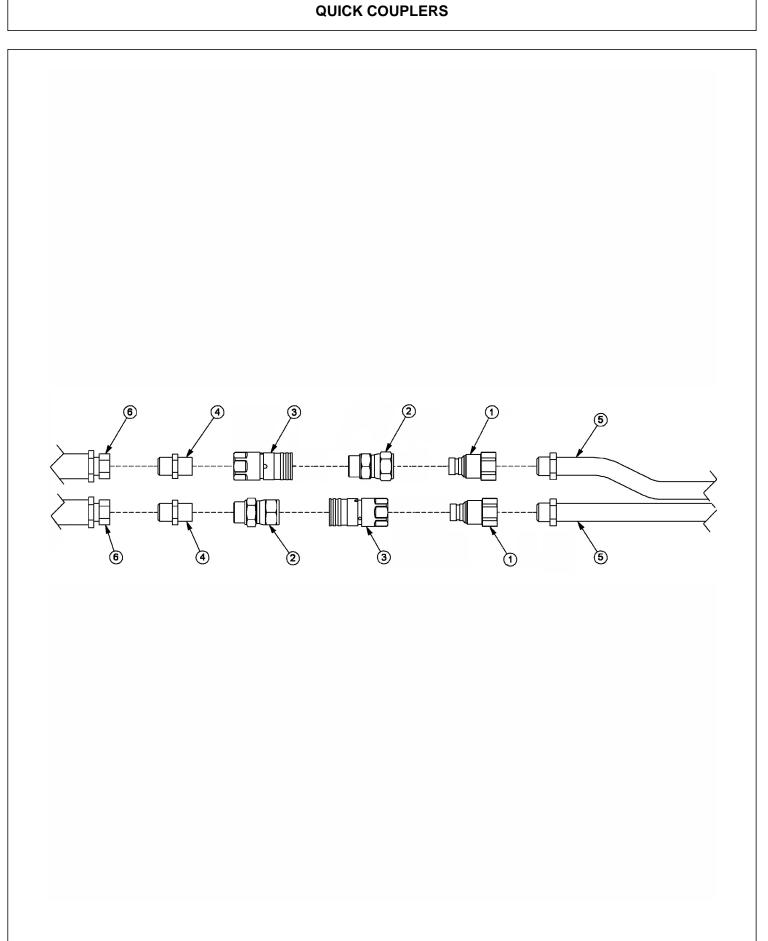
## NOTES

COMMON SABER T4

### **BOOM SWIVEL ASSEMBLY**

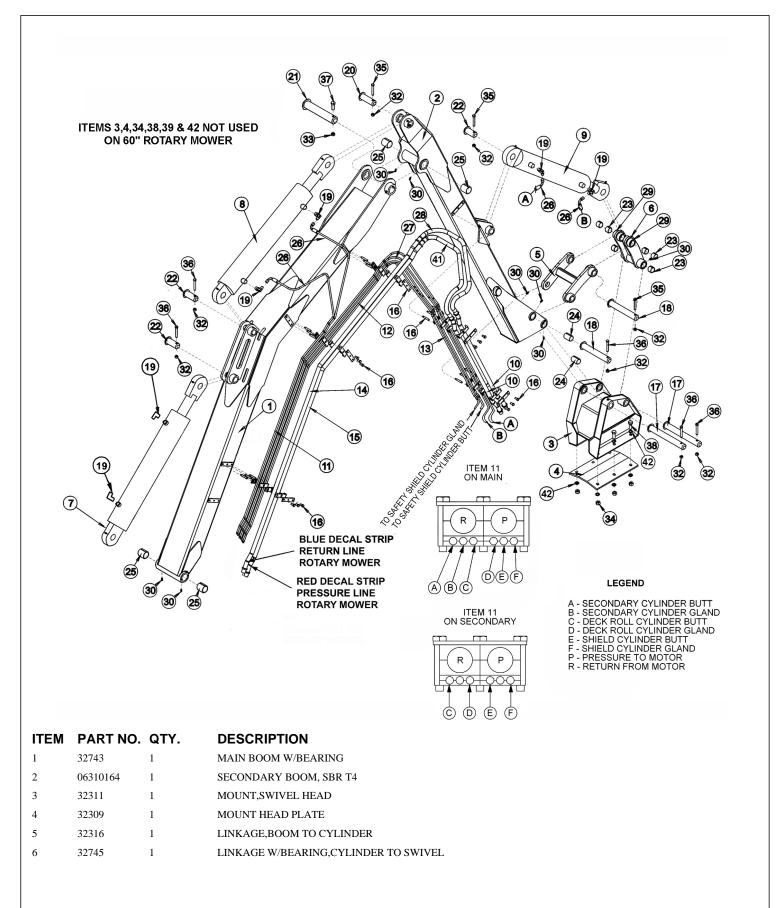


	ITEM	PART NO.	QTY.	DESCRIPTION
		32742	1	SWIVEL W/BUSHINGS,BOOM,SABER
	1	32376	1	SWIVEL,BOOM,SABER,W/O BUSHING
	2	06501029	1	CYLINDER,3 X 13.88
	3	32381	1	PIN,2 1/2,SWIVEL,SABER
	4	33710	1	PIN,CYLINDER,1,SWIVEL,SABER
	5	32380	1	PIN,CYL,1,SWIVEL,SABER
	6	32372	1	PIN,CYLINDER,STAGE,2ND
	7	32378	1	PIN,BOOM TO SWIVEL,SABER
	8	32322	2	BEARING,DX,2 1/2X2 1/2LONG,
	9	6T3211	2	GREASE ZERK,1/8
	10	21782	1	CAPSCREW,5/8 X 1-3/4 NC
	11	21992	1	LOCKWASHER,5/8
	12	21775	1	HEX NUT,5/8 NC
	13	21687	1	CAPSCREW,7/16 X 3 NC
	14	21677	3	NYLOCK NUT,7/16 NC
	15	21741	1	CAPSCREW,1/2 X 4 NC
	16	21727	1	NYLOCK NUT,1/2 NC
	17	21683	2	CAPSCREW,7/16 X 2 NC
	18		-	MAIN FRAME - REFER TO MAIN FRAME PARTS
	19	06520250	1	BEARING, WASHER
1				



ITEM	PART NO.	QTY.	DESCRIPTION
1	34392	2	ADAPTER,10RBX1FJX
2	06503028	2	QUICK COUPLER,1"SAE,MALE,FLAT
3	06503027	2	QUICK COUPLER,1"SAE,FEM,FLAT
4	33555	2	ADAPTER,1MORBX1MJIC
5		-	PREFORMED TUBES - REFER TO BOOM ARM PARTS
6		-	#16 HOSE - REFER TO HYDRAULICS PARTS

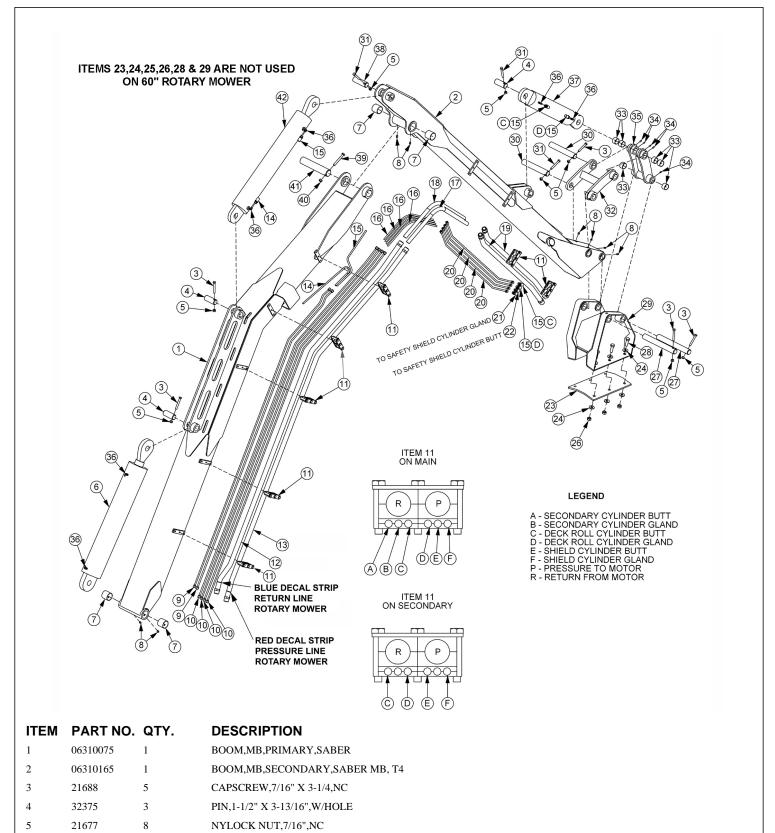
### SABER BOOM ASSEMBLY



COMMON SABER T4

ITEM	PART NO.	QTY.	DESCRIPTION
7	32363	1	CYLINDER,5" X 25"
8	32364	1	CYLINDER,4-1/2" X 26-1/2"
9	32365	1	CYLINDER,4" X 15"
10	33542	2	PREFORMED TUBE,1"
11	06506062	2	PREFORMED TUBE,3/8"
12	06506063	4	PREFORMED TUBE,3/8"
13	32629	4	PREFORMED TUBE,3/8"
14	06506060	1	PREFORMED TUBE,1" (ROTARY RETURN)
15	06506061	1	PREFORMED TUBE,1" (ROTARY PRESSURE)
16	33215	6	TUBE CLAMP KIT
17	32313	2	PIN
18	32319	2	PIN
19	32810	6	ELBOW
20	32372	1	PIN
21	32374	1	PIN
22	32375	3	PIN
23	32318	6	BEARING
24	32321	4	BEARING
25	32362	4	BEARING
26	32818	4	HOSE,3/8" X 24"
27	32680	4	HOSE,3/8" X 43"
28	33544	1	HOSE,1" X 40"
29	6T3207	6	GREASE ZERK
30	6T3211	8	GREASE ZERK
32	21677	8	NYLOCK NUT,7/16",NC
33	21727	1	NYLOCK NUT,1/2",NC
34	6T2408	6	HEX NUT,5/8",NC
35	21687	3	CAPSCREW,7/16" X 3",NC
36	21688	5	CAPSCREW,7/16" X 3-1/4",NC
37	21741	1	CAPSCREW,1/2" X 4",NC
38	6T2290	6	CAPSCREW,5/8" X 2",NC
40	35260	1	HOSE COVER (NOT SHOWN)
41	33543	1	HOSE,1" X 39"
42	25270	12	FLATWASHER,5/8",USS

### SABER MB BOOM ASSEMBLY

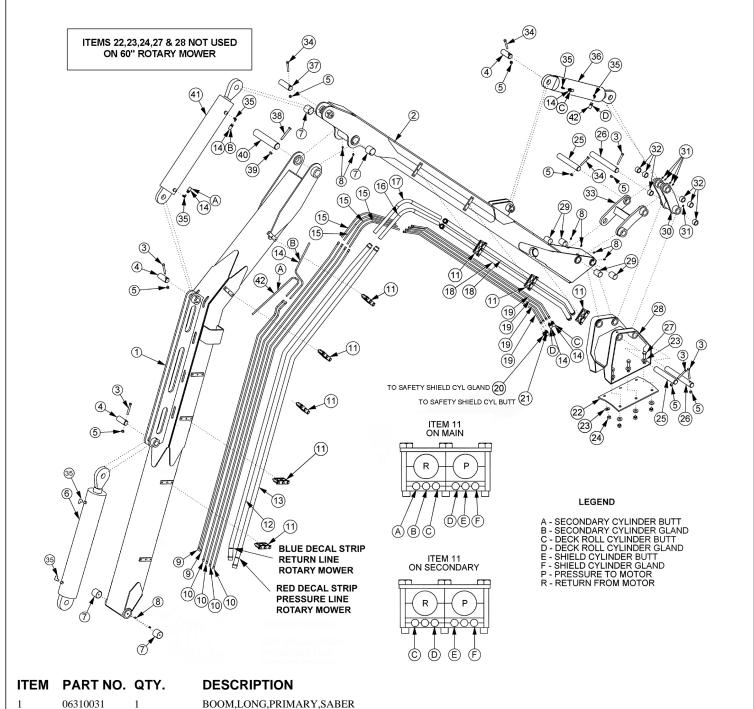


6 32363 1 CYLINDER,5" X 25"

COMMON SABER T4

ITEM	PART NO.	QTY.	DESCRIPTION
7	32362	4	BEARING,DX,2" X 2" LONG
8	6T3211	8	GREASE ZERK,1/8" X STR
9	06506050	2	PRFRMD,1,MAIN,SABER MB T4
10	06506051	4	PRFRMD,2,MAIN,SABER MB T4
11	33215	7	TUBE CLAMP KIT
12	06506045	1	PRFRMD,4,MAIN,SABER MB (ROTARY RETURN)
13	06506044	1	PRFRMD,3,MAIN,SABER MB (ROTARY PRESSURE)
14	06500488	1	HOSE,3"/8 X 39"
15	32818	3	HOSE,3/8" X 24"
16	32680	4	HOSE,3/8" X 43"
17	33543	1	HOSE,1" X 39"
18	33544	1	HOSE,1" X 40"
19	33542	2	PRFRMD,2,SEC,SABER
20	32629	4	PRFRMD,1,SEC,SABER
21	06500670	1	HOSE,3/8" X 108"
22	06500366	1	HOSE,3/8" X 98"
23	32309	1	PLATE, MOUNT, HEAD, MOWER
24	25270	12	FLATWASHER,5/8",GR 8
25	21992	6	LOCKWASHER,5/8"
26	6T2408	6	HEX NUT,5/8",NF
27	32313	2	PIN,MOUNT,SWIVEL
28	6T2290	6	CAPSCREW,5/8" X 2",NF,GR 8
29	32311	1	MOUNT,SWIVEL,HEAD,MOWER
30	32319	2	PIN,LINKAGE,BOOM
31	21687	3	CAPSCREW,7/16" X 3",NC
32	32316	1	LINKAGE,BOOM TO CYLINDER,SABER
33	32318	6	BEARING,DX,1-1/2" X 1" LONG
34	6T3207	6	GREASE ZERK,1/4"
35	32745	1	LINKAGE W/BUSHINGS,SABER
36	32810	6	ELBOW,1/20RB X 3/8MJ
37	32365	1	CYLINDER,4" X 15"
38	32372	1	PIN,CYLINDER,STAGE,2ND
39	21741	1	CAPSCREW,1/2" X 4",NC
40	21727	1	NYLOCK NUT,1/2"
41	32374	1	PIN,BOOM,STAGE 1ST TO 2ND
42	32364	1	CYLINDER,WELDED,4-1/2" X 26-1/2"

### SABER XB BOOM ASSEMBLY

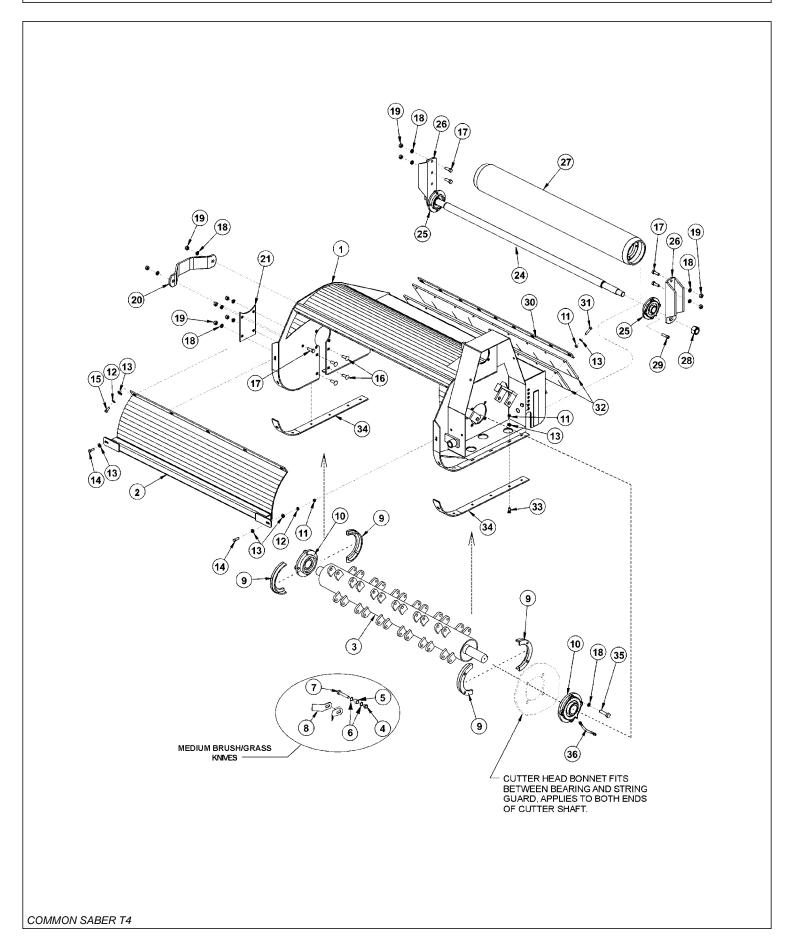


1	06310031	1	BOOM,LONG,PRIMARY,SABER
2	06310166	1	BOOM,LONG,SECONDARY,SABER XB, T4
3	21688	5	CAPSCREW,7/16" X 3-1/4",NC
4	32375	3	PIN,1-1/2" X 3-13/16",W/HOLE
5	21677	8	NYLOCK NUT,7/16",NC
6	32363	1	CYLINDER,5" X 25"
7	32362	4	BEARING,DX,2" X 2" LONG
8	6T3211	8	GREASE ZERK,1/8" X STR

COMMON SABER T4

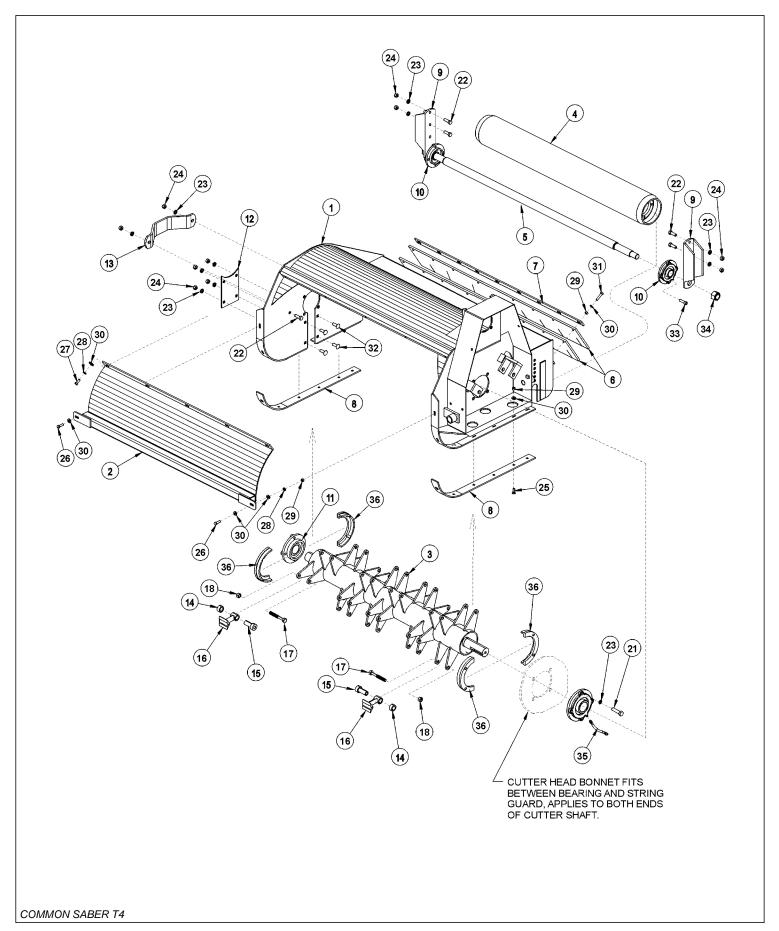
	ITEM	PART NO.	QTY.	DESCRIPTION
	9	06506042	2	PRFRMD,1,MAIN,SABER XB
	10	06506043	4	PRFRMD,2,MAIN,SABER XB
	11	33215	8	TUBE CLAMP KIT
	12	06506045	1	PRFRMD,4,MAIN,SABER XB (ROTARY RETURN)
	13	06506044	1	PRFRMD,3,MAIN,SABER XB (ROTARY PRESSURE)
	14	32818	3	HOSE,3/8" X 24"
	15	32680	4	HOSE,3/8" X 43"
	16	33543	1	HOSE,1" X 39"
	17	33544	1	HOSE,1" X 40"
	18	06506034	2	PRFRMD,2,SEC,SABER XB
	19	06506033	4	PRFRMD,1,SEC,SABER XB
	20	33223	1	HOSE,3/8" X 70"
	21	33222	1	HOSE,3/8" X 59"
	22	32309	1	PLATE, MOUNT, HEAD, MOWER
	23	25270	12	FLATWASHER,5/8",GR 8
	24	6T2408	6	HEX NUT,5/8",NF
	25	32319	2	PIN,LINKAGE,BOOM
	26	32313	2	PIN,MOUNT,SWIVEL,HEAD,MOWER
	27	6T2290	6	CAPSCREW,5/8" X 2",NF,GR 8
	28	32311	1	MOUNT,SWIVEL,HEAD,MOWER
	29	32321	4	BEARING,DX,1-1/2" X 2" LONG
	30	32745	1	LINKAGE W/BUSHINGS,SABER
	31	6T3207	6	GREASE ZERK,1/4"
	32	32318	6	BEARING,DX,1-1/2" X 1" LONG
	33	32316	1	LINKAGE,BOOM TO CYLINDER,SABER
	34	21687	3	CAPSCREW,7/16" X 3", NC
	35	32810	6	ELBOW,1/20RB X 3/8MJ
	36	32365	1	CYLINDER,4" X 15"
	37	32372	1	PIN,CYLINDER,STAGE,2ND
	38	21741	1	CAPSCREW,1/2" X 4",NC
	39	21727	1	NYLOCK NUT,1/2"
	40	32374	1	PIN,BOOM,STAGE 1ST TO 2ND
	41	32364	1	CYLINDER,WELDED,4-1/2" X 26-1/2"
	42	06500488	1	HOSE, 3/8" X 39"
ι.				

### **50IN FLAIL ASSEMBLY**



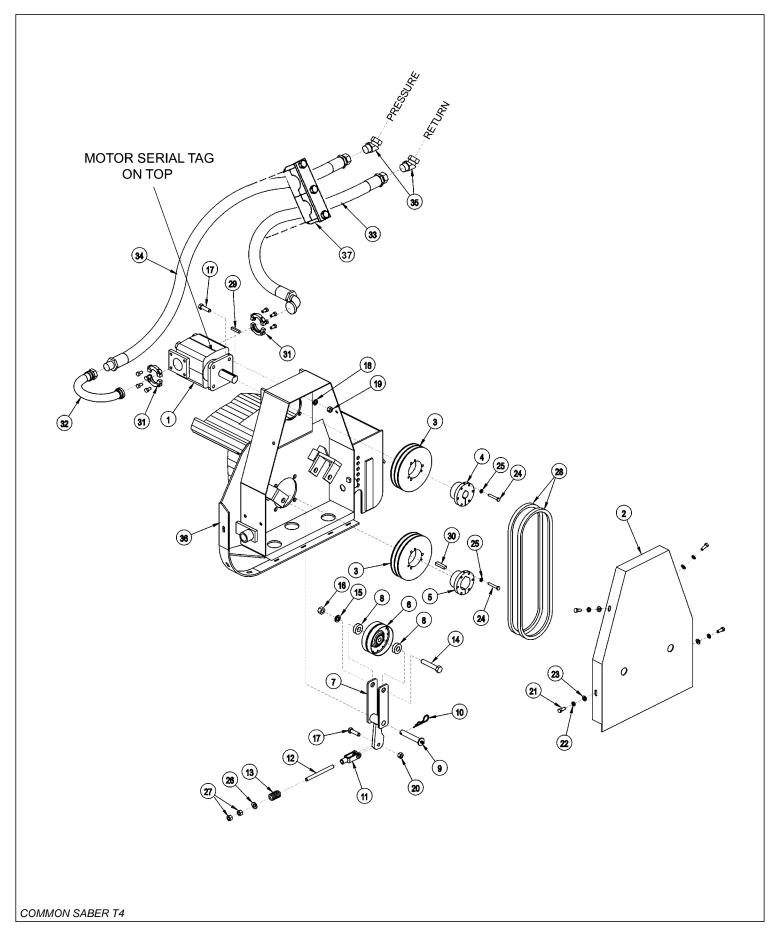
	ITEM	PART NO.	QTY.	DESCRIPTION
		06742138	1	FLAIL,BOOM,50,MD GRASS,CPLT ASSY (MEDIUM BRUSH/GRASS)
	1	06320145	1	CUTTER HEAD BONNET
	2	TF3004	1	FRONT SHIELD
	3	06700115	1	TBF50 (MEDIUM BRUSH/GRASS KNIFE ASSY)
	4	6T2419	24	HEX NUT,9/16",NC,STOVER
	5	41725.01	24	BUSHING,1"OD X 5/8"ID
	6	06430122	48	SPACER (MEDIUM BRUSH/GRASS KNIVES)
	7	34786	24	CAPSCREW,9/16" X 3-1/2",NC
	8	06521007	48	KNIFE (MEDIUM BRUSH/GRASS CUTTING)
	9	31204	2	STRING GUARD SET (2 PIECES PER SET)
	10	TF1018	2	FLANGE BEARING,2-3/16"
	11	21625	23	HEX NUT,3/8",NC
	12	21988	7	LOCKWASHER,3/8"
	13	22016	30	FLATWASHER,3/8"
	14	21631	2	CAPSCREW,3/8" X 1-1/4",NC
	15	21630	5	CAPSCREW,3/8" X 1",NC
	16	6T7031D	4	PLOW BOLT,1/2" X 1-1/2",NC
	17	21731	6	CAPSCREW,1/2" X 1-1/2",NC
	18	21990	18	LOCKWASHER,1/2"
	19	21725	10	HEX NUT,1/2",NC
	20	TF1040	1	CUTTER SHAFT GUARD
	21	TF3007A	1	COVER PLATE
	24	TF3406	1	GROUND ROLLER TIE ROD
	25	TF1022	2	FLANGE BEARING,1-3/8"
	26	TF3407	2	GROUND ROLLER ADJUSTMENT BRACKET
	27	TF3405	1	GROUND ROLLER
	28	6T1023R	2	NYLOCK NUT,1-1/8",NF
	29	6T2330	8	CAPSCREW,7/16" X 1-1/2",SOCKET HEAD
	30	TB1008	1	FLAP RETAINING BAR
	31	21633	9	CAPSCREW,3/8" X 1-3/4",NC
	32	TB1006A	2	DEFLECTOR FLAP
	33	6T2270	12	PLOWBOLT,3/8" X 1",NC
	34	TF3001	2	SKID SHOE
	35	06530218	8	CAPSCREW,1/2" X 1-3/4",NC
	36	TF1032	1	FLANGE BEARING GREASE HOSE
1				

### 50IN FLAIL ASSEMBLY, PASS-THROUGH KNIVES



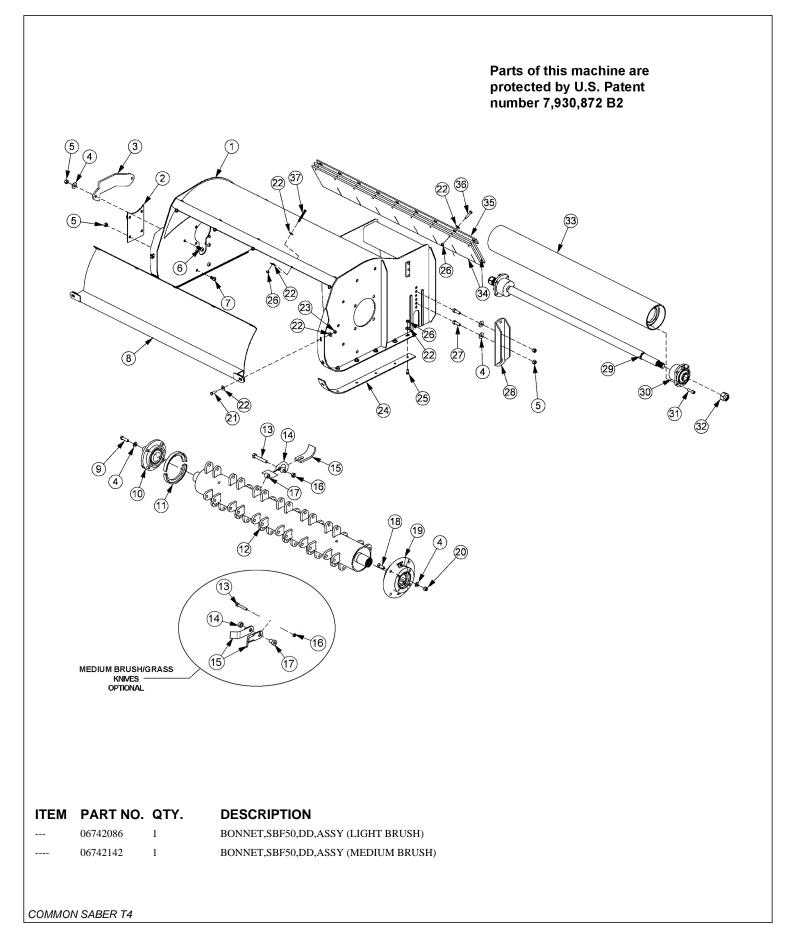
ITEM	PART NO.	QTY.	DESCRIPTION
	06742135	1	FLAIL,BOOM,50,CPLT ASSY
1	06320145	1	CUTTER HEAD BONNET
2	TF3004	1	FRONT SHIELD
3	33717	1	TBF50,CUTTERSHAFT,PASS THRU KNIVES
4	TF3405	1	GROUND ROLLER
5	TF3406	1	GROUND ROLLER TIE ROD
6	TB1006A	2	DEFLECTOR FLAP
7	TB1008	1	FLAP RETAINING BAR
8	TF3001	2	SKID SHOE
9	TF3407	2	GROUND ROLLER ADJUSTMENT BRACKET
10	TF1022	2	FLANGE BEARING,1-3/8"
11	TF1018	2	FLANGE BEARING,2-3/16"
12	TF3007A	1	COVER PLATE
13	TF1040	1	CUTTER SHAFT GUARD
14	33858	24	SPACER,COLLAR
15	33857	24	SHOULDER, BUSHING
16	46399.01	24	KNIFE,FLAIL,FORGED
17	33854	24	CAPSCREW,5/8" X 4-1/2",NC
18	32674	24	HEX NUT,5/8",NC
21	21732	8	CAPSCREW,1/2" X 1-3/4",NC
22	21731	6	CAPSCREW,1/2" X 1-1/2",NC
23	21990	18	LOCKWASHER,1/2"
24	21725	10	HEX NUT,1/2",NC
25	6T2270	12	PLOWBOLT,3/8" X 1",NC
26	21631	2	CAPSCREW,3/8" X 1-1/4",NC
27	21630	5	CAPSCREW,3/8" X 1",NC
28	21988	7	LOCKWASHER,3/8"
29	21625	23	HEX NUT,3/8",NC
30	22016	30	FLATWASHER,3/8"
31	21633	9	CAPSCREW,3/8" X 1-3/4",NC
32	6T7031D	4	PLOW BOLT,1/2" X 1-1/2",NC
33	6T2330	8	CAPSCREW,7/16" X 1-1/2",NC,SCKT HD
34	6T1023R	2	NYLOCK NUT,1-1/8",NF
35	TF1032	1	FLANGE BEARING GREASE HOSE
36	31204	2	STRING GUARD SET (2 PIECES PER SET)

# **50IN FLAIL DRIVE ASSEMBLY**



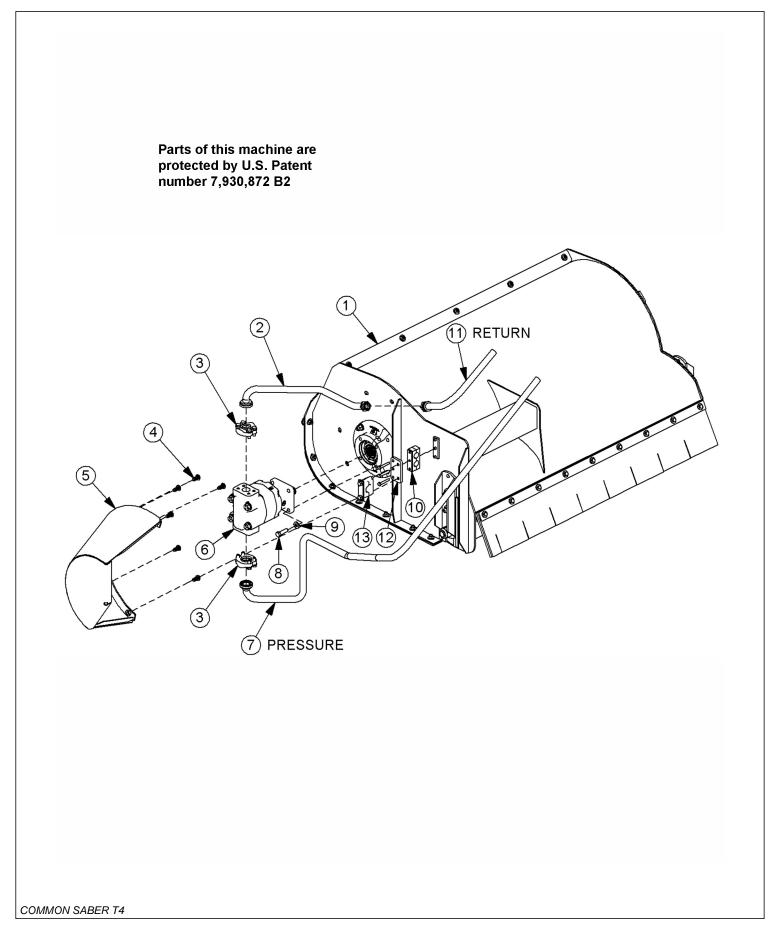
ITEM	PART NO.	QTY.	DESCRIPTION
1	06504132	1	MOTOR
2	TF3006	1	BELT GUARD
3	TF3043	2	SHEAVE
4	TF3013	1	BUSHING
5	TF3011	1	BUSHING
6	TF3034	1	IDLER PULLEY
7	TF3205	1	IDLER ARM
8	TF3206	2	IDLER PULLEY SPACER
9	TF3605	1	IDLER ARM PIN WITH ZERK
10	6T3004	1	R - CLIP
11	PT3611A	1	CLEVIS
12	32481	1	THREADED ROD
13	TF3620	1	COMPRESSION SPRING
14	21789	1	CAPSCREW,5/8" X 3-1/2",NC
15	21992	1	LOCKWASHER,5/8"
16	21775	1	HEX NUT,5/8",NC
17	21732	5	CAPSCREW,1/2" X 1-3/4",NC
18	21990	4	LOCKWASHER,1/2"
19	21725	4	HEX NUT,1/2",NC
20	6T2418	1	LOCK NUT,1/2"
21	21630	4	CAPSCREW,3/8" X 1",NC
22	21988	4	LOCKWASHER,3/8"
23	22016	4	FLATWASHER,3/8"
24	21584	6	CAPSCREW,5/16" X 2",NC
25	21987	6	LOCKWASHER,5/16"
26	27938	1	FLATWASHER,1/2"
27	21700	2	HEX NUT,1/2",NF
28	TF3021	2	BELT
29	TF1125	1	SQUARE KEY
30	TF1025	1	SQUARE KEY MOTOR
31	TF4852	2	FLANGE KIT
32	06506038	1	PREFORMED TUBE
33	06500728	1	HOSE,1 X 103 (RETURN)
34	06500796	1	HOSE,1 X 111 (PRESSURE)
35	24724	2	SWIVEL FITTING
36		-	CUTTER HEAD
37	06505130	1	CLAMP,HOSE

### SABER DIRECT DRIVE FLAIL ASSY



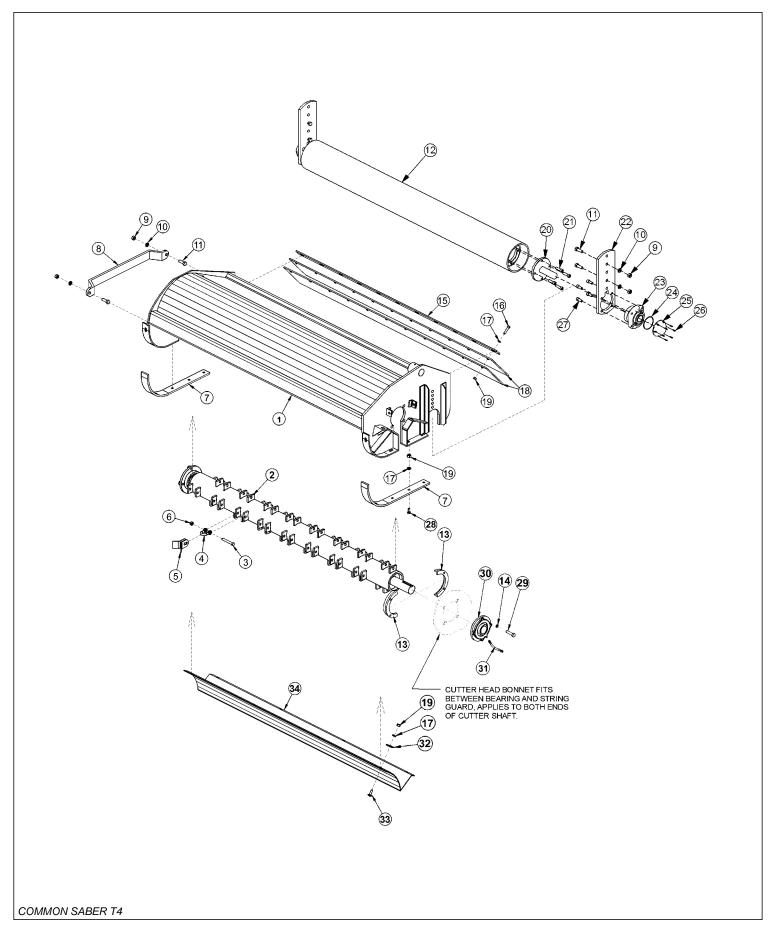
ITEM	PART NO.	QTY.	DESCRIPTION
1	06320112	1	BONNET
2	TF3007A	1	COVER PLATE
3	06410794	1	GUARD
4	06533006	14	FLATWASHER,1/2",GR 9
5	21727	10	NYLOCK NUT,1/2",NC
6	06530404	2	CAPSCREW,SKT/BUT HD,1/2" X 1-1/2",NC
7	06530401	4	CAPSCREW,SKT/BUT HD,1/2" X 1",NC
8	06320127	1	DOOR,SBF50 DD
9	06530218	4	CAPSCREW,1/2" X 1-3/4",NC,L9
10	06520211	1	BEARING W/ HOUSING
11	31204	1	STRING GUARD
	06700123	1	CUTTERSHAFT ASSY (LIGHT BRUSH)
	06700153	1	CUTTERSHAFT ASSY (MEDIUM BRUSH)
12	06370124	1	CUTTERSHAFT W/ INSERT
13	34786	24	KNIFE MNTG BOLT
14	34782	24	KNIFE MNTG CLEVIS (LIGHT BRUSH)
	06420183	24	SPACER (MEDIUM BRUSH)
15	34780	24	KNIFE (LIGHT BRUSH)
	06521007	48	KNIFE (MEDIUM BRUSH)
16	6T2419	24	HEX NUT,9/16",STOVER
17	06420182	24	BUSHING
18	06537030	4	PLOW BOLT,1/2" X 1-3/4",NC,GR8
19	06520190	1	BEARING, DRIVE
20	06531005	4	HEX NUT,1/2",NC,L9
21	21631	2	CAPSCREW,3/8" X 1-1/4",NC,GR8
22	22016	35	FLATWASHER,3/8"
23	21627	2	NYLOCK NUT,3/8",NC
24	06410802	2	SKID SHOE
25	6T2270	12	PLOW BOLT,3/8" X 1",NC
26	21625	26	HEX NUT,3/8",NC
27	21731	4	CAPSCREW,1/2" X 1-1/2",NC
28	06320125	2	BRACKET, GROUND ROLLER
29	31452	1	AXLE,TIE-ROD
30	TF1022	2	BEARING, GROUND ROLLER
31	6T2330	8	CAPSCREW,SKT HD,7/16" X 1-1/2",NC
32	6T1023R	2	NYLOCK NUT,1-1/8",NF
33	TF3405	1	GROUND ROLLER
34	TB1006A	2	FLAP
35	TB1008	1	FLAP BAR
36	21633	9	CAPSCREW,3/8" X 1-3/4",NC,GR8
37	06530402	5	CAPSCREW,SKT/BUT HD,3/8" X 2-3/4",NC

### SABER DIRECT DRIVE ASSEMBLY



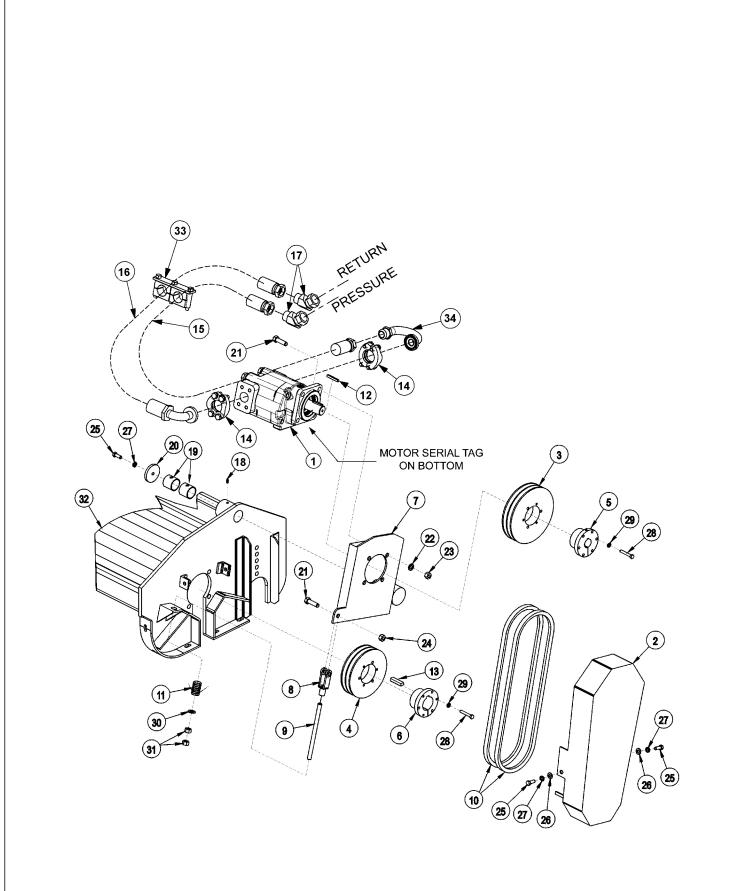
ITEM	PART NO.	QTY.	DESCRIPTION
1		-	BONNET *REFER TO BONNET ASSY
2	06506040	1	PREFORMED TUBE
3	TF4852	2	FLANGE KIT
4	06530401	6	CAPSCREW,SKT/BUT HD,1/2" X 1",NC
5	06320126	1	MOTOR GUARD
6	06504003	1	MOTOR,DD
7	06500539	1	HOSE,1" X 82"
8	06530223	4	CAPSCREW,9/16" X 1-3/4",NC,GR8
9	06533003	4	FLATWASHER,9/16",GR9,SAE
10	06505014	1	CLAMP KIT
11	06500386	1	HOSE,1" X 52"
12	06401418	1	PLATE,CLAMP
13	06505017	1	CLAMP KIT,HOSE

# **63IN FLAIL ASSEMBLY**



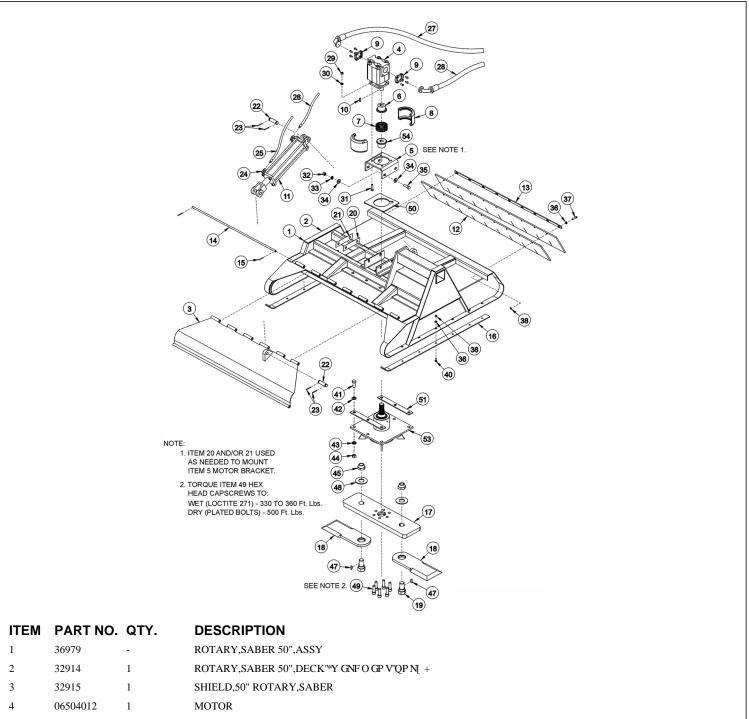
06200658         1         FLAIL,BOOM,63",GRASS,CPLT ASSY           1         06320110         1         CUTTER HEAD BONNET           2         28743         1         CUTTER SHAFT / KNIFE ASSY STANDARD GRASS            28642C         1         CUTTER SHAFT / KNIFE ASSY STANDARD GRASS           3         TF1021B         36         FLAIL KNIFE MOUNTING BOLT           4         TF1020         36         FLAIL KNIFE MOUNTING CLEVIS           5         33713         72         FLAIL KNIFE MOUNTING CLEVIS           6         21677         36         NYLOCK NUT           7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,3/4" X 3-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RET	ITEM	PART NO.	QTY.	DESCRIPTION
2         28743         1         CUTTER SHAFT / KNIFE ASSY STANDARD GRASS            28642C         1         CUTTER SHAFT / KNIFE ASSY STANDARD GRASS           3         TF1021B         36         FLAIL KNIFE MOUNTING BOLT           4         TF1020         36         FLAIL KNIFE MOUNTING CLEVIS           5         33713         72         FLAIL KNIFE - STANDARD           6         21677         36         NYLOCK NUT           7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,3/4" X 3-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,7/1,N'' X 1-1/2",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP		06200658	1	FLAIL,BOOM,63",GRASS,CPLT ASSY
28642C         1         CUTTER SHAFT,63",STD           3         TF1021B         36         FLAIL KNIFE MOUNTING BOLT           4         TF1020         36         FLAIL KNIFE MOUNTING CLEVIS           5         33713         72         FLAIL KNIFE MOUNTING CLEVIS           6         21677         36         NYLOCK NUT           7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4", X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/4", X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625	1	06320110	1	CUTTER HEAD BONNET
3       TF1021B       36       FLAIL KNIFE MOUNTING BOLT         4       TF1020       36       FLAIL KNIFE MOUNTING CLEVIS         5       33713       72       FLAIL KNIFE MOUNTING CLEVIS         6       21677       36       NYLOCK NUT         7       28086A       2       SKID SHOE         8       27975A       1       CUTTER SHAFT GUARD         9       21725       14       HEX NUT,1/2",NC         10       21990       14       LOCKWASHER,1/2"         11       21731       6       CAPSCREW,3/4" X 3-1/2",NC         12       28650A       1       GROUND ROLLER         13       21838       1       CAPSCREW,3/4" X 3-1/2",NC         14       21825       1       HEX NUT,3/4",NC         15       28700       1       FLAP RETAINING BAR         16       21633       11       CAPSCREW,3/8" X 1-3/4",NC         17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       672330	2	28743	1	CUTTER SHAFT / KNIFE ASSY STANDARD GRASS
4         TF1020         36         FLAIL KNIFE MOUNTING CLEVIS           5         33713         72         FLAIL KNIFE - STANDARD           6         21677         36         NYLOCK NUT           7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         67230 </td <td></td> <td>28642C</td> <td>1</td> <td>CUTTER SHAFT,63",STD</td>		28642C	1	CUTTER SHAFT,63",STD
5         33713         72         FLAIL KNIFE - STANDARD           6         21677         36         NYLOCK NUT           7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TFI045B         2         GROUND ROLLER STUB SHAFT           21         6T2330         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         2	3	TF1021B	36	FLAIL KNIFE MOUNTING BOLT
6         21677         36         NYLOCK NUT           7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         6T2330         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         28735         2         ADJUSTABLE ROLLER BRACKET           23 <t< td=""><td>4</td><td>TF1020</td><td>36</td><td>FLAIL KNIFE MOUNTING CLEVIS</td></t<>	4	TF1020	36	FLAIL KNIFE MOUNTING CLEVIS
7         28086A         2         SKID SHOE           8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         6T2330         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         28735         2         ADJUSTABLE ROLLER BRACKET           23         06520029         2         O-RING           24 <td< td=""><td>5</td><td>33713</td><td>72</td><td>FLAIL KNIFE - STANDARD</td></td<>	5	33713	72	FLAIL KNIFE - STANDARD
8         27975A         1         CUTTER SHAFT GUARD           9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         6T230         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         28735         2         ADJUSTABLE ROLLER BRACKET           23         06520029         2         O-RING           24         06520027         2         CAPSCREW,7/16" X 1" SKT HD,NC           <	6	21677	36	NYLOCK NUT
9         21725         14         HEX NUT,1/2",NC           10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         672330         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         28735         2         ADJUSTABLE ROLLER BRACKET           23         06520028         2         O-RING           24         06520027         2         CAPSCREW,7/16" X 1" SKT HD,NC           28         612270         10         PLOW BOLT,3/8" X 1-1/4",NC <td< td=""><td>7</td><td>28086A</td><td>2</td><td>SKID SHOE</td></td<>	7	28086A	2	SKID SHOE
10         21990         14         LOCKWASHER,1/2"           11         21731         6         CAPSCREW,1/2" X 1-1/2",NC           12         28650A         1         GROUND ROLLER           13         21838         1         CAPSCREW,3/4" X 3-1/2",NC           14         21825         1         HEX NUT,3/4",NC           15         28700         1         FLAP RETAINING BAR           16         21633         11         CAPSCREW,3/8" X 1-3/4",NC           17         21988         28         LOCKWASHER,3/8"           18         28701         2         DEFLECTOR FLAP           19         21625         28         HEX NUT,3/8",NC           20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         6T2330         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         28735         2         ADJUSTABLE ROLLER BRACKET           23         06520028         2         O-RING           24         06520027         2         CAP,BEARING,GROUNDROLLER           26         06530001         12         CAPSCREW,7/16" X 1" SKT HD,NC           28         6T2270         10         PLOW BOLT,3/8" X 1-1/4",NC	8	27975A	1	CUTTER SHAFT GUARD
11       21731       6       CAPSCREW, 1/2" X 1-1/2", NC         12       28650A       1       GROUND ROLLER         13       21838       1       CAPSCREW, 3/4" X 3-1/2", NC         14       21825       1       HEX NUT, 3/4", NC         15       28700       1       FLAP RETAINING BAR         16       21633       11       CAPSCREW, 3/8" X 1-3/4", NC         17       21988       28       LOCKWASHER, 3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT, 3/4", NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW, 7/16" X 1-1/2", SKT HD, NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING, FLANGE, 1-3/8", GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW, SKT HD, 8-32 X 1/2", SS         27       6T2331       8       CAPSCREW, 7/16" X 1" SKT HD, NC         28       6T2270       10       PLOW BOLT, 3/8" X 1-1/4", NC         29       21733       8       C	9	21725	14	HEX NUT,1/2",NC
12       28650A       1       GROUND ROLLER         13       21838       1       CAPSCREW,3/4" X 3-1/2",NC         14       21825       1       HEX NUT,3/4",NC         15       28700       1       FLAP RETAINING BAR         16       21633       11       CAPSCREW,3/8" X 1-3/4",NC         17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING	10	21990	14	LOCKWASHER,1/2"
13       21838       1       CAPSCREW,3/4" X 3-1/2",NC         14       21825       1       HEX NUT,3/4",NC         15       28700       1       FLAP RETAINING BAR         16       21633       11       CAPSCREW,3/8" X 1-3/4",NC         17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAP,BEARING,GROUNDROLLER         26       06530001       12       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING	11	21731	6	CAPSCREW,1/2" X 1-1/2",NC
14       21825       1       HEX NUT,3/4",NC         15       28700       1       FLAP RETAINING BAR         16       21633       11       CAPSCREW,3/8" X 1-3/4",NC         17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC </td <td>12</td> <td>28650A</td> <td>1</td> <td>GROUND ROLLER</td>	12	28650A	1	GROUND ROLLER
15       28700       1       FLAP RETAINING BAR         16       21633       11       CAPSCREW,3/8" X 1-3/4",NC         17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"	13	21838	1	CAPSCREW,3/4" X 3-1/2",NC
16       21633       11       CAPSCREW,3/8" X 1-3/4",NC         17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW,7/16" X 1" SKT HD,NC         26       06530001       12       CAPSCREW,7/16" X 1" SKT HD,NC         27       6T231       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X	14	21825	1	HEX NUT,3/4",NC
17       21988       28       LOCKWASHER,3/8"         18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	15	28700	1	FLAP RETAINING BAR
18       28701       2       DEFLECTOR FLAP         19       21625       28       HEX NUT,3/8",NC         20       TF1045B       2       GROUND ROLLER STUB SHAFT         21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAPSCREW,7/16" X 1" SKT HD,NC         26       06530001       12       CAPSCREW,7/16" X 1" SKT HD,NC         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	16	21633	11	CAPSCREW,3/8" X 1-3/4",NC
192162528HEX NUT,3/8",NC20TF1045B2GROUND ROLLER STUB SHAFT216T23308CAPSCREW,7/16" X 1-1/2",SKT HD,NC22287352ADJUSTABLE ROLLER BRACKET23065200282BEARING,FLANGE,1-3/8",GRNDRLLR24065200292O-RING25065200272CAPSCREW,SKT HD,8-32 X 1/2",SS260653000112CAPSCREW,7/16" X 1" SKT HD,NC286T227010PLOW BOLT,3/8" X 1-1/4",NC29217338CAPSCREW,1/2" X 2",NC30286832FLANGE BEARING GREASE HOSE31TF10321FLANGE BEARING GREASE HOSE336T22837CARRIAGE BOLT,3/8" X 1",NC	17	21988	28	LOCKWASHER,3/8"
20         TF1045B         2         GROUND ROLLER STUB SHAFT           21         6T2330         8         CAPSCREW,7/16" X 1-1/2",SKT HD,NC           22         28735         2         ADJUSTABLE ROLLER BRACKET           23         06520028         2         BEARING,FLANGE,1-3/8",GRNDRLLR           24         06520029         2         O-RING           25         06520027         2         CAP,BEARING,GROUNDROLLER           26         06530001         12         CAPSCREW,SKT HD,8-32 X 1/2",SS           27         6T2331         8         CAPSCREW,7/16" X 1" SKT HD,NC           28         6T2270         10         PLOW BOLT,3/8" X 1-1/4",NC           29         21733         8         CAPSCREW,1/2" X 2",NC           30         28683         2         FLANGE BEARING           31         TF1032         1         FLANGE BEARING GREASE HOSE           32         6T2615         7         FENDER WASHER,3/8"           33         6T2283         7         CARRIAGE BOLT,3/8" X 1",NC	18	28701	2	DEFLECTOR FLAP
21       6T2330       8       CAPSCREW,7/16" X 1-1/2",SKT HD,NC         22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAP,BEARING,GROUNDROLLER         26       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	19	21625	28	HEX NUT,3/8",NC
22       28735       2       ADJUSTABLE ROLLER BRACKET         23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAP,BEARING,GROUNDROLLER         26       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	20	TF1045B	2	GROUND ROLLER STUB SHAFT
23       06520028       2       BEARING,FLANGE,1-3/8",GRNDRLLR         24       06520029       2       O-RING         25       06520027       2       CAP,BEARING,GROUNDROLLER         26       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	21	6T2330	8	CAPSCREW,7/16" X 1-1/2",SKT HD,NC
24065200292O-RING25065200272CAP,BEARING,GROUNDROLLER260653000112CAPSCREW,SKT HD,8-32 X 1/2",SS276T23318CAPSCREW,7/16" X 1" SKT HD,NC286T227010PLOW BOLT,3/8" X 1-1/4",NC29217338CAPSCREW,1/2" X 2",NC30286832FLANGE BEARING31TF10321FLANGE BEARING GREASE HOSE326T26157FENDER WASHER,3/8"336T22837CARRIAGE BOLT,3/8" X 1",NC	22	28735	2	ADJUSTABLE ROLLER BRACKET
25       06520027       2       CAP,BEARING,GROUNDROLLER         26       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	23	06520028	2	BEARING,FLANGE,1-3/8",GRNDRLLR
26       06530001       12       CAPSCREW,SKT HD,8-32 X 1/2",SS         27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	24	06520029	2	O-RING
27       6T2331       8       CAPSCREW,7/16" X 1" SKT HD,NC         28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	25	06520027	2	CAP,BEARING,GROUNDROLLER
28       6T2270       10       PLOW BOLT,3/8" X 1-1/4",NC         29       21733       8       CAPSCREW,1/2" X 2",NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	26	06530001	12	CAPSCREW,SKT HD,8-32 X 1/2",SS
29       21733       8       CAPSCREW, 1/2" X 2", NC         30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	27	6T2331	8	CAPSCREW,7/16" X 1" SKT HD,NC
30       28683       2       FLANGE BEARING         31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	28	6T2270	10	PLOW BOLT,3/8" X 1-1/4",NC
31       TF1032       1       FLANGE BEARING GREASE HOSE         32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	29	21733	8	CAPSCREW,1/2" X 2",NC
32       6T2615       7       FENDER WASHER,3/8"         33       6T2283       7       CARRIAGE BOLT,3/8" X 1",NC	30	28683	2	FLANGE BEARING
33         6T2283         7         CARRIAGE BOLT,3/8" X 1",NC	31	TF1032	1	FLANGE BEARING GREASE HOSE
	32	6T2615	7	FENDER WASHER,3/8"
3428665A1BAFFLE (INSIDE UPPER REAR OF CUTTER HEAD)	33	6T2283	7	CARRIAGE BOLT,3/8" X 1",NC
	34	28665A	1	BAFFLE (INSIDE UPPER REAR OF CUTTER HEAD)

# **63IN FLAIL DRIVE ASSEMBLY**



ITEM	PART NO.	QTY.	DESCRIPTION
1	06504132	1	MOTOR (M350-1 3/4 GEAR)
2	28703B	1	BELT GUARD
3	TF3044	1	UPPER SHEAVE
4	TF3040	1	LOWER SHEAVE
5	TF3013	1	BUSHING
6	28723	1	BUSHING
7	28679B	1	MOTOR CHANNEL
8	PT3611A	1	CLEVIS
9	40496	1	THREADED ROD
10	28702	2	BELT
11	TF3620A	1	TENSIONER SPRING
12	28572	1	SQUARE KEY
13	TF1025	1	SQUARE KEY
14	TF4852	2	FLANGE KIT
15	30308	1	HOSE,1" X 143" (PRESSURE)
16	30309	1	HOSE,1" X 143" (RETURN)
17	24724	2	SWIVEL FITTING
18	TF1033	1	GREASE ZERK
19	27580	1	BUSHING
20	28682	1	MOTOR CHANNEL WASHER
21	21732	5	CAPSCREW,1/2" X 1-3/4",NC
22	21990	5	LOCKWASHER,1/2"
23	21725	4	HEX NUT,1/2",NC
24	21727	1	NYLOCK NUT,1/2",NC
25	21630	3	CAPSCREW,3/8" X 1",NC
26	22016	2	FLATWASHER,3/8"
27	21988	3	LOCKWASHER,3/8"
28	21584	6	CAPSCREW,5/16" X 2",NC
29	21987	6	LOCKWASHER,5/16"
30	27938	1	FLATWASHER,1/2"
31	21700	2	HEX NUT,1/2",NF
32		-	CUTTER HEAD *REFER TO MOWER ASSY
33	35131	1	CLAMP,HOSE
34	06506038	1	PREFORMED TUBE
1			

#### **50IN SABER ROTARY MOWER**



5	33198	1	MOTOR MOUNTING BRACKET
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6 34479 1 SPROCKET,MOTOR

7 34482 1 CHAIN COUPLING

 8
 34483
 1
 COVER COUPLING

 9
 TF4852
 2
 FLANGE KIT

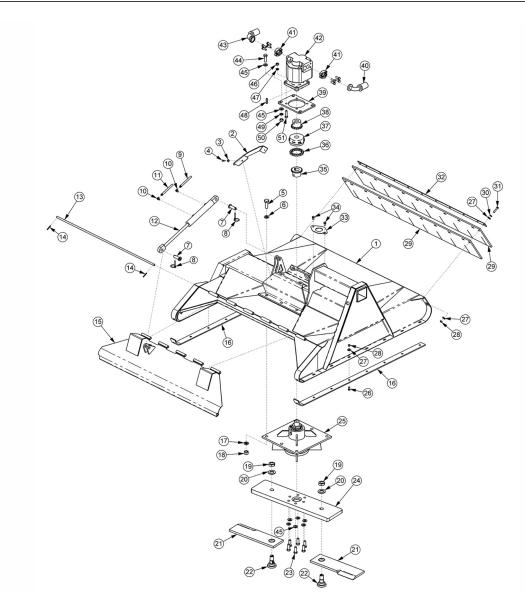
 10
 TF1124
 1
 KEY,WOODRUFF

 10
 111124
 1
 RE1, WOODKOT

 11
 33185
 1
 CYLINDER

ITEM	PART NO.	QTY.	DESCRIPTION
12	32952	2	DEFLECTOR FLAP
13	33211	1	RETAINING BAR,FLAP
14	32951	1	HINGE PIN,SHIELD
15	33924	2	ROLLPIN,HINGE PIN
16	32936	2	SKID SHOE
17	34509	1	BAR,KNIVE MOUNTING
18	33203	1	KNIVES,SET OF 2,ROTARY,3/4"
19	34883	2	BOLT,KNIFE
20	6T0822	3	SHIM, MOTOR MOUNT, THIN
21	6T0822A	3	SHIM, MOTOR MOUNT, THICK
22	TB1033	2	CLEVIS PIN
23	06537021	4	ROLL PIN,CLEVIS
24	3334306	2	ELBOW,3/8MP X 3/8MJ90
25	33223	1	HOSE,CYLINDER,3/8" X 70"
26	33222	1	HOSE,CYLINDER,3/8" X 59"
27	33548	1	HOSE, MOTOR - RETURN (BLUE DECAL STRIP)
28	33549	1	HOSE, MOTOR - PRESSRUE (RED DECAL STRIP)
29	21725	4	HEX NUT,1/2",NC
30	21990	4	LOCK WASHER,1/2"
31	21733	4	CAPSCREW,1/2" X 2",NC
32	6T2408	4	HEX NUT,5/8",NF
33	21992	4	LOCK WASHER,5/8"
34	33764	8	FLAT WASHER,5/8"
35	6T2290	4	CAPSCREW,5/8" X 2",NF
36	22016	25	FLAT WASHER,3/8"
37	21633	9	CAPSCREW,3/8" X 1-3/4",NC
38	21625	25	HEX NUT,3/8",NC
40	6T2270	14	PLOW BOLT,3/8" X 1",NC
41	33879	6	CAPSCREW,3/4" X 2-1/2",NF
42	33880	6	FLAT WASHER,3/4"
43	21993	6	LOCK WASHER,3/4"
44	6T2413	6	HEX NUT,3/4",NF
45	33860	2	HEX NUT,KNIFE
46	33859	2	FLAT WASHER,KNIFE
47	PT209	2	KEY,WOODRUFF
49	34475	6	HEX HD CAPSCREW,3/4" X 2",NF
50	33614	1	PLATE, SPINDLE COLLAR
51	33617	2	SHIM,STRAP,SPINDLE
53	33219	1	SPINDLE
54		-	SPROCKET *REFER TO SPINDLE PARTS
	33891	-	KIT,KNIVES (INCLUDES ITEMS 18,19,39,45,46,47)

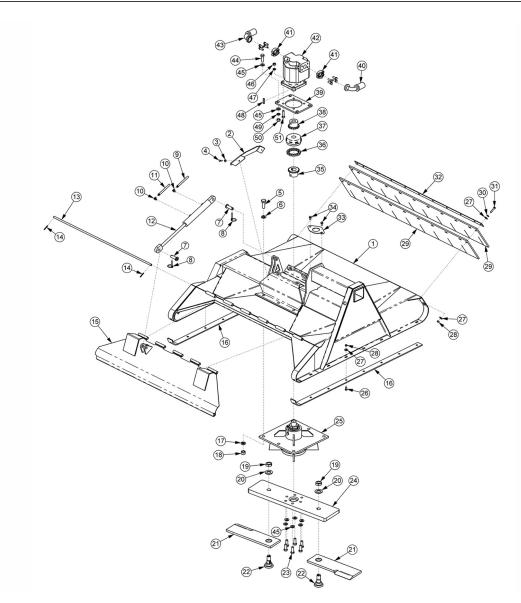
# **50IN SABER MB ROTARY MOWER**



ITEM	PART NO.	QTY.	DESCRIPTION
	06741036	-	ROTARY,SABER,ASSY
1	06320009	1	ROTARY,SABER,DECK
2	06410439	1	COVER, MOTOR MNT
3	22014	2	FLATWASHER,1/4"
4	21530	2	CAPSCREW,1/4" X 1",NC
5	33879	6	CAPSCREW,3/4" X 2-1/4",NF,GR 8
6	33880	6	FLATWASHER,3/4",GR 8,SAE
7	33984	2	PIN,SHIELD,50"
8	RD1032	2	PIN,LYNCH,1/4" X 2"
9	06500366	1	HOSE,3/8" X 98"
10	32810	2	ELBOW,1/2" X 3/8"
11	06500670	1	HOSE,3/8" X 108"

ITEM	PART NO.	QTY.	DESCRIPTION
12	33785	1	CYL,1-1/2 X 8"
13	33778	1	HINGE PIN,50" RTRY
14	6T3017	2	ROLLPIN,3/16" X 1"
15	33754	1	SHIELD,50" RTRY
16	33777	2	SKID SHOE,50" RTRY
17	21993	6	LOCKWASHER,3/4",GR 8
18	6T2413	6	HEX NUT,3/4",NF,GR 8
19	6T1023R	2	KNIFE MTG NUT,1-1/8",NF,GR8
20	06533002	2	FLATWASHER,1-1/8",GR8
21	06521001	2	KNIFE,TRB 50,5/8"
22	06538000	2	KNIFE MTG BOLT,5/8",SHOULDER
23	6T2259	6	CAPSCREW,5/8" X 1-3/4",NF,GR8
24	06400388	1	BAR,BLADE,TRB
25	6T1024H5	1	SPINDLE
26	6T2270	16	PLOW BOLT,3/8" X 1",NC,GR5
27	22016	29	FLATWASHER,3/8"
28	21625	29	HEX NUT,3/8",NC
29	33775	2	FLAP,50" RTRY
30	21988	13	LOCKWASHER,3/8"
31	21633	13	CAPSCREW,3/8" X 1-3/4",NC
32	33774	1	FLAP RETAINER,50" RTRY
33	33779	1	PLATE,COVER,KNF HOLE
34	33881	2	CAPSCREW,FLG,3/8" X 3/4",NC
35		-	SPROCKET *REFER TO SPINDLE PARTS
36	6T1029	1	CHAIN,COUPLING (5016)
37	6T1033	1	COVER,COUPLING
38	21223	1	SPROKET,1-1/4" BORE
39	33776	1	MOTOR MOUNT, PLATE, 50" RTRY
40	06500495	1	HOSE - PRESSURE (RED DECAL STRIP)
41	TF4852	2	KIT,FLANGE #20
42	06504012	1	MOTOR,(M365-1-1/2" GEAR)
43	06500669	1	HOSE - RETURN (BLUE DECAL STRIP)
44	6T2290	4	CAPSCREW,5/8" X 2",NF,GR 8
45	33764	14	FLATWASHER,5/8",GR 8,SAE
46	21725	4	HEX NUT,1/2" NC
47	21990	4	LOCKWASHER,1/2"
48	TF1124	1	KEY,WOODRUFF
49	21992	4	LOCKWASHER,5/8"
50	6T2408	4	HEX NUT,5/8",NF
51	21733	4	CAPSCREW,1/2" X 2",NC
52	6T2259	6	CAPSCREW,5/8" X 1-3/4",NF,GR 8

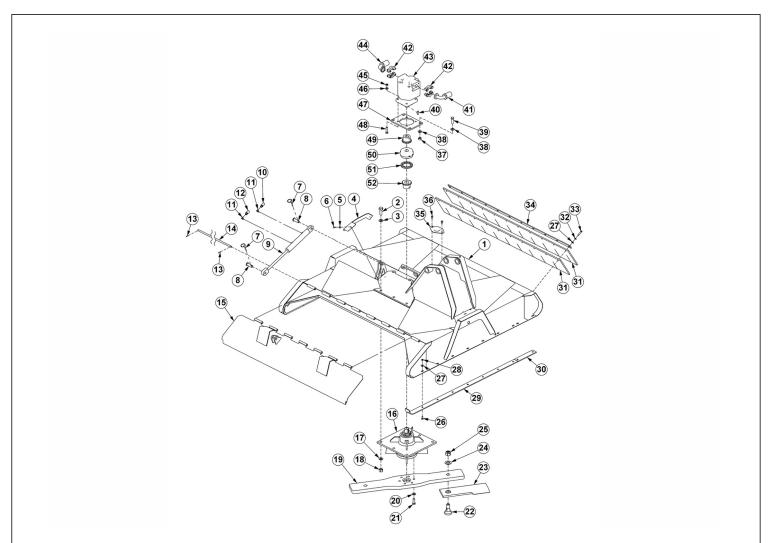
# **50IN SABER XB ROTARY MOWER**



ITEM	PART NO.	QTY.	DESCRIPTION
	06741036	-	ROTARY, SABER XB, ASSY
1	06320009	1	ROTARY,SABER XB,DECK
2	06410439	1	COVER, MOTOR MNT
3	22014	2	FLATWASHER,1/4"
4	21530	2	CAPSCREW,1/4" X 1",NC
5	33879	6	CAPSCREW,3/4" X 2-1/4",NF,GR 8
6	33880	6	FLATWASHER,3/4",GR 8,SAE
7	33984	2	PIN,SHIELD,50"
8	RD1032	2	PIN,LYNCH,1/4" X 2"
9	06500291	1	HOSE,3/8" X 74"
10	32810	2	ELBOW,1/2" X 3/8"
11	06500292	1	HOSE,3/8" X 85"

ITEM	PART NO.	QTY.	DESCRIPTION
12	33785	1	CYL,1-1/2 X 8"
13	33778	1	HINGE PIN,50" RTRY
14	6T3017	2	ROLLPIN,3/16" X 1"
15	33754	1	SHIELD,50" RTRY
16	33777	2	SKID SHOE,50" RTRY
17	21993	6	LOCKWASHER,3/4",GR 8
18	6T2413	6	HEX NUT,3/4",NF,GR 8
19	6T1023R	2	KNIFE MTG NUT,1-1/8",NF,GR8
20	06533002	2	FLATWASHER,1-1/8",GR8
21	06521001	2	KNIFE,TRB 50,5/8"
22	06538000	2	KNIFE MTG BOLT,5/8",SHOULDER
23	6T2259	6	CAPSCREW,5/8" X 1-3/4",NF,GR8
24	06400388	1	BAR,BLADE,TRB
25	6T1024H5	1	SPINDLE
26	6T2270	16	PLOW BOLT,3/8" X 1",NC,GR5
27	22016	29	FLATWASHER,3/8"
28	21625	29	HEX NUT,3/8",NC
29	33775	2	FLAP,50" RTRY
30	21988	13	LOCKWASHER,3/8"
31	21633	13	CAPSCREW,3/8" X 1-3/4",NC
32	33774	1	FLAP RETAINER,50" RTRY
33	33779	1	PLATE,COVER,KNF HOLE
34	33881	2	CAPSCREW,FLG,3/8" X 3/4",NC
35		-	SPROCKET *REFER TO SPINDLE PARTS
36	6T1029	1	CHAIN, COUPLING (5016)
37	6T1033	1	COVER,COUPLING
38	21223	1	SPROKET,1-1/4" BORE
39	33776	1	MOTOR MOUNT,PLATE,50" RTRY
40	33549	1	HOSE - PRESSURE (RED DECAL STRIP)
41	TF4852	2	KIT,FLANGE #20
42	06504012	1	MOTOR,(M365-1-1/2" GEAR)
43	33548	1	HOSE - RETURN (BLUE DECAL STRIP)
44	6T2290	4	CAPSCREW,5/8" X 2",NF,GR 8
45	33764	14	FLATWASHER,5/8",GR 8,SAE
46	21725	4	HEX NUT,1/2" NC
47	21990	4	LOCKWASHER,1/2"
48	TF1124	1	KEY,WOODRUFF
49	21992	4	LOCKWASHER,5/8"
50	6T2408	4	HEX NUT,5/8",NF
51	21733	4	CAPSCREW,1/2" X 2",NC
52	6T2259	6	CAPSCREW,5/8" X 1-3/4",NF,GR 8

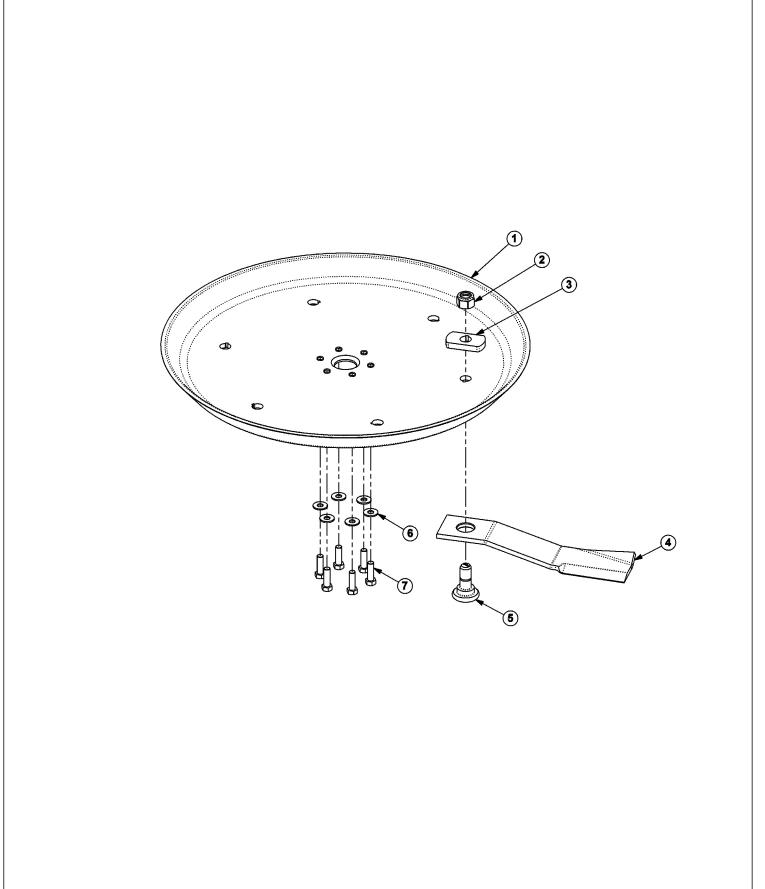
# **60IN SABER ROTARY MOWER**



ITEM	PART NO.	QTY.	DESCRIPTION
	06741072	-	ROTARY,SABER 60",ASSY
1	06320169	1	ROTARY,SABER 60",DECK
2	33879	6	CAPSCREW, 3/4" X 2-1/4",NF GR 8
3	33880	6	FLATWASHER,3/4",GR 8,SAE
4	06410439	1	COVER, MOTOR MNT
5	22014	2	FLATWASHER,1/4"
6	21530	2	CAPSCREW,1/4" X 1",NC
7	RD1032	2	PIN,LYNCH,1/4" X 2"
8	33984	2	PIN,SHIELD
9	33785	1	CYL,1-1/2" X 8"
10	06500292	1	HOSE,3/8" X 85"
	06500389	1	HOSE,3/8" X 88" (SABER MB)
11	32810	2	ELBOW,1/2" X 3/8"
12	06500384	1	HOSE,3/8" X 94"
	06500366	1	HOSE,3/8" X 98" (SABER MB)
13	6T3017	2	ROLLPIN,3/16" X 1"

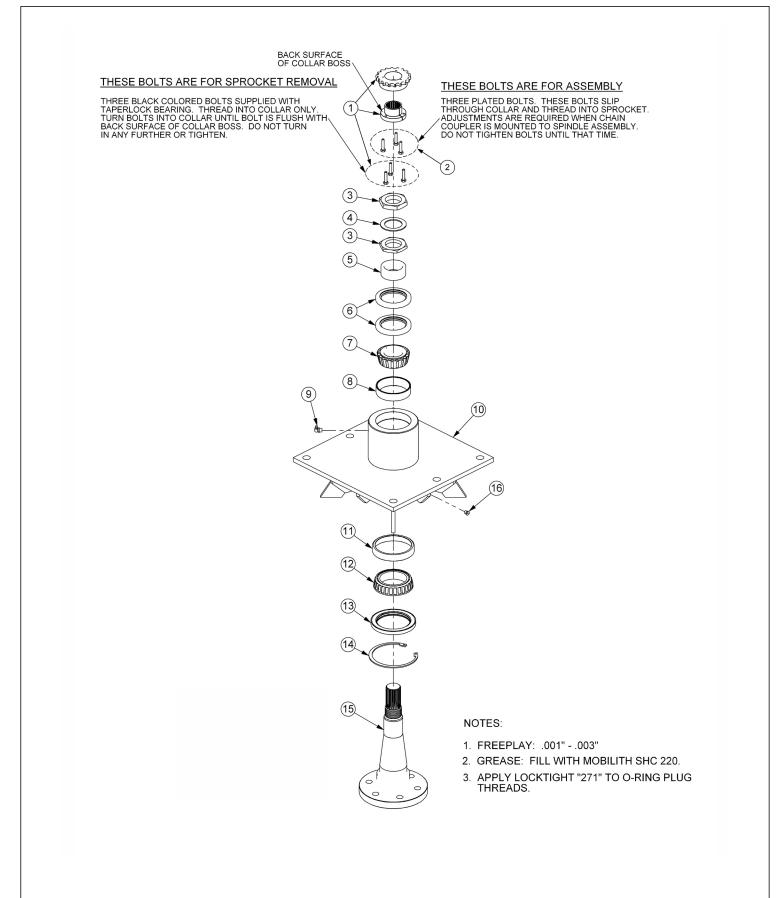
ITEM	PART NO.	QTY.	DESCRIPTION
14	06420139	1	HINGE PIN,60" RTRY
15	06320162	1	SHIELD,60" RTRY
16	6T1024H5	1	SPINDLE
17	21993	6	LOCKWASHER,3/4",GR 8
18	6T2413	6	HEX NUT,3/4",NF,GR 8
19	06400690	1	BAR,BLADE,60" RTRY
20	33764	6	FLATWASHER,5/8",GR 8,SAE
21	6T2259	6	CAPSCREW,5/8" X 1-3/4",NF,GR 8
22	06538000	2	KNIFE MTG BOLT,5/8" SHOULDER
23	06521001	2	KNIFE,TRB50,5/8"
24	06533002	2	FLATWASHER,1-1/8",GR 8
25	6T1023R	2	KNIFE MTG NUT,1-1/8",NF,GR 8
26	6T2270	20	PLOW BOLT,3/8" X 1",NC,GR5
27	22016	31	FLATWASHER,3/8"
28	21625	20	HEX NUT,3/8",NC
29	33777	2	SKID SHOE,50" RTRY
30	06401245	2	SKID SHOE,60" RTRY
31	06520238	2	FLAP, DEFLECTOR, 60" RTRY
32	21988	11	LOCKWASHER,3/8"
33	21633	11	CAPSCREW,3/8" X 1-3/4",NC
34	6T0823	1	FLAP RETAINER,60" RTRY
35	33779	1	PLATE,COVER,KNF HOLE
36	33881	2	CAPSCREW,FLG,3/8" X 3/4",NC
37	6T2408	4	HEX NUT,5/8",NF
38	33764	8	FLATWASHER,5/8",GR 8,SAE
39	6T2290	4	CAPSCREW,5/8" X 2",NF,GR 8
40	TF1124	1	KEY,WOODRUFF
41	33549	1	HOSE - PRESSURE (RED DECAL STRIP)
	33548	1	HOSE - PRESSURE (SABER MB) (RED DECAL STRIP)
42	TF4852	2	KIT,FLANGE #20
43	06504011	1	MOTOR,(M365-2-1/4" GEAR)
44	33548	1	HOSE - RETURN (BLUE DECAL STRIP)
	06500495	1	HOSE - RETURN (SABER MB) (BLUE DECAL STRIP)
45	21727	4	NYLOCK NUT,1/2",NC
46	06533004	4	FLATWASHER,1/2",GR 8,SAE
47	33776	1	MOTOR MOUNT, PLATE, 50" RTRY
48	21733	4	CAPSCREW,1/2" X 2",NC
49	21223	1	SPROKET,1-1/4" BORE
50	6T1033	1	COVER,COUPLING
51	6T1029	1	CHAIN,COUPLING (5016)
52		-	SPROCKET *REFER TO SPINDLE PARTS

# **60IN ROTARY KNIFE AND DISH OPTION**



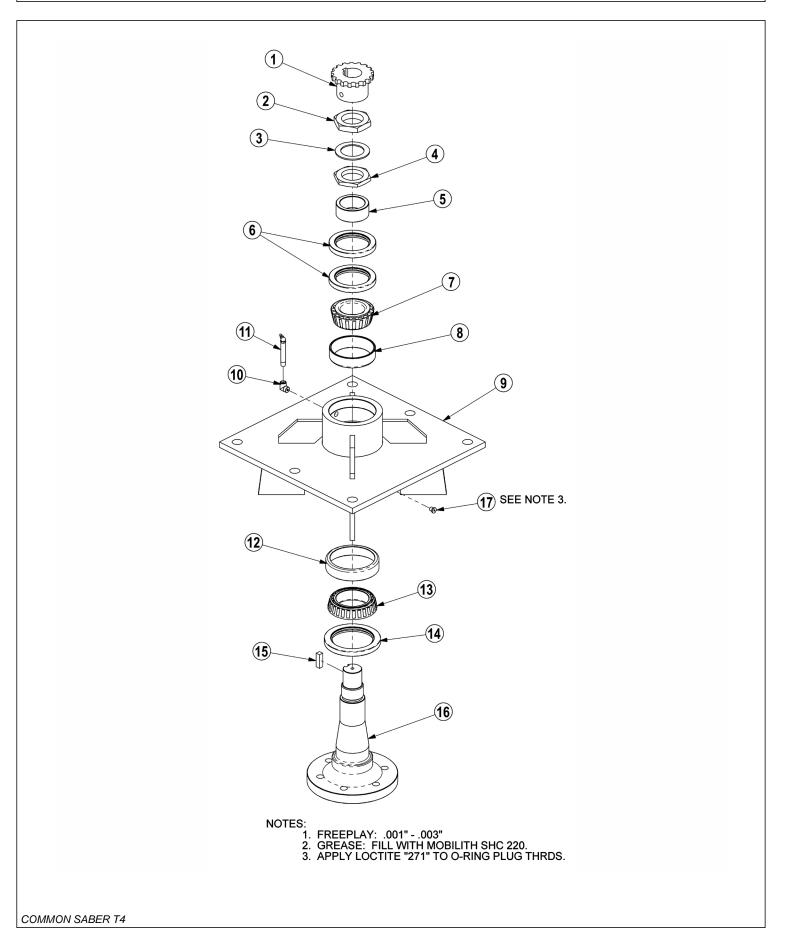
ITEM	PART NO.	QTY.	DESCRIPTION
1	34876	1	BLADE MOUNTING DISK
2	6T1023R	2	NYLOCK NUT,1-1/8"
3	34878	2	SPACER
4	34684	2	GRASS KNIFE
5	34497	2	KNIFE MOUNTING BOLT
6	33764	6	FLATWASHER
7	6T2259	6	CAPSCREW
	27167	1	BOLT KIT (INCLUDES ITEMS 6 & 7)
	6T1825	1	LOCTITE - USED ON ALL DISK MOUNTING BOLTS
	33893	1	KNIFE KIT (INCLUDES ITEMS 2, 4 & 5)

### SABER SPINDLE ASSEMBLY



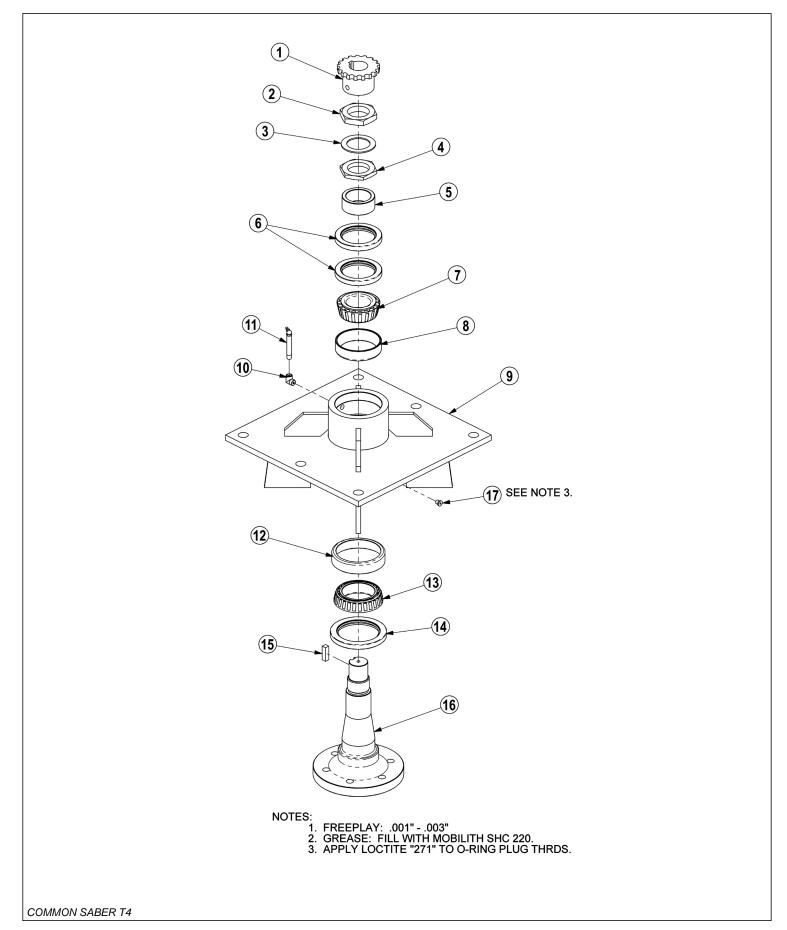
33219 - SPI	NDLE ASSY,ROTARY
1 34480 1 TA	PERLOCK SPROCKET
2 21530 3 CA	PSCREW,1/4" X 1",NC
3 6T1015 2 BEA	ARING LOCK NUT, THIN
4 22596 1 JAN	MWASHER
5 6T1014 1 BEA	ARING ADJUST SLEEVE
6 6T1011 2 UP	PER SEAL,SMALL
7 6T1012 1 BEA	ARING CONE,SMALL
8 6T1013 1 BEA	ARING CUP,SMALL
9 6T3210 1 GR	EASE ZERK
10 32953 1 SPI	NDLE HOUSING, SABER
11 33200 1 BEA	ARING CUP,LARGE
12 33199 1 BEA	ARING CONE,LARGE
13 33201 1 LO	WER SEAL,LARGE
14 33202 1 SNA	AP RING
15 33186 1 SPI	NDLE,SABER
16 06503064 1 O-F	RING PLUG,1/8"

### SABER XB & 60IN SPINDLE ASSY



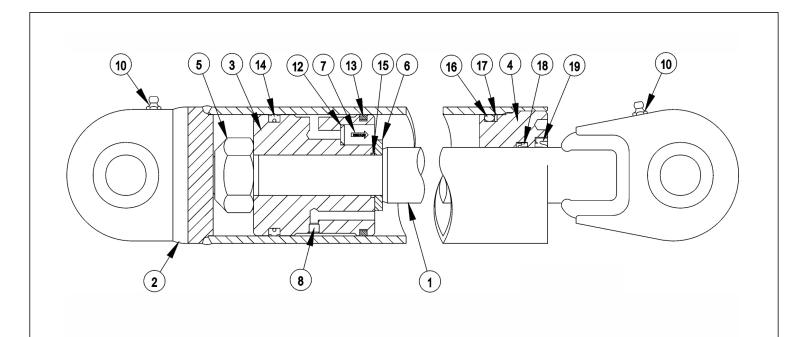
ITEM	PART NO.	QTY.	DESCRIPTION
	6T1024H5	-	SPINDLE ASSEMBLY
1	6T1031	1	SPROCKET
2	6T1016	1	BEARING LOCK NUT, THICK
3	22596	1	JAM WASHER
4	6T1015	1	BEARING ADJUSTMENT NUT, THIN
5	6T1014	1	BEARING ADJUSTMENT SLEEVE
6	6T1011	1	UPPER SEAL (SET OF 2)
7	6T1012	1	BEARING CONE
8	6T1013	1	BEARING CUP
9	6T1010H	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"
	32572	-	SPINDLE REBUILD KIT (ITEMS 2 THRU 8 & 12 THRU 15)

### **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)

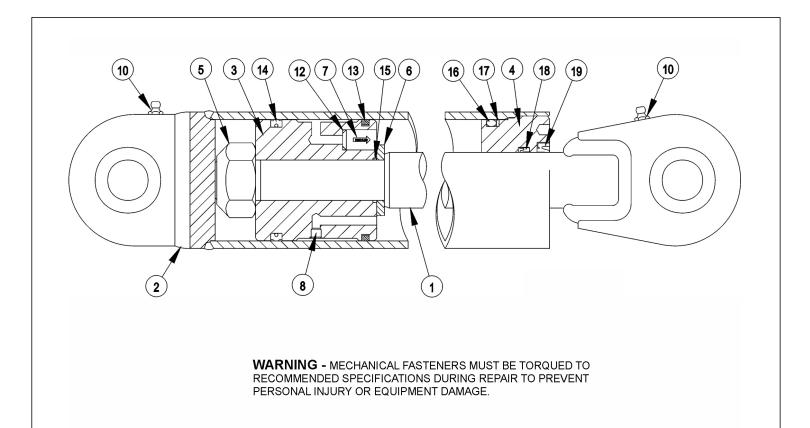
### **3IN X 17-1/2IN WELDED CYLINDER BREAKDOWN**



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

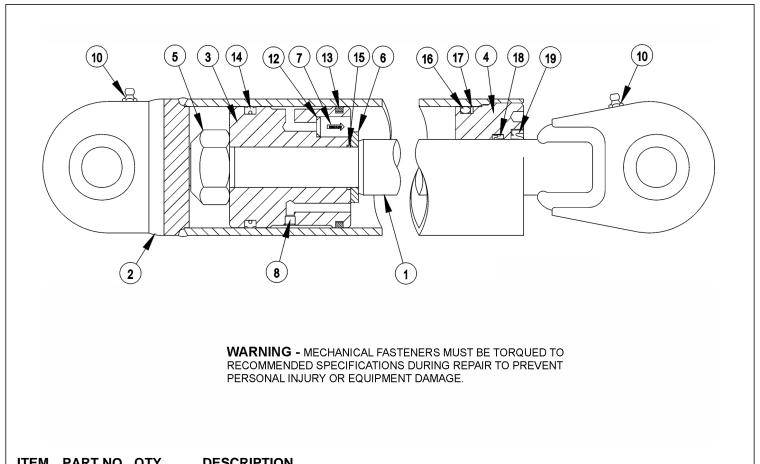
ITEM	PART NO.	QTY.	DESCRIPTION
	33705	-	CYLINDER,WELDED,3" X 17-1/2"
1	34571	1	PISTON ROD ASSY
2	34572	1	BUTT & TUBE ASSY
3	34573	1	PISTON
4	34574	1	GLAND
5	34575	1	LOCK NUT,1"-14 UNS (TORQUE TO 315 FT.LB.)
6	34576	1	SPACER
7	34577	1	CHECK VALVE, KEPNER
8	34578	1	ORIFICE
9	33761	1	SEAL KIT, PACKING (ITEMS 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
16		1	O - RING
17		1	BACK - UP WASHER
18		1	U - CUP
19		1	WIPER
20	34334	-	SPHERICAL BEARING (NOT SHOWN)

### 4IN X 15IN WELDED CYLINDER BREAKDOWN



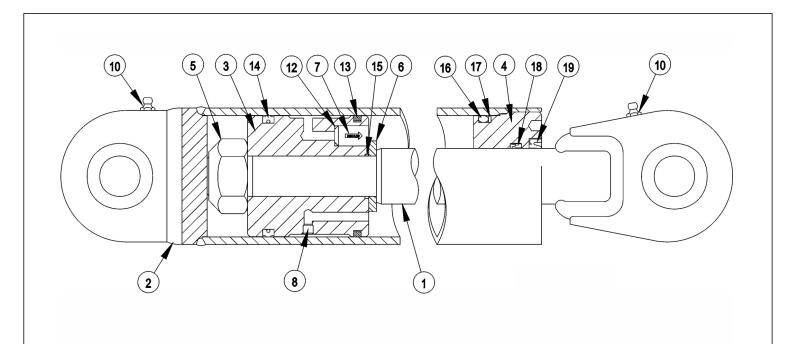
	ITEM	PART NO.	QTY.	DESCRIPTION
		32365	-	CYLINDER,WELDED,4" X 15"
	1	34580	1	PISTON ROD ASSY
	2	34581	1	BUTT & TUBE ASSY
	3	34582	1	PISTON
	4	34583	1	GLAND
	5	34584	1	LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)
	9	33757	1	SEAL KIT, PACKING (ITEMS 12 THRU 19)
	10		2	GREASE ZERK
	12		1	O - RING
	13		1	CAST IRON PISTON RING
	14		1	CROWN SEAL
	15		1	O - RING
	16		1	O - RING
	17		1	BACK - UP WASHER
	18		1	U - CUP
	19		1	WIPER
	20	34335	-	SPHERICAL BEARING (NOT SHOWN)
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### 4-1/2IN X 26-1/2IN WELDED CYLINDER BREAKDOWN



l	ITEM	PART NO.	QTY.	DESCRIPTION
		32364	-	CYLINDER,WELDED,4-1/2" X 26-1/2"
	1	34586	1	PISTON ROD ASSY
	2	34587	1	BUTT & TUBE ASSY
	3	34588	1	PISTON
	4	34589	1	GLAND
	5	34590	1	LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)
	9	33758	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
	16		1	O - RING
	17		1	BACK - UP WASHER
	18		1	U - CUP
	19		1	WIPER
	20	34335	-	SPHERICAL BEARING (NOT SHOWN)
т				

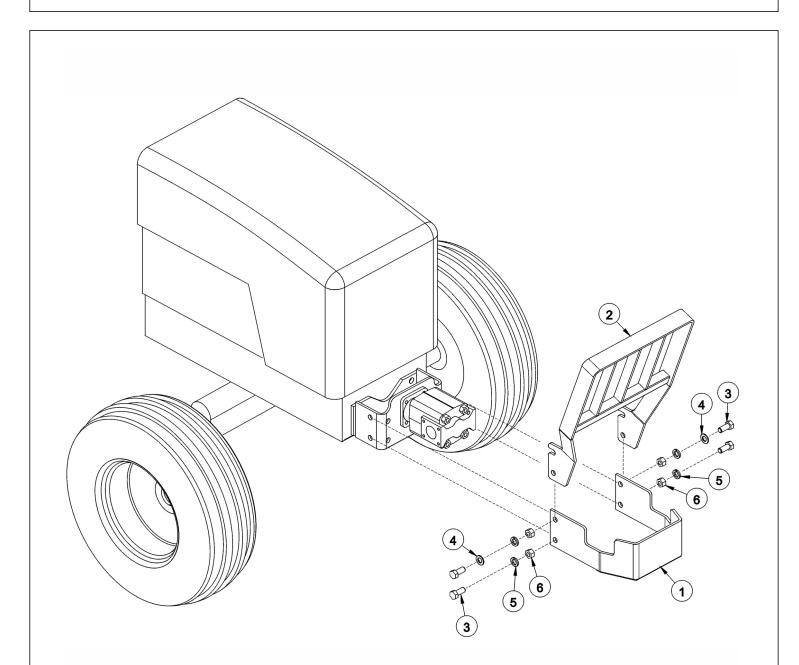
### **5IN X 25IN WELDED CYLINDER BREAKDOWN**



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

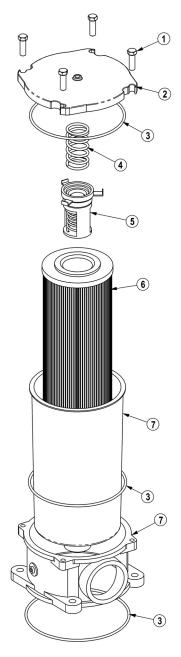
ITEM	PART NO.	QTY.	DESCRIPTION
	32363	-	CYLINDER,WELDED,5" X 25"
1	34592	1	PISTON ROD ASSY
2	34593	1	BUTT & TUBE ASSY
3	34594	1	PISTON
4	34595	1	GLAND
5	34596	1	LOCK NUT,1-3/4"-12 UNF (TORQUE TO 1800 - 2000 FT.LB.)
7	34597	1	CHECK VALVE, KEPNER
8	34598	1	ORIFICE
9	33759	1	SEAL KIT, PACKING (ITEMS 12 THRU 19)
10		2	GREASE ZERK
12		1	O - RING
13		1	CAST IRON PISTON RING
14		1	CROWN SEAL
15		1	O - RING
16		1	O - RING
17		1	BACK - UP WASHER
18		1	U - CUP
19		1	WIPER
20	34335	-	SPHERICAL BEARING (NOT SHOWN)

# PUMP AND GRILL GUARD OPTIONS



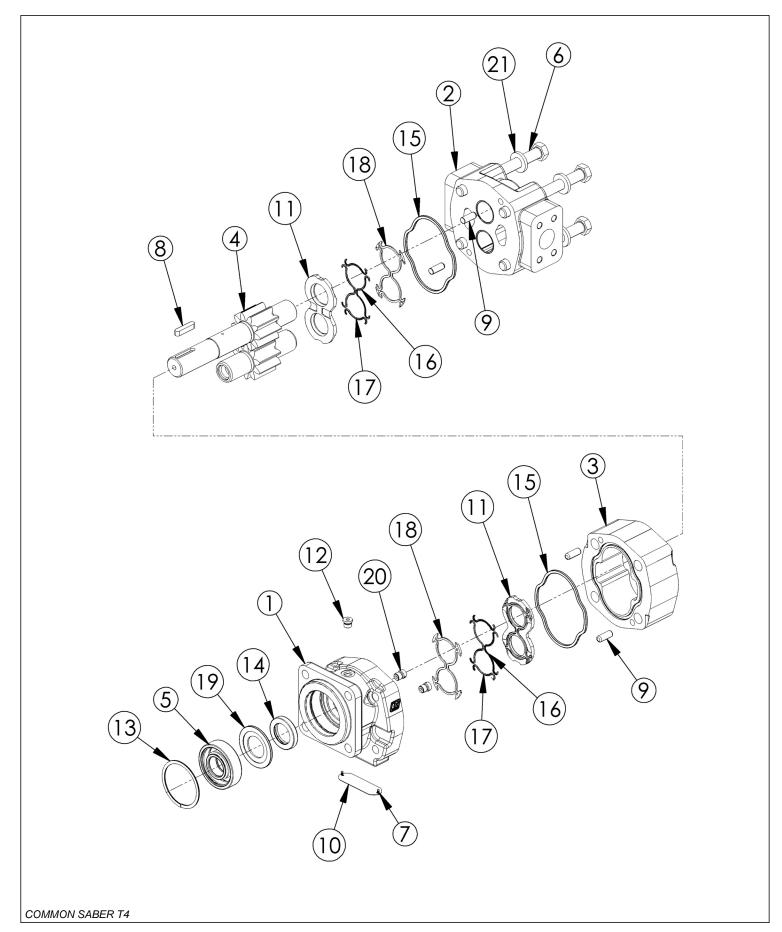
ITEM	PART NO.	QTY.	DESCRIPTION
1	32430	1	UNIVERSAL PUMP GUARD
2	32737	1	UNIVERSAL GRILL GUARD
3	21833	4	CAPSCREW,3/4" X 2-1/4",NC
4	22021	2	FLATWASHER,3/4"
5	21993	4	LOCKWASHER,3/4"
6	21825	4	HEX NUT,3/4",NC

# **RESERVOIR TANK FILTER ASSEMBLY**



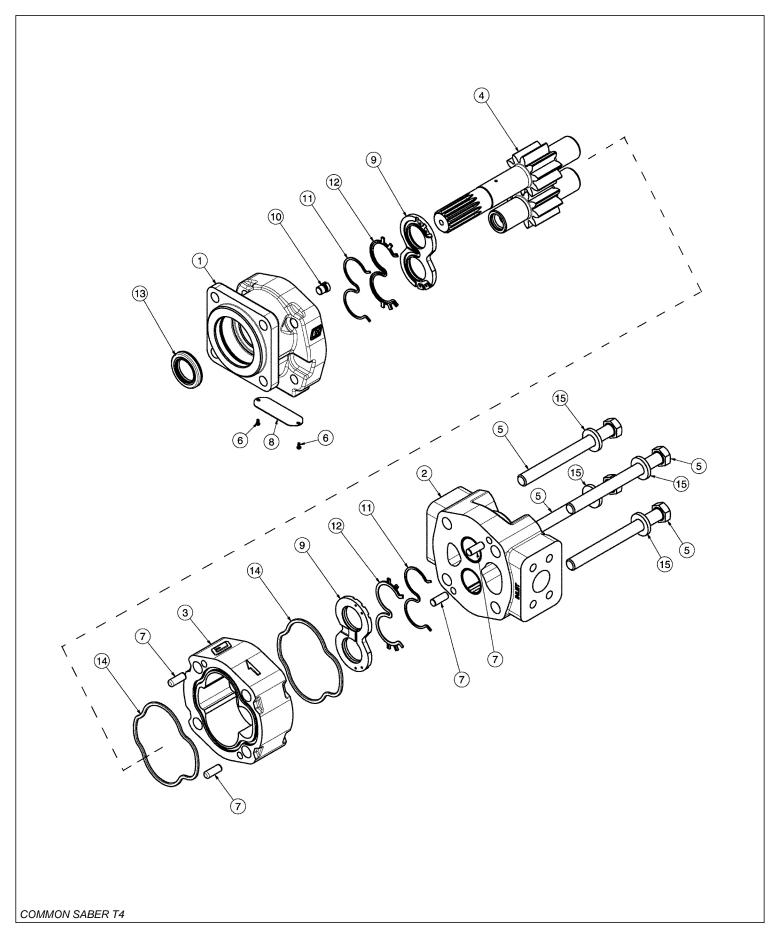
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	ITEM	PART NO.	QTY.	DESCRIPTION
		06505044	-	FILTER ASSY SAE 10 MICRON
	1	28583	4	CAPSCREW,8MM X 25MM(1.25 PITCH)
	2	06505045	1	COVER
	3	06505046	1	SEAL KIT
	4	06505047	1	SPRING
	5	06505048	1	BYPASS
	6	35259	1	FILTER,10 MIC,RETURN LINE
	7	06505049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

# 50IN AND 63IN FLAIL MOTOR BREAKDOWN



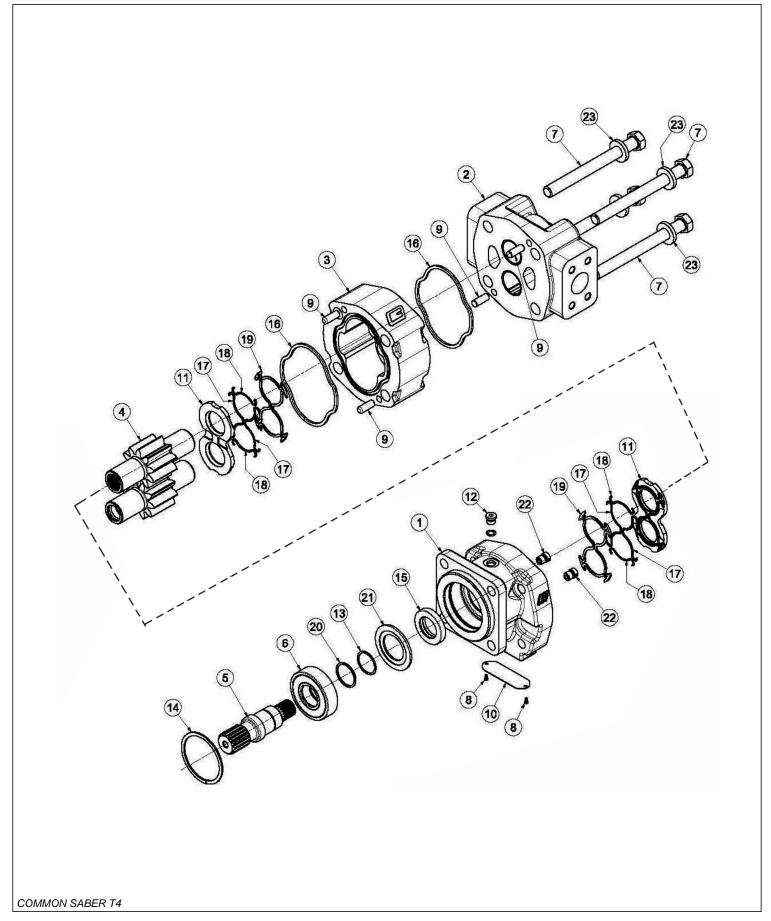
ITEM	PART NO.	QTY.	DESCRIPTION
	06504132	-	MOTOR ASSEMBLY 350
1	06504039	1	SHAFT END COVER
2	06504040	1	PORT END COVER
3	06504041	1	GEAR HOUSING
4	06504042	1	MATCHED GEAR SET
5	TF4402	1	BALL BEARING
6	06504043	4	CAP SCREW
7	06504044	2	SET SCREW
8	06504028	1	KEY
9	06504045	4	DOWEL PIN
10		1	NAMEPLATE
11	763759	2	THRUSTPLATE
12	02961940	1	HEX PLUG
13	TF4401	1	SNAP RING
14	06504049	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	06504048	1	SEAL RETAINER
20	6T5809	2	CHECK ASSEMBLY
21	02961917	4	WASHER
	06504116	-	SEAL KIT (INCLUDES 14, 15, 16, 17, AND 18)

# FRONT HYDRAULIC PUMP



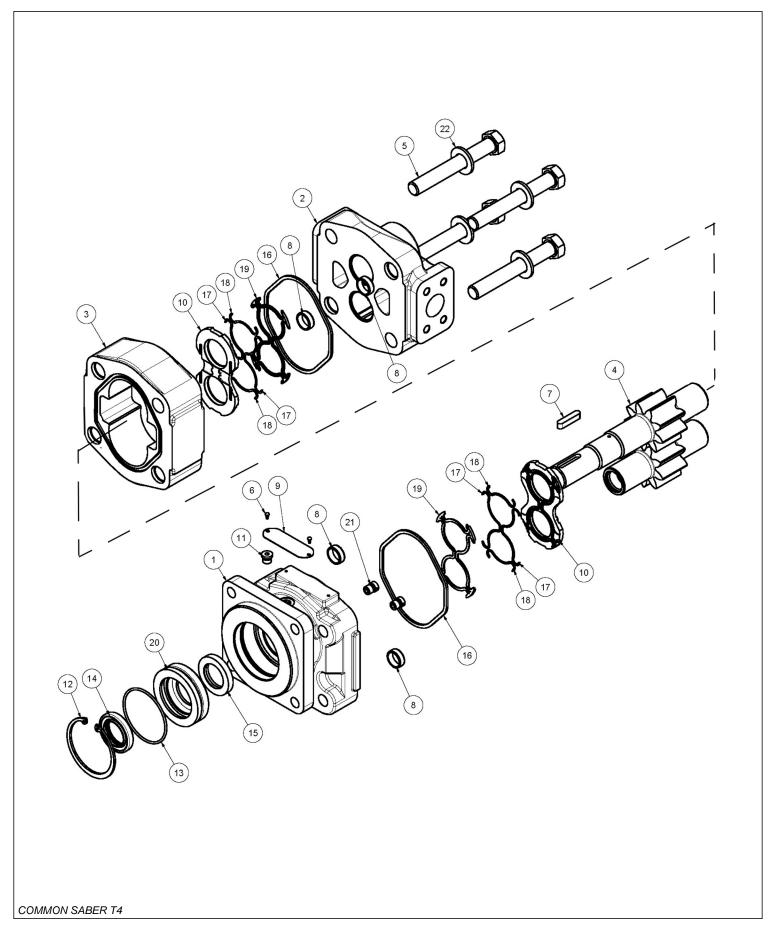
ITEM	PART NO.	QTY.	DESCRIPTION
	23152	1	PUMP ASSEMBLY,1-3/4",COMPLETE
1	22766	1	SHAFT END COVER
2	22779	1	PORT END COVER
3	22774	1	GEAR HOUSING,1-3/4"
4	22771	1	GEAR SET
5	23824	4	CAPSCREW
6	06504078	2	SCREW, DRIVE
7	22773	4	DOWEL PINS
8	06504077	1	NAMEPLATE
9	22770	2	THRUST PLATE
10	22767	1	PLUG
11	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)

## **50IN FLAIL DIRECT DRIVE MOTOR BREAKDOWN**

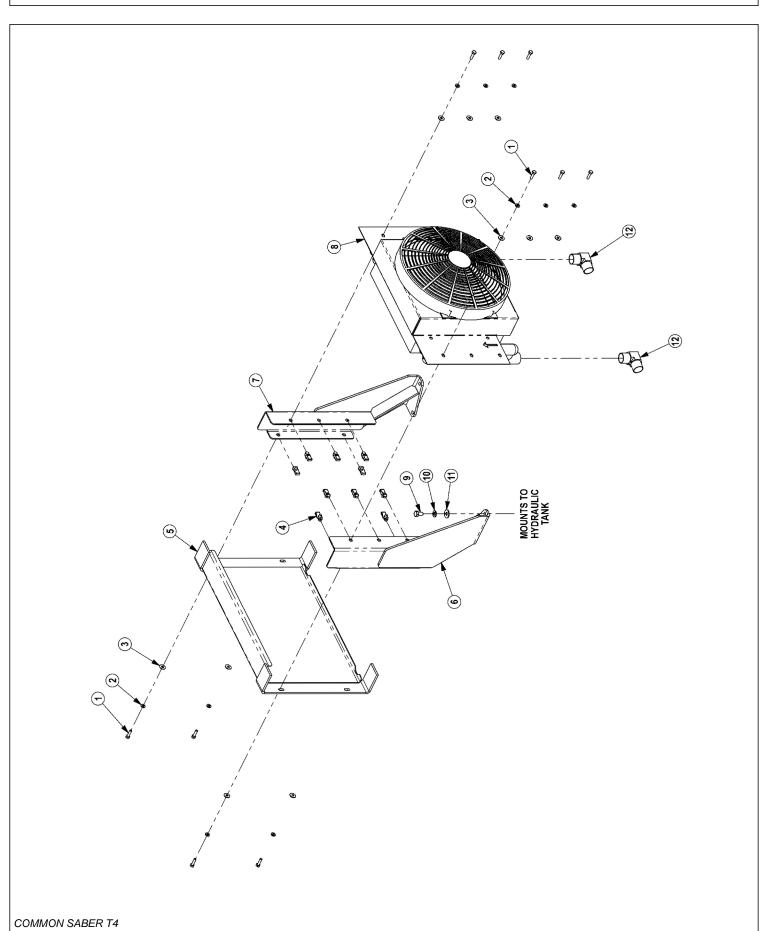


ITEM	PART NO.	QTY.	DESCRIPTION
	06504003	-	MOTOR ASSEMBLY, DIRECT DRIVE
1	06504039	1	HOUSING,SEC
2	06504040	1	HOUSING,PEC
3	06504041	1	HOUSING,GEAR
4	06504117	1	GEAR,SET
5	06504118	1	SHAFT,CONTINENTAL
6	TF4402	1	BRG,BALL
7	06504043	4	CAPSCREW
8	06504044	2	SCREW, DRIVE
9	06504045	4	PIN,DOWEL
10	06504077	1	NAME PLATE
11	763759	2	THRPL
12	02961940	1	PLUG,ODT
13	06504119	1	RING,SNAP
14	TF4401	1	RING,SNAP
15	06504120	1	SEAL,LIP
16	TF4410	2	SEAL,SQ-R
17	06504046	4	SEAL,SIDE
18	06504047	4	SEAL,END
19	TF4407	2	SEAL,BACK-UP
20	06504121	1	SPACER,BRG
21	06504122	1	RTNR,SEAL
22	6T5809	2	CHECK ASSY
23	02961917	4	WASHER
	06504116	1	SEAL KIT - ITEMS 14 THRU 19 (NOT SHOWN)

# **50IN AND 60IN ROTARY MOTOR BREAKDOWN**



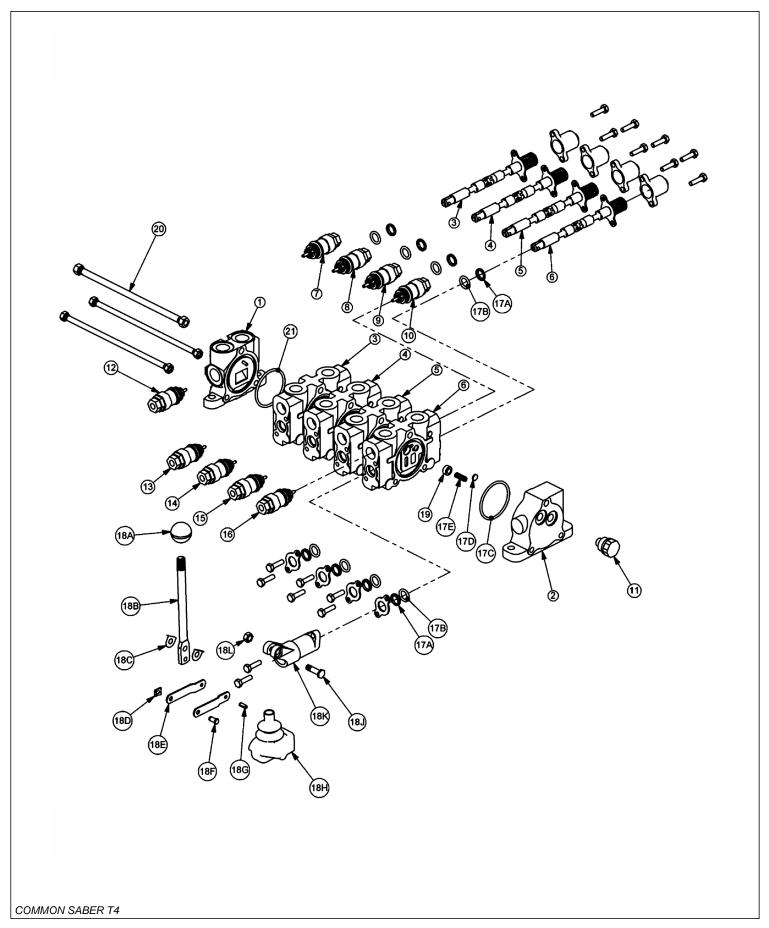
ITEM	PART NO.	QTY.	DESCRIPTION
	06504011	-	MOTOR ASSEMBLY, TRB60
	06504012	-	MOTOR ASSEMBLY, TRB50
1	22790	1	HOUSING, SEC
2	06504088	1	HOUSING, PEC
3	06504062	1	HOUSING, GEAR, TRB60
	06504089	-	HOUSING, GEAR, TRB50
4	06504090	1	SET, GEAR SHAFT
5	06504104	4	CAP SCREW, TRB60
	06504091	-	CAP SCREW, TRB50
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	-	SEAL KIT



**COOLER ASSEMBLY** 

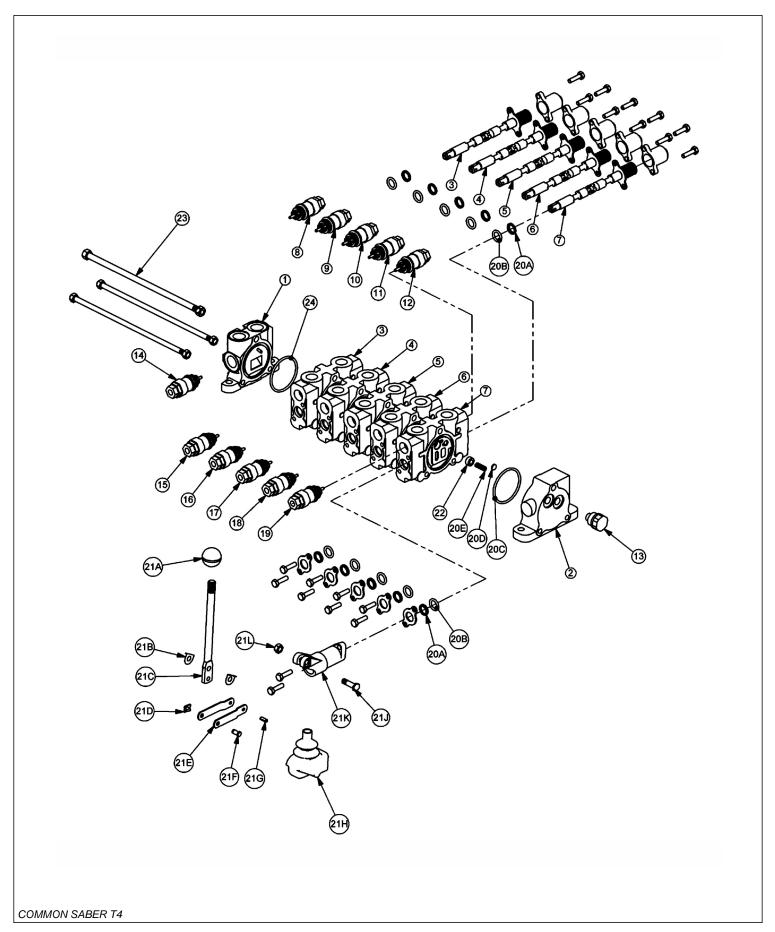
ITEM	PART NO.	QTY.	DESCRIPTION
1	21530	10	CAPSCREW,1/4 X1 NC
2	21986	10	LOCKWASHER,1/4
3	22014	10	FLATWASHER,1/4
4	35176	10	1/4 U-NUT
5	06370015	1	SCREEN,COOLER,FRNT
6	06380006	1	MNT,COOLER,BUMPER TANK,RH
7	06380007	1	MNT,COOLER,BUMPER TANK,LH
8	06510026	1	COOLER, FRONT MNT
	06510029	1	FAN ASSY, ONLY
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

# CABLE (MANUAL) LIFT VALVE, 4 SPOOL - 06502104

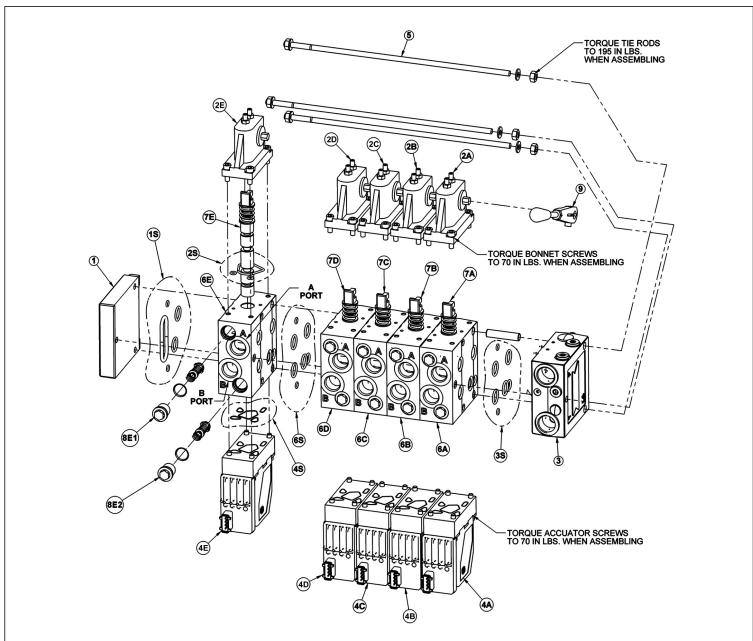


ITEM	PART NO.	QTY.	DESCRIPTION
1	31595	1	INLET END COVER
2	31594	1	END COVER, LOAD SENSE
3	31597	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING)
4	31597	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING)
5	31600	1	VALVE SECTION (DOUBLE ACTING, DETENT-FLOAT)
6	31598	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING, METERED)
7	06503067	1	#10 O-RING PLUG
8	06502003	1	RELIEF VALVE, 2500 PSI
9	31862	1	RELIEF VALVE, 2175 PSI
10	TB1017H	1	RELIEF VALVE, 1750 PSI
11	06503068	1	#6 O-RING PLUG
12	6T4209	1	#10 O-RING PLUG
13	06502085	1	RELIEF VALVE, 3000 PSI
14	TB1017H	1	RELIEF VALVE, 1750 PSI
15	TB1017H	1	RELIEF VALVE, 1750 PSI
16	TB1017H	1	RELIEF VALVE, 1750 PSI
17	31593	4	VALVE SEAL KIT (FOR ONE SECTION)
17A		2	WIPER
17B		2	O-RING SMALL
17C		1	O-RING LARGE
17D		1	SHUTTLE DISC
17E		1	SPRING
18	TB1017L	4	LEVER KIT (FOR ONE SECTION)
18A		1	LEVER KNOB
18B		1	LEVER
18C		2	LEVER WASHER
18D		1	LEVER CLIP
18E		2	LINKAGE
18F		1	LEVER PIN
18G		1	ROLL PIN
18H		1	LEVER BOOT
18J		1	LEVER BOLT
18K		1	LEVER DUST COVER
18L		1	LEVER NUT
19	31603	4	COMPENSATOR
20	TB1017U	1	TIE ROD KIT
21	24214	1	O-RING, LARGE

# CABLE (MANUAL) LIFT VALVE, 5 SPOOL - 06502103

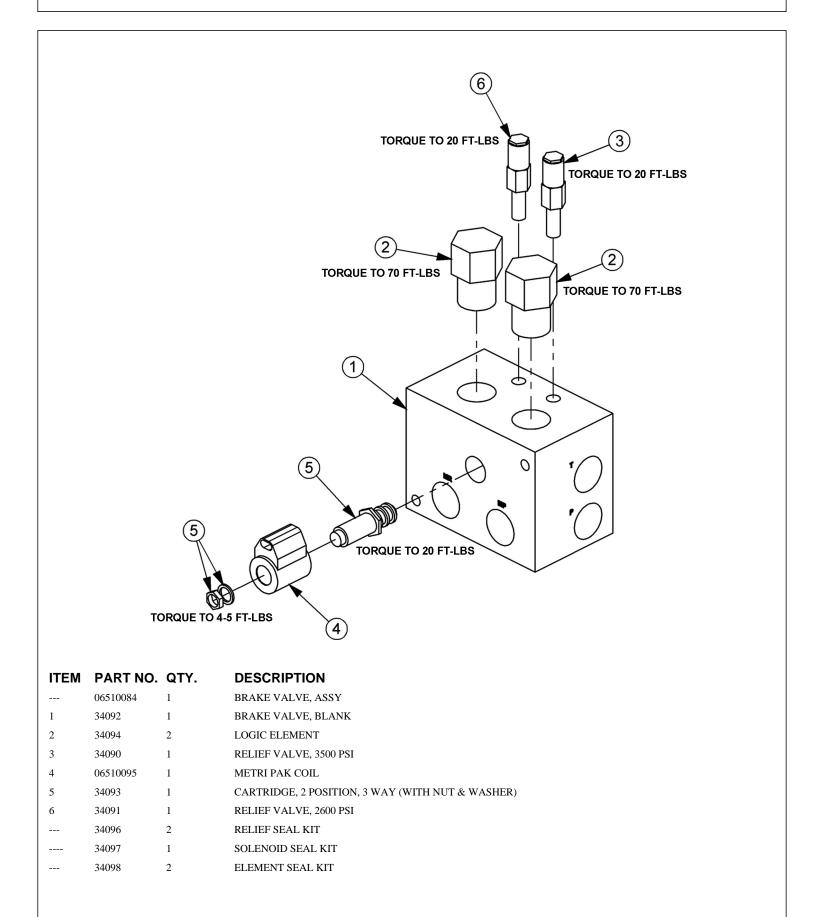


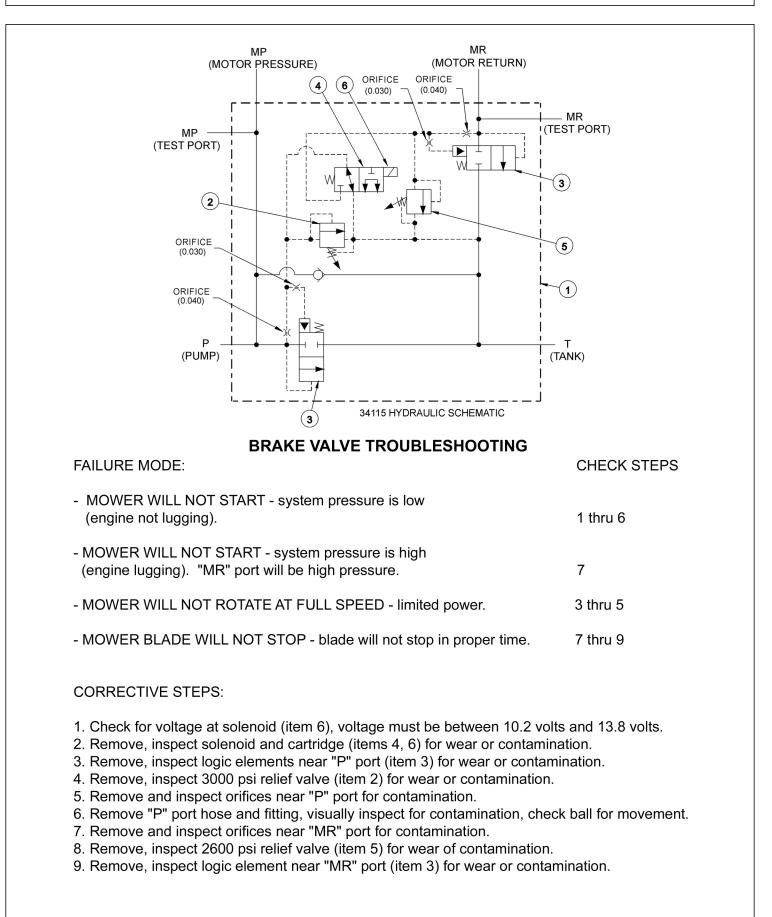
ITEM	PART NO.	QTY.	DESCRIPTION
1	31595	1	INLET END COVER
2	31594	1	END COVER, LOAD SENSE
3	31597	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING)
4	31597	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING)
5	31597	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING)
6	31598	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING, METERED)
7	31597	1	VALVE SECTION (DOUBLE ACTING, CENTER SPRING) (REMOVE SHUTTLE DISC)
8	06503067	1	RELIEF PLUG, #10 O-RING
9	TB1017K	1	RELIEF VALVE, 2500 PSI
10	TB1017J	1	RELIEF VALVE, 2175 PSI
11	TB1017H	1	RELIEF VALVE, 1750 PSI
12	22588	1	RELIEF VALVE, 500 PSI
13	06503068	1	RELIEF PLUG, #6 O-RING
14	6T4209	1	RELIEF PLUG, #10 O-RING
15	06502085	1	RELIEF VALVE, 3000 PSI
16	TB1017F	1	RELIEF VALVE, 1750 PSI
17	TB1017F	1	RELIEF VALVE, 1750 PSI
18	TB1017H	1	RELIEF VALVE, 1750 PSI
19	22588	1	RELIEF VALVE, 500 PSI
20	31593	5	VALVE SEAL KIT (FOR ONE SECTION)
20A		2	WIPER
20B		2	O-RING SMALL
20C		1	O-RING LARGE
20D		1	SHUTTLE DISC
20E		1	SPRING
21	TB1017L	5	LEVER KIT (FOR ONE SECTION)
21A		1	LEVER KNOB
21B		1	LEVER
21C		2	LEVER WASHER
21D		1	LEVER CLIP
21E		2	LINKAGE
21F		1	LEVER PIN
21G		1	ROLL PIN
21H		1	LEVER BOOT
21J		1	LEVER BOLT
21K		1	LEVER DUST COVER
21L		1	LEVER NUT
22	31603	5	COMPENSATOR
23	TB1017V	1	TIE ROD KIT
24	24214	1	O-RING, LARGE



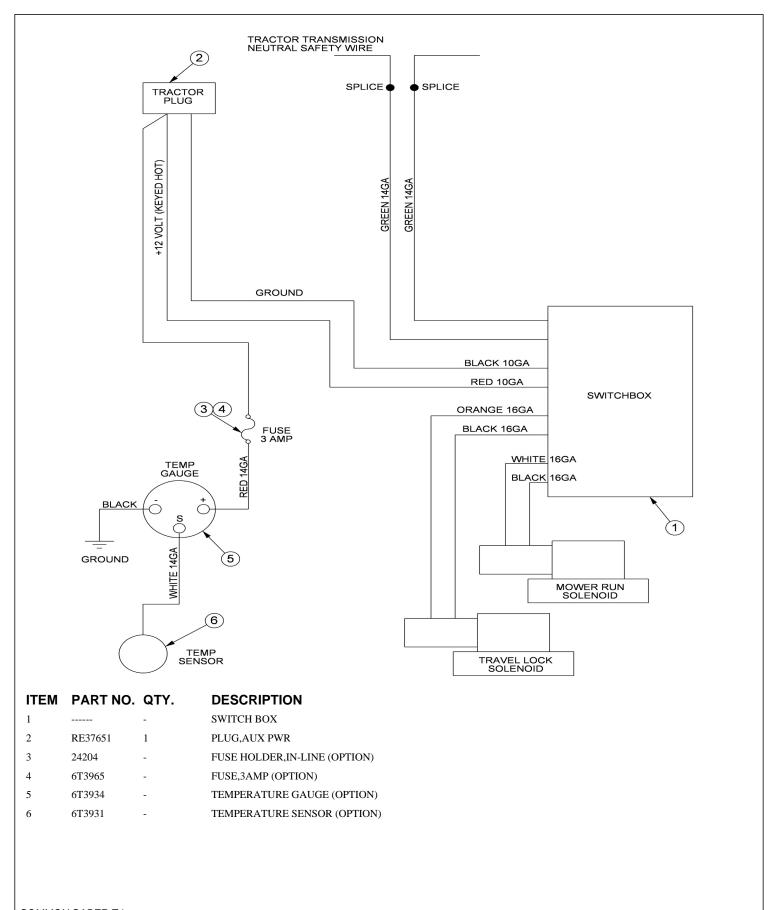
ITEM	PART NO.	QTY.	DESCRIPTION
	06502146	-	VLV,5SP,32PVG, SABER
1	06502074	1	END PLATE
1 <b>S</b>	06505013	1	END PLATE SEAL KIT
2		5	BONNET
2S	06505042	1	BONNET SEAL KIT
2A	42197	1	MAIN BOOM BONNET
2B	42197	1	SECONDARY BOOM BONNET
2C	42197	1	DECK ROLL BONNET
2D	42197	1	BOOM SWIVEL BONNET
2E	42197	1	DECK SHIELD BONNET

ITEM	PART NO.	QTY.	DESCRIPTION
3	34308	1	INLET SECTION
38	06505013	1	INLET SECTION SEAL KIT
4		5	ELECTRONIC ACCUATOR
4A	06502101	1	MAIN BOOM ELECTRONIC ACCUATOR
4B	06502101	1	SECONDARY BOOM ELECTRONIC ACCUATOR
4C	06502100	1	DECK ROLL ELECTRONIC ACCUATOR
4D	06502101	1	BOOM SWIVEL ELECTRONIC ACCUATOR
4E	06502099	1	DECK SHIELD ELECTRONIC ACCUATOR
5	42202	1	TIE-BOLT KIT
6		5	SECTION
6S	06505013	1	SECTION SEAL KIT
6A	42698	1	MAIN BOOM SECTION
6B	42698	1	SEC BOOM SECTION
6C	06502076	1	DECK ROLL SECTION
6D	42698	1	BOOM SWIVEL SECTION
6E	06502077	1	SHIELD SECTION
7		5	SPOOL
7A	42697	1	MAIN BOOM SPOOL
7B	42697	1	SEC BOOM SPOOL
7C	4242106	1	DECK ROLL SPOOL
7D	06502073	1	BOOM SWIVEL SPOOL
7E	42201	1	DECK SHIELD SPOOL
8		10	ANTI CAV/SHOCK RELIEF
8A1	42650	1	MAIN BOOM A PORT RELIEF
8A2	06502069	1	MAIN BOOM B PORT RELIEF
8B1	42650	1	SEC BOOM A PORT RELIEF
8B2	42295	1	SEC BOOM B PORT RELIEF
8C1	42296	1	DECK ROLL A PORT RELIEF
8C2	42295	1	DECK ROLL B PORT RELIEF
8D1	42295	1	BOOM SWIVEL A PORT RELIEF
8D2	06502083	1	BOOM SWIVEL B PORT RELIEF
8E1	06502069	1	DECK SHIELD A PORT RELIEF
8E2	06502069	1	DECK SHIELD B PORT RELIEF
9	33459	1	HANDLE

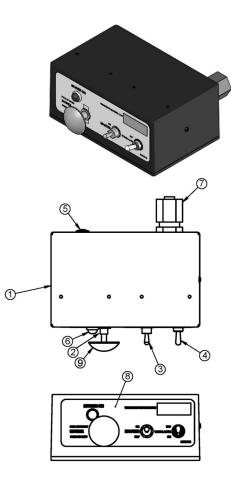




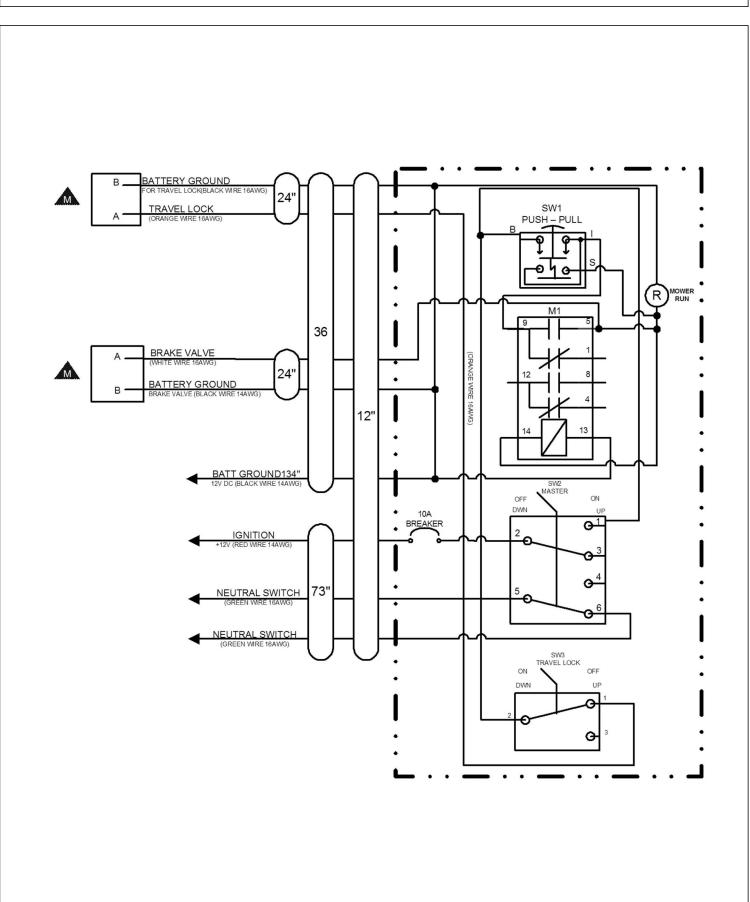
## SOLENOID SWITCH BOX AND WIRING



# MANUAL LIFT VALVE SWITCH BOX

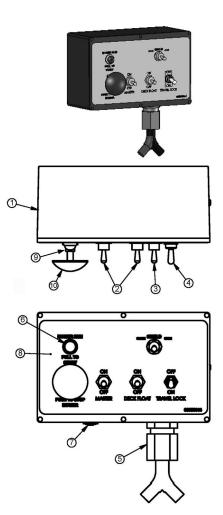


ITEM	PART NO.	QTY.	DESCRIPTION
1	06514012	1	SWBX,ALUM,BLK,06510100
2	35226	1	SWITCH, MOWER, COLEHERSEE
3	33811	1	SWITCH, MASTER/DECK FLOAT
4	34532	1	SWITCH,TRVL LCK
5	06514014	1	BREAKER,10A,SWBX
6	6T3923	1	INDICTATOR LIGHT, ON, RED
7	34540	1	STRAIN RELIEF,3/4,BLACK,NYLON
8	06550019	1	DECAL,SWTCHBX,BOOM,CG
9	02964063	1	KNOB,RED
10	35227	1	RELAY, DP, DT, 12V, LY2F, 35226



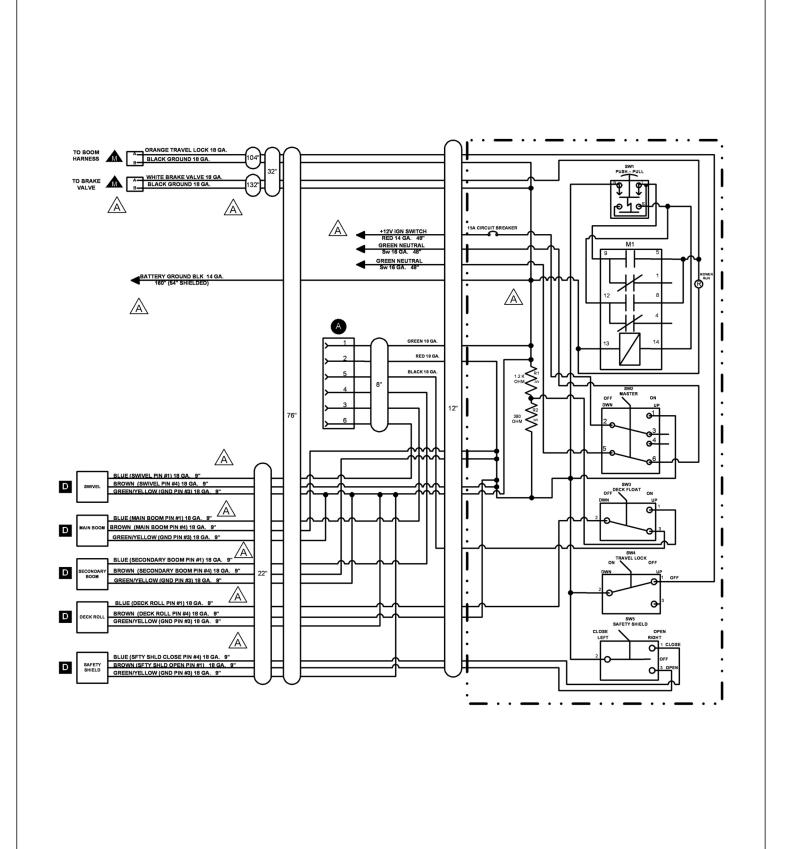
MANUAL LIFT VALVE SCHEMATIC

# **ELECTRONIC LIFT VALVE SWITCH BOX**

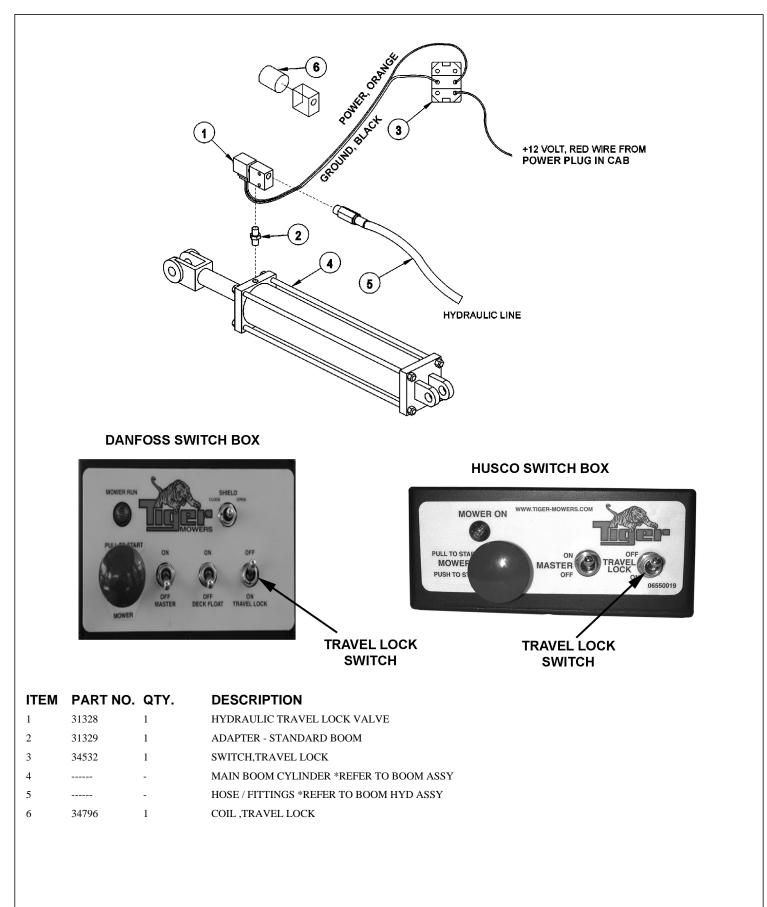


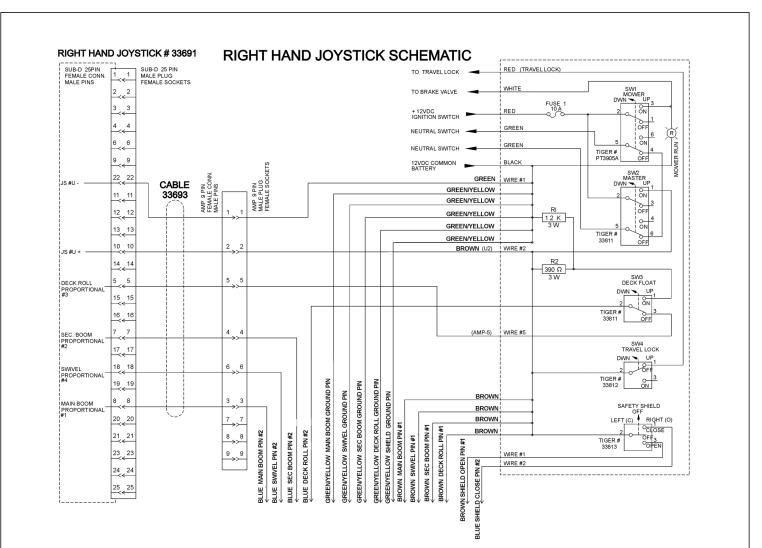
ITEM	PART NO.	QTY.	DESCRIPTION
1	06510196	1	SWBX,ASSY
2	33811	2	SWITCH, MASTER/DECK FLOAT
3	33813	1	SWITCH,SFTY SHIELD
4	34532	1	SWITCH,TRVL LCK
5	34540	1	STRAIN RELIEF,3/4",BLACK,NYLON
6	6T3923	1	INDICTATOR LIGHT, ON, RED
7	06514006	1	BREAKER,15A,SWBX
8	06550044	1	DECAL,SWBX,06510047
9	35226	1	SWITCH, MOWER, COLEHERSEE
10	02964063	1	KNOB,RED
11	35227	1	RELAY, DP, DT, 12V, LY2F, 35226

## ELECTRONIC LIFT VALVE SCHEMATIC



## **BOOM TRAVEL LOCK**





## 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

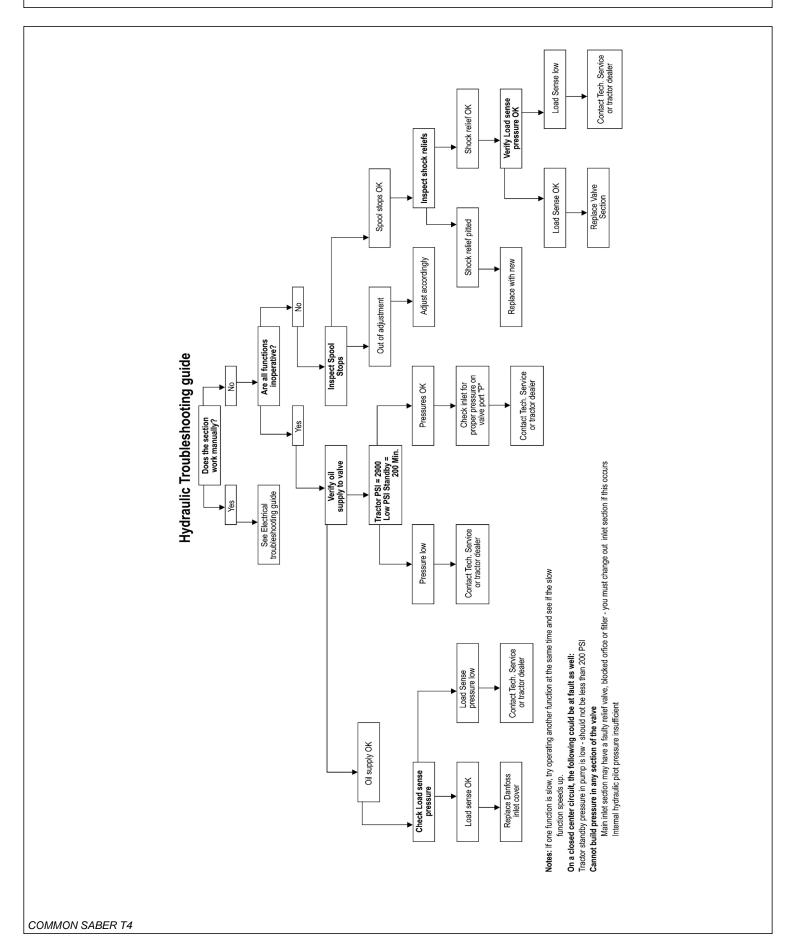
If none of the valve will operate with electrical signal, verify that there is oil pressure at the valve inlet. Electrical Valves must have pilot supply oil to move the spools.

### 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

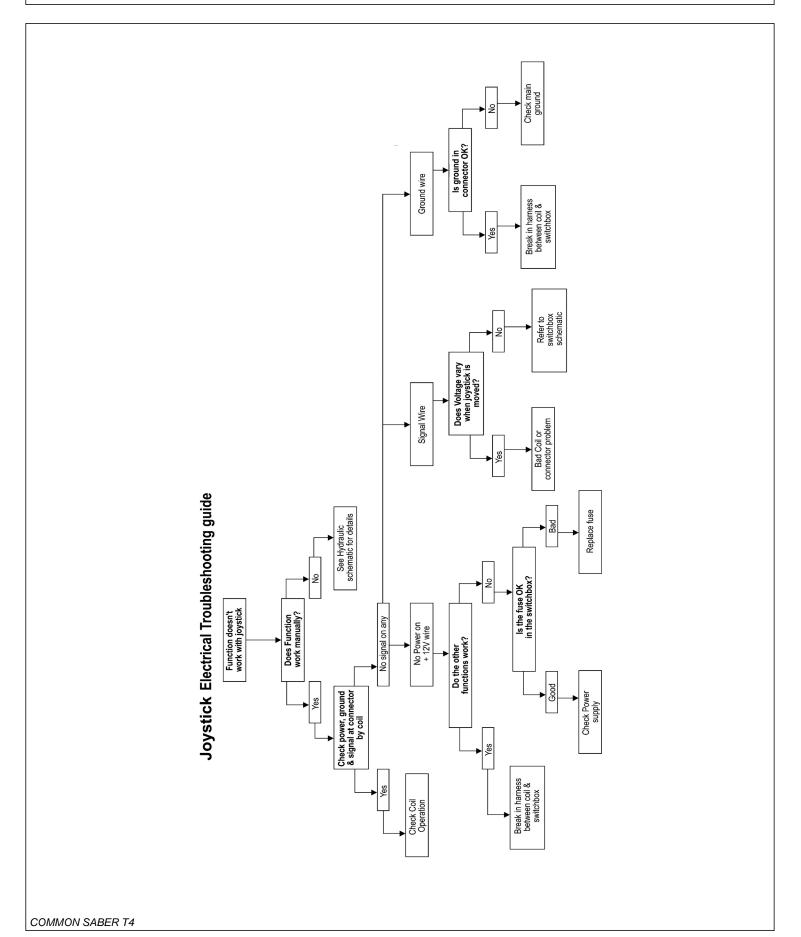
Hydraulic inspection. Install 3 pressure gauges, on the valve inlet (use M port, or tee into hose supplying oil from the pump to the inlet), on the workport that is not operating, and on the LS port.
With the spools in Neutral
Gear pump – P should be approximately 200 psi, LS = 0, workport – pressure 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 – yressure 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.



## HYDRAULIC TROUBLESHOOTING GUIDE

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## ELECTRICAL TROUBLESHOOTING GUIDE



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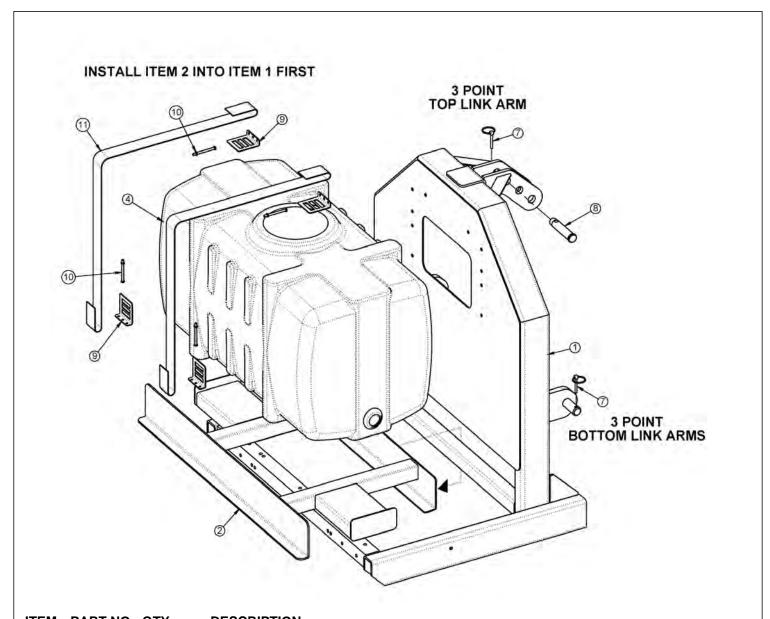
## WETCUT

WETCUT SECTION

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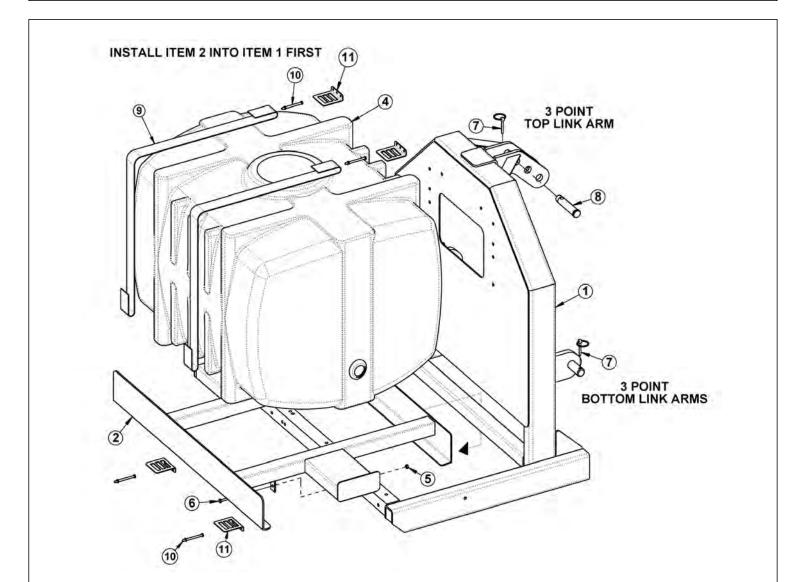
Parts Section 6-93

## WETCUT 50 GALLON TANK - 3PNT MOUNT

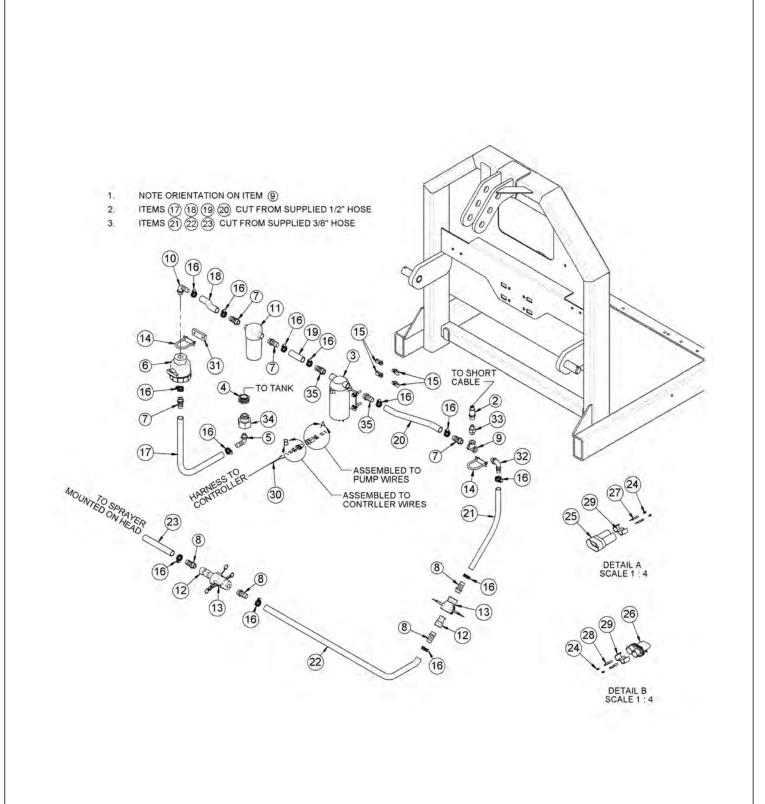


ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06370136	1	MNT, TANK, 50GAL, WETCUT
4	06520342	1	TANK,50GA.,WETCUT
7	RD1032	3	PIN,LYNCH 1/4" X 2"
8	TB1036	1	PIN,SEC BOOM SWIV 1X4-11/16"
9	06520343	4	ANCHOR, STRAP, WETCUT
10	06520344	4	BOLT,STRAP,TANK,WETCUT
11	06520345	2	STRAP, TANK, WETCUT

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



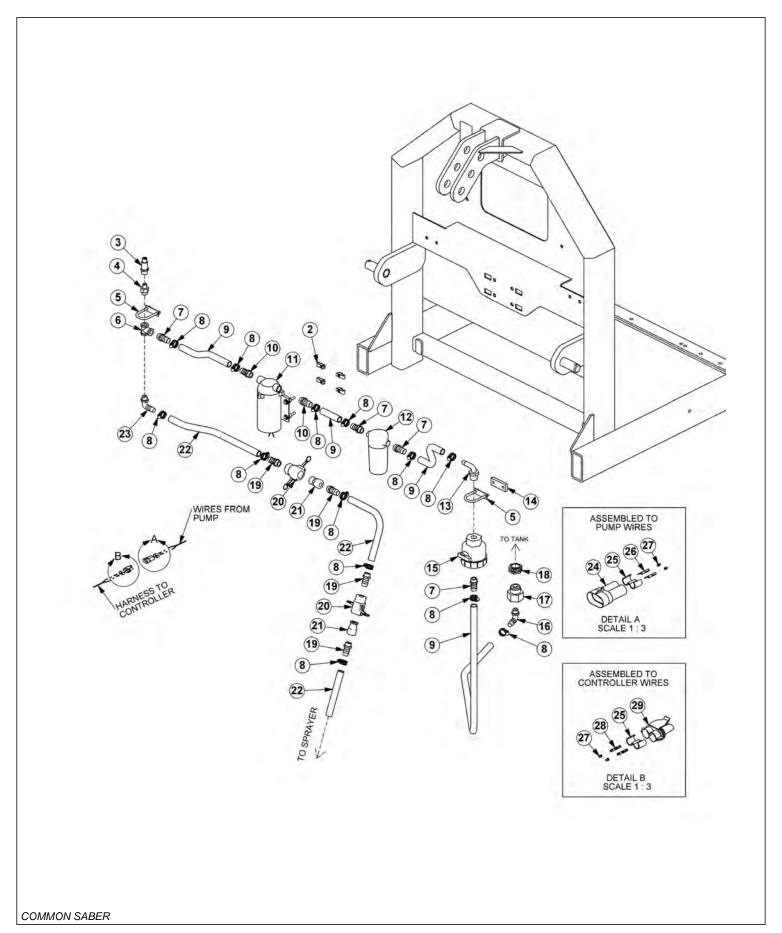
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06370138	1	MNT, TANK, 100GAL, WETCUT
	06370139	-	MNT, TANK, 150GAL, WETCUT
4	06520372	1	TANK,100GA.,WETCUT
	06520373	-	TANK,150GA.,WETCUT
5	21527	2	HEX NUT,NYLOCK,1/4" NC
6	21530	2	CAPSCREW,1/4" X 1" NC
7	RD1032	3	PIN,LYNCH 1/4" X 2"
8	TB1036	1	PIN,SEC BOOM SWIV 1X4-11/16"
9	06520345	2	STRAP, TANK, WETCUT
10	06520344	4	BOLT,STRAP,TANK,WETCUT
11	06520343	4	ANCHOR, STRAP, WETCUT



## WETCUT 3PNT PLUMBING - 50IN MOWERS

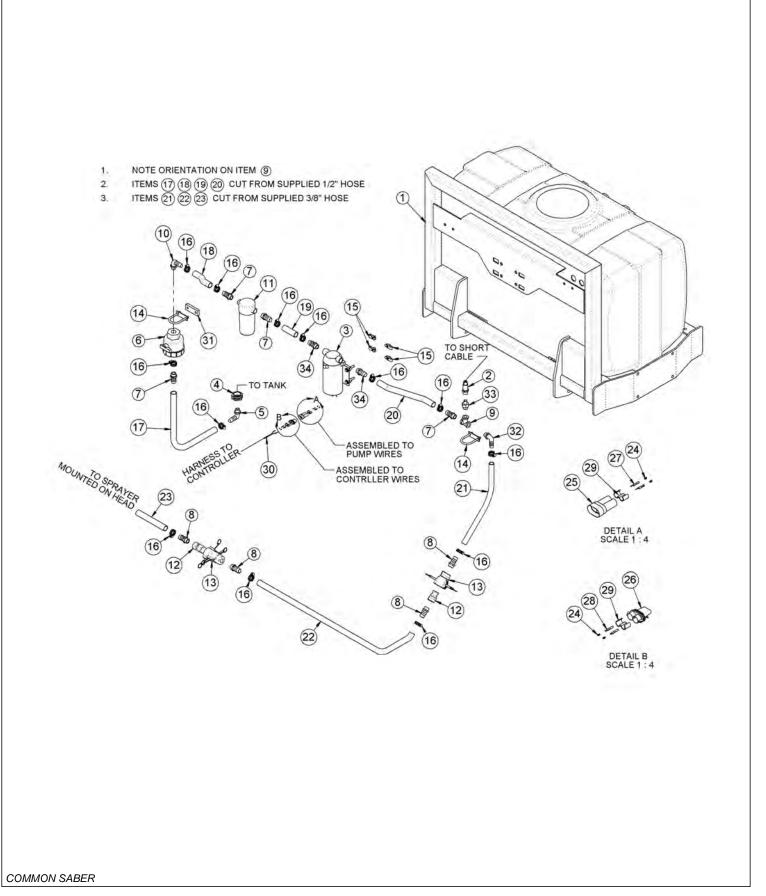
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06520336	1	CNTRLR,SENSOR,06520333
3	06520341	1	PUMP,WETCUT
4	06520346	1	FITTING,BULKHEAD,WETCUT (50 GALLON TANKS ONLY)
5	06520347	1	FITTING,ELBOW,WETCUT
6	06520348	1	VLV,BALL,WETCUT
7	06520349	4	FITTING,BARB,HOSE,WETCUT
8	06503173	4	FITTING,1/2MP 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



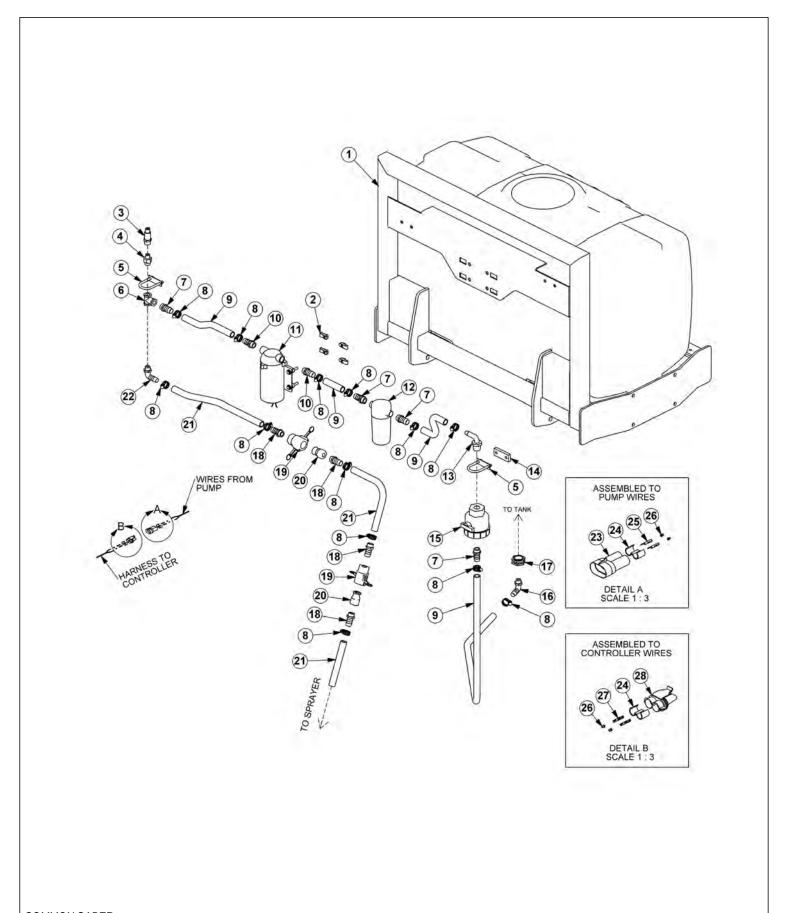
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	35176	4	U-NUT,1/4,3/4 TO CENTER
3	06520336	1	CNTRLR,SENSOR,06520333
4	06520354	1	BUSHING,REDUCER,WETCUT
5	27329	2	U-BOLT,1/4" X 1" X 2"
6	06520353	1	FITTING, TEE, WETCUT
7	06520349	4	FITTING,BARB,HOSE,WETCUT
8	35091	13	CLAMP, HOSE #6
9	06520469	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

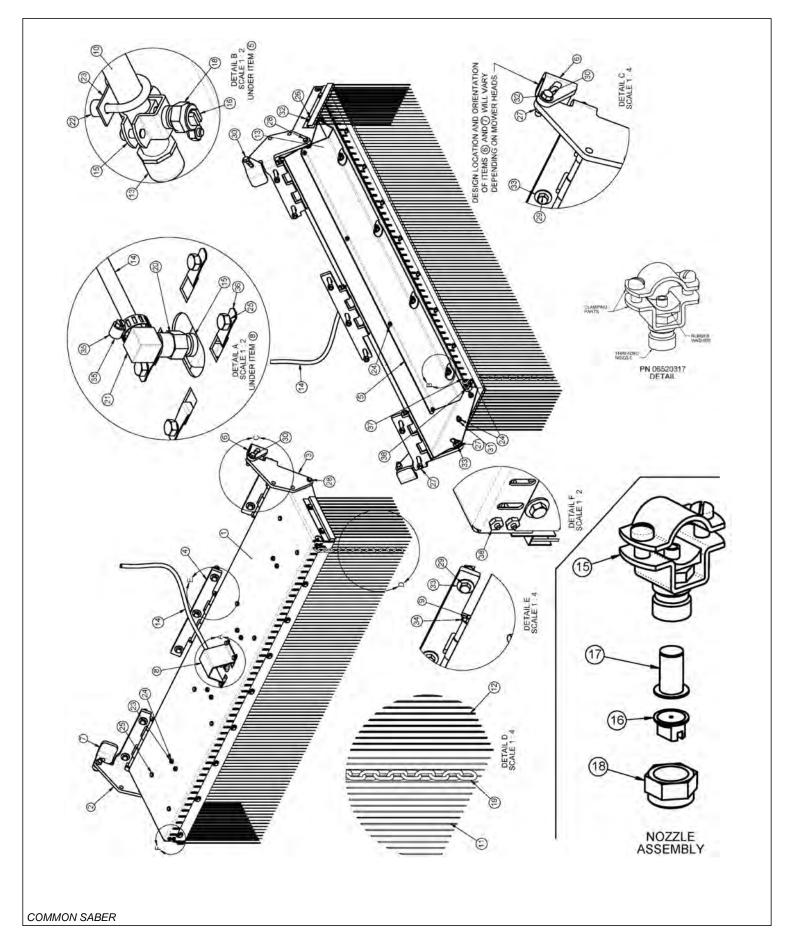
## WETCUT FRONT PLUMBING - LARGER MOWERS



## Continued...

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

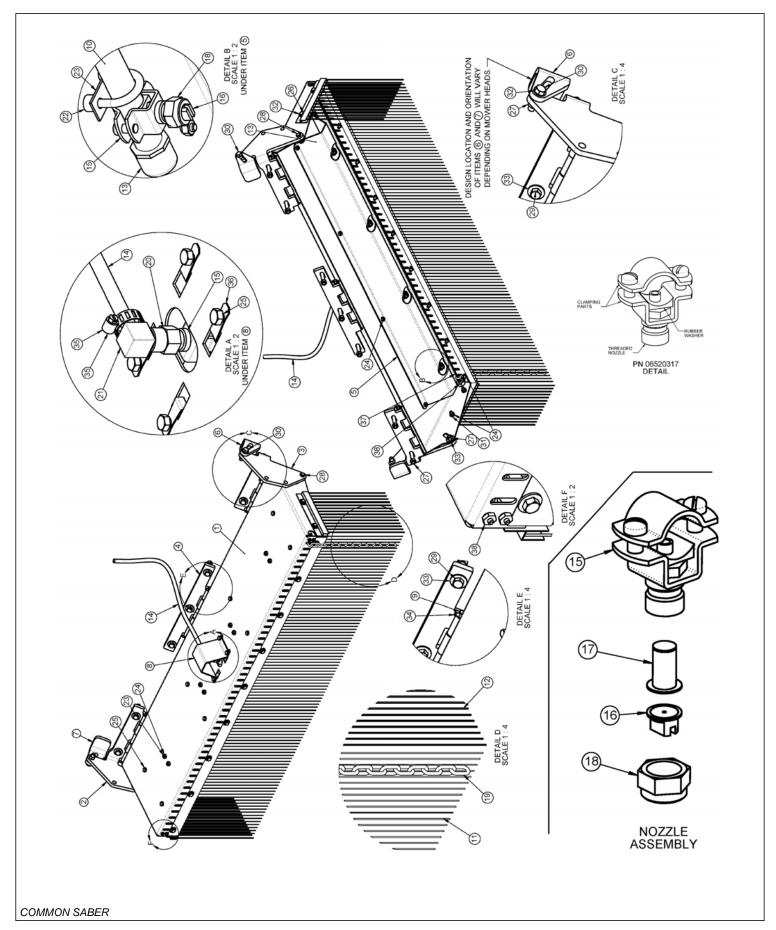
## WETCUT 50IN SPRAYER HEAD ASSEMBLY



## Continued...

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"

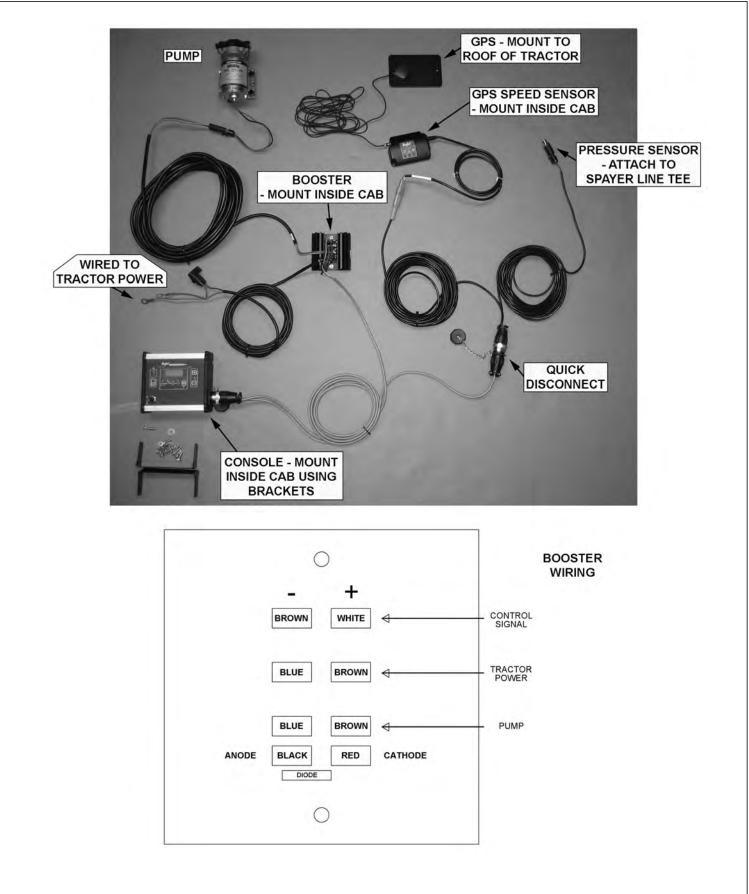
## WETCUT 60IN SPRAYER HEAD ASSEMBLY



## Continued...

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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