

# REAR STOW SIDE ASSEMBLIES

JD6110-30M/R T4F

Current as of 8/1/17

# PARTS LISTING WITH MOUNTING AND OPERATING INSTRUCTIONS

## **Tiger Corporation**

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

## TO THE OWNER / OPERATOR / DEALER

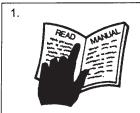
All implements with moving parts are potentially hazardous. There is no substitute for a cautious, safe-minded operator who recognizes the potential hazards and follows reasonable safety practices. The manufacturer has designed this implement to be used with all its safety equipment properly attached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

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

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



FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA.









- Study and understand Operator's Manuals, Safety Decals, and Instructional Decals for tractor and implement to prevent misuse, abuse, and accidents. Practice before operating in a confined area or near passersby.
   Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children
- 2. Allow no children on or near folding mower or tractor. Allow no riders on tractor or implement. Falling off may cause serious injury or death from being run over by tractor or mower or contact with rotating blades.
- 3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seat belt securely fastened to prevent injury and possible death from falling off or tractor overturn.
  Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, & Ear Plugs are recommended.
- 4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain area is clear before lowering or folding
- 5. Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding mowers. Put Booms securely in Transport Rest.
- Folding and Boom Mowers have raised center of gravity. Slow down when turning and on hillsides.
- 6. Make certain that SMV sign, warning lights, and reflectors are clearly visible. Follow local traffic codes.
- 7. Never operate with Cutting Head or Folding Section raised if passersby, bystanders, or traffic are in the area to reduce possibility of injury or death from objects thrown by Blades under Guards or mower structure.
- 8. Before dismounting, secure implement in transport position or lower to ground.
  Put tractor in park or set brake, disengage PTO, stop engine, remove key, and wait until noise of rotation has ceased to prevent crushing by entanglement in rotating parts which could cause injury or death.
  Never mount or dismount a moving vehicle. Crushing from runover may cause serious injury or death.









Warranty Information: Read and understand the complete Warranty Statement found in this manual. Fill out the Warranty Registration form in full and return it within 90 days. Make certain the Serial Number of the machine is recorded on the Warranty Card, and form that you retain.

## **FORWARD**

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

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

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

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

- Classify the problem
  - Hydraulic, electrical or mechanical Read the trouble shooting section
  - Tractor or Truck chassis Contact vehicle dealer

• If una	able to correct the problem yourself, contact your local Tig	er Dealer after
gath	ering:	
	Machine model	

Serial numberDealer 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:
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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	
	SAFETY
	<b>SECTION</b>
Rengal Room Safety Section 1-1	

#### **General Safety Instructions and Practices**

A safe and 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 mower. 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 safely and 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 when operating this equipment.

Practice all usual and customary safe working precautions and above all -- remember safety is up to YOU! Only YOU 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.

WARNING!



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.

Identifies points of particular interest for more efficient or convienient operation or NOTE: repair. (SG-1)

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 the Safety Messages. Always use good common sense to avoid hazards. (SG-2)



#### PELIGRO!



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



## i LEA EL INSTRUCTIVO!

#### DANGER!



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



#### WARNING!



Always maintain the safety decals in good readable condition. <u>If the decals are missing, damaged, or unreadable, obtain and install replacement decals immediately.</u> (SG-5)

#### WARNING!



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



#### WARNING!



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



#### WARNING!

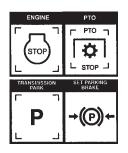


Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)

#### DANGER!



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



#### DANGER!



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

(SG-10)



#### DANGER!



Never allow children to operate or ride on the Tractor or Implement.

(SG-11)



#### WARNING!



Do not mount the Tractor while the tractor is moving. Mount the Tractor only when the Tractor and all moving parts are completely stopped.

12)



#### **DANGER!**



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



#### DANGER!



Never work under the Implement, the framework, or any lifted component unless the Implement is securely supported or blocked up to prevent sudden or inadvertent falling which could cause serious injury or even death. (SG-14)



#### DANGER!



Do not operate this Equipment with hydraulic oil leaking. Oil is expensive and its presence could present a hazard. Do not check for leaks with your hand! Use a piece of heavy paper or cardboard. Highpressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including gangrene. If oil does penetrate the skin, have the injury treated immediately by a physician knowledgeable and skilled in this procedure.  $_{\rm (SG-15)}$ 



#### WARNING!



The operator and all support personnel should wear hard hats, safety shoes, safety glasses, and proper hearing protection at all times for protection from injury including injury from items thrown by the equipment.

(SG-16)







#### **CAUTION!**



PROLONGED EXPOSURE TO LOUD NOISE MAY CAUSE PERMANENT HEARING LOSS! Tractors with or without an Implement attached can often be noisy enough to cause permanent hearing loss. We recommend that you always wear hearing protection if the noise in the Operator's position exceeds 80db. Noise over 85db over an extended period of time will cause severe hearing loss. Noise over 90db adjacent to the Operator over an extended period of time will cause permanent or total hearing loss. *Note:* Hearing loss from loud noise [from tractors, chain saws, radios, and other such sources close to the ear] is cumulative over a lifetime without hope of natural recovery. (SG-17)



#### WARNING!



Transport only at safe speeds. Serious accidents and injuries can result from operating this equipment at unsafe speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



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

- 1. Test the tractor at a slow speed and increase the speed slowly.

  Apply the Brakes smoothly to determine the stopping characteristics of the Tractor and Implement. As you increase the speed of the Tractor the stopping distance increases. Determine the maximum safe transport speed for you and this Equipment.
- 2. Test the equipment at a slow speed in turns. Increase the speed through the turn only after you determine that it is safe to operate at a higher speed. Use extreme care and reduce your speed when turning sharply to prevent the tractor and implement from turning over. Determine the maximum safe turning speed for you and this equipment before operating on roads or uneven ground.



**3.** Only transport the Tractor and Implement at the speeds that you have determined are safe and which allow you to properly control the equipment.

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

Bengal Boom Safety Section 1-5

#### WARNING!



Never attempt to lubricate, adjust, or remove material from the Implement while it is in motion or while tractor engine is running. Make sure the tractor engine is off before working on the Implement.

(SG-20)

#### WARNING!



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



#### **WARNING!**



Always read carefully and comply fully with the manufacturers instructions when handling oil, solvents, cleansers, and any other chemical agent.  $_{(SG-22)}$ 



#### **DANGER!**



Never run the tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health.

(SG-23)

#### DANGER!



KEEP AWAY FROM ROTATING ELEMENTS to prevent entanglement and possible serious injury or death. (SG-24)



#### DANGER!



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

#### DANGER!



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



#### DANGER!



Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause serious injury or death. (SG-29)

#### WARNING!



Mow only in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never mow in darkness or foggy conditions where you cannot clearly see at least 100 yards in front and to the sides of the tractor and mower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see this type of items discontinue mowing.

#### DANGER!



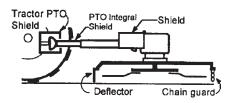
There are obvious and hidden potential hazards in the operation of this Mower. REMEMBER! This machine is often operated in heavy brush and in heavy weeds. The Blades of this Mower can throw objects if shields are not properly installed and maintained. Serious injury or even death may occur unless care is taken to insure the safety of the operator, bystanders, or passersby in the area. Do not operate this machine with anyone in the immediate area. Stop mowing if anyone is within 100 yards of mower. (SGM-2)



#### DANGER!



All Safety Shields, Guards and Safety devices including (but not limited to) - the Deflectors, Chain Guards, Steel Guards, Gearbox Shields, PTO integral shields, and Retractable Door Shields should be used and maintained in good working condition. All safety devices should be inspected carefully at least daily for missing or broken components. Missing, broken, or worn items must be replaced at once to reduce the possibility of injury or death from thrown objects, entanglement, or blade contact. (SGM-3)



#### **DANGER!**



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

#### **WARNING!**



Extreme care should be taken when operating near loose objects such as gravel, rocks, wire, and other debris. Inspect the area before mowing. Foreign objects should be removed from the site to prevent machine damage and/or bodily injury or even death. Any objects that cannot be removed must be clearly marked and carefully avoided by the operator. Stop mowing immediately if blades strike a foreign object. Repair all damage and make certain rotor or blade carrier is balanced before resuming mowing. (SGM-5)



#### WARNING!



Many varied objects, such as wire, cable, rope, or chains, can become entangled in the operating parts of the mower head. These items could then swing outside the housing at greater velocities than the blades. Such a situation is extremely hazardous and could result in serious injury or even death. Inspect the cutting area for such objects before mowing. Remove any like object from the site. Never allow the cutting blades to contact such items. (SGM-6)

#### **WARNING!**



Mow at the speed that you can safely operate and control the tractor and mower. Safe mowing speed depends on terrain condition and grass type, density, and height of cut. Normal ground speed range is from 0 to 5 mph. Use slow mowing speeds when operating on or near steep slopes, ditches, drop-offs, overhead obstructions, power lines, or when debris and foreign objects are to be avoided. (SGM-7)

#### WARNING!



Avoid mowing in reverse direction when possible. Check to make sure there are no persons behind the mower and use extreme care when mowing in reverse. Mow only at a slow ground speed where you can safely operate and control the tractor and mower. Never mow an area that you have not inspected and removed debris or foreign material. (SGM-8)

#### WARNING!



Do not put hands or feet under mower decks. Blade Contact can result serious injury or even death. Stay away until all motion has stopped and the decks are securely blocked up.  $_{\rm (SGM-9)}$ 



## DANGER!



Replace bent or broken blade with new blades. NEVER ATTEMPT TO STRAIGHTEN OR WELD ON BLADES SINCE THIS WILL LIKELY CRACK OR OTHERWISE DAMAGE THE BLADE WITH SUBSEQUENT FAILURE AND POSSIBLE SERIOUS INJURY FROM THROWN BLADES. (SGM-10)

Bengal Boom Safety Section 1-8

#### WARNING!



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

#### DANGER!



Rotary and Flail Mowers are capable under adverse conditions of throwing objects for great distances (100 yards or more) and causing serious injury or death. Follow safety messages carefully. STOP MOWING IF PASSERSBY ARE WITHIN 100 YARDS UNLESS:

- -Front and Rear Deflectors are installed and in good, working condition;
- -Mower Head is running close to and parallel to the ground without exposed Blades;
- -Passersby are outside the existing thrown-object zone;
- -All areas have been thoroughly inspected and all foreign material such as rocks, cans, glass, and general debris has been removed.

NOTE: Where there are grass and weeds high enough to hide debris that could be struck by the blades, the area should be: inspected and large debris removed, mowed at an intermediate height, inspected closely with any remaining debris being removed, and mowed again at desired final height. (SBM-1)



#### DANGER!



Use extreme caution when raising the Mower head. Stop the Blades from turning when the Mower Head is raised and passersby are within 100 yards. Raising the Mower head exposes the Cutting Blades which creates a potentially serious hazard and can cause serious injury by objects thrown from the Blades or by contact with the Blades.

(SBM-2)

#### **DANGER!**



Be particularly careful in transport. The Mower has raised the center of gravity for the tractor and has increased the possibility of overturn. Turn curves or go up slopes only at low speed and using a gradual turning angle. Slow down on rough or uneven surfaces. (SBM-3)



#### WARNING!



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

(SBM-4)



#### **WARNING!**



The rotating parts of this machine continue to rotate even after the Tractor has been turned off. The operator should remain in his seat for 60 seconds after the brake has been set, the PTO disengaged, the tractor turned off, and all evidence of rotation has ceased. (SBM-5)

"Wait a minute...Save a life!"



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

#### **DANGER!**



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

(SBM-7)



#### DANGER!



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



#### **DANGER!**



Never operate the Tractor and Mower Unit without an OPS (Operators Protective Structure) or Cab to prevent injury from objects thrown from ground or from overhead trimming. Stop mowing if workers or passers by are with in 100 yards. (SBM-9)



#### **DANGER!**



Each Rear Wheel must have a minimum of 1500 pound contact with the surface to prevent lateral instability and possible tip-over which could result in serious bodily injury or even death. Widen the wheel tread and add weights if needed. Refer to the mounting instructions or call Customer Service if you need assistance with Couterweight Procedure. (SBM-11)



#### DANGER!



Always disconnect the wire leads from the mower pump solenoid before performing service on the Tractor or Mower. Use caution when working on the Tractor or Mower. Tractor engine must be stopped before working on Mower or Tractor. The Mower Blades could inadvertently be turned on without warning and cause immediate dismemberment, injury or death. (SBM-12a)



#### **DANGER!**



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



#### WARNING!



Engine Exhaust, some of its constituents, and certain components contain or emit chemicals known to the state of California to cause cancer and birth or other reproductive harm.

#### WARNING!



Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the state of California to cause cancer and birth or other reproductive harm. **Wash hands after handling!** 

Tiger mowers use balanced and matched system components for blade carriers, blades, cuttershafts, knives, knife hangers, rollers, drive-train 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.



In addition to the design and configuration of this Implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the machine. Refer also to Safety Messages and operation instruction in each of the appropriate sections of the Tractor and Equipment Manuals. Pay close attention to the Safety Signs affixed to the Tractor and Equipment. (SG-18)



FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA













- Study and understand Operator's Manuals, Safety Signs, and Instructional Decals for tractor & flail mower to prevent misuse, abuse, & accidents. Practice before operating mower in a confined area or near passersby.
- Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children.
   Allow no children on or near implement or tractor. Allow no riders on tractor or implement. Falling off can cause serious injury or death from being runover by tractor or mower or contact with Flail Mower Blades.
- 3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seatbelt fastened securely and snugly to prevent injury and possible death from falling off or tractor overturn. Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, and Ear Plugs are recommended.
- 4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain that area is clear before lowering or folding.
- 5. Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding implements. Slow down when turning and on hillsides
- Install \*\*Restrictor in folding circuit to slow down lowering and unfolding if action is faster than is desirable
- 6. Make certain that SMV sign, Warning Lights, and Reflectors are clearly visible. Follow local traffic codes.
- 7. Never operate with Flail Mower or Folding Section raised if passersby, bystanders or traffic are in the area to reduce possibility of injury or death form objects thrown by Blades under Shields or implement structure.
- 8. Before dismounting, secure flail mower in transport position or lower to ground.
- Put tractor in park or set brake, disengage PTO, stop engine, remove key, and wait until noise of rotation has ceased to prevent entanglement in rotating parts which may cause injury or death

Never mount or dismount a moving vehicle. Crushing from runover may cause injury or death.









PART NO. LOCATION

002369 HYDRAULIC TANK



00725746 INSIDE OF CAB



00769737 **MOWER DECK** 

BEING HIT BY THROWN OBJECTS OR CONTACTING ROTATING BLADES CAN CAUSE INJURY OR DEATH.

- Stop mowing if passersby enter the area of thrown objects (See Operator's Manual).
- Use special care if Mower Head or Wing is raised off the ground. (See Manual). Operate only if all Guards-Deflectors are in place and in good condition.

Bengal Boom Safety Section 1-12



PART NO. LOCATION

00758194 MOWER DECK



02962764 MAIN BOOM, SECONDARY BOOM, MAIN FRAME



02962765 MAIN FRAME

02965262 HYDRAULIC TANK

## A DANGER

**CUTTING BLADES** 





PART NO. LOCATION

02967668 MOWER DECK

#### **KEEP AWAY - ROTATING BLADES**

BEING HIT BY THROWN OBJECTS OR CONTACTING ROTATING BLADES CAN CAUSE INJURY OR DEATH

- Stop mowing if passersby enter the area of thrown objects. (See Operator's Manual)
- Use special care when Flail or Wing is raised off the ground. (See Oper. Manual)
- Operate only if all Guards-Deflectors are in place and in good condition.

CAUTION
WATCH YOUR
STEP

02971123 HYDRAULIC TANK

03200285 OUTSIDE OF CAB

## POLYCARBONATE WINDOW

REFER TO OPERATORS MANUAL FOR CLEANING INSTRUCTIONS

22645 INSIDE OF CAB

22839

DO NOT LUBRICATE WITH AUTOMATIC GREASE GUN. GREASE WITH HAND GREASE GUN ONLY.

MOWER DECK

P/N22839



PART NO. LOCATION

22840 INSIDE OF CAB

## **WARNING**

INSPECT REAR FLAP FREQUENTLY TO BE SURE IT IS IN SAFE WORKING CONDITION. DO NOT OPERATE MOWER WITH FLAP REMOVED OR WORN.

24028

24028 MOWER DECK

25387 INSIDE OF CAB



10" x 5.5" 31522 MOWER DECK, MAIN BOOM 18.25" x 10" 31523 HYDRAULIC TANK

## **A WARNING**

Valve section TF3009 with detented float to be used with only Boom Flail mower. DO NOT operate a Boom rotary mower with the float section installed.

PART NO. LOCATION

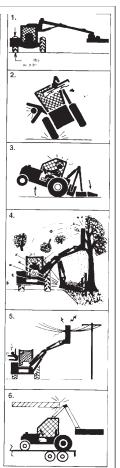
27001 INSIDE OF CAB

31935 INSIDE OF CAB



## **A** DANGER

- 1. EACH REAR WHEEL MUST HAVE A MINIMUM OF 1500 POUNDS CONTACT WITH THE SURFACE TO PREVENT LATERAL INSTABILITY AND POSSIBLE TIP-OVER WITH BODILY INJURY. WIDEN WHEEL TREAD AND ADD WEIGHTS IF NEEDED. SEE MANUAL OR CALL TIGER CUSTOMER SERVICE FOR COUNTERWEIGHT PROCEDURE.
- 2. TRANSPORT CAREFULLY! SLOW DOWN EVEN MORE ON SLOPES AND WHEN TURNING; NEVER TURN UP A SLOPE SHARPLY OR AT HIGH SPEED; AND USE EXTRA CARE IN ROUGH OR BUMPY AREAS TO PREVENT OVERTURN AND POSSIBLE CRUSHING INJURY OR DEATH. IF YOUR VIEW TO THE REAR IS BLOCKED, IT IS YOUR RESPONSIBILITY TO INSTALL MIRRORS THAT PROVIDE A REAR VIEW TO PREVENT ACCIDENTS FROM BLIND SPOTS.
- 3. REAR-MOUNTED BOOM MOWERS MOVE CENTER OF GRAVITY TO THE REAR AND REMOVE WEIGHT FROM FRONT WHEELS. ADD FRONT BALLAST UNTIL AT LEAST 20% OF TRACTOR'S WEIGHT IS DN FRONT WHEELS TO PREVENT REARING UP, LOSS OF STEERING CONTROL. AND POSSIBLE INJURY.
- 4. NEVER OPERATE UNIT WITHOUT AN OPS (OPERATOR PROTECTIVE STRUCTURE) OR CAB TO PREVENT INJURY FROM OBJECTS THROWN FROM GROUND AND OVERHEAD TRIMMING. STOP CUTTING IF ANYONE IS WITHIN 100 YARDS.
- 5. KEEP THE BOOM AND CUTTERHEAD AT LEAST 10 FEET FROM ELECTRIC LINES AND PIPE LINES TO PREVENT ACCIDENTAL CONTACT AND POSSIBLE SERIOUS INJURY OR EVEN DEATH.
- 5. WHEN TRANSPORTING BOOM MOWERS ON A TRUCK OR TRAILER. THE HEIGHT OR WIDTH MAY EXCEED LEGAL LIMITS. CONTACT WITH SIDE OR OVERHEAD STRUCTURES OR POWER LINES CAN CAUSE SERIOUS INJURY OR DEATH.
- -OWER BOOM TO REDUCE HEIGHT AND/OR REMOVE MOWING HEAD TO REDUCE WIDTH TO THE LEGAL LIMITS, IF NEEDED. \$32707



32707 HYDRAULIC TANK



42350 MOWER DECK

Bengal Boom Safety Section 1-16

## **ATTENTION**

SERVICE HYDRAULIC SYSTEM WITH UNIVERSAL TRACTOR HYDRAULIC OIL.

32708

PART NO. LOCATION

32708 HYDRAULIC TANK

## **A** CAUTION

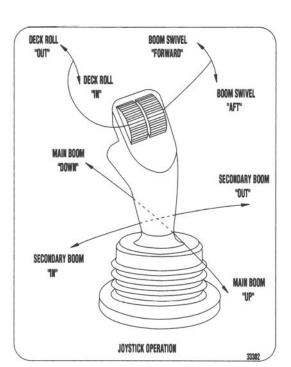
For your safety and to guarantee optimum product reliability, always use genuine TIGER replacement parts. The use of inferior "will-fit" parts will void warranty of your TIGER implement and may cause premature or catastrophic failure which can result in serious injury or death. If you have any questions concerning the repair parts you are using, contact TIGER, 3301 N. LOUISE AVE., SIOUX FALLS, SD 57107

32709 INSIDE OF CAB

33224 MOWER DECK



33438 MAIN BOOM



PART NO. LOCATION

33302 INSIDE OF CAB

MOWING SAFETY TIPS Read & understand the Operators Manual. Wear Your Seat Belt. Keep all shields and guards in place. Make sure equipment is in proper working condition. Never attempt to get off or on a moving tractor. Never allow riders on tractor or equipment. Only start the tractor from the seat with the key. Always inspect the area before mowing. Remove all foreign debris. Always keep bystanders and coworkers a minimum of 300 feet away. Never allow the mower blades to contact solid objects or foreign material. Never approach rotating elements. Test on proceeding declaration in "Park", set parking brake, shut off engine, and remove key and wait until all rotating motion has stopped before leaving seat. 0 33743

33743 INSIDE OF CAB



PART NO. LOCATION

RED 42399 REFLECTIVE TAPE MOWER DECK



AMBER 42400 REFLECTIVE TAPE MOWER DECK



6T3217 MOWER DECK



6T3219 INSIDE OF CAB

6T3220 FRONT PUMP MOUNT

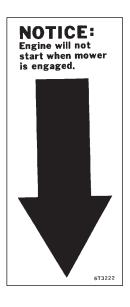
## **A** CAUTION

LUBRICATE SPINDLE DAILY OR EVERY 10 HOURS OF USE. WITH MOWER AND TRACTOR OFF, INJECT TWO PUMPS OF TIGER SPINDLE LUBRICANT INTO SPINDLE BEFORE USING.

NOTE: SEE OPERATORS MANUAL FOR SUBSTITUTE LUBRICANT AND MORE DETAILED INSTRUCTIONS.
673221

PART NO. **LOCATION** 

6T3221 **INSIDE OF CAB** 



6T3222 **INSIDE OF CAB** 



6T3224 **MOWER DECK** 



6T3225 **INSIDE OF CAB** 

## **WARNING**

#### DO NOT OPERATE THIS EQUIPMENT WITH BYSTANDERS IN THE AREA!

ROTARY MOWERS HAVE THE INHERENT ABILITY TO THROW DEBRIS CONSIDERABLE DISTANCES WHEN KNIVES ARE ALLOWED TO STRIKE FOREIGN OBJECTS. **OPERATOR CAUTION MUST BE TAKEN OR SERIOUS** INJURY CAN RESULT.

PART NO. **LOCATION** 

6T3230 **INSIDE OF CAB** 

- PROCEDURE FOR TRAVEL POSITION.
- 1. ALLOW CUTTER ASSEMBLY TO COME TO COMPLETE STOP.
- 2. CENTER DECK BETWEEN FRONT AND REAR TIRES. 3. PLACE BOOM INTO TRAVEL POSITION.
- FAILURE TO DO SO MAY RESULT IN TIRE DAMAGE

AND/OR INJURY.

6T3231

6T3231 **INSIDE OF CAB** 

## **A** CAUTION

DO NOT START OR RUN WITH VALVES CLOSED. (SERIOUS DAMAGE WILL OCCUR)

6T3233 HYDRAULIC TANK

## **A** CAUTION

**CHECK CRANKSHAFT ADAPTER DAILY** FOR TIGHTNESS AND GROMMET WEAR

AS SERIOUS DAMAGE TO RADIATOR MAY RESULT FROM IMPROPER MAINTENANCE.

6T3234

6T3234 **INSIDE OF CAB** 



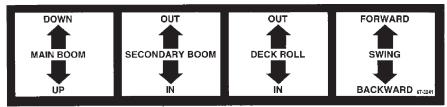
6T3236 MOWER DECK

Bengal Boom Safety Section 1-21



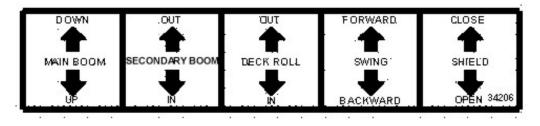
WHEN CUTTING HEAVY BRUSH, BLADE BOLTS SHOULD BE INSPECTED HOURLY AND RETORQUED TO 600 FT. LBS. PART NO. LOCATION 6T3237 INSIDE OF CAB

6T3237



6T3241 INSIDE OF CAB

6T3241



34206 INSIDE OF CAB

**A WARNING** 

IT IS RECOMMENDED THAT THE BOLT AND LOCK NUT BE REPLACED WHENEVER BLADES ARE REPLACED. REPLACE THESE ANY TIME THEY ARE DAMAGED OR WORN AS FAILURE TO DO SO CAN LEAD TO BLADES COMING OFF CAUSING SERIOUS INJURY OR DEATH.

**IMPORTANT** 

• WHEN REPLACING BLADES, IT IS RECOMMENDED THAT ALL BLADES BE REPLACED FOR PROPER BALANCE TO AVOID EXCESSIVE VIBRATIONS WHICH CAN DAMAGE SPINDLE ASSEMBLY.

SEE YOUR OPERATOR'S MANUAL FOR PROPER INSTALLATION INSTRUCTIONS.

67-2243

6T3243 INSIDE OF CAB

**GREASING INSTRUCTIONS** 

**CUTTER SHAFT BEARING** 

**GREASE EVERY 8 HRS. OR DAILY** 

NOTE: If unusual environmental conditions exist-extreme temperatures, moisture, or contaminants-more frequent lubrication is required.

GT3249A

6T3249A MOWER DECK

GREASING INSTRUCTIONS

GROUND ROLLER BEARING GREASE EVERY 8 HRS. OR DAILY

NOTE: If unusual environmental conditions exist-extreme temperatures, moisture, or contaminants-more frequent lubrication is required.

5T3281

6T3261 MOWER DECK



TB1011 MOWER DECK

0

0



## **Tiger Corporation**

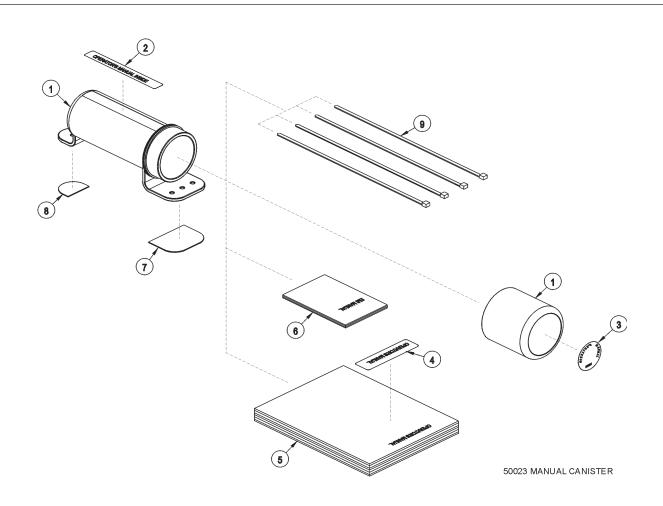
800-843-6849 www.tiger-mowers.com

Description	Application	General Specification	Recommended Lubricant
Tractor Hydraulics	Reservoir	JD-20C	Mobilfluid® 424
Mower Hydraulics Cold Temperatures 0°F Start-up  Normal Temperatures 10°F Start-up Normal Temperatures 15°F Start-up High Operating Temperatures Above 90°F Ambient	Reservoir	ISO 46 Anti-Wear/ Low Temp JD-20C ISO 46 Anti-Wear ISO 100 Anti-Wear	Mobil DTE® 15M Mobilfluid® 424 Mobil DTE® 25 Mobil DTE® 18M
Flail Rear Gearbox	Reservoir	PAO Synthetic Extreme Pressure Gear Lube	Mobilube SHC® 75W-90, Mobil 1 Synthetic Gear Lubricant
Cutter Shaft and Ground Roller Shaft (Flail)	Grease Gun	Lithium Complex, NLGI 2 ISO 320	Mobilgrease® CM-S
Drive Shaft Coupler (Rotary and Flail)	Grease Gun	Lithium Complex, NLGI 2 ISO 320	Mobilgrease® CM-S
Boom Swivel, Boom Cylinder Pivots (Rotary and Flail Boom Type)	Grease Gun	Lithium Complex, NLGI 2 ISO 320	Mobilgrease® CM-S
Deck Boom Pivot & Deck Stop Adjustment (Rotary and Flail)	Grease Gun	Lithium Complex, NLGI 2 ISO 320	Mobilgrease® CM-S
Deck Spindle (Rotary)	Grease Gun	Tiger Spindle Lubricant	Mobilith SHC 220

For Mobil product information, availability, or technical information, call 1-800-662-4525.

Tiger PN 34852

34852 HYDRAULIC TANK



ITEM	PARTNO.	QTY.	DESCRIPTION
1	<b>50023</b> 00776031 33997	<b>AVAIL</b> 1 1	MANUAL CANISTER COMPLETE ROUND MANUAL CANISTER DECAL, SHEET, MANUAL CANISTER
2		*	DECAL
3		*	DECAL
4		*	DECAL
5	*	AVAIL	SPECIFIC PRODUCT MANUAL
6	33753	1	E M I SAFETY MANUAL
7	34296	1	FRONT ADHESIVE PAD
8	34297	1	REAR ADHESIVE PAD
9	6T1823	4	ZIP TIE 14" LONG

#### NOTE:

The manual canister can be bolted, zip tied or adhered to a variety of surfaces. Locate a protected area within the view of the operator. Then select an installation method and attach the canister. **CAUTION - AVOID DRILLING HOLES INTO UNKNOWN AREAS**, wires and other parts may be located behind these areas. When adhering the canister to a surface, thoroughly clean that surface before installing the canister.

Bengal Boom Safety Section 1-24

## 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 Regulations**

OSHA regulations state in part: "At the time of initial assignment and at least annually thereafter, the employer shall instruct every employee in the safe operation and servicing of all equipment with which the employee is, or will be involved."

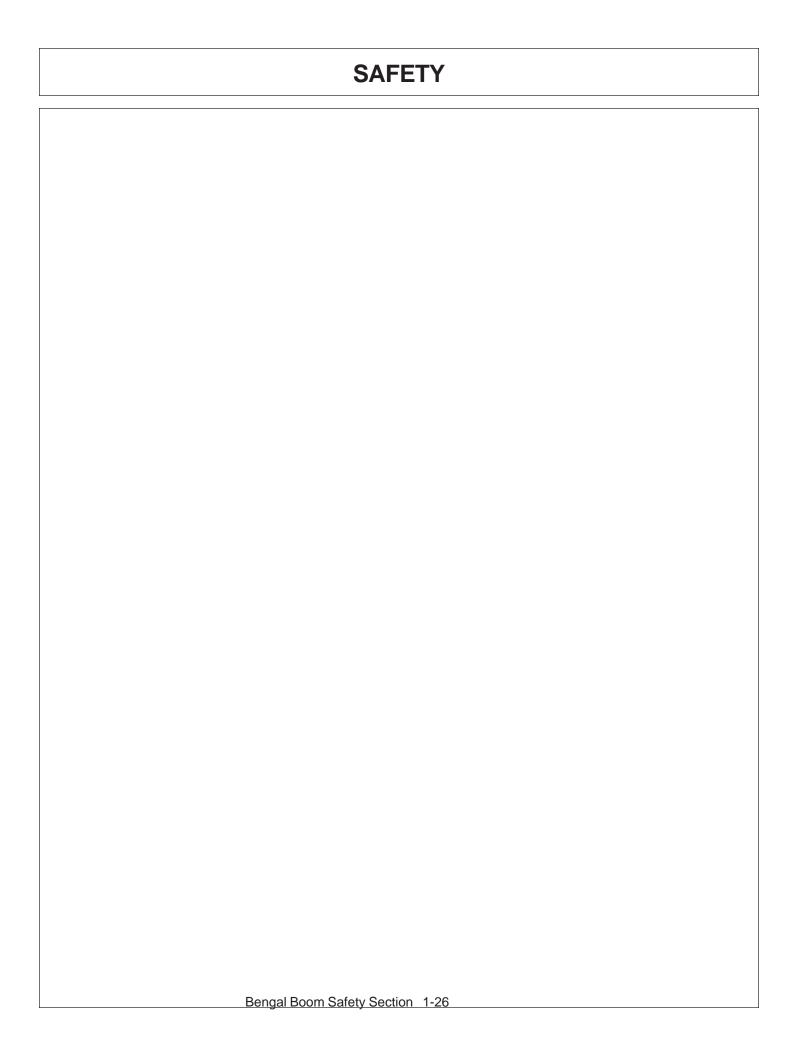
#### **Employer Responsibilities:**

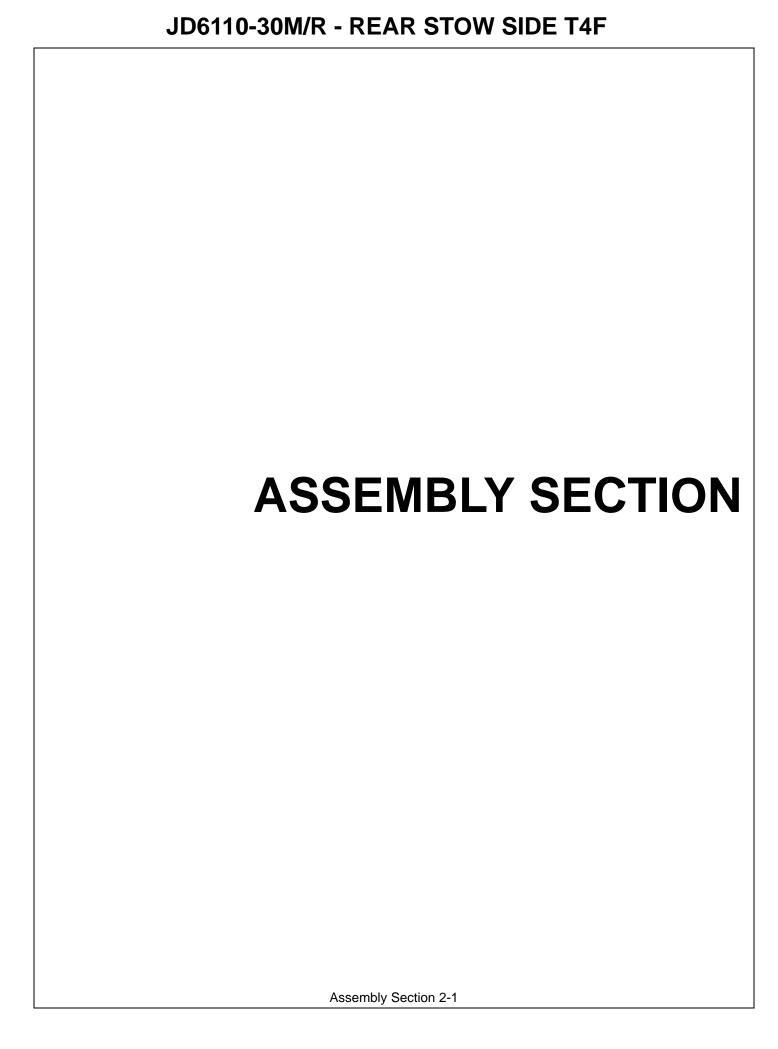
To ensure employee safety during Tractor and Implement operation, it is the employer's responsibility to:

- 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.
- 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.

#### 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**

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

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

**▲WARNING** 

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

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

## TRACTOR PREPARATION

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

(ASM-JD-0001)



## **ASSEMBLY**

## FRONT CRANKSHAFT PULLEY

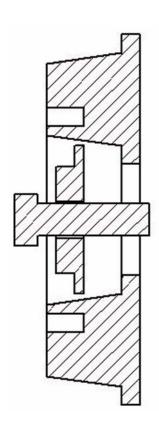
Tiger has found that the front crankshaft pulley used by John Deere will not allow for the installation of a front drive system. You will need to order a different pulley, washer and bolt from John Deere to allow for a front drive to be installed on your tractor.

Inspect the front pulley on your tractor to verify you have the correct pulley needed to mount the spacer plate. If your pulley has the (4) four holes needed to mount the spacer, your pulley is the correct one needed. If your pulley does not have the (4) four holes in the pulley, you will need to order the correct pulley, washer and bolt from John Deere.

#### PARTS REQUIRED TO PURCHASE FROM JOHN DEERE:

Pulley from JD - R516320 Washer from JD - R517237 Bolt from JD - R516648 Torque on the pulley bolt with Loctite is 369 lb-ft.





#### Solution:

- 1. Clean nose of crankshaft using TY16285 clean and cure primer.
- 2. Apply a light 2-3mm bead of TY15969 retaining compound around the leading edge of the crankshaft nose.
- 3. Dip damper mounting capscrew in clean SAE30 engine oil (Always use a new capscrew).
- 4. Position damper/pulley on the crankshaft and thread capscrew up tight (do not rely on the capscrew to pull the pulley straight onto the taper).
- 5. Tighten capscrew to specification 500Nm (369lb-ft) (the engine will most likely have to be pinned).
- 6. Measure run-out on the pulley, spec is 0.003" or less.

(ASM-JD-0080)

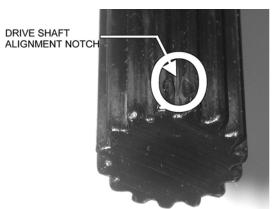


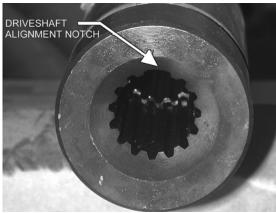
## **ASSEMBLY**

## DRIVESHAFT AND FRONT PUMP MOUNTING

Install spacer plate on tractor engine using bolts and lockwashers as shown in Parts Section. Grease sleeve section of the driveshaft and install from the side of the engine compartment. Once you have the sleeve section in place, bolt to spacer plate using bolts and lockwashers as shown in Parts Section. Install shaft end of driveshaft through opening and into driveshaft sleeve. Shaft and sleeve yokes should be aligned, if shaft does not insert easily in sleeve, turn shaft 180°, and then install. Align the notches on the shaft and yoke tube as shown in picture below. Shaft end must be installed in correct orientation, failure to do so may result in damage to tractor and/or driveshaft. After installation of shaft end, install pump mount. Next, install pump. After pump is secured, install driveshaft in to pump shaft. The end of driveshaft should be no more than 1/2" away from contact with pump housing. Tighten crimping bolt on driveshaft. Lube driveshaft and check all hoses, flanges, the pump, pump mount, driveshaft and mounting plate to ensure all fasteners are tightened before operation.

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)





## **ADJUSTING REAR WHEELS**

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

## POLYCARBONATE SAFETY WINDOW

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

- 1. Disconnect gas shock at door. Remove the right side cab door/window glass from tractor cab by removing hinge pins. Also, remove rear right side window.
- 2. Remove the existing hardware and discard factory glass door and window.
- 3. Place small bead of adhesive seal in the bottom of the trim lock bubble seal.
- 4. Install trim lock bubble seal on polycarbonate starting at the center bottom horizontal portion.
- 5. Install existing hardware removed from glass door and window on the polycarbonate.
- 6. Install the polycarbonate assembly in the cab with existing and supplied hardware. (ASM-JD-0052 JD6xxxM T4F)



## MAINFRAME INSTALLATION

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

## **SWITCHBOX WIRING**

Power for the switchbox is accessed through the port located on the right rear of the cab. A John Deere plug is used, part number RE67651. DO NOT connect the plug to the cab port until the wiring is completed. The wires in the plug are colored RED, BLACK and ORANGE. The RED wire will always be hot, so it needs to be capped. Attach connector 34538 to end of RED wire and tape wire back on itself. The BLACK and ORANGE wires are hot when tractor key is turned to "on." Connect the BLACK wire of the plug to the BLACK wire from the switchbox. Then connect the ORANGE wire of the plug to the RED wire from the switchbox. IMPORTANT: In some cases the red and orange wires may be switched. ALWAYS test the wires to be certain which wire is which.

The two GREEN wires must be connected to the neutral safety wire by cutting the neutral safety wire and connecting one GREEN wire to one end and the second GREEN wire to the other. Refer to the switchbox schematic and wiring diagram for additional information.

The Neutral Safety wire is a brown wire located under steering column. Cut a slot in the right side of column to access, WATCH OUT for existing wires.

After connecting the power to the switchbox, route the white wire along the cables or wires to the solenoid valve. (ASM-JD-0245)

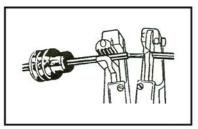


## WEATHER-PACK / METRI-PACK ASSEMBLY

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

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

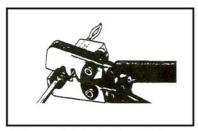
(ASM-C-0009)



1. Apply seal to cable, before stripping insulation



2. Align seal with cable insulation.



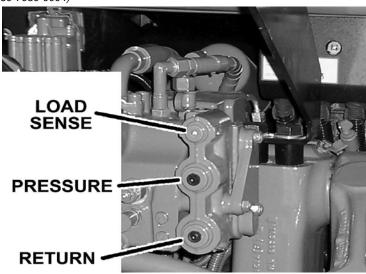
3. Put terminal in crimping tool, then position wire and seal in place.



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

## **HYDRAULIC PORTS**

These ports are located at the rear of the tractor, under the lift valve, where the valve mounting bracket attaches to the tractor. The load sense port is on top, then the pressure and finally the return port, as shown in the image below. Refer to the Parts Section for additional information. (ASM-JD60-7030-0004)



## PRESSURE LINE INSTALLATION

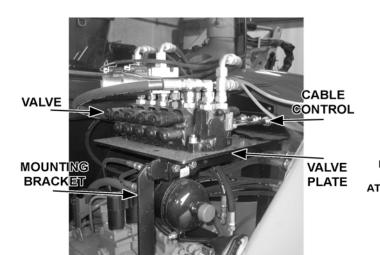
The hydraulic pressure line will be plumbed into the rear of the tractor remote valve. Locate the pressure port on the rear remotes and remove the plug (refer to the Hydraulic Ports illustration and the Parts Section pages for position of the pressure port). After the plug is removed install 27mm adapter. Next, connect a 1/2" hose from the tractor remote valve to the Tiger valve. (ASM-27mmPRESSURE-0001)

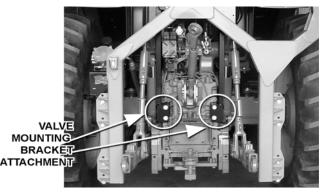
## RETURN LINE INSTALLATION

The return line will be plumbed next to the pressure line on the tractor remote valve. Locate the return port and remove the plug (refer to the Hydraulic Ports illustration and the Parts Section for the position of the return port). After the plug is removed install 27mm adapter or elbow. Next, connect a 1/2" hose from the tractor remote valve to the Tiger valve. (ASM-27mmRETURN-0001)

## **VALVE MOUNTING**

The mounting bracket for JD 6xxxR series tractors features two long legs which need to be attached as shown in the photo below. Secure the bracket to the tractor with hardware shown in the Parts Section of the manual. Align the holes for the cables on the Husco control valves and center the Danfoss valve on the valve plate. Then align the holes on the valve with the plate holes and secure the lift valve on top of the mounting plate. Route the hydraulic lines from the lift valve to the hydraulic cylinders as noted on the lift valve page of the Parts Section. Install the control cables to the valve and the mounting plate on the Husco valves. On the Danfoss valves, attach the electrical control cables. (ASM-JD7X30-0001 JD6140R)





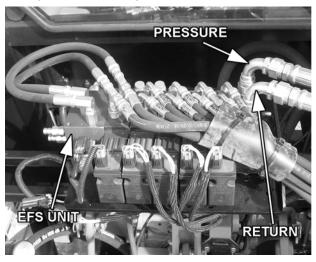
## \*NOTE ON HUSCO CONTROL VALVES\*

Manual, cable controlled (Husco control valve) boom mowers require check valves with integral restricting orifice (#06502036) installed in the control valve work ports that are connected to the gland ends of the main and secondary boom cylinders. This check valve allows oil to free flow into the gland end of the main and secondary boom cylinders, but restricts flow out of the cylinder, thereby providing proper boom control. This check valve, #06502036 (Vendor #1968R-.063) is similar in appearance to hose adapter #33271 and Adapter #34396, with.06 orifice. These components can be identified as follows, and are to be installed per Parts Section for the lift valve. (ASM-HUSCO-0001)



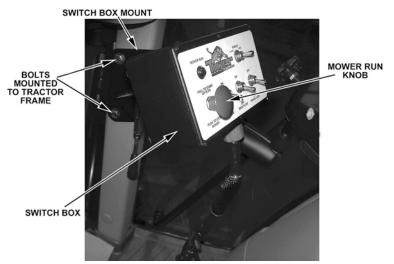
## **ELECTRONIC LIFT VALVE PORTS**

The Danfoss Lift Valve used with the Tiger Rear Stow Side boom includes an EFS unit to provide additional boom lift assist. Consequently the Danfoss lift valve is installed turned 180 degrees from the Danfoss valves on other Tiger booms. (ASM-C-0089 EFS RSS)



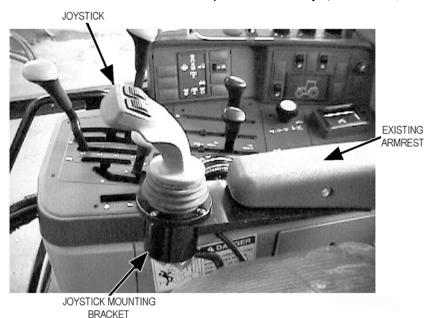
## **JOYSTICK SWITCHBOX MOUNTING**

Locate the two holes in the right front corner of the cab frame. These will be the mounting holes for the two mounting bolts of the switchbox bracket. See picture below. Mount the bracket using the hardware supplied, as noted in the Parts Section. (ASM-JD-0081)

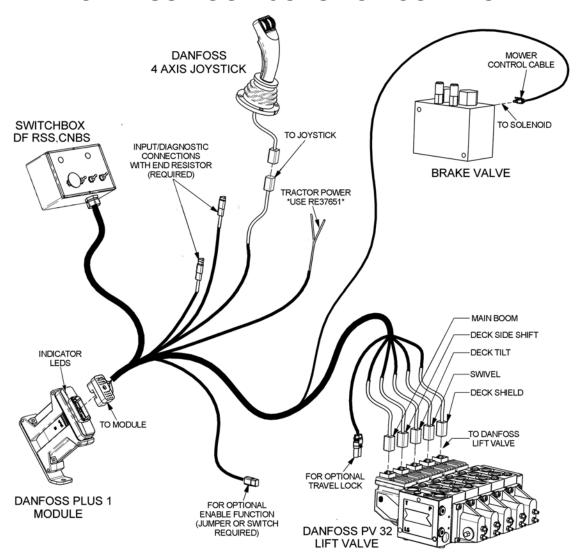


## **JOYSTICK CONTROL MOUNTING**

Mounting the joystick control requires that the right armrest be modified and an additional bracket attached to accommodate the joystick. The armrest must be removed by sliding off the plastic cover and removing the capscrew from the lower right side of the seat. This will leave the armrest loose so it can be removed. Once the armrest is removed, place the joystick holder under the armrest, so the indentation on the outside of the armrest is lined up with the hole in the armrest bracket which the capscrew will need to pass through. Once they are lined up, mark the armrest where the hole passes through the armrest bracket. A 1/2" hole must be drilled through the armrest so that the bracket can be secured. After the initial 1/2" hole is drilled, on the inside of the armrest the hole must be cut to a larger diameter up to the metal plate in the armrest, so that a spacer and hex nut can be fastened to the capscrew which will secure the bracket. Install the armrest bracket on the armrest with the hardware shown in the Parts Section. Once the bracket is installed, re-attach the armrest to the seat using the existing hardware previously removed. Then install the joystick in the bracket with the machine screws shown in the Parts Section. Route the lift valve wires from the switchbox through the cab and out the back window. Cover with conduit and secure with ties or clamps as necessary. (ASM-JD-0082)



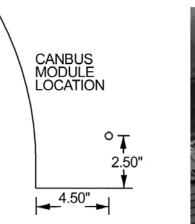
## **CANBUS BOOM JOYSTICK CONTROL**



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

## **CANBUS MODULE MOUNT**

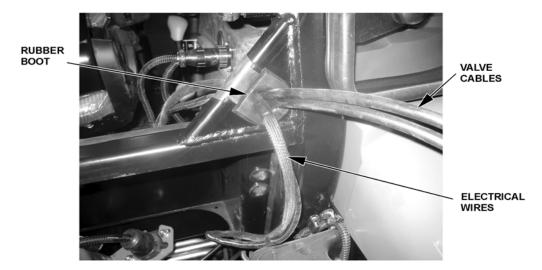
Place the Canbus Controller mounting bracket (#06411524) on the floor of the cab, 4.5 inches from the right side console and 2.5 inches from the right side door. Drill a 3/8" hole through the floor and secure the bracket using a 3/8" bolt (#21637), spacer (#27082B) and 3/8" nylock nut (#21627). Attach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





CANBUS CONTROLLER MOUNT

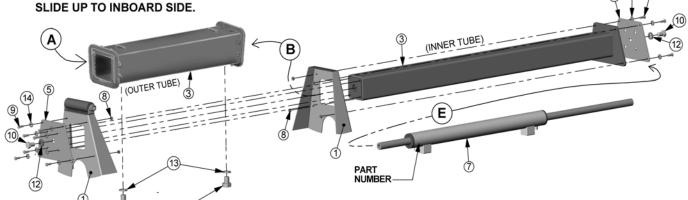
The rubber boot under the rear window can be cut in a crosshair pattern and, if necessary, the bottom cut through to allow it to slip over the cables and back into position. These cables will be routed to the lift valve mounted on the valve mounting plate, and should not have any sharp bends or kinks in them. Secure cables with zip ties and apply RTV sealer in and around individual cables, inside and outside of the cab, for a water tight seal. Do not allow excess cable to hang unsecured on the outside of the cab. (ASM-JD-0087 canbus mount).



## REAR STOW SIDE SLIDE ASSEMBLY

TIGER RECOMMENDS USING LOCTITE 271™ ON ALL FASTENERS BEFORE INSTALLING.

- A. THE INNER AND OUTER TUBES ARE SUPPLIED AS AN ASSEMBLY. REMOVE THE INNER FROM THE OUTER TO ASSEMBLE TO MOWER HEAD.
- C. ONCE ITEM 3 IS IN PLACE, SECURE INBOARD END CAP (ITEM 5) WITH ITEMS 9 (QTY 8), 14 (QTY 8) & 8 (QTY 4). LEAVE FASTENERS LOOSE TO ALLOW FOR NEXT STEP
- B. SLIDE THE INNER TUBE OF ITEM 3 INTO ITEM 1
  FROM OUTBOARD SIDE (OPPOSITE ROLLER
  ASSEMBLY) AS SHOWN. SLIDE THE INNER TUBE
  THROUGH THE OUTER TUBE. ONCE YOU HAVE
  TUBE THROUGH THE OUTBOARD SIDE, THEN
  SLIDE UP TO INBOARD SIDE.
- D. SLIDE OUTER TUBE ALL THE WAY OUTBOARD.



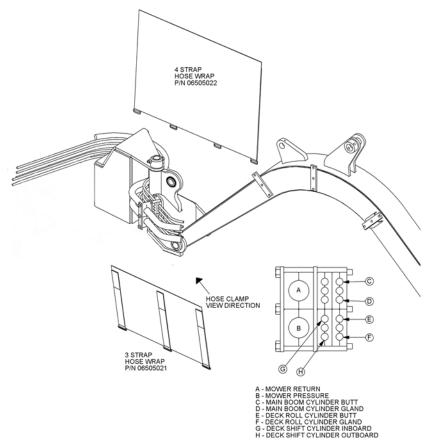
- E. SLIDE ITEM 7 INTO ITEM 3 (TURN 45° AS NEEDED) PART NUMBER FOR ITEM 7 LOCATED NEAR ONE END OF CYLINDER BARREL MUST GO TOWARD INBOARD END! LINE UP MOUNTING BLOCKS WITH HOLES IN OUTER TUBE. LOOSELY SECURE WITH ITEMS 11 (QTY 2) AND 13 (QTY 2). LOOSELY ASSEMBLE ITEMS TO OUTBOARD END WITH ITEMS 9 (QTY 4) AND 8 (QTY 4).
- F. WITH ALL ITEMS IN PLACE, CENTER ITEM 3 IN OPENINGS IN ITEM 1
  AT BOTH ENDS, THEN TIGHTEN FASTENERS. THEN TIGHTEN
  FASTENERS ON ROD ENDS. FINALLY, TIGHTEN BOLTS ON
  UNDERSIDE OF CYLINDER.

See the Slide Assembly page in the Common Parts Section for parts numbers and additional detail. (ASM-RSS SLIDE ASSEMBLY 2017)



## REAR STOW SIDE MOWER HOSE ROUTING

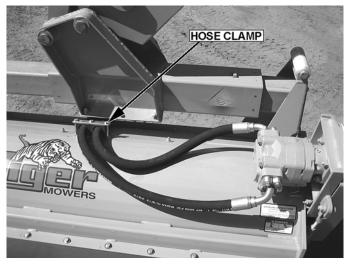
**WARNING NOTE:** The sudden release of hydraulic pressure could cause the sudden movement of very heavy parts. Anyone in the way of these parts could be severely hurt or killed. To prevent hydraulic failure, DO NOT ALLOW these hydraulic hoses to BREAK or BURST. Make sure the hoses do not pinch or stretch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

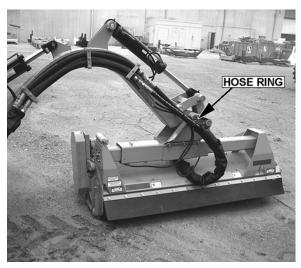


Route the hoses through the space between the swivel and the boom mounting bracket. Connect the hoses to the boom hoses and move the boom arm to a few feet from full forward. Assemble the swivel clamp and place the return hose for the motor on top and the pressure line on the bottom. Place the ¼" hoses in the hose clamp as shown above. Next, make sure there is enough slack for all hoses to pivot at the joint where the main boom arm bends in the swivel, as shown in the next image, and tighten the hoses in the clamp. (ASM-RSS HOSE ROUTING-0001A)

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

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





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

## WHEEL WELL HYDRAULIC TANK INSTALLATION

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

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

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

## WHEEL SPACERS

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



## FILLING HYDRAULIC RESERVOIR

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

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

(ASM-C-0004hydro resrv)

## INSTALLING O-RING FITTINGS

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

## INSTALLING NATIONAL PIPE FITTINGS

Whenever installing a pipe fitting, wrap the threads clockwise (looking at the end) with teflon tape. In this way, the tape will be tightened when installed. NOTE: It is not necessary to tape Oring fittings, or those installed in swivels. (ASM-C-0088)

## PREFORMED TUBE INSTALLATION

Lay booms on floor so that the side with the clamp plates is up. Locate all tube clamps and install them loosely onto the clamp plates.

Arrange the tubes and hoses as outlined in the Common Parts Section. Install the tubes closest to the boom arm first, being careful not to pinch the tubes. Place the other tubes outside of the first tubes. Snug all clamp bolts, but do not tighten. Check all tubes for correct alignment and that none are pinched or bent. The clamp bolts can now be tightened. (ASM-C-0085)

## **GENERAL HOSE INSTALLATION**

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

## **HOSE COVERING**

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

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

## **ACCUMULATOR INSTALLATION**

Install the accumulator bracket on the right mainframe mast or lift valve mount, if applicable, with the capscrews, lockwashers and spacers, if applicable, as shown in the Parts Section. Install the accumulator in the bracket and secure with the hardware shown. Install fittings and hoses to the cylinder and control valve as shown in the Parts Section. **Use teflon tape on all pipe fittings (except O-rings).** (ASM-C-0012)



## **SOLENOID BRAKE VALVE**

Install a solenoid valve on the mounting bracket with the supplied hardware as shown in the Parts Section in this manual. While installing the fittings to the brake valve, the electrical coil on the spool may have to be removed to make room. When reinstalling the coil, it is important to use no more than 5 ft. lbs. (or 60in. lbs.) torque. **WARNING: OVER TORQUE TO THE COIL WILL RESULT IN HYDRAULIC FAILURE OF SPOOL.** (ASM-C-0025)

## TEMPERATURE GAUGE MOUNTING (OPTIONAL)

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

## WHEEL WEIGHT MOUNTING

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

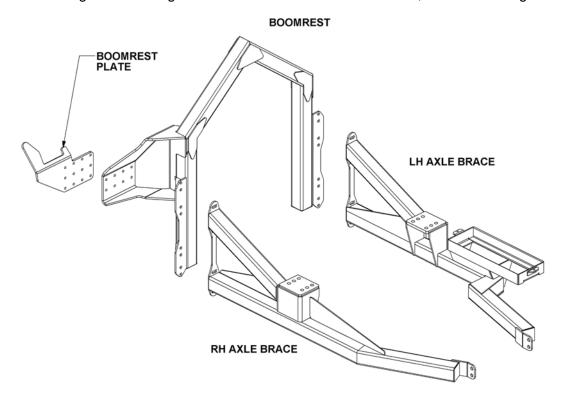
Installation is most easily done with a fork lift, inserting a fork in the center slot of the wheel weight. The head of the capscrews is to be toward the OUTSIDE of the weight, with flatwashers on both the inside and outside of the assembly.

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



## OS AXLE BRACE MOUNTING

The open stow axle braces are to be mounted under the rear axle of the tractor. The other end of the axle brace mounts on the outside of the lower rear corners of the mainframe. After attaching the boomrest, it should fit tightly and level under the tractor. Attach the axle brace(s) to the mainframe with hardware shown in the Parts Section and tighten. Attach the axle braces to the rear axle using the mounting hardware shown in the Parts Section, but DO NOT tighten.



## **OS BOOMREST MOUNTING**

Carefully raise the open stow boomrest and align the holes with those of the axle brace. Now install all attaching hardware, as shown in the Parts Section, loosely, to allow for the alignment with the left and right axle brace. Tighten / torque all hardware on the brace and the boomrest. Finally, add the boomrest plate to the boomrest as shown in the Parts Section. (ASM-JD-0246)

## **DECK ATTACHMENT**

The pivot assembly is used to attach the head to the secondary boom. Install the deck pivot cylinder using the pins and hardware, which is illustrated in the Common Section.

Connect the fittings and hoses from the pivot cylinder to the small preformed tubes on the boom arm. Connect the fittings and hoses from the motor to the large preformed tubes on the boom arm. Connect all remaining hoses from the control valve to the cylinders and / or preformed tubes on the boom arm. Refer to Common Section for diagrams. (ASM-C-0018)



## MAIN BOOM INSTALLATION

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

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

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

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

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

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



## FINAL PREPARATION FOR OPERATION

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

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



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

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

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

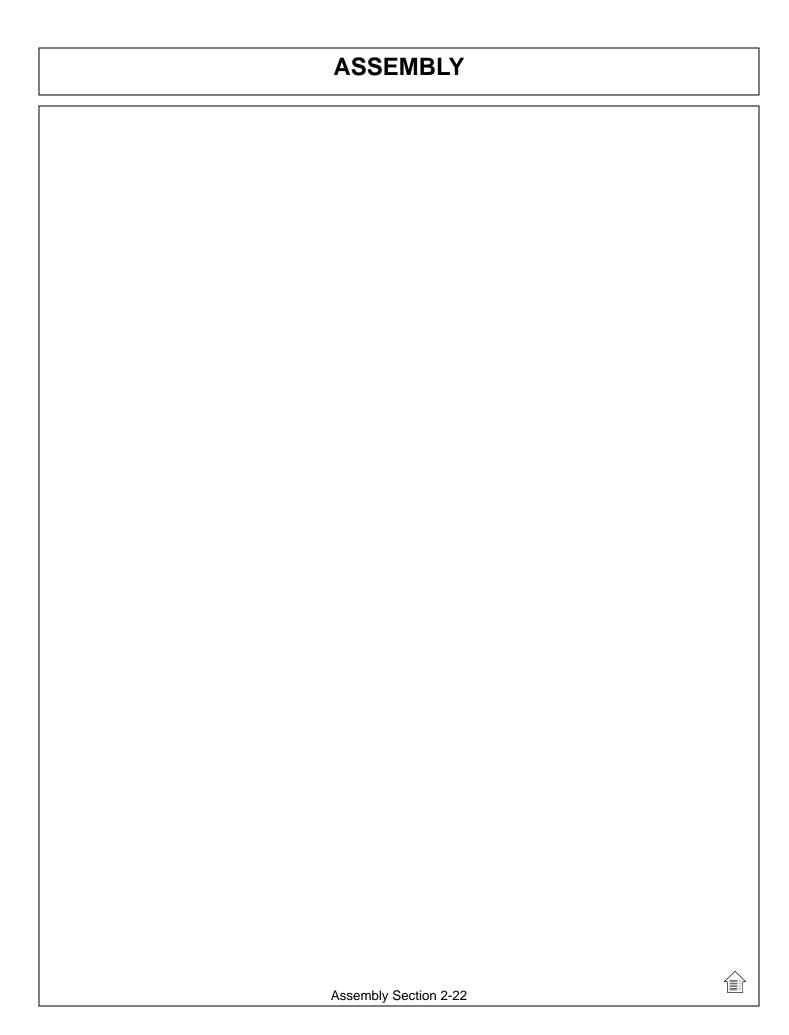
Before operating the mower, the cutter head and boom should be slowly moved throughout the full range of motion. Watch for any condition that would cause pinching or excess stress on the hoses. The steering and front axle travel should also be carefully moved through their full range of motion. If any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

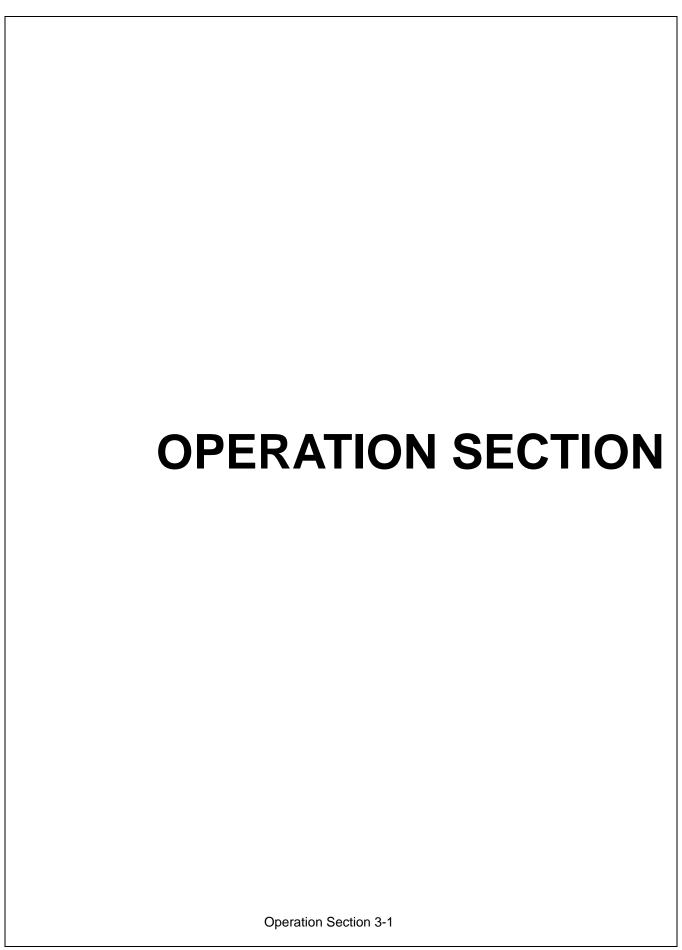
## **MOWER TESTING**

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

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







# TIGER BOOM MOWER OPERATING INSTRUCTIONS

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

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

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

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

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





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



Boom

#### **1.OPERATOR REQUIREMENTS**

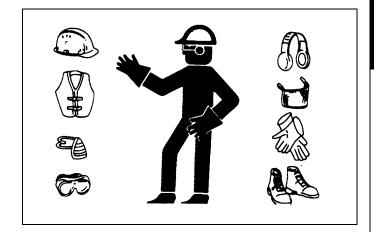
Safe operation of the unit is the responsibility of a qualified operator. A qualified operator has read and understands the implement and tractor Operator's Manuals and is experienced in implement and tractor operation and all associated safety practices. In addition to the safety messages contained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

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

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

#### PERSONAL PROTECTIVE EQUIPMENT (PPE)

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



A DANGER

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



Boom

#### 2.TRACTOR REQUIREMENTS

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

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

- ASAE approved Roll-Over Protective Structure (ROPS) or ROPS cab and seat belt.
- Tractor Safety Devices ......Slow Moving Vehicle (SMV) emblem, lighting,
- Tractor Ballast ...... As required to maintain at least 1500 lbs. on left rear tire

#### 2.1 ROPS and Seat Belt

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



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





#### 2.2 Tractor Lighting and SMV Emblem

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

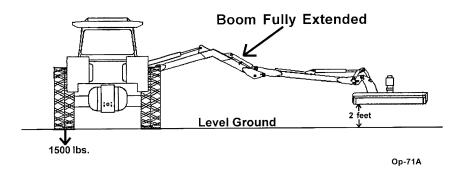
OPS-B- 0017



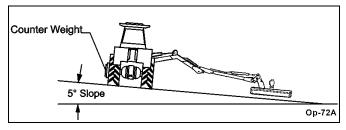
Boom

#### 2.3 Tractor Ballast

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



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



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

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



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



Boom

#### 3.1 Boarding the Tractor

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

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

**A** DANGER

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



**A** DANGER

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



**AWARNING** 

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



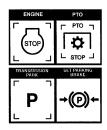
#### 3.2 Dismounting the Tractor

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

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



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



Boom

#### **4.STARTING THE TRACTOR**

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

#### **Essential Tractor Controls:**

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

#### Before starting the tractor ensure the following:

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

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



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



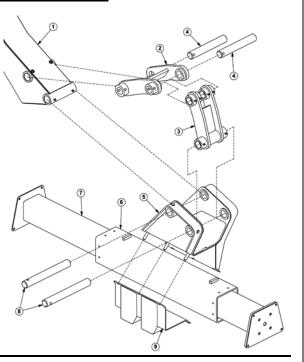
Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)



Boom

## 5.CONNECTING ATTACHING HEADS TO THE BOOM

- 1. Start by attaching the pivot bracket(2) to the boom(1) using pin(4) and hardware. Next attach the cylinder and pivot bracket(2) to the pivot bracket(3) using pin(4) and hardware.
- 2. Then attach the tree(5) to the slide assembly(6) using clamp(9) and hardware.
- 3. Use a hoist to lower the boom(1) down to the tree(5). Insert the upper pin(8) through the tree(5) and the end of the boom(1). Attach with hardware.
- 4. Then align the tree(5) and the pivot bracket(3). Attach with pin(8) and hardware.
- 5. Finally make sure all bolts, nuts, and pins are tightened to recommended torque. *OPS-RSS-0001*



## **AWARNING**

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

## **AWARNING**

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



Boom

## 6.PRE-OPERATION INSPECTION AND SERVICE

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



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

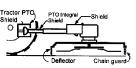




**A** DANGER

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

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



Boom

### 6.1 Tractor Pre-Operation Inspection/Service

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

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



## 6.2 Boom Unit Pre-Operation Inspection and Service

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



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





Boom

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

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



#### FRAME ASSEMBLY

- Inspect condition of mounting frame weldment.
- · Inspect condition of Swivel Assy.
- Ensure all bolts and screws are in position and are properly torqued.
- Ensure all pins are in place and fastened with screws.
- Ensure frame is properly mounted to tractor and hardware is propely installed and tightened. OPS-RSS-0008



Boom

## **AWARNING**

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

## **AWARNING**

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



#### **BOOM ARM ASSEMBLY**

- Inspect condition of the boom arm weldment
- Ensure all pins are in place.
- Ensure all bolts, nuts and rollpins are properly installed.
- Check condition of bushings at boom pivot points and hydraulic cylinder tangs.
- Ensure each hydraulic cylinders are installed and retained correctly. Ensure the proper size pins are used to retain the cylinders in place and are secured properly. OPS-RSS-0002

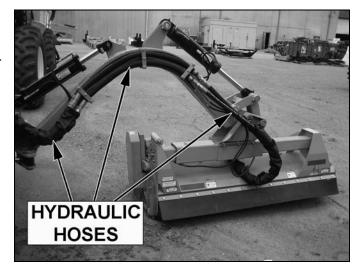


**À**WARNING

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

#### HYDRAULIC LINE INSPECTION

- Check for hydraulic leaks along hoses, cylinders and fittings. IMPORTANT: DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.
- Inspect the condition of the valve mounting.
- Ensure fittings are properly connected. OPS-RSS-0005



Boom



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



#### HYDRAULIC PUMP/OIL RESERVOIR

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



Check the fluid level in the Hydraulic Tank on the

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



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

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



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

Boom

#### ROTARY HEAD INSPECTION

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



Inspect the condition of deck skid shoes and hardware. OPS-RSS-0003



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



**A** DANGER

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

Boom

#### FLAIL HEAD INSPECTION

- Inspect blades and blade bolts for looseness and excessive wear. Rotate to 90° to make for checking easier. Replace damaged, worn, and missing blades as complete sets to maintain cuttershaft balance.
- Ensure rubber deflectors are in position and not damaged. Replace worn, broken, and missing sections immediately.
- Ensure the rollers are in good condition and rotate freely.
- Inspect that all bolts and screws are in position and are properly torqued.
- to the hydraulic lines are properly connected to the hydraulic motor. Check for hydraulic leaks along hoses and fittings. DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.
- Inspect the condition of the drive belts.
- Ensure the drive belt shields are in place and in good repair.
- Remove any grass or other debris which may be wrapped around the cuttershafts ends.
- Inspect the condition of deck skid shoes and hardware. OPS-RSS-0004



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





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

Boom

#### **6.3 Cutting Component Inspection**

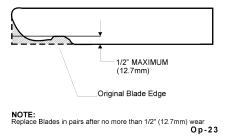
Inspect blade pan and blade assembly for the following: OPS-U-0031 Damaged Pan Cause: Blade Pan contacts an immovable object while mower was in motion. Remedy: Inspect the area before mowing to determine where the immovable objects are located and place visible hazard markers to identify the areas. Avoid mowing in the area where immovable foreign objects exist. Original Blade Edge Original Blade Edge 0 Excessiv<u>e Blade Wear</u> **Notches and Gouges** Cause: Blade contacting foreign objects Cause: Mower height set too low. Blade used past intended life. Remedy: Inspect the area to be mowed and remove foreign objects that could cause damage to the blades Remedy: Replace blades more often. Adjust mower height for mowing Conditions to eliminate blade-toground contact Op-22

A DANGER

Inspect the Blades daily for abnormal wear. REPLACE BOTH BLADES on that carrier IMMEDIATELY if either blade has:

- · Become bent or deformed from it's original shape 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 1/2"(12.7mm), or
- The material on the leading edge has been worn away by more than 1/2(12.7mm)"

Failure to replace abnormally worn 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. *OPS-U-0032* 



Operation Section 3-16

Boom

## **Tractor PRE-OPERATION Inspection**

Tiger	Mower ID#	Make
	Date:	Shift
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<b>AWARNING</b>
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Before conducting the inspection, make sure the tractor engine is off, all rotation has stopped and the tractor is in park with the parking brake engaged. Make sure the mower is resting on the ground or securely blocked up and all hydraulic pressure has been relieved.

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

Operator's Signature:		
-		

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

This Inspection Form may be freely duplicated for extra copies.

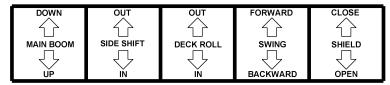
Boom Operation Section 3-17

Boom PRE-OPERATION	ON Inspection	
Mower ID#	Make	
Date:	Shift	
AWARNING  Before conducting the inspection, make stopped and the tractor is in park with mower is resting on the ground or secu been relieved.	h the parking brake	engaged. Make sure
Table 1:		
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		
	I	
The hydraulic motor mounting bolts are tight		

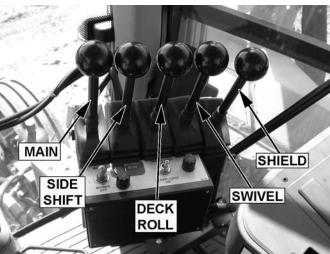
## **DO NOT OPERATE an UNSAFE TRACTOR or MOWER**

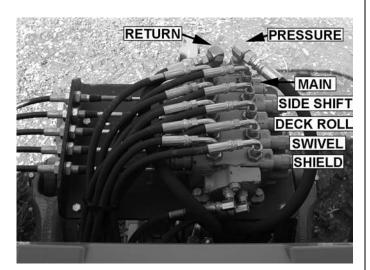
#### Cable Controlled Mowers

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



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

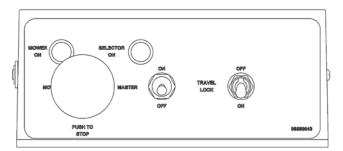


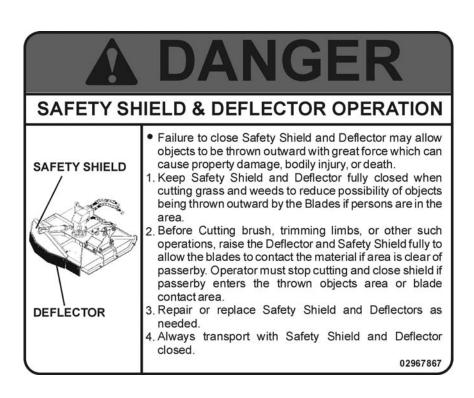


Boom

#### 6.4 Switchbox

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



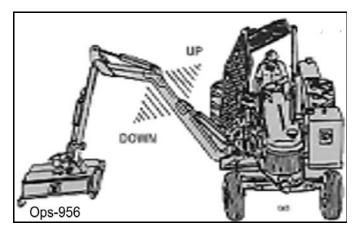


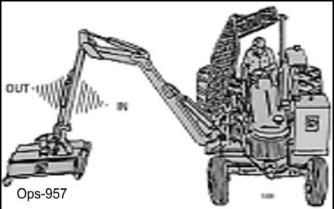
Boom

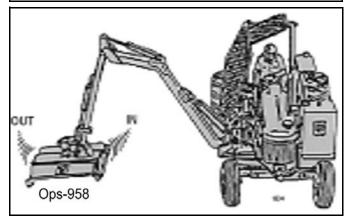
LEVER #1 MAIN BOOM

LEVER #2 SIDE SHIFT





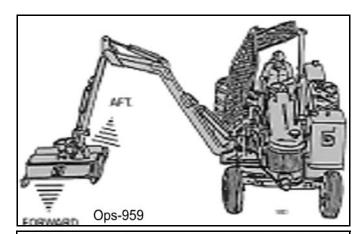


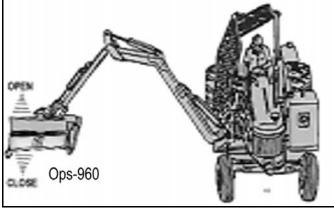


Boom

LEVER #4 BOOM SWIVEL

LEVER #5 BOOM SHIELD





#### 7. Joystick Controlled Mowers

**≜**WARNING

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

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

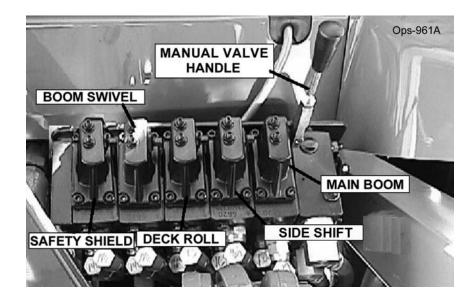
**A** CAUTION

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

**A** CAUTION

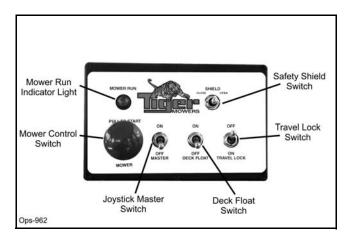
**DO NOT** attempt to operate the valve manually for mowing operations!

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



#### 7.1 Switch Box and Joystick Control

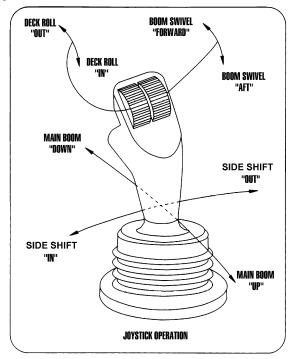
The diagrams below and on the next page show the functions that are performed through the use of the joystick controller.



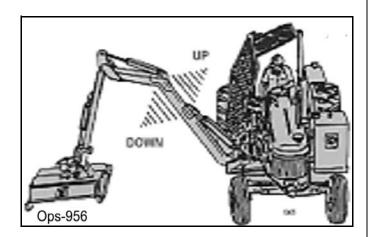
The Safety Shield switch opens and closes the shield located on the front of a rotary mower cutter head. When moving at or near the ground, always have the shield in the closed position. When moving in brush or in trees above ground level the shield may be opened for easier cutting. Read and follow the warnings on the decal shown below. **Do not run the cutter into material larger than 2" diameter.** 



# **Joystick Control**

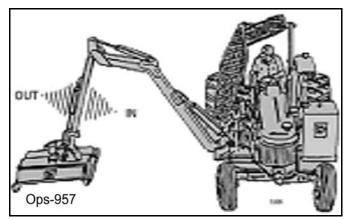


JOYSTICK FWD/BACK MOVES MAIN BOOM

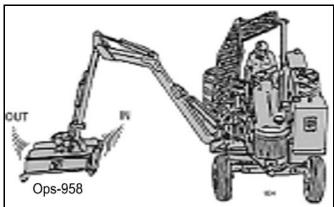


Boom

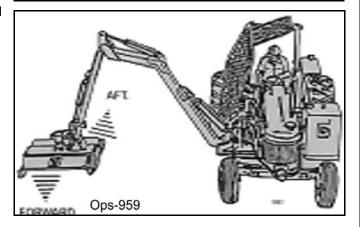
JOYSTICK LEFT/RIGHT SHIFTS THE DECK SIDE TO SIDE



LEFT JOYSTICK ROLLER MOVES DECK ROLL

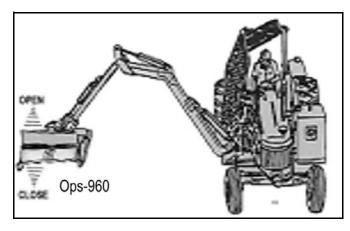


RIGHT JOYSTICK ROLLER MOVES BOOM SWIVEL



Boom

SHIELD SWITCH(on switch box) OPERATES SAFETY SHIELD



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

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

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

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



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



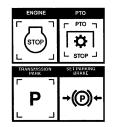
**≜**WARNING

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

Boom



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



**AWARNING** 

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

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

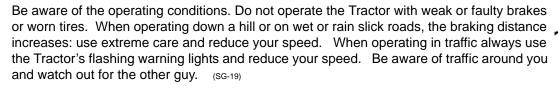


Before transporting the Tractor and Implement, determine the proper transport speeds for you and the equipment. Make sure you abide by the following rules:

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

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

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





#### **8.1 Starting the Tractor**

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



#### 8.2 Brake and Differential Lock Setting

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

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

OPS-U-0013



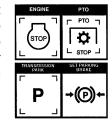
**AWARNING** 

Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases; use extreme care and reduce your speed in these conditions. When operating in traffic,

always use the Tractor's flashing warning lights and reduce your speed. Be aware of traffic around you and watch out for the other guy.  $_{(Ops-0004-MISC)}$ 

A DANGER

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



Boom

#### 8.3 Driving the Tractor and Boom

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

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

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

OPS-B- 0006





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



**A** DANGER

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



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

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

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

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

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

**≜**WARNING

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

**AWARNING** 

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

Boom

#### **AWARNING**

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

### **AWARNING**

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

#### 9.1 Foreign Debris Hazards/Overhead Obstructions

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

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

## **A**WARNING

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



## **≜**WARNING

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

Boom



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

#### 9.2 Operating Speed and Ground Speed

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

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



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

#### 9.3 Operating the Attached Mower Heads

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

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



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



Boom

#### 9.4 Mower Operation

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

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

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

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

**AWARNING** 

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

#### 9.5 60" RSS Boom Rotary

The 60" RSS boom rotary brush mower was designed for cutting brush and foliage up to 2 inches in diameter or multiple branches that have a total cross section area equivalent to one 2 inch branch.

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

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



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

A CAUTION

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

**A** CAUTION

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

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

Boom

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

**A** CAUTION

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

**A** CAUTION

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

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

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

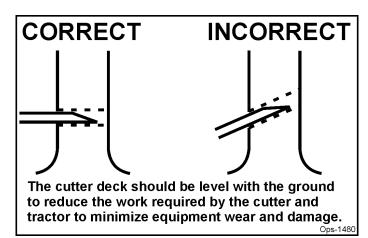
**≜**WARNING

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

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

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

When cutting brush, approach material to be cut with the head perpendicular to material. The cutting edge of the blades should be the only elements in contact with material. The dish should not contact with material. The mower and blades should be head perpendicularly into the material rather lowering the mower head on top of material. The dish is not intended to cut material or to be a wear item like the blades. Do Not allow the blades or dish to contact the ground, rocks or solid objects. Contact with the ground can result in rocks and solid objects being thrown out from under the mower head which can cause serious injuries to the operator and bystanders. This type of operation can lead to bent or broken equipment, and hardware which can be dangerous to the operator and bystanders.

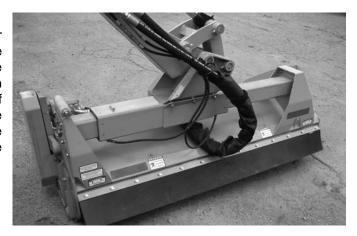


(OPS-R-220)

Boom

#### 9.6 63" & 75" Boom Flail

The 63" & 75" boom flail mowers were designed for cutting grass. The cutter shaft speed must be maintained for proper cutting. To insure that the cutter shaft is rotating at maximum speed, run tractor at full throttle during mowing operations. If cutter shaft slows to the point that the knives are folding back against the cutter shaft, move the mower head away from the foliage and allow the cutter shaft to regain full speed.



**A**WARNING

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

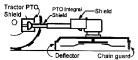
**A** DANGER

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

**A** DANGER

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

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



**AWARNING** 

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

Boom

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

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

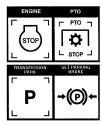
Park the tractor on a level surface, place the transmission in park or neutral and apply the parking brake, shut down the engine, remove the key, and wait for all motion to come to a complete stop before exiting the tractor. *OPS-B- 0011\_D* 







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



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

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

Boom

- Thoroughly clean all debris from boom and head to prevent damage from rotting grass and standing water.
- Lubricate all grease points and fill oil levels according to the maintenance lubrication schedule.
- Tighten all bolts to the proper torque. Ensure all pins and other hardware are in place.
- Check the boom arm and head for worn and damaged parts. Perform repairs and make replacements so that the mower will be ready for use at the start of the next season.
- Store the unit in a clean and dry location.
- Use spray touch-up enamel where necessary
   on bare metal surfaces to prevent rust and to
   maintain the appearance of the mower. OPS-RSS-0006

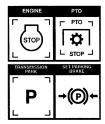


**A** DANGER

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

**A** DANGER

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



**▲**WARNING

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

### 11.TRANSPORTING THE TRACTOR AND IMPLEMENT

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

Boom

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

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



- Retract Deck Roll cylinder completely.
- Shift mower all the way out.
- Retract the Boom cylinder completely.
- Swing boom back slowly until it is straight back.
- Extend the Deck Roll cylinder until the mower is just above the saddle.
- Shift the mower in until the roller engages the bottom of the saddle.
- Lower the Boom until mower sits into saddle. The boom is now in the transport position.

To remove the boom from the Boom Rest, raise the Boom completely. Shift the mower out until the roller disengages the saddle. Retract the Deck Roll cylinder completely. Finally, Swing the Boom forward.





#### 11.2 Transporting on Public Roadways

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

Boom

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



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



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



Boom



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

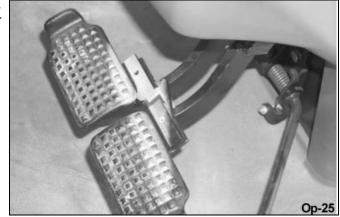


**AWARNING** 

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



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



#### 11.3 Hauling the Tractor and Implement

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



**A** DANGER

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



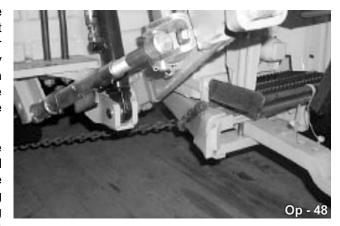
Boom

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



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

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



**A** CAUTION

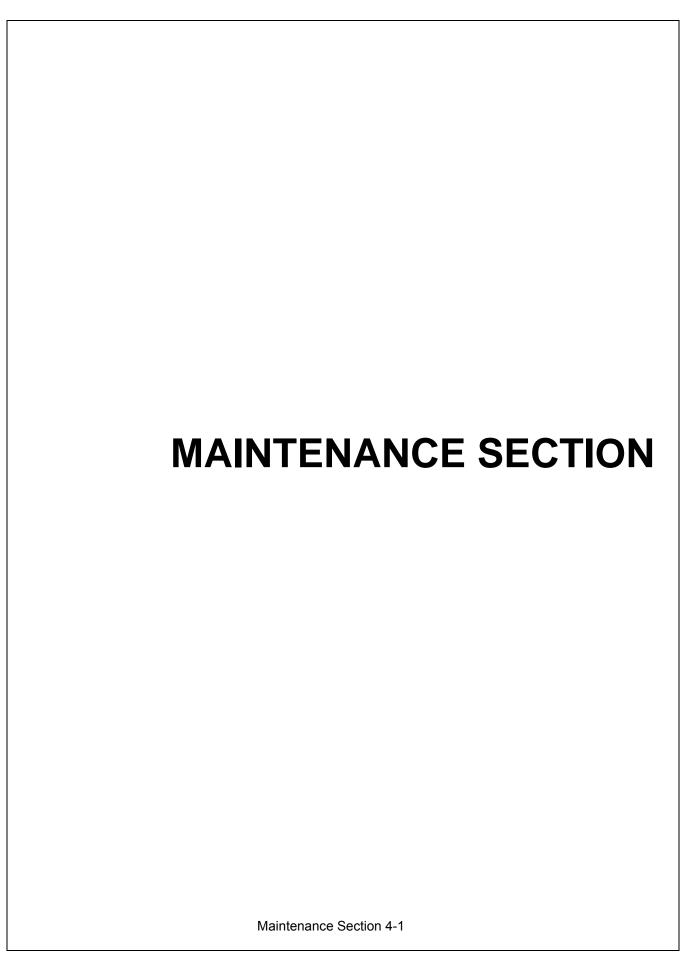
If trailer is not perfectly level, the boom will tend to swing towards the lower side. Have other personnel ready to control its swinging motion when cylinder pin is removed. Make sure the personel are not in a position to be hit or crushed by a swinging boom.

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

**A** CAUTION

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

Boom



#### **General Instructions**

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

When you purchase a Tiger Mower you also acquire another valuable asset, Tiger's parts organization. Our rapid and 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.
- 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.
- Release of energy from pressurized systems may cause inadvertent actuation of cylinders, or sudden release of compressed springs. Before disconnecting any hoses relieve pressure by shutting tractor off, setting cutter on ground and actuating lift valve handles.

**AWARNING** 

DO NOT use hands to check for suspected leaks in hydraulic hoses! Hydraulic fluid escaping under pressure can have sufficent force to penetrate skin and cause serious injury. If fluid is injected into skin, it must be surgically removed within a few hours or gangrene may result. Use a small piece of wood or cardboard, not hands, to search for pin hose leaks. Be sure all connections are tight and hoses and lines are not damaged before applying pressure.

#### **Break in Period**

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

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



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



**AWARNING** 

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

**RSS** 

Maintenance Section 4-2



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

**A** DANGER

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

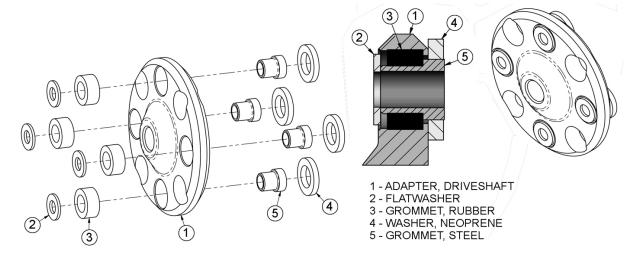
before working on Mower or Tractor. The Mower Blades could inadvertently be turned on without warning and cause immediate dismemberment, injury or death. (SBM-12a)



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

If replacement of components of the crankshaft adapter assembly is required, follow the assembly procedures shown below. Seat rubber grommet completely into counterbore, then seat steel grommet completely into rubber grommet while rubber grommet is supported.

(ASM-JD-0051 CRANKSHAFT ADAPTER MAINTENANCE)



#### **Regular Maintenance**

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

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

# **Daily or Every 8 Hours**

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

	WEEKLY O	R EVER	Y 40 HOURS			
ITEM	SERVICE		COMMENTS			
Rotary Spindle	Lubricate		Every 40 hours or weekly			
	WEEKLY O	R EVER	Y 50 HOURS			
ITEM	SERVICE		COMMENTS			
In Tank Hyd. Fluid Filter 10 micron filter)	Change		Change after first 50 hours only, then every 500 hours or yearly			
In-Line High Pressure Filter (10 micron filter)	Change		Change after first 50 hours only, then every 500 hours or yearly			
	MONTHLY O	R EVER	Y 150 HOURS			
ITEM	SERVICE		COMMENTS			
Hydraulic Fluid Level	Check		Add as needed			
Hyd. Tank Breather	Clean/Check/Replace		Clean or replace Element as required			
Rear Tire Type 480/80R38 18.4-34 18.4-38	Max P.S.I. 29 26 26					
	YEARLY OF	R EVER	7 500 HOURS			
ITEM	SERVICE		COMMENTS			
Spindle Grease Hyd. Tank Fluid In Tank Hyd. Fluid Filter (10 micron filter)	Change Change Change					
In-Line HP Filter (10 micron filter)	•		Change when indicated by restriction indicator.			
Hyd. Tank Breather	Change					
RSS	Maintei	nance Secti	on 4-5			

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

Maintenance Section 4-6

TROUBLESHOOTING (CONTINUED)						
SYMPTOMS	CAUSE	REMEDY				
Motor runs but will not cut.	1. Belts	Inspect belts and pulleys. Replace belts and repair as needed.				
	2. Tensioner	<ol> <li>Adjust tensioner nuts tension should be 106 freq cyl/sec.</li> </ol>				
Mower turns slowly or not at all.	Contaminants     restricting spool     movement in     valve body.	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.				
	Suction lines     obstructed	Check for kinks or obstructions in suction hose.				
	3. Low oil level	Check Hyd. tank level and fill.				
Pump will not work	Excessive wear     on internal parts	Disassemble and repair.				
Motor will not work	Excessive wear     on internal parts	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.

	Torque for Standard Fasteners												
Nominal			$\rangle$	Grade 2		<b>&gt;</b>	Grade 5			Grade 8			Grade 9
Dia.	per	Tia	htening Tor		Tia	htening To		Tightening Torque			Tightening Torque		
	inch		Dry Plated			Dry Plated		Lubed	Dry Plated			Dry Plated	
(in.)	1	K = 0.15		K = 0.20		K=0.17		K = 0.15	K=0.17		K = 0.15		K = 0.20
	Unified Coarse Thread Series												
1/4	20	49 in-lbs	59 in-lbs	66 in-lbs	76 in-lbs	86 in-lbs	101 in-lbs	107 in-lbs	122 in-lbs	143 in-lbs	126 in-lbs	143 in-lbs	168 in-lbs
5/16	18	101	122	135	157	178	209	221	251	295	259	294	346
3/8	16	15 ft-lbs	18 ft-lbs	20 ft-lbs	23 ft-lbs	26 ft-lbs	31 ft-lbs	33 ft-lbs	37 ft-lbs	44 ft-lbs	38 ft-lbs	43 ft-lbs	51 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	12	53	63	70	82	92	109	115	130	154	135	153	180
5/8	11	73	87	97	113	128	150	159	180	212	186	211	248
3/4	10	129	155	172	200	227	267	282	320	376	331	375	441
7 <i>/</i> 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
							hread Se						
1/4	28	56 in-lbs							139 in-lbs				
5/16	24	112	135	150	174	197	231	245	278	327	287	325	383
3/8	24	17 ft-lbs	20 ft-lbs			30 ft-lbs	35 ft-lbs	37 ft-lbs	42 ft-lbs	49 ft-lbs		49 ft-lbs	58 ft-lbs
7/16	20	27	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	18	59	71	78	91	103	121	128	146	171	151	171	201
5/8	18	82	99	110	127	144	170	180	204	240	211	239	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	553	930	1055	1241	1509	1710	2012	1768	2004	2358
1 1/2	12	734	880	978	1645	1865	2194	2668	3024	3557	3127	3544	4169

Torque values for 1/4 and 5/16-in series are in inch-pounds. All other torque values are in foot-pounds. K = 0.15 for "lubricated" conditions

Torque values calculated from formula T=KDF, where

K = 0.20 for plain and dry conditions

K = 0.20 for plain and dry conditions

D = Nominal Diameter F = Clamp Load

			Torqu	e-Tens	ion Re	elations	hip for	Metric	: Faste	ners		
			Class 4.6			Class 8.8		Class 10.9			Class 12.9	
		<b> </b>	4.6	<b>&gt;</b>	۱ ۱	8.8		· •	10.9	12.9		
Nominal	Pitch	Tial	ntening To	raue	Tia	htening Tor	aue	Tia	htening To	Tightening Torque		
			Dry Plated		Lubed				Dry Plated		Dry plain	
Dia.			K = 0.17	K = 0.20	K = 0.15	K = 0.17			K = 0.17	K = 0.20	K = 0.15	K = 0.20
(mm)		(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)
3	0.5	0.28	0.32	0.38	0.73	0.82	0.97	1.0	1.2	1.4	1.2	1.6
3.5	0.6	0.44	0.50	0.59	1.1	1.3	1.5	1.6	1.9	2.2	1.9	2.5
4	0.7	0.66	0.74	0.87	1.7	1.9	2.3	2.4	2.7	3.2	2.8	3.8
5	8.0	1.3	1.5	1.8	3.4	3.9	4.5	4.9	5.5	6.5	5.7	7.6
6	1	2.3	2.6	3.0	5.8	6.6	7.7	8.3	9.4	11	9.7	13
6	1.25	2.1	2.3	2.7	5.3	6.0	7.0	7.6	8.6	10	8.8	12
7	1	3.8	4.3	5.0	9.7	11	13	14	16	19	16	22
8	1	5.9	6.6	7.8	15	17	20	22	24	29	25	34
8	1.25	5.5	6.2	7.3	14	16	19	20	23	27	24	31
10	1.25	11	13	15	29	33	39	42	48	56	49	66
10	1.5	11	12	14	28	32	37	40	45	53	47	62
12	1.25	21	23	28	53	60	71	76	86	101	89	119
12	1.5	20	22	26	51	58	68	73	82	97	85	113
12	1.75	19	21	25	49	55	65	70	79	93	81	108
14	1.25	26	29	34	66	75	89	95	108	127	111	148
14	1.5	28	32	37	72	82	96	103	117	138	121	161
14	2	30	34	40	78	88	104	111	126	148	130	173
16	1.5	50	57	67	129	146	171	184	208	245	215	287
16	2	47	53	62	121	137	161	173	196	230	202	269
18	1.5	73	82	97	187	212	249	268	303	357	313	417
18	2.5	65	73	86	167	189	222	239	270	318	279	372
20	1.5	101	115	135	270	306	360	374	424	498	437	583
20	2.5	91	104	122	236	267	314	337	382	449	394	525
					ad for spe	cified bolts.						nal Diameter
			ed in foot-				K = 0.17 for zinc plated, dry conditions				F = Clamp	Load
Torque v	alues	calculate	d from forr	nula T=KDI	F, where		K = 0.20 f	or plain a	nd dry con	ditions		

Maintenance Section 4-8

Description	Application	General Specification	Recomended Mobil Lubricant
Tractor Hydraulics	Reservoir	JD-20C MF M1135,M1141 FNHM2C134D (FNH201)	Mobilfluid 424
Mower Hydraulics Cold Temperatures 0° F Start-Up	Reservoir	ISO 46 Anti-Wear-Low Temp	Mobil DTE 15M
Normal Temperatures 10° F Start-Up		JD-20C MF M1135,M1141 FNH M2C134D(FNH201)	Mobilfluid 424
Normal Temperatures 15° F Start Up		ISO 46 Anti-Wear	Mobil DTE 25
High Operating Temp. Above 90° F		ISO 100 Anti-Wear	Mobil DTE 18M
Flail Rear Gearbox	Grease	PAO Synthetic Extreme Pressure Gear Lube	Mobil SHC 75W-90 Mobil 1 Synthetic Gear
Cutter Shaft & Ground Roller Shaft(Flail)	Grease Gun	Lithium-Complex Extreme Pressure NLGI-ISO 320	Mobilgrease CM-S
Drive Shaft Coupler (Flail and Rotary)	Grease Gun	Lithium-Complex Extreme Pressure NLGI2-ISO 320	Mobilgrease CM-S
Drive Shaft Yoke, U-joint & Stub Shaft	Grease Gun	Lithium-Complex Extreme Pressure NLGI2-ISO 320	Mobilgrease CM-S
Boom Swivel Boom Cylinder Pivots (Rotary & Flail Boom)	Grease Gun	Lithium Complex Extreme pressure NLGI2-ISO 320	Mobilgrease CM-S
Deck Boom Pivot & Deck Stop Adjustment Rotary & Flail)	Grease Gun	Lithium Complex Extreme Pressure NLGI-ISO 320	Mobilgrease CM-S
Deck Spindle(Rotary)	Grease Gun	Tiger Spindle Lubricant part number 06540000	Mobilith SHC 220

RSS Maintenance Section 4-9

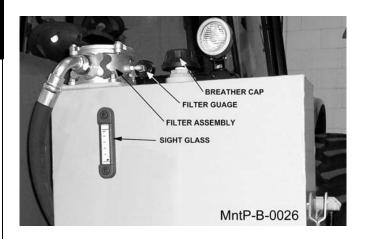
#### **GRAFFITI REMOVAL**

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 i s found to be incompatible 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 isrecommended that the user test the products under actual end-use conditions.

# RECOMMENDED FILLING INSTRUCTIONS FOR HYDRAULIC RESERVIORS



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

#### DETAILED MAINTENANCE

#### REPLACING IN-TANK HYDRAULIC FILTER:

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

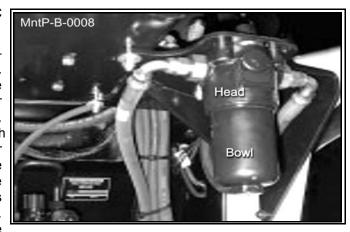


Maintenance Section 4-10

#### **DETAILED MAINTENANCE**

# REPLACING HIGH PRESSURE HYDRAULIC FILTER ELEMENT:

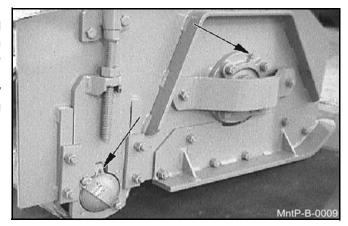
Ensure the system has been shut down and depressurized. Locate High Pressure Filter housing. Confirm that the element that is a bout to be installed matches the element p/n on the filter model tag. *Example: V3.0510-06 (world line 100, HD049 model)*. Locate the bottom of the High Pressure Bowl. Using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



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

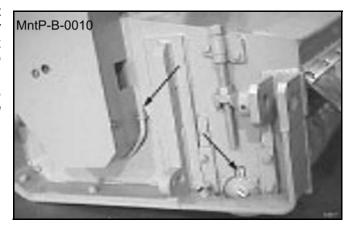
#### GREASING CUTTER SHAFT-FLAIL MOWERS

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



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

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

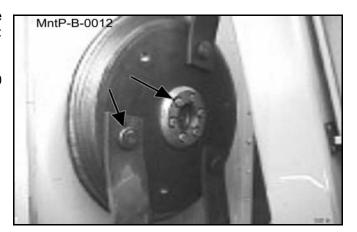


#### **TIGHTENING KNIFE BOLTS AND DISK BOLTS:**

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

Knife mounting bolts torque to 800 oiled ft. lbs.

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



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

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



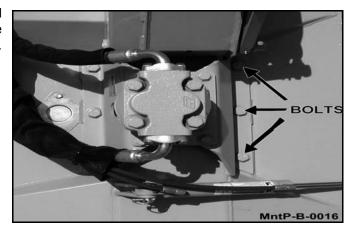
### **GREASING SPINDLE**

Locate grease fitting on inside of deck hou sing. Inject Tiger Spindle Lubricant, part number 06540000 into spindle housing. Fill with lubricant until lubricant weeps out of to p 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 8 hours of service. Torque the (6) bolts shown below to 357 dry or 315 ft. lbs. lubricated.



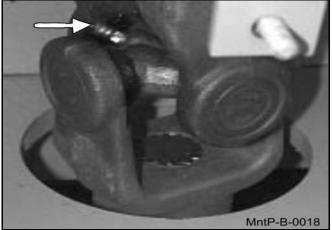
## **GREASING PUMP DRIVE SHAFT COUPLER**

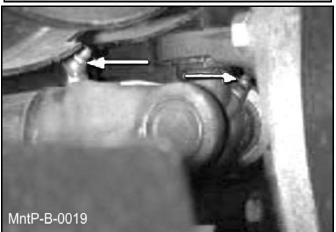
With engine stopped, ensure drive shaft alignment by grasping coupler and sliding back and forth. Coupler should slide freely with approximately 1/8" of end play. If coupler does not slide freely, inspect for loose pump mount bolts, or damaged or loose crank shaft adapter. Inject Lithium-Complex Extreme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



# DRIVE SHAFT YOKE, U-JOINT STUB SHAFT

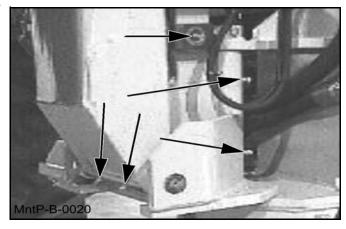
With engine stopped, inject Lithium-Complex extreme pressure grease confirming to NLGI2-ISO 320 specifications into universal joints and slip yoke until grease appears at the seal. Grease them daily or every 8 hours.





### **GREASING THE BOOM SWIVEL**

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



RSS Maintenance Section 4-15

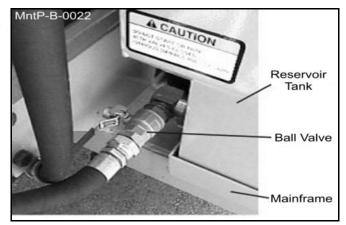
# **GREASING BOOM CYLINDER(S) PIVOT POINTS**

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



### **BALL VALVES**

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



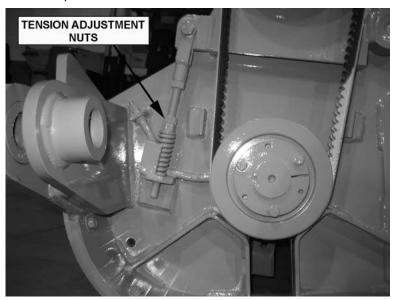
**RSS** 

Maintenance Section 4-16

### **BELT TENSION ADJUSTMENT**

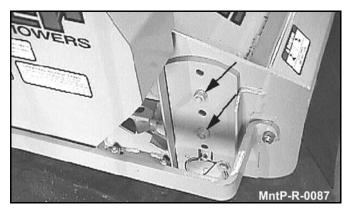
Locate the tensioning rod for the flail. Loosen the top tension adjustment nut. To tighten the belt, turn the bottom tension nut to compress the spring. To loosen the belt tension, turn the tension nut up to relax the spring. After adjustment, test the belt tension.

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



### ADJUSTING RSS FLAIL CUT HEIGHT

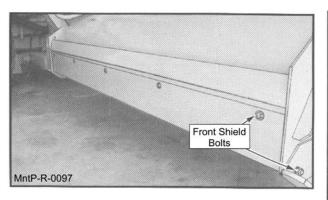
To adjust the cutting height of the Rear Side Stow flail head the two nuts on the roller shaft brackets must be taken off and moved to the desired location/height. Be sure that both sides of the shaft are adjusted to corresponding holes so the shaft remains level.

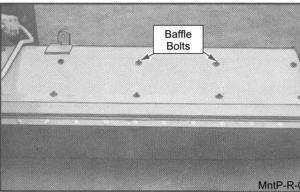


### REVERSING MOWER ROTATION OF RSS FLAIL MOWERS

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

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





### **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.



Blades should always be replaced in pairs. Blades of different weights can cause serious imbalance and damage to the machine and personnel. When replacing blades, take care to replace the blade bolts, nuts, and washers.

### **Important**

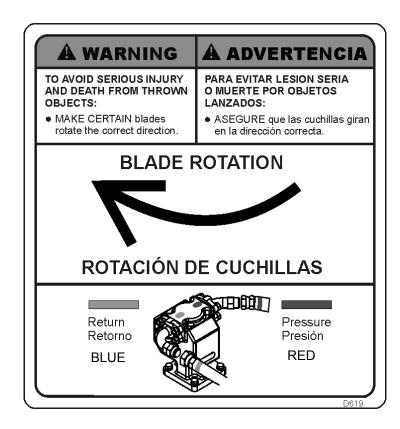
Make sure the mower blades are turning clockwise when looking down from the top of the mower. Follow the color coding on the hydraulic hoses and fittings to make sure the motor and hydaulics hoses are assembled properly. Connect the red hose connection only to red fitting. Connect the blue hose connection only to the blue fitting. The blade rotation on the leading edge of the mower should discharge the cut material away from the tractor and operator.



### **AWARNING**

If the leading edge of the mower blades are rotating backwards they can discharge material toward the operator. If this occurs discontinue mowing immediately and revers the direction of the motor rotation by correctly installing the motor pressure and return hoses. Cont act your dealer or Alamo Industrial for specific information on the hose routing.





Maintenance Section 4-19

### **ROTARY KNIFE REPLACEMENT**

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

**▲** 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.
- Disks must be inspected daily for hairline cracks between spindle mounting bolts or around the knife mounting bolts. These cracks indicate metal fatigue caused by severe abuse. If cracks are present the disk must be replaced.
- 4. Inspect the disk mounting bolts daily when checking tightness of knife mounting bolts. If a disk mounting bolt is loose, it must be removed, threads cleaned, fresh thread locking agent applied, and tightened to proper torque value.
- 5. If a knife mounting bolt is loose, the self locking nut must be replaced as a safety precaution. Lubricate threads with an ti-seize. Install bolts through knife and disk/blade bar from bottom side. Install self locking nuts and torque them to 800 ft. lbs.

### Flail Blades Inspection

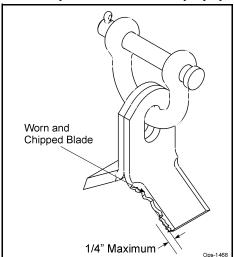


Inspect the Blades daily for ab normal wear. REPLACE ALL BLADES on the carrier IMMEDIATELY if any blades have:

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

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

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



### Always replace blades in sets

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

**Important** 

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



Never attempt to sharpen blades. ops-u-0044

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Maintenance Section 4-21

### **Blade Pins and D-Ring Inspection**

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

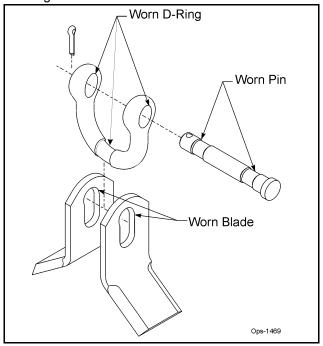


Inspect the Blade pins and D-Rings daily for abnormal wear. Make sure the cotter pins are in place and properly spread. REPLACE BLADE Pins and D-Rings IMMEDIATELY if they have:

- 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* 

RSS Maintenance Section 4-22

### **BOOM FLAIL KNIFE REPLACEMENT**

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

**AWARNING** 

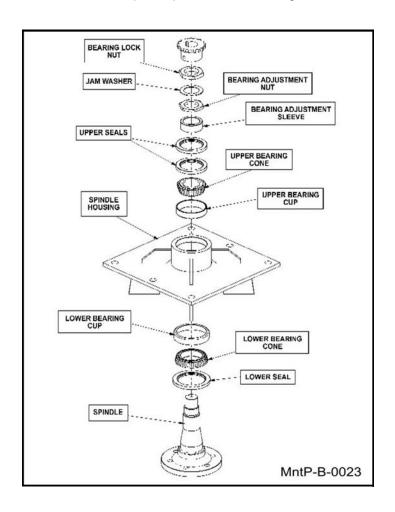
DO NOT re-use the locking hex nuts for mounting the knives. If hex nut become loose, or require removal for knife replacement or any other reason, they must be discarded and replaced with new nuts.

**AWARNING** 

Knives should not be welded on for any reason.

# THE SPINDLE ASSEMBLY

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



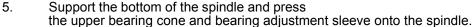
Dial indicator

end play

# **MAINTENANCE**

### BEARING INSTALLATION

- Press upper bearing cup in to the spindle housing.
- 2. Turn the spindle housing over and press in the lower bearing cup.
- 3. Place the lower bearing cone in the bearing cup. Next press t he seal into the s pindle housing. The inner lip of the seal must be DOWN, towards the bearing, so lubricant is sealed inside the housing.
- 4. Install the spindle in the housing. Lightly press the spindle to seat the cone onto the spindle.





- 7. Press the two upper seals into the spindle housing. The inner lip of the seals must be UP, away from the bearing, so excess lubricant can escape.
- 8. Install the bearing adjustment nut (thin nut) so there is 1-1/6" clearance between the nut and the sleeve. Install the jam washer, placing the tab into the key-way. Install the bearing lock nut (thin nut) and hand tighten against jam washer and adjustment nut. See the following section for bearing adjustment.
- 9. Position the spindle housing horizontally with the drain hole oriented "up". Grease through the zerk with Tiger Spindle Lubricant (part number 06540000) until the grease purges from the drain hole.

Spindle housing can turn freely

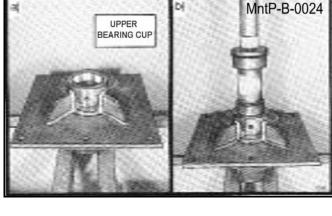
10. Install the plug into the drain hole.

### **BEARING ADJUSTMENT**

- Clamp the bottom end of the spindle securely in a v ise so the spindle housing turns freely.
- 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 lock nut from loosening.

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



Maintenance Section 4-25

# **Boom Cylinder Removal and Replacement Instructions**

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

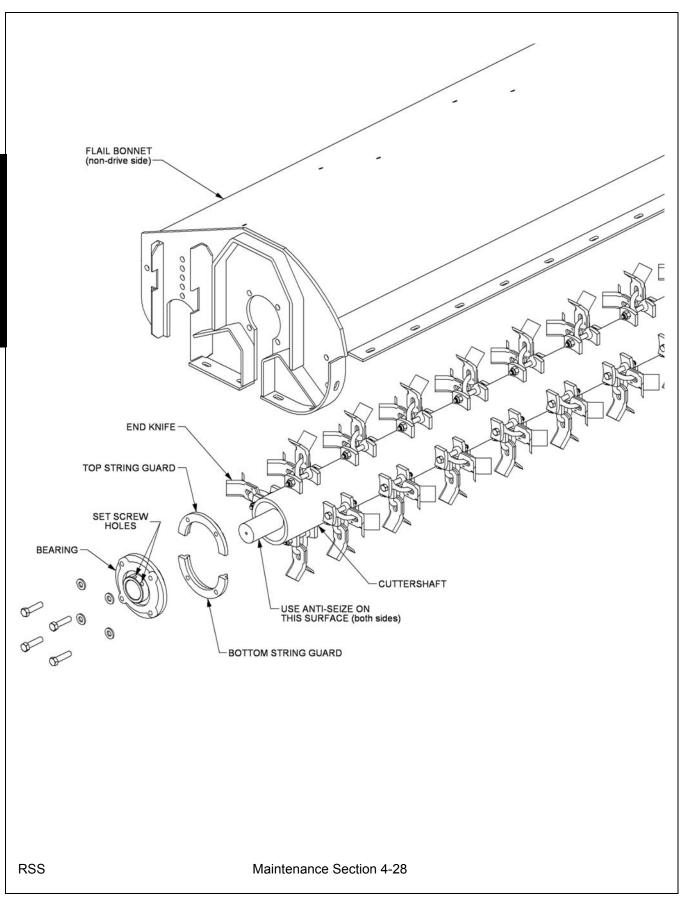
RSS Maintenance Section 4-26

### **CUTTERSHAFT BEARING REPLACEMENT**

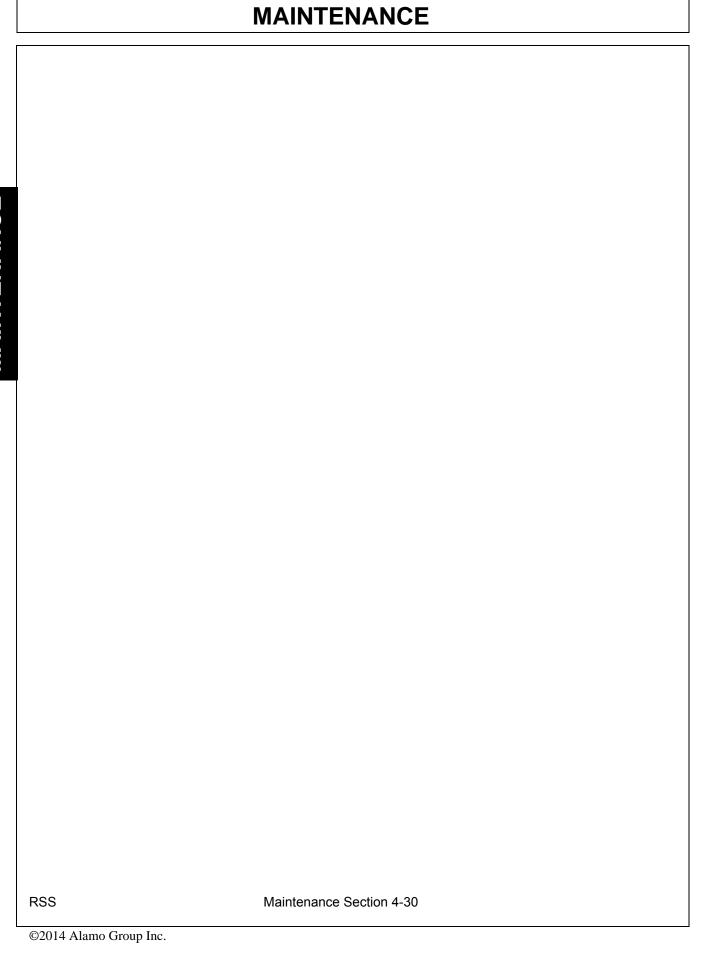
- 1. Remove existing cuttershaft, bearings and string guards.
- 2. Make sure that the end knives on each end of the cuttershaft are oriented as shown.
- 3. Apply anti-seize on cuttershaft as shown on next page.
- 4. Install non-drive side bearing first.
- 5. Install the top of the string guard on the non-drive side first. Use Loctite-271 or equivalent and torque (95 ft-lb or 104ft-lb if you use an extension).
- 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.
- 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 procedure (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

RSS Maintenance Section 4-27



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 equipped with rubber grommets check condition, replace if missing or damaged.
Pivot points: Inject grease until it appears at ends.
Hydraulic fittings: Check for leaks with paper or cardboard. Tighten fittings or replace hoses immediately.
Knives: Inspect for missing or damaged knives, change (only complete sets) as needed.
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 de tailed Maintenance Section.
Cutter Shaft and Ground Roller: Grease as instructed in the detailed Maintenance Section.
Maintenance Section  **This page may be copied and used as part of the daily maintenance routine.
RSS Maintenance Section 4-29
ivalification decition 4-29



# JD6110-30M/R REAR STOW SIDE **PARTS SECTION**

# PART NAME INDEX

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



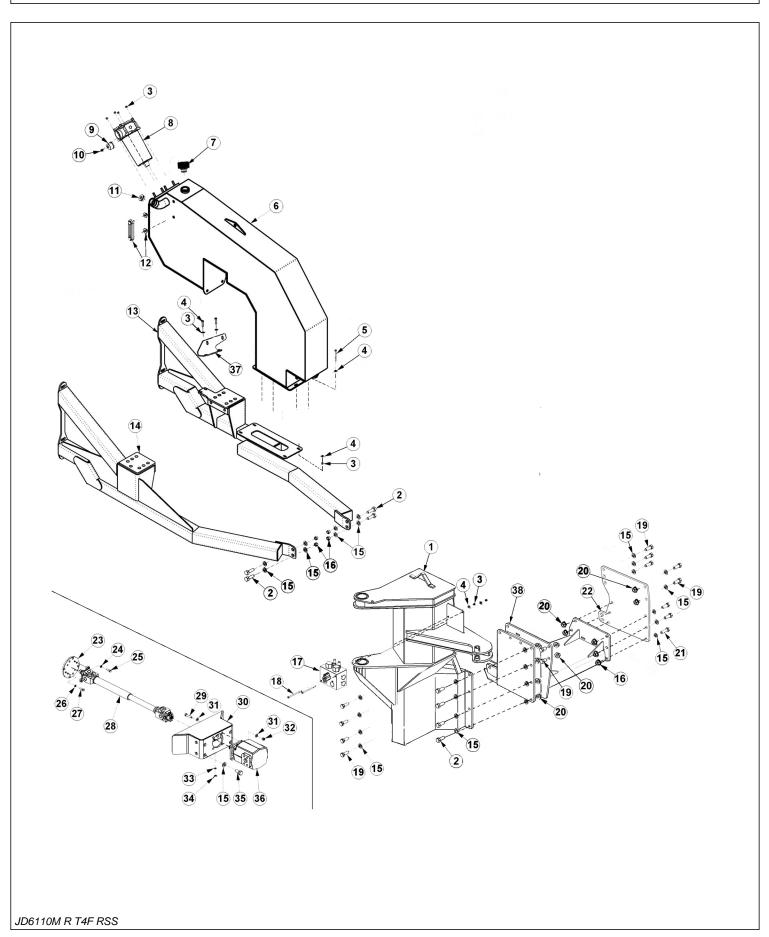
For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

Direct any questions regarding parts to:

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

JD6110M R T4F RSS

# TRACTOR MOUNT KIT

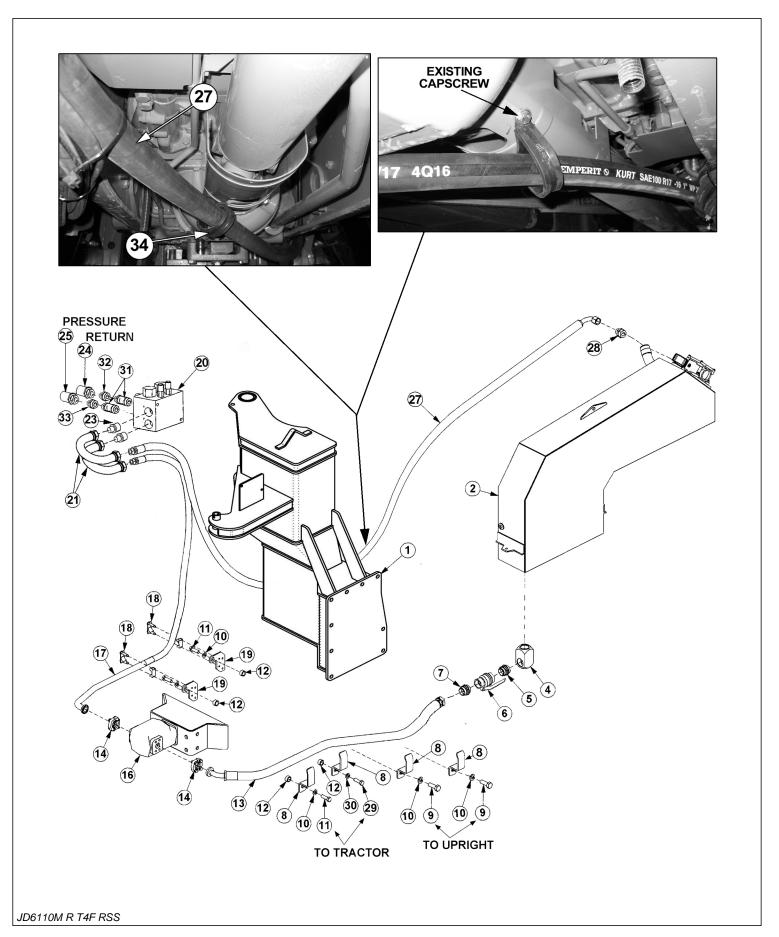


# TRACTOR MOUNT KIT

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06300381	1	MAIN FRAME
2	21833	8	CAPSCREW,3/4" X 2-1/4",NC
3	21627	8	NYLOCK NUT,3/8",NC
4	22016	8	FLATWASHER,3/8"
5	21632	8	CAPSCREW,3/8" X 1-1/2",NC
6	06700220	1	TANK,WHEEL WELL JD6M T4F
7	06505077	1	CAP,BREATHER,O-RING
8	06505044	1	FILTER,IN-TANK
9	6T0649	1	FILTER GAUGE
10	TF4888	1	STREET ELBOW,1/8"NPT
11	06505127	1	PLUG,#20 SAE
12	06505067	1	SIGHT GAUGE,LENZ
13	06300386	1	AXLE BRACE,LH
14	06300384	1	AXLE BRACE,RH
15	33880	28	FLATWASHER,3/4",SAE
16	21825	10	HEX NUT,3/4",NC
17	06510083	1	BRAKE VALVE
18	21644	2	CAPSCREW,3/8" X 5",NC
19	31731	10	CAPSCREW,20MM X 50MM,2.5P
20	31722	10	HEX NUT,20MM,FLNG,2.5P
21	21834	6	CAPSCREW, 3/4" X 2-1/2" NC
22	06402946	1	UPRIGHT,LH
23	34998	1	SPACER, DRIVESHAFT
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	06412418	1	TANK SUPPORT
38	06300383	1	MAINFRAME MOUNT, JD6110M T4F

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

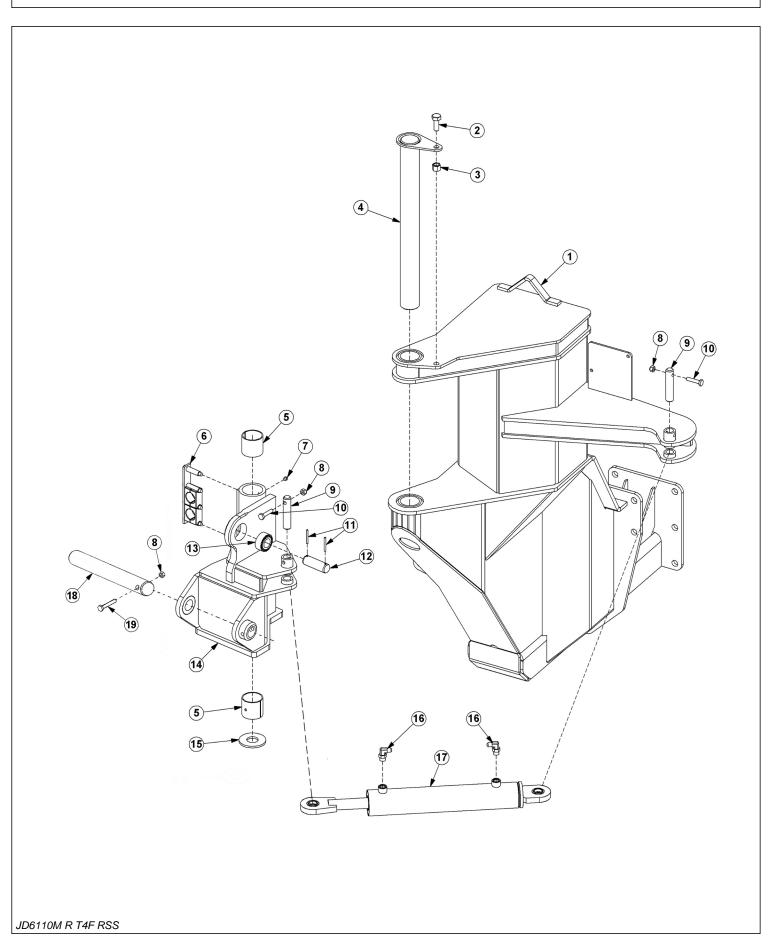


# TRACTOR MOUNT KIT - HYDRAULICS

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION	
1		-	MAIN FRAME *REFER TO TRACTOR MOUNT KIT	
2		-	HYDRAULIC TANK *REFER TO TRACTOR MOUNT KIT	
4	06503084	1	ELBOW,1-1/2"FOR X 1-1/2"FOR	
5	06503083	1	ADAPTER,1-1/2"MOR X 1-1/2"MOR	
6	34309	1	BALL VALVE,1-1/2"FOR	
7	34710	1	ADAPTER,1-1/2"MOR X 1-1/2"MJ	
8	32382	4	BRACKET,HOSE	
9	27281	2	CAPSCREW,20MMM X 60MM,2.5P	
10	33880	4	FLATWASHER,3/4",SAE	
11	30708	4	CAPSCREW,20MM X 90MM,2.5P	
12	24849	4	SPACER	
13	06500692	1	HOSE,1-1/2" X 110"	
14	TF4852	2	KIT,FLANGE	
16		1	PUMP *REFER TO TRACTOR MOUNT KIT	
17	06500430	1	HOSE,1" X 82"	
18	34076	2	CLAMP KIT,1"	
19	34626	2	BRACKET,CLAMP	
20		1	BRAKE VALVE *REFER TO TRACTOR MOUNT KIT	
21	06506012	1	U-TUBE, PREFORMED	
23	33555	2	ADAPTER,1"MOR X 1"MJ	
24		1	HOSE (PRESSURE) *REFER TO BOOM ASSEMBLY	
25		1	HOSE (RETURN) *REFER TO BOOM ASSEMBLY	
26	34117	1	ELBOW,1"MOR X 1"MJ	
27	06500693	1	HOSE,1" X 174"	
28	34064	1	ADAPTER,1-1/4"MOR X 1"MJ	
29	06530819	1	CAPSCREW, 12MM X 70MM	
30	22017	1	FLATWASHER, 7/16"	
31	06503074	2	UNION, 1" ORB X 1" ORB	
32	06503027	1	QUICK COUPLER, 1" FEMALE, FLAT	
33	06503029	1	QUICK COUPLER, 1" MALE, FLAT	
34	06520536	1	CLAMP, HOSE 2-1/2" INS	
l				

# **BOOM MOUNT KIT**

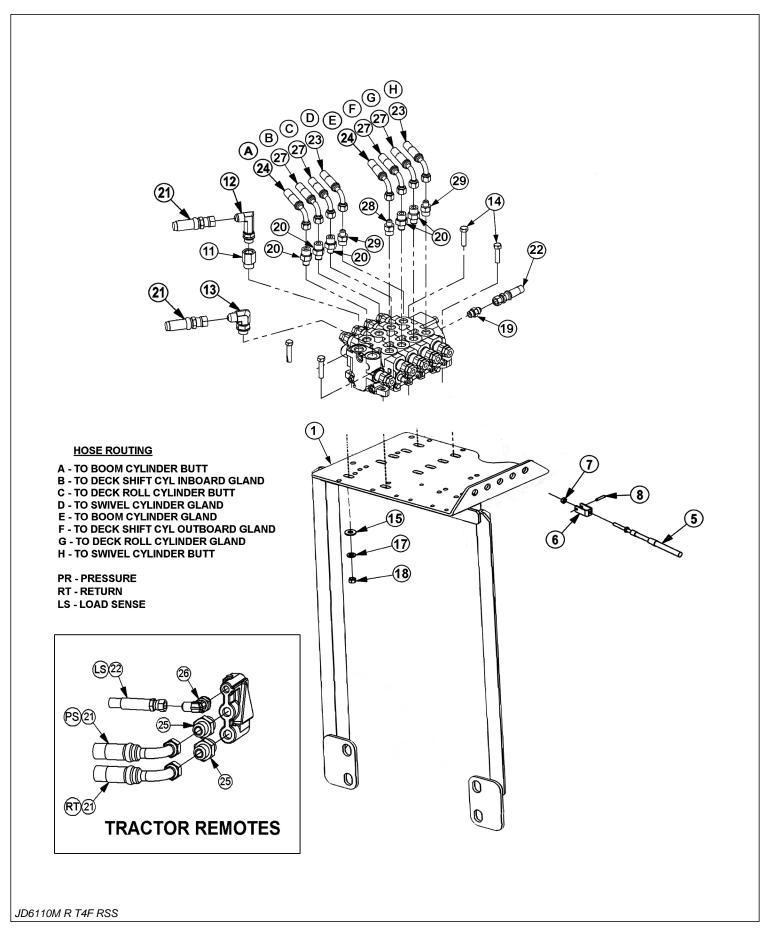


# **BOOM MOUNT KIT**

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1		-	MAINFRAME *REFER TO TRACTOR MOUNT KIT
2	21782	1	CAPSCREW,5/8" X 1-3/4",NC
3	21777	1	NYLOCK NUT,5/8",NC
4	32381	1	PIN,CAPPED
5	32322	2	BUSHING
6	06505186	1	CLAMP KIT
7	6T3211	2	GREASE ZERK,1/8"NPT
8	21677	3	NYLOCK NUT,7/16",NC
9	32380	2	PIN,1"
10	21683	2	CAPSCREW,7/16" X 2",NC
11	TB1023	2	ROLL PIN
12	06420100	1	PIN,1-1/4"
13	06520303	1	SPHERICAL BEARING
14	06700221	1	SWIVEL ASSEMBLY
	06310190	1	SWIVEL WELDMENT
15	06520250	1	BEARING,WASHER
16	32810	2	ADAPTER,ELBOW
17	06501029	1	CYLINDER,3" X 13.88"
18	06420022	1	PIN, 1/5" X 12"
19	21688	1	CAPSCREW, 7/16" X 3-1/4"

# **CABLE (MANUAL) LIFT VALVE - 4 SPOOL**



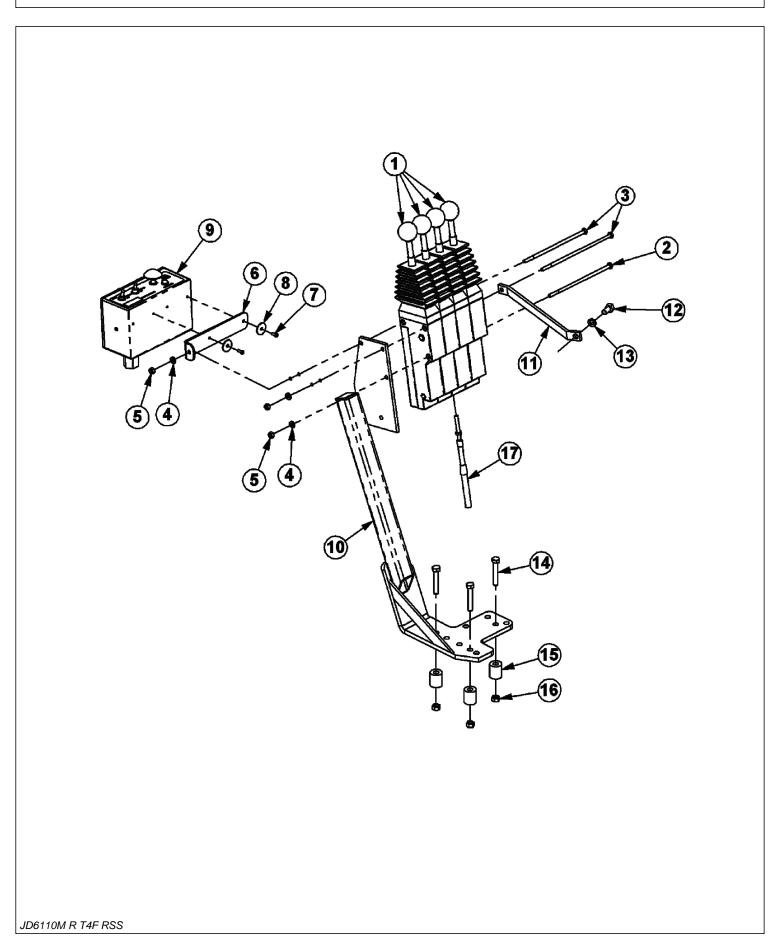
# **CABLE (MANUAL) LIFT VALVE - 4 SPOOL**

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06340063	1	VALVE MOUNT JD6110-30
4	06502196	1	VALVE, 4SP, HSC, TRSSF
5	06505100	4	CABLE CONTROL,108"
6	6T4411	4	CLEVIS,CBL CTRL,3/16"
7	21500	4	HEX NUT,1/4",NF
8	6T3017	4	ROLL PIN
11	32678	1	ADAPTER,5/8"MOR X 1/2"FOR
12	33383	1	ELBOW,5/8"MB X 1/2"MJ
13	33293	1	ELBOW,1/2"MOR X 1/2"MJ
14	21632	4	CAPSCREW,3/8" X 1-1/2",NC
15	22016	4	FLATWASHER,3/8"
16	21631	4	CAPSCREW,3/8" X 1-1/4",NC
17	21988	8	LOCKWASHER,3/8"
18	21625	8	HEX NUT,3/8",NC
19	32901	1	ADAPTER,3/8MOR X 3/8MJ
20	33271	5	ADAPTER,1/2MOR X 3/8MJ
21	06500171	2	HOSE,1/2" X 36"
22	06500350	1	HOSE,1/4" X 26"
23	06500697	2	HOSE,1/4" X 210"
24	06500885	2	HOSE,1/4" X 288"
25	33463	2	ADAPTER,22MM MOR X 1/2"MJ
26	06503013	1	ELBOW,14MM MOR X 5/16"MJ
27	06500878	4	HOSE, 1/4" X 268"
28	06502036	1	RESTRICTOR, .06 OUT 1/2"MB X 3/8"MJ
29	06503206	2	RESTRICTOR, .0465, 1/2"ORB X 3/8"MJ

JD6110M R T4F RSS

# **4 SPOOL CABLE CONTROL MOUNT**



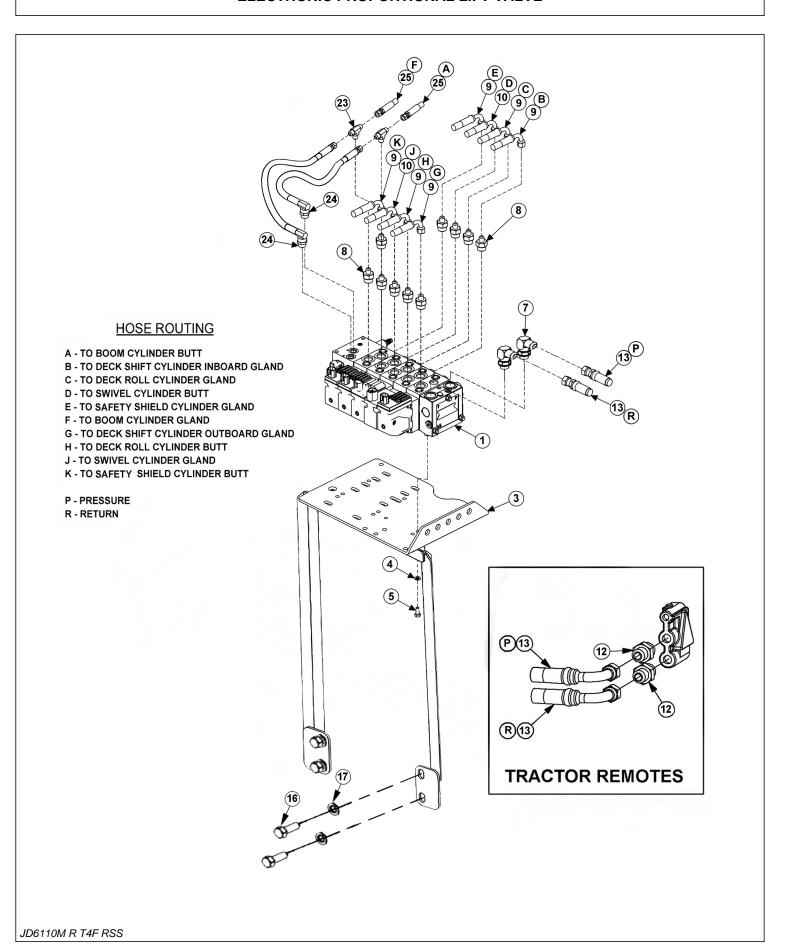
### **4 SPOOL CABLE CONTROL MOUNT**

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	6T1251	4	CBL CTRL BOX,180 DEG
2	21546	1	CAPSCREW,1/4" X 7",NC
3	21547	2	CAPSCREW,1/4" X 8",NC
4	21986	3	LOCKWASHER,1/4"
5	21525	3	HEX NUT,1/4",NC
6	34496	1	BRKT,SWITCHBOX,UNI
7	6T3951	2	SCREW,MACHINE,8/32 X 1/2"
8	32360	2	LOCKWASHER,#8
9	06510102	1	SWITCHBOX,SIDE
10	23865B	1	CBL CTRL MT BRKT
11	30750A	1	BRKT,CBL,CTRL,JD6000
12	33534	1	CAPSCREW,10MM X 20MM,1.5P
13	32691	1	LOCKWASHER,10MM
14	21636	3	CAPSCREW,3/8" X 2-1/2",NC
15	27082B	3	SPACER
16	21627	3	NYLOCK NUT,3/8",NC
17	06505100	4	CBL,CNTRL,108"

JD6110M R T4F RSS

### **ELECTRONIC PROPORTIONAL LIFT VALVE**



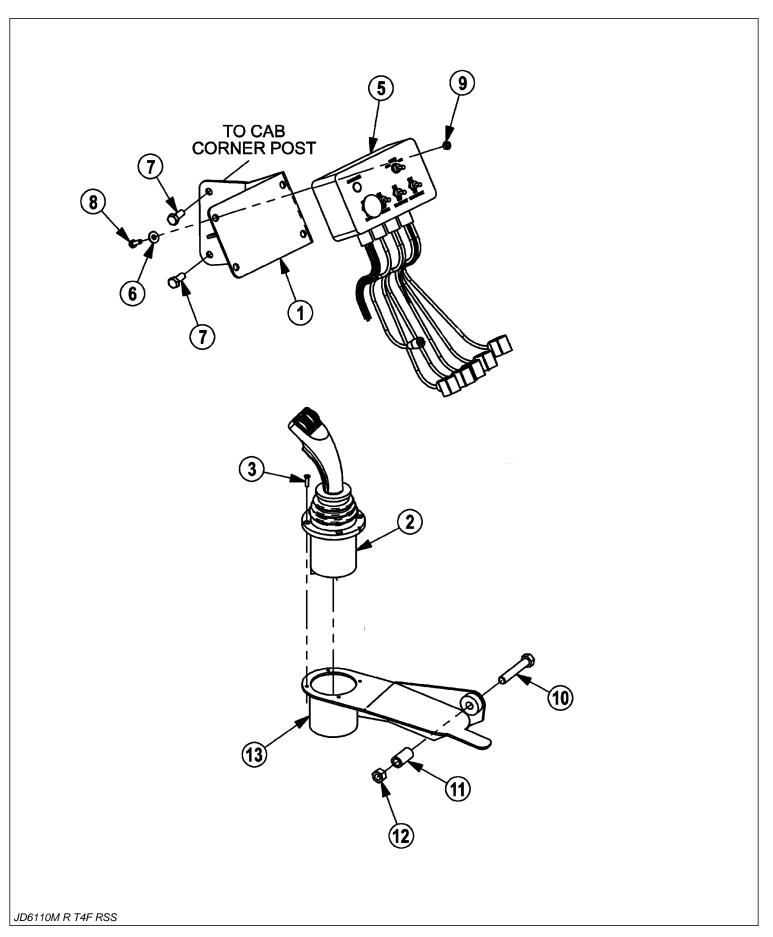
# **ELECTRONIC PROPORTIONAL LIFT VALVE**

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06502203	1	VLV, 5SP, DF, CNBS, DFS, T4F
3	06340063	1	PLATE, VALVE, 6110-30M/R T4F
4	21987	4	LOCKWASHER, 5/16"
5	21579	4	CAPSCREW, 5/16" X 3/4" NC
7	33294	2	ELBOW, 3/4"MB X 1/2"MJ
8	32807	10	ADAPTER, 5/8"MB X 3/8" MJ
9	06500878	6	HOSE, 1/4" X 268
10	06500697	2	HOSE, 1/4" X 210"
11	06500938	2	HOSE, 3/8" X 288"
12	33463	2	ADAPTER, 22MM ORB X 1/2" MJ
13	06500171	2	HOSE, 1/2" X 36"
16	33880	4	FLATWASHER, 3/4"
17	24860	4	CAPSCREW, 20MM X 40MM
18	21627	4	NYLOCK NUT, 3/8" NC
22	21631	4	CAPSCREW, 3/8" X 1-1/4" NC
23	34128	2	TEE, BRANCH, 3/8" X 3/8" X 3/8"
24	06500922	2	HOSE, 3/8" X 23"
25	06500938	2	HOSE, 3/8" X 288"

JD6110M R T4F RSS

# **JOYSTICK AND SWITCHBOX MOUNT**



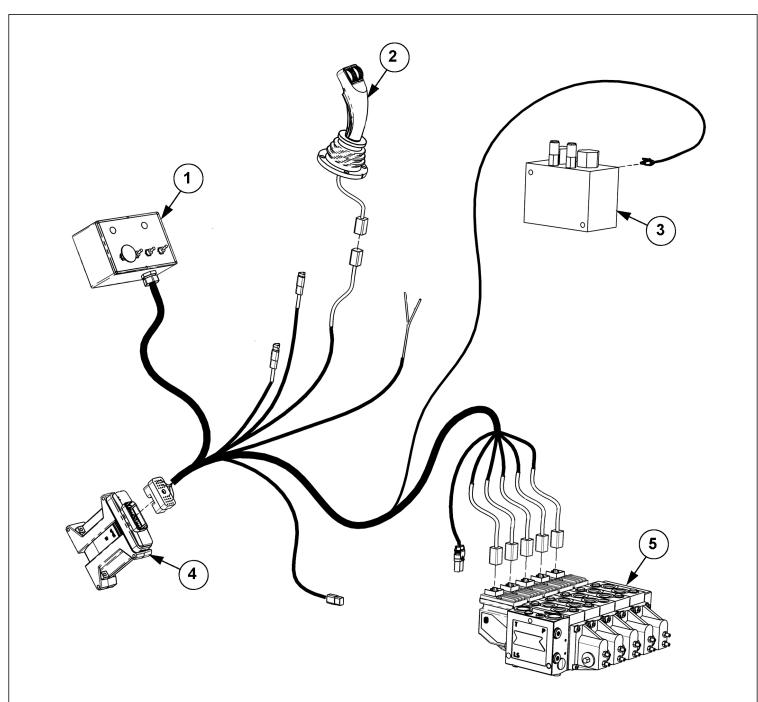
# **JOYSTICK AND SWITCHBOX MOUNT**

### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	33355	1	MNT,BRKT,SWITCH BOX
2	06510285	1	JOYST,4AXIS,RH,DF
3	32829	4	SCREW,MACHINE,10-32 X 3/4",FLTHD
5	06510286	1	SWITCHBOX
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

JD6110M R T4F RSS

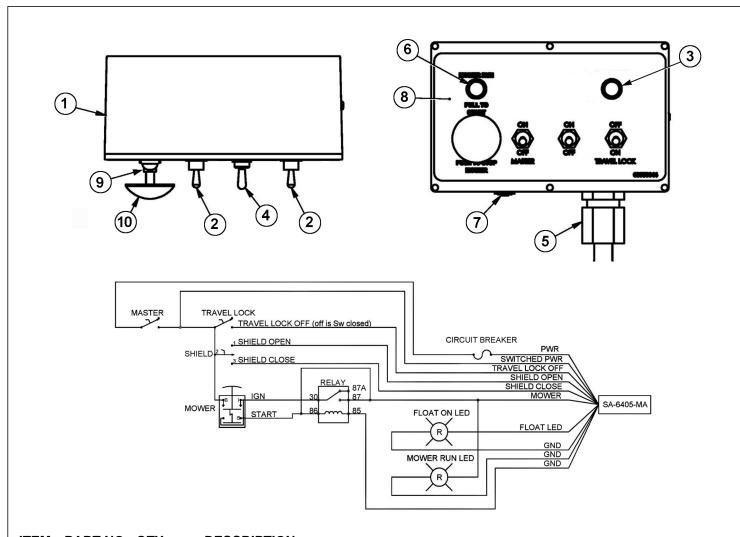
# **CANBUS JOYSTICK CONTROL**



ITEM	PART NO.	QTY.	DESCRIPTION
1	06510286	1	SWITCHBOX, DF, RSS, CNBS
2	06510285	1	JOYSTICK, RH, DF, CNBS
3	06510083	1	VALVE, BRAKE,
4	06510287	1	CONTROLLER, SWBX, CNBS
5	06700203	1	VALVE, 5SPL, DF, RSS, CNBS

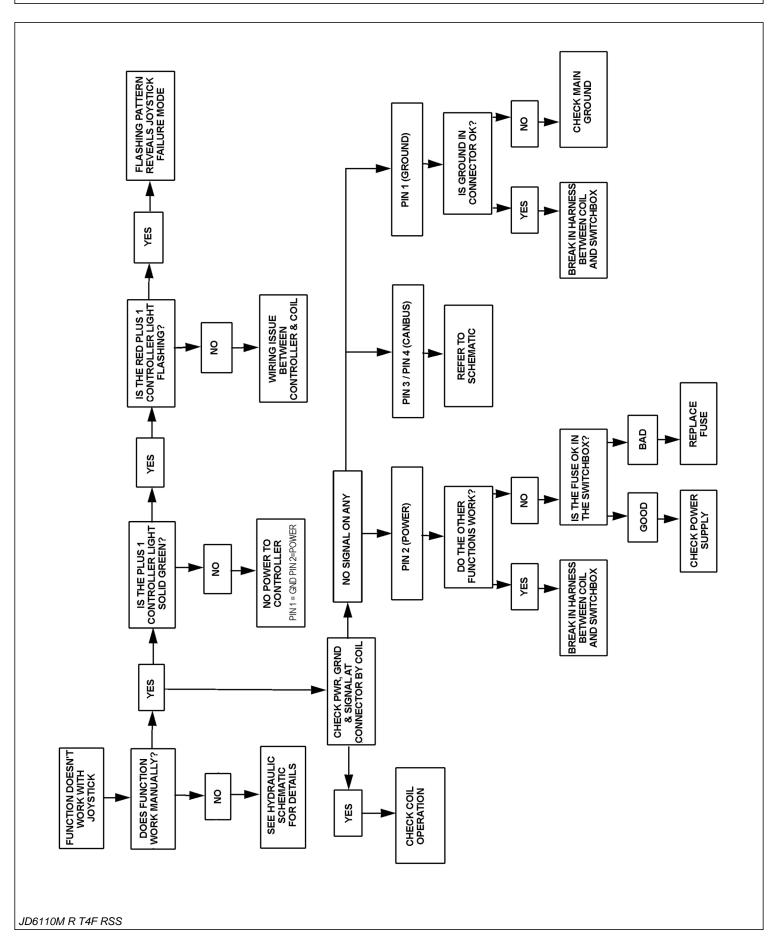
JD6110M R T4F RSS

#### **CANBUS ELECTRONIC LIFT VALVE SWITCHBOX**

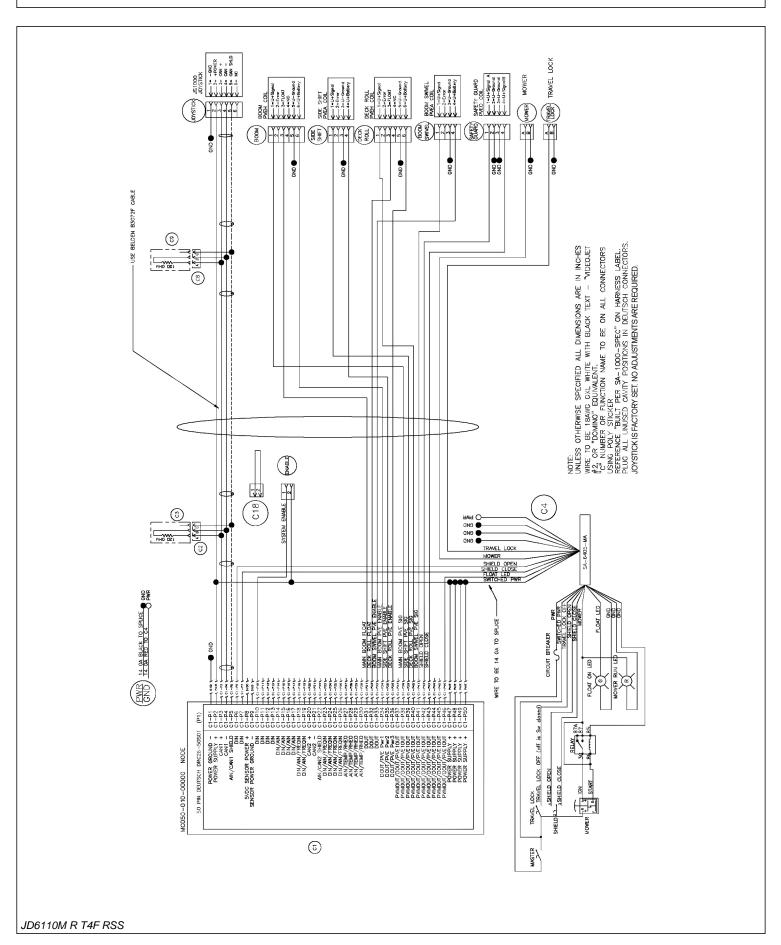


ITEM	PART NO.	QTY.	DESCRIPTION
1	06502168	1	SWITCHBOX ASSY
2	06502171	2	SWITCH, MASTER, TRAVEL LOCK
3	06502172	1	INDICATOR LIGHT, FLOAT, GREEN
4	06502170	1	SWITCH, SHIELD
5	34540	1	STRAIN RELIEF, 3/4" BLACK
6	06502174	1	INDICATOR LIGHT, ON, RED
7	06502169	1	CIRCUIT BREAKER, 15A
8	06550044	1	LABEL, SWBX
9	35226	1	SWITCH, MOWER, COLEHERSEE
10	02964063	1	KNOB, RED

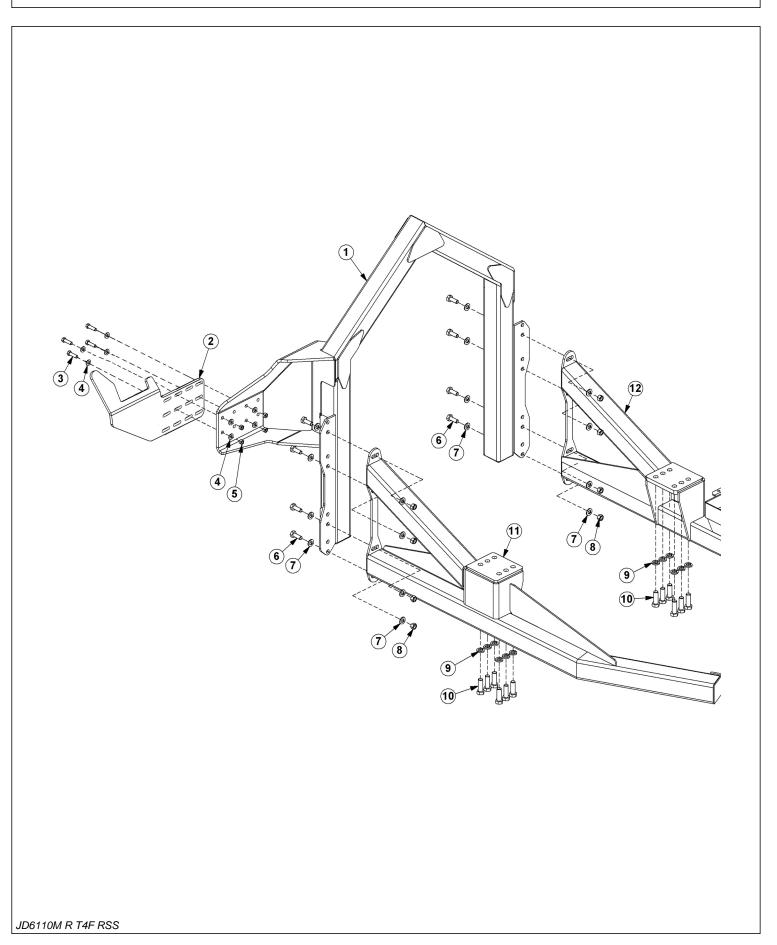
#### CANBUS JOYSTICK ELECTRICAL TROUBLESHOOTING



#### **CANBUS ELECTRONIC SCHEMATIC**



## **BOOMREST**

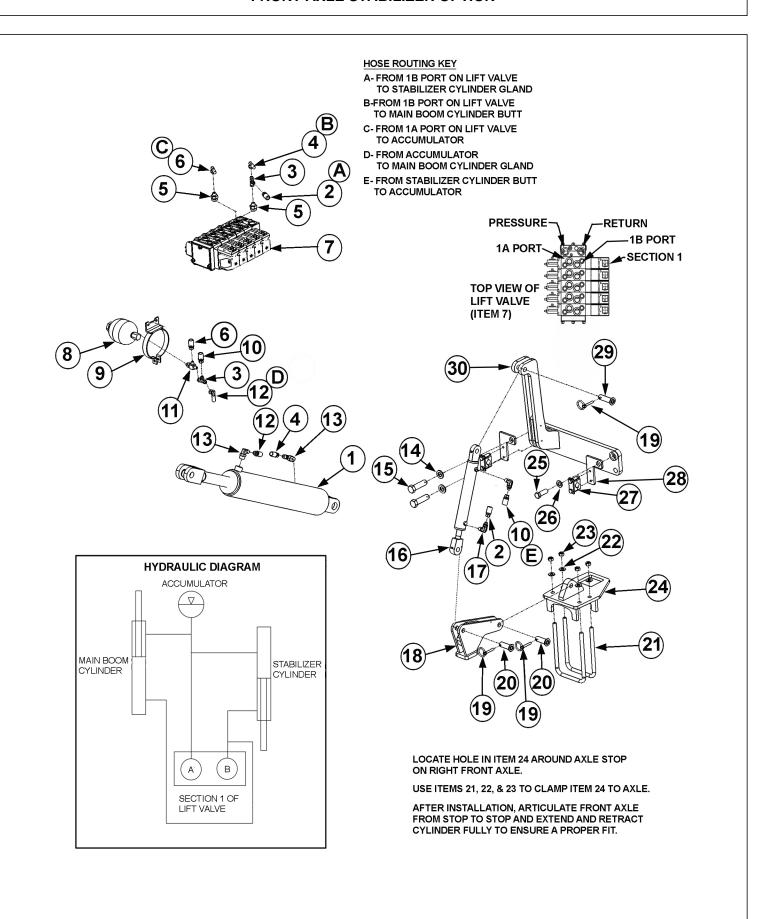


#### **BOOMREST**

#### Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06310157	1	BOOMREST, OS, T4
2	06310188	1	SADDLE
3	21733	4	CAPSCREW, 1/2" X 2" NC
4	06533004	8	FLATWASHER, 1/2" SAE
5	21725	4	HEX NUT, 1/2" NC
6	21782	8	CAPSCREW, 5/8" X 1-3/4" NC
7	33764	16	FLATWASHER, 5/8" NC
8	21777	8	NYLOCK NUT, 5/8" NC
9	24881	12	LOCKWASHER, 20MM
10	27281	12	CAPSCREW, 20MM X 60MM 2.5P
11	06300384	1	AXLE BRACE, RH
12	06300386	1	AXLE BRACE, LH

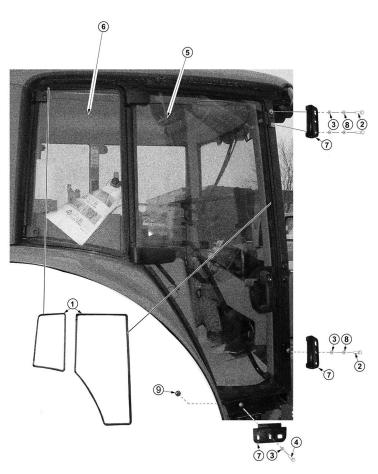
#### FRONT AXLE STABILIZER OPTION



## FRONT AXLE STABILIZER OPTION

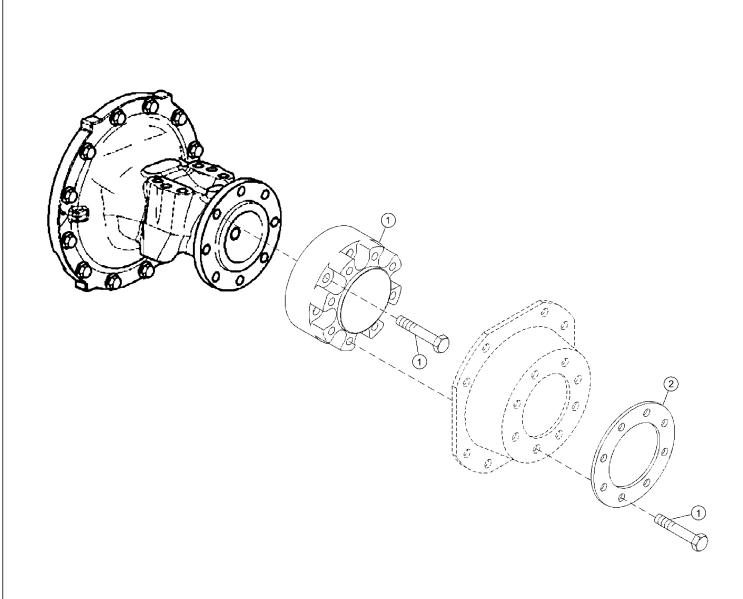
ITEM	PART NO.	QTY.	DESCRIPTION
1		-	BOOM CYLINDER *REFER TO COMMON SECTION
2	06500149	1	HOSE,1/4" X 220"
3	06503048	2	RUN TEE,3/8"MJ X 3/8"FJX X 3/8"MJ
4		-	HOSE *REFER TO LIFT VALVE PAGE
5		-	ADAPTER *REFER TO LIFT VALVE PAGE
6		-	HOSE *REFER TO LIFT VALVE PAGE
7		-	LIFT VALVE *REFER TO LIFT VALVE PAGE
8		-	ACCUMULATOR *REFER TO LIFT VALVE PAGE
9		-	ACCUMULATOR BRKT *REFER TO LIFT VALVE PAGE
10	06500149	1	HOSE,1/4" X 220"
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	06310132	1	LINK,PIVOT,STABILIZER
19	RD1032	3	LYNCH PIN
20	33984	2	PIN,3/4" X 2-7/16"
21	06420140	2	U-BOLT
22	06533004	4	FLATWASHER,1/2",SAE
23	21700	4	HEX NUT,1/2",UNC
24	06310176	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

## **POLYCARBONATE SAFETY SCREEN**



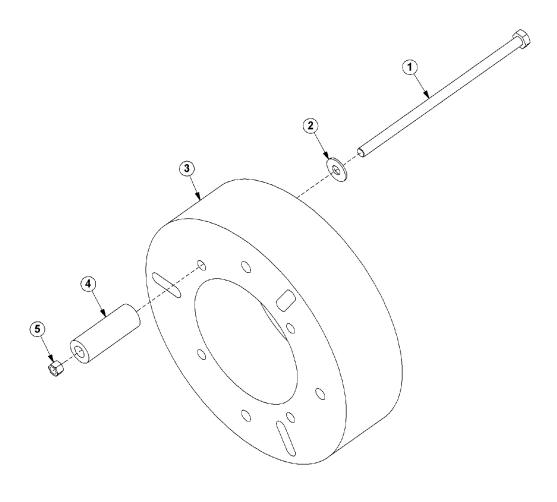
ITEM	PART NO.	QTY.	DESCRIPTION
1	31965	22	TRIM SEAL,3/8" CLIP X 3/4"OD (FEET)
2	27508	3	CAPSCREW,8MM X 20MM,1.25P
3	22015	4	FLATWASHER,5/16"
4	21581	1	CAPSCREW,5/16" X 1-1/4",NC
5	06490005	1	POLYCARB,FRMD,DOOR,RH
6	06490027	1	POLYCARB,FRMD,REAR,RH
7	06520040	3	BRKT,JD,POLY,RETAIN
8	6T2619	3	LOCKWASHER,8MM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

## **WHEEL SPACER 06200637**



ITEM	PART NO.	QTY.	DESCRIPTION
1	06770025	1	KIT,SPCR,WHL,JD
2	06400919	1	RING,SPACER,WHEEL,JD

## WHEEL WEIGHT



ITEM	PART NO.	QTY.	DESCRIPTION
1	31455	4	CAPSCREW,3/4" X 17",NC
2	33880	4	FLATWASHER,3/4",SAE
3	06770057	1	WHEEL WEIGHT,500LBS
4	06430143	4	SPACER,5.5"
5	21825	4	HEX NUT,3/4",NC



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#### 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 pur chase 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 ordering replacement decals, refer to the part numbers and descriptions listed in the safety section in the front of this manual.

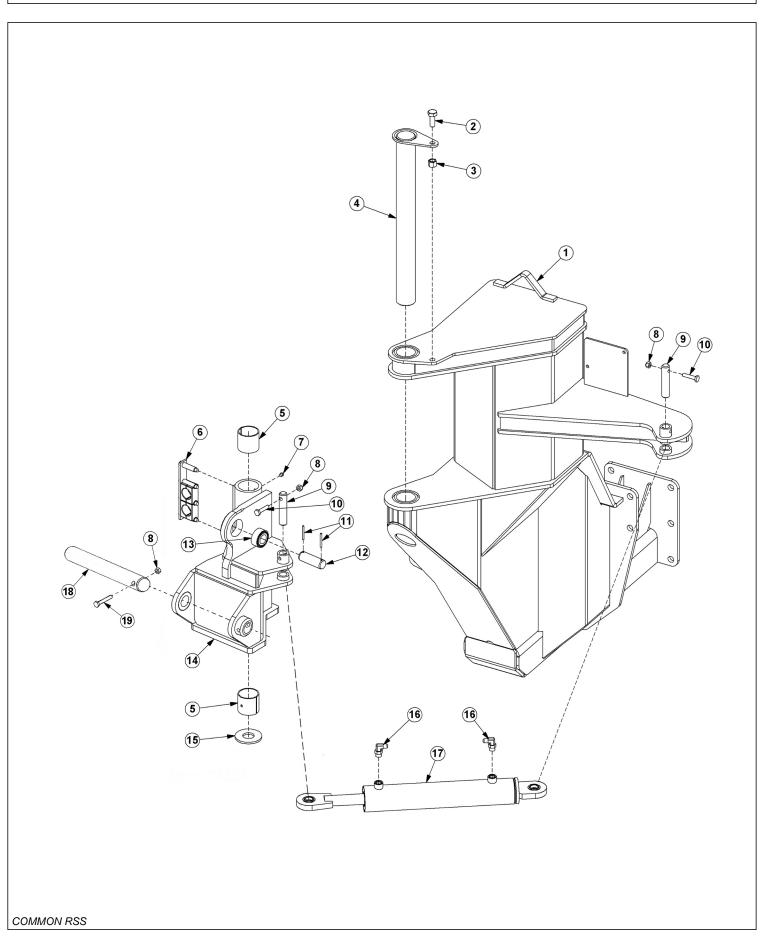


For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

Direct any questions regarding parts to:

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

## **BOOM MOUNT KIT**

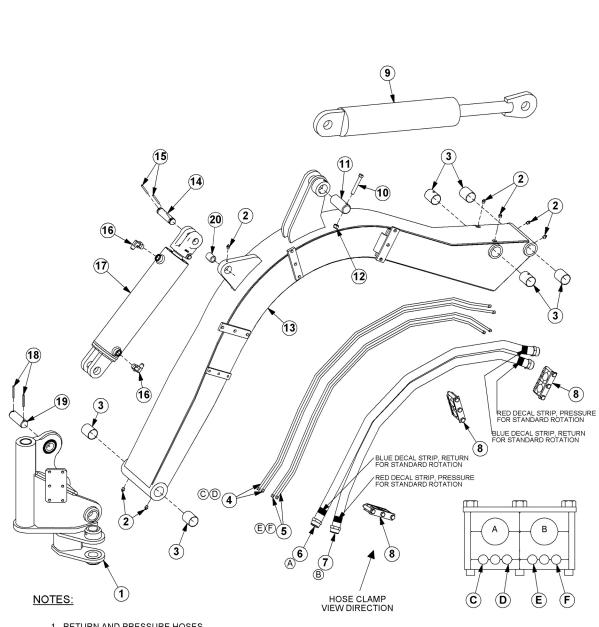


## **BOOM MOUNT KIT**

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

NOTES 2
NOTES
COMMON RSS

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



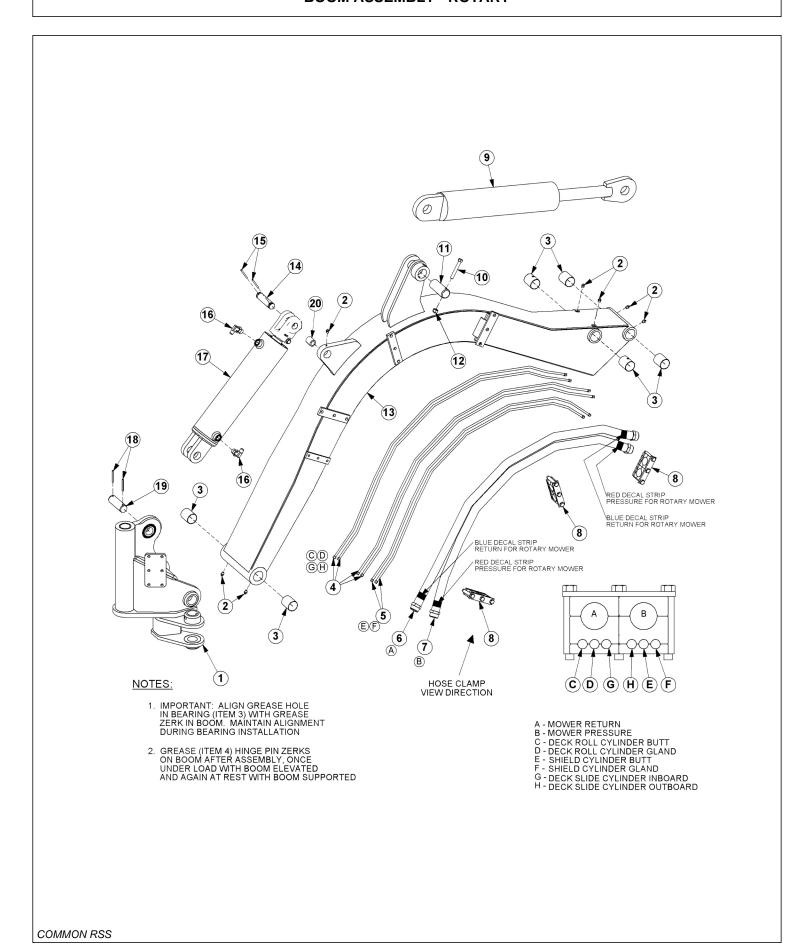
- RETURN AND PRESSURE HOSES ON FLAIL ARE REVERSED FOR REVERSE ROTATION BOOM FLAILS
- 2. IMPORTANT: ALIGN GREASE HOLE IN BEARING (ITEM 3) WITH GREASE ZERK IN BOOM. MAINTAIN ALIGNMENT DURING BEARING INSTALLATION
- 3. GREASE (ITEM 4) HINGE PIN ZERKS ON BOOM AFTER ASSEMBLY, ONCE UNDER LOAD WITH BOOM ELEVATED AND AGAIN AT REST WITH BOOM SUPPORTED

- A MOWER RETURN
  B MOWER PRESSURE
  C DECK ROLL CYLINDER BUTT
  D DECK ROLL CYLINDER GLAND
  E DECK SLIDE CYLINDER INBOARD
  F DECK SLIDE CYLINDER OUTBOARD

## **BOOM ASSEMBLY - FLAIL**

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

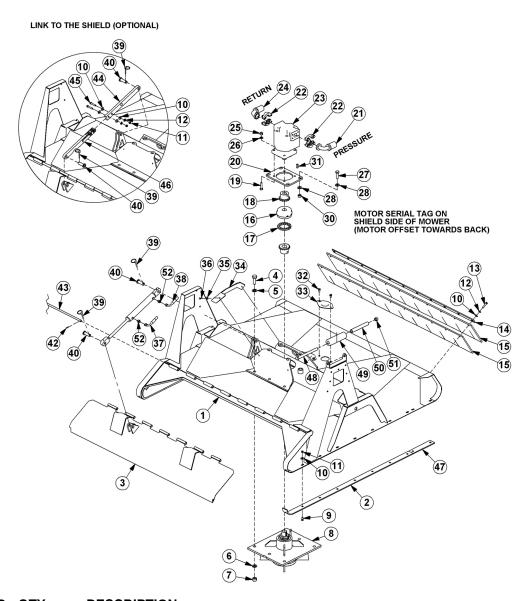
#### **BOOM ASSEMBLY - ROTARY**



## **BOOM ASSEMBLY - ROTARY**

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

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

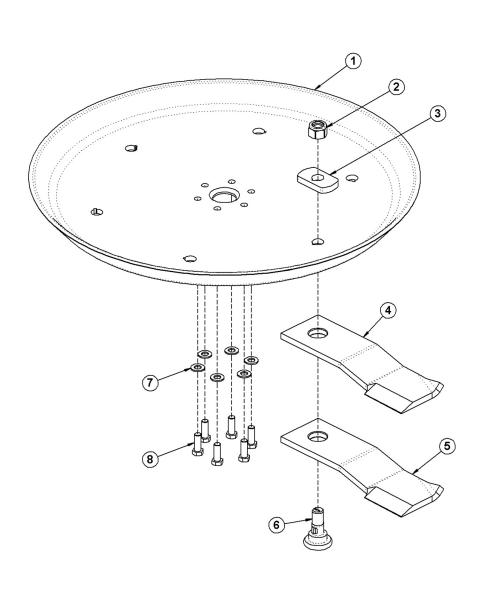


ITEM	PART NO.	QTY.	DESCRIPTION
1	06320183	1	DECK,WLDMNT,60" RTRY,RSS
2	33777	2	SKID SHOE,RTRY
3	06320162	1	SHIELD,60"RTRY
4	33879	6	CAPSCREW,3/4" X 2-1/4",NF,GR 8
5	33880	6	FLATWASHER,3/4",GR 8,SAE
6	21993	6	LOCKWASHER,3/4",GR 8
7	6T2413	6	HEX NUT,3/4",NF,GR 8
8	6T1024H5	1	SPINDLE ASSY,CPLT,HD,5/8 HOLES
9	6T2270	16	PLOW BOLT,3/8" X 1",NC
10	22016	33	FLATWASHER,3/8"
11	21625	20	HEX NUT,3/8",NC
12	21988	11	LOCKWASHER,3/8"

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

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

## **60IN ROTARY DISK AND KNIVES**

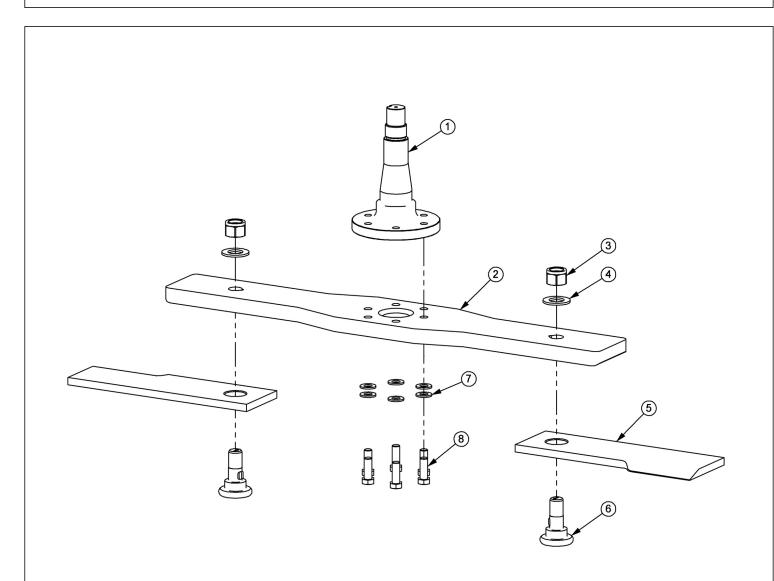


## **60IN ROTARY DISK AND KNIVES**

#### Continued...

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

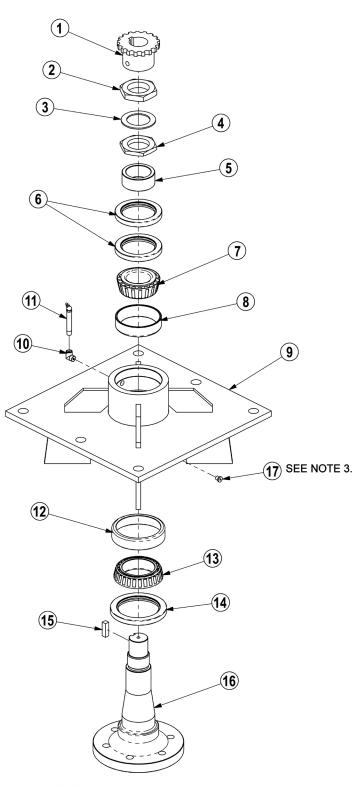
## **60IN BLADE BAR AND KNIVES**



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

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



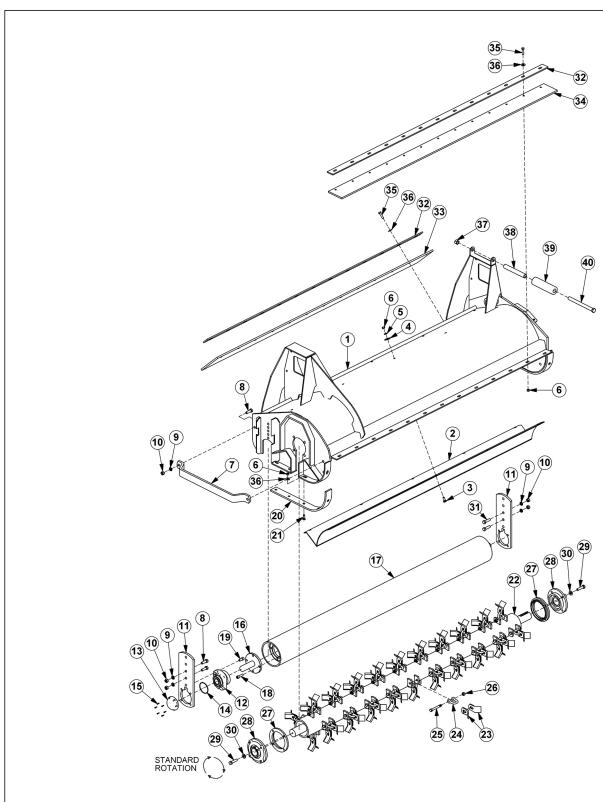
#### NOTES:

- 3. 1. FREEPLAY: .001" .003" 2. GREASE: FILL WITH MOBILITH SHC 220. 3. APPLY LOCTITE "271" TO O-RING PLUG THRDS.

## **ROTARY MOWER SPINDLE ASSEMBLY**

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

## 75IN FLAIL - STANDARD ROTATION



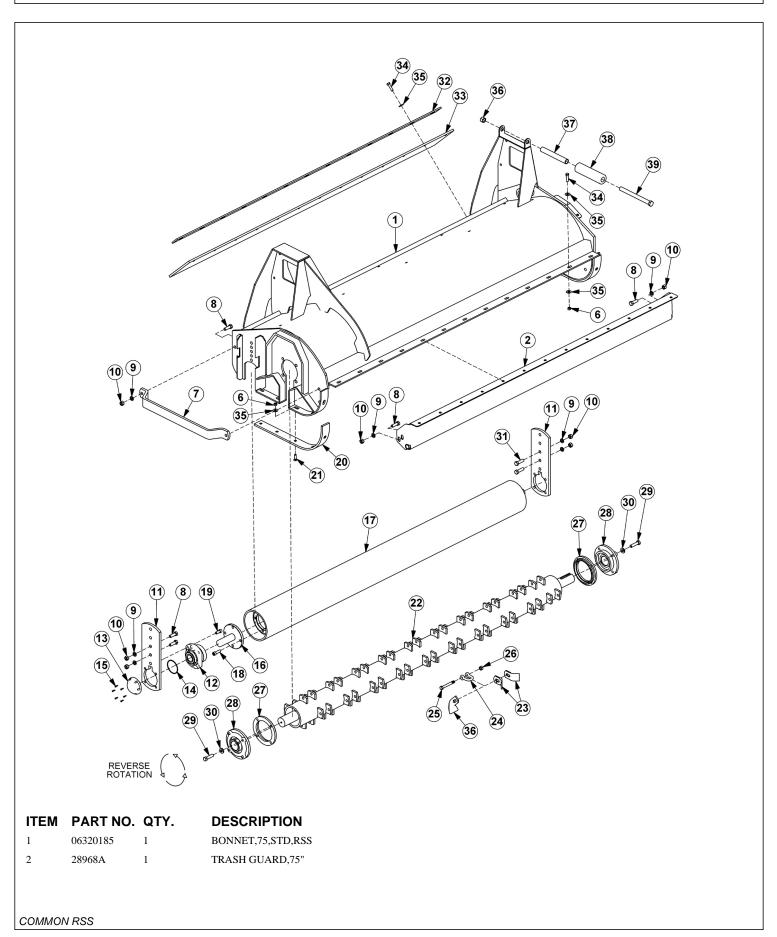
ITEM	PART NO.	QTY.	DESCRIPTION
1	06320185	1	BONNET,75",STD,RSS
2	28737	1	BAFFLE,75",STD

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

#### Continued...

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

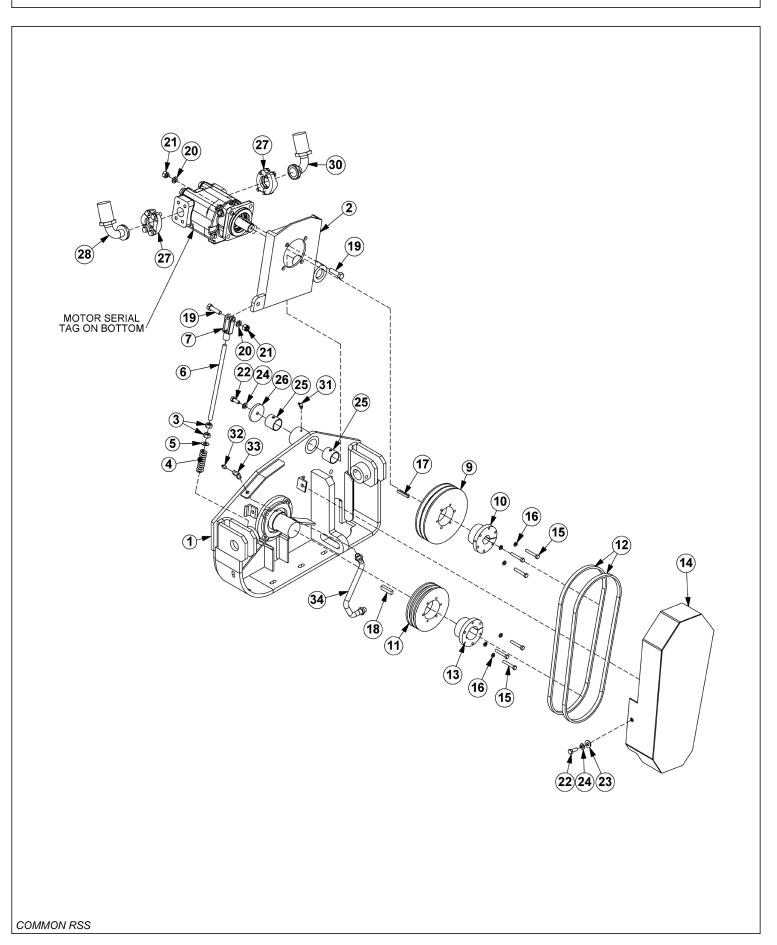
#### 75IN FLAIL - REVERSE ROTATION



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

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

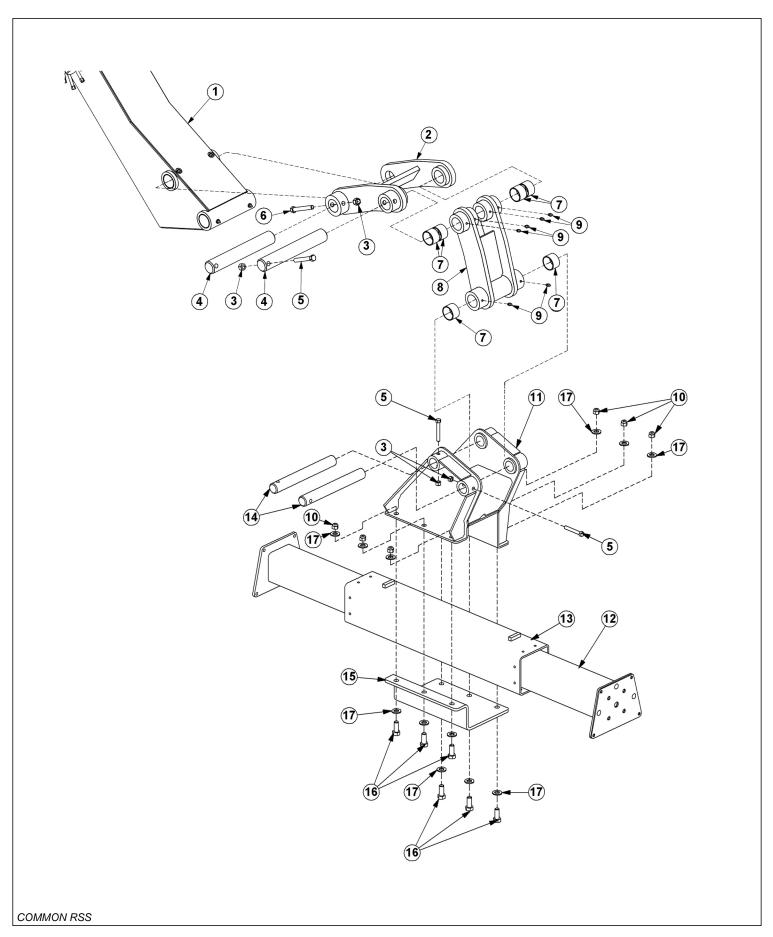
## **FLAIL DRIVE ASSEMBLY**



## **FLAIL DRIVE ASSEMBLY**

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

## **BOOM PIVOT ASSEMBLY**

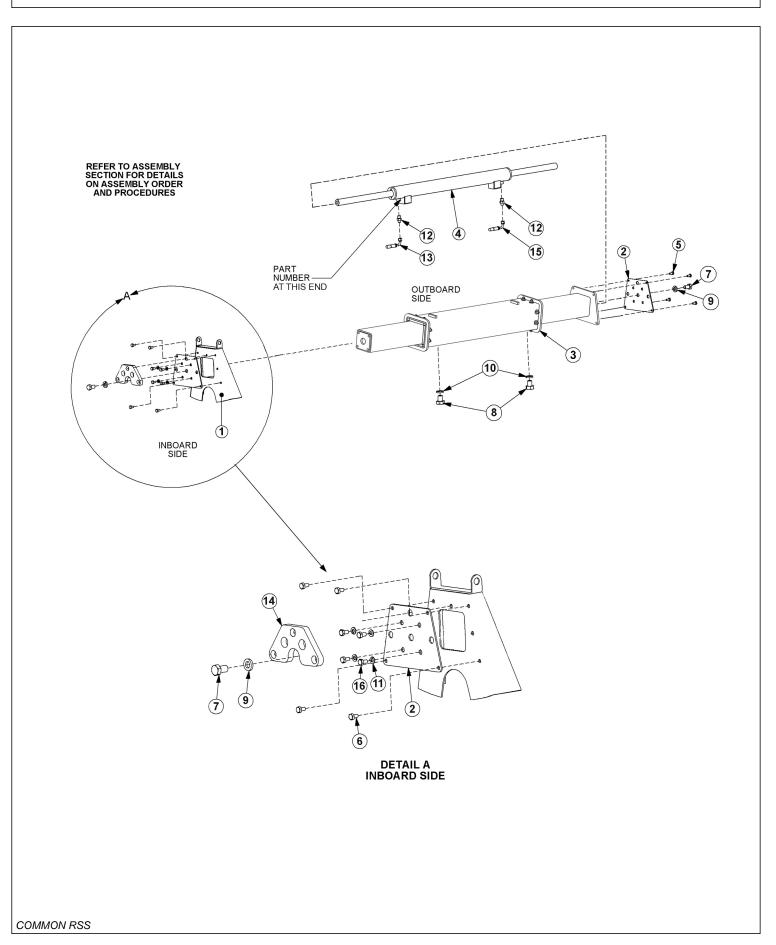


# **BOOM PIVOT ASSEMBLY**

## Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1		1	BOOM *REFER TO BOOM ASSEMBLY
2	32316	1	LINKAGE, BOOM TO CYLINDER
3	21677	4	NYLOCK NUT, 7/16",NC
4	32319	2	PIN,LINKAGE
5	21687	3	CAPSCREW, 7/16" X 3" NC
6	21688	1	CAPSCREW, 7/16" X 3-1/4" NC
7	32318	6	BEARING
8	32745	1	LINKAGE,CYLINDER TO TREE
9	6T3207	6	GREASE ZERK, 1/4"
10	32838	6	HEX NUT, 5/8" NC
11	06310181	1	TREE, WILDKAT
12	35334	1	TUBE,SLIDE
13	35337	1	TUBE,TREE
14	32313	2	PIN,TREE
15	06412199	1	CLAMP,TREE, WILDKAT
16	06530208	6	CAPSCREW,5/8" X 1-1/2",NC
17	33764	-	FLATWASHER, 5/8" SAE

## **SLIDE ASSEMBLY**

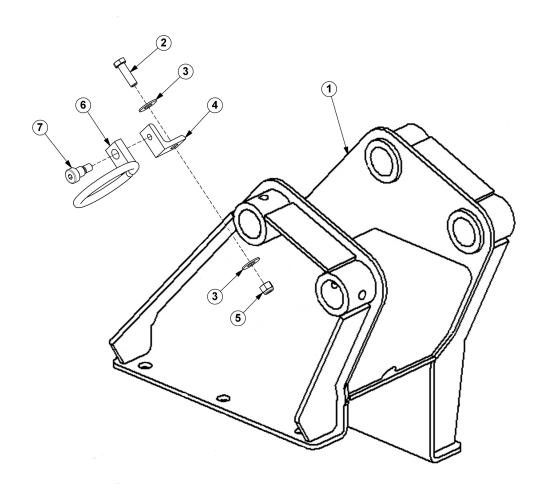


## **SLIDE ASSEMBLY**

## Continued...

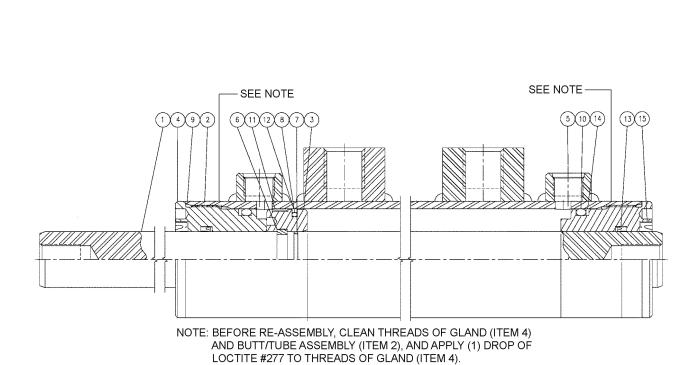
1 MOWER *REFER TO MOWER ASSEMBLY PAGE 2 35336 2 CAP	GE
2 35336 2 CAP	
3 06770096 1 SLIDE ASSEMBLY	
4 06501027 1 CYLINDER, 2-1/2" X 30"	
5 21632 4 CAPSCREW, 3/8" X 1-1/2" NC	
6 21630 4 CAPSCREW, 3/8" X 1" NC	
7 21804 2 CAPSCREW, 3/4" X 1-1/4" NF	
8 21929 2 CAPSCREW, 1" X 1-1/4" NC	
9 21993 2 LOCKWASHER,3/4"	
10 21995 2 LOCKWASHER,1"	
11 21990 4 LOCKWASHER,1/4"	
12 33271 2 ADAPTER,1/2"MOR X 3/8"MJ	
13 35109 1 HOSE,1/4" X 126" (ROTARY MOWERS)	
06500449 1 HOSE,1/4" X 53" (FLAIL MOWERS)	
14 06497006 1 BUMPER,RSS	
15 06500480 1 HOSE,1/4" X 107" (ROTARY MOWERS)	
06500449 1 HOSE,1/4" X 53" (FLAIL MOWERS)	
16 21729 4 CAPSCREW,1/2" X 1"	

## **HOSE RING ASSEMBLY**



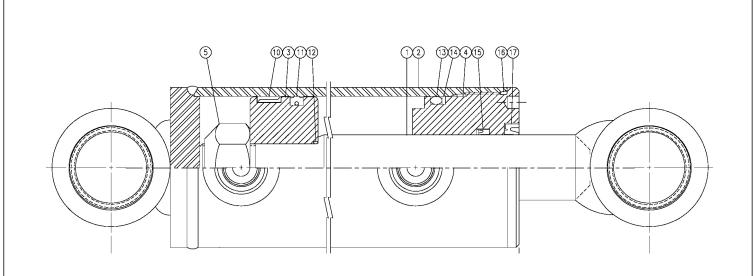
	ITEM	PART NO.	QTY.	DESCRIPTION
	1		-	TREE *REFER TO BOOM PIVOT ASSY PAGE
	2	21631	1	CAPSCREW,3/8" X 1-1/4",NC
	3	22016	2	FLATWASHER,3/8"
	4	06460043	1	ANGLE,MOUNT
	5	21627	1	NYLOCK NUT,3/8",NC
	6	6310117	1	RING,HOSE
	7	06530003	1	CAPSCREW,SHOULDER,SKT HD
		06505021	1	COVER,HOSES (BOOM TO HOSE GUIDE)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

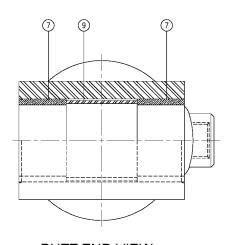
### 2-1/2IN X 30IN CYLINDER BREAKDOWN

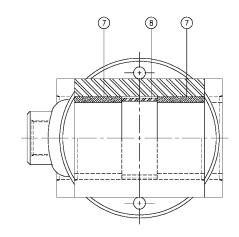


ITEM	PART NO.	QTY.	DESCRIPTION
	06501027	-	CYLINDER,WELDED,2-1/2" X 30"
1	06501615	1	PISTON ROD ASSY
2	06501616	1	BUTT & TUBE ASSY
3	06501617	1	PISTON
4	06501618	1	GLAND
5	06501598	1	PORT PLUG
6-15	06501619	1	SEAL KIT

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





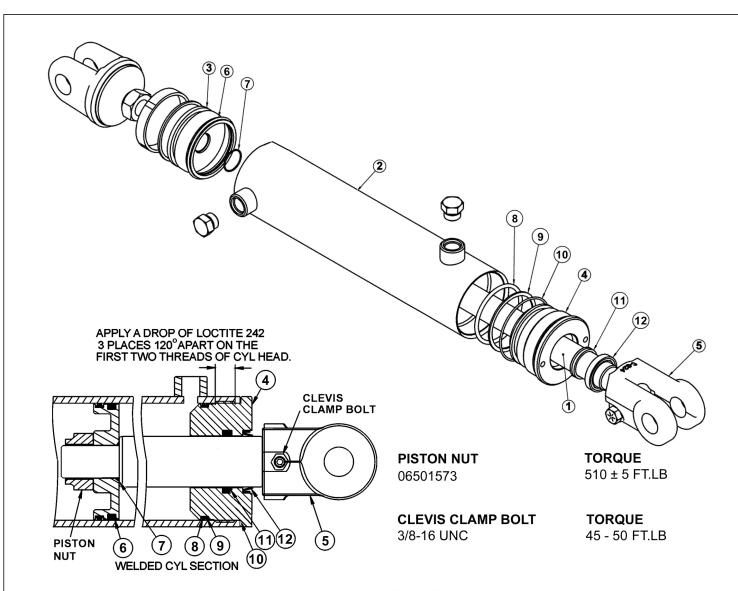


BUTT END VIEW

**ROD END VIEW** 

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

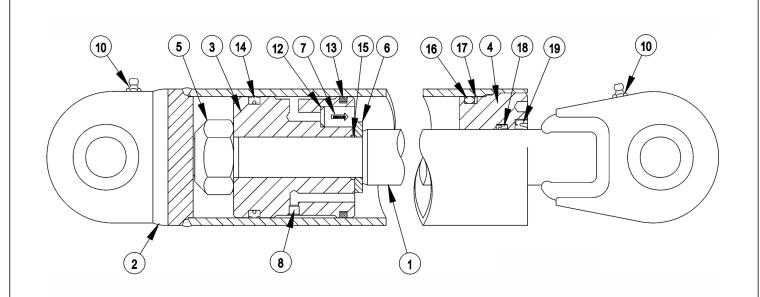
## **4IN X 14IN CYLINDER BREAKDOWN**



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

ITEM	PART NO.	QTY.	DESCRIPTION
	06501028	1	HYDRAULIC CYLINDER COMPLETE
1	06501623	1	ROD
2	06501624	1	TUBE WELDMENT
3	06501558	1	PISTON
4	06501607	1	CYLINDER HEAD
5	6T0172	1	CLEVIS
	06501560	1	SEAL REPAIR KIT (ITEMS 6 THROUGH 12)

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

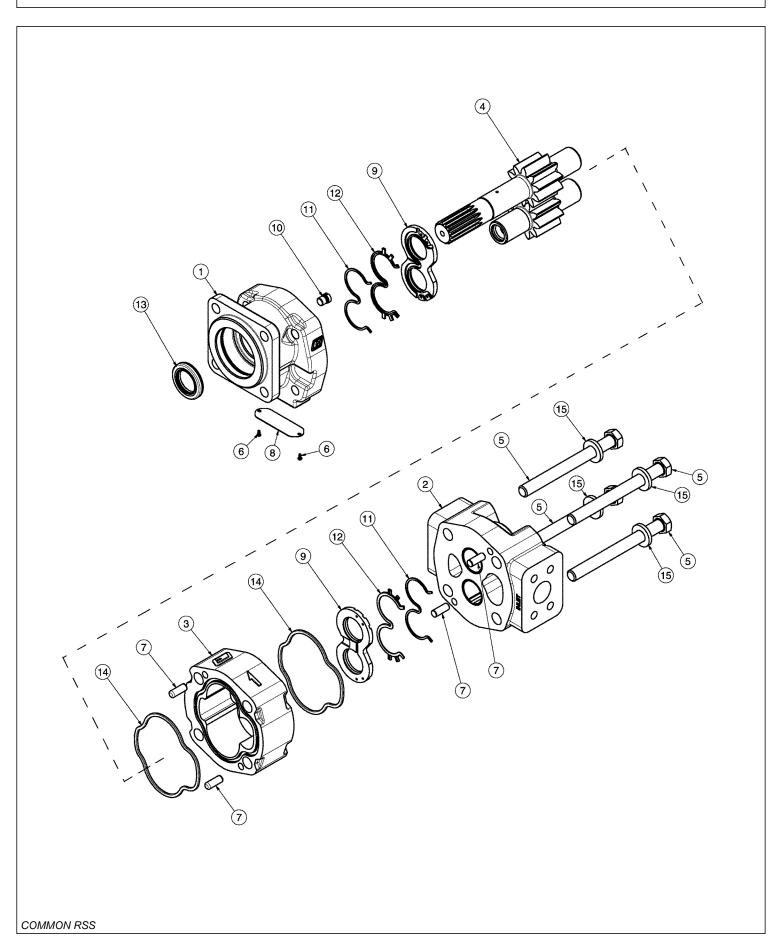


**WARNING - MECHANICAL FASTENERS MUST BE TORQUED TO RECOMMENDED SPECIFICATIONS DURING REPAIR TO PREVENT PERSONAL INJURY OR EQUIPMENT DAMAGE.** 

	ITEM	PART NO.	QTY.	DESCRIPTION
		32365	-	CYLINDER,WELDED,4" X 15"
	1	06501604	1	PISTON ROD ASSY
	2	06501605	1	BUTT & TUBE ASSY
	3	06501606	1	PISTON
	4	06501607	1	GLAND
	5	06501753	1	LOCK NUT,1-1/4"-12 UNF (TORQUE TO 510 FT.LB.)
	9	33757	1	SEAL KIT, PACKING (ITEMS 12 THRU 19)
	10		2	GREASE ZERK
	12		1	O - RING
	13		1	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	2	SPHERICAL BEARING (NOT SHOWN)
1				

NOTES 1
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NOTES
COMMON RSS

# FRONT PUMP BREAKDOWN

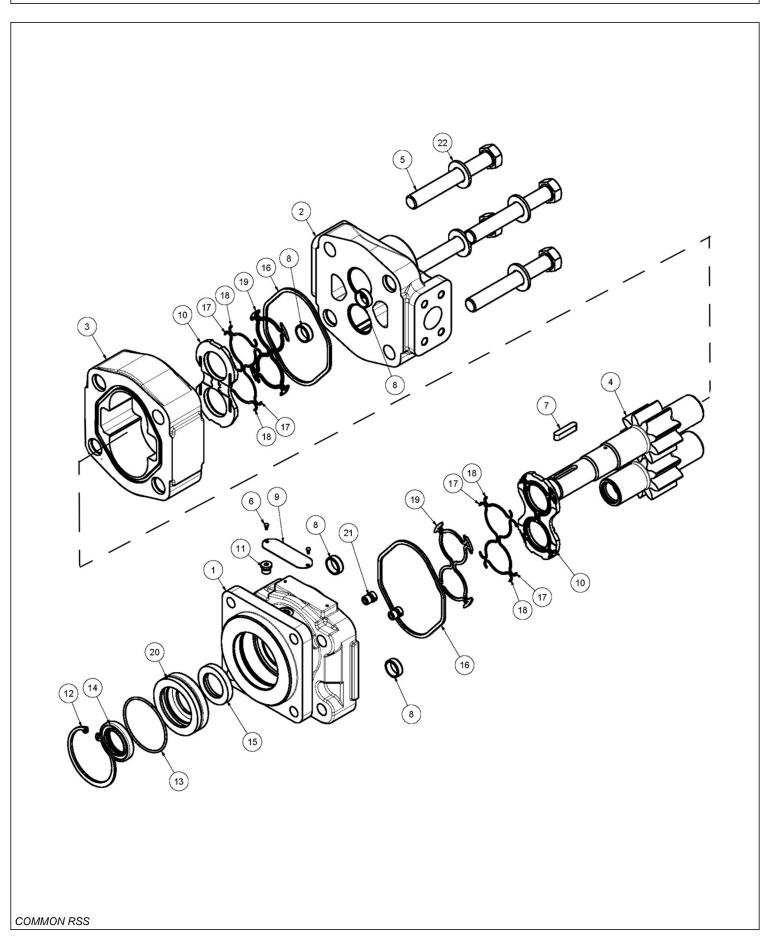


## FRONT PUMP BREAKDOWN

## Continued...

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

## **ROTARY MOTOR BREAKDOWN**

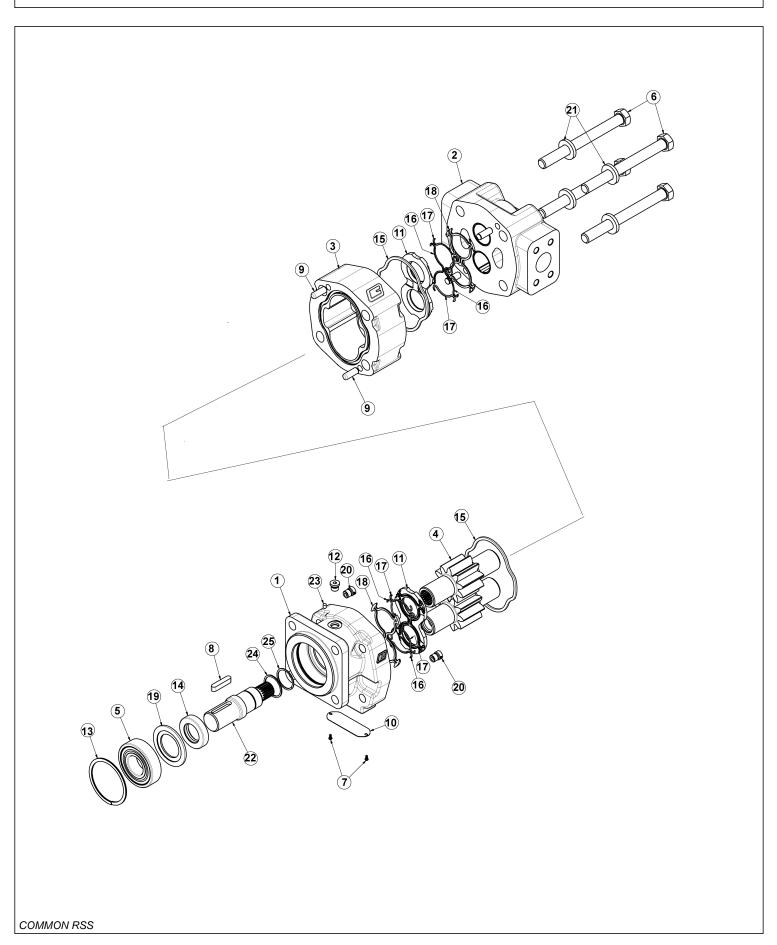


## **ROTARY MOTOR BREAKDOWN**

## Continued...

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

## **FLAIL MOTOR BREAKDOWN**

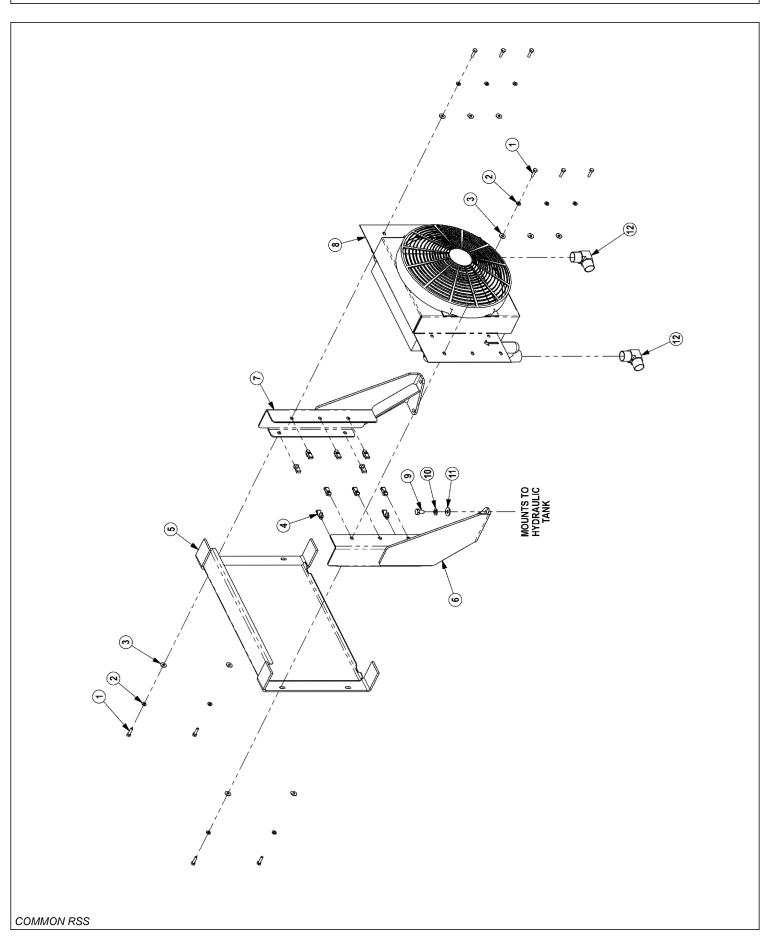


## **FLAIL MOTOR BREAKDOWN**

## Continued...

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

## **COOLER ASSEMBLY - OPTION**

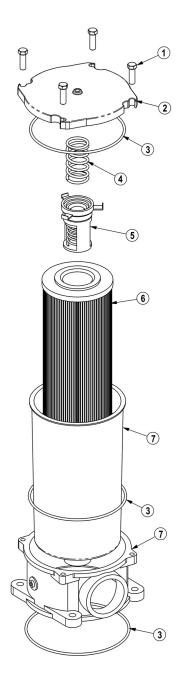


## **COOLER ASSEMBLY - OPTION**

## Continued...

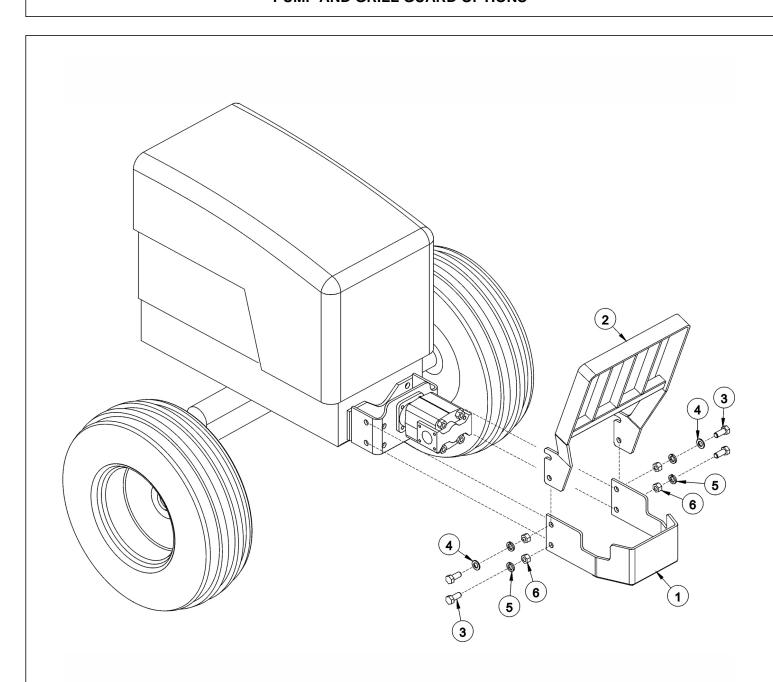
ITEM	PART NO.	QTY.	DESCRIPTION
1	21530	10	CAPSCREW,1/4 X1 NC
2	21986	10	LOCKWASHER,1/4
3	22014	10	FLATWASHER,1/4
4	35176	10	1/4 U-NUT
5	06370015	1	SCREEN,COOLER,FRNT
6	06380006	1	MNT,COOLER,BUMPER TANK,RH
7	06380007	1	MNT,COOLER,BUMPER TANK,LH
8	06510026	1	COOLER,FRONT MNT
	06510029	1	FAN ASSY, ONLY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

# RESERVOIR TANK FILTER ASSEMBLY



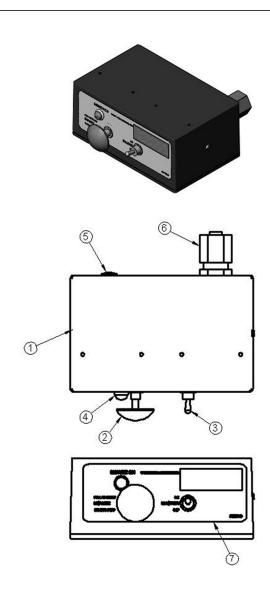
ITEM	PART NO.	QTY.	DESCRIPTION
	06505044	-	FILTER ASSY SAE 10 MICRON
1	28583	4	CAPSCREW,8MM X 25MM(1.25 PITCH)
2	06505045	1	COVER
3	06505046	1	SEAL KIT
4	06505047	1	SPRING
5	06505048	1	BYPASS
6	35259	1	FILTER,10 MIC,RETURN LINE
7	06505049	1	CAN/BODY

## **PUMP AND GRILL GUARD OPTIONS**



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

# MANUAL LIFT VALVE SWITCH BOX



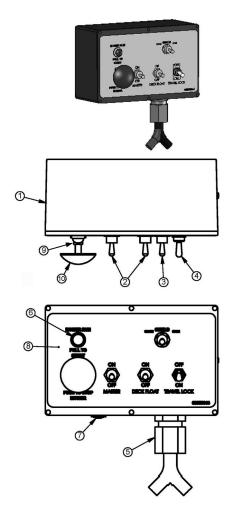
ITEM	PART NO.	QTY.	DESCRIPTION
1	06514013	1	SWBX,ALUM,BLK,06510102
2	35226	1	SWITCH,MOWER,COLEHERSEE
3	33811	1	SWITCH,MASTER/DECK FLOAT
4	6T3923	1	INDICTATOR LIGHT, ON, RED
5	06514014	1	BREAKER,10A,SWBX
6	34540	1	STRAIN RELIEF,3/4,BLACK,NYLON
7	06550018	1	DECAL,SWTCHBX,TM/TSF,CG
8	35227	1	RELAY,DP,DT,12V,LY2F,35226

### MANUAL LIFT VALVE SWITCH BOX SCHEMATIC

# 06510102 SCHEMATIC **COMMON GROUND SWITCH BOX** SIDE MOWER NOTE: ADD METRIPAK 150 FEMALE PLUG (MALE PINS) W/JUMPER WIRES ➣ SW1 PUSH - PULL R 8" Θ BRAKE VALVE (WHITE WIRE 16AWG) 50" BATTERY GROUND 118" BATT GROUND 60" 12" SW2 MASTER ON DWN 10A BREAKER $\mathbf{G}^{1}$ IGNITION +12V (RED WRE 14AWG) 9 70" NEUTRAL SWITCH (GREEN WIRE 16AWG) Θ NEUTRAL SWITCH (GREEN WIRE 16AWG)

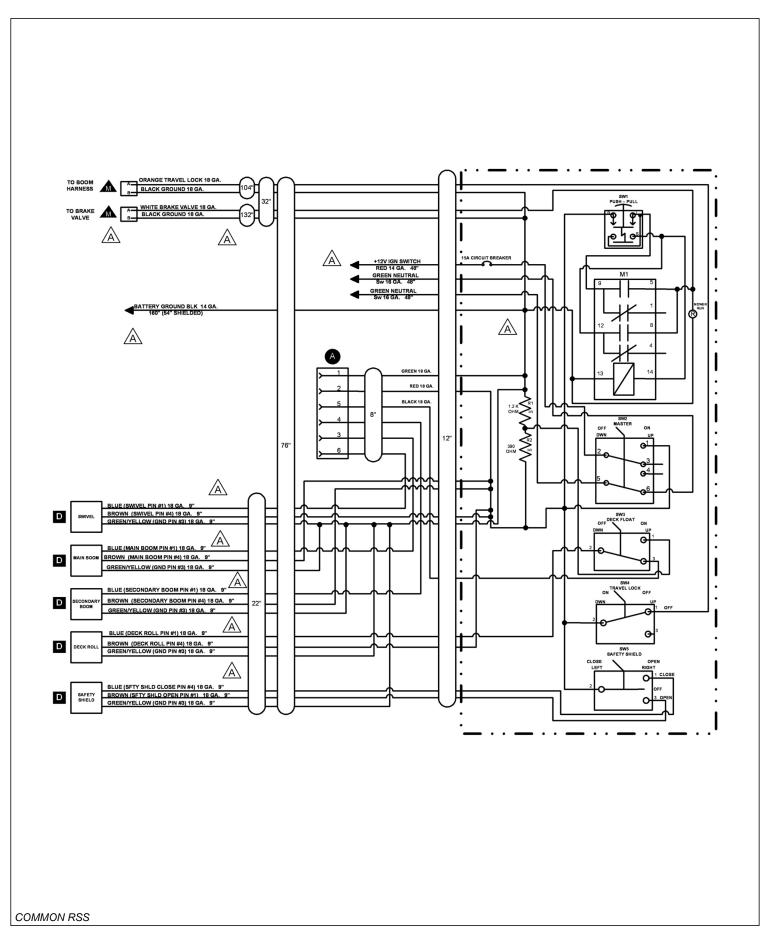
SEE DRAWING # 06515000 FOR A FULL DESCRIPTION OF ALL CONNECTORS

# **ELECTRONIC LIFT VALVE SWITCH BOX**

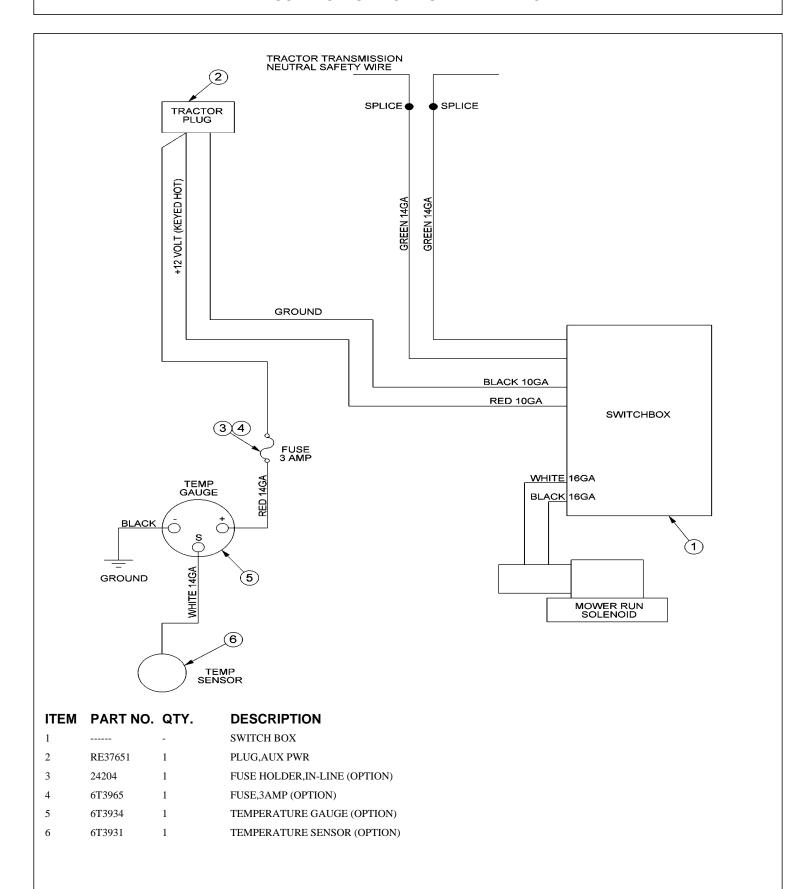


,	PTION
2 50011 2 50011011,01	Y
2 22912 1 SWITCH SE	ASTER/DECK FLOAT
5 55615 1 SWITCH,51	TY SHIELD
4 34532 1 SWITCH,TF	RVL LCK
5 34540 1 STRAIN RE	LIEF,3/4",BLACK,NYLON
6 6T3923 1 INDICTATO	OR LIGHT,ON,RED
7 06514006 1 BREAKER,	15A,SWBX
8 06550044 1 DECAL,SW	BX,06510047
9 35226 1 SWITCH,M	OWER,COLEHERSEE
10 35227 1 RELAY,DP,	DT,12V,LY2F,35226

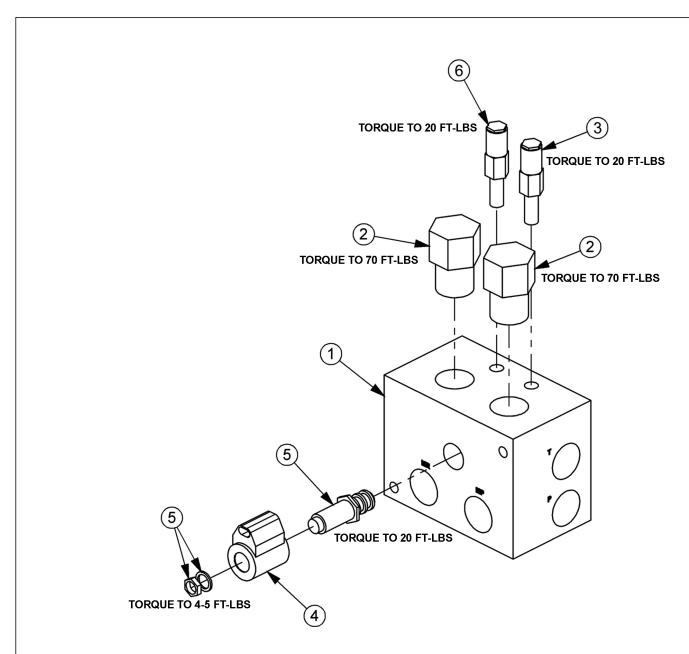
### **ELECTRONIC LIFT VALVE SCHEMATIC**



### **SOLENOID SWITCH BOX AND WIRING**

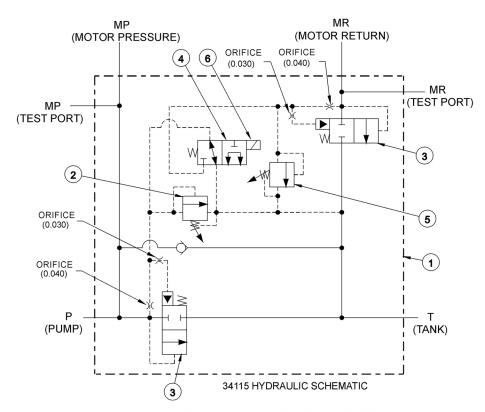


## **BRAKE VALVE ASSEMBLY**



ITEM	PART NO.	QTY.	DESCRIPTION
	06510083	1	BRAKE VALVE, ASSY
1	34092	1	BRAKE VALVE, BLANK
2	34094	2	LOGIC ELEMENT
3	34095	1	RELIEF VALVE, 3000 PSI
4	06510095	1	METRI PAK COIL
5	34093	1	CARTRIDGE, 2 POSITION, 3 WAY (WITH NUT & WASHER)
6	34091	1	RELIEF VALVE, 2600 PSI
	34096	2	RELIEF SEAL KIT
	34097	1	SOLENOID SEAL KIT
	34098	2	ELEMENT SEAL KIT
соммог	V RSS		

#### BRAKE VALVE HYDRAULIC SCHEMATIC



## **BRAKE VALVE TROUBLESHOOTING**

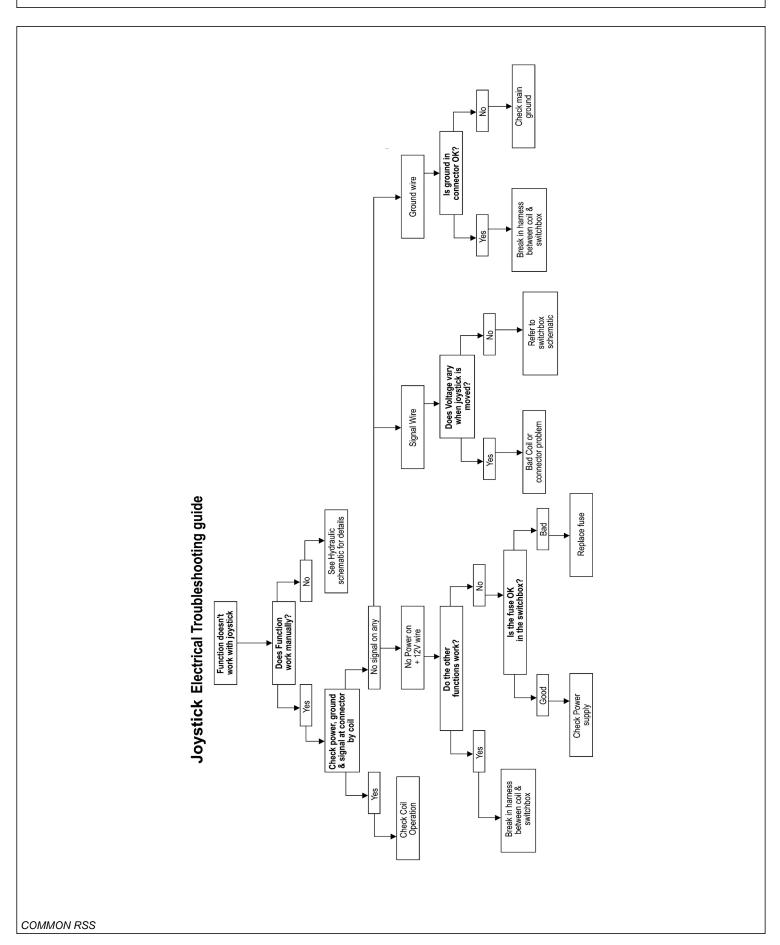
FAILURE MODE: CI	HECK ST	EPS
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- MOWER WILL NOT START system pressure is low
   (engine not lugging).
   1 thru 6
- MOWER WILL NOT START system pressure is high
   (engine lugging). "MR" port will be high pressure.
- MOWER WILL NOT ROTATE AT FULL SPEED limited power. 3 thru 5
- MOWER BLADE WILL NOT STOP blade will not stop in proper time. 7 thru 9

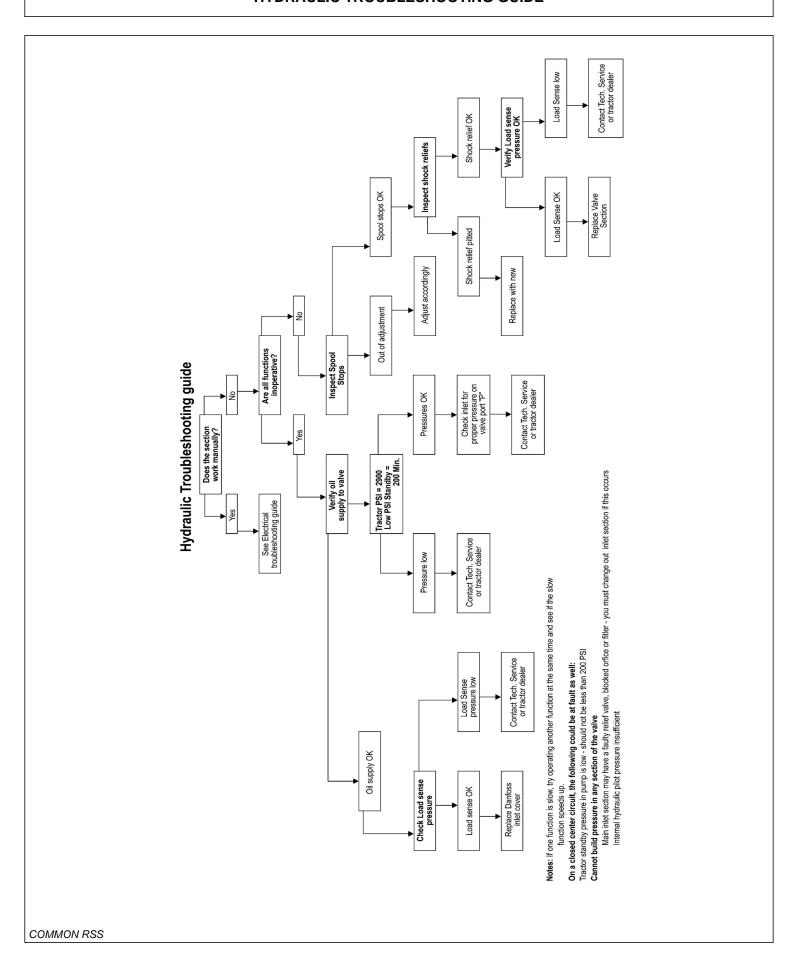
### **CORRECTIVE STEPS:**

- 1. Check for voltage at solenoid (item 6), voltage must be between 10.2 volts and 13.8 volts.
- 2. Remove, inspect solenoid and cartridge (items 4, 6) for wear or contamination.
- 3. Remove, inspect logic elements near "P" port (item 3) for wear or contamination.
- 4. Remove, inspect 3000 psi relief valve (item 2) for wear or contamination.
- 5. Remove and inspect orifices near "P" port for contamination.
- 6. Remove "P" port hose and fitting, visually inspect for contamination, check ball for movement.
- 7. Remove and inspect orifices near "MR" port for contamination.
- 8. Remove, inspect 2600 psi relief valve (item 5) for wear of contamination.
- 9. Remove, inspect logic element near "MR" port (item 3) for wear or contamination.

## **ELECTRICAL TROUBLESHOOTING GUIDE**



### **HYDRAULIC TROUBLESHOOTING GUIDE**



#### **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

### TROUBLESHOOTING - CONTINUED

Hydraulic inspection.

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

With the spools in Neutral

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

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

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

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

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

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

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

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

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

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

Operate more than one spool.

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

Possible hydraulic problems.

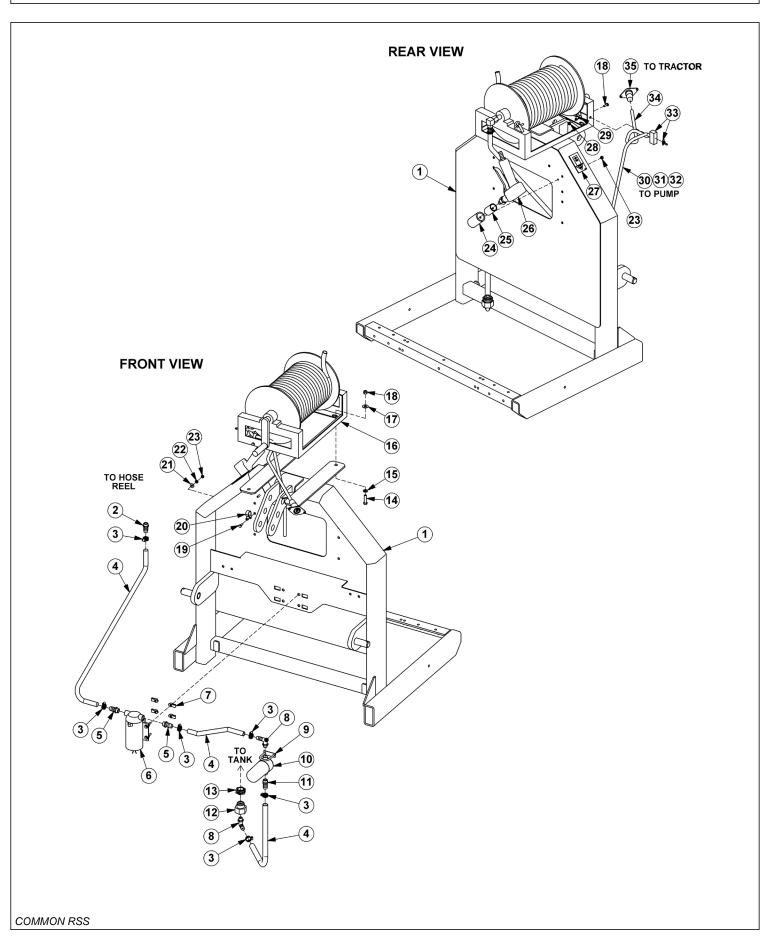
Cylinder leak.

LS signal leaking to tank before reaching pump LS port.

Hydraulic system or pump not supplying flow to valve.

FIRE SUPPRESSION SYSTEM					
FIRE SUPPRESSION SYSTEM SECTION					
COMMON RSS					

### **FIRE SUPPRESSION 3-POINT MOUNT**

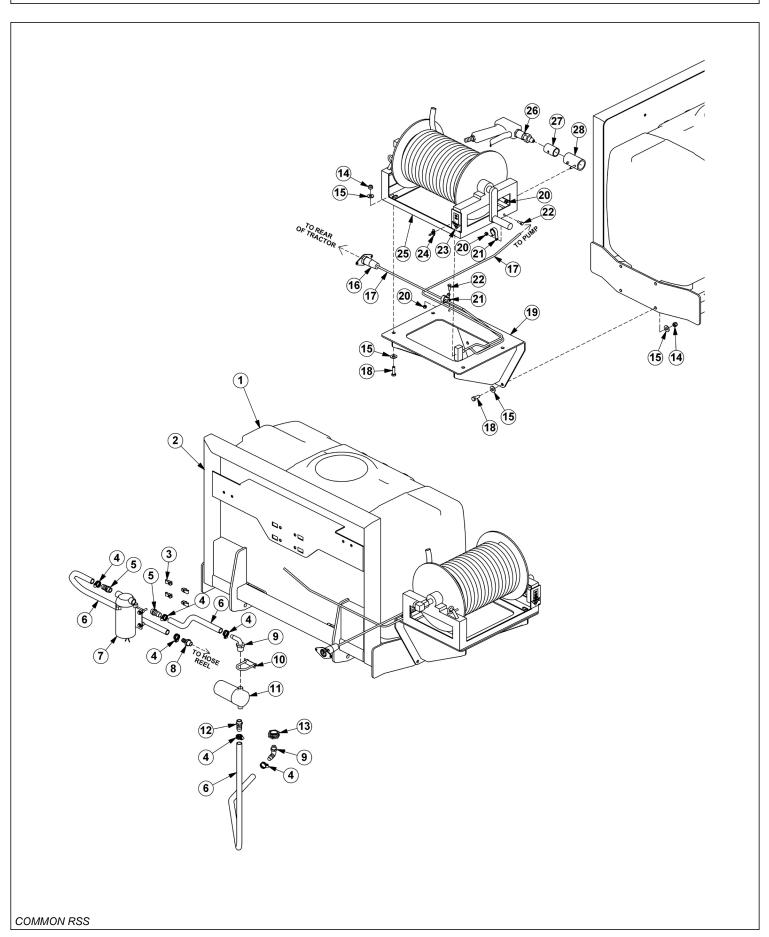


## **FIRE SUPPRESSION 3-POINT MOUNT**

## Continued...

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

## FIRE SUPPRESSION FRONT MOUNT

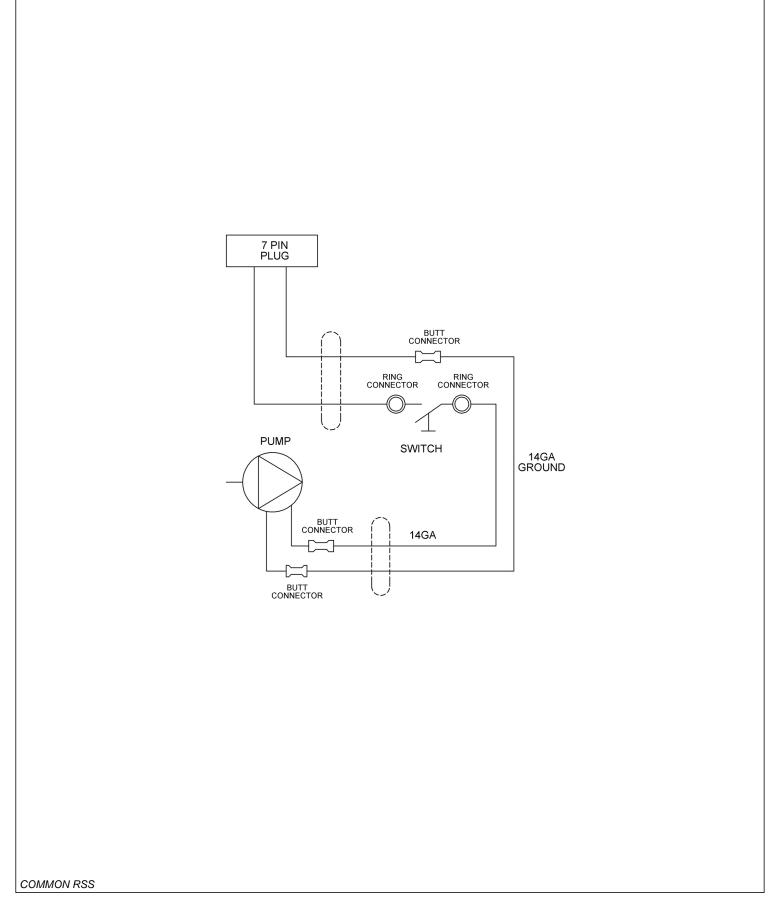


## FIRE SUPPRESSION FRONT MOUNT

## Continued...

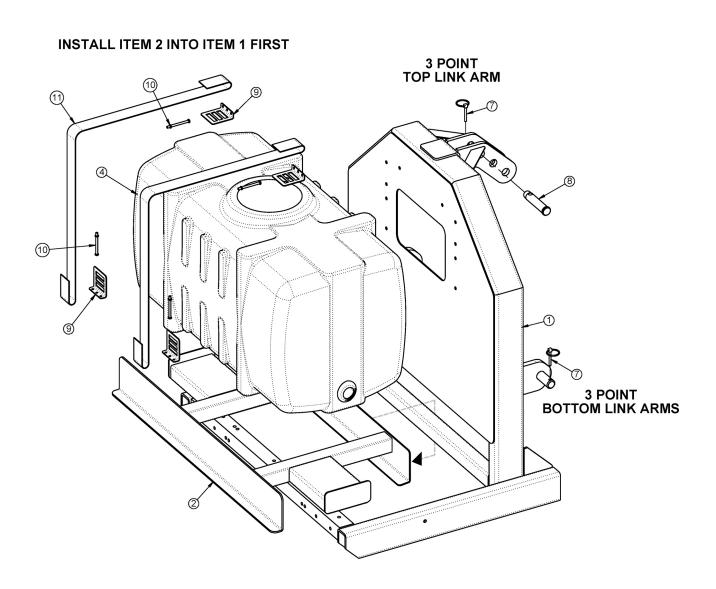
ITEM	PART NO.	QTY.	DESCRIPTION
1	06520342	1	TANK,50 GALLON
2	06370204	1	MNT,TANK,FRNT,50 GALLON
3	35176	4	U-NUT,1/4,3/4 TO CENTER
4	35091	6	CLAMP,HOSE,#6
5	06503168	2	SWIVEL,1/2 STR,POLY
6	06520469	8	HOSE,1/2,SPRAYER
7	06520359	1	PUMP,FIRE KIT
8	06503108	1	FITTING,1/2"BARB X 1/2"MP
9	06520367	2	ELBOW,1/2MPX1/2BARB,POLY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





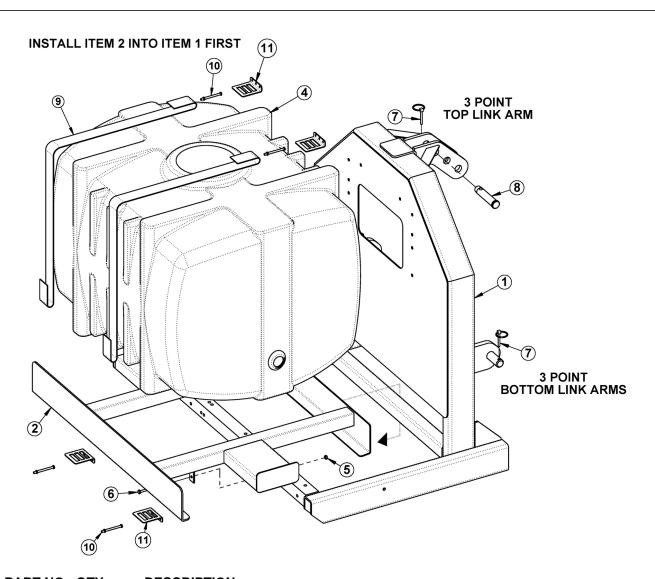
WETCUT	
	WETCUT
	SECTION
COMMON RSS	

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



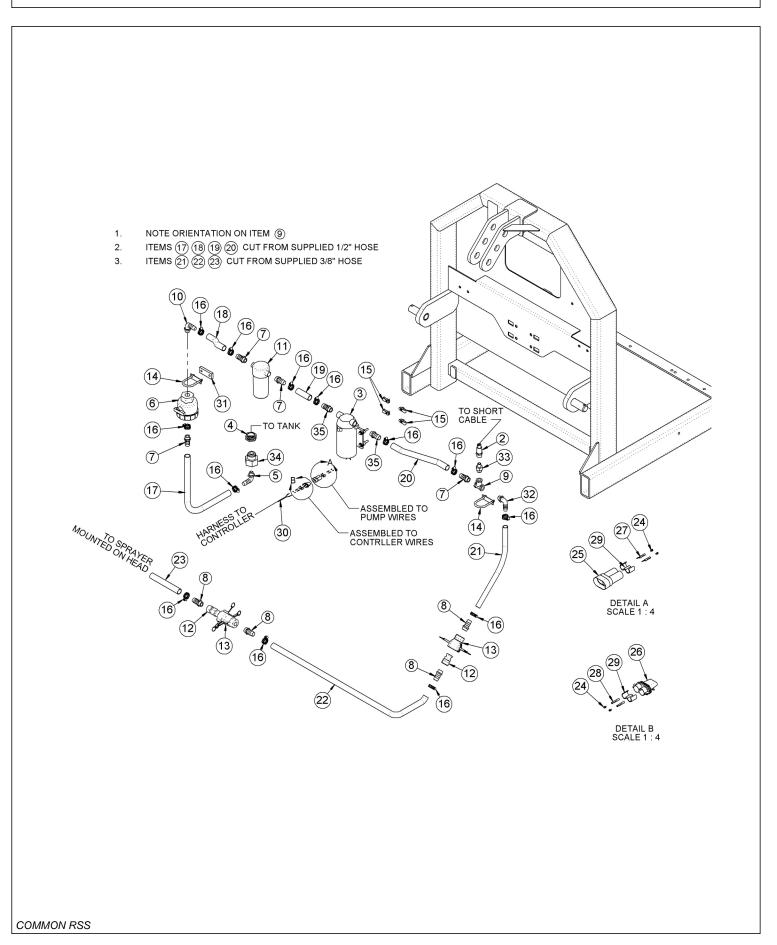
ITEM	PART NO.	QTY.	DESCRIPTION
1	06370128	1	MNT,3PNT,UNI
2	06370136	1	MNT,TANK,50GAL,WETCUT
4	06520342	1	TANK,50GA.,WETCUT
7	RD1032	3	PIN,LYNCH,1/4" X 2"
8	TB1036	1	PIN,SEC BOOM SWIV,1" X 4-11/16"
9	06520343	4	ANCHOR,STRAP,WETCUT
10	06520344	4	BOLT,STRAP,TANK,WETCUT
11	06520345	2	STRAP,TANK,WETCUT

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



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

#### **WETCUT 3PNT PLUMBING - 50IN MOWERS**

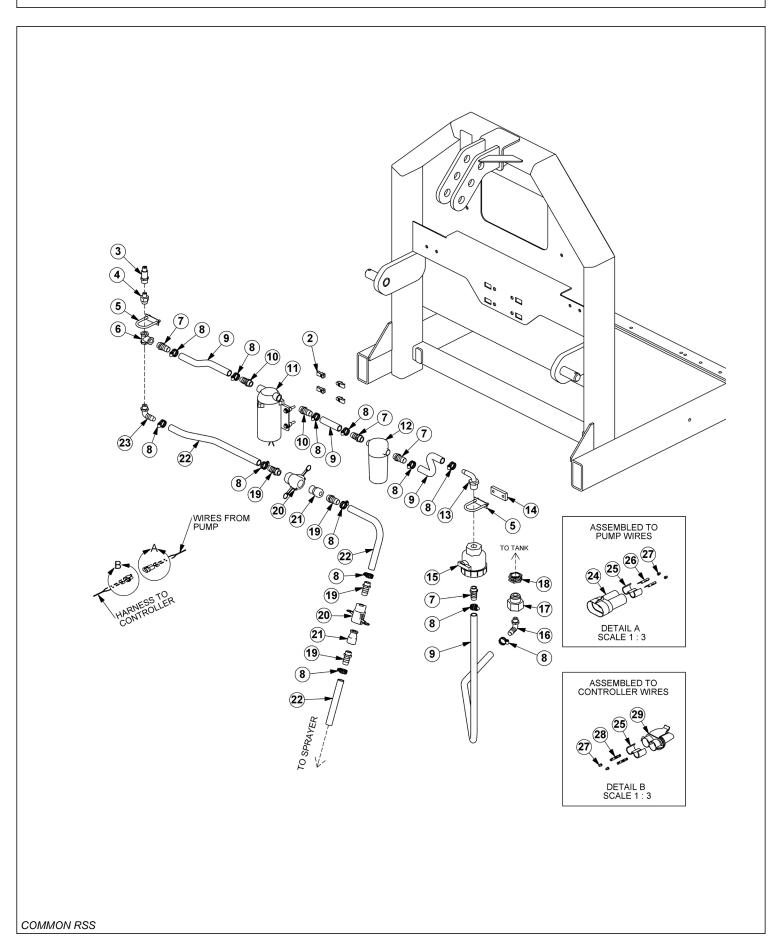


# **WETCUT 3PNT PLUMBING - 50IN MOWERS**

## Continued...

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**

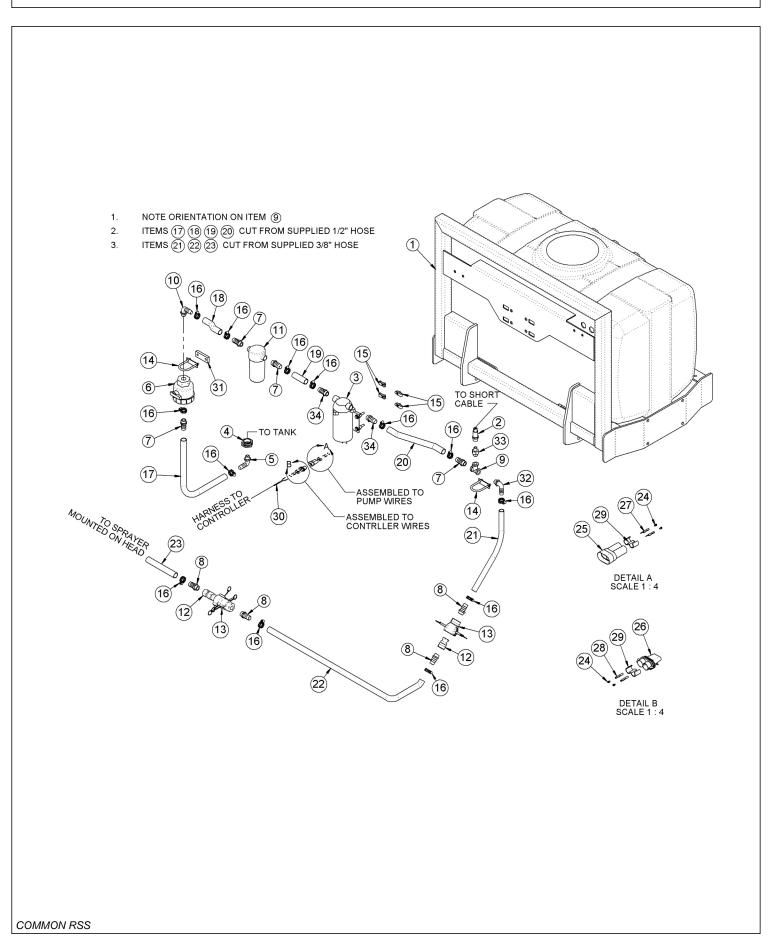


# **WETCUT 3PNT PLUMBING - LARGE MOWERS**

## Continued...

	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	${\tt FITTING,BULKHEAD,WETCUT}~(50~{\tt GALLON}~{\tt TANKS}~{\tt ONLY})$
	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
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#### **WETCUT FRONT PLUMBING - 50IN MOWERS**

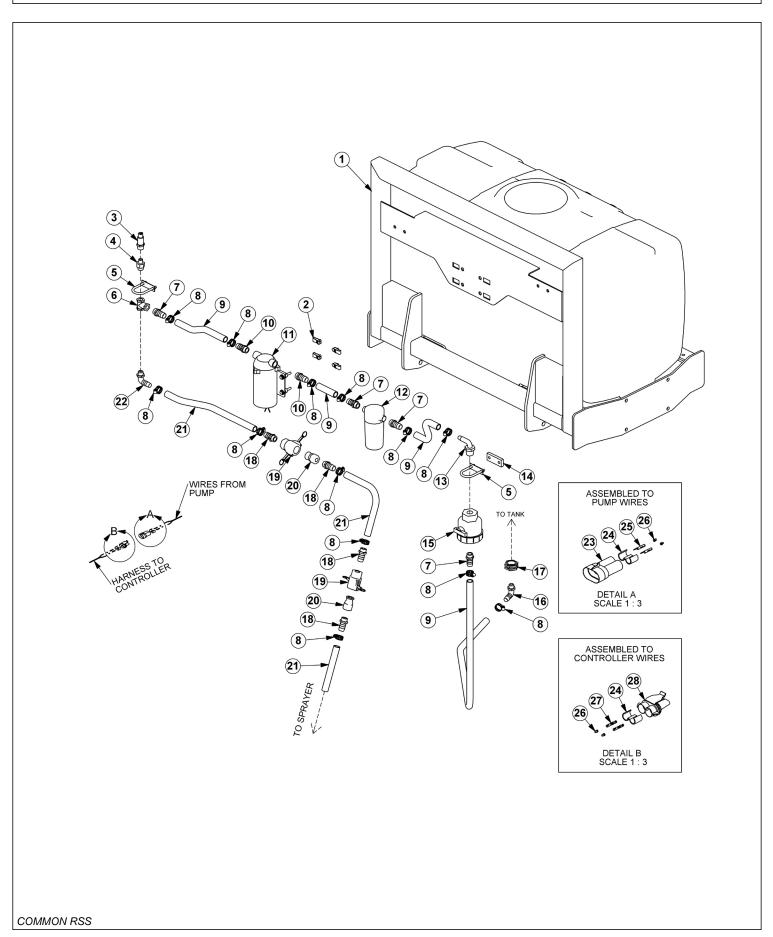


# **WETCUT FRONT PLUMBING - 50IN MOWERS**

## Continued...

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

#### **WETCUT FRONT PLUMBING - LARGE MOWERS**

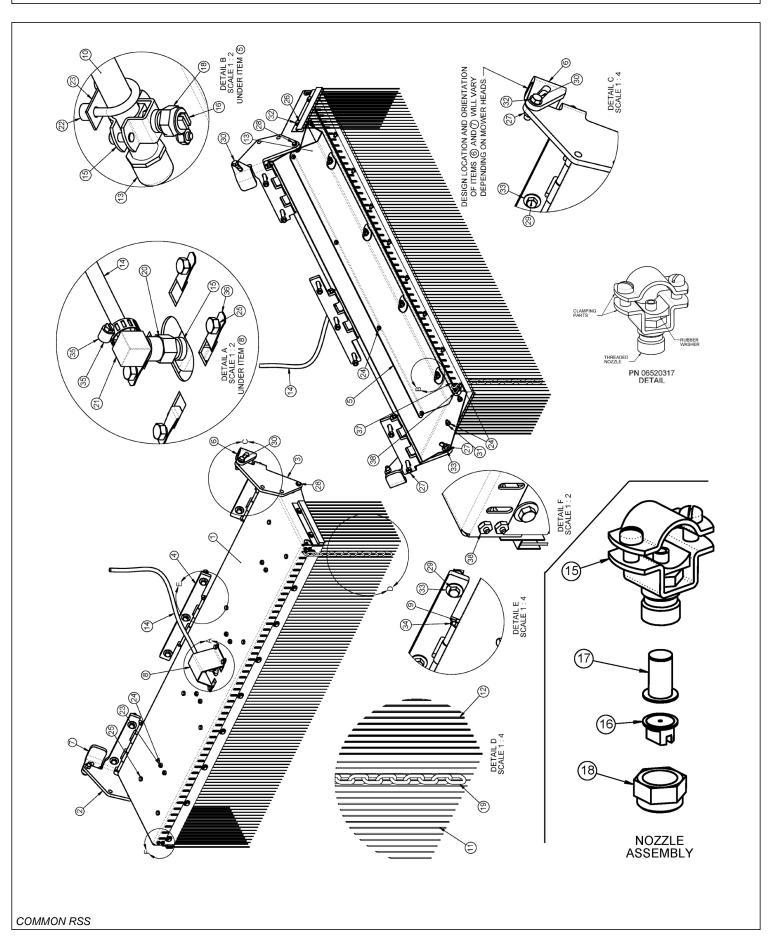


# **WETCUT FRONT PLUMBING - LARGE MOWERS**

## 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**

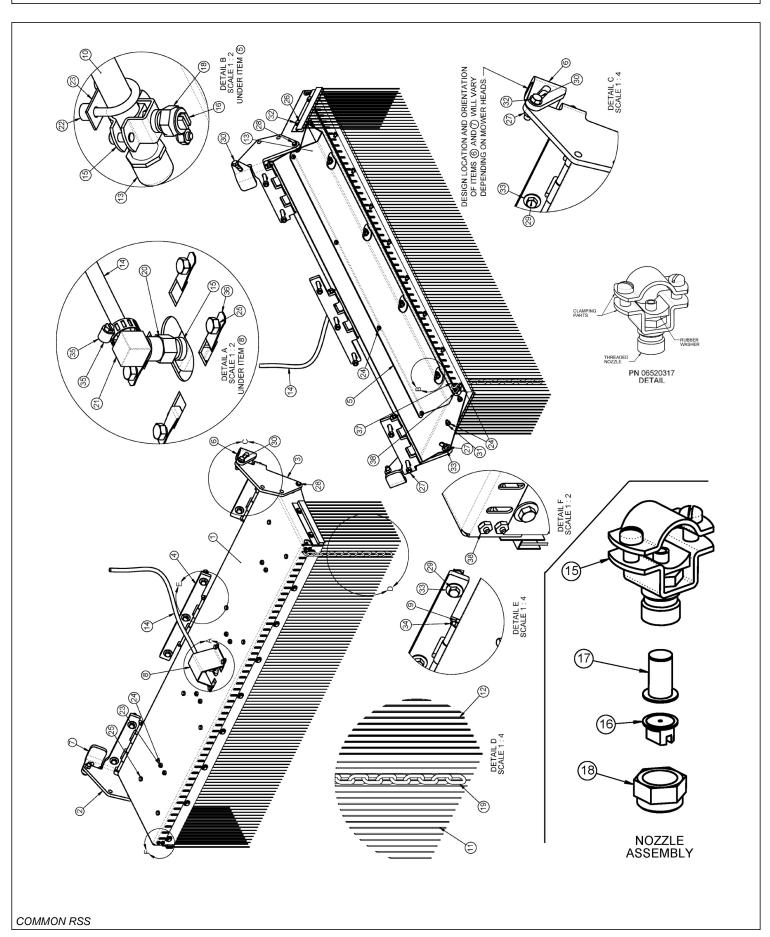


## **WETCUT 50IN SPRAYER HEAD ASSEMBLY**

## 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**

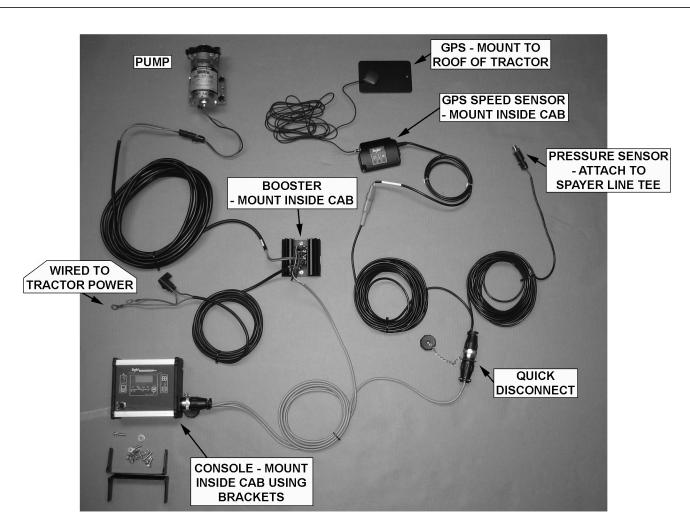


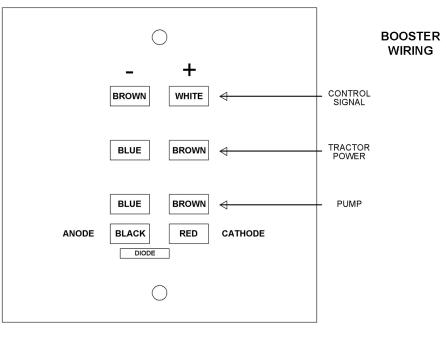
## **WETCUT 60IN SPRAYER HEAD ASSEMBLY**

## 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 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:**

- 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

