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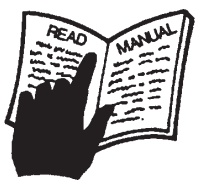



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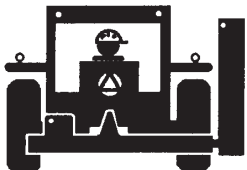


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# DANGER

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

<p>1.</p> 	<p>2. NO RIDERS. NO CHILDREN OPERATORS.</p> 	<p>3. USE SAFETY SHOES, HARD HAT, SAFETY GLASSES, SEAT BELTS, ROPS &amp; OPS</p> 	<p>4. BLOCK UP SECURELY BEFORE WORKING UNDER.</p> 
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- 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
- 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.
- 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.
- 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
- 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.
- Make certain that SMV sign, warning lights, and reflectors are clearly visible. Follow local traffic codes.
- 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.
- 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 rollover may cause serious injury or death.

<p>5. TRANSPORT SAFELY, LOCK UP.</p> 	<p>6. USE SMV, LIGHTS, &amp; REFLECTORS.</p> 	<p>7. DO NOT OPERATE WITH CUTTER OR WING RAISED.</p> 	<p>8. DO NOT MOUNT OR DISMOUNT WHILE MOVING.</p> 
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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 unable to correct the problem yourself, contact your local Tiger Dealer after gathering:
  - Machine model \_\_\_\_\_
  - Serial number \_\_\_\_\_
  - Dealer name \_\_\_\_\_
  - Detailed information about the problem including results of troubleshooting

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

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

MANUFACTURED BY:

**Tiger Corporation**

3301 N. Louise Ave.

Sioux Falls, SD 57107

1-800-843-6849

1-605-336-7900

www.tiger-mowers.com

DISTRIBUTED BY:

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# TABLE OF CONTENTS

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



1012

**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 SECTION

# SAFETY

## 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.



1000

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.

**NOTE:** *Identifies points of particular interest for more efficient or convenient operation or 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)

**SAFETY INSTRUCTIONS**





# SAFETY

**PELIGRO!**



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



**¡ 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 understands the manuals prior to operation. (SG-4)



**WARNING!**

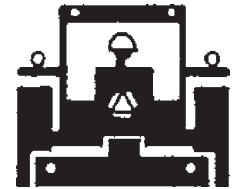


Always maintain the safety decals in good readable condition. If the decals are missing, damaged, or unreadable, obtain and install replacement decals immediately. (SG-5)

**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. (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!**

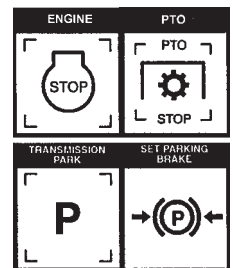


Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)

**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. (SG-9)



# SAFETY

**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.

(SG-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. High-pressure 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. (SG-15)

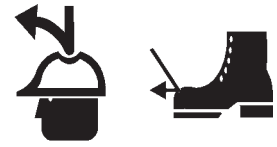


# SAFETY

## 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)

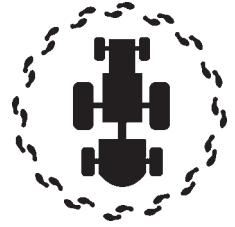
# SAFETY

**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!**



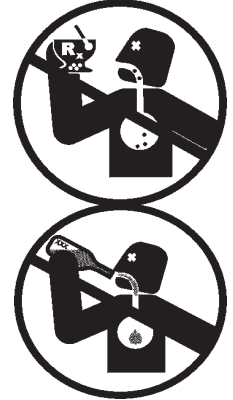
Never allow children to play on or around Tractor or Implement. Children can slip or fall off the Equipment and be injured or killed. Children can cause the Implement to shift or fall crushing themselves or others. (SG-25)

# SAFETY

## 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. (SGM-1)

## 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, 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)

# SAFETY

## 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. (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)

## WARNING!



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

# SAFETY

## DANGER!



Rotary 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. (SFM-6)

## WARNING!



Each Rear Wheel must have a minimum of 1,000 pounds 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 Counterweight Procedure. (SFL-3)



## WARNING!



Do not operate Mower if excessive vibration exists. Shut down PTO and the Tractor engine. Inspect the Mower to determine the source of the vibration. If Mower blades are missing or damaged replace them immediately. Do not operate the mower until the blades have been replaced and the Mower operates smoothly. Operating the Mower with excessive vibration can result in component failure and 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 Mower to be operated with blades missing. (SFL-4)

## WARNING!



Do not let the Blades turn when the Mower Deck is raised for any reason, including clearance or for turning. Raising the Mower deck exposes the Cutting Blades which creates a potentially serious hazard and could cause serious injury or even death from objects thrown from the Blades. (SRM-7)



## WARNING!



Never leave Tractor and Implement unattended while the implement is in the lifted position. Accidental operation of lifting lever or a hydraulic failure may cause sudden drop of unit with injury or death by crushing. To properly park the implement when disconnecting it from the tractor, lower the stand and put the retaining pin securely in place, or put a secure support under the A-Frame. Lower the implement carefully to the ground. Do not put hands or feet under lifted components. (SPT-1)

# SAFETY

## WARNING!



Be particularly careful when transporting the Implement with the Tractor. Turn curves or go up hills only at a low speed and using a gradual steering angle. Rear mounted implements move the center of gravity to the rear and remove weight from the front wheels. Make certain, by adding front ballast, that at least 20% of the tractor's weight is on the front wheels to prevent rearing up, loss of steering control or Tractor tip-over. Slow down on rough or uneven surfaces to prevent loss of steering control which could result in property damage or possible injury. Do not transport unless 3-Point lift lever is fully raised and in the latched transport position. Dropping implement in transport can cause serious damage to the tractor and/or Implement and possibly cause the operator or others to be injured or killed. (S3PT-2)

## 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!”**

## DANGER!



There are obvious and hidden potential hazards in the operation of this Implement as in all power-driven or pulled equipment. REMEMBER! This machine is often operated in rough terrain conditions that include tall grass, weeds, gullies, holes, slopes, hidden obstructions and the like. Serious injury or even death may occur unless care is taken to assure the safety of the operator and bystanders in the area. Do not operate this machine with anyone in the immediate area. (S3PT-7)

## WARNING!



Relieve hydraulic pressure prior to doing any maintenance or repair work on the Implement. Place the Implement on the ground or securely blocked up, disengage the PTO, and turn off the tractor engine. Push and pull the Remote Cylinder lever in and out several times prior to starting any maintenance or repair work. (S3PT-9)



## DANGER!

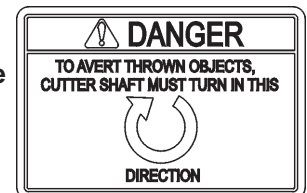


This Implement is wider than the Tractor. Be careful when operating or transporting this equipment to prevent the Implement from running into or striking sign posts, guard rails, concrete abutments or other solid objects. Such an impact could cause the Implement and Tractor to pivot violently resulting in loss of steering control, serious injury, or even death. Never allow the Implement to contact obstacles. (S3PT-12)

## 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.





# SAFETY

## 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, cutter-shafts, 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.

SEE YOUR  DEALER

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)

# SAFETY

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

P/N22839

PART NO.  
LOCATION

22839  
MOWER DECK



22840  
INSIDE OF CAB



24028

24028  
MOWER DECK



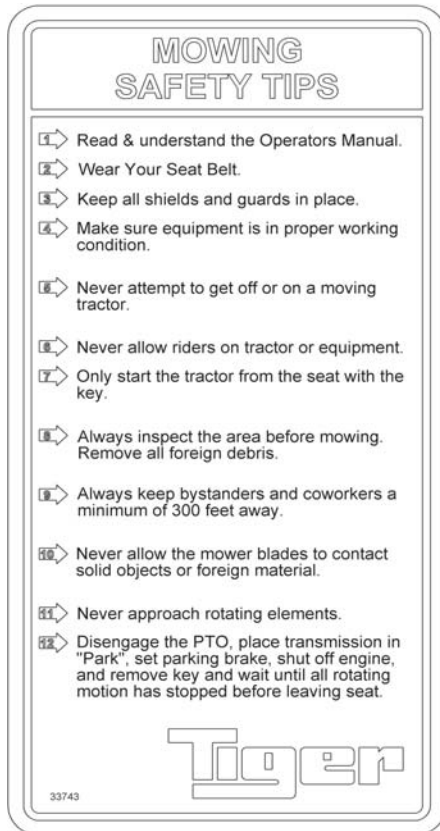
10" x 5.5" 31522  
MOWER DECK  
18.25" x 10" 31523  
HYDRAULIC TANK

# SAFETY

PART NO.  
LOCATION



42350  
MOWER DECK



33743  
INSIDE OF CAB



42399  
MOWER DECK



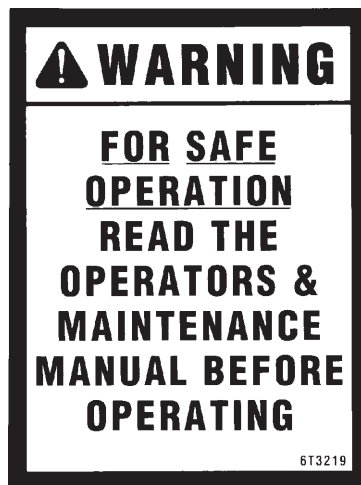
42400  
MOWER DECK

# SAFETY



PART NO.  
LOCATION

6T3217  
MOWER DECK



6T3219  
INSIDE OF CAB

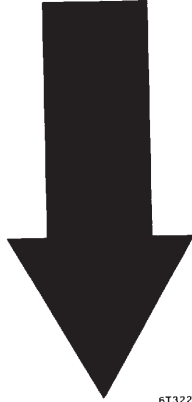
6T3220  
FRONT PUMP MOUNT



6T3221  
INSIDE OF CAB

# SAFETY

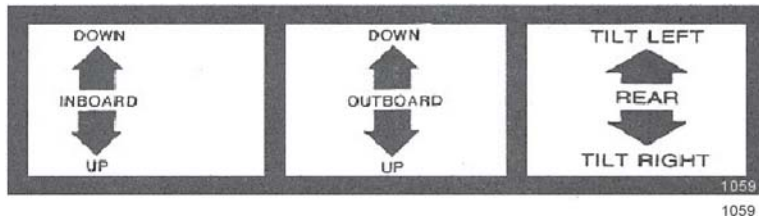
**NOTICE:**  
Engine will not start when mower is engaged.



6T3222

PART NO.  
LOCATION

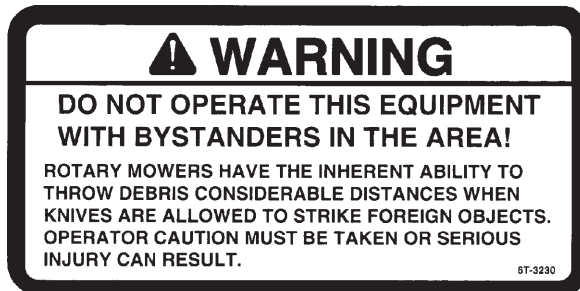
6T3222  
INSIDE OF CAB



INSIDE OF CAB



6T3224  
MOWER DECK



6T3230  
INSIDE OF CAB

# SAFETY

PART NO.  
LOCATION



6T3233  
HYDRAULIC TANK



6T3234  
INSIDE OF CAB



6T3236  
MOWER DECK  
HYDRAULIC TANK



6T3243  
INSIDE OF CAB

# SAFETY

PART NO.  
LOCATION

**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.

6T3249A

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.

6T3281

6T3261  
MOWER DECK

 **WARNING**

**DO NOT OPERATE MOWER**  
**WITH SAFETY SHIELD REMOVED.**

TB1011

TB1011  
MOWER DECK

# SAFETY



## 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

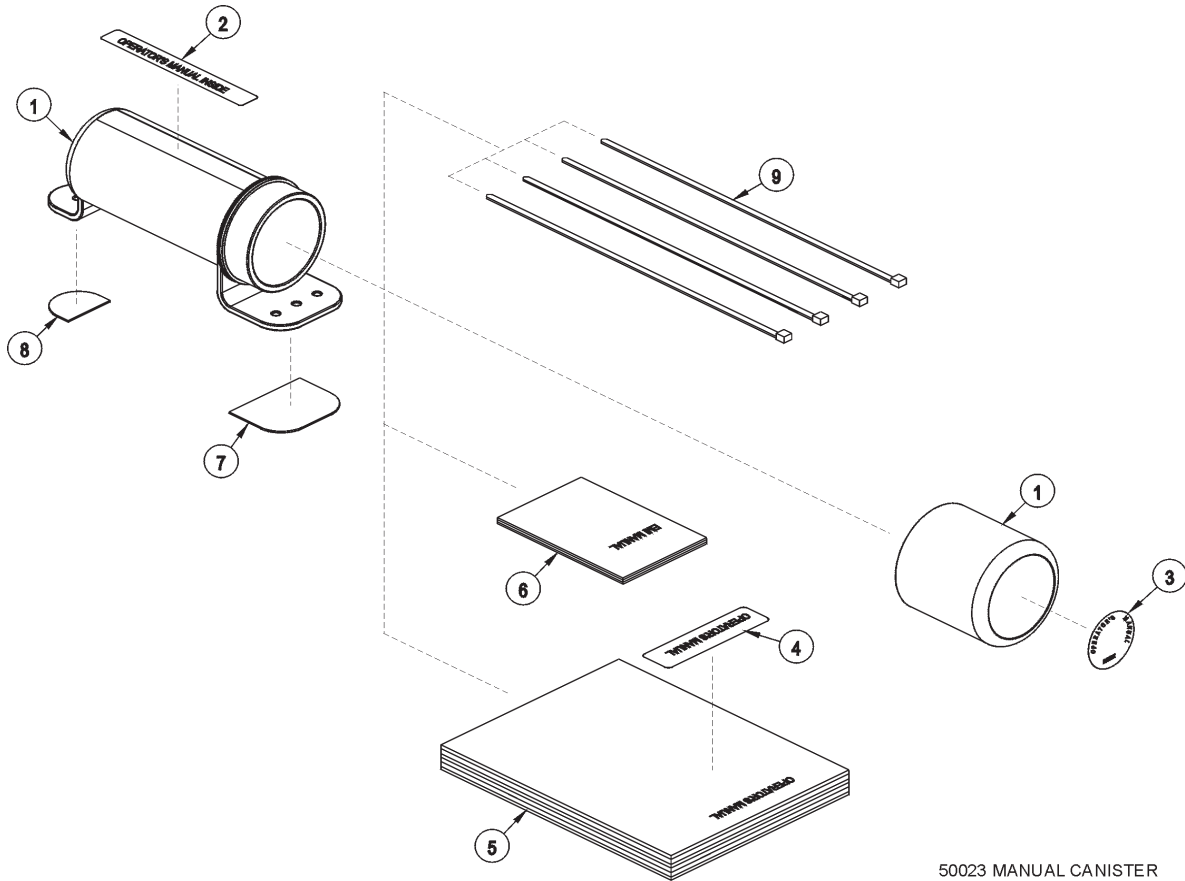
**For Mobil product information, availability, or technical information, call 1-800-662-4525.**

Tiger PN 34852

34852  
HYDRAULIC TANK



# SAFETY



ITEM	PART NO.	QTY.	DESCRIPTION
	<b>50023</b>	<b>AVAIL</b>	<b>MANUAL CANISTER COMPLETE</b>
1	00776031	1	ROUND MANUAL CANISTER
2	33997	1	DECAL, SHEET, MANUAL CANISTER
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	ZIPTIE 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.

# SAFETY

## 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.
5. Ensure the Tractor is equipped with a functional ROPS and seat belt and require that the employee operator securely fasten the safety belt and operate with the ROPS in the raised position at all times.
6. Forbid the employee operator to carry additional riders on the Tractor or Implement.
7. Provide the required tools to maintain the Tractor and Implement in a good safe working condition and provide the necessary support devices to secure the equipment safely while performing repairs and service.

#### Child Labor Under 16 Years of Age

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

# **ASSEMBLY SECTION**

# 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!



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-C-0024)

## CRANKSHAFT ADAPTER

If necessary remove the four capscrews from the crankshaft pulley. Then install the crankshaft adapter to the pulley with capscrews and lockwashers as shown in the Parts Section.

(ASM-NH-0050)

## ADJUSTING REAR WHEELS

Raise rear of tractor onto jack-stands. **Follow the instructions in the tractor owner's manual for adjusting tires and rims** to 72" center for side mounted mowers and 79.8" for boom mowers. 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-NH-0051)



# ASSEMBLY

## FRONT PUMP MOUNTING

Install the pump mounting bracket on the front of the tractor with capscrews and washers as shown in the Úarts Úection illustration. DO NOT tighten fasteners at this time.

Thread the pump driveshaft into the crankshaft adapter. The end with the splines should match up with the coupler.

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

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

**CAUTION: DO NOT START THE TRACTOR UNTIL ALL HOSES ARE ATTACHED, TANK IS FILLED WITH PROPER OIL AND BALL VALVES ARE OPEN! STARTING AT THIS TIME WILL CAUSE SERIOUS DAMAGE TO THE PUMP. (ASM-NH-0024)**



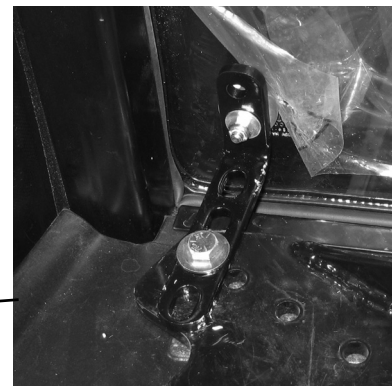
# ASSEMBLY

## POLYCARBONATE SAFETY WINDOW

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

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, door handle and bar handle 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 as shown in the Parts Section.
7. Assemble corner bracket to the control stand inside the cab.
8. Locate and drill a  $\text{\O}1/4$ " hole through polycarbonate, with a bit that is **only** used for polycarbonate, to match the corner bracket.
9. Assemble the bracket and tighten the hardware to secure the polycarbonate.
10. Assemble the clamp in the upper front corner by the mirror.
11. Adjust the clamp to achieve a secure hold.
12. Replace the rear corner window with the hardware removed from the window.

(ASM-NH-0101)



INSIDE  
VIEW



# ASSEMBLY

## 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 all other hardware as shown in mainframe Parts Section to secure the sides of the mainframe to the tractor casting, 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

Route the green wires from the switch box to the bottom right corner of the instrument panel near window. Cover the wires from the switchbox with the provided plastic wire wrap. Locate the neutral safety switch wire (white with yellow stripe) in the ignition switch, under the cowl panel as shown below. Cut the neutral safety switch wire and connect the green wires from the switch box.

**NOTE: ONLY FOR ELECTRONIC VALVE: +12 VOLTS ELECTRICAL POWER MUST BE TAKEN FROM A SOURCE LOCATION WHERE IT IS LIVE ONLY WHEN THE IGNITION SWITCH IS IN THE "ON" POSITION. THIS WIRE MUST BE FUSED AT THE SOURCE LOCATION.**

Route the red 10ga and black 10ga wires from the switchbox to the auxilliary plug.

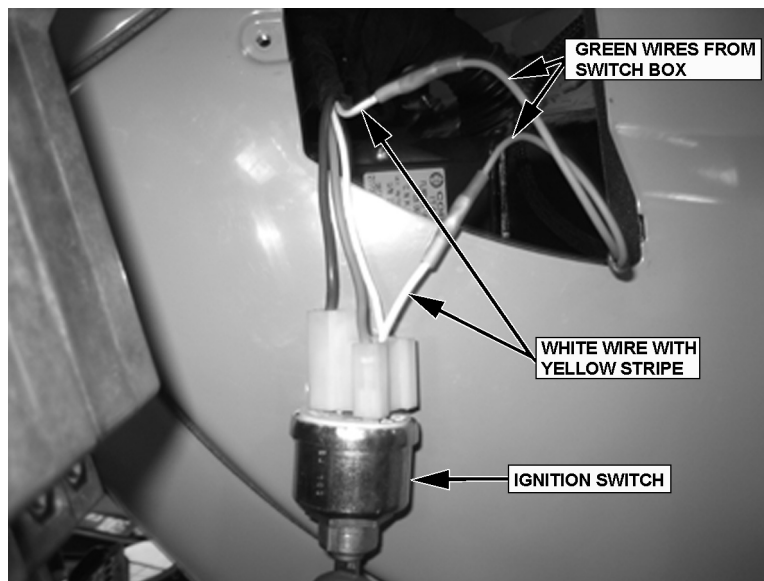
Route the white and black wires to the hydraulic solenoid brake valve.

Route the orange and black wires to the travel lock on the main boom cylinder.

Route the red 14ga wire, keyed hot, from the auxilliary plug to the signal post of the continuous duty solenoid if applicable.

The switch box is to be secured to the right side of the cable control bracket as shown in the Parts Section.

(ASM-NH-0121)



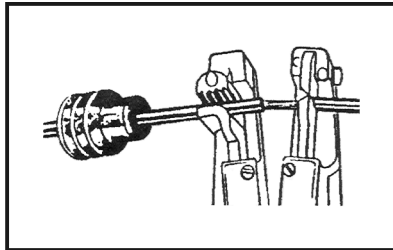
# ASSEMBLY

## WEATHER-PACK/METRI-PACK ASSEMBLY

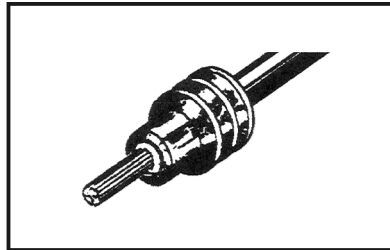
These instructions apply to both Weather-Pack and Metri-pack connectors.

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

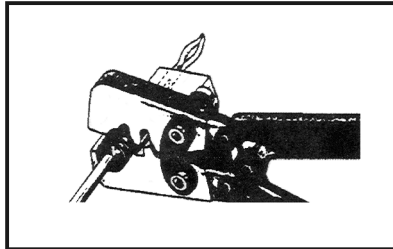
(ASM-C-0009)



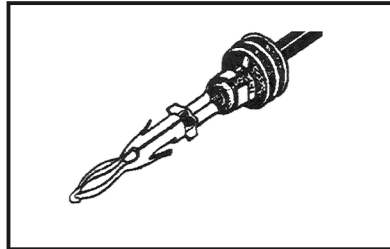
1. Apply seal to cable, before stripping insulation.



2. Align seal with cable insulation.

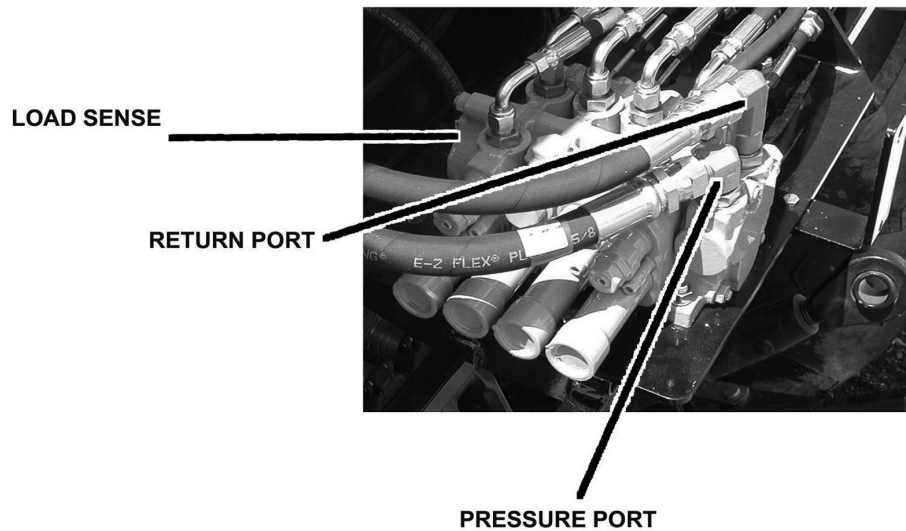


3. Put terminal in crimping tool, then



4. Crimp and visually inspect for a good

## MANUAL LIFT VALVE PORTS



(ASM-C-0057)





# ASSEMBLY

## MANUAL SWITCHBOX MOUNTING

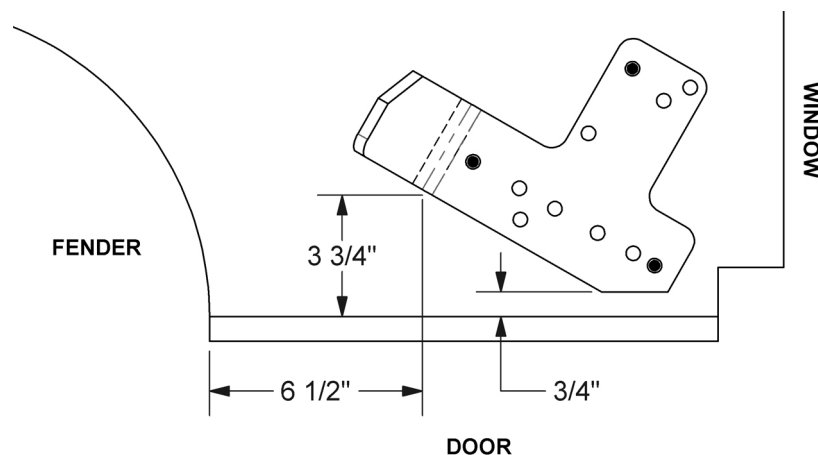
Drill a hole in the right side of the steering console and secure the switchbox using the bracket and screws provided. Refer to the Parts Section for more information. (ASM-NH-0139)



## CABLE CONTROL/JOYSTICK STAND

Place the beveled edge of the support bracket  $3/4$ " in parallel to the door. Locate the support bracket approximately  $6-1/2$ " from the fender wall to the formed edge of the bracket as shown below. Be sure that the location of the stand will allow clearance between the cable control handles and all existing interior levers, etc. Also, watch out for wiring and brackets underneath the cab when placing the bracket for drilling.

Using the support bracket as a template, mark and drill the 3 holes highlighted below and secure with capscrews and nylock nuts noted in the Parts Section. (ASM-NH-0105)

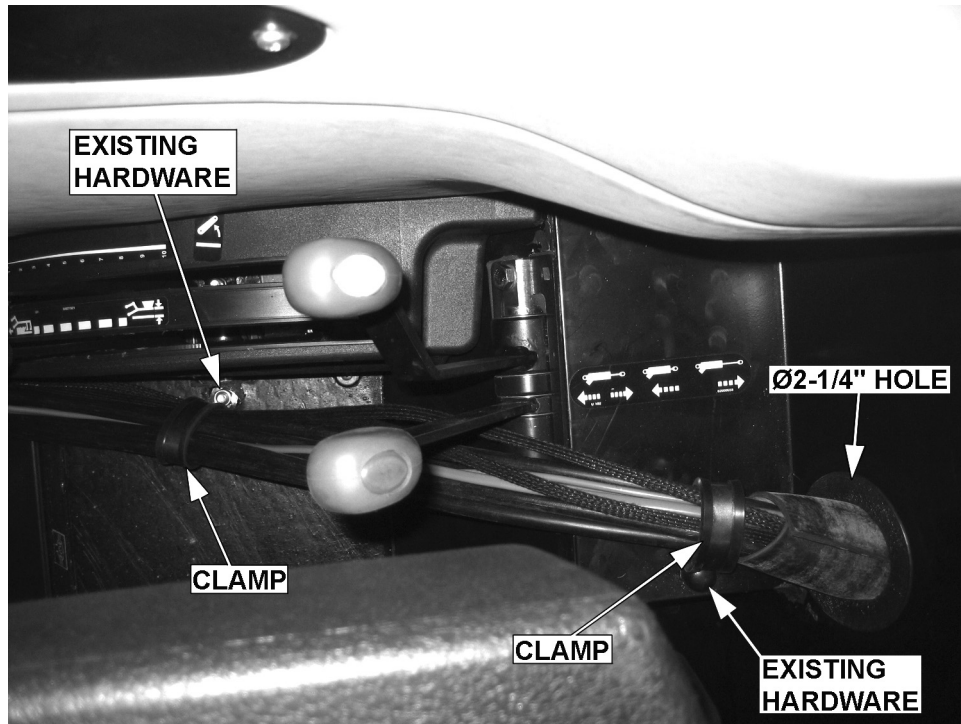


# ASSEMBLY

## LIFT VALVE CABLE/WIRE ROUTING

Cut a  $\text{Ø}2\text{-}1/4$ " hole in the back of the tractor cab as shown below. Install trim lock around the edges of the hole. Route the cables from the manual levers, or wires from the joystick, along with the wires from the switchbox along the floor out the back of the cab to the lift valve. Wrap the cables and wires with split hose at the point where they pass through the tractor wall and zip tie the split hose securely.

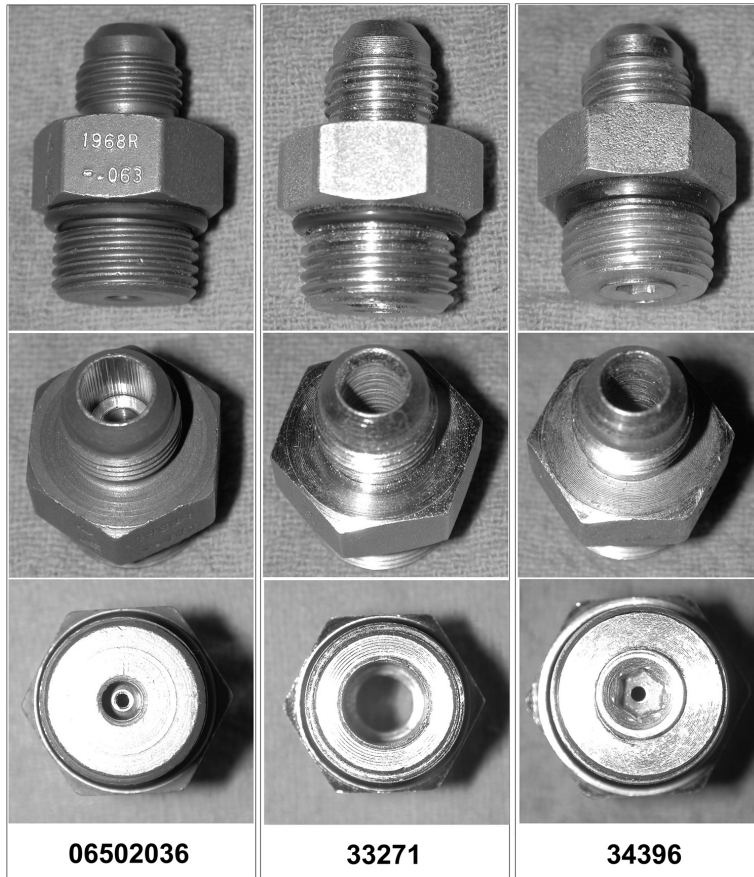
Use the existing hardware in the locations shown below to install the clamps (P/N 06520013).



# ASSEMBLY

## \*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)

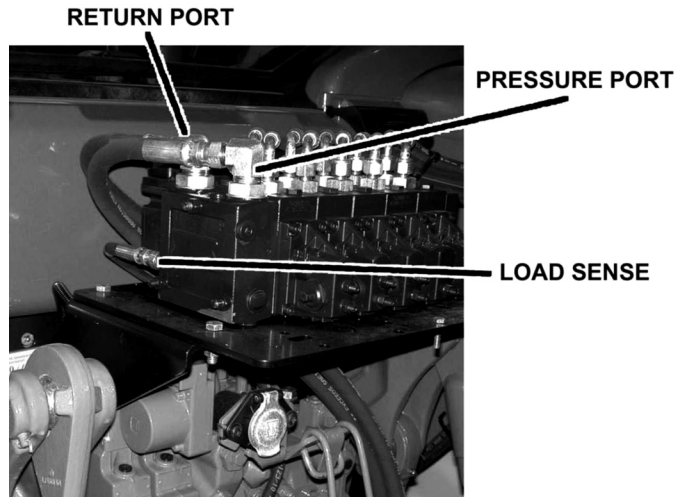


# ASSEMBLY

## ELECTRONIC LIFT VALVE PORTS

(ASM-C-0089)

### DANFOSS VALVE



## JOYSTICK SWITCHBOX MOUNTING

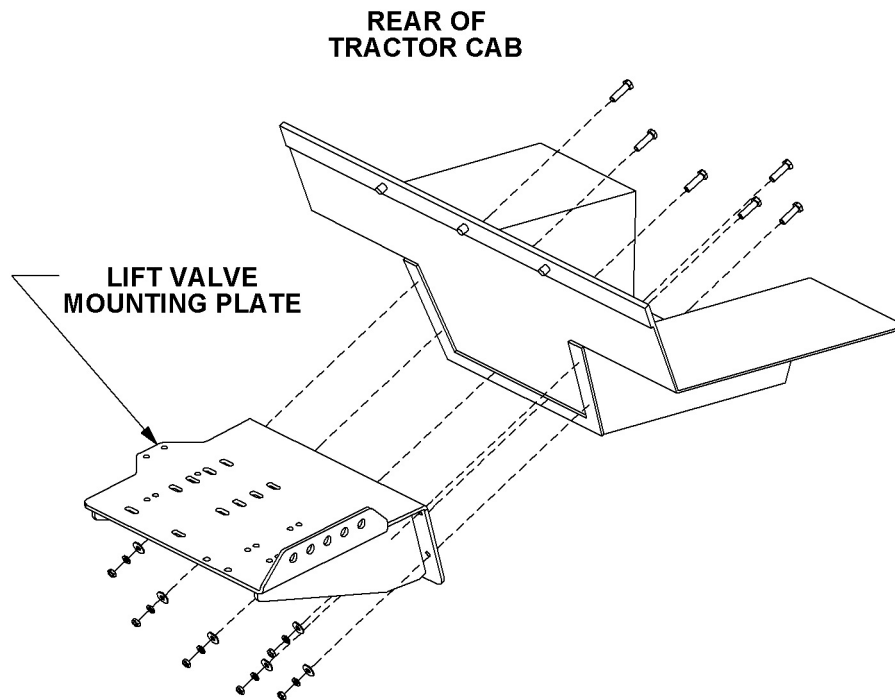
The switchbox is to be secured to the joystick/switchbox stand. Refer to the Parts Section for assembly and components needed. (ASM-NH-0137)



# ASSEMBLY

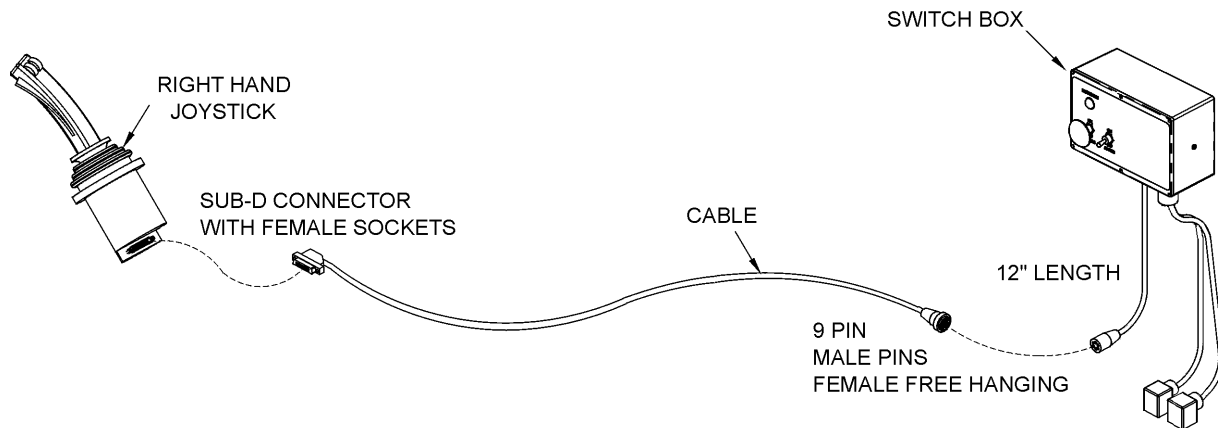
## LIFT VALVE MOUNTING

Before mounting the lift valve, you will need to mount the Lift Valve Mounting Plate to the tractor cab. First, remove the capscrews from the tractor cab as shown below. Next, replace the capscrews and install the Lift Valve Mounting Bracket as shown below. Refer to the Parts Section for details and hardware needed. (ASM-NH-0104)



# ASSEMBLY

## SIDE ROTARY JOYSTICK CONTROL CALIBRATION SUB-D



This Electronic control valve is now equipped with higher-resolution actuators on Inboard (Draft Beam) and Outboard (Mower Lift) functions. These actuators have “active fault monitoring”. The joystick is unchanged and 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 both 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.

**CAUTION** The joystick control is equipped with signal adaption potentiometers.

These provide the capability to individually adjust the oil flow to each function. It is important that the functions do not travel too fast. Excessive speed can reduce the stability of the unit and decrease operator control.

Note: Use a Phillips screw driver and be sure to adjust the screws carefully! DO NOT turn the potentiometers beyond their stopping point, potentiometers are very delicate! Turning the “A” or “B” port potentiometers clockwise increases the oil flow to increase the function speed, and turning them counterclockwise decreases the oil flow to decrease the function speed. See the graphic on the next few pages for help in adjusting.

Run tractor at normal operating RPM to adjust the settings as follows.

### Set the dead band compensation potentiometer first.

Set the dead band compensation potentiometer at 50%, or halfway between full clockwise and full counter-clockwise.



# ASSEMBLY

## SIDE ROTARY JOYSTICK CONTROL CALIBRATION (CONTINUED)

### Setting Signal Adaptation Potentiometers:

Disconnect the Deutsch connectors from the actuators of the valve. Use a Volt/Ohm meter to measure signal voltage and adjust the signal adaptation potentiometers as needed. Pin #4 is tractor supply voltage. Pin #1 is signal voltage from the joystick, and pin #3 is ground. First, measure supply voltage between pins 4 and 3. Then measure signal voltage between pins 1 and 3 while indexing the joystick function fully in both the "A" and "B" port direction. Divide the signal voltage by the supply voltage to get signal voltage as a % of supply voltage. This percentage should not be less than 25% or greater than 75% for both functions.

Reconnect Deutsch connectors on control cables to actuators on Electronic valve. Run tractor until hydraulic system is at operating temperature. Now refine the adjustments of the signal adaptation potentiometers for both "A" and "B" ports for all proportional functions to achieve the following function times. Note: turning potentiometer clockwise increases the flow or the function speed, and turning them counter-clockwise decreases the flow or the function speed. Note, if during this procedure the trim potentiometer is set to full "counterclockwise" but the function is still too fast, use the mechanical stops at the manual actuator end of the valve section to further limit flow. Turn limit screw in or clockwise to limit flow. The upper limit screw limits flow to "B-port", and the lower limit screw limits flow to "A-port".

**INBOARD:** "A" Port, Inboard Up: 4-6 Seconds

*(Note: Lower Draft Beam completely. Now index Inboard control "up" function and determine the time required to raise the Draft Beam completely.)*

"B" Port, Inboard Down: 4-6 Seconds

*(Note: Raise Draft Beam completely. Now index Inboard control "down" function and determine the time required to lower the Draft Beam completely.)*

**OUTBOARD:** "A" Port, Outboard Down: 9-11 Seconds

*(Position mower head full up. Then index the outboard control "down" function and determine the time required for mower head to go down completely.)*

"B" Port, Outboard Up: 9-11 Seconds

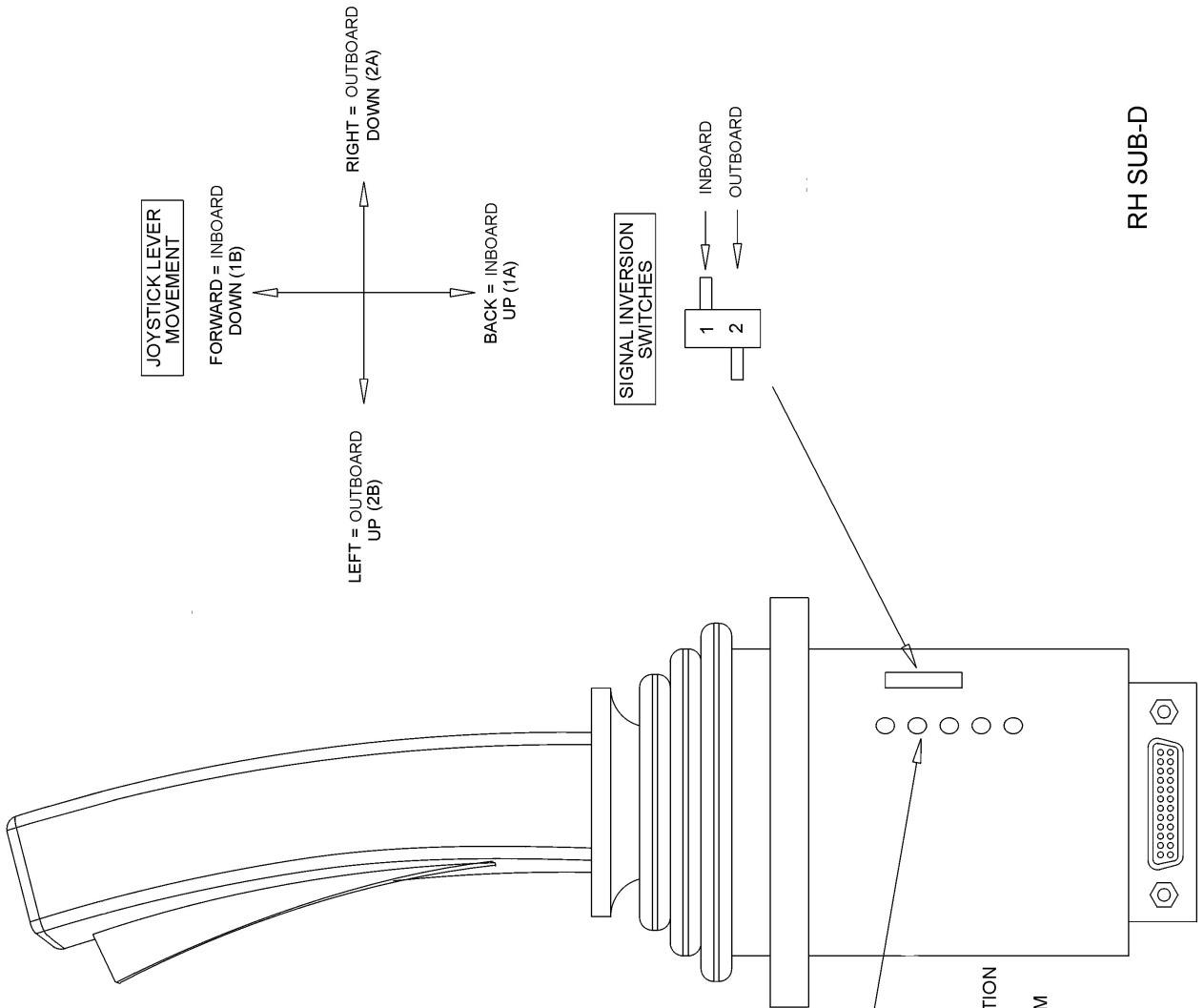
*(Position the mower head full down. Then index the outboard control "up" function and determine the time required for mower head to come up completely.)*

(ASM-C-0109)

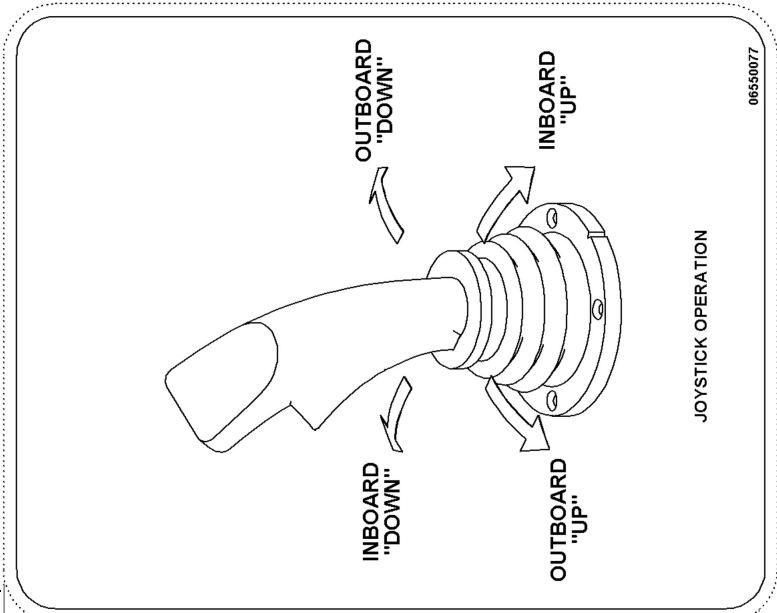


# ASSEMBLY

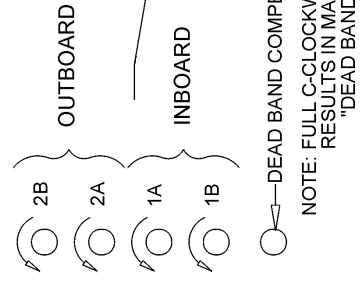
(ASM-C-0109A)



RH SUB-D



SIGNAL ADAPTION POTENTIOMETERS



ARROW DIRECTION ( ) DENOTES DIRECTION TO DECREASE OIL FLOW (SLOW BOOM FUNCTIONS)

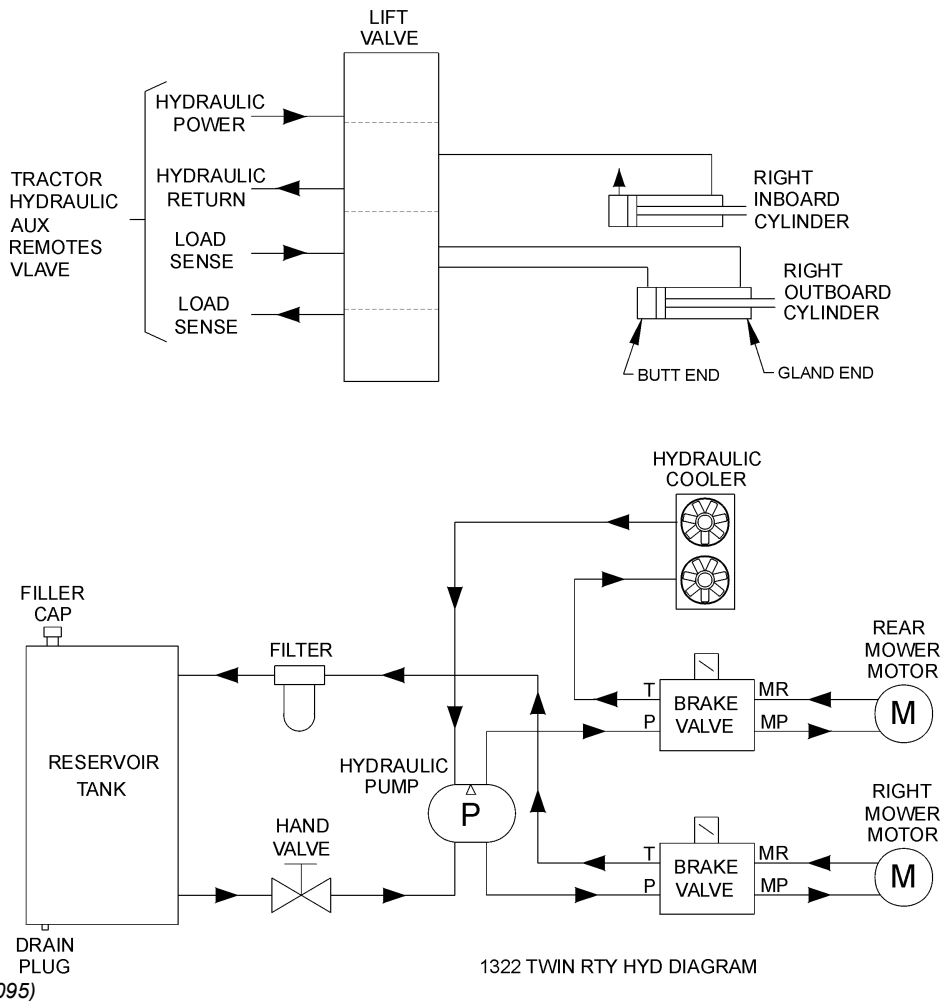


# ASSEMBLY

## AXLE BRACE MOUNTING

Position the right axle brace under the tractor right hand side. Raise the brace up to the matching mounting holes in the mainframe and rear axle housing. Note that both right and left (if applicable) axle braces are installed on outside edge of the mainframe. Install the axle brace with capscrews, washers and nuts as shown in the mainframe parts section. Apply Loc-Tite to the threads and torque to the values noted in the torque chart located in the Maintenance Section of this manual. (ASM-NH-0033)

## TWIN MOWER HYDRAULIC DIAGRAM



# ASSEMBLY

## SIDE HYDRAULIC TANK INSTALLATION

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

Place the tank in the mounting bracket on the mainframe as shown in the Parts Section. Secure the tank with the tank channel mount by placing the channel mount on top of the tank and the washers over the holes. Thread the tie bolts through the washers and holes to the threaded holes on the mainframe. Tighten the tank channel mount by using the hex heads on the end of the tie bolts.

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 the for^mentioned items may be already installed. (ASM-MOTOR HYDRO-0001)

## 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 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 O-ring fittings, or those installed in swivels. (ASM-C-0088)

## GENERAL HOSE INSTALLATION

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

## SOLENOID BRAKE VALVE

Install a solenoid valve on the right riser plate of the mainframe 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-0106)



# ASSEMBLY

## TEMPERATURE GAUGE MOUNTING (OPTIONAL)

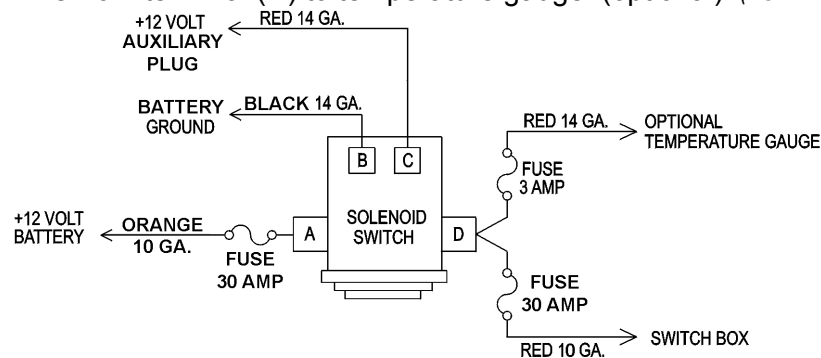
Mount the temperature gauge where it is clearly visible to the operator. Attach the green (-) wire from the negative post on the gauge to a grounded bolt on the tractor frame. Remove paint if needed to make a good ground. Remove the pipe plug from the side of the hydraulic reservoir and install the temperature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

## CONTINUOUS DUTY SOLENOID SWITCH

Mount the solenoid switch, drill holes to match if necessary, in a dry and well protected area. Secure as shown in the Úarts Úection with provided 3/8" x 1" capscrews, lockwashers, and hex nuts.

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

- A.) ORANGE 10 GA. wire from terminal (A) to +12V battery fusible link.
- B.) RED 14 GA. wire from terminal (B) to tractor plug in cab.
- C.) BLACK 14 GA. wire from terminal (C) to -12V battery post.
- D.) RED 10 GA. wire from terminal (D) to switch box.
- E.) RED 14 GA. wire from terminal (D) to temperature gauge. (optional). (ASM-NH-0032)



# ASSEMBLY

## COOLER MOUNTING - SIDE TANK

Mount the cooler mounting brackets on the top rear side of the side hydraulic tank. Locate the bolt plates on the top of the tank and secure the appropriate cooler bracket to the tank with the hardware provided. Attach the screen and cooler to the brackets. Refer to the Parts Section to attach the hoses and adapters to the cooler. (ASM-C-0092)



# ASSEMBLY

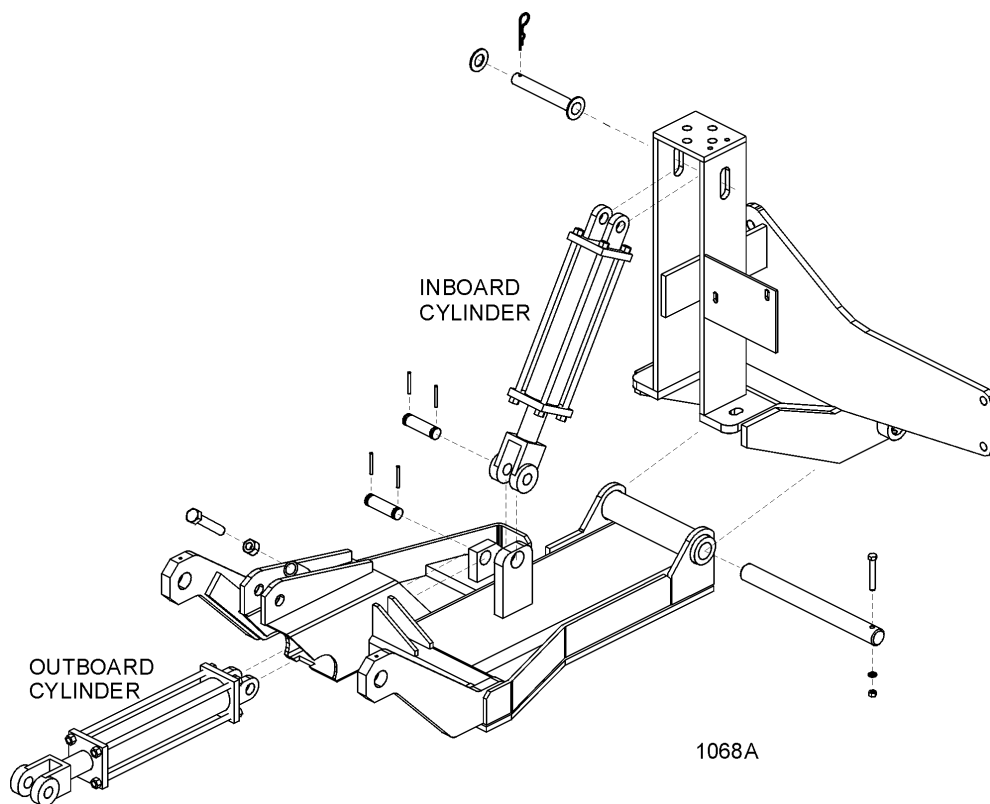
## COMBO LIFT DRAFT BEAM INSTALLATION

Install ½" O-ring breather into butt port of inboard cylinder. Install fittings in the rod end of the cylinder according to the diagram in the commons section. These fittings should be positioned to face the butt end of the cylinder.

Next turn the clevis onto the rod of the cylinder until it is tight against the shoulder and lock into place with locking bolt on clevis.

The inboard cylinder can now be installed into the mainframe mast with the pin, flat-washers and R-clips as shown below. Use teflon tape on all fitting and hose connections.

Install all fittings in the outboard cylinder and adjust to point towards the butt end of the cylinder. Attach the hoses as specified in the parts book. Slide the cylinder into the draft beam from the outside of the draft beam and attach cylinder to the draft beam with clevis pin and rollpins.



## DRAFT BEAM MOUNTING

Pull the inboard cylinder piston rod down to the extreme extended position. Slide the draft beam under the cylinder, and align clevis hole with draft beam hole nearest to the tractor. Install pin and secure with rollpins.

Using inboard cylinder as a pivot point, slide draft beam under tractor and install draft beam pin. Align hole in draft beam pin with holes in mainframe boss and install capscrew, lock-washer and hex nut. (ASM-SIDE MNTS-0001)



# ASSEMBLY

## LIMIT SWITCH MOUNTING

### ASSEMBLING LIMIT SWITCH

Mount bracket 1-5/8" down from top edge on the inside of the rear arm of the draft beam, (Fig. A) square with inside corner as shown with the square corners against arm. Weld plate no more than 5/8" x 1/4" on top as shown.

Assemble limit switch with wheel on body side of arm and with the rear of arm mount aligned with fourth notch on arm as shown in Fig. C. Fasten limit switch cam to bonnet with the 7/16" x 3-1/2" pin bolt and flatwasher as shown in Fig. D.

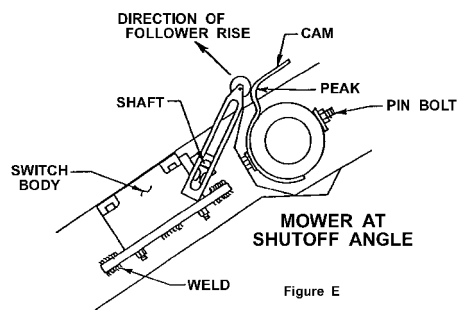
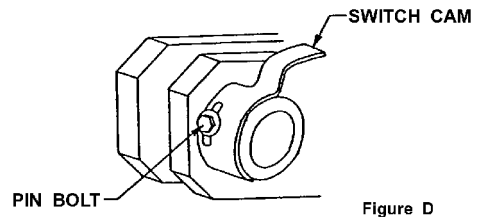
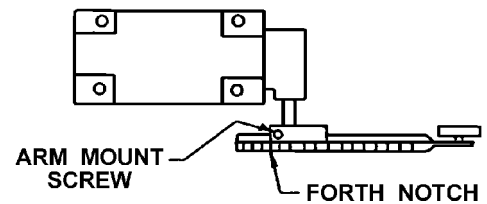
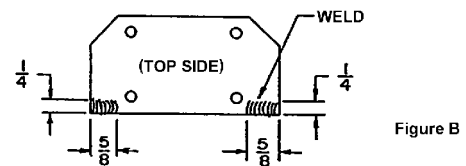
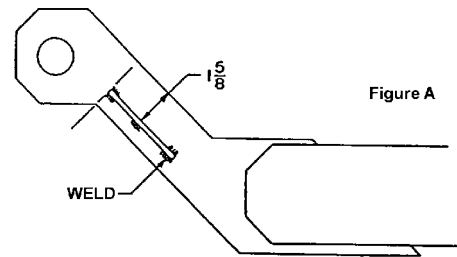
### ADJUSTING LIMIT SWITCH

To adjust switch do as follows:

1. With cam in place and pin bolt installed, raise mower to desired shutoff angle.
2. With pin bolt loosened turn cam until roller follower just reaches peak (see Figure E) and tighten pin bolt.
3. With switch arm mount screw (see Figure C) loose turn shaft (see Fig. E) with screwdriver in direction of follower rise while holding follower against cam peak until switch clicks off and hold while tightening arm mount screw.

### WIRING LIMIT SWITCH

Remove top cover on switch to expose terminals. Connect red wire to either of the back terminals, and the black wire to the other back terminal. Cut the white wire to solenoid valve at a place closest to the tilt-angle switch. Connect the red wire to one of the cut ends and the black wire to the other end. This connects the switch in series with the solenoid valve. (ASM-C-0028)



# ASSEMBLY

## LIMIT SWITCH

(ASM-C-0029)



## TRAVEL LOCK MOUNTING

Install the travel lock bracket on the main frame. Slide the draft beam and align the travel lock mounting hole on the draft beam with the travel lock bracket hole on the mainframe. Install the capscrew, lockwasher and hex nut.

Raise the deck/flail to it's upright position (Deck ear touches to stop bolt). Drill a 13/16" hole in the deck/flail ear through the draft beam tangs. Insert the supplied pin and clip through the hole. (ASM-NH-0138)

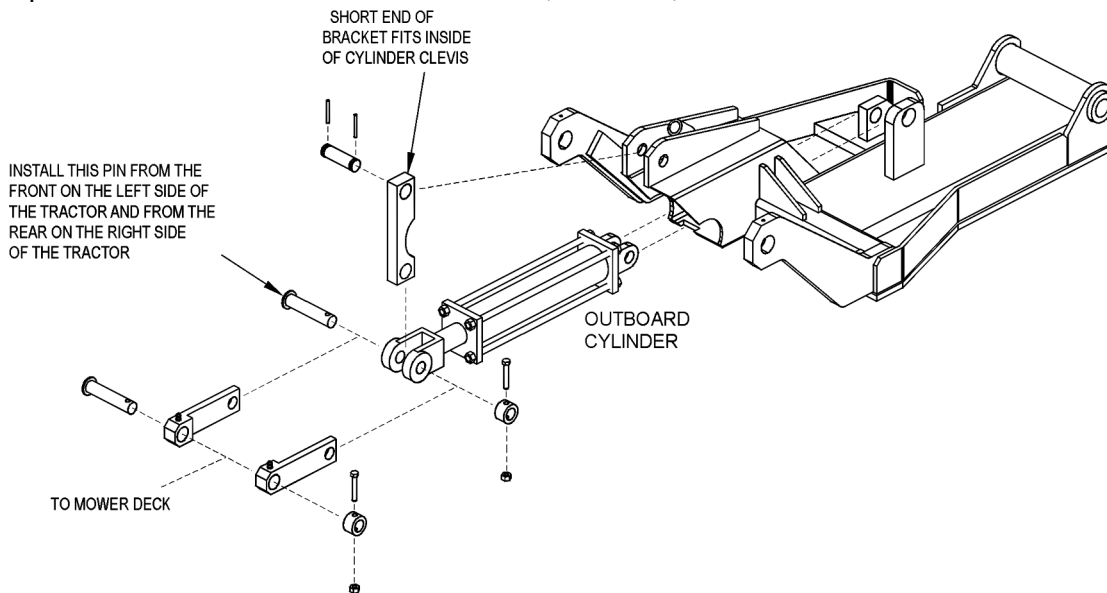


# ASSEMBLY

## MOWER MOUNTING

Check that all grease zerks have been installed in the draft beams pivot arm, left linkage arm, right linkage arm, and cylinder mounting ears.

Using a clevis pin and roll pins, connect the pivot arm to clevis on draft beam. NOTE: Make sure the longer distance between the cutout and the end of the pivot arm is closest to the draft beam pivot ears on the center tube as shown in the diagram below. Also make sure the cutout on the pivot arm faces into tube of draft beam. (ASM-C-0077)



Slide other end of pivot arm with short distance between the cut-out and the end of the pivot arm, into the cylinder clevis. Next, line up the holes of the left and right lift linkage arms outside of the cylinder clevis holes. Connect with linkage pin, shims (as required), boss, capscrew, lockwasher and hex nut as shown.

To connect the bonnet to the draft beam, slide the extension arms of the draft beam between the mounting ears on the inner end of the bonnet. Line up the holes and secure with swivel pin, capscrew, lockwasher, and hex nut (both sides). See Úarts Ú^ & } illustration.

Next, slide the left and right linkage arms up to the slotted ear on the side of the deck. Secure with linkage pin, shims, boss, capscrew, lockwasher and hex nut. See illustration in Parts Section.

## LIFT CONTROL FEEDLINES

Hose lengths will vary between tractor applications such as cab and non-cab units. See the Parts Section that pertains to your tractor for hose applications.

Install a hose from the bottom or inner valve port (behind cab for cab units, on stand for non-cab units) to the restrictor on the inboard cylinder gland.

Install a hose from the upper or outer valve port to the restrictor on the outboard cylinder butt. See Parts Section for part numbers and hose routing illustrations. (ASM-C-0093)





# ASSEMBLY

## TWIN ROTARY MOWER INSTRUCTIONS

### HOW TO REMOVE REAR MOWER

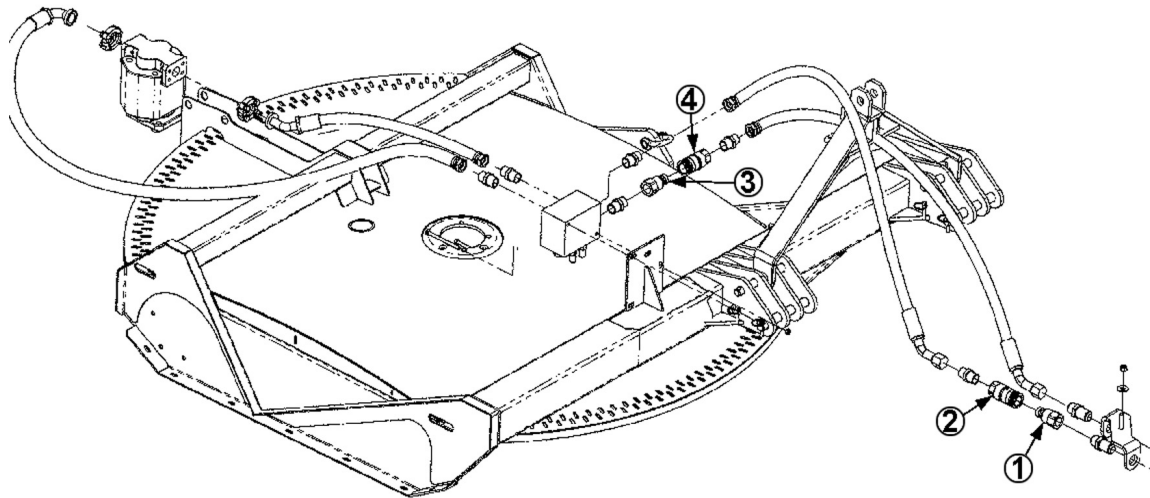
1. Rest rear mower so ground supports it front and rear.
2. Turn tractor off. There should be no hydraulic pressure in hoses at locations 1,2,3 and 4.
3. Disconnect 2 from 1.
4. Disconnect 3 from 4.
5. Connect 4 into 1.
6. Connect 2 into 3.

**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.

**CAUTION:** NEVER DISCONNECT ONLY 2 FROM 1 WITHOUT CONNECTING 4 INTO 1.

**CATCH AND CONTAIN ANY HYDRAULIC OIL WHEN DISCONNECTING FITTINGS.**

(ASM-C-0033)



### 3-POINT DECK TILT CYLINDER

Remove the support cylinder from the left rear 3-point arm and replace with the cylinder, clevis ends, and pin furnished in the kit. See Parts Section for parts and assembly.



# ASSEMBLY

## DECK / MOTOR FEEDLINE

Install the 1" hoses from the motor to the solenoid valve. Refer to the Úarts Úection for detailed information about hoses and fittings for this application.

Install split hoses around hydraulic hoses where they contact sharp edges, or any other edges that may rub hoses.

Be sure that all grease zerks are installed in the draft beam pin bosses. Grease all areas of the draft beam according to the instructions in the T aintenance Úection. Re-check all fittings for tightness.

Fill hydraulic tank with fluid as recommended in the Maintenance Section. **BE SURE TO OPEN THE BALL VALVES.** Start the tractor and operate the inboard cylinder through the entire stroke and the outboard cylinder through the bottom  $\frac{3}{4}$  stroke repeatedly to clear the lines of air. **DO NOT run outboard cylinder out to full stroke until stop bolt has been adjusted!**

Check for oil leaks at all fittings and connections using a piece of paper or cardboard. If a leak is found, you must shut down the tractor and set the cutter head 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. **DO NOT USE HANDS TO CHECK FOR FLUID LEAKS!**

Raise the three point hitch and check the tractor internal hydraulics, fill to proper level if needed. (ASM-C-0079)

## STOP BOLT ADJUSTMENT

Extend the outboard cylinder all the way out. Adjust the stop adjustment bolt (located on the top of the draft beam) out until it is up against the bonnet. Lock the bolt down with the  $\frac{3}{4}$ " hex nut.

NOTE: When the outboard cylinder is fully extended, the bonnet or deck should either be up against the stop, or if travel locks are installed, it should be up against the travel lock. It may be necessary to use either external or internal slugs on the cylinder to get the correct stroke. If the cutter head is against the stop and the cylinder has stroke remaining, serious damage will occur.

Proceed to final preparation for operation instructions on the next page. (ASM-SIDE MNTS-0003)



# ASSEMBLY

## 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)*



# ASSEMBLY



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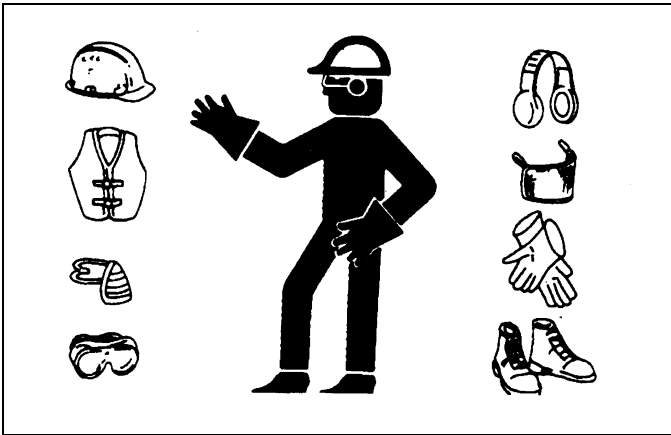
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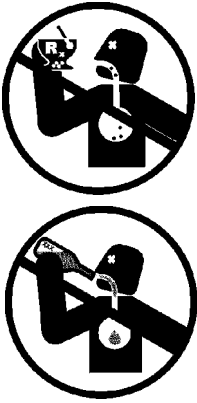
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⚠ **DANGER** OPS-R-001



⚠ **DANGER** OPS-R-001



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⚠ **DANGER** OPS-R-001

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OPS-R-010



⚠ **WARNING** OPS-R-001



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Op-13

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Op-14

**NOTE:** The mower Operator's Manual and affixed Decals contain important instructions on the safe and proper use of the mower. Maintain these important safety features on the mower in good condition to ensure the information is available to the operator at all times.

## ØUØF ØÆUØT ØSY

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Ops-1250



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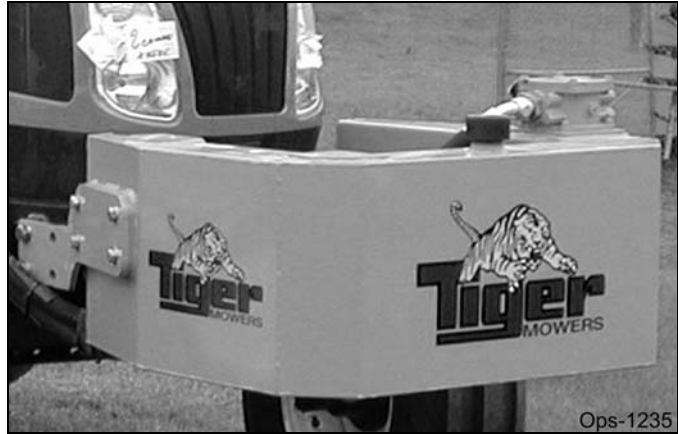


# CD9F5HCB

CD9F5HCB

## YOU OWN THE MOWER

- " Read the manual before you use the mower.
- " Do not drink alcohol or use drugs before operating the mower.
- " Do not operate the mower if you are tired or drowsy.
- " Do not operate the mower if you are under the influence of alcohol or drugs.
- " Do not operate the mower if you are taking medication that may affect your ability to operate the mower.
- " Do not operate the mower if you are feeling dizzy or lightheaded.
- " Do not operate the mower if you are feeling ill or have a headache.



Ops-1235

Read the manual before you use the mower. Do not drink alcohol or use drugs before operating the mower. Do not operate the mower if you are tired or drowsy. Do not operate the mower if you are under the influence of alcohol or drugs. Do not operate the mower if you are taking medication that may affect your ability to operate the mower. Do not operate the mower if you are feeling dizzy or lightheaded. Do not operate the mower if you are feeling ill or have a headache.

OPS-R-215

### WARNING

Read the manual before you use the mower. Do not drink alcohol or use drugs before operating the mower.

Do not operate the mower if you are tired or drowsy. Do not operate the mower if you are under the influence of alcohol or drugs. Do not operate the mower if you are taking medication that may affect your ability to operate the mower. Do not operate the mower if you are feeling dizzy or lightheaded. Do not operate the mower if you are feeling ill or have a headache.

### WARNING

Read the manual before you use the mower. Do not drink alcohol or use drugs before operating the mower. Do not operate the mower if you are tired or drowsy. Do not operate the mower if you are under the influence of alcohol or drugs. Do not operate the mower if you are taking medication that may affect your ability to operate the mower. Do not operate the mower if you are feeling dizzy or lightheaded. Do not operate the mower if you are feeling ill or have a headache.

# CD9F5HCB

CD9F5HCB

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**WARNING**

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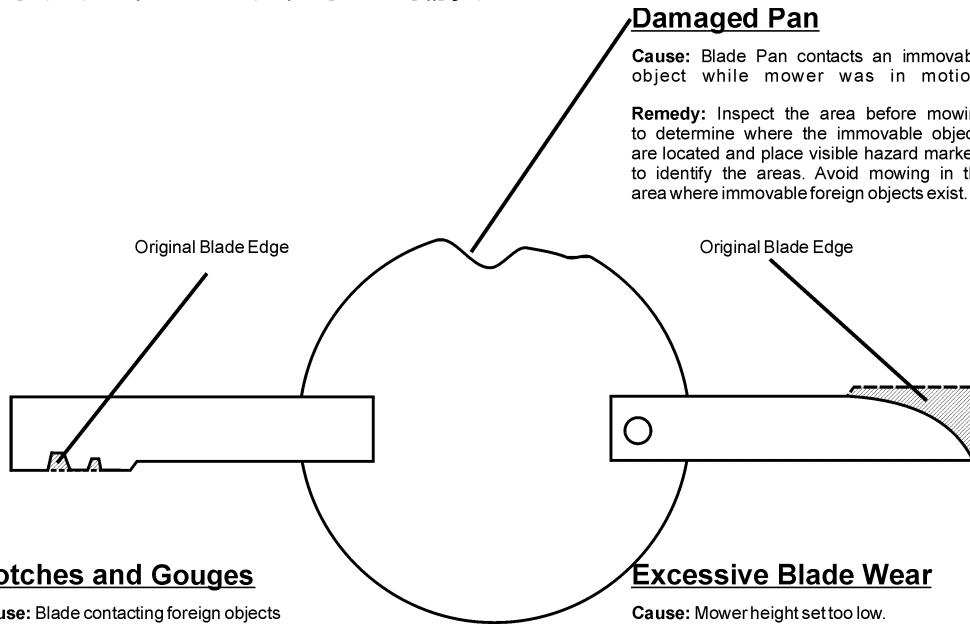
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# CD9F5HCB

CD9F5HCB

## Blade Damage

OPS-U-0031



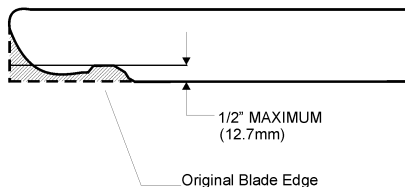
Op-22



WARNING: Sharp blades can cut you. Always use caution when handling blades. Do not touch the blade edges. Always wear safety glasses when working on the blades.

- Always use caution when handling blades.
- Do not touch the blade edges.
- Always wear safety glasses when working on the blades.
- Always use caution when handling blades.
- Do not touch the blade edges.
- Always wear safety glasses when working on the blades.

Always use caution when handling blades. Do not touch the blade edges. Always wear safety glasses when working on the blades. OPS-U-0032



**NOTE:**  
 Replace Blades in pairs after no more than 1/2" (12.7mm) wear  
 Op-23

AMERICAN LAWN MOWER COMPANY

U.S. PATENT & TRADEMARK OFFICE

# CD9F5HCB

CD9F5HCB

## Excessive Blade Bolt Wear

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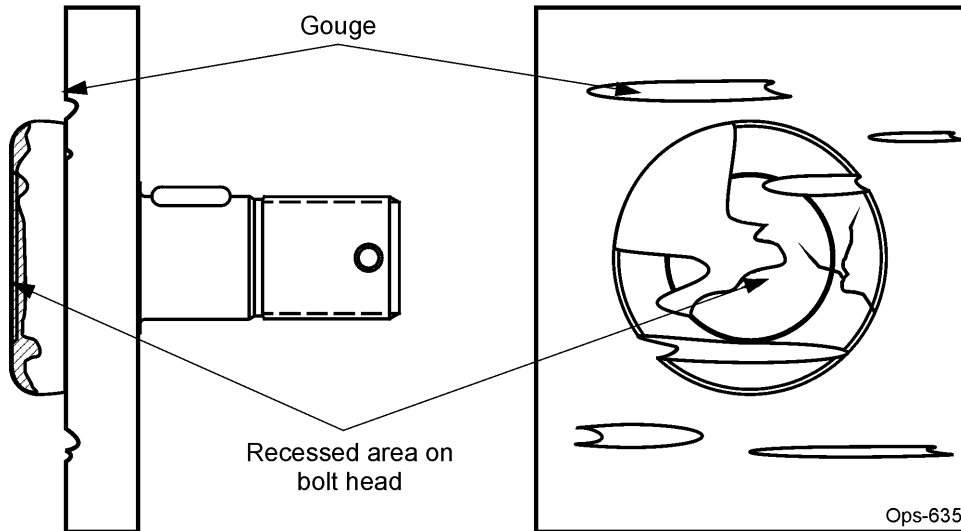
**Cause:** Blade Bolt contacts a foreign or solid object while Blade is in motion.

**Remedy:** Inspect the area before mowing to determine where the foreign objects are located and place visible hazard markers to identify the areas where immovable foreign objects exist, and avoid hitting the objects.

## Notches and Gouges

**Cause:** Blade Bolt contacting foreign objects.

**Remedy:** Inspect area to be mowed and remove foreign objects that could cause damage to the blade bolt.



**⚠ DANGER**

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# CD9F5HCB

## Tractor PRE-OPERATION Inspection



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

Date: \_\_\_\_\_ Shift \_\_\_\_\_



**WARNING** Read the operator's manual for the tractor and mower before operating. The operator must be trained and qualified to operate the tractor and mower. The operator must wear the seat belt and use proper operating techniques. The operator must not drink alcohol or use drugs before operating the tractor and mower. The operator must not operate the tractor and mower if they are tired or impaired. The operator must not operate the tractor and mower on a slope that is too steep. The operator must not operate the tractor and mower near children or bystanders. The operator must not operate the tractor and mower near power lines. The operator must not operate the tractor and mower near water. The operator must not operate the tractor and mower near traffic. The operator must not operate the tractor and mower near other equipment. The operator must not operate the tractor and mower near trees or other obstacles. The operator must not operate the tractor and mower near power lines. The operator must not operate the tractor and mower near water. The operator must not operate the tractor and mower near traffic. The operator must not operate the tractor and mower near other equipment. The operator must not operate the tractor and mower near trees or other obstacles.

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**

If you are not trained and qualified to operate the tractor and mower, do not operate the tractor and mower.

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**CD9F5HCB**

# CD9F5HCB

## Rotary Mower PRE-OPERATION Inspection



Mower ID# \_\_\_\_\_ Make \_\_\_\_\_  
 Date: \_\_\_\_\_ Shift \_\_\_\_\_



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Table 1:

Item	Condition at Start of Shift	Specific Comments if not O.K.
The Operator's Manual is in the canister on the mower		
All safety decals are in place and legible		
The hitch connection bolts & pins are tight		
There are no cracks in hitch		
The hydraulic cylinders pins are tight		
There are no leaking or damaged hoses		
The mower deck is clear of cut grass and debris		
Chain guards/deflectors are in place & in good condition		
Blade carrier retaining nut is tight		
Blades are not chipped, cracked or bent		
Blade bolts are tight		
Wheel lug nuts are tight		
Transport locks are in good condition		

Operator's Signature: \_\_\_\_\_

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

CD9F5HCB

# CD9F5HCB

## DRIVING THE TRACTOR AND IMPLEMENT

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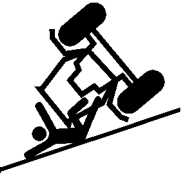


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CD9F5HCB

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W a \* A @ A a d i A H [ a A @ A ] d [ l A ^ c ^ i E a a ^  
 c @ A [ , ^ i A ~ A @ A i [ ~ } a A a [ ~ o A H A A o A @ A  
 ^ } [ ~ \* @ A A ^ a a } ^ A i [ ~ } a A a o a a ^ E  
 OPS-R-0042\_A



## + " '8 f i j l b l 'h YHfUWcf'UbX' a d`Ya Ybh

U c o f ~ A i a a \* A a A [ , A ] ^ a A a A i a a a a ^ a a ^ A [ ~ i A ] ^ a A @ A a a a a \* A [ ] | c ^ A [ ] d [ l A ~ A @  
 d a d i A a } a A [ c a \* A [ , | A a A o A a l a a [ A i ^ c ^ ] o A @ A a d i A [ { A a a \* A ] A a a [ • • A ~ A c ^ i a \* A [ ] d [ l E  
 V @ A i a d i A @ ~ l a A ^ c ^ i A a A [ ] ^ i a a A a A ] ^ a • A o a a a [ ] o A ^ A a a ^ A a a l a A i A @ A a l A i ^ c ^ ] o c @  
 [ ] ^ i a a i A [ { A d [ ] a \* A ~ a l A i a \* A a { ^ i ^ } & E A @ A [ , ^ i A c ^ i a \* A i A } a ^ A a a ^ A ] ^ i a a \* E d [ ]  
 c @ A i a d i A [ { ^ a a a ^ A a A o A i a d i A a l A ^ A a a a l o A A [ ] d [ l E

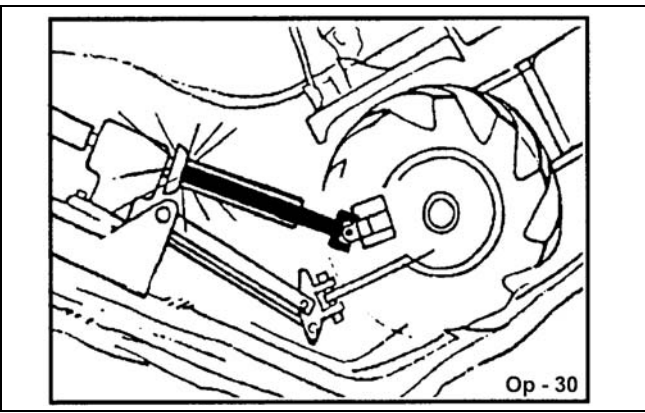
U i - [ { A c } ] • A a o A @ A i a d i A a a } a A a [ , A ] ^ a • A i A a c ^ i { a ^ A @ , A o A i a d i A a o A a A a a a @ a A [ , ^ i  
 @ a l ^ A a c } E A c ^ i { a ^ A @ A a a A ] ^ a A i A a a a A [ ] ^ i A [ ] d [ l A ~ A @ A i a d i A @ } A a a \* A c } • E A a [ ,  
 a a a a } a A ^ a a a & A i A @ A } a A @ } A c } a \* E

V A a [ a A c ^ i c } ] • E a i a ^ A o A i a d i A a o A a a a a a a a a a ^ a • E a • ^ a a a A @ } A [ ] ^ i a a \* A c ^ i A [ ~ \* @  
 \* i [ ~ } a E [ • • a \* A a a @ A i A [ ] ^ E a a a c } } a \* A [ ] ^ i • E A i a d i A @ ^ i A a a A ] a a \* A @ ~ l a A ^ A a a & ^ a a  
 , @ } A [ i a \* A ] A a a ^ A i A [ ~ \* @ A i [ ~ } a A A a a & A o A [ • • a a a A a ] a \* E

W ^ A c d ^ { ^ a a c } A @ } A [ ] ^ i a a \* A } A c ^ i A [ ] ^ E A ^ A o A i a d i A a a A [ , A a a A @ } A [ a \* A [ , } @ E A O U  
 P U V A a a o A i A a a E @ ^ i A [ , } @ E A OPS-U-0014\_A

## + " '7 f c g l b l '8 l H W Y g ' U b X ' G h Y d ' b W l b Y g

Y @ } A [ • • a \* A a a @ • A a o A c ^ i A a a \ A i A [ a \* A ]  
 • @ a } A a a ^ E A A [ • • a i A c o A @ A i a d i A H [ a c  
 a a { • A a a a [ c { A ~ E A V @ A } ^ A a a • a ^ A ] ^ i a a }  
 a a A a a ^ A i a ~ A a a a ^ A o A i a d i A a a A [ , ^ i E  
 OPS-R-0020\_A



VY @ A U V O E Y U ] ^ i a a } A ^ a a } A E F

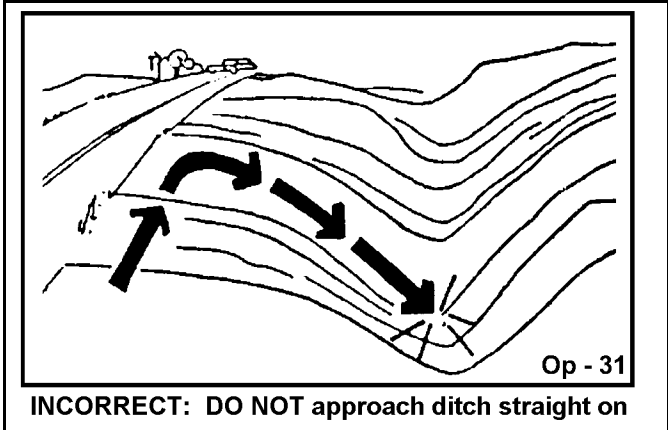
# CD9F5HCB

CD9F5HCB

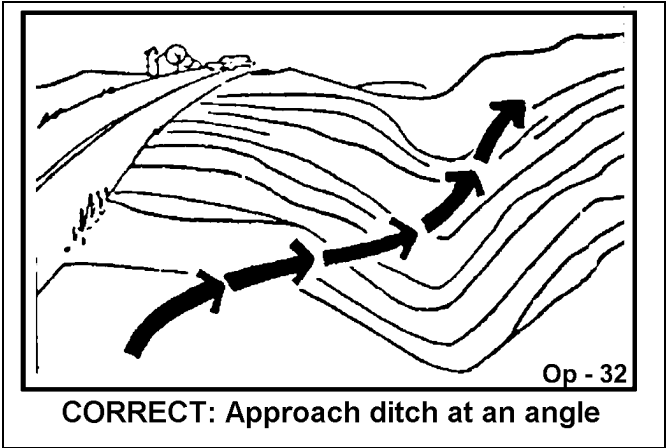
## +06

Y @ } A [ ] - [ ] c a A a c A e A e & j a ^ A | A a e c A [ A ] c  
 e j | | e c A [ { A e A e \* ^ A e c A A ^ | ^ } a e | e A |  
 • d e e c A } A e A e e ^ A e A e & i E

Y @ } A [ ] •• e \* A ~ & c A | | e e E c A e ] | ^ ^ } o A c ~ | a  
 a ^ A ~ | | A [ , ^ | a A | A e A [ , ^ | A e } c | A A | e c A e } a  
 e e a ^ a A e e e c A OPS-R-0021\_A



Q & j a ^ • A e } a A a e c • A c ~ | a A e A e ] | | e c a A e [ ] \* A e  
 | a ^ A e c A A e A e A e } ^ A e A c , } E A c A c | ^ A ~  
 ] e c A j | A a ~ & A c A [ •• e e c A A A e e e ^ E c A c  
 \* | e e a } c A A [ A c ^ ] A c e c ~ & c A e A e ] | | e c  
 e j & ^ e ^ A c A [ •• e e c A A A e e e c | A | | E c A e A ^ & c  
 e j A e c | } e e A [ •• e \* A e c A



Y @ } A [ ] ^ | e e \* A c A | e e c | A e } a A [ , ^ | A e [ ••  
 • | | ^ • A e } a A e & j a ^ • E c A [ ~ \* c A a e c • E e } a A c |  
 ~ } ^ c ^ } A e | | e e A [ ] a e e } • E e A e ] | | e e c A A e e e e  
 • ~ e e } c A e A A A | | ~ } a A e e e e & E c A e e A A } e e c  
 , e c A c A | | ~ } a A e e e e ^ A [ e e A [ & A e } a A c |  
 a ^ a | e A | A e A c | , } A ~ c A [ { A } a ^ A c A [ , ^ |  
 | ^ ~ | e \* A A [ •• e | ^ A e b | ^ A e } a p | A | | ] ^ | c A e e e ^ E  
 O | | ~ } a A [ ] e e c A [ A | | a ~ & A e e ^ c ^ | A c & A | e e  
 [ ] A c A [ , ^ | A | e ^ A e } a A | A c A [ , ^ | A | e e ^  
 | ^ ~ | e \* A A [ •• e | ^ A e e e ^ A e } a A | ^ { e e | ^ A ^ e E  
 OPS-R-0022\_A

# CD9F5HCB

## "CD9F5HB; 'H<9'HF57HCF'5B8'AD@A9BH

H<9'CD9F5HCF'AI GH'7CAD@H9 @MI B89FGH5B8'<CK'HC'CD9F5H9'H<9'HF57HCF'5B8  
 AD@A9BH'5B8'5 @7CBHFC@G'69: CF9'5HH9ADHB; 'HC'CD9F5H9"Á@Á] ^iæ |Á ~•OÁæáá } á  
 ~} á!•æ } áÁ@Áæc Á } áÁ] ^iæ } Á^&ç } •Á Á@Á ] |{ ^ } ó } áÁæç |Á] ^iæ | q Á } } æ ÁV@• ^  
 { } } æ Á ~•OÁÁæáá } áÁç |æ } áÁ Á } ^ Á] ^iæ |Á @ Á } [ OÁæáá ^ç Á } |, Á [ { ^ [ ] ^ Á } ^iæ Á@  
 á ] |{ ^ } ó } áÁæç |Á æç } OÁ [ ] |{ ^ Á] ^iæ } \* Á • d } &ç } •É

O~ | ^ Á } æç } \* Á } ^ Á] ^iæ } É@ Á] ^iæ |Á ~•OÁ &ç { ^ Á } æç } áÁ æç } áÁ@ Áæáá Á Á] [ | ^ á } Á } áÁ } ^  
 [ á •æ } ^ Á } áÁæç } áÁ } } æ } áÁ æç } Á } • ^ Áæc Á } Á@ Á] ^iæ | É~•æ } á!•æ } É } áÁ ~ } á { ^ } ÉÁ] ^ &ç }  
 æç } ç } Á @ ~ | áÁ Áæáá Á } | á } Á } á!á É [ ~ \* @ } | æ } É } ^ Á] Á [ ] ^ • É } áÁ æç } • ^ • á } áÁ } á } } æ } Á } Á@ ÁæááÉ  
 OPS-U- 0015



O | Á [ ç [ , Á æç [ Á æç } ^ Á @ Á æ } ^ Áæç } &ç } ç } áÁæç } • Á æç } Á } á! , •  
 &ç | • á É



T [ , Á ] | Á } } áá } • Á @ | ^ Á [ ~ Áæç } Áæç } áÁ æç } Á } Áæç } áÁ } } æ } Áæç }  
 | á } } É } ç Á [ , Á } } • Á } \* \* } } áá } • Á @ | ^ Á [ ~ Á } } [ ç } | Á ^ Áæç } c  
 HÉÁ ^ ç Á } Á } } ó } áÁ } Á@ Áæç } Á } Á@ Áæç } | Á } áÁ [ , ^ É } áÁ } ^ Áæç } Á } }  
 &ç } | Á ^ Á } áÁ } ç } Á } æç } • ^ • á } É } Á ] Á [ ] ^ • É } • É } | É } ç } | @ æç } á • d } &ç } • É  
 ] [ , ^ Á } ^ É } á!á } áÁ } | á } &ç } É } Á } } æ } Á } Áæç } ^ Á } Á@ • ^ Á } ^ Á } }  
 áá } } ç } ^ Á [ , } \* É



ç [ áÁ [ , } \* Á } Á } ^ Áæç } } Á @ } Á [ • • } É } &ç } Á } áÁ } ^ Á@ | ^ Á } Á [ ]  
 ] • [ ] • Á } áÁ [ , ^ Á } áÁ } ^ Á } ^ Á } } Á } @ } Á [ , } \* Á } Á } ^ Á } [ , Á ] | Á }  
 • [ , Á ] | ~ } áÁ } ^ Á } @ | ^ Á [ ~ Á } Áæç } Á ] ^iæ } áÁ } } d [ | Á@ Áæç } | Á } áÁ [ , ^ É  
 ç } Á } Á } ^ Á } [ ~ Á } Á } [ ç } ] ^ ç } áÁ } } áÁ } [ ç } áÁ } á!á } | Á } | á } Á } æ } áÁ }  
 ç } É D

CD9F5HCB

## ⊙: cfYI| b'8 YvfIq< UnUFXg

Ó-[-I^Á [ , q \* Êg • ] ^&@ ÁáááÁ Á áá~I^  
 @-I^ÁáÁ [ ÁI^á } Á áá & @ Á @ Á [ , ÁI^Ááá  
 & I^ÁÁÁ [ ÁÁ } ^Á } ç \* I^Á ááá [ ç^Áá  
 [-I^á } Á áá & Á ááááá ÉQÁ áá & ÁÁÁ [ Áá Á  
 I^ [ ç^Áá áá Á@ ÁI^áá Á ááÁ~I^Á ÁI^Áá )  
 @ Á [ , ÁI^Ááá~ÁI { Á } ááá \* Á@ É

GÁ [ ~ Á@Áá [ IáÁ áá & Á I^Á I^á } Áááá ÉQ Á@  
 { [ , ÁI^Áá ááááÁ I^Áá } & ÉV ááÁ I^ÁÁ [ , ÁI^  
 I [ ááá \* Á [ ç ] Á Áá ] É@ ÁááÁ@ Á [ , ÁI^Áá á  
 { [ ç^Á@ Áááá I^Áá áá ] I^ ^ } I^ Á@ Á áá & É  
 Q. ] ^&@ Áááááá áÁ [ ç^ÁÁ I^Á áá Á@ ÁI^Áá }  
 [ Á@ Ááááá ÉQ. ] ^&@ ÁI^ } ááá } Á-Á@ Á [ , ÁI^  
 áá áá áá Áá~ÁááÁá } áá Á { Ááááá ÉÁ áá  
 ~ I^Á@ ÁI^Áá~ ÁáÁ [ Ááá áááá áá@ Áááá~Á  
 ááá & Ááá~I^Áá~ { q \* Á [ , ÁI^Áá } É



Op - 33

FYa cj Y': cfYI| b'A UHF]U

QÉ áá. Á ááÁ ~ I^ÁáááÁÁÁ ~ I^ Ááá ) ^ááá á  
 [ ] I^Á I^ÁáÁ@ Áááá I^Áá áÁ [ , ÁI^Á áá@ ÁUÁU  
 á Á@ Ááááá [ ~ Áá } ÉQÁ@ Áááá I^Á [ , ÁI^Áá Áá  
 d^Áá { } ÉÁ [ & ÉÁ I^Á } ÉÁá~ ááÁ } Á [ ç^Á ^ ) c  
 & I^Á@ Á [ ~ Á Á-Á Á@ Áááááá áÁ } ááÁ@  
 dááá I^Áá áá I^Á [ , ÁI^Á @ ÁááááÁÁ Á I^ÁáÁ c  
 I [ ç^Áá ] ÁI { Áááá \* Á-Á@ Ááááá I^Áá áá@ ÁUÁU  
 I [ ç^Áá ] ÁI { Áááá \* Á~ @ ááá I^Áá Áá  
 dááá I^Á I^Á É OPS-R-0023\_A



Op-151

F UJgY Ack Yf'cj Yf'gc`]X'cV^YWg

## "&6 nqlUbXYfg#DUggYfgVmiDfYwU| hcbg

Gáá~· çá ááÁ [ ~ Áá áááÁÁÁ Á@ Áááá I^Á @ Á@ Á [ , ÁI^Á Ááá \* Á } ÁI^Á áááá ] Á@ Áááá I^Á á  
 { [ , ÁI^Á } & ÉQ Á [ Á áá@ Á [ , ÁI^Á ááá Á ] ç^ÁÁ~· çá áá. ÁáÁ ^ I^Á áá@ Áááá [ Ááá çá & É OPS-  
 R-0024\_A



Qç^ ^Ááá@ ~ I^Áááá } Á @ } Á } ÁI^Áá \* ÁááÁ [ ~ Áá áá & Á ~ &  
 á Á I^Áá [ & ÉQ ááá áá @ I^Áááá ÉQ. ] ^&@ Ááááá~I^  
 { [ , q \* Êg I^á } Á áá & Á @ I^ÁáÁÁ [ ç^ÁÁ { Á@ ÁáÁÁ I^Áá ) c  
 { ááá Ááá ááá áá I^Á [ áá Áá I^ÁÁ ] Áááá ÉQÉ ~ Á áá & Á@  
 & } [ ÁáÁ [ ç^ÁÁ ~ ÁáÁÁáá Á ááááá ] Ááááá I^Áá Áááá Á@  
 [ ] ÁI^Áá I^ÁÁ I^Á [ , q \* Á { Ááááá I^Áááá~Á ááÁÁÁ I^á } Á áá & É  
 U] ááááá áá áá ÁÁ I^Áá Á I^Á I^Ááá Áááá~Áááá & á  
 áá~I^Áá~ { q \* Á [ , q \* Êg } É



VY @ ÁUUVÖÿ U] ÁI^Áá } Á~Áá } ÁÉ

CD9 F5 H-CB











# CD9F5HCB

CD9F5HCB

áÈÒ`|á à!Áæ^•Á||, |ÁÈ@••Á|{ &|á à!Áæ &|!^&d^Á&| }^&•áÁ Áçç^Áæ} \È [ |Á | |óÁ |á•Á } Áçç^ áæ \Á^óÁ [ Á |, ÁÁ^ |æ^Áæ Á^~ áááÈ

^ÈÒç!Áæ•Á Á^áÁç^ &|•ç Á-Á çÁ [ ÁÈ @ÁÁ æÁ } çÁ çÁ@æ Á } Á- { |Á&@ &| á \*Áç!Á æ \*^ÈÒá æ \*^ |æ•Á Á^áÁç^ } Áæ!Á } áÁ Á@Á@ } Áç!Á ~•óÁÁ^ |æ^ÁÈ



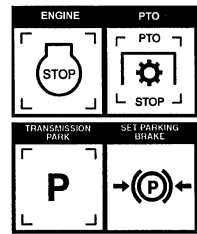
Þ^ç!Á |Áæ^Áç@Á|æ&| Á |Á@ ] |^ { ^ } ó^ } çÁ [ ~ Á@æ^Á^ æÁæ } á &| { } |^ç!Á } á!•ç } áÁ@Á ç } æÈ@Á|æ&| Á |Áæ |ç ÁÁ ç } æÈ } á ^æ&| Á@Áæ^ç Á^••æ^•Á^ } áÁ Á@Á ç } æÁ!Á } Á@Á|æ&| |Á } á Q ] |^ { ^ } çÁ^æ } Á@, Á | Á ç | Á@Á|æ&| Á } \*á^Á^ áá^ |^ Á Áæ } ^ { ^ } &| Á^ç!Áæ |, Á^ç |Á } &|á!Á } dæ^ ááÁ!• { } |Á Á |Áæ^ ç@Á|æ&| Á |Á@ ] |^ { ^ } ó^ } á@~ ó^ |Áçá } ÈÁ æ^Á^!Á@Á |Áæ | @Á |Áæ^á } áÁ } á!•ç [ áÁ@Á ç } æÁ!Á |Á Á |Áæ } ÈÁ



È, æ•Á æ } æ Á@Áæ^ç Á } •Á Á [ | áÁææ^Á&| } áá } È@Áæ^ç Á } •Á^Á á•á \*È áá æ^ ááÈ!Á } |Áææ^ÁÈ áæ } á } á } çÁÁ^ |æ^ { ^ } ó^æ^ç Á } •Á { ^ áæ^ |È

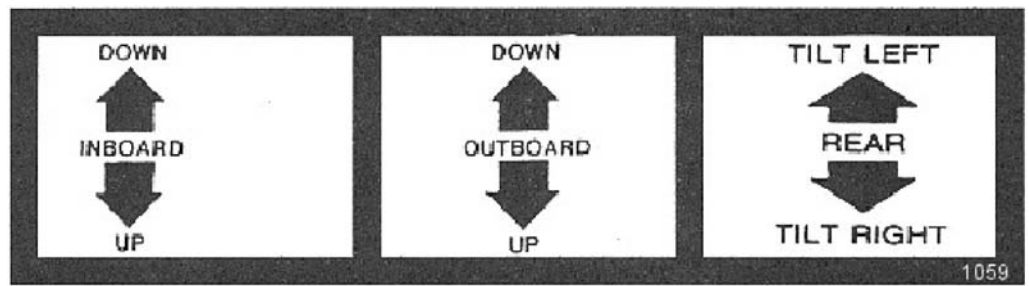


ÓÓÚÚÓÓæ } •Á@Á|æ&| Á^æÈ, æ•Á^ó@Á ç!á \*Á!æ^Áæ áÈ!Á^ç ç@Á|æ&| Á |Áæ } { á•á } Á Á ç!á \*Á^æÈá^ } \*æ^Á@ÁÚÚÈÁ ç | Á@ ^ } á^È^ [ çÁ@Á^È } áÁ æÁ |Áç!Á [ çá \*Á çóÁ Á ç ] ÈÁ |æ^Á@ dæ&| Á @Á^ç!Á ç Áæ |, Áæ \*Á!Á ç!á \*Á^æÁ Á |Áç^ } ó@Á|æ&| | { |Á |á \*È^ç!Áæ } [ ~ } óÁ|æ&| Á@Á^Á [ çá \*Á!Á @Á@Á } \*á^ áÁ^ } á \*ÈÁ |Áæ^Á@Á|æ&| Á |Á@ ] |Á | { Á@Á|æ&| Á^æÁ } |È



## - "&7 cbfc` @WUjcb`UbX: i bWjcbg

V@Áæ^Á |, |Á@á @Á&| } d | |áá á@ÁÈ [ Á!@Á^Á ] [ |Áçç^Áæ } áÁ&| |áá æ^áÁæ Á@, } Á^ |, ÈV@ [ ] ç } æÁ@Á^Á [ |Áçç^Áæ |, •Á |Á@Á |Áæ } Á-Áæ^Á çé Á |, |Á!Áæ^Áæ@!È@Á } áÁ^á } á } á, á@Á@Á^Á [ |Áçç^Áæ |Á | ó^ |Áæ^Á@Á@áÁ [ |Á@á á!Á ] |Á^Áæ^Á çé Á |Áæ@!Á Á [ ~ } ç^È



1059

V@Áæ^Á |, |Á@á @Á&| } d | |áá á@ÁÈ [ á@ÁÈ&| } d |Áçç!È@ |, Á@Á^ç &| •Á |Á@Á |Áæ |Á ç@Á|æ&| Á |Áæ |ç Á ç } æÈV@Áç!Á-Áæ^Á |, |Á&| } d | |áá á@Á@ÁÁ [ |Á-Á@Áçç^Áæ } áÁ &| |áá æ^áÁæ Á@, } Á Á | i fY%) - "

V@Áæ^Á } áÁæ^Á |, |Á |Á^Á } •Á çé Á } ç } æÁ^Á&| } d | |áá á@ÁÈ |Áæ&| |ç Á^ { |Á@á!æ } &| } • |Á&| { áá æ } Á-Áçç^Áæ } áÁ^Á { çÁ@á!æ } È@Á [ ÈÁ^ç!Á } áÁ } Á@Á^Á |Áæ^Á |, |Á ç!Á&| } d | |áá Áæ@Á [ çÁç!È

VY @ÁÚÚÓÓÿ U |Áæ } Á^&ç } ÁÈU







# CD9F5HCB

CD9F5HCB

Šas\*^Ea^}•^Ei:Á^oA^\*^caē}Á sēÁ^āÁÁ Á^  
 { [, ^ā/Á Á [ ÁÁ [ ÁÁ sē••Á Á sē@ç^ÁÁ } āi: {  
 &^EÁQÁ~&@Á}áāā}•Eāē^Á@Á~ cā \*Á@a @Á  
 FGÁÁ [ ÁÁ } Á@Áā•oġ sē•EÁOPS-R-0043



Op - 139

V@}Á, ÁÁ@Á [, ÁÁÁ Á@Áā•āāÁ@ā @Áā ā  
 { [, Á@Áç^\*^caē}Áē^Áē}āÁā ^EÁQÁ [••ā|ÁÉ  
 •^|&ōā [ , ā \*Á sē^} Á@ā Á sēÁÁÉÁ^|ÁÁē \*|  
 ġ Á@Áā•oġ sē•Á Áā~&Á d^ā ā \*ÁÁÁ [ Á  
 ~} āi: { Á: EÁOPS-R-0044



Op - 146

Ucē Áē^|Áē āÁ sē&@Á |Á^•EÁ, Á@ē \*ā \*Áā ā•E  
 [ [, ÁÁā ^•Eā āÁ c@Á ç^| @ sēÁ ā•cē^•Áē āÁ [ āē  
 \*|~} āÁ āb&ō Á @ÁÁ [ ^ÁēÁÁ |Á sēā \*EÁM^Á sē^  
 ġ Áē [ āÁ cā \*Á@•^Á { •ÁOPS-R-0028\_A



Op - 147

ÖÁ [ Á [ , ÁÁÁā^Á@ÁÁēġ |Á ġ Á sē|āēÁ@ēÁ Á~} ā \*ÁÁ sē sēÁ@Á&^ ġ Á~} ^āÁē āÁ sēÁē} cā ÁQ c  
 •| [ •EÖ^} ā \*Á sē|āēÁ} sē•Áē āÁē ē Áē |āÁÁÁ@ [ , } Á [ { Á@Á [ , ÁÁÁ sē sēÁ Áç^\*^caē} Á@Á ā @  
 ā} sēEÁÁÁē sē^Áēē Á && |Á @} ÁÁāē ā \*Á ç^|ÁQ oġ sē|āēEÁÁē āÁÁē^Á} Á@ÁÁēġ |Áē āÁ [ , ÁÁÁ |ā  
 ā} sēÁÁ~|cā \*Áā Á~} ā { ^} oÁÁ•d~&cā} EÖēi^ ÁēÁÁÁÁ cā \*~ ā @ÁÁ} Á@ÁÁēġ |ÁēÁēÁÁē ^•Á ÁÁ cā \*~ ā @  
 [ [••ā|Áā•Á} ē~} c^|āē

VY @ ÄÜVOCËÿ

U] ^| sē} ÁÁ&cā} ÁÉH



# CD9F5HCB

CD9F5HCB

## - 'G i Hb| '8ck b'h Y=a d'Ya Ybh

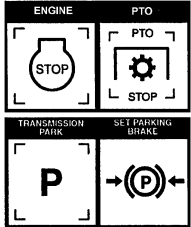
V\ Á @ oÁ [ , } Áæææ@áÁ [ , \Á@ææÁá•oÁ\á \* Á@ dæd\Á\ ÁæÁ [ ] \cÁ d ] ÉÖ^&^æ^Á) \* á^ÁÚÚT d\ Á\Á@) Áæ^ \* æ^Á& \c\ @ææÉV@Á [ , \Á@ææ , á\Á [ ^Á\ ÁæÁ [ ] \cÁ d ] Á æ@ Áæ^ áææ\æ æ [ ~ } oÁ \Á ^ÉÖ[ Á [ oÁ ] \* æ^Á\Áæ^ \* æ^Á@ & \c\ @ææ•ÁæÁæ@ @ÁÚÚT Á ] \cÁ @\Áæ Áæ ^ \Á^ \* ^ ) & \Á æ ææ } É



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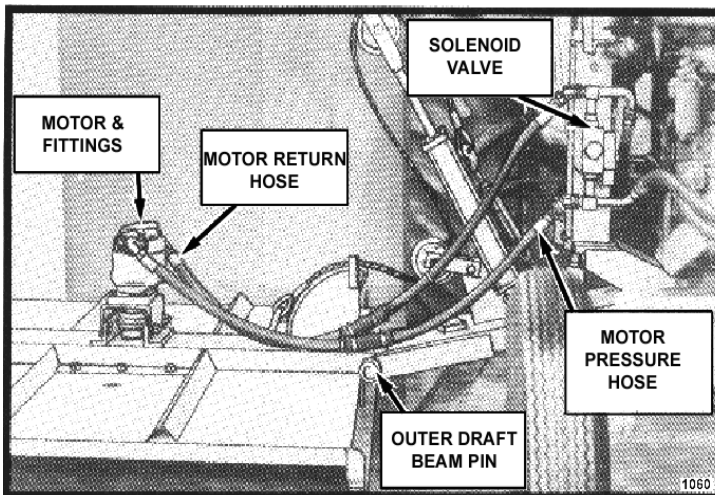




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CD9F5HC B

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# CD9F5HCB

CD9F5HCB

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Op-596

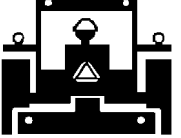
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**⚠ WARNING**

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Op-25

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# A5-BH9 B5 B7 9

A5-BH9 B5 B7 9

## ; 9B9F5 @-BGHFI 7 H-CBG

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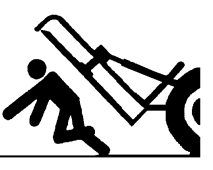
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**DANGER** 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z { | } ~ ¡ ¢ £ ¤ ¥ ¦ § ¨ © ª « ¬ ® ¯ ° ± ² ³ ´ µ ¶ · ¸ ¹ º » ¼ ½ ¾ ¿ À Á Â Ã Ä Å Æ Ç È É Ê Ë Ì Í Î Ï Ñ Ò Ó Ô Õ Ö × Ø Ù Ú Û Ü Ý Þ ß à á â ã ä å æ ç è é ê ë ì í î ï ð ñ ò ó ô õ ö ø ù ú û ü ý þ ÿ



VY 0 1 2 3 4 5 6 7 8 9 a b c d e f g h i j k l m n o p q r s t u v w x y z





# A5-BH9B5B79

A5-BH9B5B79

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# A5-BH9 B5 B7 9

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# A5-BH9 B5 B7 9

## HC FEI 9 GD97 = 7 5 HCBG

### Torque for Standard Fasteners

| Nominal Dia.<br>(in.) | threads per inch | Grade 2           |                        |                       | Grade 5           |                        |                       | Grade 8           |                        |                       | Grade 9           |                        |                       |
|-----------------------|------------------|-------------------|------------------------|-----------------------|-------------------|------------------------|-----------------------|-------------------|------------------------|-----------------------|-------------------|------------------------|-----------------------|
|                       |                  | Tightening Torque |                        |                       | Tightening Torque |                        |                       | Tightening Torque |                        |                       | Tightening Torque |                        |                       |
|                       |                  | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 |

### Unified Coarse Thread Series

| Nominal Dia. (in.) | Threads per inch | 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 |
|--------------------|------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|
| 1/4                | 20               | 49        | 59        | 66        | 76        | 86        | 101        | 107        | 122        | 143        | 126        | 143        | 168        |
| 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        |
| 7/8                | 9                | 125       | 150       | 167       | 322       | 365       | 429        | 455        | 515        | 606        | 533        | 604        | 710        |
| 1                  | 8                | 187       | 225       | 250       | 483       | 547       | 644        | 681        | 772        | 909        | 799        | 905        | 1065       |
| 1 1/8              | 7                | 266       | 319       | 354       | 596       | 675       | 794        | 966        | 1095       | 1288       | 1132       | 1283       | 1510       |
| 1 1/4              | 7                | 375       | 450       | 500       | 840       | 952       | 1121       | 1363       | 1545       | 1817       | 1597       | 1810       | 2130       |
| 1 1/2              | 6                | 652       | 783       | 869       | 1462      | 1657      | 1950       | 2371       | 2688       | 3162       | 2779       | 3150       | 3706       |

### Fine Thread Series

| Nominal Dia. (in.) | Threads per inch | 56 in-lbs | 68 in-lbs | 75 in-lbs | 87 in-lbs | 99 in-lbs | 116 in-lbs | 123 in-lbs | 139 in-lbs | 164 in-lbs | 144 in-lbs | 163 in-lbs | 192 in-lbs |
|--------------------|------------------|-----------|-----------|-----------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|
| 1/4                | 28               | 56        | 68        | 75        | 87        | 99        | 116        | 123        | 139        | 164        | 144        | 163        | 192        |
| 5/16               | 24               | 112       | 135       | 150       | 174       | 197       | 231        | 245        | 278        | 327        | 287        | 325        | 383        |
| 3/8                | 24               | 17 ft-lbs | 20 ft-lbs | 23 ft-lbs | 26 ft-lbs | 30 ft-lbs | 35 ft-lbs  | 37 ft-lbs  | 42 ft-lbs  | 49 ft-lbs  | 43 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 D = Nominal Diameter  
 Torque values calculated from formula T=KDF, where K = 0.17 for zinc plated and dry conditions F = Clamp Load  
 K = 0.20 for plain and dry conditions

### Torque-Tension Relationship for Metric Fasteners

| Nominal Dia. (mm) | Pitch (mm) | Class 4.6         |                        |                       | Class 8.8         |                        |                       | Class 10.9        |                        |                       | Class 12.9        |                       |
|-------------------|------------|-------------------|------------------------|-----------------------|-------------------|------------------------|-----------------------|-------------------|------------------------|-----------------------|-------------------|-----------------------|
|                   |            | Tightening Torque |                        |                       | Tightening Torque |                        |                       | Tightening Torque |                        |                       | Tightening Torque |                       |
|                   |            | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 | Lubed<br>K = 0.15 | Dry Plated<br>K = 0.17 | Dry plain<br>K = 0.20 | Lubed<br>K = 0.15 | Dry plain<br>K = 0.20 |
| 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                 | 0.8        | 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                   |

Clamp load calculated as 75% of the proof load for specified bolts. K = 0.15 for "lubricated" conditions D = Nominal Diameter  
 All torque values are listed in foot-pounds K = 0.17 for zinc plated, dry conditions F = Clamp Load  
 Torque values calculated from formula T=KDF, where K = 0.20 for plain and dry conditions

A5-BH9 B5 B7 9

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# A5-BH9B5B79

## @ 6F=75HCB`F97CAA9B85HCBG

89G7F-DHCB      5DD@75HCB      ; 9B9F5 @GD97= =75HCB      F97CAA9B898  
AC6=@@ 6F=75BH

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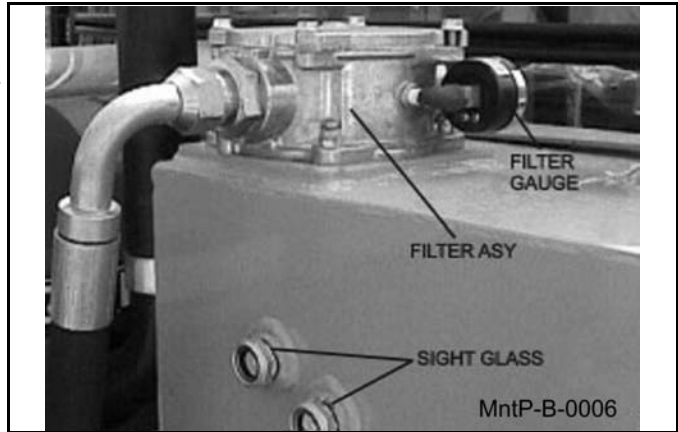
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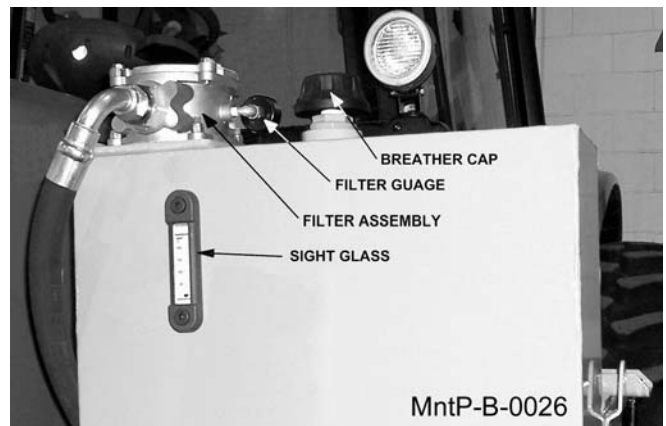
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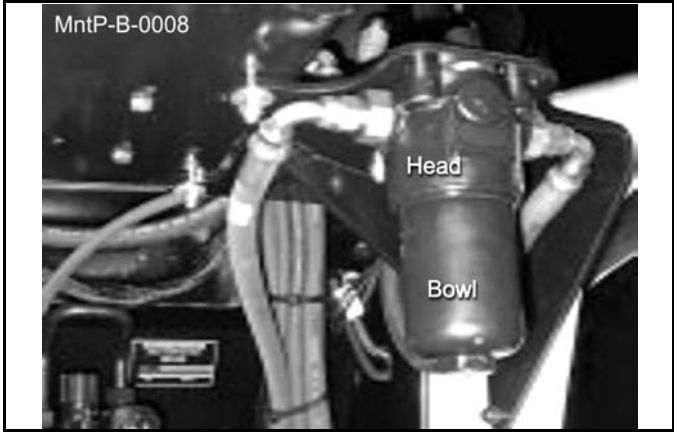


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A5-BH9 B5 B7 9

## F9D@7-B; <≡ <'DF9GGI F9<M8F5I @7': =@9F'9 @A9BH

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**WARNING:** Bowl will be full of oil!ÁÚ~!Ác@Á āÁ [ { Ác@Áā[ , |Áā q Áe&[] } cē!^!EÖc@Á āÁ @~!áÁ^Áe[] •āe!^á  
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 ]!^••^) dEÚ^ [ ç^Ác@Á |áÁ^!^ ^) ođ { Ác@Áāc@Ác@ÁāÁ^ Á~||ā \*Á āc@Á[] cēā }Á [ cā }EÖā][~^Á Ác@Á^á  
 ^!^ ^) ođ![]!^!EÚ^ [ ç^Ác@Á^ , Á^!^ ^) ođ { Ác@Áāā ae ā \*EÁVā \*Á [~!Áā \*^!Eāāāā āÁ à!āeÁ Ác@Á Eā \*  
 ā Ác@Áā[ Á Ác@Á^ Á^!^ ^) dEÖ cē!Ác@Á^ , Á^!^ ^) ođ q Áāā }Ác@Á [~] cā \*Áā[••Á āc@Ác@ÁāeÁe~!^  
 c@eÁc@Á^!^ ^) ođ Á~!^ Á^āe^áÁ }Ác@Áā[••EÖ!^āā āÁā•]^&oÁc@Á Eā \*Ác@Á Áe~^áÁā Ác@Áā[ , |E~!^!āeÁ  
 , ācā āEÁVā ā \*Áe&[] & , ā^Á [ cēā ] E~!^! Ác@Áā[ , |Áāāā āā q Ác@Ác@āEāe~!ā \*Ác@Ác@Áā[ , |Ác@Á [ oÁ^!  
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 ae^āe&@&ā ā \*Ác@Ác@Á!^Áā Á [ Á āÁ^āā \*Á^ [ { Ác@Áāc@Áe~!^! à! EÁV @Á Áā•ođ Áā^Áā ]^!āeÁ EÁq~!Á~  
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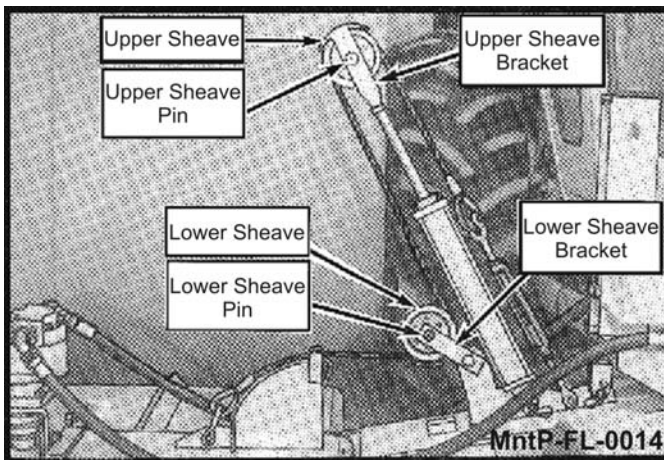
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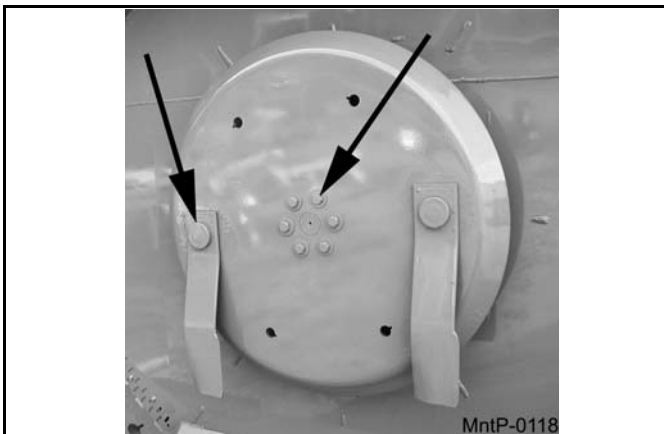
**; F95G-B; 'H<9'I DD9F'5B8'@CK9F'G<95J9G**

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**H; <H9B-B; '6 @89'6C @HG'5B8'8=G?'6C @HG**

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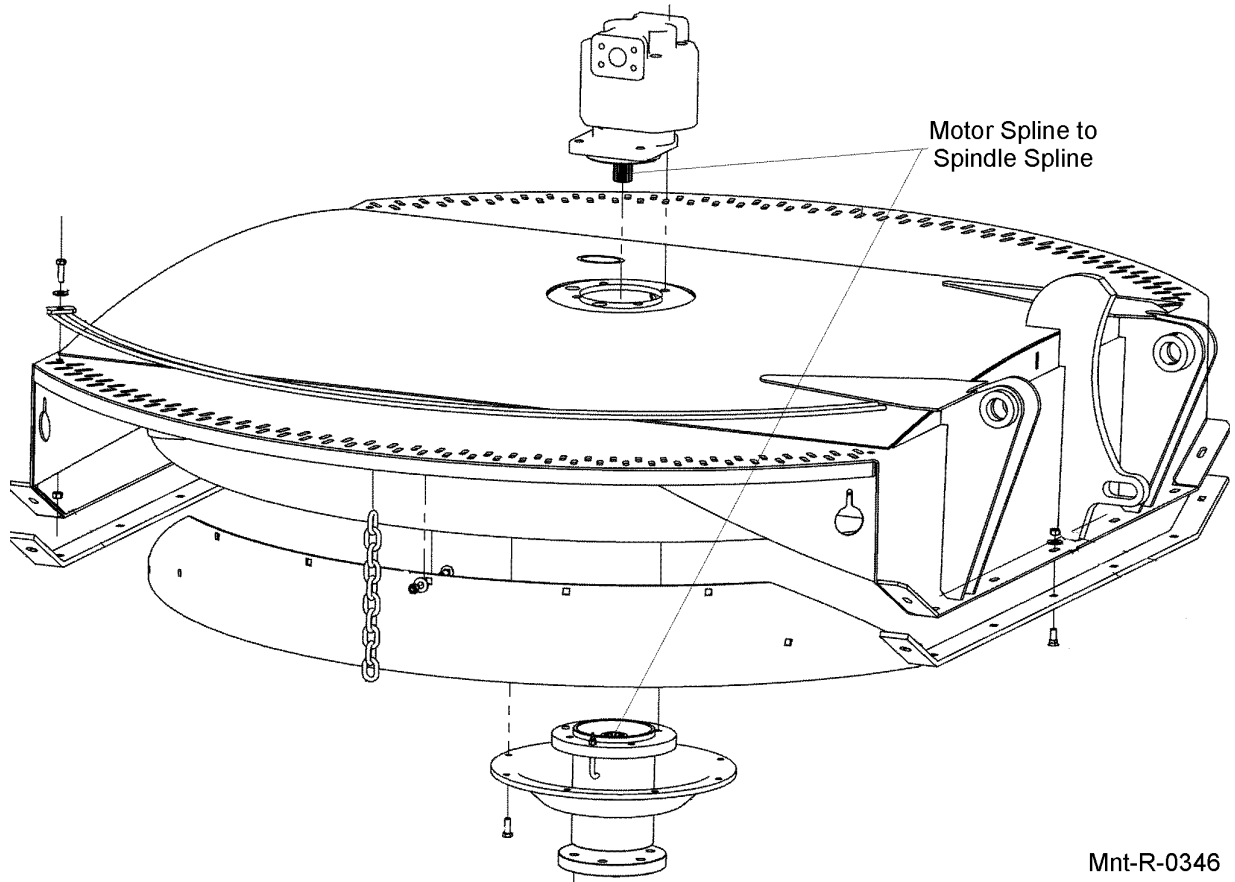


# A5-BH9B5B79

## A5-BH9B5B79

; F95 G-B; ACHCF GD@B9 HC GD-B8 @ GD@B9

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Mnt-R-0346

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# A5-BH9B5B79

<95JM8I HMGD-B8 @ '5 GG9A6 @M-BGH5 @@5HCB'5B8 '695F-B; ' 58>I GHA9BH

**WARNING**

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

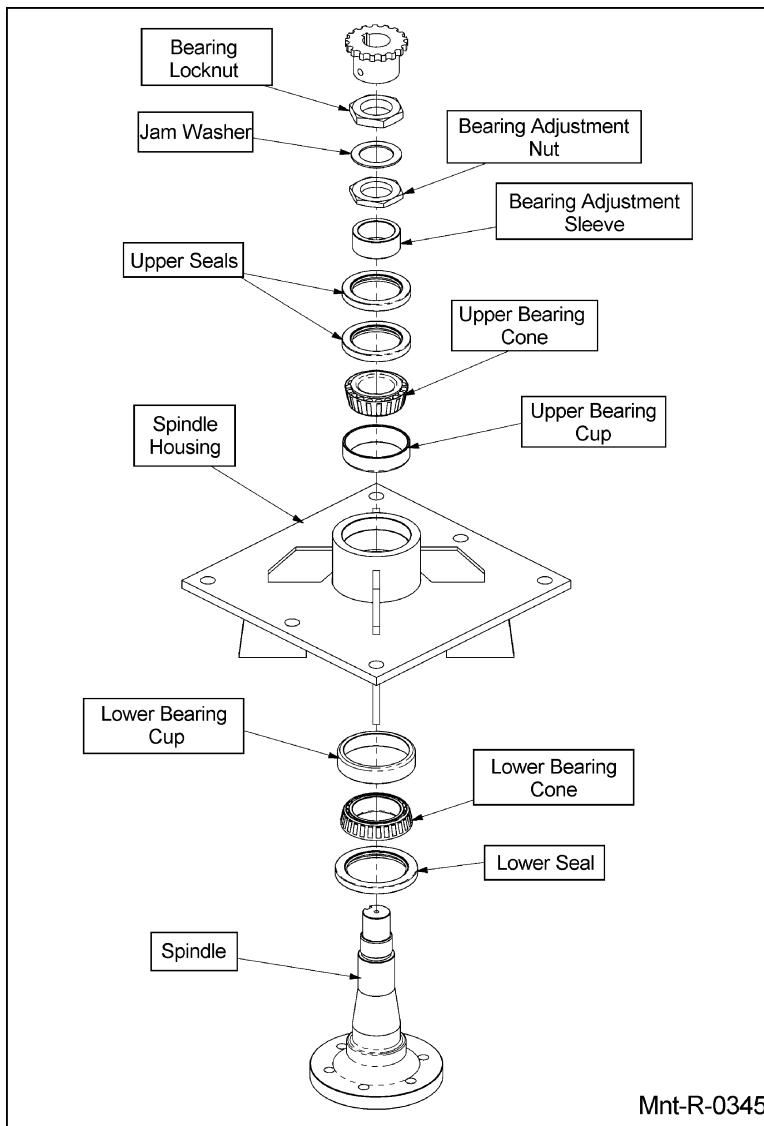
**NOTE:** The grease zerk and gussets are located on the top side of the spindle housing. Be sure the spindle is assembled correctly.

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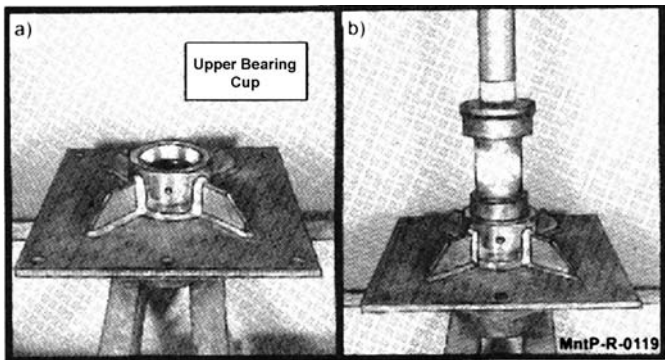
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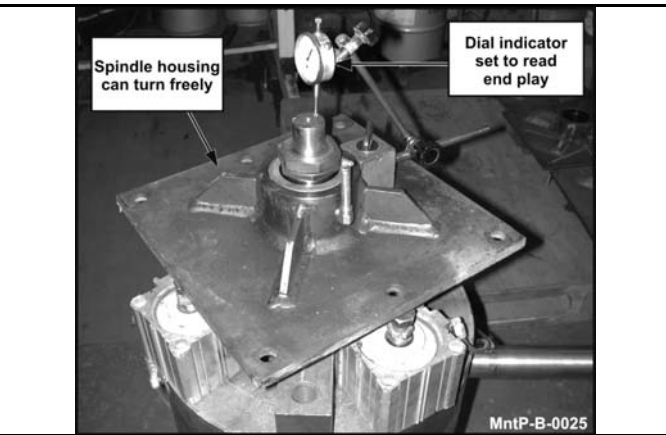


**NOTE:** The spindle housing must turn freely when seating the bearing cone and sleeve.

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**PARTS SECTION**

# PART NAME INDEX

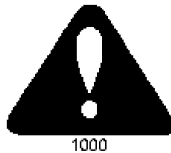
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|----------------------------------------|----|
| PARTS ORDERING GUIDE.....              | 3  |
| AXLE BRACES.....                       | 4  |
| SWITCHBOX MOUNT.....                   | 6  |
| TRACTOR MOUNT KIT.....                 | 8  |
| TRACTOR MOUNT KIT HYDRAULICS.....      | 10 |
| REAR MOWER HYDRAULICS - TSR MOWER..... | 12 |
| REAR MOWER HYDRAULICS - TM MOWER.....  | 14 |
| POLYCARBONATE SAFETY WINDOW.....       | 16 |
| NOTES.....                             | 18 |

## 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.

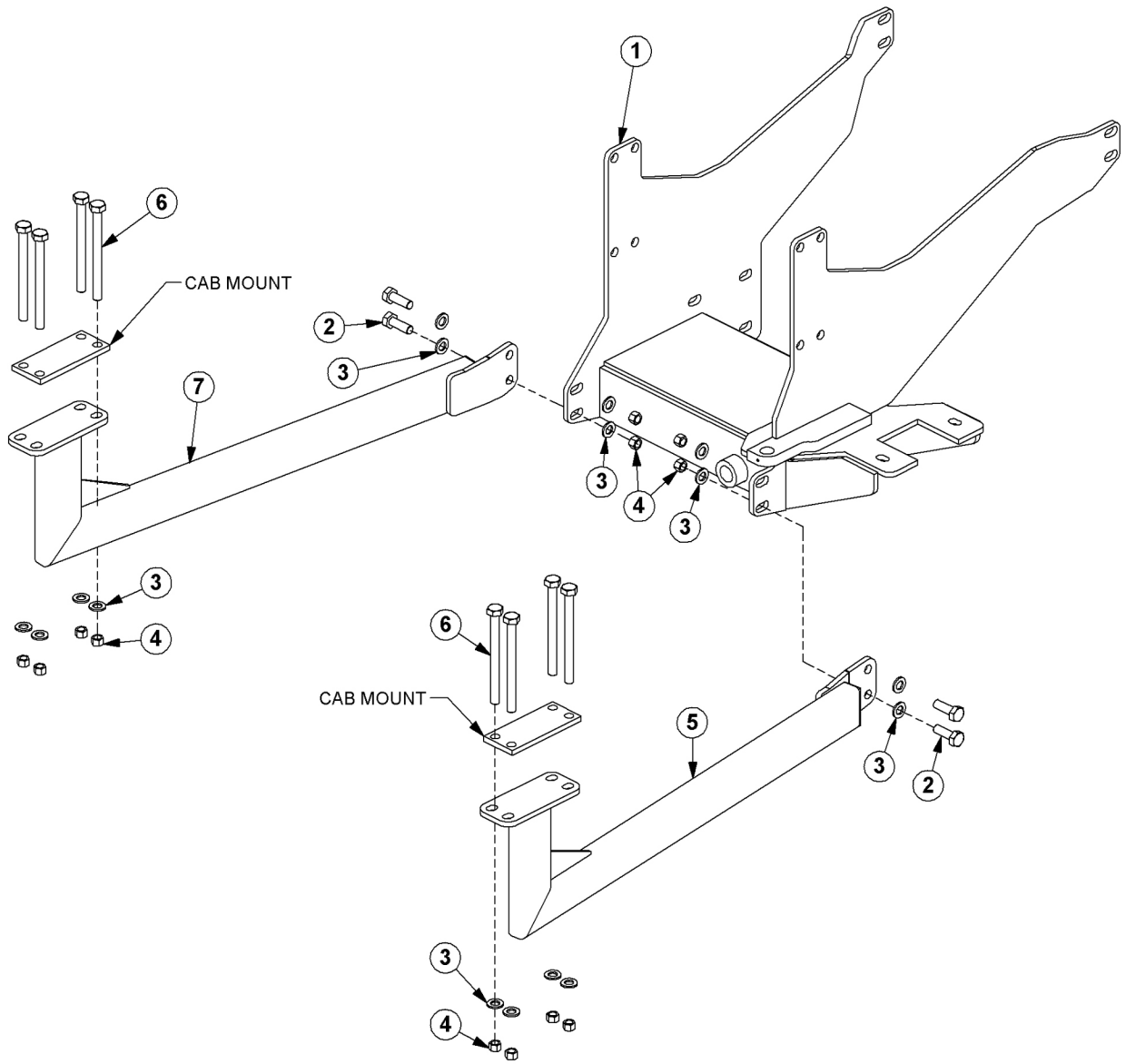


For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

Direct any questions regarding parts to:

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

# AXLE BRACES



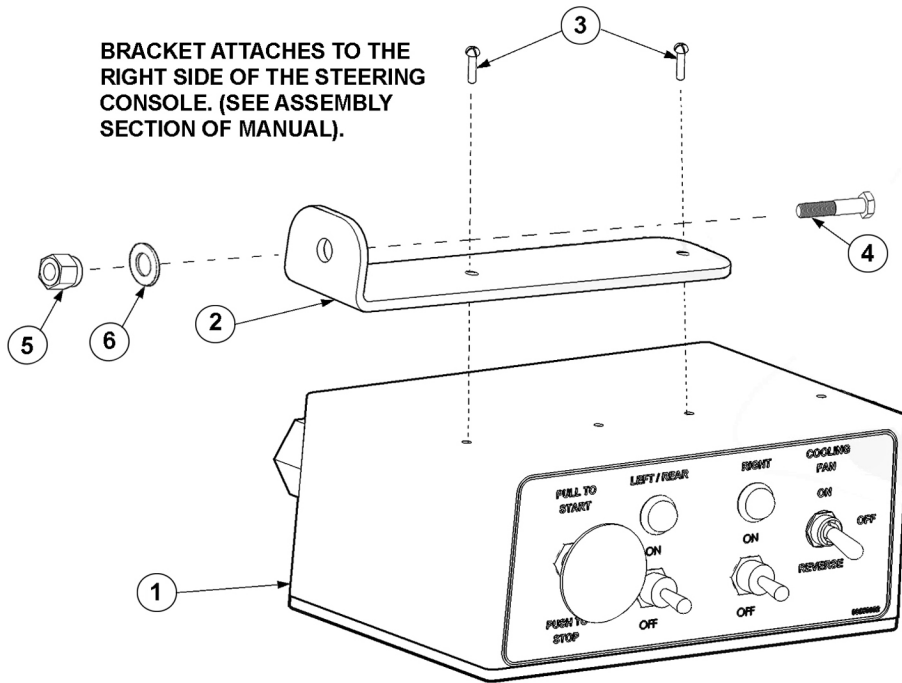


## AXLE BRACES

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                 |
|------|----------|------|---------------------------------------------|
| 1    | -----    | -    | MAIN FRAME *REFER TO TRACTOR MOUNT KIT PAGE |
| 2    | 21833    | 4    | CAPSCREW,3/4" X 2-1/4",NC                   |
| 3    | 33880    | 16   | FLATWASHER,3/4"                             |
| 4    | 21825    | 12   | HEX NUT,3/4",NC                             |
| 5    | 06300208 | 1    | AXLE BRACE,RH                               |
| 6    | 21846    | 8    | CAPSCREW,3/4" X 9",NC                       |
| 7    | 06300209 | 1    | AXLE BRACE,LH                               |

# SWITCHBOX MOUNT

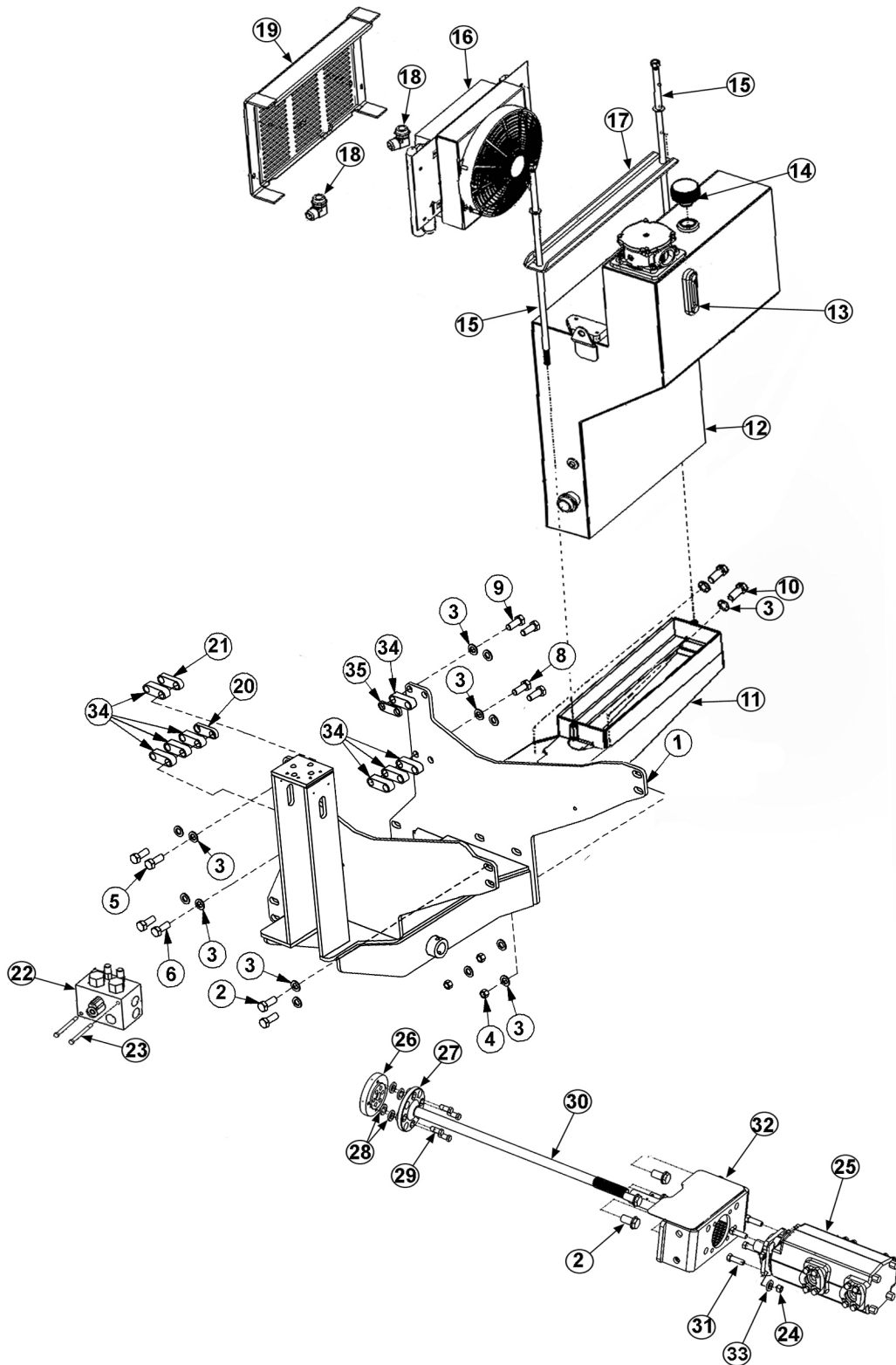


## SWITCHBOX MOUNT

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION              |
|------|----------|------|--------------------------|
| 1    | 06510097 | 1    | SWITCHBOX, TWIN/T3F, GND |
| 2    | 34496    | 1    | BRKT, SWITCHBOX, UNI     |
| 3    | 32359    | 2    | SCREW, MACHINE           |
| 4    | 21530    | 1    | CAPSCREW, 1/4" X 1" NC   |
| 5    | 21527    | 1    | NYLOCK NUT 1/4" NC       |
| 6    | 22014    | 1    | FLATWASHER 1/4"          |

# TRACTOR MOUNT KIT

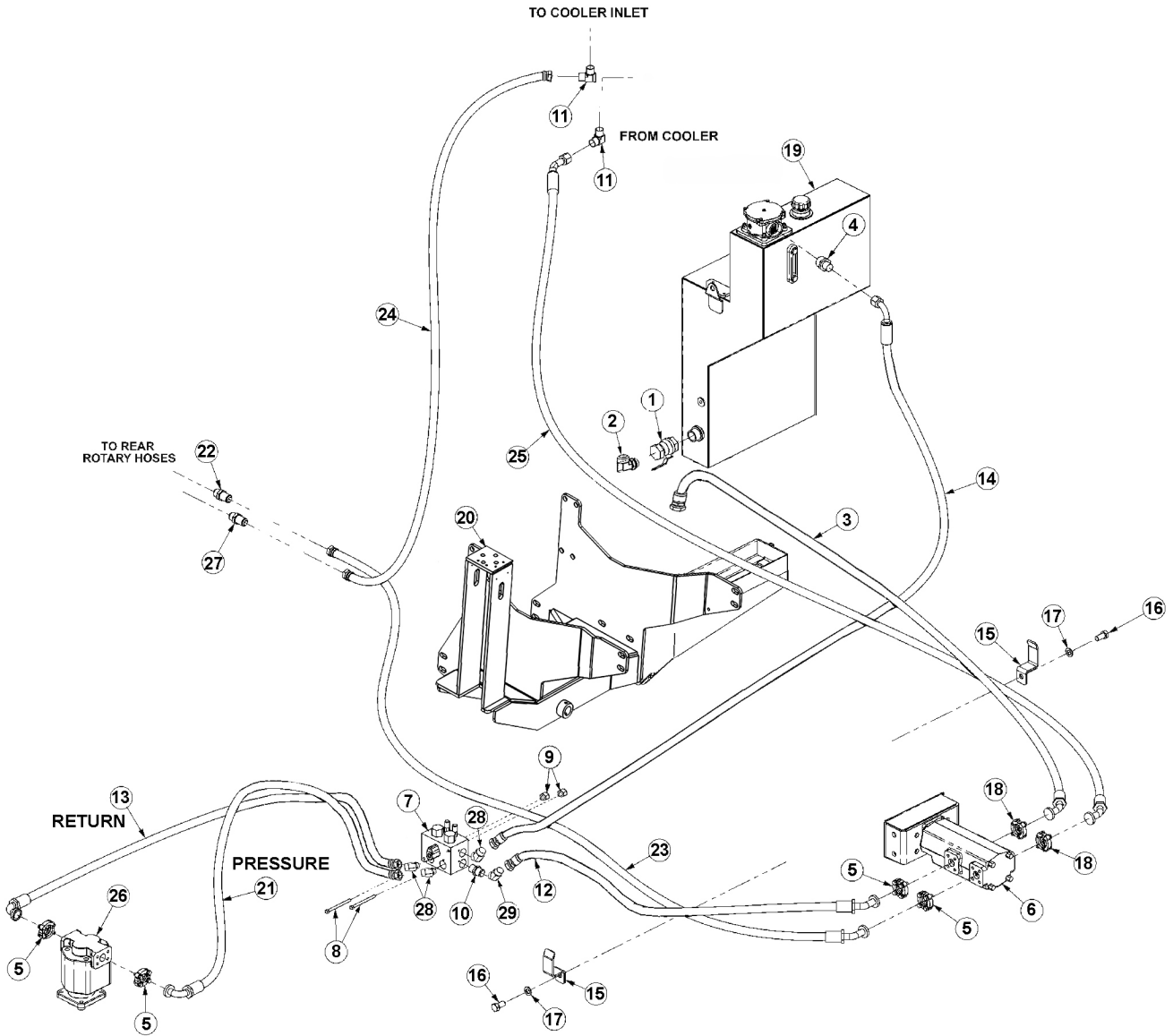


## TRACTOR MOUNT KIT

**Continued...**

| <b>ITEM</b> | <b>PART NO.</b> | <b>QTY.</b> | <b>DESCRIPTION</b>                   |
|-------------|-----------------|-------------|--------------------------------------|
| 1           | 06300222        | 1           | MAINFRAME, TS6.110, TM, TSF          |
| 2           | 21831           | 10          | CAPSCREW, 3/4 X 1-3/4 NC             |
| 3           | 33880           | 42          | FLATWASHER, 3/4, GR 8, SAE           |
| 4           | 21825           | 16          | HET NUT, 3/4 NC                      |
| 5           | 30708           | 2           | CAPSCREW, 20MM X 90MM, 2.5P, GR10.9  |
| 6           | 06530542        | 2           | CAPSCREW, 20MM X 130MM, 2.5P, GR10.9 |
| 7           | 21627           | 5           | NYLOCK NUT, 3/8, NC                  |
| 8           | 06530537        | 2           | CAPSCREW, 20MM X 120MM, 2.5, GR10.9  |
| 9           | 32285           | 2           | CAPSCREW, 20MM X 75MM 2.5P, GR10.9   |
| 10          | 21833           | 8           | CAPSCREW, 3/4 X2-1/4 NC              |
| 11          | 06300060        | 1           | MNT, HYDRO TANK, JD6000              |
| 12          | 06380012        | 1           | TANK, RES                            |
| 13          | 06505067        | 1           | SIGHT GAUGE                          |
| 14          | 06505077        | 1           | CAP, BREATHER, O-RING                |
| 15          | 06380014        | 2           | TIE-BOLT, SIDE TANK, HYDRO           |
| 16          | 06510026        | 1           | COOLER, FRONT MNT                    |
| 17          | 06410352        | 1           | CHANNEL, MNT, TANK, TIE-BOLT         |
| 18          | 34117           | 2           | ELBOW, 1MBX1MJ, FORGED               |
| 19          | 6370015         | 1           | SCREEN, COOLER, FRNT                 |
| 20          | 06401629        | 1           | SPACER, 1/2"                         |
| 21          | 06401628        | 1           | SPACER, 3/4"                         |
| 22          | 06510083        | 1           | VALVE, BRAKE, SOL, 3000PSE, METRI    |
| 23          | 21644           | 2           | CAPSCREW, 3/8 X 5 NC                 |
| 24          | 21725           | 4           | HEX NUT, 1/2 NC                      |
| 25          | 06504002        | 1           | PUMP, TNDM, P350 1-3/4 X 1-3/4       |
| 26          | 06420144        | 1           | SPACER, CRNKSHFT, T6020              |
| 27          | 6T0389          | 1           | CRNKSHFT ADPT, IHC 885               |
| 28          | 06537004        | 4           | WASHER, NEOPRENE .75X1.25X19         |
| 29          | 06535000        | 4           | CAPSCREW, 7/16 X 1-1/4 CUTOFF        |
| 30          | 06420153        | 1           | DRV SHFT, 30.00 LH, TS6.110          |
| 31          | 21732           | 4           | CAPSCREW, 1/2 X 1-3/4 NC             |
| 32          | 06380042        | 1           | MNT, PUMP, TS6020                    |
| 33          | 06533004        | 4           | FLATWASHER, 1/2, SAE, GR8            |
| 34          | 06401627        | 8           | SPACER, 1"                           |
| 35          | 06401630        | 1           | SPACER, 5/16"                        |

# TRACTOR MOUNT KIT HYDRAULICS

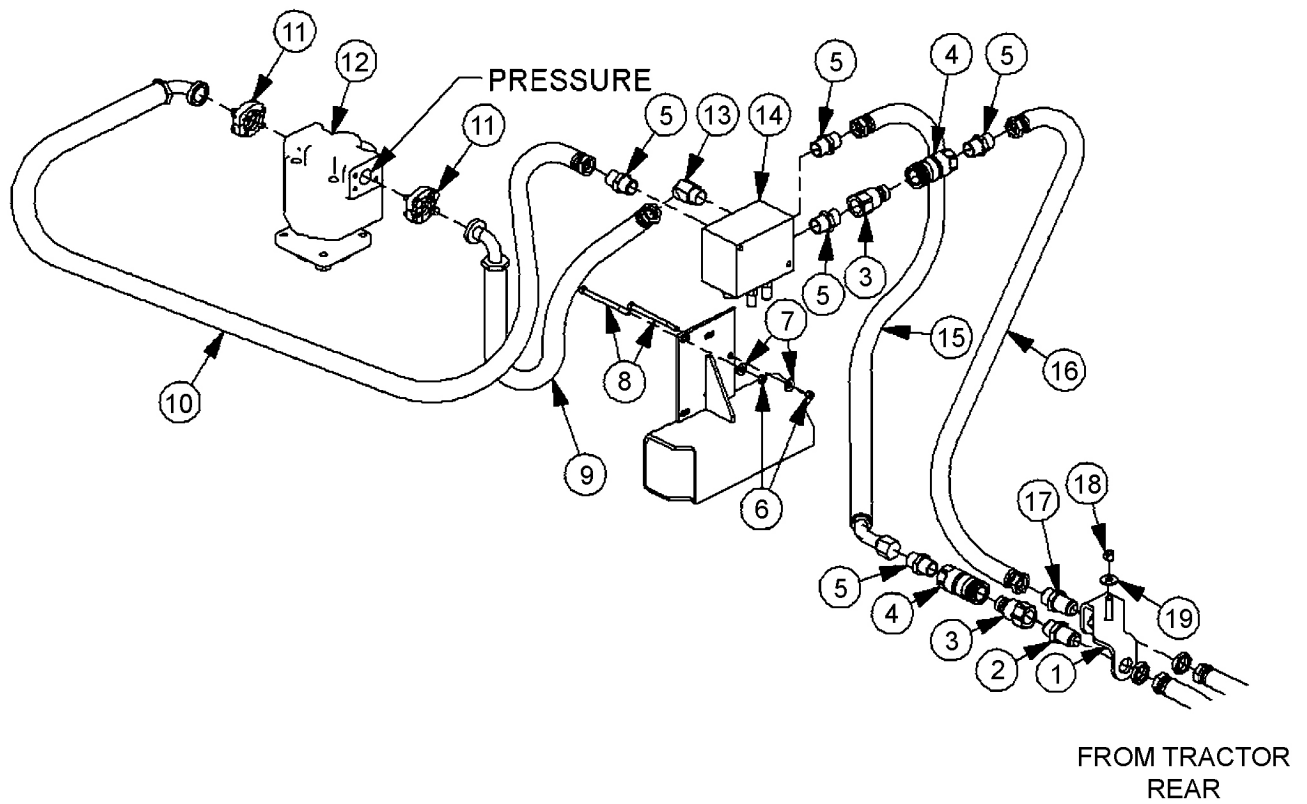


## TRACTOR MOUNT KIT HYDRAULICS

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                 |
|------|----------|------|---------------------------------------------|
| 1    | 34309    | 1    | BALL VALVE, 1-1/2" FOR                      |
| 2    | 34655    | 1    | ELBOW, 1-1/2" MOR X 1-1/2" MJ               |
| 3    | 06500306 | 1    | HOSE, #24X70"                               |
| 4    | 34064    | 1    | ADAPTER, 1-1/4" MOR X 1" MJ                 |
| 5    | TF4852   | 4    | KIT, FLANGE, #20                            |
| 6    | ---      | -    | PUMP, *REFER TO TRACTOR MOUNT KIT PAGE      |
| 7    | 06510083 | 1    | VALVE, BRAKE, SOL, 3000PSI                  |
| 8    | 21644    | 2    | CAPSCREW, 3/8" X 5", NC                     |
| 9    | 21699    | 2    | NYLOCK NUT, 3/8" NC                         |
| 10   | 35555    | 1    | ADAPTER, 1" MOR X 1" MJ                     |
| 11   | 34117    | 2    | ELBOW, 1" MOR X 1" MJ90°, FORGED            |
| 12   | 06500594 | 1    | HOSE, #16 X 68"                             |
| 13   | 34416    | 1    | HOSE, #16 X 75" (TM50)                      |
| --   | 34293    | 1    | HOSE, #16 X 80" (TM60)                      |
| 14   | 06500328 | 1    | HOSE, #16 X 96"                             |
| 15   | 32382    | 2    | BRACKET, HOSE                               |
| 16   | 24860    | 2    | CAPSCREW, 20MM X 40MM, 2.5P                 |
| 17   | 33880    | 2    | FLATWASHER, 3/4" SAE                        |
| 18   | TF4854   | 2    | KIT, FLANGE, #24                            |
| 19   | ---      | -    | TANK *REFER TO TRACTOR MOUNT KIT PAGE       |
| 20   | ----     | -    | MAIN FRAME *REFER TO TRACTOR MOUNT KIT PAGE |
| 21   | 30309    | 1    | HOSE, #16 X 78" (TM50)                      |
| ---  | 06200285 | -    | HOSE, #16 X 85" (TM60)                      |
| 22   | 34183    | 1    | ADAPTER, BULKHEAD                           |
| 23   | 34199    | 1    | HOSE, #16 X 153"                            |
| 24   | 06500303 | 1    | HOSE, #16 X 121"                            |
| 25   | 06500305 | 1    | HOSE, #20 X 110"                            |
| 26   | ---      | -    | MOTOR *REFER TO COMMON PARTS SECTION        |
| 27   | 33287    | 1    | FITTING, BULKHEAD                           |
| 28   | 33554    | 3    | ELBOW, 1MOR X 1MJ 45°                       |
| 29   | 24724    | 1    | ELBOW, 1FJ X 1MJ 45°                        |

# REAR MOWER HYDRAULICS - TSR MOWER



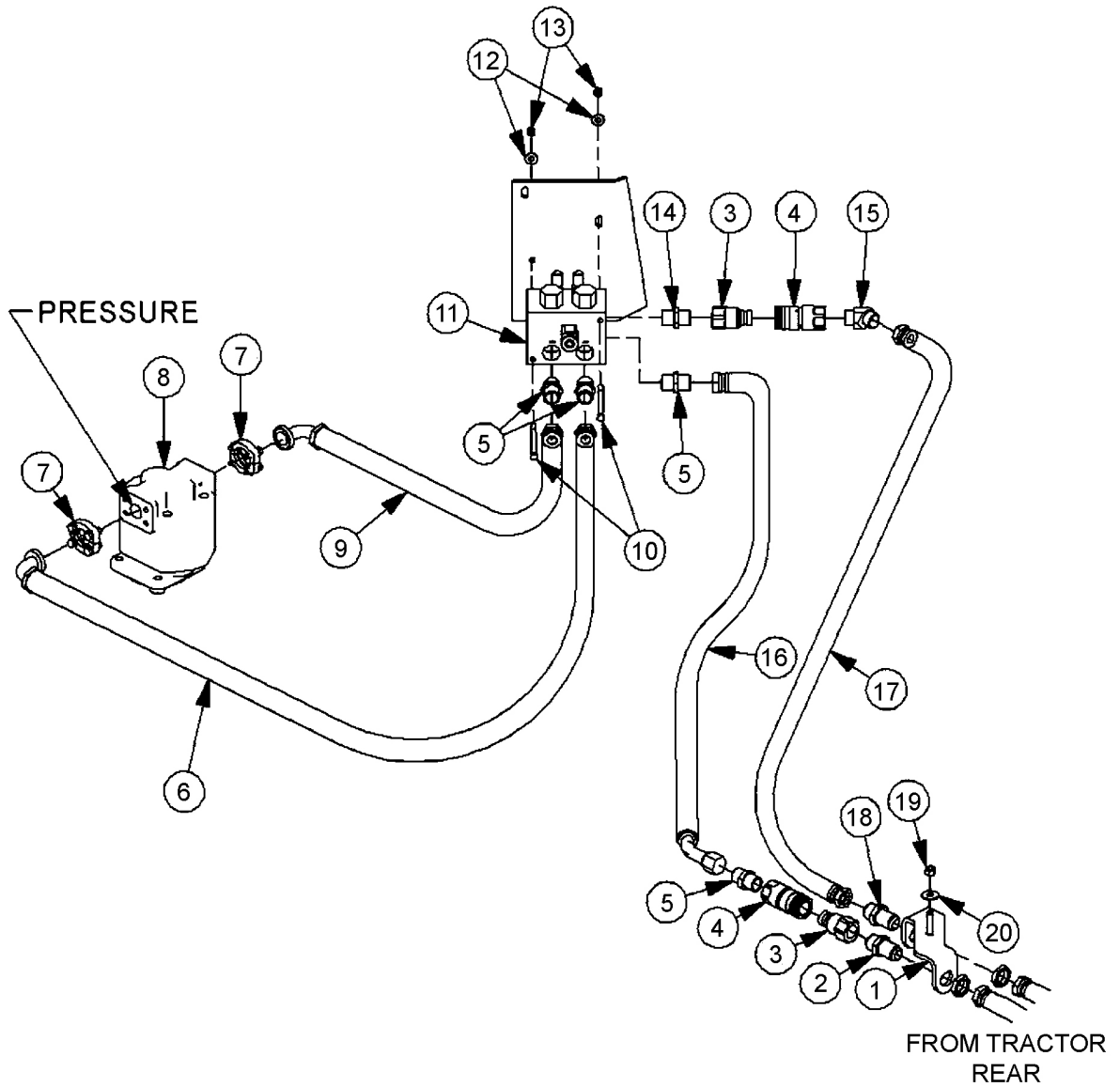


## REAR MOWER HYDRAULICS - TSR MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 34181    | 1    | UNION BLOCK,TRR                       |
| 2    | 33287    | 1    | FITTING,BULKHEAD,1"MJ X 1"MOR         |
| 3    | 06503028 | 2    | QUICK COUPLER,1"SAE,MALE,FLAT         |
| 4    | 06503027 | 2    | QUICK COUPLER,1"SAE,FEM,FLAT          |
| 5    | 33555    | 5    | ADAPTER,1"MOR X 1"MJ                  |
| 6    | 21625    | 2    | HEX NUT,3/8",NC                       |
| 7    | 22016    | 2    | FLATWASHER,3/8"                       |
| 8    | 21644    | 2    | CAPSCREW,3/8" X 5",NC                 |
| 9    | 06500086 | 1    | HOSE,1" X 24" (PRESSURE)              |
| 10   | 06500087 | 1    | HOSE,1" X 42" (RETURN)                |
| 11   | TF4852   | 2    | KIT,FLANGE,#20                        |
| 12   | -----    | -    | PUMP *REFER TO TRACTOR MOUNT KIT PAGE |
| 13   | 33554    | 1    | ELBOW 1"MOR X 1"MJ 45°                |
| 14   | 06510083 | 1    | VALVE,BRAKE                           |
| 15   | 06500104 | 1    | HOSE,1" X 64"                         |
| 16   | 34865    | 1    | HOSE,1" X 57"                         |
| 17   | 34183    | 1    | ADAPTER,BULKHEAD,1"MJ X 1"MJ          |
| 18   | 21725    | 1    | HEX NUT,1/2",NC                       |
| 19   | 22018    | 1    | FLATWASHER,1/2",WIDE                  |

# REAR MOWER HYDRAULICS - TM MOWER

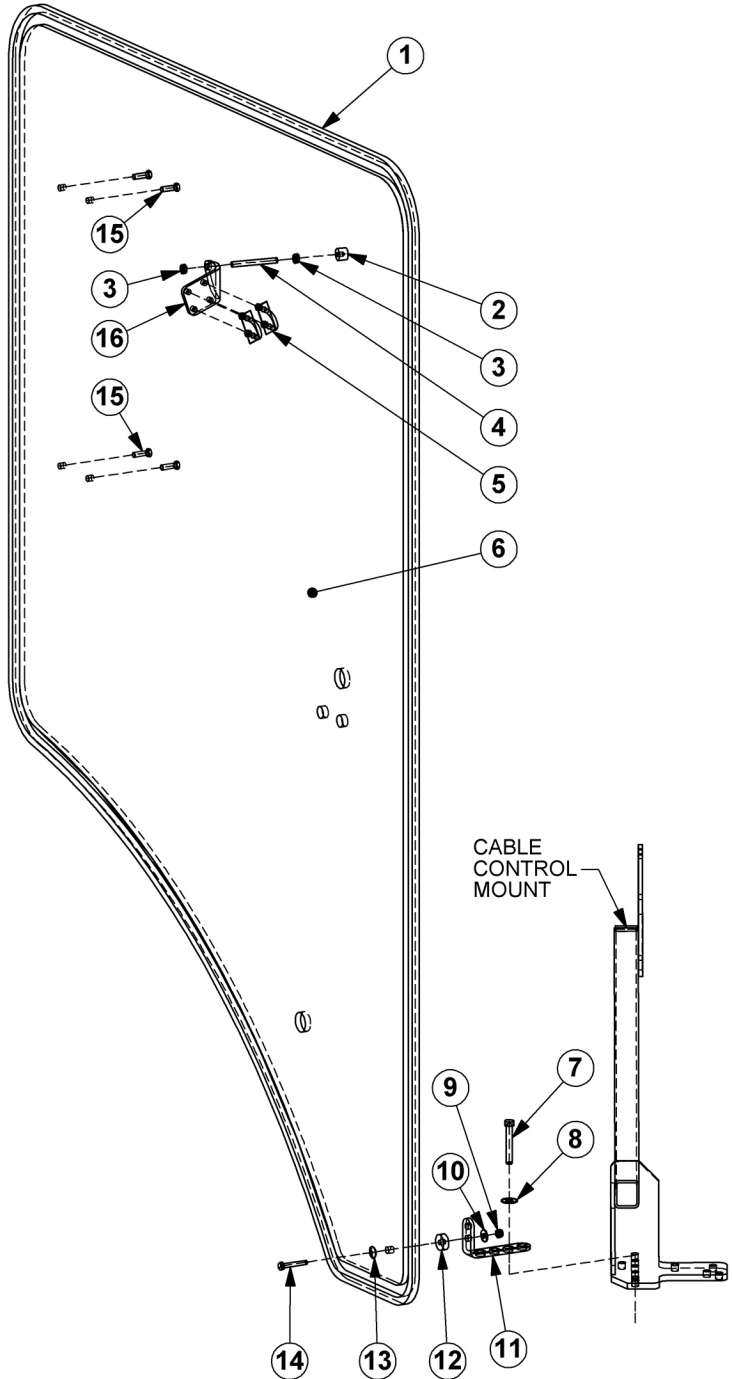
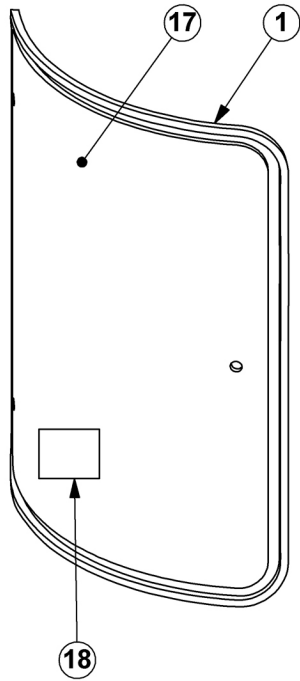


## REAR MOWER HYDRAULICS - TM MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 34181    | 1    | UNION BLOCK,TRR                       |
| 2    | 33287    | 1    | FITTING,BULKHEAD,1"MJ X 1"MOR         |
| 3    | 06503028 | 2    | QUICK COUPLER,1"SAE,MALE,FLAT         |
| 4    | 06503027 | 2    | QUICK COUPLER,1"SAE,FEM,FLAT          |
| 5    | 33555    | 5    | ADAPTER,1"MOR X 1"MJ                  |
| 6    | 34198    | 1    | HOSE,1" X 40" (PRESSURE)              |
| 7    | TF4852   | 2    | KIT,FLANGE,#20                        |
| 8    | -----    | -    | PUMP *REFER TO TRACTOR MOUNT KIT PAGE |
| 9    | 34197    | 1    | HOSE,1" X 33" (RETURN)                |
| 10   | 21644    | 2    | CAPSCREW,3/8" X 5",NC                 |
| 11   | 06510083 | 1    | VALVE,BRAKE                           |
| 12   | 22016    | 2    | FLATWASHER,3/8"                       |
| 13   | 21625    | 2    | HEX NUT,3/8",NC                       |
| 14   | 06503074 | 1    | UNION,1"MOR X 1"MOR                   |
| 15   | 33554    | 1    | ELBOW 1"MOR X 1"MJ 45°                |
| 16   | 06500104 | 1    | HOSE,1" X 64"                         |
| 17   | 34865    | 1    | HOSE,1" X 57"                         |
| 18   | 34183    | 1    | ADAPTER,BULKHEAD,1"MJ X 1"MJ          |
| 19   | 21725    | 1    | HEX NUT,1/2",NC                       |
| 20   | 22018    | 1    | FLATWASHER,1/2",WIDE                  |

# POLYCARBONATE SAFETY WINDOW



ITEM 5 CLAMPS AROUND MIRROR BRACKET

ITEM 7 REPLACES HARDWARE FOR CABLE CONTROL MOUNT

ITEM 15 REPLACES EXISTING HARDWARE

## POLYCARBONATE SAFETY WINDOW

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION               |
|------|----------|------|---------------------------|
| 1    | 31965    | 23   | TRIMLOCK (IN FEET)        |
| 2    | 33477    | 1    | ISOLATOR                  |
| 3    | 21575    | 2    | HEX NUT,5/16",NC          |
| 4    | 33478    | 1    | ROD,THREADED,5/16" X 3"   |
| 5    | 32550    | 2    | U-BOLT,ASSY               |
| 6    | 06490039 | 1    | POLYCARBONATE,DOOR        |
| 7    | 21636    | 1    | CAPSCREW,3/8" X 2-1/2",NC |
| 8    | 22016    | 1    | FLATWASHER,3/8"           |
| 9    | 21527    | 1    | NYLOCK NUT,1/4",NC        |
| 10   | 22014    | 1    | FLATWASHER,1/4"           |
| 11   | 06410672 | 1    | BRACKET,BOTTOM            |
| 12   | 06537000 | 1    | WASHER,NEOPRENE           |
| 13   | 06537001 | 1    | WASHER,RUBBER             |
| 14   | 21533    | 1    | CAPSCREW,1/4" X 1-3/4",NC |
| 15   | 28583    | 4    | CAPSCREW,8MM X 25MM,1.25P |
| 16   | 06411375 | 1    | BRACKET,TOP               |
| 17   | 06490040 | 1    | POLYCARBONATE,REAR        |
| 18   | 22645    | 1    | DECAL                     |

**NOTES**

**NOTES**

# COMMON TWIN ROTARY

## PARTS SECTION

# NOTES





# PART NAME INDEX

|                                                     |    |
|-----------------------------------------------------|----|
| PARTS ORDERING GUIDE.....                           | 5  |
| CABLE DRAFT BEAM ASSEMBLY.....                      | 6  |
| COMBO DRAFT BEAM ASSEMBLY.....                      | 8  |
| 60IN SIDE CABLE TM ROTARY MOWER.....                | 10 |
| 72IN SIDE CABLE TM ROTARY MOWER.....                | 12 |
| 60IN SIDE COMBO TM ROTARY MOWER.....                | 14 |
| 72IN SIDE COMBO TM ROTARY MOWER.....                | 16 |
| 60IN SIDE TSR ROTARY MOWER.....                     | 18 |
| 60IN REAR TM ROTARY MOWER.....                      | 20 |
| 60IN REAR TSR ROTARY MOWER.....                     | 22 |
| REAR ROTARY HYDRAULICS.....                         | 24 |
| 60IN SIDE TM CHAIN GUARDS.....                      | 26 |
| 72IN SIDE TM CHAIN GUARDS.....                      | 28 |
| 60IN TSR REAR GUARDS.....                           | 30 |
| TM MOWER SPINDLE ASSEMBLY.....                      | 32 |
| TSR MOWER SPINDLE ASSEMBLY.....                     | 34 |
| ROTARY DISK AND KNIVES.....                         | 36 |
| NOTES.....                                          | 37 |
| SIDE ROTARY CASTER WHEEL ASSEMBLY.....              | 38 |
| 60IN TM REAR CASTER WHEEL & 3PT ASSY.....           | 40 |
| CASTER WHEEL ASSEMBLY.....                          | 42 |
| SAFETY STAND.....                                   | 43 |
| 3IN X 10IN HYDRAULIC CYLINDER BREAKDOWN.....        | 44 |
| 3IN X 12IN HYDRAULIC CYLINDER BREAKDOWN.....        | 45 |
| 3IN X 18IN HYDRAULIC CYLINDER BREAKDOWN.....        | 46 |
| RESERVOIR TANK FILTER ASSEMBLY.....                 | 47 |
| ROTARY MOTOR BREAKDOWN.....                         | 48 |
| 60IN TSR ROTARY MOTOR BREAKDOWN.....                | 50 |
| FRONT HYDRAULIC PUMP BREAKDOWN.....                 | 52 |
| COOLER ASSEMBLY.....                                | 54 |
| CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31320.....    | 56 |
| CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31321.....    | 58 |
| CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502043..... | 60 |
| CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502044..... | 62 |
| CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502087..... | 64 |
| CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502088..... | 66 |
| BRAKE VALVE ASSEMBLY.....                           | 68 |
| BRAKE VALVE HYDRAULIC SCHEMATIC.....                | 69 |
| CABLE DRAFT BEAM TRAVEL LOCK.....                   | 70 |
| COMBO DRAFT BEAM TRAVEL LOCK.....                   | 71 |

COMMON TWIN

# PART NAME INDEX

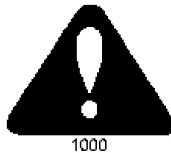
|                           |    |
|---------------------------|----|
| SWITCH BOX.....           | 72 |
| SWITCH BOX SCHEMATIC..... | 73 |
| NOTES 1.....              | 74 |

## 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.

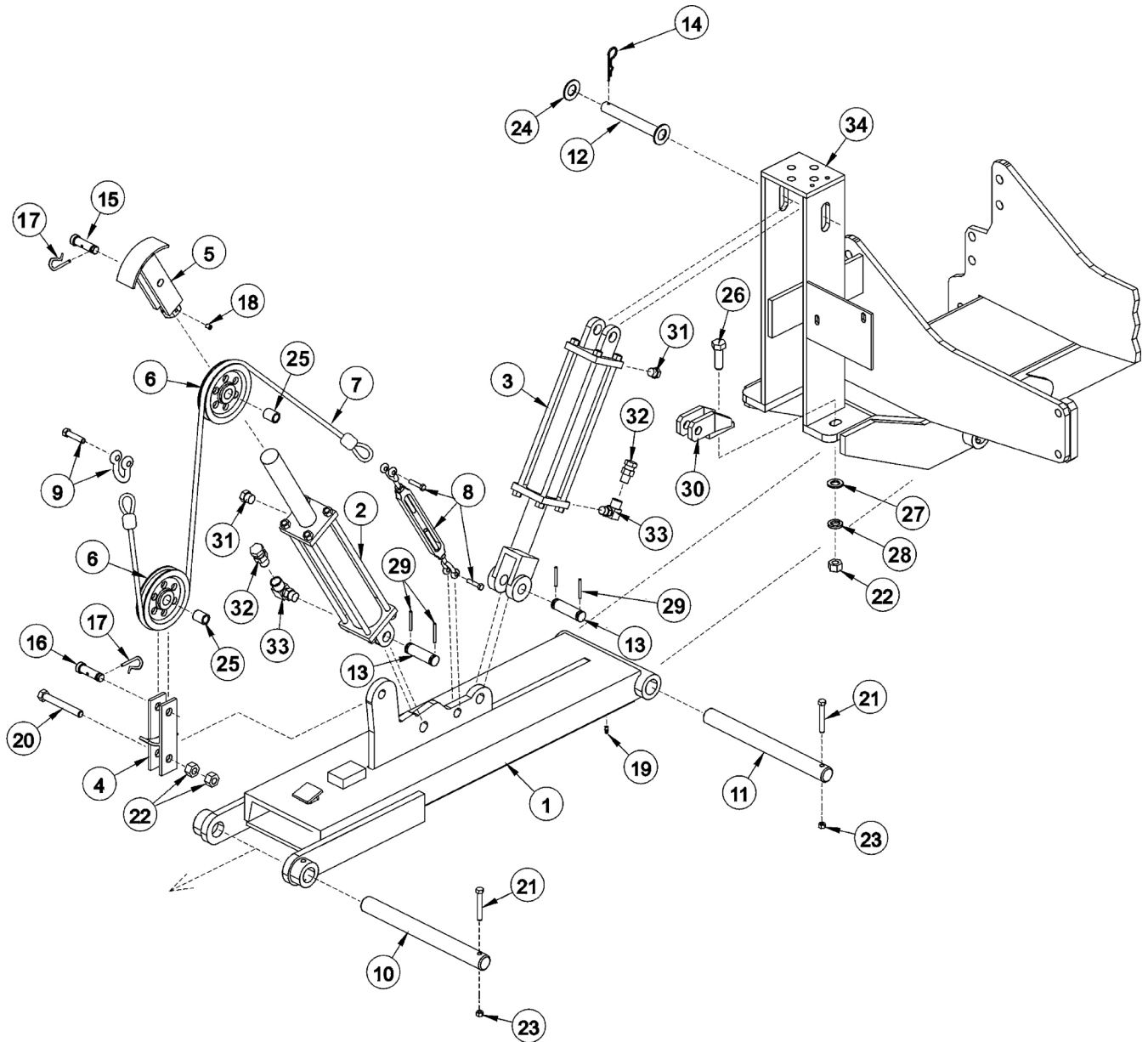


For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

Direct any questions regarding parts to:

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

# CABLE DRAFT BEAM ASSEMBLY



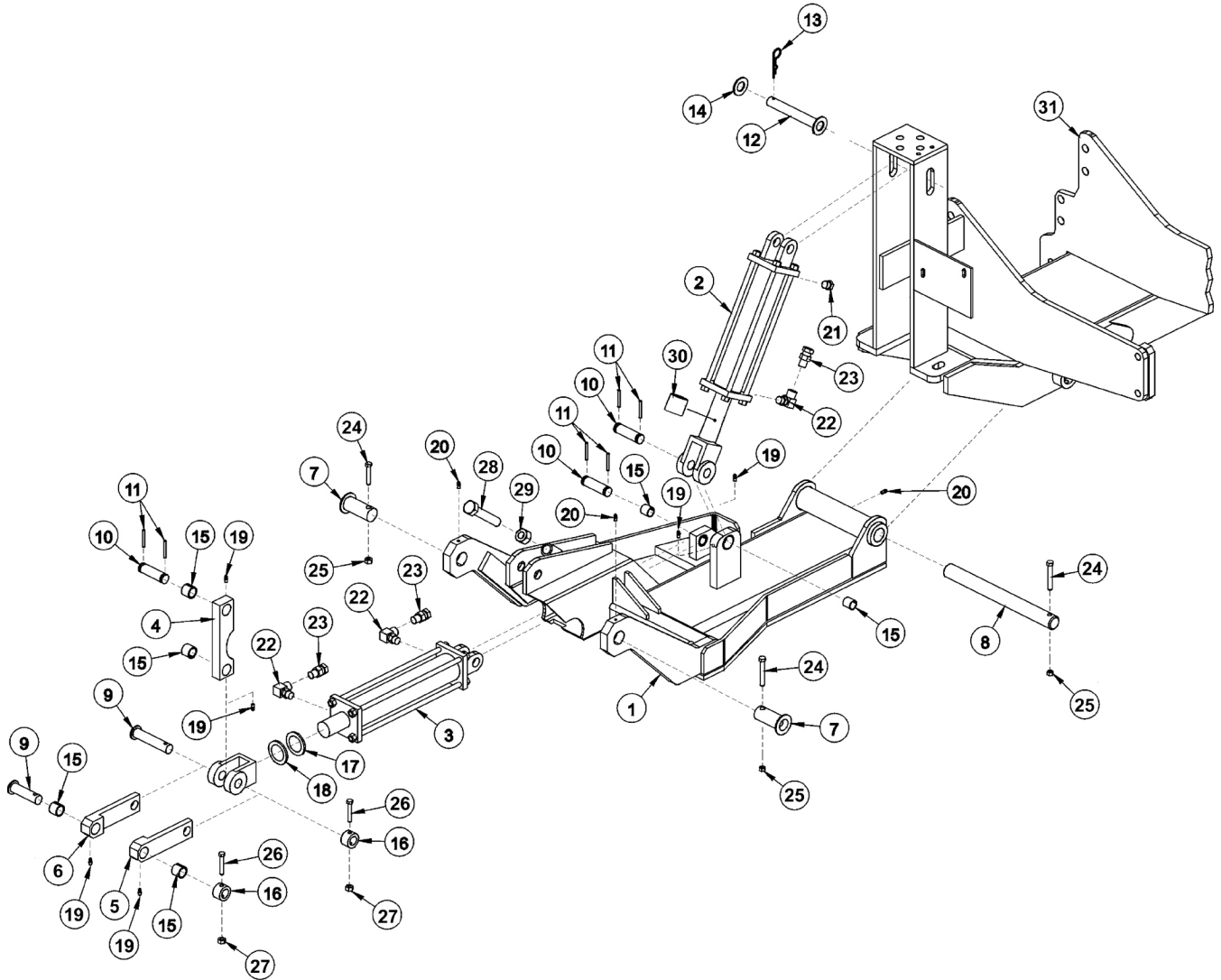
## CABLE DRAFT BEAM ASSEMBLY

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                |
|------|----------|------|--------------------------------------------|
| 1    | 6T0105   | -    | DRAFT BEAM (STD WITH TRAVEL LOCK)          |
| ---  | 27241    | -    | DRAFT BEAM (EXTENDED 6")                   |
| 2    | 6T0150   | 1    | CYLINDER 3" X 18"                          |
| 3    | 6T0151R  | 1    | HYD. CYLINDER 3" X 10"                     |
| 4    | 6T0100   | 1    | LOWER SHEAVE BRACKET                       |
| 5    | 6T0101   | 1    | UPPER SHEAVE BRACKET                       |
| 6    | 33768    | 2    | SHEAVE                                     |
| 7    | 6T0110   | 1    | LIFT CABLE (STD 1/2" X 87 1/2")            |
| ---  | 6T0110E  | -    | LIFT CABLE (EXTENDED 6")                   |
| 8    | 6T0115   | 1    | TURN BUCKLE                                |
| 9    | 6T0112   | 1    | SHACKLE WITH PIN                           |
| 10   | 6T2999   | 1    | OUTER DRAFT BEAM PIN 1 1/2" X 14 1/2"      |
| 11   | 6T3001   | 1    | INNER DRAFT BEAM PIN 1 1/2" X 15 3/4"      |
| 12   | 6T3005   | 1    | CYLINDER PIN 1" X 6 5/8"                   |
| 13   | TB1033   | 2    | CLEVIS PIN 1" X 4"                         |
| 14   | 6T3004   | 1    | R - CLIP 3/16"                             |
| 15   | 6T3010   | 1    | UPPER SHEAVE PIN WITH ZERK 3/4" X 3"       |
| 16   | 6T3009   | 1    | LOWER SHEAVE PIN WITH ZERK 3/4" X 2 1/2"   |
| 17   | 6T3020   | 2    | R - CLIP 5/32"                             |
| 18   | 6T2272   | 1    | SET SCREW 3/8" X 1/2"                      |
| 19   | 6T3211   | 1    | GREASE ZERK 1/8" STRAIGHT                  |
| 20   | 21837    | 1    | CAPSCREW 3/4" X 3 1/4"                     |
| 21   | 21688    | 2    | CAPSCREW 7/16" X 3 1/4"                    |
| 22   | 21825    | 2    | HEX NUT 3/4"                               |
| 23   | 21677    | 2    | NYLOCK NUT 7/16"                           |
| 24   | 22023    | 1    | FLAT WASHER 1"                             |
| 25   | 6T0104N  | 2    | SHEAVE PIN BUSHING 1" OD X 3/4" ID         |
| 26   | 21833    | 1    | CAPSCREW 3/4" X 2 1/4"                     |
| 27   | 22021    | 1    | FLAT WASHER 3/4"                           |
| 28   | 21993    | 1    | LOCK WASHER 3/4"                           |
| 29   | 06537021 | 4    | ROLL PIN                                   |
| 30   | 6T0106   | 1    | TRAVEL LOCK BRACKET                        |
| 31   | 6T4258   | 2    | BREATHER 1/2"                              |
| 32   | 34396    | 2    | RESTRICTOR                                 |
| 33   | 34244    | 2    | ELBOW FITTING 1/2"                         |
| 34   | -----    | -    | MAIN FRAME *REFER TO TRACTOR PARTS SECTION |

COMMON TWIN

# COMBO DRAFT BEAM ASSEMBLY



## NOTES:

1. ITEM 30 IS USED ON THE GLAND END OF ITEM 2 (AS NEEDED)
2. ORIENTATION OF ITEMS 4,5 & 6 ARE CRITICAL

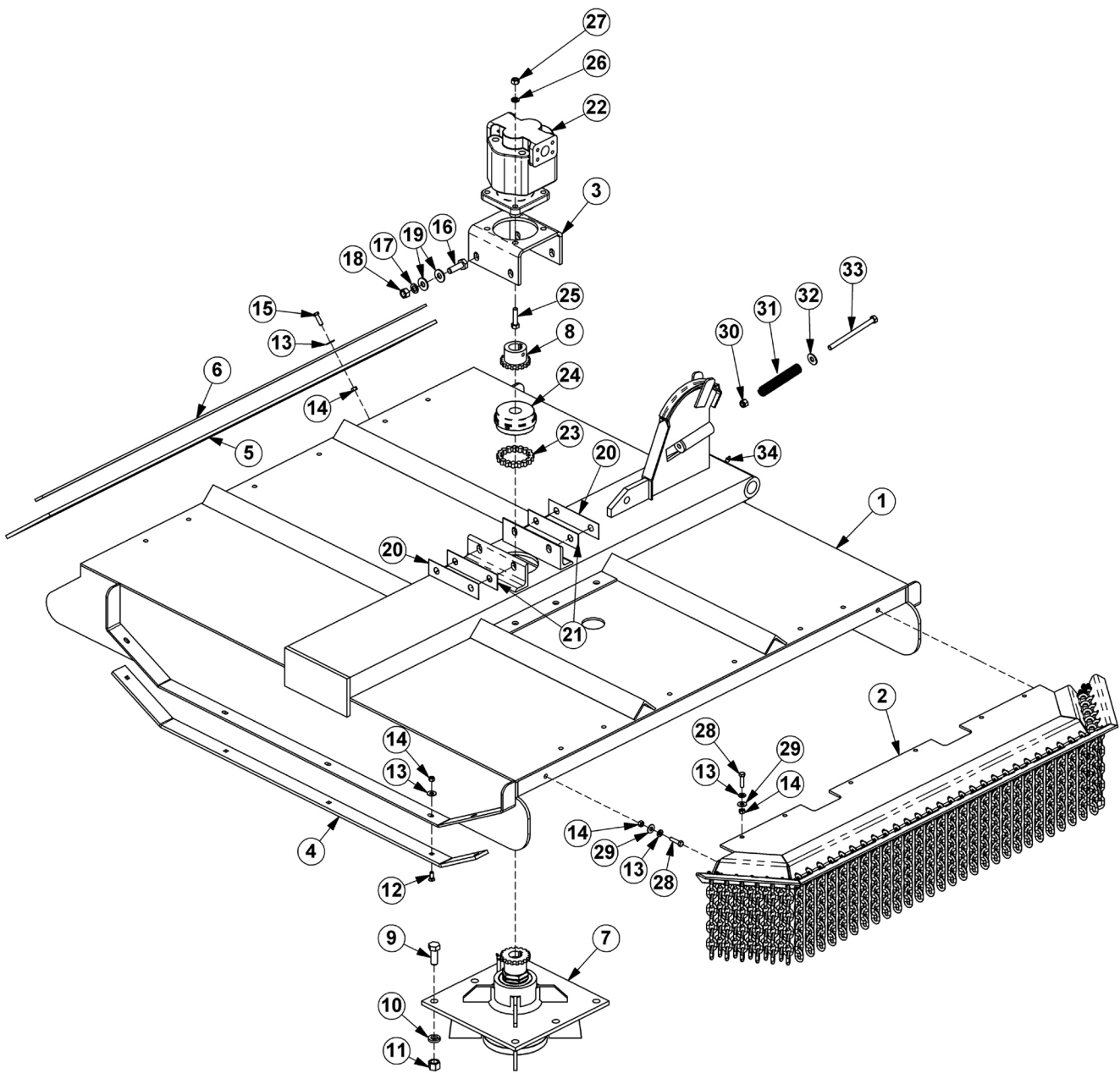
## COMBO DRAFT BEAM ASSEMBLY

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                             |
|------|----------|------|-----------------------------------------|
| 1    | 06350001 | 1    | COMBO DRAFT BEAM - STD DTY ROTARY       |
| ---  | 31063    | -    | COMBO DRAFT BEAM - HVY DTY ROTARY       |
| 2    | 6T0151R  | 1    | HYD. CYLINDER 3" X 10"                  |
| 3    | 32215    | 1    | HYD. CYLINDER 3" X 12" - STD DTY        |
| ---  | 25343    | -    | HYD. CYLINDER 3" X 12" - HVY DTY        |
| 4    | TF4500A  | 1    | PIVOT ARM                               |
| 5    | TF4507B  | 1    | RIGHT LINKAGE ARM                       |
| 6    | TF4506B  | 1    | LEFT LINKAGE ARM                        |
| 7    | 30126B   | 2    | PIN, HEAD PIVOT - STD DTY               |
| ---  | TF4514A  | -    | PIN, HEAD PIVOT - HVY DTY               |
| 8    | 6T3001   | 1    | PIN, BEAM PIVOT                         |
| 9    | TF4519   | 2    | PIN, LINKAGE                            |
| 10   | TB1033   | 3    | PIN, CLEVIS                             |
| 11   | 06537021 | 6    | ROLLPIN                                 |
| 12   | 6T3005   | 1    | PIN, 1" W/ CAP                          |
| 13   | 6T3004   | 1    | R-CLIP HAIRPIN                          |
| 14   | 6T2614   | 1    | FLATWASHER 1"                           |
| 15   | TB3010   | 8    | BUSHING 1"                              |
| 16   | 22847    | 2    | BOSS, LINKAGE PIN                       |
| 17   | 22076    | 1    | SPACER, HYD. CYLINDER 1/4"              |
| 18   | 22077    | 1    | SPACER, HYD. CYLINDER 5/16"             |
| 19   | 6T3207   | 6    | GREASE ZERK 1/4"                        |
| 20   | 6T3211   | 3    | GREASE ZERK 1/8"                        |
| 21   | 6T4258   | 1    | BREATHER 1/2"                           |
| 22   | 34244    | 3    | ELBOW FITTING 1/2"                      |
| 23   | 34396    | 3    | SWIVEL RESTRICTOR                       |
| 24   | 21688    | 3    | CAPSCREW 7/16" X 3 1/4"                 |
| 25   | 21677    | 3    | NYLOCK NUT 7/16"                        |
| 26   | 21635    | 2    | CAPSCREW 3/8" X 2 1/4"                  |
| 27   | 21625    | 2    | HEX NUT 3/8"                            |
| 28   | 21831    | 1    | CAPSCREW 3/4" X 1 3/4"                  |
| 29   | 21825    | 1    | HEX NUT 3/4"                            |
| 30   | 06700095 | 1    | CYLINDER SPACER W/SET SCREW             |
| 31   | -----    | -    | MAIN FRAME *REFER TO TRACTOR MOUNT PAGE |

COMMON TWIN

60IN SIDE CABLE TM ROTARY MOWER



COMMON TWIN



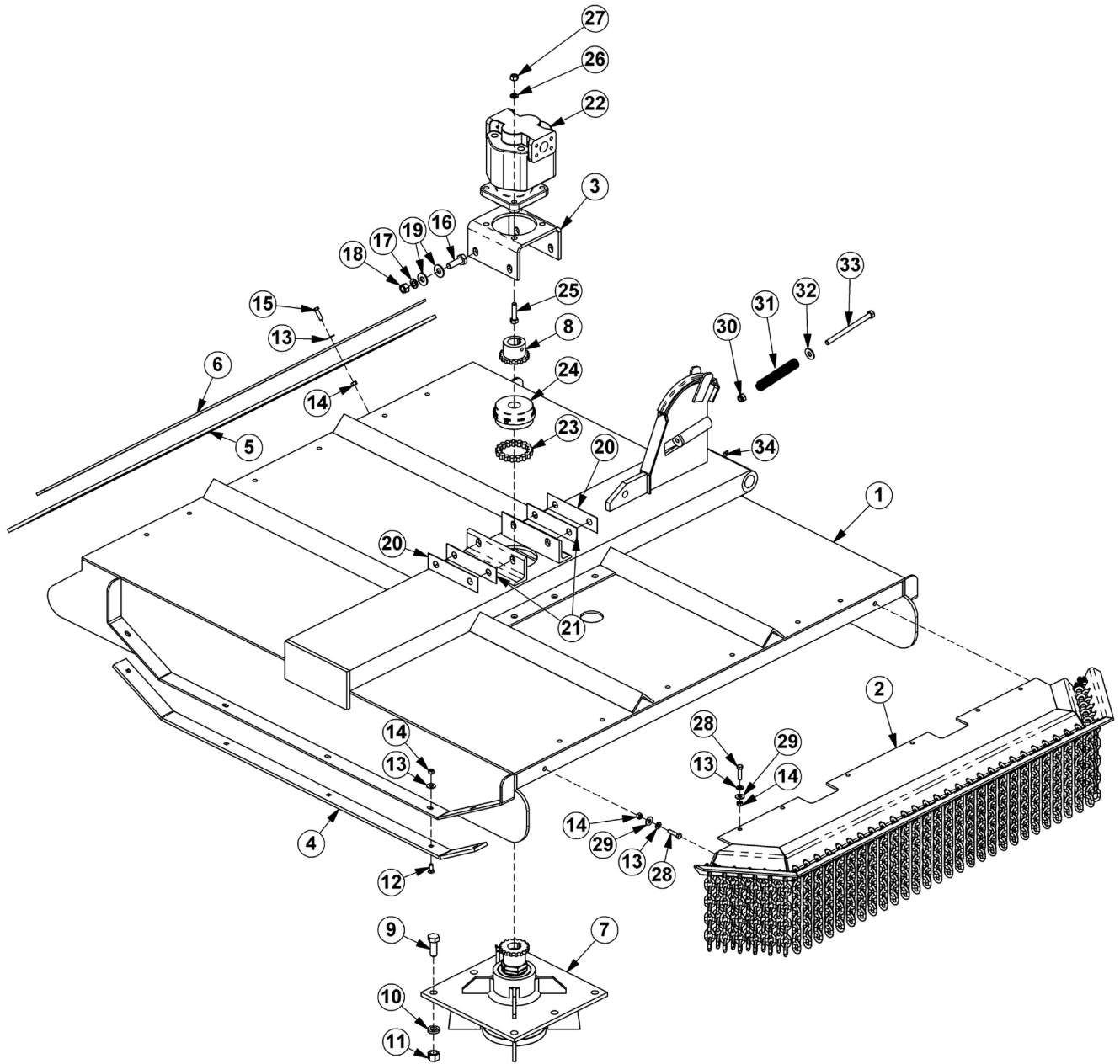
## 60IN SIDE CABLE TM ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 32099    | 1    | RTRY, 60" DECK, CABLE                 |
| 2    | 31773    | 1    | GAURD,CHAIN,FRONT,SR60                |
| 3    | 6T1001   | 1    | BRKT, MOTOR MTG, 60"SIDE RTRY         |
| 4    | 6T0820H  | 2    | SKID SHOE, TM60                       |
| 5    | 22592    | 1    | FLAP, DEFLECTOR, TM60                 |
| 6    | 6T0823   | 1    | BAR, FLAP, TM60                       |
| 7    | 6T1024H5 | 1    | SPINDLE ASSY,CPLT,HD,5/8" HOLES       |
| 8    | 21223    | 1    | SPROCKET, 1-1/4" BORE                 |
| 9    | 6T2277   | 6    | CAPSCREW,3/4" X 2",NF                 |
| 10   | 21993    | 6    | LOCKWASHER,3/4",GR 8                  |
| 11   | 6T2413   | 6    | HEX NUT,3/4",NF,GR 8                  |
| 12   | 6T2270   | 10   | PLOW BOLT,3/8" X 1",NC                |
| 13   | 22016    | 29   | FLATWASHER,3/8"                       |
| 14   | 21625    | 29   | HEX NUT,3/8",NC                       |
| 15   | 21631    | 11   | CAPSCREW, 3/8" X 1-1/4",NC            |
| 16   | 21783    | 4    | CAPSCREW, 5/8" X 2",NC                |
| 17   | 21992    | 4    | LOCKWASHER, 5/8"                      |
| 18   | 21775    | 4    | HEX NUT, 5/8"                         |
| 19   | 25270    | 8    | FLATWASHER,5/8",GR 8                  |
| 20   | 6T0822   | 2    | SHIM, MOTOR MOUNT, 14GA. (AS NEEDED)  |
| 21   | 6T0822A  | 2    | SHIM, MOTOR MOUNT, 18 GA. (AS NEEDED) |
| 22   | 6504011  | 1    | MOTOR,(M365-2 1/4" GEAR)              |
| 23   | 6T1029   | 1    | CHAIN, COUPLING                       |
| 24   | 6T1033   | 1    | COVER, COUPLING                       |
| 25   | 21733    | 4    | CAPSCREW, 1/2" X 2",NC                |
| 26   | 21990    | 4    | LOCKWASHER,1/2"                       |
| 27   | 21725    | 4    | HEX NUT, 1/2",NC                      |
| 28   | 21632    | 8    | CAPSCREW,3/8" X 1-1/2",NC             |
| 29   | 21988    | 8    | LOCKWASHER,3/8"                       |
| 30   | 21727    | 1    | NYLOCK NUT,1/2",NC                    |
| 31   | 27005    | 1    | SPRING,PUSHOFF,SIDE RTRY              |
| 32   | 22018    | 1    | FLATWASHER,1/2",WIDE                  |
| 33   | 21745    | 1    | CAPSCREW,1/2" X 7",NC                 |
| 34   | 6T3211   | 1    | GREASE ZERK                           |

COMMON TWIN

# 72IN SIDE CABLE TM ROTARY MOWER



COMMON TWIN

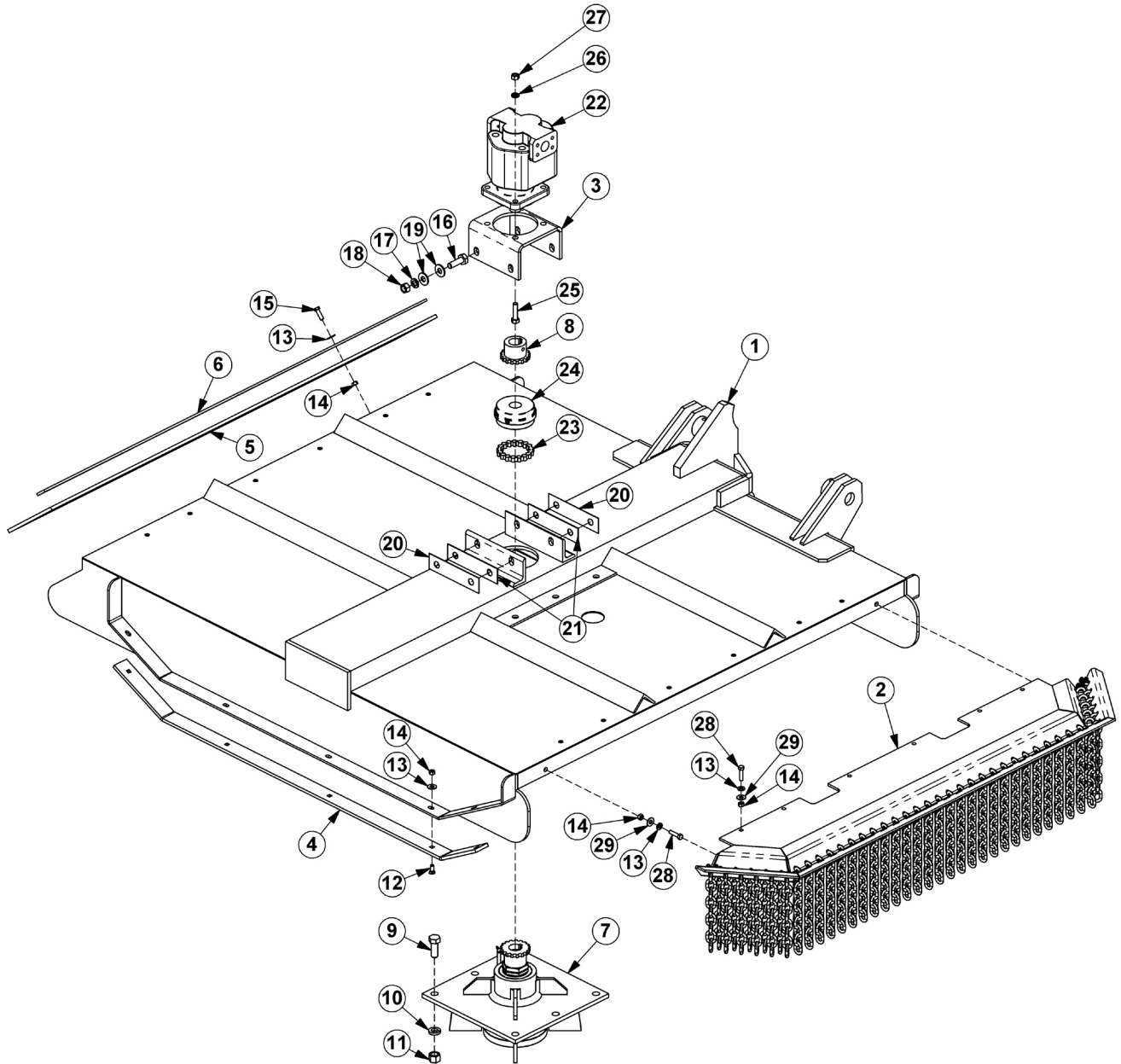
## 72IN SIDE CABLE TM ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 21225B   | 1    | RTRY,72" DECK, CABLE                  |
| 2    | 31931    | 1    | GUARD,CHAIN,FRONT,SR72                |
| 3    | 6T1001   | 1    | BRKT, MOTOR MTG, 60"SIDE RTRY         |
| 4    | 21248    | 2    | SKID SHOE, TM72                       |
| 5    | 21295B   | 1    | FLAP, DEFLECTOR, TM72                 |
| 6    | 21242A   | 1    | BAR, FLAP, TM72                       |
| 7    | 6T1024H5 | 1    | SPINDLE ASSY,CPLT,HD,5/8" HOLES       |
| 8    | 21223    | 1    | SPROCKET, 1-1/4" BORE                 |
| 9    | 6T2277   | 6    | CAPSCREW,3/4" X 2",NF                 |
| 10   | 21993    | 6    | LOCKWASHER,3/4",GR 8                  |
| 11   | 6T2413   | 6    | HEX NUT,3/4",NF,GR 8                  |
| 12   | 6T2270   | 10   | PLOW BOLT,3/8" X 1",NC                |
| 13   | 22016    | 29   | FLATWASHER,3/8"                       |
| 14   | 21625    | 29   | HEX NUT,3/8",NC                       |
| 15   | 21631    | 11   | CAPSCREW, 3/8" X 1-1/4",NC            |
| 16   | 21783    | 4    | CAPSCREW, 5/8" X 2",NC                |
| 17   | 21992    | 4    | LOCKWASHER, 5/8"                      |
| 18   | 21775    | 4    | HEX NUT, 5/8"                         |
| 19   | 25270    | 8    | FLATWASHER,5/8",GR 8                  |
| 20   | 6T0822   | 2    | SHIM, MOTOR MOUNT, 14GA. (AS NEEDED)  |
| 21   | 6T0822A  | 2    | SHIM, MOTOR MOUNT, 18 GA. (AS NEEDED) |
| 22   | 06504011 | 1    | MOTOR,(M365-2 1/4" GEAR)              |
| 23   | 6T1029   | 1    | CHAIN, COUPLING                       |
| 24   | 6T1033   | 1    | COVER, COUPLING                       |
| 25   | 21733    | 4    | CAPSCREW, 1/2" X 2",NC                |
| 26   | 21990    | 4    | LOCKWASHER,1/2"                       |
| 27   | 21725    | 4    | HEX NUT, 1/2",NC                      |
| 28   | 21632    | 8    | CAPSCREW,3/8" X 1-1/2",NC             |
| 29   | 21988    | 8    | LOCKWASHER,3/8"                       |
| 30   | 21727    | 1    | NYLOCK NUT,1/2",NC                    |
| 31   | 27005    | 1    | SPRING,PUSHOFF,SIDE RTRY              |
| 32   | 22018    | 1    | FLATWASHER,1/2",WIDE                  |
| 33   | 21745    | 1    | CAPSCREW,1/2" X 7",NC                 |
| 34   | 6T3211   | 1    | GREASE ZERK                           |

COMMON TWIN

# 60IN SIDE COMBO TM ROTARY MOWER



COMMON TWIN

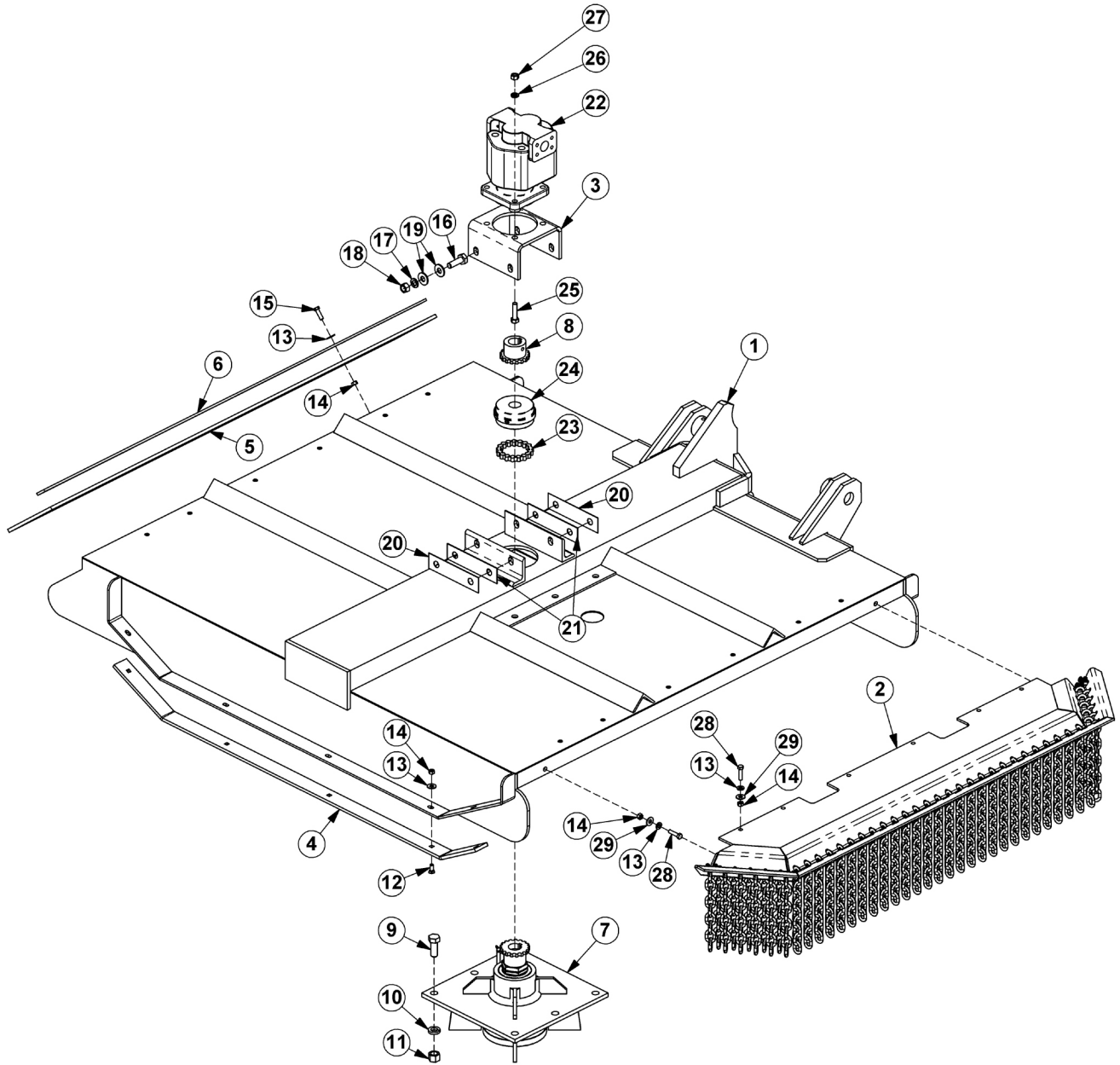
## 60IN SIDE COMBO TM ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 30087D   | 1    | RTRY, 60" DECK, COMBO - STD DUTY      |
| ---  | 32617    | 1    | RTRY, 60" DECK, COMBO - HVY DUTY      |
| 2    | 31773    | 1    | GAURD,CHAIN,FRONT,SR60                |
| 3    | 6T1001   | 1    | BRKT, MOTOR MTG, 60"SIDE RTRY         |
| 4    | 6T0820H  | 2    | SKID SHOE, TM60                       |
| 5    | 22592    | 1    | FLAP, DEFLECTOR, TM60                 |
| 6    | 6T0823   | 1    | BAR, FLAP, TM60                       |
| 7    | 6T1024H5 | 1    | SPINDLE ASSY,CPLT,HD,5/8" HOLES       |
| 8    | 21223    | 1    | SPROCKET, 1-1/4" BORE                 |
| 9    | 6T2277   | 6    | CAPSCREW,3/4" X 2",NF                 |
| 10   | 21993    | 6    | LOCKWASHER,3/4",GR 8                  |
| 11   | 6T2413   | 6    | HEX NUT,3/4",NF,GR 8                  |
| 12   | 6T2270   | 10   | PLOW BOLT,3/8" X 1",NC                |
| 13   | 22016    | 29   | FLATWASHER,3/8"                       |
| 14   | 21625    | 29   | HEX NUT,3/8",NC                       |
| 15   | 21631    | 11   | CAPSCREW, 3/8" X 1-1/4",NC            |
| 16   | 21783    | 4    | CAPSCREW, 5/8" X 2",NC                |
| 17   | 21992    | 4    | LOCKWASHER, 5/8"                      |
| 18   | 21775    | 4    | HEX NUT, 5/8"                         |
| 19   | 25270    | 8    | FLATWASHER,5/8",GR 8                  |
| 20   | 6T0822   | 2    | SHIM, MOTOR MOUNT, 14GA. (AS NEEDED)  |
| 21   | 6T0822A  | 2    | SHIM, MOTOR MOUNT, 18 GA. (AS NEEDED) |
| 22   | 06504011 | 1    | MOTOR,(M365-2 1/4" GEAR)              |
| 23   | 6T1029   | 1    | CHAIN, COUPLING                       |
| 24   | 6T1033   | 1    | COVER, COUPLING                       |
| 25   | 21733    | 4    | CAPSCREW, 1/2" X 2",NC                |
| 26   | 21990    | 4    | LOCKWASHER,1/2"                       |
| 27   | 21725    | 4    | HEX NUT, 1/2",NC                      |
| 28   | 21632    | 8    | CAPSCREW,3/8" X 1-1/2",NC             |
| 29   | 21988    | 8    | LOCKWASHER,3/8"                       |

COMMON TWIN

# 72IN SIDE COMBO TM ROTARY MOWER



COMMON TWIN

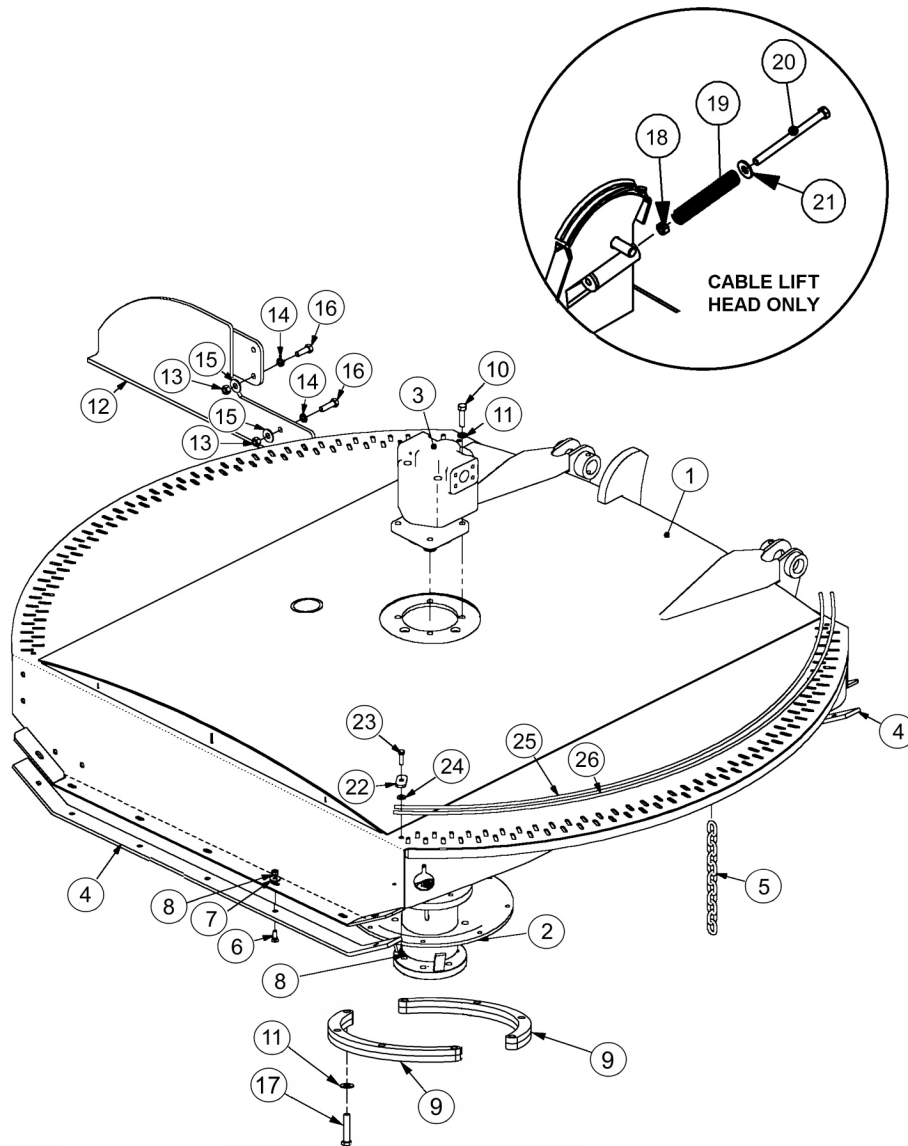
## 72IN SIDE COMBO TM ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 34260    | 1    | RTRY, 72" DECK, COMBO - STD DUTY      |
| ---  | 31408A   | 1    | RTRY, 72" DECK, COMBO - HEAVY DUTY    |
| 2    | 31931    | 1    | GUARD,CHAIN,FRONT,SR72                |
| 3    | 6T1001   | 1    | BRKT, MOTOR MTG, 60"SIDE RTRY         |
| 4    | 21248    | 2    | SKID SHOE, TM72                       |
| 5    | 21295B   | 1    | FLAP, DEFLECTOR, TM72                 |
| 6    | 21242A   | 1    | BAR, FLAP, TM72                       |
| 7    | 6T1024H5 | 1    | SPINDLE ASSY,CPLT,HD,5/8" HOLES       |
| 8    | 21223    | 1    | SPROCKET, 1-1/4" BORE                 |
| 9    | 6T2277   | 6    | CAPSCREW,3/4" X 2",NF                 |
| 10   | 21993    | 6    | LOCKWASHER,3/4",GR 8                  |
| 11   | 6T2413   | 6    | HEX NUT,3/4",NF,GR 8                  |
| 12   | 6T2270   | 10   | PLOW BOLT,3/8" X 1",NC                |
| 13   | 22016    | 29   | FLATWASHER,3/8"                       |
| 14   | 21625    | 29   | HEX NUT,3/8",NC                       |
| 15   | 21631    | 11   | CAPSCREW, 3/8" X 1-1/4",NC            |
| 16   | 21783    | 4    | CAPSCREW, 5/8" X 2",NC                |
| 17   | 21992    | 4    | LOCKWASHER, 5/8"                      |
| 18   | 21775    | 4    | HEX NUT, 5/8"                         |
| 19   | 25270    | 8    | FLATWASHER,5/8",GR 8                  |
| 20   | 6T0822   | 2    | SHIM, MOTOR MOUNT, 14GA. (AS NEEDED)  |
| 21   | 6T0822A  | 2    | SHIM, MOTOR MOUNT, 18 GA. (AS NEEDED) |
| 22   | 06504011 | 1    | MOTOR,(M365-2 1/4" GEAR)              |
| 23   | 6T1029   | 1    | CHAIN, COUPLING                       |
| 24   | 6T1033   | 1    | COVER, COUPLING                       |
| 25   | 21733    | 4    | CAPSCREW, 1/2" X 2",NC                |
| 26   | 21990    | 4    | LOCKWASHER,1/2"                       |
| 27   | 21725    | 4    | HEX NUT, 1/2",NC                      |
| 28   | 21632    | 8    | CAPSCREW,3/8" X 1-1/2",NC             |
| 29   | 21988    | 8    | LOCKWASHER,3/8"                       |

COMMON TWIN

# 60IN SIDE TSR ROTARY MOWER





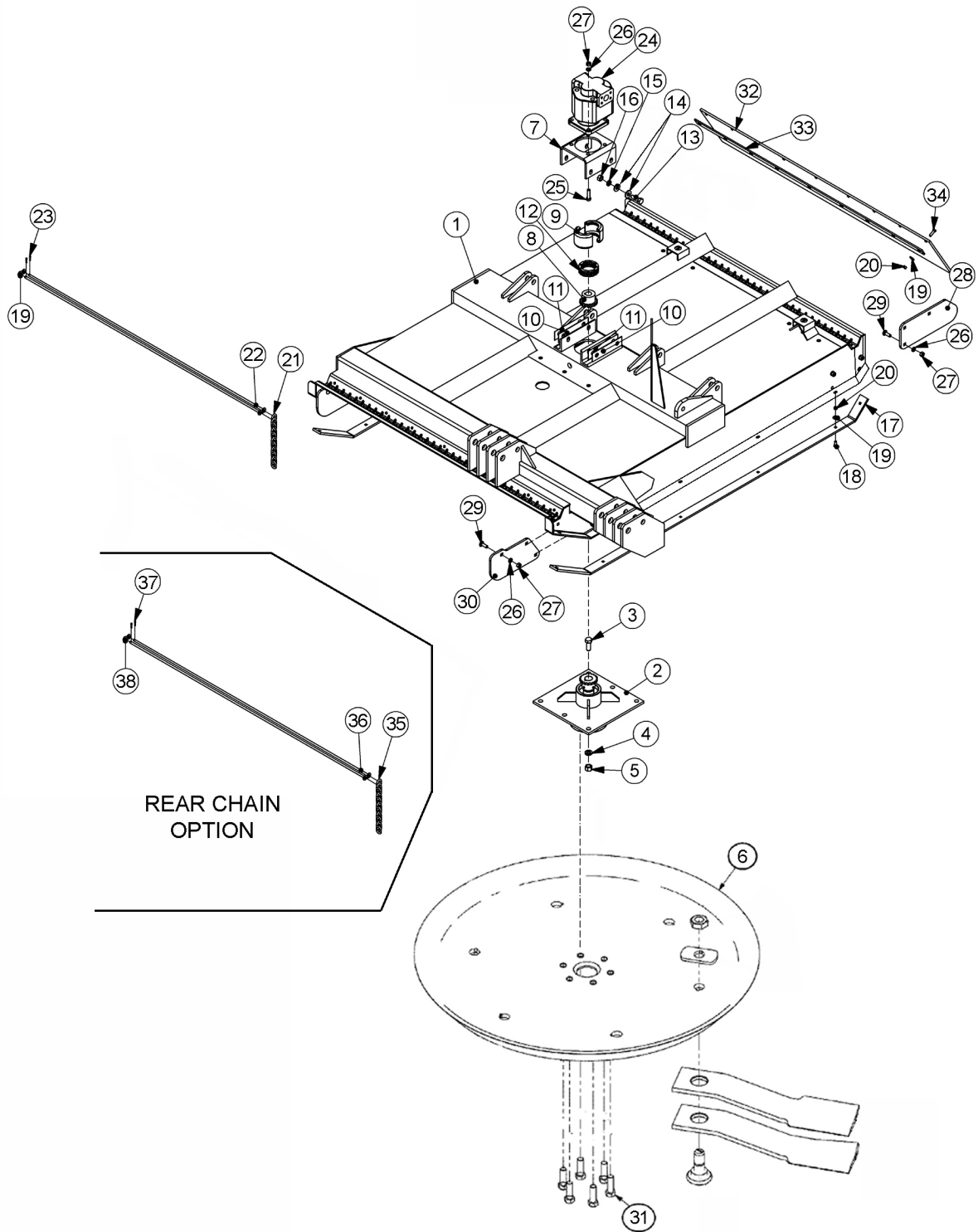
## 60IN SIDE TSR ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| 1    | 34975    | 1    | HEAVY DUTY GRASSKAT COMBO             |
| ---  | 06320005 | 1    | STD DUTY GRASSKAT COMBO               |
| ---- | 06320008 | 1    | HEAVY DUTY GRASSKAT CABLE             |
| 2    | 34980    | 1    | SPINDLE ASSY,TM 60"                   |
| 3    | 06504016 | 1    | CURRENT MOTOR,(M365-1 1/4" 14-SPLINE) |
| 4    | 06410254 | 2    | SKID,OUTBOARD,TM60                    |
| 5    | 22992    | 156  | CHAIN,10 LINK                         |
| 6    | 6T2270   | 14   | PLOW BOLT,3/8" X 1" NC                |
| 7    | 22016    | 26   | FLATWASHER,3/8"                       |
| 8    | 21625    | 30   | HEX NUT,3/8",NC                       |
| 9    | 06320011 | 2    | SPACER,TSF,SPINDLE                    |
| 10   | 6T1025   | 4    | CAPSCREW, 1/2 X 2,GR 8,NC             |
| 11   | 06533006 | 4    | FLATWASHER,1/2,SAE,GR 8               |
| 12   | 06370029 | 1    | TIRE GUARD, LEFT                      |
| 13   | 21725    | 8    | HEX NUT, 1/2",NC                      |
| 14   | 21990    | 8    | LOCKWASHER, 1/2"                      |
| 15   | 22018    | 8    | FLATWASHER, 1/2",WIDE                 |
| 16   | 21731    | 4    | CAPSCREW, 1/2" X 1-1/2" NC            |
| 17   | 21732    | 4    | CAPSCREW, 1/2" X 1-3/4" NC            |
| 18   | 21745    | 1    | NYLOCK NUT, 1/2                       |
| 19   | 21727    | 1    | SPRING, PUSHOFF, SIDE RTRY            |
| 20   | 27005    | 1    | CAPSCREW, 1/2 X 7,NC                  |
| 21   | 22018    | 1    | FLATWASHER,1/2",WIDE                  |
| 22   | 34972    | 4    | PLATE,CAP,CHAIN                       |
| 23   | 21631    | 16   | CAPSCREW, 3/8 X 1-1/4,NC              |
| 24   | 21988    | 16   | LOCKWASHER, 3/8"                      |
| 25   | 34974    | 2    | ROD,CHAIN,INNER,TM60                  |
| 26   | 34973    | 2    | ROD,CHAIN,OUTER,TM60                  |

COMMON TWIN

# 60IN REAR TM ROTARY MOWER



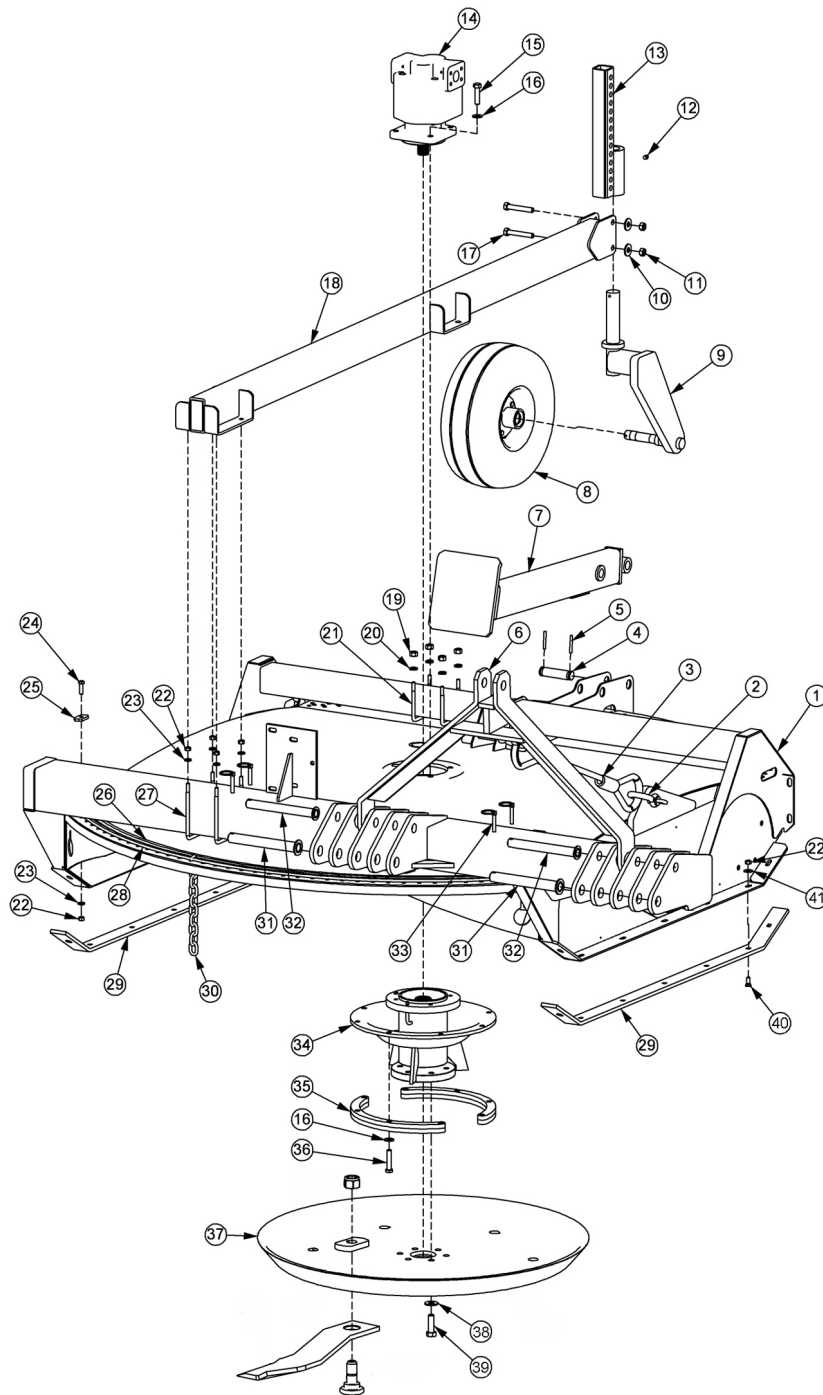
## 60IN REAR TM ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                           |
|------|----------|------|---------------------------------------|
| ---  | 23003    | -    | REAR RTRY, 60" W/REAR CHAINS          |
| 1    | 32616    | 1    | RTRY, 60" DECK, TRR                   |
| 2    | 6T1024H5 | 1    | SPINDLE ASSY,CPLT,HD,5/8 HOLES        |
| 3    | 6T2277   | 6    | CAPSCREW, 3/4" X 2" NF                |
| 4    | 21993    | 6    | LOCKWASHER,3/4",GR 8                  |
| 5    | 6T2413   | 6    | HEX NUT,3/4",NF,GR 8                  |
| 6    | -----    | -    | DISK *REFER TO DISK & KNIVES PAGE     |
| 7    | 6T1001   | 1    | BRKT, MOTOR MTG, 60"                  |
| 8    | 21223    | 1    | SPROKET, 1-1/4" BORE                  |
| 9    | 6T1033   | 1    | COVER, COUPLING                       |
| 10   | 6T0822   | 2    | SHIM, MOTOR MOUNT, 14GA. (AS NEEDED)  |
| 11   | 6T0822A  | 2    | SHIM, MOTOR MOUNT, 18 GA. (AS NEEDED) |
| 12   | 6T1029   | 1    | CHAIN, COUPLING                       |
| 13   | 21783    | 4    | CAPSCREW, 5/8" X 2",NC                |
| 14   | 25270    | 8    | FLATWASHER,5/8", GR 8                 |
| 15   | 21992    | 10   | LOCKWASHER, 5/8"                      |
| 16   | 21775    | 4    | HEX NUT, 5/8"                         |
| 17   | 23160A   | 2    | SKID SHOE                             |
| 18   | 6T2270   | 12   | PLOW BOLT,3/8" X 1" NC                |
| 19   | 22016    | 21   | FLATWASHER,3/8"                       |
| 20   | 21625    | 21   | HEX NUT,3/8",NC                       |
| 21   | 22993    | 71   | CHAIN, 5/16" GR30, 9 LINK             |
| 22   | 22054    | 2    | ROD, CHAIN HOLDER                     |
| 23   | 6T3028   | 2    | COTTER PIN, 1/8" X 1"                 |
| 24   | 06504011 | 1    | MOTOR, (M365 - 2" GEAR)               |
| 25   | 21733    | 4    | CAPSCREW, 1/2" X 2",NC                |
| 26   | 21990    | 16   | LOCKWASHER, 1/2"                      |
| 27   | 21725    | 16   | HEX NUT, 1/2" NC                      |
| 28   | 33656    | 2    | PLATE,GUARD,SAFETY,REAR,RTRY          |
| 29   | 6T2267   | 12   | CARRIAGE BOLT, 1/2" X 2" NF, GR8      |
| 30   | 33655    | 2    | PLATE,GAURD,SAFETY,FRONT, RTRY        |
| 31   | 6T2290   | 6    | CAPSCREW,5/8" X 2",NF GR 8            |
| 32   | 24347    | 1    | REAR DEFLECTOR FLAP                   |
| 33   | 24349    | 1    | FLAP MOUNTING BAR                     |
| 34   | 21631    | 9    | CAPSCREW, 3/8" X 1-1/4" NC            |
| 35   | 22992    | 71   | CHAIN, 5/16" GR30, 10 LINK            |
| 36   | 22054    | 2    | ROD, CHAIN HOLDER                     |
| 37   | 6T3028   | 2    | COTTER PIN, 1/8" X 1"                 |
| 38   | 22016    | 2    | FLATWASHER,3/8"                       |

COMMON TWIN

# 60IN REAR TSR ROTARY MOWER



| ITEM | PART NO. | QTY. | DESCRIPTION              |
|------|----------|------|--------------------------|
| ---  | 06741023 | -    | 60IN TSR REAR MOWER ASSY |
| 1    | 06320002 | 1    | TRAILKAT®,60,WLDMNT      |
| 2    | 6T0112   | 2    | SHACKLE,W/PIN,CPLT       |
| 3    | 22051    | 1    | CABLE,LIFT,TRR,60        |

COMMON TWIN

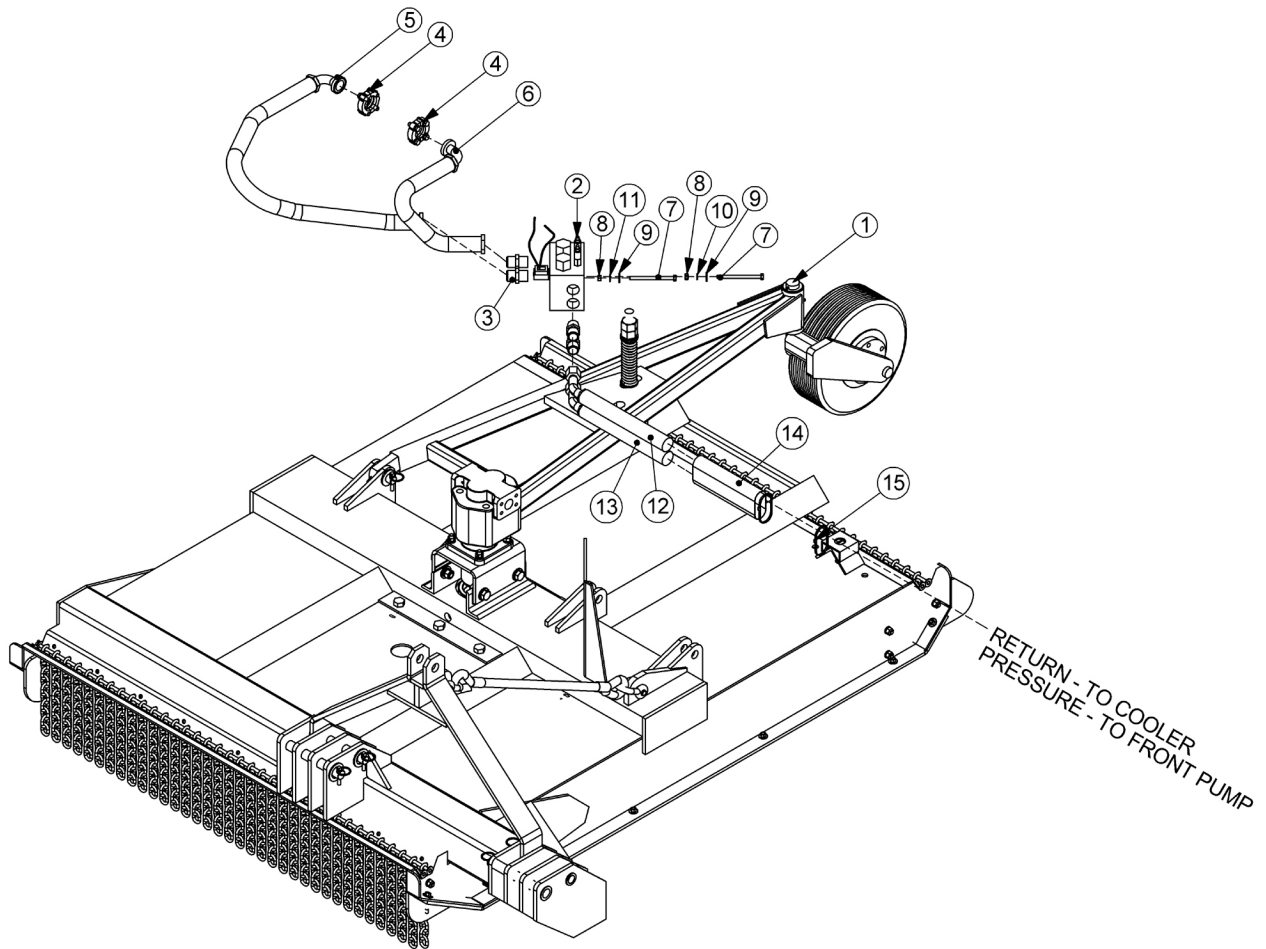
## 60IN REAR TSR ROTARY MOWER

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                       |
|------|----------|------|-----------------------------------|
| 4    | 06520425 | 2    | PIN                               |
| 5    | 06537021 | 4    | ROLLPIN,5MM X 50MM,SS             |
| 6    | 21474A   | 1    | HITCH,3PT,TRR                     |
| 7    | 28511    | 1    | STAND,SAFETY SUPPORT W/PAD        |
| 8    | 23329    | 1    | CASTER WHL,SOLID TIRE W/SPIND     |
| 9    | 22057    | 1    | SPINDLE,CASTER AXLE,ASSY          |
| 10   | 22018    | 2    | FLATWASHER,1/2,WIDE               |
| 11   | 21725    | 2    | HEX NUT,1/2,NC                    |
| 12   | 6T3211   | 1    | GREASE ZERK,1/8                   |
| 13   | 06370003 | 1    | CASTER ADJ,TRAILKAT               |
| 14   | 06504016 | 1    | MOTOR,M365-1 1/4",SPLINE,SEALED   |
| 15   | 6T1025   | 4    | CAPSCREW,1/2 X 2,NC,GR8           |
| 16   | 06533004 | 12   | FLATWASHER,1/2,SAE,GR8            |
| 17   | 21738    | 2    | CAPSCREW,1/2 X 3-1/4,NC           |
| 18   | 06370004 | 1    | CASTER MNT,TRAILKAT               |
| 19   | 21700    | 4    | HEX NUT,1/2,NF                    |
| 20   | 21990    | 4    | LOCKWASHER,1/2                    |
| 21   | 06420003 | 2    | U-BOLT,.50 X 3.25 X 5.00          |
| 22   | 21625    | 20   | HEX NUT,3/8,NC                    |
| 23   | 21988    | 6    | LOCKWASHER,3/8                    |
| 24   | 21631    | 2    | CAPSCREW,3/8 X 1-1/4,NC,GR8       |
| 25   | 34972    | 2    | PLATE,CAP,CHAIN                   |
| 26   | 34974    | 1    | ROD,CHAIN,INNER,TM60              |
| 27   | 06420005 | 2    | U-BOLT,.38 X 5.63 X 6.31          |
| 28   | 34973    | 1    | ROD,CHAIN,OUTER,TM60              |
| 29   | 06410254 | 2    | SKID SHOE,TSR                     |
| 30   | 22992    | 78   | CHAIN,10 LINK                     |
| 31   | 33698    | 2    | PIN,1.13 X 9.00                   |
| 32   | 33699    | 2    | PIN,1 X 8.88                      |
| 33   | TF1143   | 4    | LYNCH PIN                         |
| 34   | 34980    | 1    | SPINDLE ASSY,TM60                 |
| 35   | 06320011 | 2    | SPACER,TSR,SPINDLE                |
| 36   | 06530221 | 8    | CAPSCREW,1/2 X 2-1/4,NF,GR8       |
| 37   | -----    | -    | DISK *REFER TO DISK & KNIVES PAGE |
| 38   | 25270    | 6    | FLATWASHER,5/8",USS,GR8           |
| 39   | 6T2290   | 6    | CAPSCREW,5/8" X 2",NF,GR8         |
| 40   | 6T2270   | 14   | PLOW BOLT,3/8" X 1",NC            |
| 41   | 22016    | 14   | FLATWASHER,3/8",GR8               |

COMMON TWIN

# REAR ROTARY HYDRAULICS



## REAR ROTARY HYDRAULICS

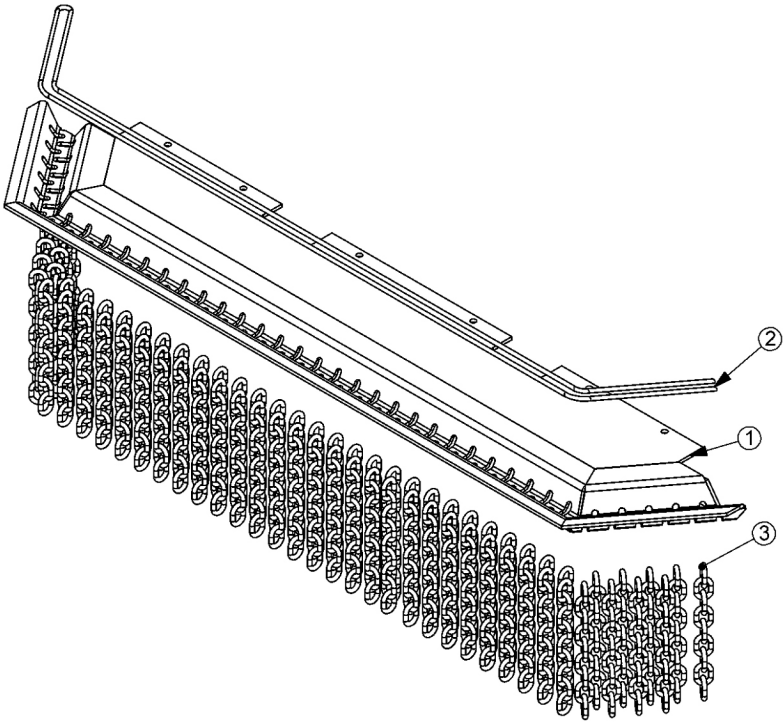
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| ITEM | PART NO. | QTY. | DESCRIPTION                                    |
|------|----------|------|------------------------------------------------|
| 1    | -----    | -    | REAR ROTARY MOWER                              |
| 2    | 06510083 | 1    | VALVE,BRAKE,SOL,3000PSI,METRI                  |
| 3    | 33555    | 4    | ADAPTER,1MORB X 1MJIC (3 FOR TSR)              |
| ---  | 33554    | 1    | ELBOW,1MORB X 1MJIC,45 (TSR PRESSURE TO MOTOR) |
| 4    | TF4852   | 2    | KIT, FLANGE, #20                               |
| 5    | 34198    | 1    | HOSE, 1" X 40" (TM MOWER RETURN)               |
| ---  | 06500087 | -    | HOSE, 1" X 42" (TSR MOWER RETURN)              |
| 6    | 34197    | 1    | HOSE, 1" X 33" (TM MOWER PRESSURE)             |
| ---  | 06500086 | -    | HOSE, 1" X 24" (TSR MOWER PRESSURE)            |
| 7    | 21644    | 2    | CAPSCREW,3/8" X 5" NC                          |
| 8    | 21625    | 2    | HEX NUT,3/8",NC                                |
| 9    | 22016    | 2    | FLATWASHER,3/8"                                |
| 10   | 21988    | 1    | LOCKWASHER, 3/8"                               |
| 11   | 6T2665   | 1    | STAR LOCKWASHER, 3/8"                          |
| 12   | -----    | 1    | HOSE (RETURN)                                  |
| 13   | -----    | 1    | HOSE (PRESSURE)                                |
| 14   | 33930    | 1    | HOSE SLEEVE, TRR                               |
| 15   | 6T1823   | 2    | ZIP TIE, 14" STRAPS                            |

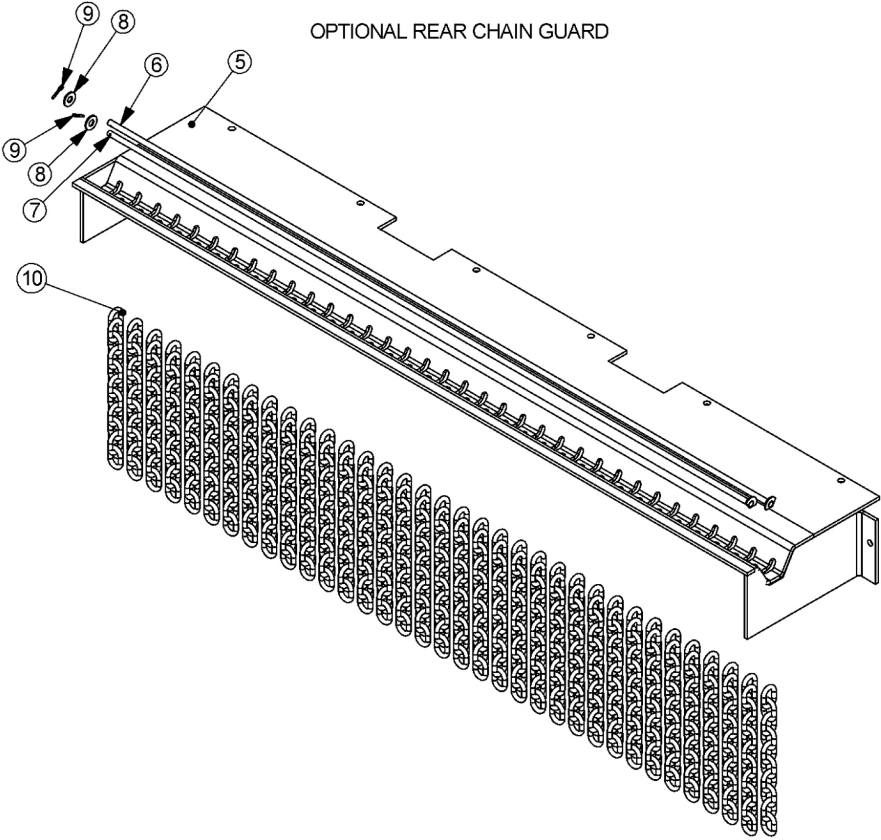
COMMON TWIN

# 60IN SIDE TM CHAIN GUARDS

STANDARD FRONT CHAIN GUARD



OPTIONAL REAR CHAIN GUARD





## 60IN SIDE TM CHAIN GUARDS

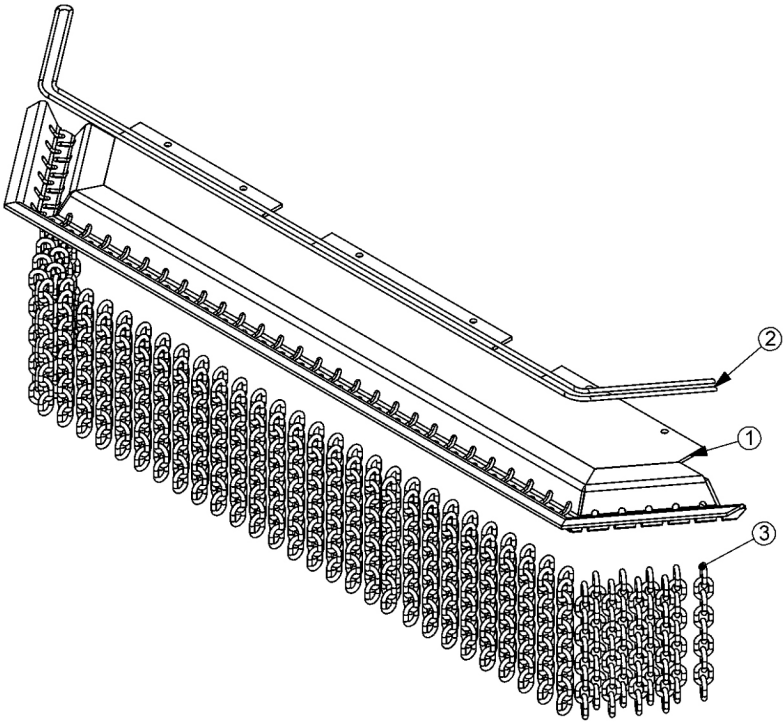
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| ITEM | PART NO. | QTY. | DESCRIPTION                    |
|------|----------|------|--------------------------------|
| ---  | 31773    | -    | GUARD,CHAIN,TM60,FRONT,ASSY    |
| 1    | 31762    | 1    | GUARD,CHAIN,TM60,FRONT         |
| 2    | 28407    | 12   | CABLE,5/16",BULK (QTY IN FEET) |
| 3    | 22993    | 77   | CHAIN,5/16",GR30,9 LINK        |
| 4    | 28408    | 4    | U-BOLT,CABLE,5/16" (NOT SHOWN) |
| ---  | 31774    | -    | GUARD,CHAIN,TM60,REAR,ASSY     |
| 5    | 31763    | 1    | GUARD,CHAIN,TM60,REAR          |
| 6    | 31879    | 1    | ROD,SHORT,TM60                 |
| 7    | 31878    | 1    | ROD,LONG,TM60                  |
| 8    | 22016    | 2    | FLATWASHER,3/8",GR8            |
| 9    | 6T3028   | 2    | COTTER PIN,1/8" X 1"           |
| 10   | 22992    | 69   | CHAIN,5/16",GR30,10 LINK       |

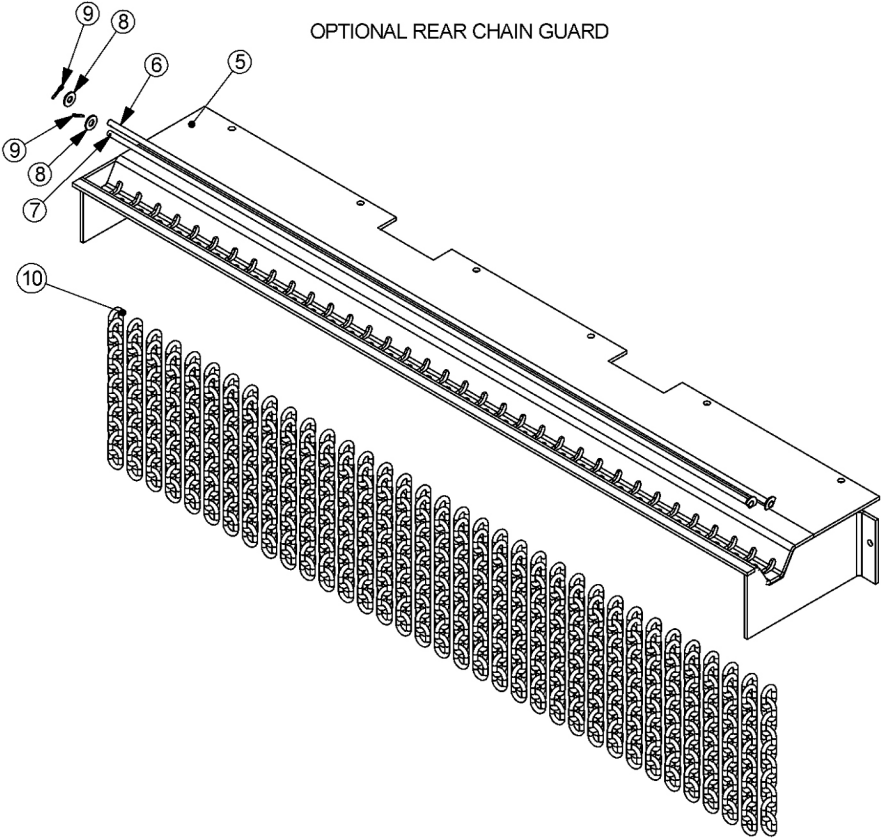
COMMON TWIN

72IN SIDE TM CHAIN GUARDS

STANDARD FRONT CHAIN GUARD



OPTIONAL REAR CHAIN GUARD



## 72IN SIDE TM CHAIN GUARDS

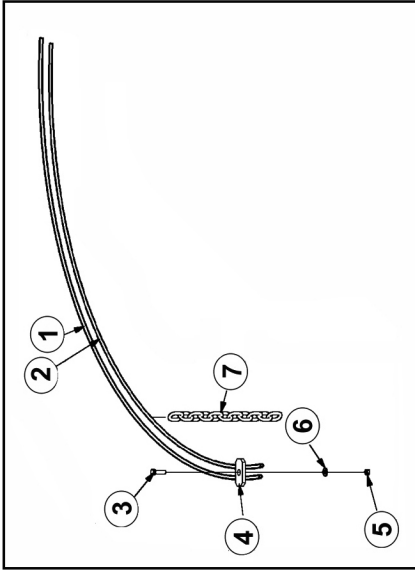
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| ITEM | PART NO. | QTY. | DESCRIPTION                    |
|------|----------|------|--------------------------------|
| ---  | 31931    | -    | GUARD,CHAIN,TM72,FRONT,ASSY    |
| 1    | 31863    | 1    | GUARD,CHAIN,TM72,FRONT         |
| 2    | 28407    | 14   | CABLE,5/16",BULK (QTY IN FEET) |
| 3    | 22993    | 91   | CHAIN,5/16",GR30,9 LINK        |
| 4    | 28408    | 4    | U-BOLT,CABLE,5/16" (NOT SHOWN) |
| ---  | 31932    | -    | GUARD,CHAIN,TM60,REAR,ASSY     |
| 5    | 31864    | 1    | GUARD,CHAIN,TM60,REAR          |
| 6    | 31934    | 1    | ROD,LONG,TM72                  |
| 7    | 31933    | 1    | ROD,SHORT,TM72                 |
| 8    | 22016    | 2    | FLATWASHER,3/8",GR8            |
| 9    | 6T3028   | 2    | COTTER PIN,1/8" X 1"           |
| 10   | 22992    | 83   | CHAIN,5/16",GR30,10 LINK       |

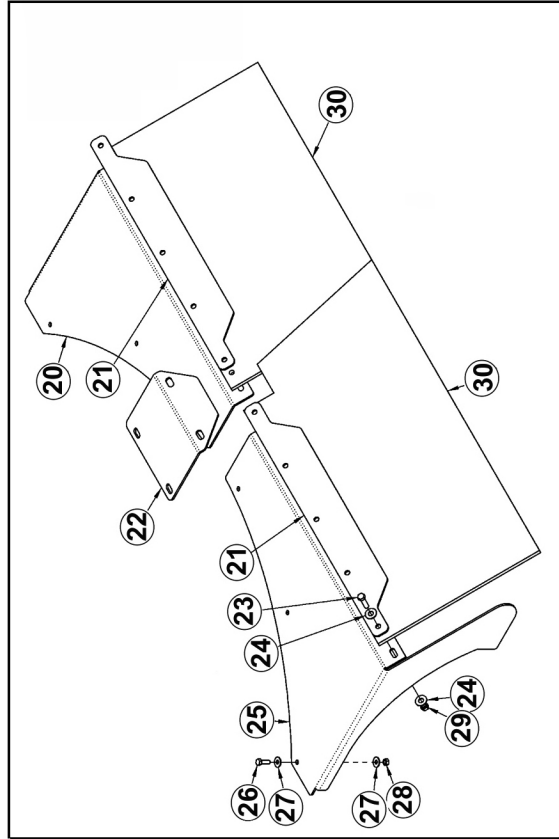
COMMON TWIN

# 60IN TSR REAR GUARDS

OPTIONAL REAR CHAIN GUARD



STANDARD SQUARE REAR FLAP GUARD



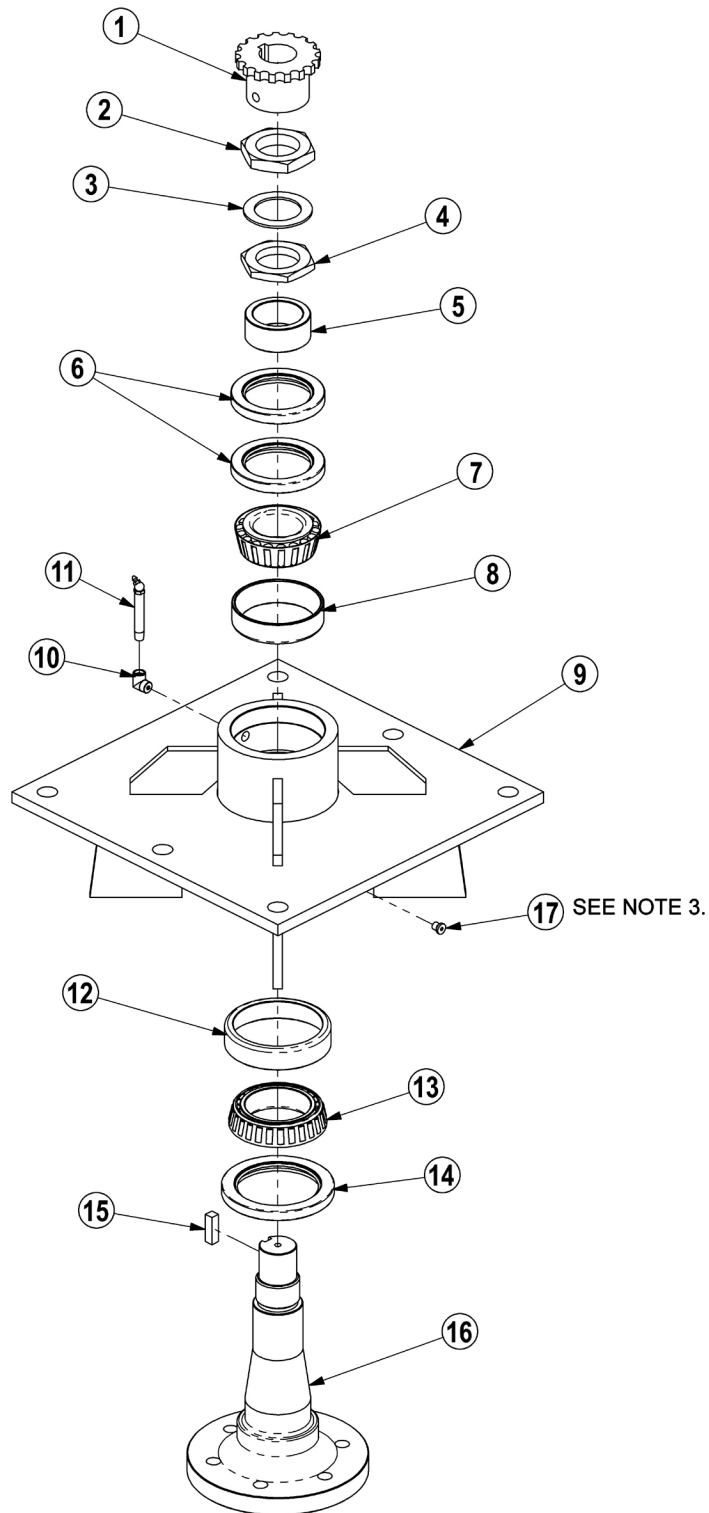
## 60IN TSR REAR GUARDS

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION               |
|------|----------|------|---------------------------|
| 1    | 34973    | 2    | ROD,CHAIN,OUTER,TM60      |
| 2    | 34974    | 2    | ROD,CHAIN,INNER,TM60      |
| 3    | 21631    | 16   | CAPSCREW, 3/8 X 1-1/4,NC  |
| 4    | 34972    | 4    | PLATE,CAP,CHAIN           |
| 5    | 21625    | 30   | HEX NUT,3/8",NC           |
| 6    | 21988    | 16   | LOCKWASHER, 3/8"          |
| 7    | 22992    | 156  | CHAIN,10 LINK             |
| 20   | 06410947 | 1    | MNT,FLAP,RH,EXT,TSR       |
| 21   | 06401184 | 2    | STRAP,FLAP,EXT,TSR        |
| 22   | 06410948 | 1    | COVER,FLAP,EXT,TSR        |
| 23   | 21632    | 10   | CAPSCREW,3/8" X 1-1/2" NC |
| 24   | 22016    | 20   | FLATWASHER,3/8",GR8       |
| 25   | 06410946 | 1    | MNT,FLAP,LH,EXT,TSR       |
| 26   | 21580    | 6    | CAPSCREW,5/16 X 1 NC      |
| 27   | 22015    | 12   | FLATWASHER,5/16           |
| 28   | 21577    | 6    | NYLOCK NUT, 5/16,NC       |
| 29   | 21625    | 10   | HEX NUT,3/8",NC           |
| 30   | 06520331 | 2    | FLAP,EXT,TSR              |

COMMON TWIN

# TM MOWER SPINDLE ASSEMBLY



## NOTES:

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

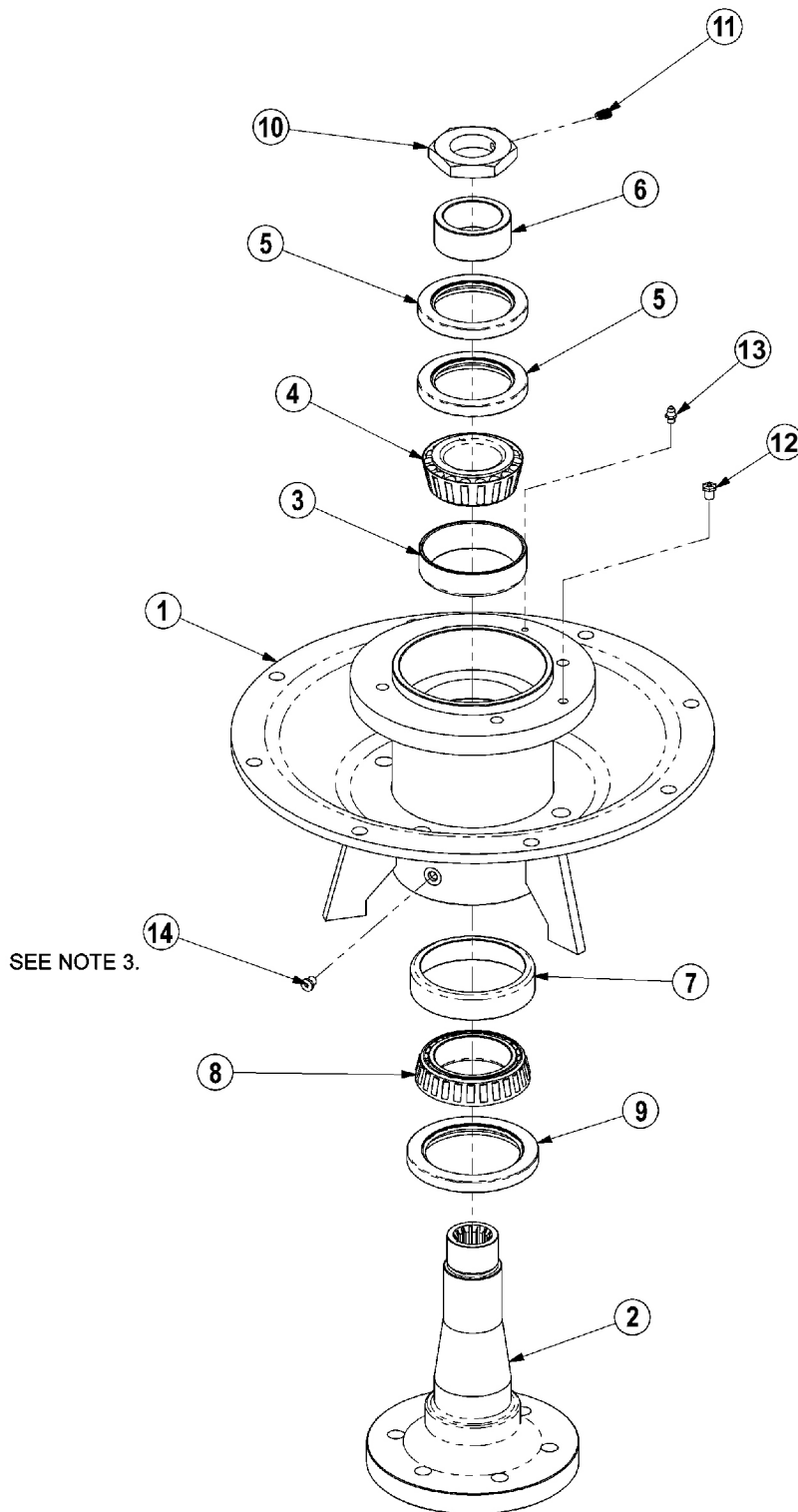
## TM MOWER SPINDLE ASSEMBLY

Continued...

| 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) |

COMMON TWIN

# TSR MOWER SPINDLE ASSEMBLY



**NOTES:**

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



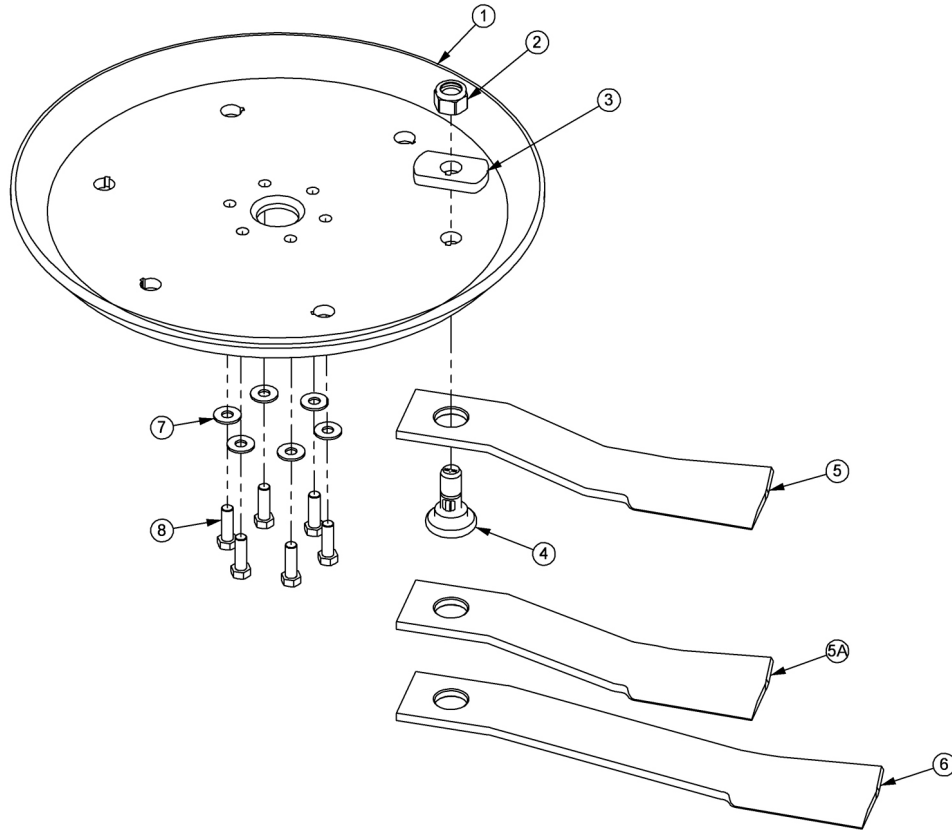
## TSR MOWER SPINDLE ASSEMBLY

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION               |
|------|----------|------|---------------------------|
| ---  | 34980    | -    | SPINDLE ASSEMBLY COMPLETE |
| 1    | 34978    | 1    | SPINDLE MOUNT             |
| 2    | 34979    | 1    | SPINDLE,TM60              |
| 3    | 6T1013   | 1    | BEARING CUP               |
| 4    | 6T1012   | 1    | BEARING CONE              |
| 5    | 6T1011   | 1    | UPPER SEAL - SET OF 2     |
| 6    | 6T1014   | 1    | BEARING ADJUSTMENT SLEEVE |
| 7    | 6T1013H  | 1    | BEARING,CUP,HD            |
| 8    | 6T1012H  | 1    | BEARING CONE,HD           |
| 9    | 6T1011H  | 1    | SEAL,LOWER,HD             |
| 10   | 34985    | 1    | NUT W/SETSCREW            |
| 11   | 6T2275   | 1    | SETSCREW,5/16" X 1/2",NC  |
| 12   | 34988    | 1    | RELIEF,1PSI,1/8" NPT      |
| 13   | 6T3207   | 1    | ZERK,1/4" X STR           |
| 14   | 06503064 | 1    | O-RING PLUG, 1/8"         |

COMMON TWIN

## ROTARY DISK AND KNIVES



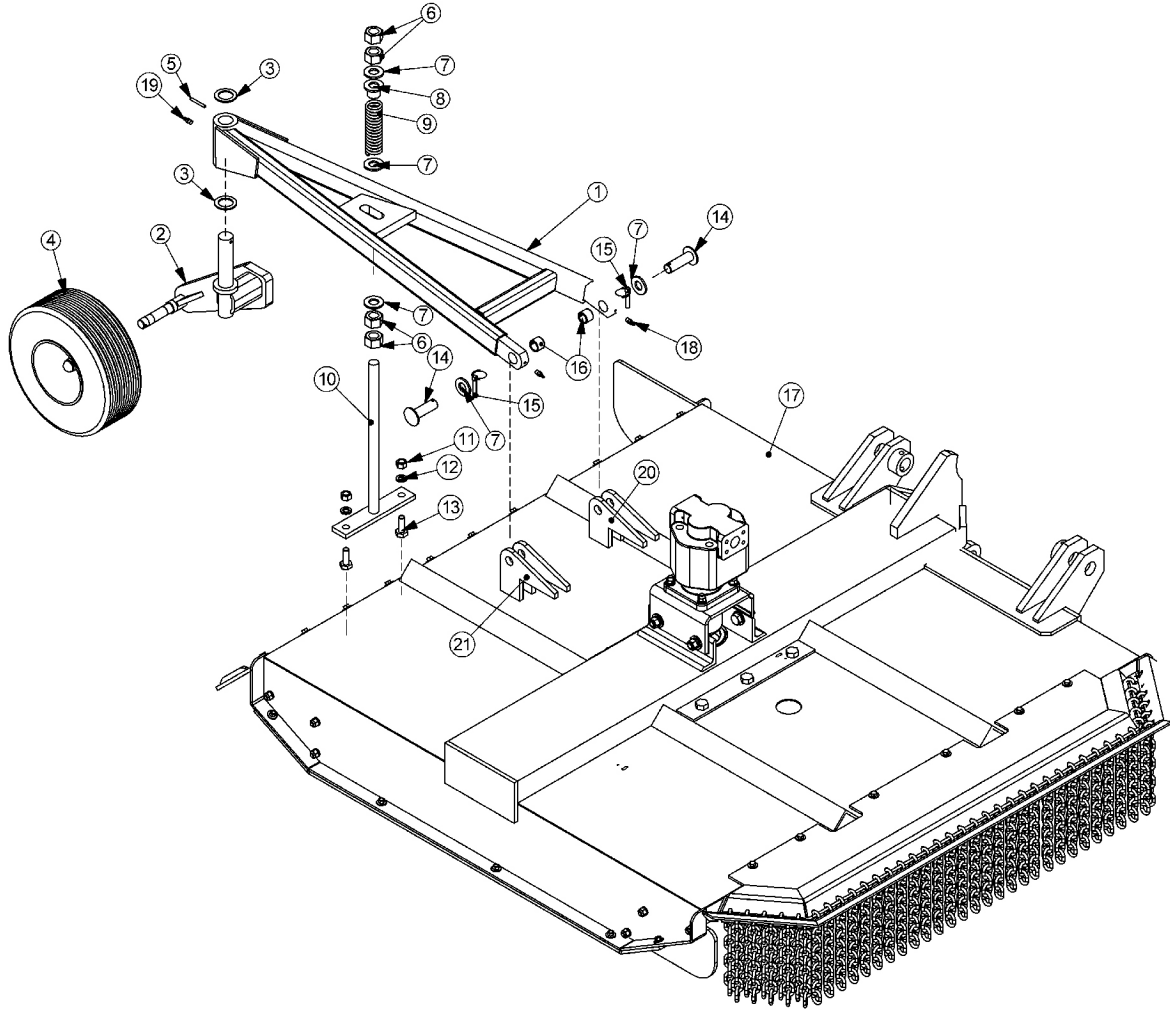
| ITEM | PART NO. | QTY. | DESCRIPTION                                      |
|------|----------|------|--------------------------------------------------|
| 1    | 34876    | 1    | BLADE MOUNTING DISK                              |
| 2    | 6T1023R  | 2    | NYLOCK NUT,1-1/8"                                |
| 3    | 34878    | 2    | SPACER                                           |
| 4    | 34497    | 2    | KNIFE MOUNTING BOLT                              |
| 5    | 34685    | 2    | KNIFE,60" HIGH SUCTION - STANDARD                |
| 5A   | 34684    | 2    | KNIFE,60" - OPTIONAL                             |
| 6    | 34682    | 2    | KNIFE 72" (MOUNT ON 72" MOWER ONLY)              |
| 7    | 25270    | 6    | FLATWASHER,5/8",USS,GR8                          |
| 8    | 6T2259   | 6    | CAPSCREW,5/8" X 1-3/4",NF                        |
| ---- | 6T1825   | -    | LOCTITE - USED ON ALL DISK MOUNTING BOLTS        |
| ---  | 27167    | -    | BOLT KIT (INCLUDE ITEMS 7 & 8)                   |
| ---- | 06700002 | -    | KIT,60/72,DISK,KNF MTG (INCLUDE ITEM 1, 3,7 & 8) |

COMMON TWIN

**NOTES**

**NOTES**

# SIDE ROTARY CASTER WHEEL ASSEMBLY



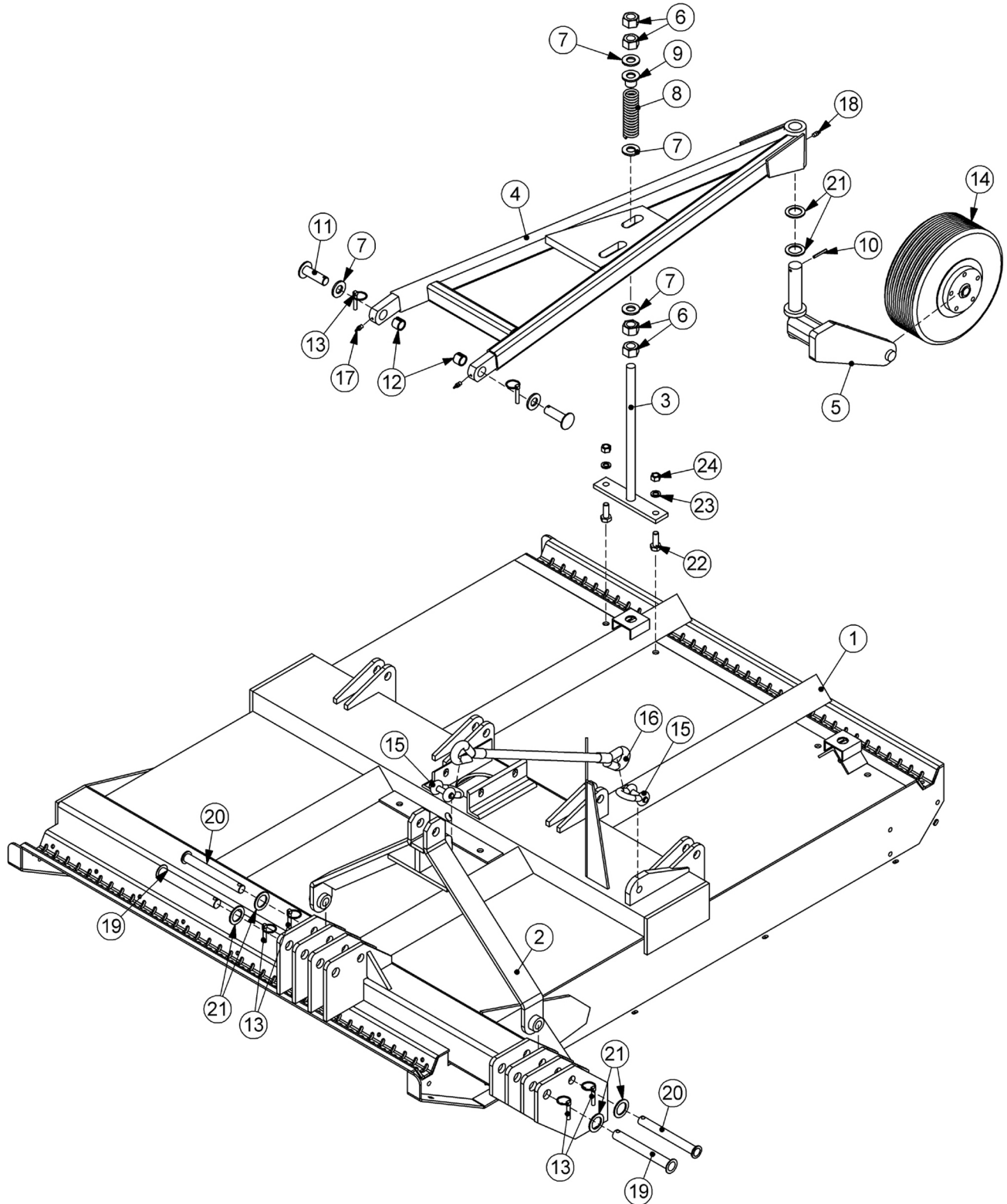
## SIDE ROTARY CASTER WHEEL ASSEMBLY

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                   |
|------|----------|------|-------------------------------|
| 1    | 25214C   | 1    | FRAME,CASTER,WHL (TM60)       |
| ---  | 28297A   | -    | FRAME,CASTER WHL (TM72)       |
| 2    | 22057    | 1    | SPINDLE,CASTER AXLE,ASSY      |
| 3    | 6T2617   | 2    | BUSHING,MACH,1-1/2IDX 2-1/4OD |
| 4    | 28548    | 1    | CASTER WHEEL,SOLID TIRE       |
| ---  | 22065    | 1    | HUB,ASSY,CASTER               |
| ---- | 22066    | 1    | HUB,CASTER                    |
| ---  | 22070    | 1    | DUST CAP                      |
| ---- | 22071    | 5    | HUB STUD                      |
| ---  | 22073    | 1    | HEX NUT,1",NF (SLOTTED)       |
| ---- | 22533    | 1    | COTTER PIN,3/16" X 2"         |
| ---  | 6T0830   | 2    | BEARING,CONE,CASTER WHEEL     |
| ---- | 6T0838   | 1    | SEAL                          |
| ---  | 23329    | 1    | WHEEL,CPLT,SOLID TIRE         |
| ---- | 21416    | 1    | TIRE,SOLID                    |
| ---  | 22697    | 1    | RIM,OUTER                     |
| ---- | 22696    | 1    | RIM,CASTER                    |
| 5    | 6T3014   | 1    | ROLL PIN,1/4" X 2"            |
| 6    | 21925    | 4    | HEX NUT,1",NC                 |
| 7    | 22023    | 5    | FLATWASHER,1"                 |
| 8    | 22753    | 1    | TUBE,PROTECTOR                |
| 9    | 22058    | 1    | SPRING,REAR RTRY              |
| 10   | 22059B   | 1    | ADJ ROD,TRR                   |
| 11   | 21775    | 2    | HEX NUT,5/8"                  |
| 12   | 21992    | 2    | LOCKWASHER,5/8"               |
| 13   | 21782    | 2    | CAPSCREW,5/8" X 1-3/4",NC     |
| 14   | 22060    | 2    | CASTER FRAME PIN              |
| 15   | TF1143   | 2    | PIN,LYNCH,7/16" X 2"          |
| 16   | TB3010   | 2    | BUSHING,1"                    |
| 17   | -----    | 1    | RTRY,CPLT,TM                  |
| 18   | 6T3207   | 2    | GREASE ZERK,1/4" X STR        |
| 19   | 6T3211   | 1    | GREASE ZERK,1/8" X STR        |
| 20   | 21441    | 2    | CASTER FRAME ANCHOR (TM60)    |
| ---  | 42527    | 2    | CASTER FRAME ANCHOR (TM72)    |
| 21   | 21442    | 2    | CASTER FRAME ANCHOR (TM60)    |
| ---  | 42527    | 2    | CASTER FRAME ANCHOR (TM72)    |

COMMON TWIN

# 60IN TM REAR CASTER WHEEL & 3PT ASSY



COMMON TWIN

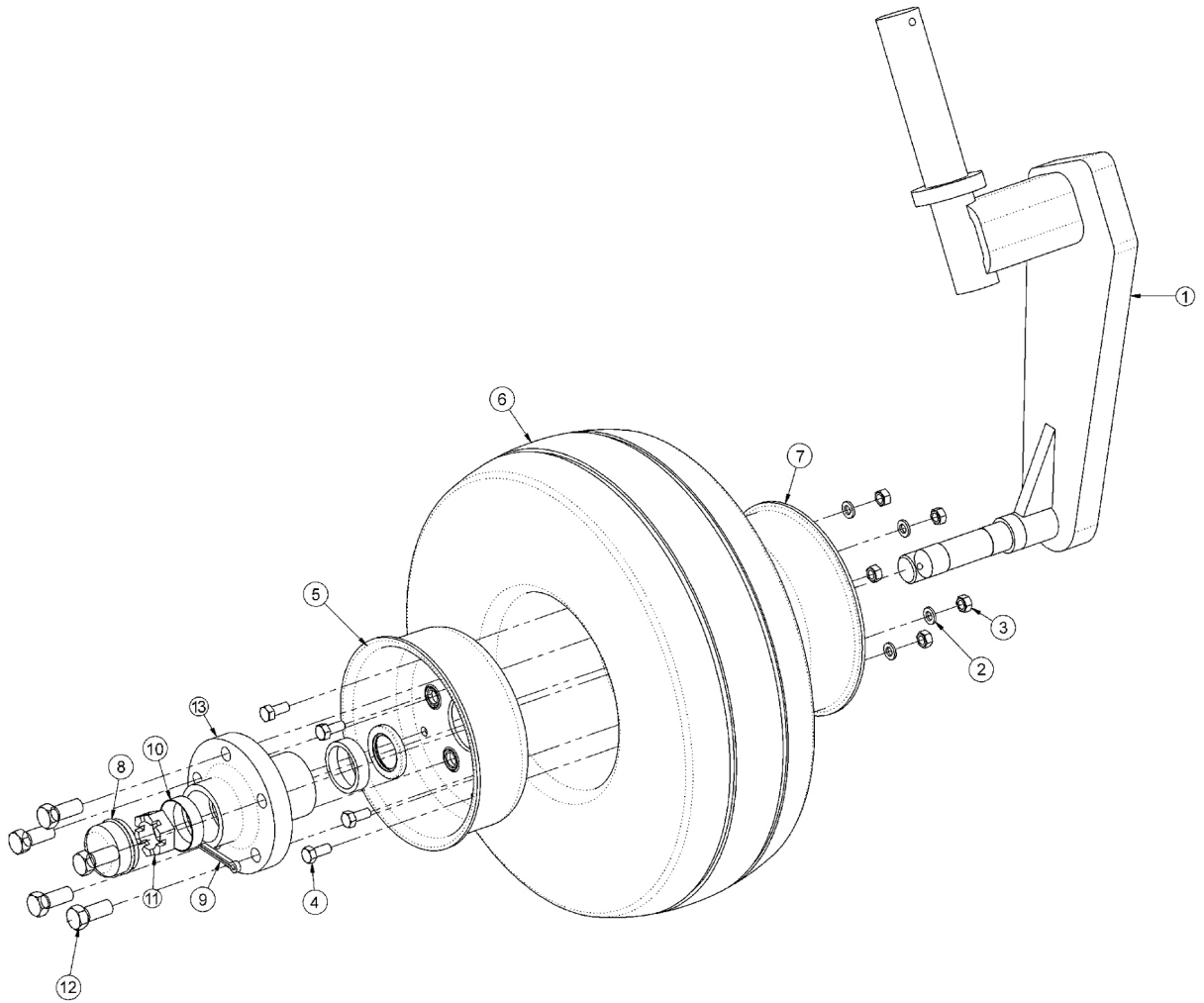
## 60IN TM REAR CASTER WHEEL & 3PT ASSY

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                   |
|------|----------|------|-------------------------------|
| 1    | -----    | -    | MOWER,REAR,60IN,TM            |
| 2    | 21474A   | 1    | HITCH, 3PT, TRR               |
| 3    | 22059B   | 1    | ADJ ROD, TRR                  |
| 4    | 25095A   | 1    | FRAME, CASTER WHEEL, TRR 60"  |
| 5    | 22057    | 1    | SPINDLE, CASTER AXLE, ASSY    |
| 6    | 21925    | 4    | HEX NUT,1" NC                 |
| 7    | 22023    | 5    | FLATWASHER,1"                 |
| 8    | 22058    | 1    | SPRING, REAR RTRY             |
| 9    | 22753    | 1    | TUBE, PROTECTOR               |
| 10   | 6T3014   | 1    | ROLL PIN, 1/4" X 2"           |
| 11   | 22060    | 2    | CASTER FRAME PIN              |
| 12   | TB3010   | 2    | BUSHING,1"                    |
| 13   | TF1143   | 6    | PIN, LYNCH, 7/16" X 2"        |
| 14   | 28548    | 1    | CASTER WHEEL, SOLID TIRE      |
| 15   | 6T0112   | 2    | SHACKLE, W/PIN, CPLT          |
| 16   | 22051    | 1    | CABLE, LIFT, TRR, 60"         |
| 17   | 6T3207   | 2    | GREASE ZERK,1/4" X STR        |
| 18   | 6T3211   | 1    | GREASE ZERK,1/8" X STR        |
| 19   | 33698    | 2    | PIN, CAPPED, 1-1/8" X 9"      |
| 20   | 33699    | 2    | PIN, CAPPED, 1" X 9"          |
| 21   | 6T2617   | 6    | BUSHING,MACH,1-1/2IDX 2-1/4OD |
| 22   | 21782    | 2    | CAPSCREW, 5/8 X 1 3/4,NC      |
| 23   | 21992    | 2    | LOCKWASHER, 5/8               |
| 24   | 21775    | 2    | HEX NUT, 5/8                  |

COMMON TWIN

## CASTER WHEEL ASSEMBLY

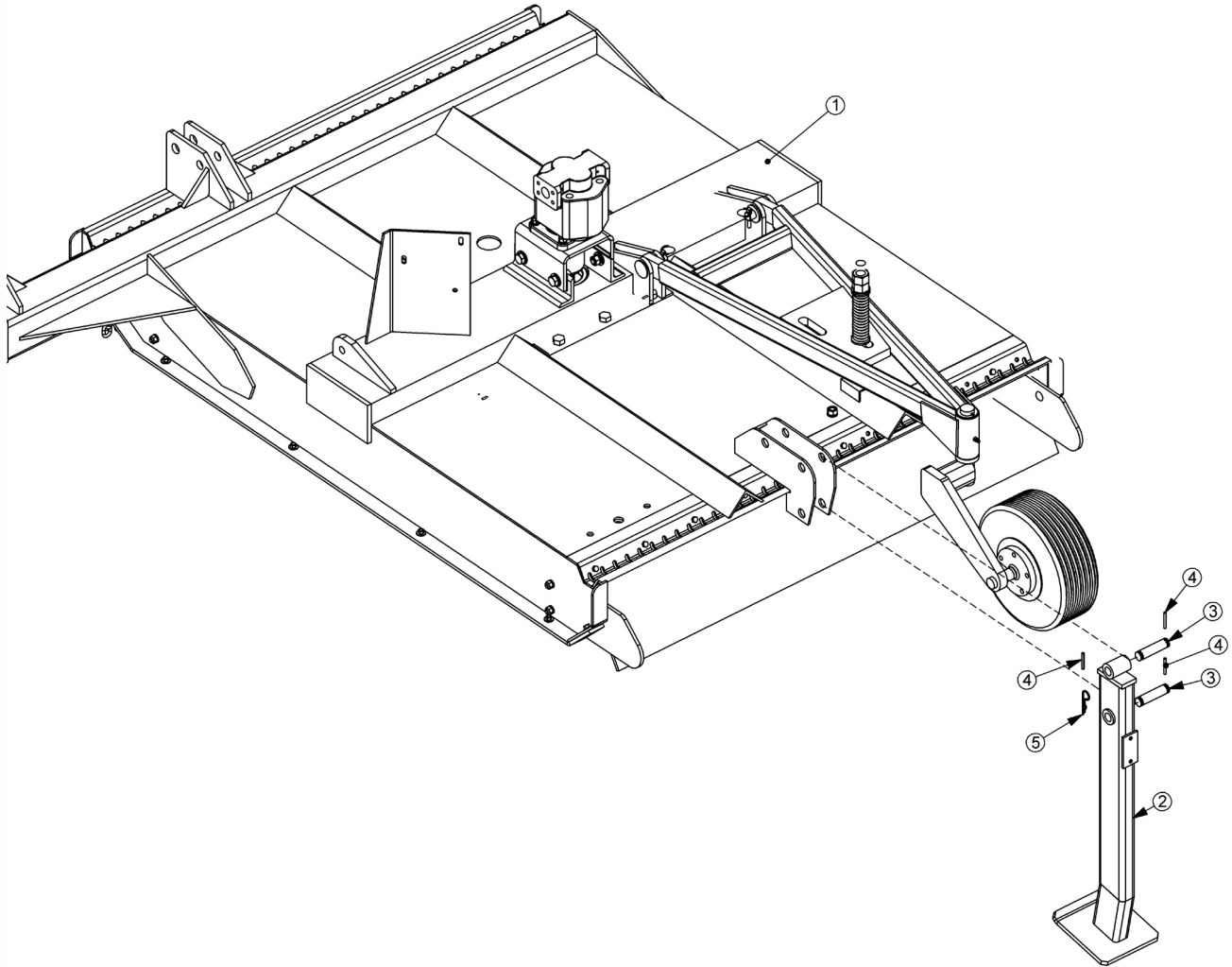


| ITEM | PART NO. | QTY. | DESCRIPTION                     |
|------|----------|------|---------------------------------|
| 1    | 22057    | 1    | SPINDLE,CASTER AXLE,ASSY        |
| 2    | 21987    | 5    | LOCKWASHER,5/16"                |
| 3    | 21575    | 5    | HEX NUT,5/16"                   |
| 4    | 28548    | 5    | CAPSCREW,5/16" X 3/4",NC        |
| 5    | 22697    | 1    | RIM,OUTER,CASTER ASSY           |
| 6    | 21416    | 1    | TIRE,SOLID                      |
| 7    | 22696    | 1    | RIM,CASTER WHEEL                |
| 8    | 22070    | 1    | DUST CAP                        |
| 9    | 22533    | 1    | COTTER PIN,3/16" X 2"           |
| 10   | 6T0836   | 2    | CUP,CASTER WHEEL                |
| 11   | 22073    | 1    | HEX NUT,1",NF (SLOTTED JAM NUT) |
| 12   | 22071    | 5    | HUB STUD                        |
| 13   | 22066    | 1    | HUB,CASTER WHEEL                |

COMMON TWIN



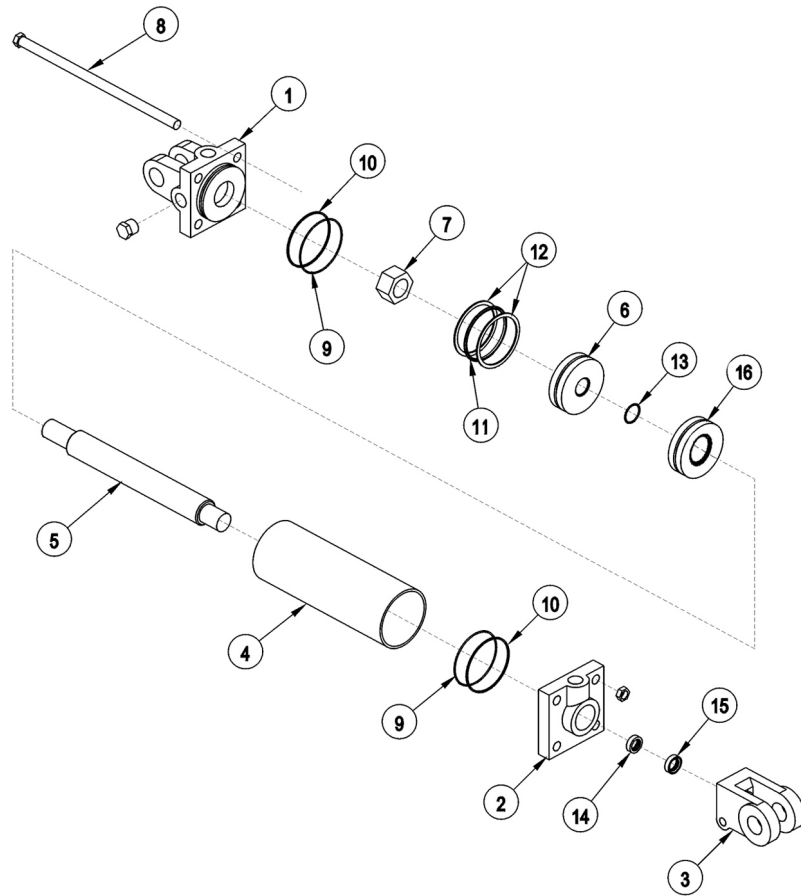
# SAFETY STAND



| ITEM | PART NO. | QTY. | DESCRIPTION                              |
|------|----------|------|------------------------------------------|
| 1    | -----    | -    | REAR RTRY - REFER TO REAR RTRY DECK ASSY |
| 2    | 28511    | 1    | REAR RTRY STAND                          |
| 3    | 06520425 | 2    | PIN                                      |
| 4    | 6T3014   | 3    | ROLL PIN, 1/4" X 2"                      |
| 5    | 6T3004   | 1    | R-CLIP (HAIRPIN COTTER, 3/16")           |

COMMON TWIN

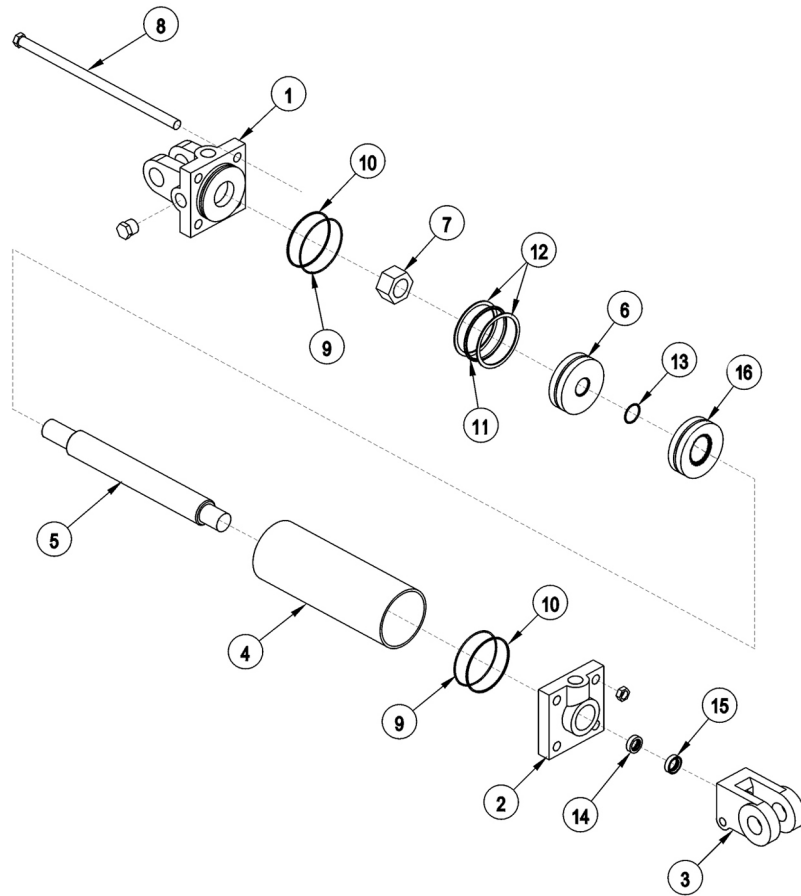
## 3IN X 10IN HYDRAULIC CYLINDER BREAKDOWN



| ITEM | PART NO. | QTY. | DESCRIPTION            |
|------|----------|------|------------------------|
| ---  | 6T0151R  | -    | HYD. CYLINDER 3" X 10" |
| 1    | 6T0167   | 1    | CYLINDER BUTT          |
| 2    | 6T0170   | 1    | CYLINDER GLAND         |
| 3    | 6T0178   | 1    | CLEVIS END             |
| 4    | 6T0164   | 1    | CYLINDER TUBE          |
| 5    | 6T0161   | 1    | PISTON ROD             |
| 6    | 6T0173   | 1    | PISTON                 |
| 7    | 6T0179   | 1    | LOCKNUT                |
| 8    | 6T0176   | 4    | TIE ROD ASY            |
| ---  | 6T0187   | -    | SEAL KIT               |
| 9    | -----    | 2    | O - RING               |
| 10   | -----    | 2    | BACK - UP WASHER       |
| 11   | -----    | 1    | O - RING               |
| 12   | -----    | 2    | BACK - UP WASHER       |
| 13   | -----    | 1    | O - RING               |
| 14   | -----    | 1    | U - CUP                |
| 15   | -----    | 1    | WIPER                  |

COMMON TWIN

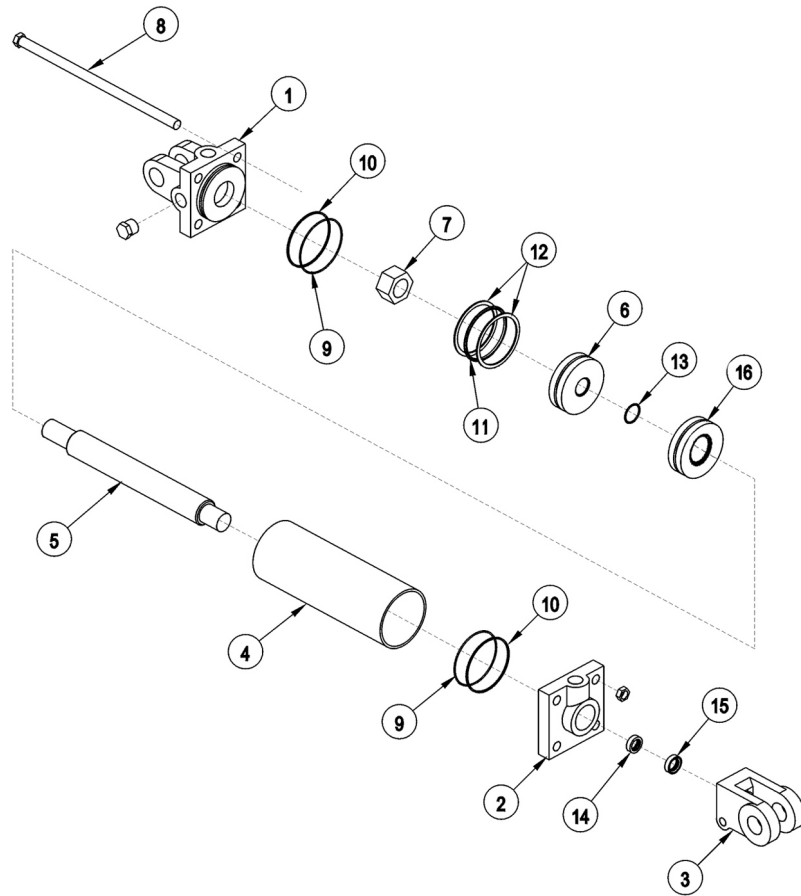
## 3IN X 12IN HYDRAULIC CYLINDER BREAKDOWN



| ITEM | PART NO. | QTY. | DESCRIPTION                       |
|------|----------|------|-----------------------------------|
| ---  | 32215    | -    | HYD. CYLINDER 3" X 12" (STD DUTY) |
| ---  | 25343    | -    | HYD. CYLINDER 3" X 12" (HVY DUTY) |
| 1    | 6T0167   | 1    | CYLINDER BUTT                     |
| 2    | 6T0170   | 1    | CYLINDER GLAND                    |
| 3    | 6T0178   | 1    | CLEVIS END                        |
| 4    | 6T0204   | 1    | CYLINDER TUBE                     |
| 5    | 6T0203   | 1    | PISTON ROD                        |
| 6    | 6T0173   | 1    | PISTON                            |
| 7    | 6T0179   | 1    | LOCKNUT                           |
| 8    | 6T0205   | 4    | TIE ROD ASY                       |
| ---  | 6T0187   | -    | SEAL KIT                          |
| 9    | -----    | 2    | O - RING                          |
| 10   | -----    | 2    | BACK - UP WASHER                  |
| 11   | -----    | 1    | O - RING                          |
| 12   | -----    | 2    | BACK - UP WASHER                  |
| 13   | -----    | 1    | O - RING                          |
| 14   | -----    | 1    | U - CUP                           |
| 15   | -----    | 1    | WIPER                             |

COMMON TWIN

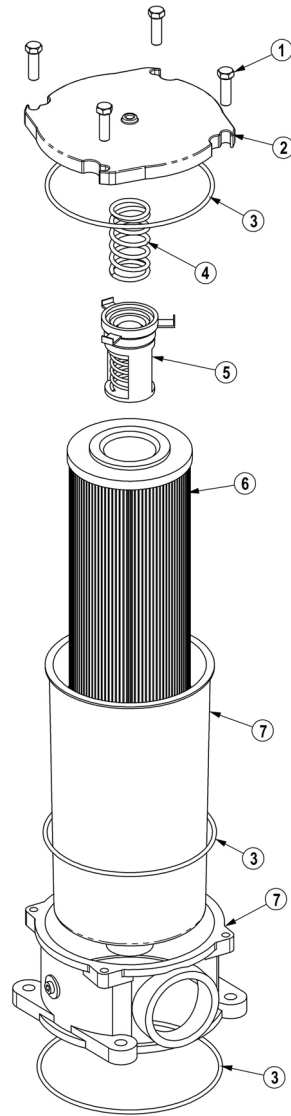
## 3IN X 18IN HYDRAULIC CYLINDER BREAKDOWN



| ITEM | PART NO. | QTY. | DESCRIPTION       |
|------|----------|------|-------------------|
| ---  | 6T0150   | -    | CYLINDER 3" X 18" |
| 1    | 6T0167   | 1    | CYLINDER BUTT     |
| 2    | 6T0170   | 1    | CYLINDER GLAND    |
| 3    | 6T0178   | 1    | CLEVIS END        |
| 4    | 6T0165   | 1    | CYLINDER TUBE     |
| 5    | 6T0162   | 1    | PISTON ROD        |
| 6    | 6T0173   | 1    | PISTON            |
| 7    | 6T0179   | 1    | LOCKNUT           |
| 8    | 6T0177   | 4    | TIE ROD ASY       |
| ---  | 6T0187   | -    | SEAL KIT          |
| 9    | -----    | 2    | O - RING          |
| 10   | -----    | 2    | BACK - UP WASHER  |
| 11   | -----    | 1    | O - RING          |
| 12   | -----    | 2    | BACK - UP WASHER  |
| 13   | -----    | 1    | O - RING          |
| 14   | -----    | 1    | U - CUP           |
| 15   | -----    | 1    | WIPER             |
| 16   | 6T0206   | 1    | SPACER            |

COMMON TWIN

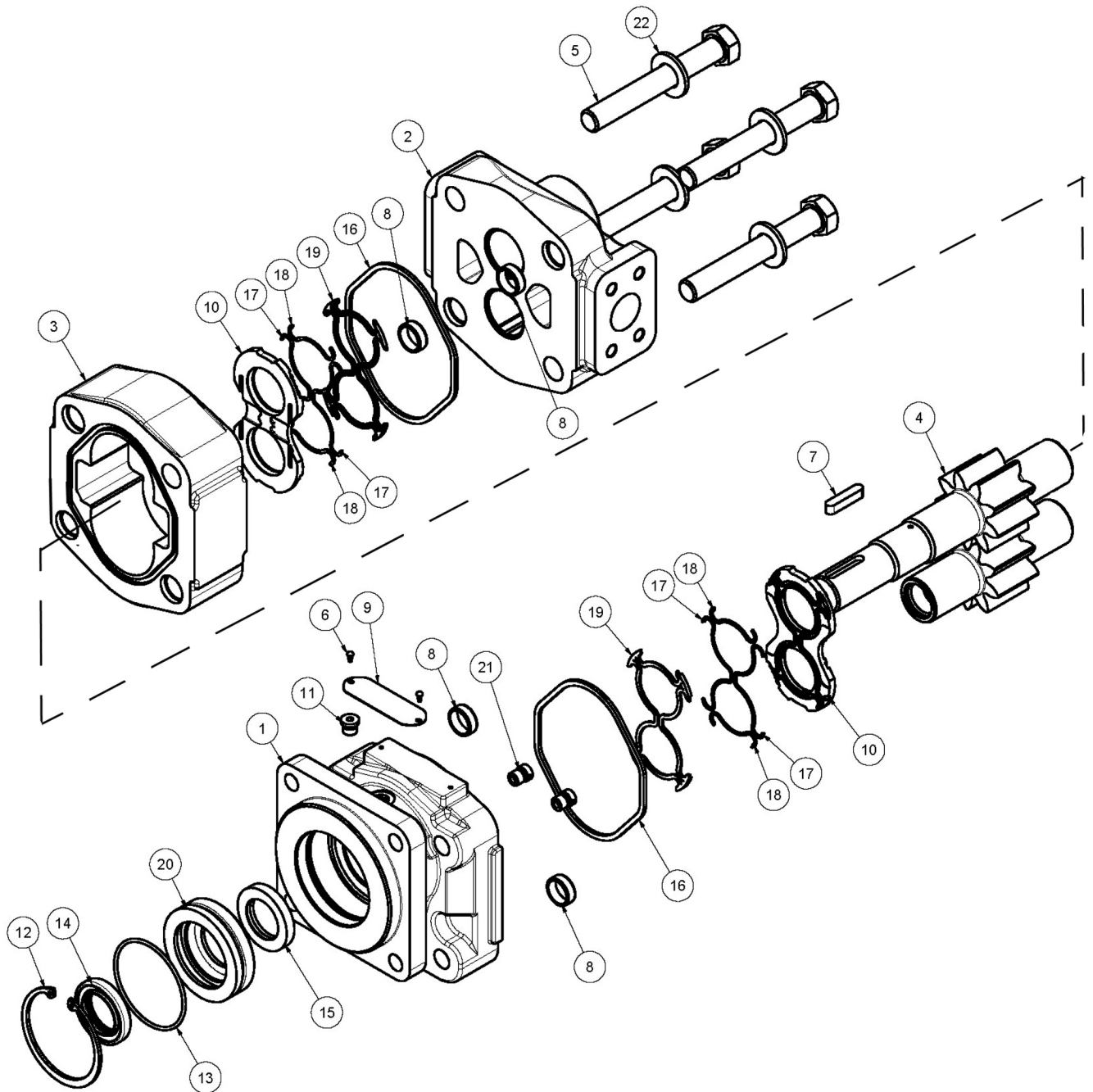
## RESERVOIR TANK FILTER ASSEMBLY



| 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                          |

COMMON TWIN

# ROTARY MOTOR BREAKDOWN



COMMON TWIN

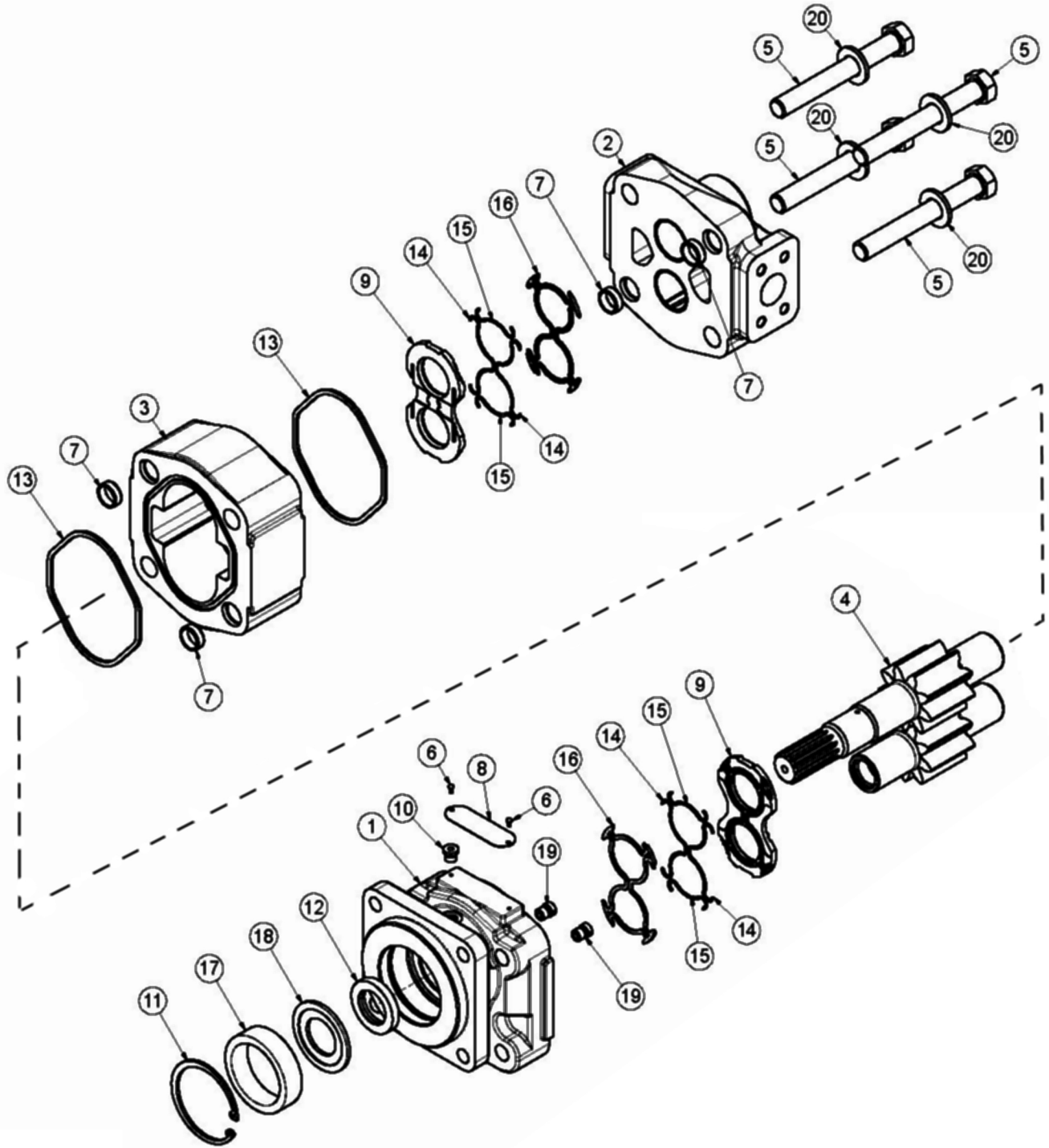
## ROTARY MOTOR BREAKDOWN

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION     |
|------|----------|------|-----------------|
|      | 06504011 | -    | MOTOR ASSEMBLY  |
| 1    | 22790    | 1    | END,COVER       |
| 2    | 06504088 | 1    | HOUSING, PEC    |
| 3    | 06504111 | 1    | HOUSING, GEAR   |
| 4    | 06504026 | 1    | SET, GEAR SHAFT |
| 5    | 06504104 | 4    | CAPSCREW        |
| 6    | 06504078 | 2    | SCREW, DRIVE    |
| 7    | 06504092 | 1    | KEY             |
| 8    | 06504093 | 4    | PIN, DOWEL      |
| 9    | 06504094 | 1    | NAME PLATE      |
| 10   | 06504095 | 2    | THRPL           |
| 11   | 2961940  | 1    | PLUG, ODT       |
| 12   | 2962200  | 1    | RING, SNAP      |
| 13   | 06504096 | 1    | O RING          |
| 14   | 6T5101   | 1    | SEAL, LIP       |
| 15   | 06504097 | 1    | SEAL, LIP       |
| 16   | 22797    | 2    | SEAL, SQ-R      |
| 17   | 06504098 | 4    | SEAL, SIDE CHAN |
| 18   | 06504099 | 4    | SEAL, END CHAN  |
| 19   | 06504100 | 2    | SEAL, BK-UP     |
| 20   | 06504101 | 1    | RTNR, SEAL      |
| 21   | 6T5809   | 2    | CHECK ASS'Y     |
| 22   | 06504102 | 4    | WASHER          |
| ---  | 06504103 | -    | SEAL KIT        |

COMMON TWIN

# 60IN TSR ROTARY MOTOR BREAKDOWN



COMMON TWIN



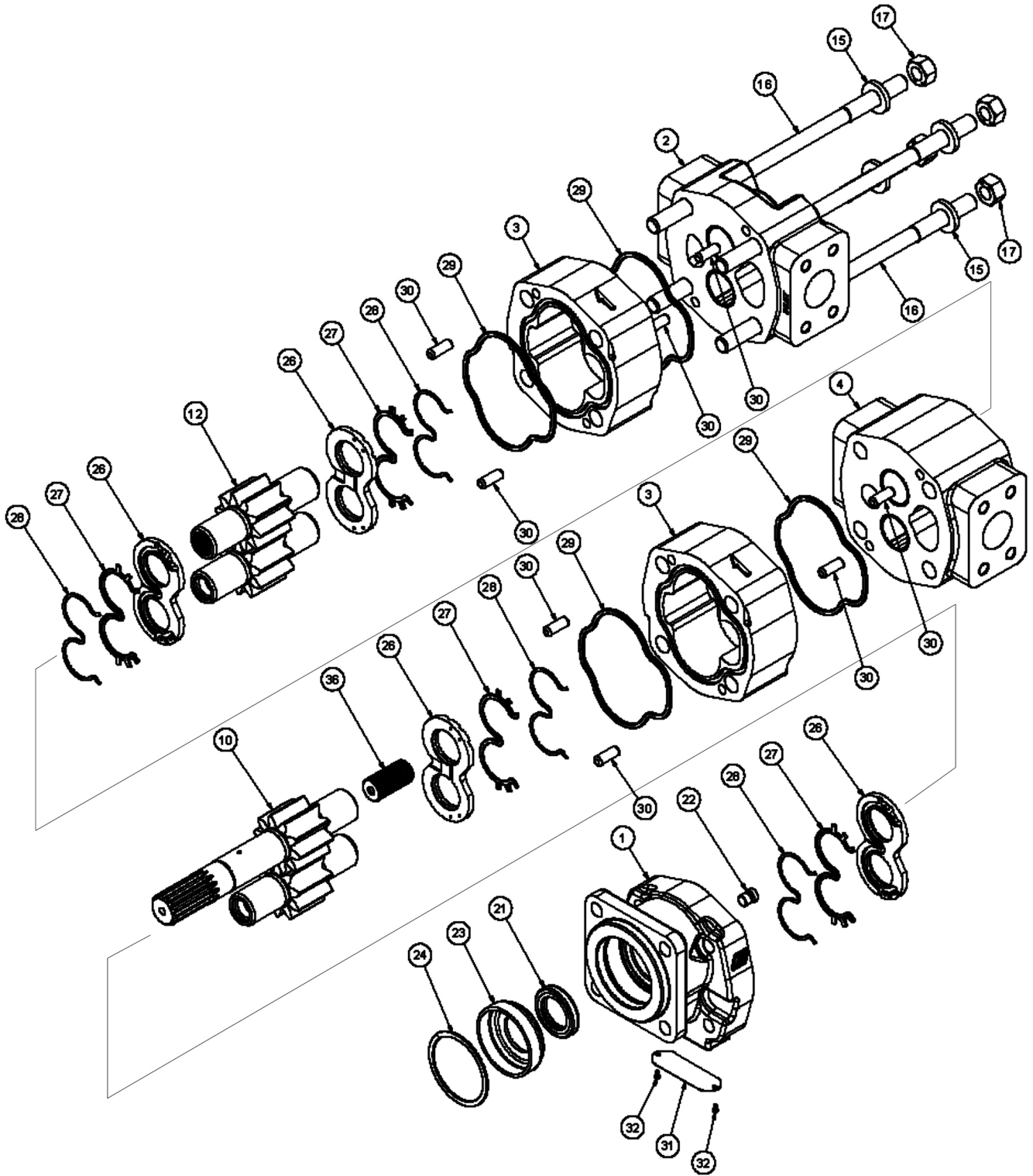
## 60IN TSR ROTARY MOTOR BREAKDOWN

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                    |
|------|----------|------|--------------------------------|
|      | 06504016 | -    | MOTOR(M365-1 1/4SPLINE),SEALED |
| 1    | 22790    | 1    | COVER,END                      |
| 2    | 06504088 | 1    | HOUSING,PEC                    |
| 3    | 06504111 | 1    | HOUSING,GEAR                   |
| 4    | 06504110 | 1    | SET,GEAR SHAFT                 |
| 5    | 06504104 | 4    | CAP SCREW                      |
| 6    | 06504078 | 2    | SCREW,DRIVE                    |
| 7    | 06504093 | 4    | PIN,DOWEL                      |
| 8    | 06504094 | 1    | NAME PLATE                     |
| 9    | 06504095 | 2    | THRPL                          |
| 10   | 02961940 | 1    | PLUG,ODT (0.25)                |
| 11   | 6T5200   | 1    | RING,SNAP                      |
| 12   | 06504097 | 1    | SEAL,LIP                       |
| 13   | 22797    | 2    | SEAL,SQ-R                      |
| 14   | 06504098 | 4    | SEAL,SIDE CHAN                 |
| 15   | 06504099 | 4    | SEAL,END CHAN                  |
| 16   | 06504100 | 2    | SEAL,BK-UP                     |
| 17   | 06504112 | 1    | SPACER                         |
| 18   | 06504113 | 1    | RTNR,SEAL                      |
| 19   | 6T5809   | 2    | CHECK ASS'Y                    |
| 20   | 06504102 | 4    | WASHER                         |
| ---  | 06504022 | 1    | SEAL KIT                       |

COMMON TWIN

# FRONT HYDRAULIC PUMP BREAKDOWN



COMMON TWIN

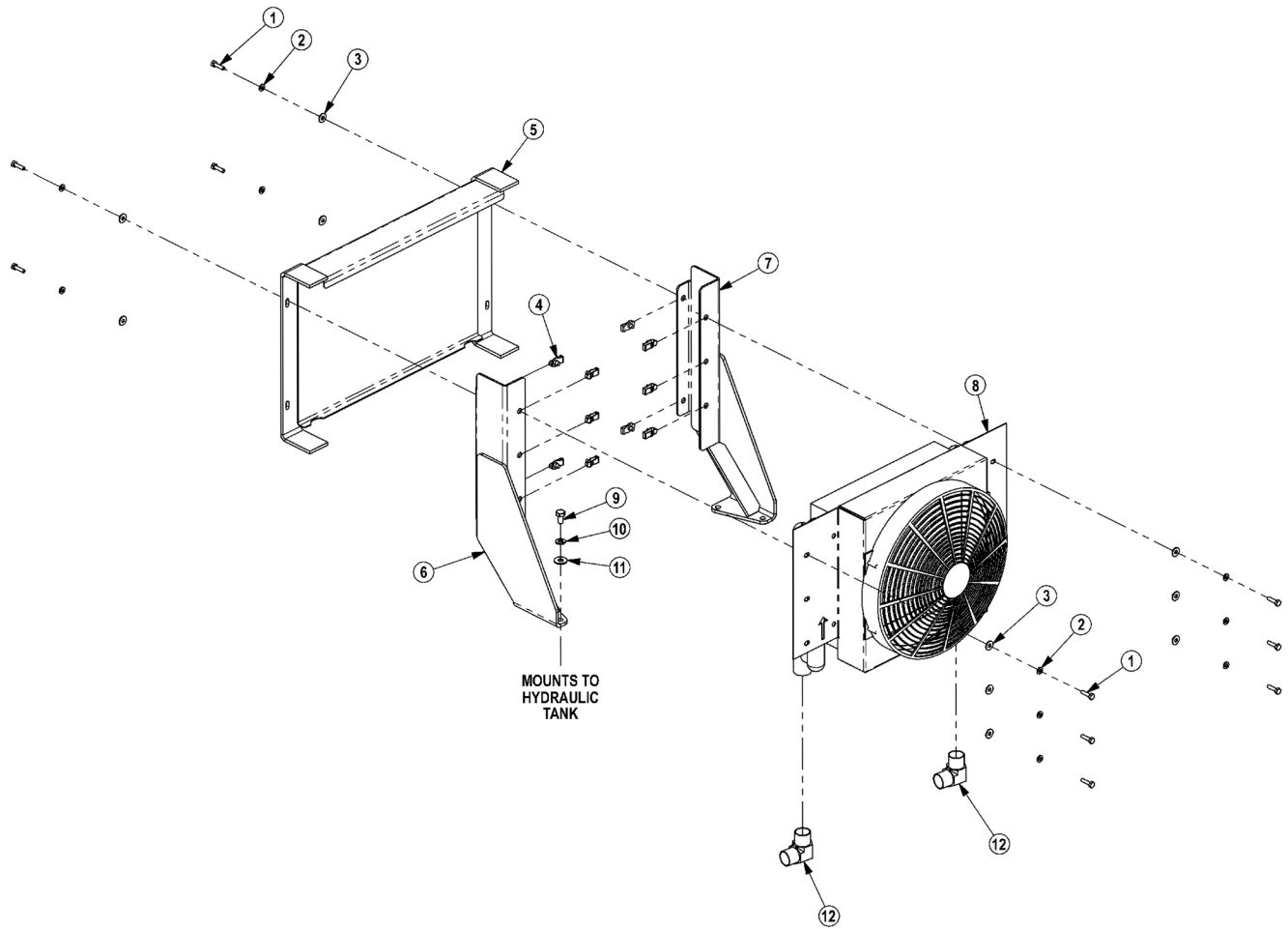
## FRONT HYDRAULIC PUMP BREAKDOWN

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                      |
|------|----------|------|----------------------------------|
| ---  | 06504002 | 1    | PUMP,ASSY                        |
| 1    | 22766    | 1    | HOUSING,SEC                      |
| 2    | 06504068 | 1    | HOUSING,PEC                      |
| 3    | 02965092 | 2    | HOUSING,GEAR                     |
| 4    | 06504069 | 1    | HOUSING,BEARING CARRIER          |
| 10   | 06504070 | 1    | SET,GEARSHAFT                    |
| 12   | 06504071 | 1    | GEAR,SET                         |
| 15   | 02961917 | 4    | WASHER                           |
| 16   | 06504072 | 4    | STUD                             |
| 17   | 06504073 | 4    | NUT,HEX                          |
| 21   | 22765    | 1    | SEAL,LIP                         |
| 22   | 6T5121   | 1    | PLUG                             |
| 23   | 02979970 | 1    | SPACER                           |
| 24   | 02979971 | 1    | RING,SNAP                        |
| 26   | 02965611 | 4    | THRPL                            |
| 27   | 06504074 | 4    | SEAL,CHAN                        |
| 28   | 06504075 | 4    | SEAL,BK-UP                       |
| 29   | 06504076 | 4    | SEAL,SQ-R                        |
| 30   | 02961924 | 8    | PIN,DOWEL                        |
| 31   | 06504077 | 1    | NAMEPLATE                        |
| 32   | 06504078 | 2    | SCREW,DRIVE                      |
| 36   | 06504079 | 1    | SFT,CONN                         |
| ---  | 22764    | 1    | SEAL KIT (ITEMS 21, 27, 28 & 29) |

COMMON TWIN

# COOLER ASSEMBLY



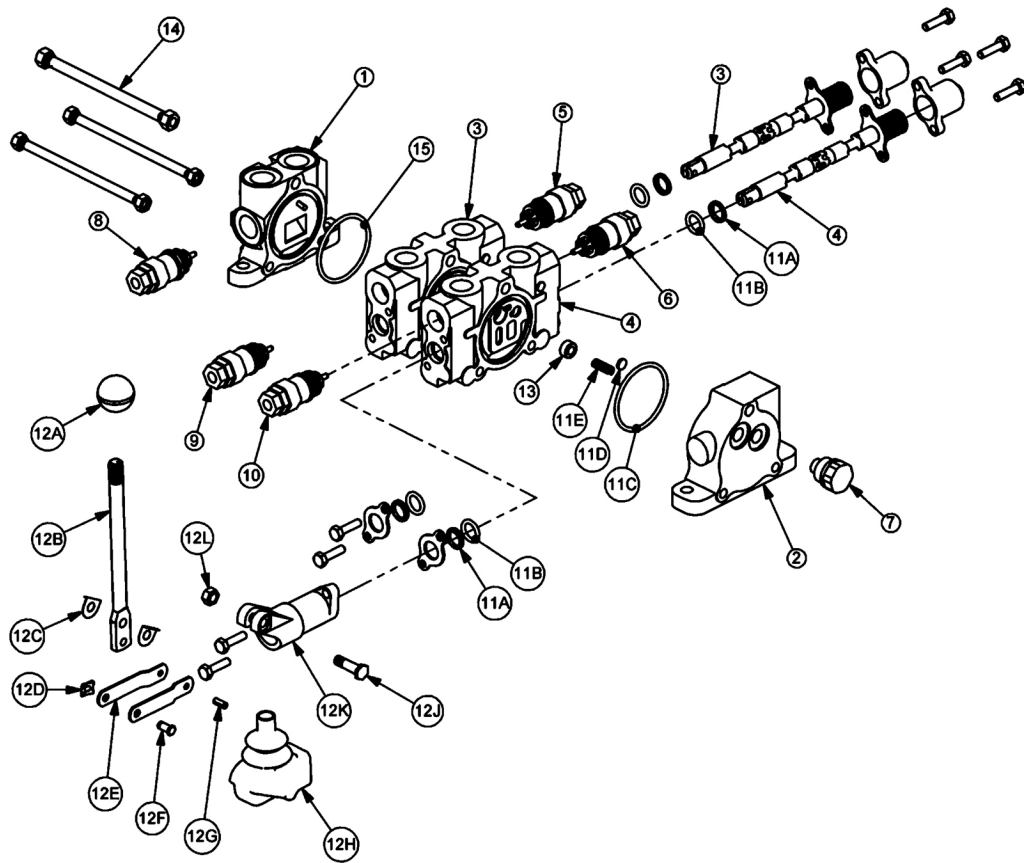
## COOLER ASSEMBLY

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 |

COMMON TWIN

# CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31320



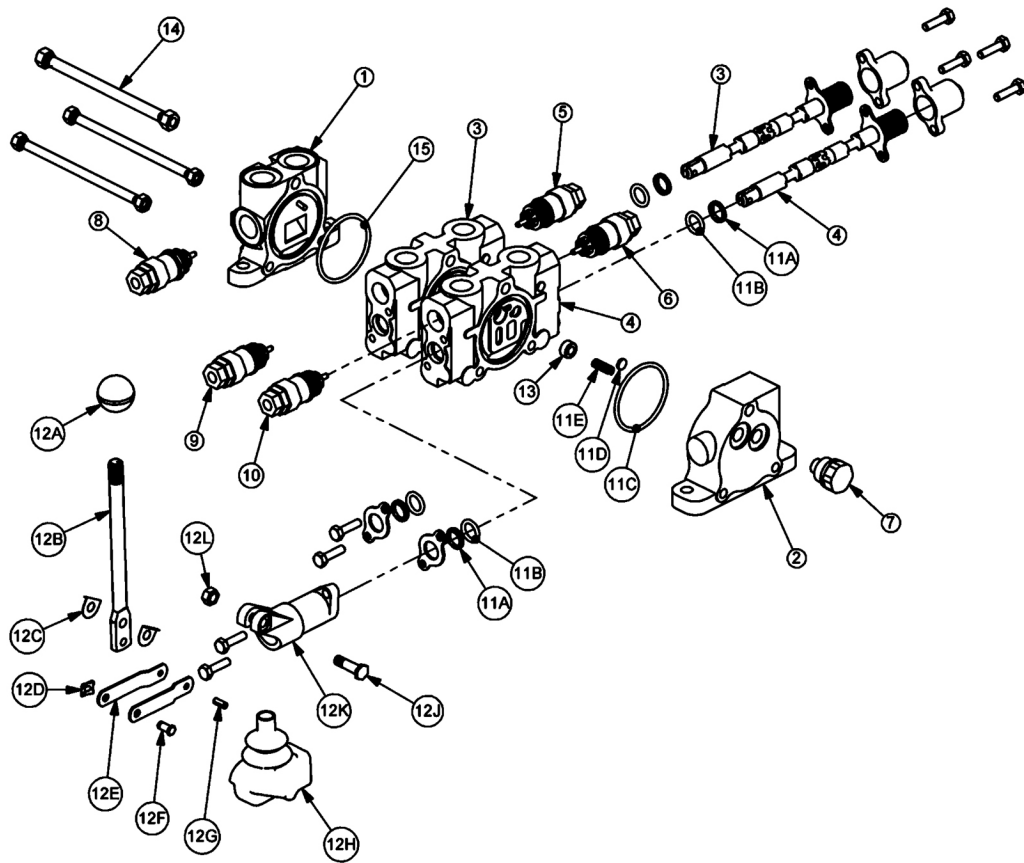
## CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31320

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                  |
|------|----------|------|----------------------------------------------|
| 1    | 31595    | 1    | INLET END COVER                              |
| 2    | 31594    | 1    | END COVER, LOAD SENSE                        |
| 3    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 4    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 5    | 06503067 | 1    | RELIEF PLUG                                  |
| 6    | 06503067 | 1    | RELIEF PLUG                                  |
| 7    | N/A      | -    | N/A                                          |
| 8    | 6T4209   | 1    | RELIEF PLUG                                  |
| 9    | 31862    | 1    | RELIEF VALVE, 2175 PSI                       |
| 10   | 31862    | 1    | RELIEF VALVE, 2175 PSI                       |
| 11   | 31593    | 2    | VALVE SEAL KIT (FOR ONE SECTION)             |
| 11A  | -----    | 2    | WIPER                                        |
| 11B  | -----    | 2    | O-RING SMALL                                 |
| 11C  | -----    | 1    | O-RING LARGE                                 |
| 11D  | -----    | 1    | SHUTTLE DISC                                 |
| 11E  | -----    | 1    | SPRING                                       |
| 12   | TB1017L  | 2    | LEVER KIT (FOR ONE SECTION)                  |
| 12A  | -----    | 1    | LEVER KNOB                                   |
| 12B  | -----    | 1    | LEVER                                        |
| 12C  | -----    | 2    | LEVER WASHER                                 |
| 12D  | -----    | 1    | LEVER CLIP                                   |
| 12E  | -----    | 2    | LINKAGE                                      |
| 12F  | -----    | 1    | LEVER PIN                                    |
| 12G  | -----    | 1    | ROLL PIN                                     |
| 12H  | -----    | 1    | LEVER BOOT                                   |
| 12J  | -----    | 1    | LEVER BOLT                                   |
| 12K  | -----    | 1    | LEVER DUST COVER                             |
| 12L  | -----    | 1    | LEVER NUT                                    |
| 13   | 31603    | 2    | COMPENSATOR                                  |
| 14   | TB1017X  | 1    | TIE ROD KIT                                  |
| 15   | 24214    | 1    | O-RING, LARGE                                |

COMMON TWIN

# CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31321





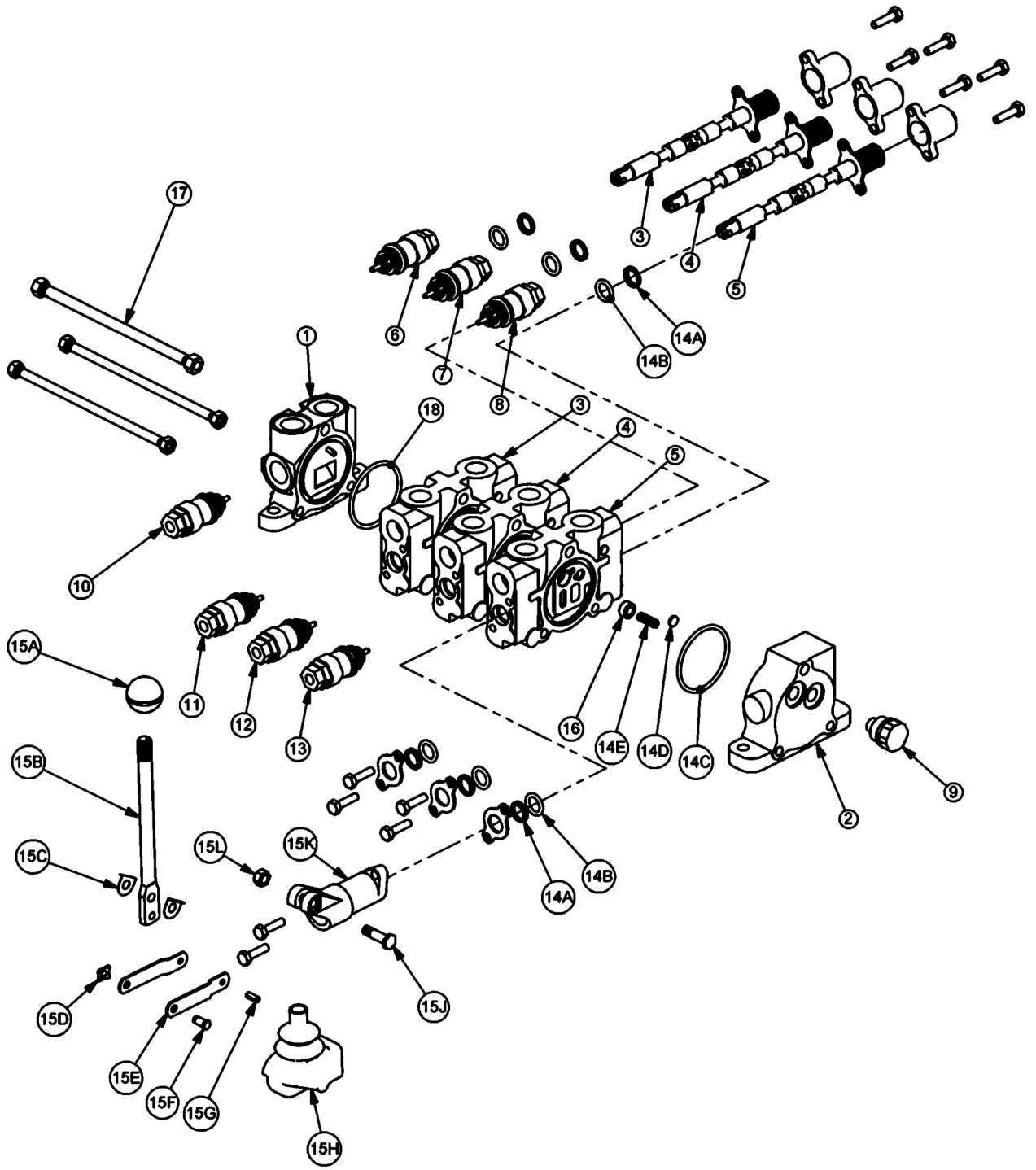
## CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31321

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                  |
|------|----------|------|----------------------------------------------|
| 1    | 31595    | 1    | INLET END COVER                              |
| 2    | 31594    | 1    | END COVER, LOAD SENSE                        |
| 3    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 4    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 5    | 06503067 | 1    | RELIEF PLUG                                  |
| 6    | 31861    | 1    | RELIEF VALVE, 360 PSI                        |
| 7    | N/A      | -    | N/A                                          |
| 8    | 6T4209   | 1    | RELIEF PLUG                                  |
| 9    | 31862    | 1    | RELIEF VALVE, 2175 PSI                       |
| 10   | 31862    | 1    | RELIEF VALVE, 2175 PSI                       |
| 11   | 31593    | 2    | VALVE SEAL KIT (FOR ONE SECTION)             |
| 11A  | -----    | 2    | WIPER                                        |
| 11B  | -----    | 2    | O-RING SMALL                                 |
| 11C  | -----    | 1    | O-RING LARGE                                 |
| 11D  | -----    | 1    | SHUTTLE DISC                                 |
| 11E  | -----    | 1    | SPRING                                       |
| 12   | TB1017L  | 2    | LEVER KIT (FOR ONE SECTION)                  |
| 12A  | -----    | 1    | LEVER KNOB                                   |
| 12B  | -----    | 1    | LEVER                                        |
| 12C  | -----    | 2    | LEVER WASHER                                 |
| 12D  | -----    | 1    | LEVER CLIP                                   |
| 12E  | -----    | 2    | LINKAGE                                      |
| 12F  | -----    | 1    | LEVER PIN                                    |
| 12G  | -----    | 1    | ROLL PIN                                     |
| 12H  | -----    | 1    | LEVER BOOT                                   |
| 12J  | -----    | 1    | LEVER BOLT                                   |
| 12K  | -----    | 1    | LEVER DUST COVER                             |
| 12L  | -----    | 1    | LEVER NUT                                    |
| 13   | 31603    | 2    | COMPENSATOR                                  |
| 14   | TB1017X  | 1    | TIE ROD KIT                                  |
| 15   | 24214    | 1    | O-RING, LARGE                                |

COMMON TWIN

CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502043



COMMON TWIN

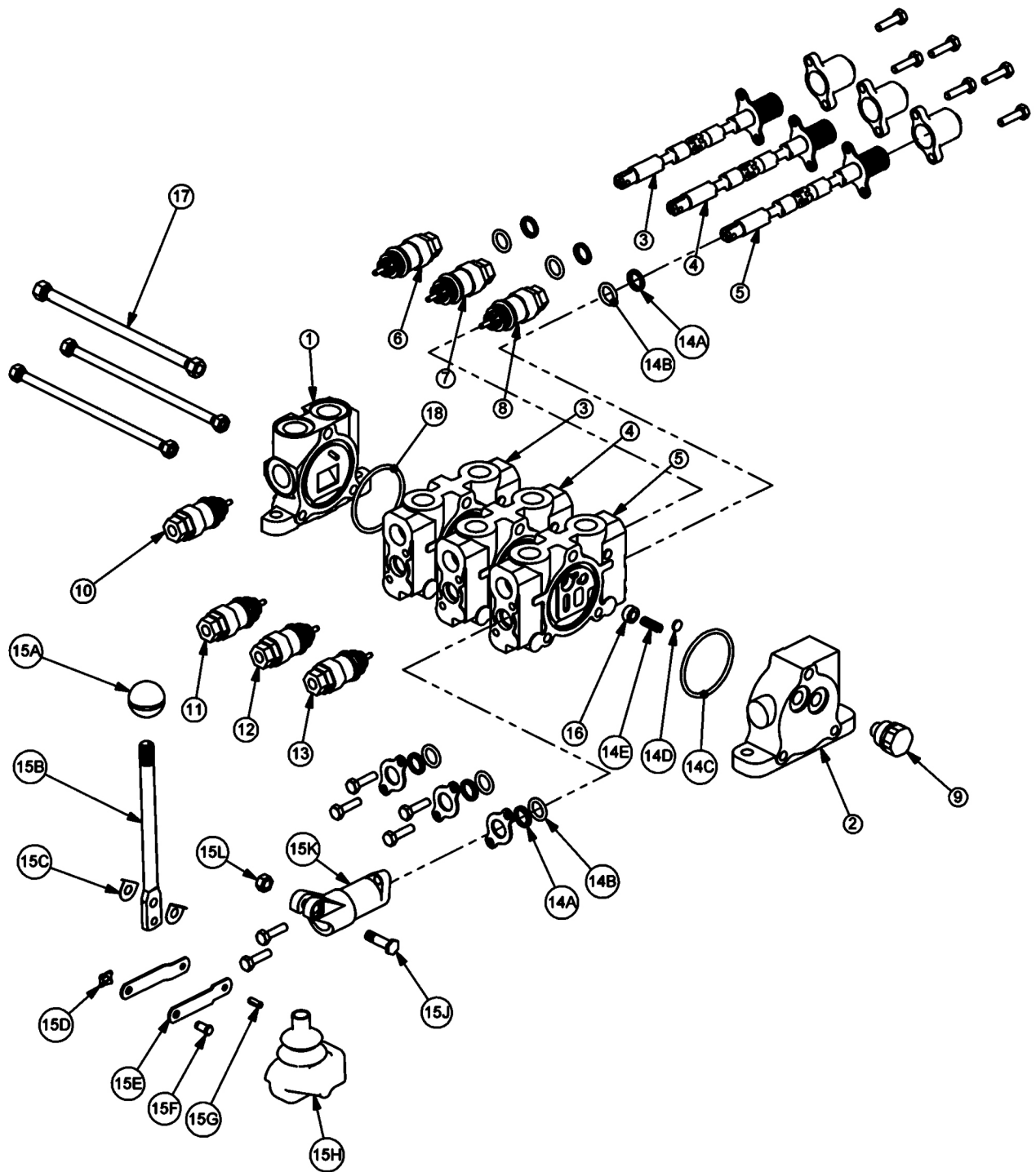
## CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502043

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                                        |
|------|----------|------|--------------------------------------------------------------------|
| 1    | 31595    | 1    | INLET END COVER                                                    |
| 2    | 31594    | 1    | END COVER, LOAD SENSE                                              |
| 3    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING)                       |
| 4    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING)                       |
| 5    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) (REMOVE SHUTTLE DISC) |
| 6    | 06503067 | 1    | RELIEF PLUG                                                        |
| 7    | 06503067 | 1    | RELIEF PLUG                                                        |
| 8    | 28816    | 1    | RELIEF VALVE, 1812 PSI                                             |
| 9    | 06503068 | 1    | RELIEF PLUG                                                        |
| 10   | 6T4209   | 1    | RELIEF PLUG                                                        |
| 11   | 31862    | 1    | RELIEF VALVE, 2175 PSI                                             |
| 12   | 31862    | 1    | RELIEF VALVE, 2175 PSI                                             |
| 13   | 28816    | 1    | RELIEF VALVE, 1812 PSI                                             |
| 14   | 31593    | 3    | VALVE SEAL KIT (FOR ONE SECTION)                                   |
| 14A  | -----    | 2    | WIPER                                                              |
| 14B  | -----    | 2    | O-RING SMALL                                                       |
| 14C  | -----    | 1    | O-RING LARGE                                                       |
| 14D  | -----    | 1    | SHUTTLE DISC                                                       |
| 14E  | -----    | 1    | SPRING                                                             |
| 15   | TB1017L  | 3    | LEVER KIT (FOR ONE SECTION)                                        |
| 15A  | -----    | 1    | LEVER KNOB                                                         |
| 15B  | -----    | 1    | LEVER                                                              |
| 15C  | -----    | 2    | LEVER WASHER                                                       |
| 15D  | -----    | 1    | LEVER CLIP                                                         |
| 15E  | -----    | 2    | LINKAGE                                                            |
| 15F  | -----    | 1    | LEVER PIN                                                          |
| 15G  | -----    | 1    | ROLL PIN                                                           |
| 15H  | -----    | 1    | LEVER BOOT                                                         |
| 15J  | -----    | 1    | LEVER BOLT                                                         |
| 15K  | -----    | 1    | LEVER DUST COVER                                                   |
| 15L  | -----    | 1    | LEVER NUT                                                          |
| 16   | 31603    | 3    | COMPENSATOR                                                        |
| 17   | 23397    | 1    | TIE ROD KIT                                                        |
| 18   | 24214    | 1    | O-RING, LARGE                                                      |

COMMON TWIN

CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502044



COMMON TWIN

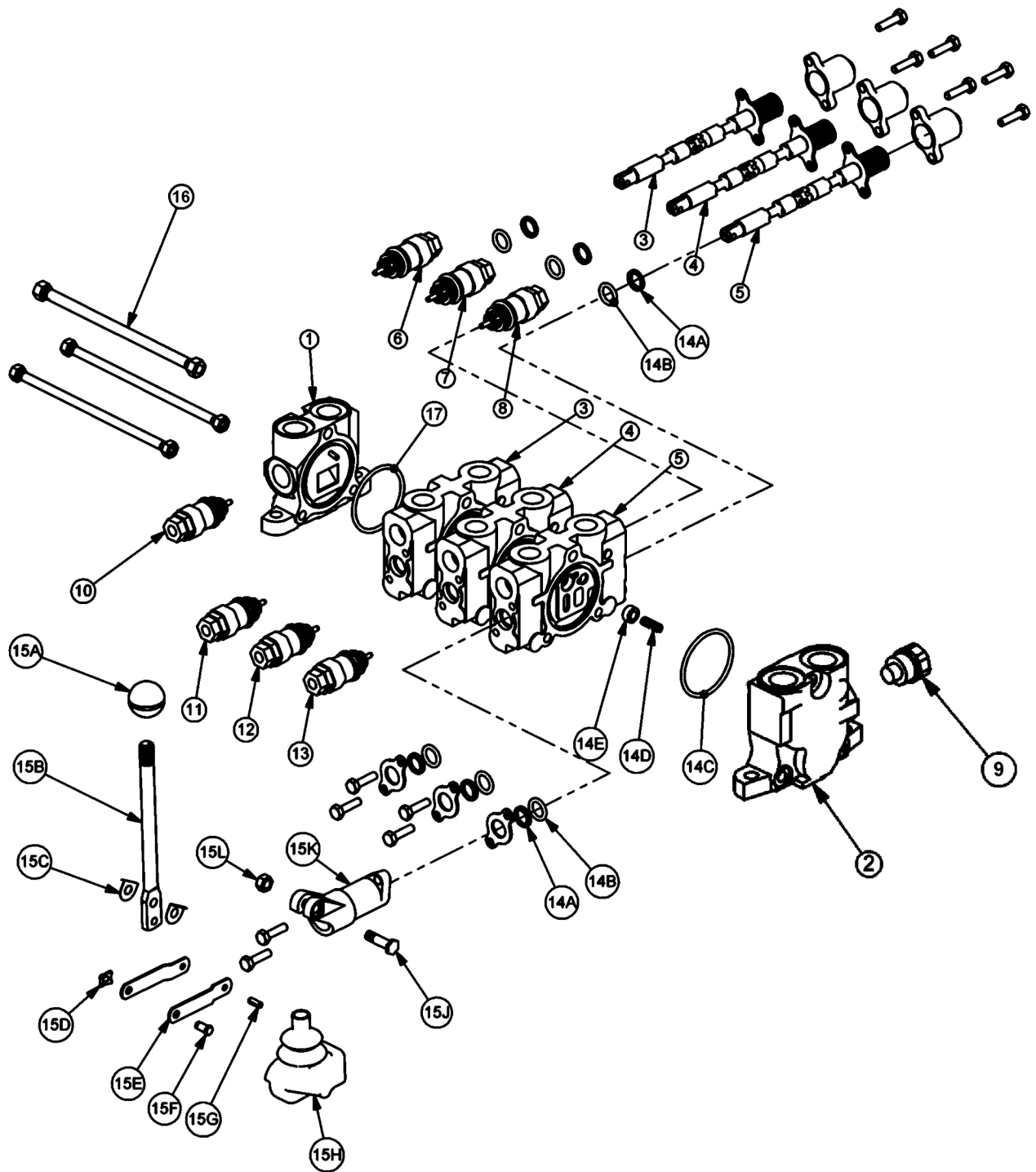
## CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502044

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                                        |
|------|----------|------|--------------------------------------------------------------------|
| 1    | 31595    | 1    | INLET END COVER                                                    |
| 2    | 31594    | 1    | END COVER, LOAD SENSE                                              |
| 3    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING)                       |
| 4    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING)                       |
| 5    | 31597    | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) (REMOVE SHUTTLE DISC) |
| 6    | 06503067 | 1    | RELIEF PLUG                                                        |
| 7    | 31861    | 1    | RELIEF VALVE, 360 PSI                                              |
| 8    | 28816    | 1    | RELIEF VALVE, 1812 PSI                                             |
| 9    | 06503068 | 1    | RELIEF PLUG                                                        |
| 10   | 6T4209   | 1    | RELIEF PLUG                                                        |
| 11   | 31862    | 1    | RELIEF VALVE, 2175 PSI                                             |
| 12   | 31862    | 1    | RELIEF VALVE, 2175 PSI                                             |
| 13   | 28816    | 1    | RELIEF VALVE, 1812 PSI                                             |
| 14   | 31593    | 3    | VALVE SEAL KIT (FOR ONE SECTION)                                   |
| 14A  | -----    | 2    | WIPER                                                              |
| 14B  | -----    | 2    | O-RING SMALL                                                       |
| 14C  | -----    | 1    | O-RING LARGE                                                       |
| 14D  | -----    | 1    | SHUTTLE DISC                                                       |
| 14E  | -----    | 1    | SPRING                                                             |
| 15   | TB1017L  | 3    | LEVER KIT (FOR ONE SECTION)                                        |
| 15A  | -----    | 1    | LEVER KNOB                                                         |
| 15B  | -----    | 1    | LEVER                                                              |
| 15C  | -----    | 2    | LEVER WASHER                                                       |
| 15D  | -----    | 1    | LEVER CLIP                                                         |
| 15E  | -----    | 2    | LINKAGE                                                            |
| 15F  | -----    | 1    | LEVER PIN                                                          |
| 15G  | -----    | 1    | ROLL PIN                                                           |
| 15H  | -----    | 1    | LEVER BOOT                                                         |
| 15J  | -----    | 1    | LEVER BOLT                                                         |
| 15K  | -----    | 1    | LEVER DUST COVER                                                   |
| 15L  | -----    | 1    | LEVER NUT                                                          |
| 16   | 31603    | 3    | COMPENSATOR                                                        |
| 17   | 23397    | 1    | TIE ROD KIT                                                        |
| 18   | 24214    | 1    | O-RING, LARGE                                                      |

COMMON TWIN

CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502087



COMMON TWIN

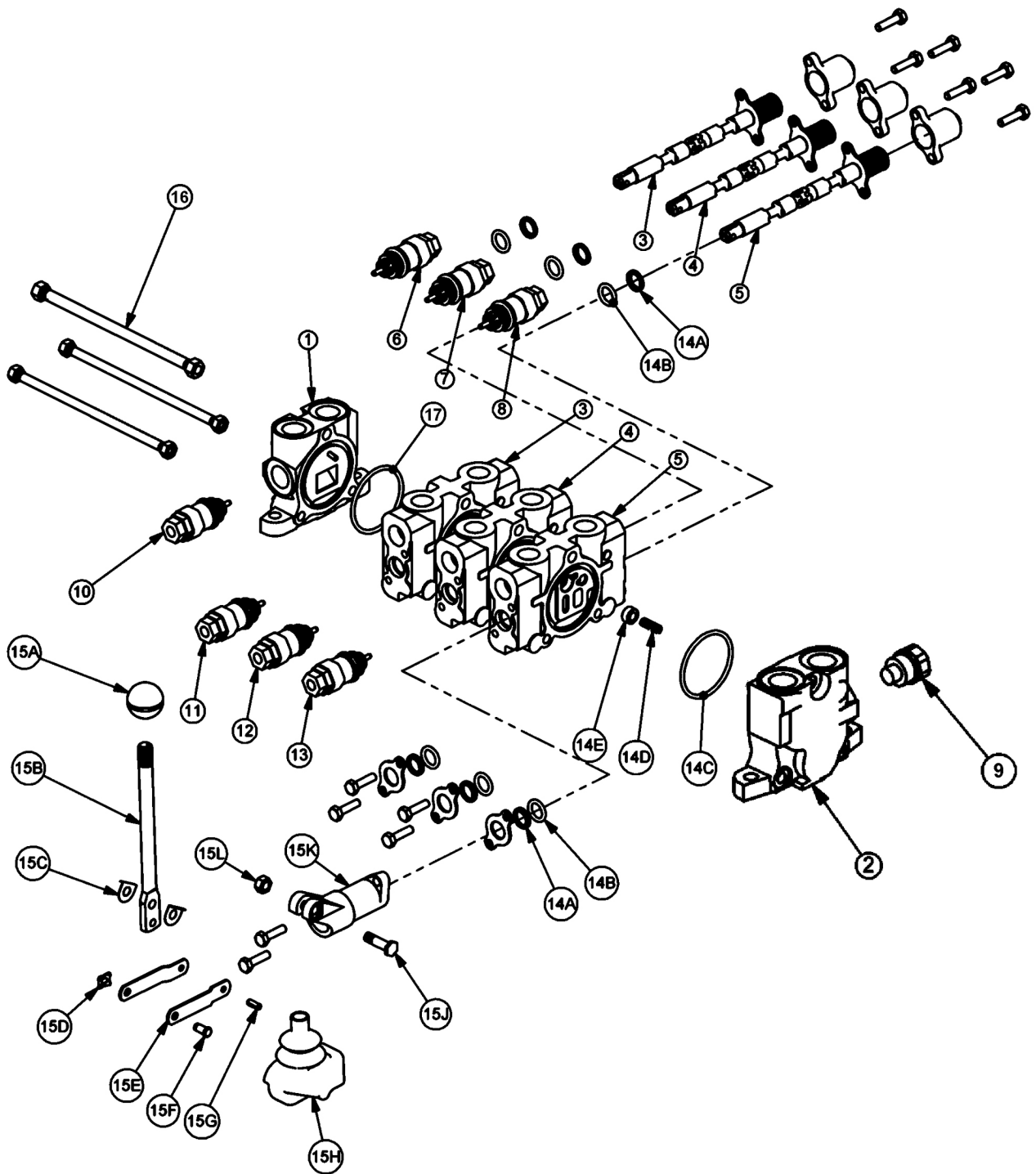
## CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502087

Continued...

| ITEM | PART NO. | QTY. | DESCRIPTION                                  |
|------|----------|------|----------------------------------------------|
| 1    | TB1017S  | 1    | INLET END COVER                              |
| 2    | TB1702   | 1    | END COVER, POWER BEYOND                      |
| 3    | TB1017P  | 1    | VALVE SECTION (SINGLE ACTING, SPRING DETENT) |
| 4    | TB1017P  | 1    | VALVE SECTION (SINGLE ACTING, SPRING DETENT) |
| 5    | TB1017N  | 1    | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 6    | -----    | -    | N/A                                          |
| 7    | -----    | -    | N/A                                          |
| 8    | 28816    | 1    | RELIEF VALVE, 1812 PSI                       |
| 9    | TB1017M  | 1    | SHUT-OFF PLUG                                |
| 10   | 06502085 | 1    | RELIEF VALVE, 3000 PSI                       |
| 11   | 31862    | 1    | RELIEF VALVE, 2175 PSI                       |
| 12   | 31862    | 1    | RELIEF VALVE, 2175 PSI                       |
| 13   | 28816    | 1    | RELIEF VALVE, 1812 PSI                       |
| 14   | TB1017A  | 4    | VALVE SEAL KIT (FOR ONE SECTION)             |
| 14A  | -----    | 2    | WIPER                                        |
| 14B  | -----    | 2    | O-RING SMALL                                 |
| 14C  | -----    | 1    | O-RING LARGE                                 |
| 14D  | -----    | 1    | SPRING                                       |
| 14E  | -----    | 1    | PUCKET                                       |
| 15   | TB1017L  | 4    | LEVER KIT (FOR ONE SECTION)                  |
| 15A  | -----    | 1    | LEVER KNOB                                   |
| 15B  | -----    | 1    | LEVER                                        |
| 15C  | -----    | 2    | LEVER WASHER                                 |
| 15D  | -----    | 1    | LEVER CLIP                                   |
| 15E  | -----    | 2    | LINKAGE                                      |
| 15F  | -----    | 1    | LEVER PIN                                    |
| 15G  | -----    | 1    | ROLL PIN                                     |
| 15H  | -----    | 1    | LEVER BOOT                                   |
| 15J  | -----    | 1    | LEVER BOLT                                   |
| 15K  | -----    | 1    | LEVER DUST COVER                             |
| 15L  | -----    | 1    | LEVER NUT                                    |
| 16   | 23397    | 1    | TIE ROD KIT                                  |
| 17   | 24214    | 1    | O-RING, LARGE                                |

COMMON TWIN

CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502088





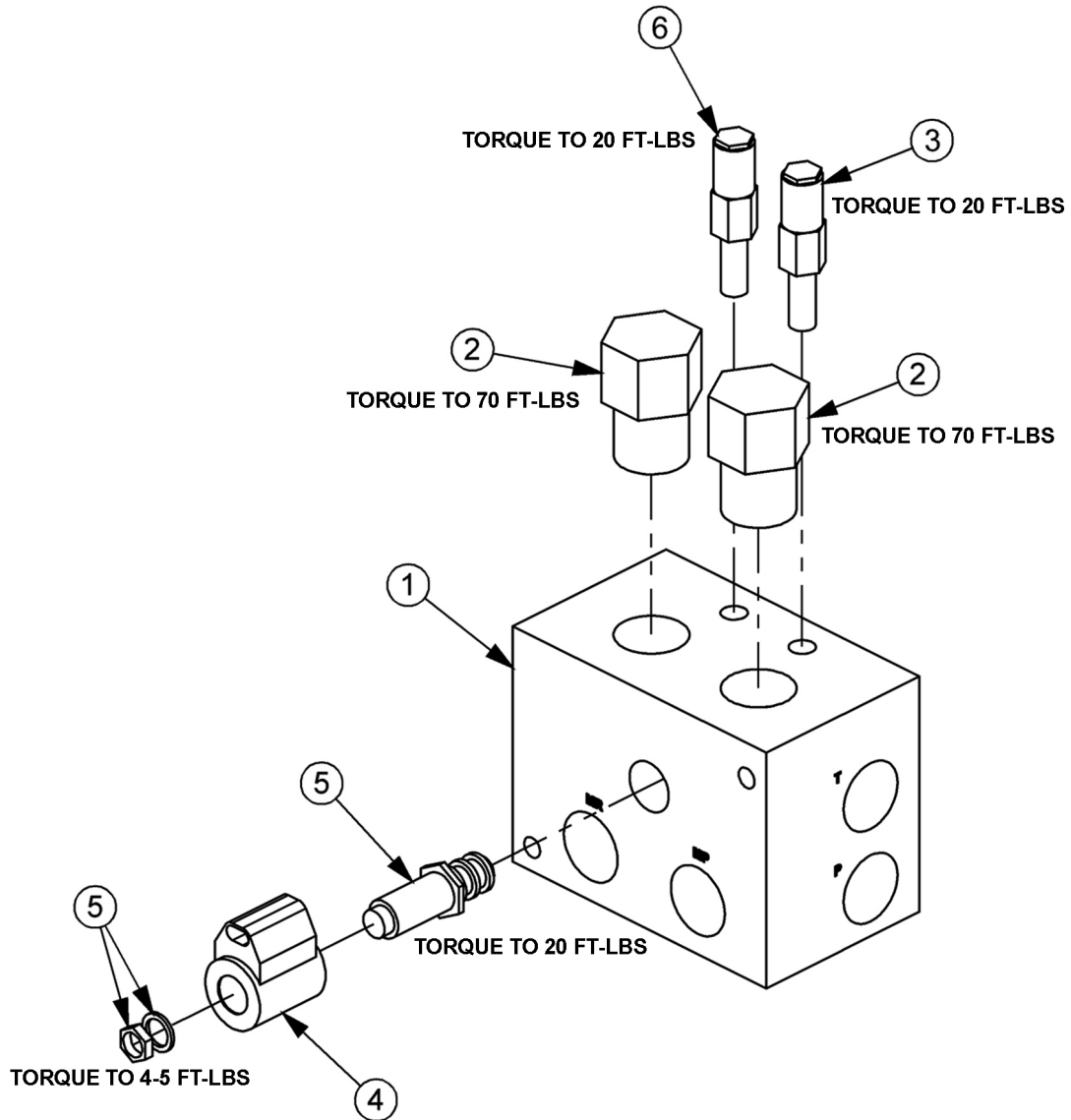
**CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502088**

Continued...

| <b>ITEM</b> | <b>PART NO.</b> | <b>QTY.</b> | <b>DESCRIPTION</b>                           |
|-------------|-----------------|-------------|----------------------------------------------|
| 1           | TB1017S         | 1           | INLET END COVER                              |
| 2           | TB1702          | 1           | END COVER, POWER BEYOND                      |
| 3           | TB1017P         | 1           | VALVE SECTION (SINGLE ACTING, SPRING DETENT) |
| 4           | TB1017N         | 1           | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 5           | TB1017N         | 1           | VALVE SECTION (DOUBLE ACTING, CENTER SPRING) |
| 6           | -----           | -           | N/A                                          |
| 7           | 31861           | 1           | RELIEF VALVE, 360 PSI                        |
| 8           | 28816           | 1           | RELIEF VALVE, 1812 PSI                       |
| 9           | TB1017M         | 1           | SHUT-OFF PLUG                                |
| 10          | 06502085        | 1           | RELIEF VALVE, 3000 PSI                       |
| 11          | 31862           | 1           | RELIEF VALVE, 2175 PSI                       |
| 12          | 31862           | 1           | RELIEF VALVE, 2175 PSI                       |
| 13          | 28816           | 1           | RELIEF VALVE, 1812 PSI                       |
| 14          | TB1017A         | 4           | VALVE SEAL KIT (FOR ONE SECTION)             |
| 14A         | -----           | 2           | WIPER                                        |
| 14B         | -----           | 2           | O-RING SMALL                                 |
| 14C         | -----           | 1           | O-RING LARGE                                 |
| 14D         | -----           | 1           | SPRING                                       |
| 14E         | -----           | 1           | PUCKET                                       |
| 15          | TB1017L         | 4           | LEVER KIT (FOR ONE SECTION)                  |
| 15A         | -----           | 1           | LEVER KNOB                                   |
| 15B         | -----           | 1           | LEVER                                        |
| 15C         | -----           | 2           | LEVER WASHER                                 |
| 15D         | -----           | 1           | LEVER CLIP                                   |
| 15E         | -----           | 2           | LINKAGE                                      |
| 15F         | -----           | 1           | LEVER PIN                                    |
| 15G         | -----           | 1           | ROLL PIN                                     |
| 15H         | -----           | 1           | LEVER BOOT                                   |
| 15J         | -----           | 1           | LEVER BOLT                                   |
| 15K         | -----           | 1           | LEVER DUST COVER                             |
| 15L         | -----           | 1           | LEVER NUT                                    |
| 16          | 23397           | 1           | TIE ROD KIT                                  |
| 17          | 24214           | 1           | O-RING, LARGE                                |

COMMON TWIN

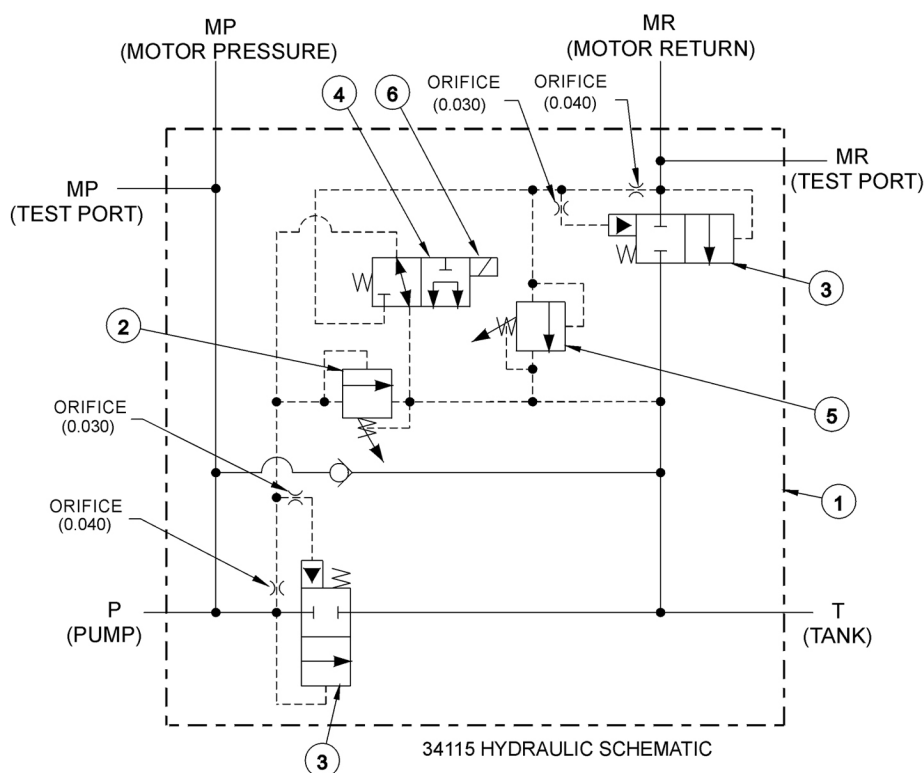
## BRAKE VALVE ASSEMBLY



| 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                                 |

COMMON TWIN

## BRAKE VALVE HYDRAULIC SCHEMATIC



### BRAKE VALVE TROUBLESHOOTING

#### FAILURE MODE:

- MOWER WILL NOT START - system pressure is low (engine not lugging).
- 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.
- MOWER BLADE WILL NOT STOP - blade will not stop in proper time.

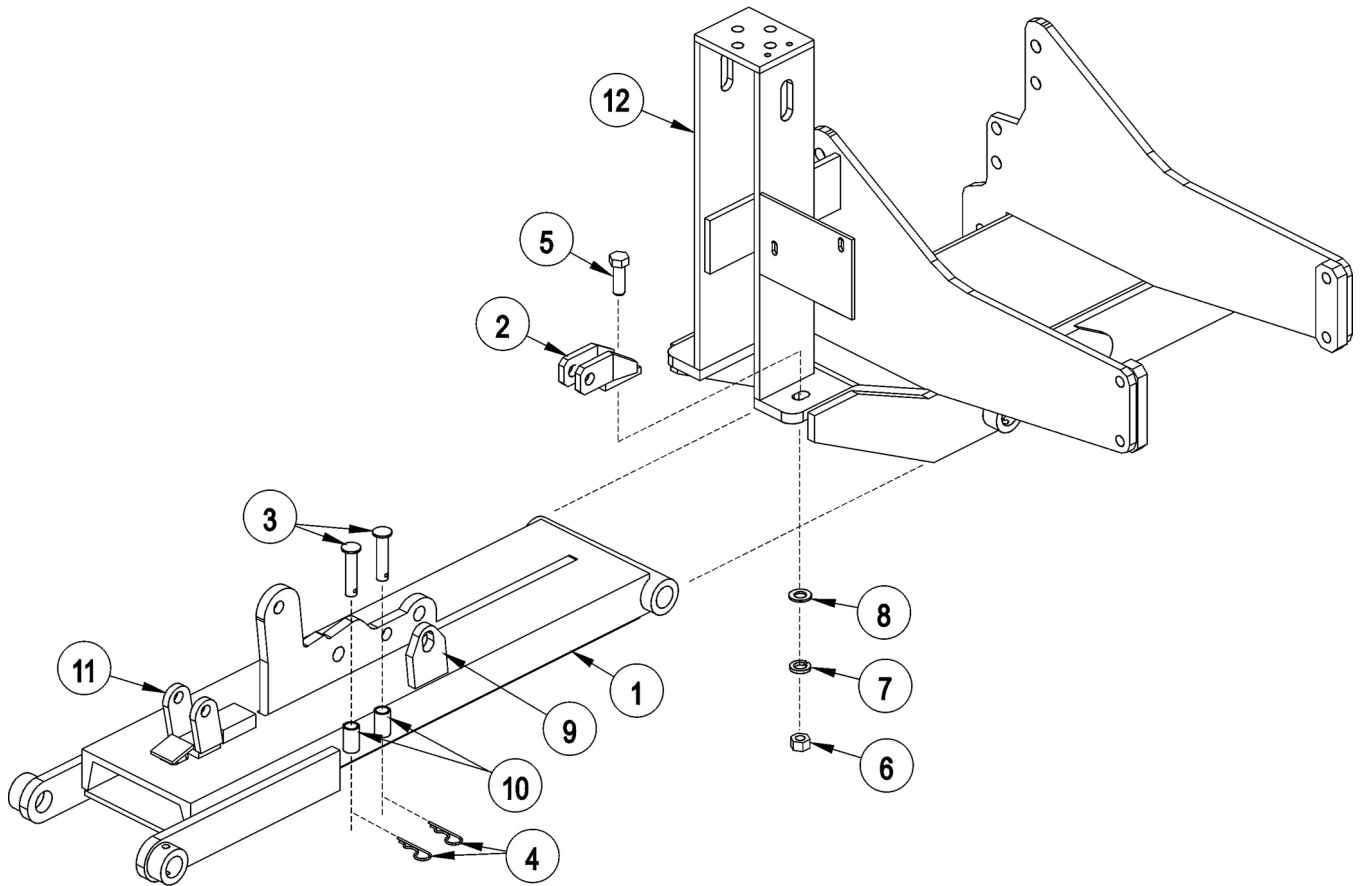
#### CHECK STEPS

- 1 thru 6
- 7
- 3 thru 5
- 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.

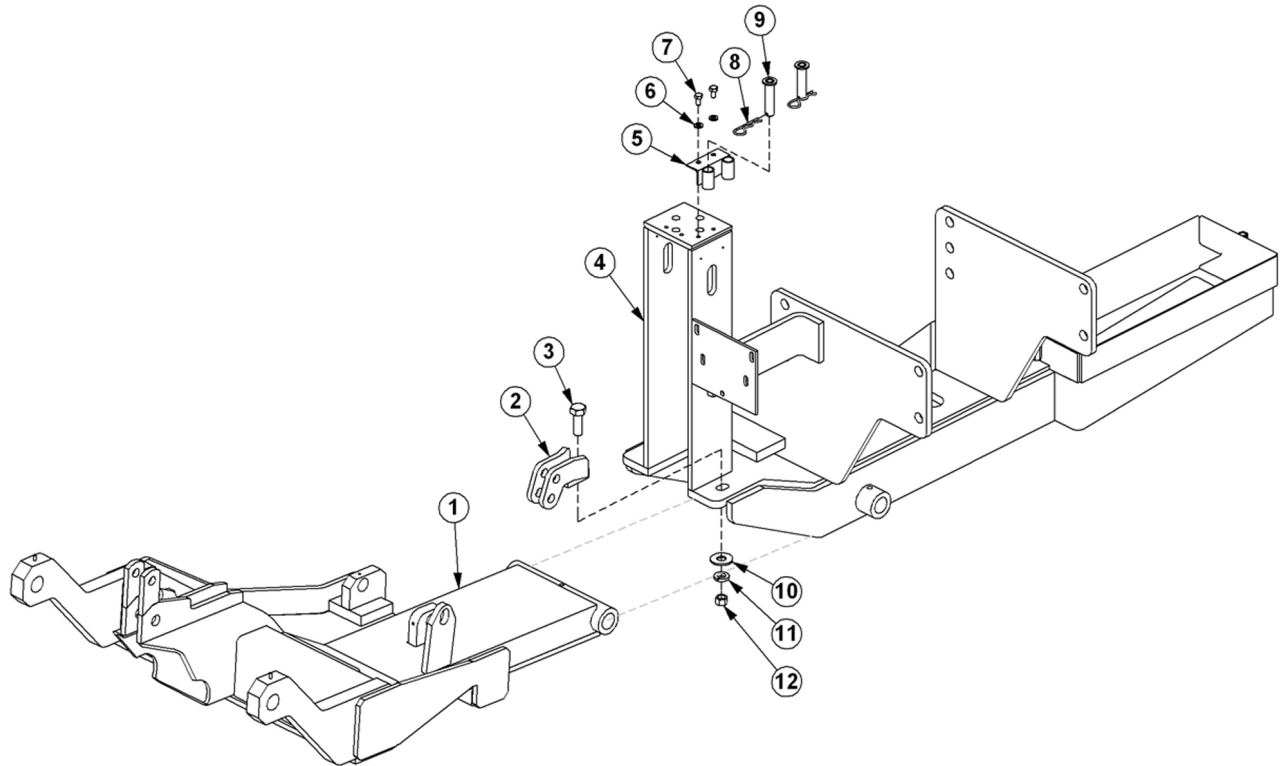
## CABLE DRAFT BEAM TRAVEL LOCK



| ITEM | PART NO. | QTY. | DESCRIPTION                        |
|------|----------|------|------------------------------------|
| 1    | -----    | -    | CABLE DRAFT BEAM                   |
| 2    | 6T0106   | 1    | TRAVEL LOCK BRACKET                |
| 3    | 6T0107   | 2    | TRAVEL LOCK PINS 3/4" X 3 1/4"     |
| 4    | 6T3020   | 2    | R - CLIP 5/32"                     |
| 5    | 21833    | 1    | CAPSCREW 3/4" X 2 1/4"             |
| 6    | 21825    | 1    | HEX NUT 3/4"                       |
| 7    | 21993    | 1    | LOCK WASHER 3/4"                   |
| 8    | 22021    | 1    | FLAT WASHER 3/4"                   |
| 9    | 22600    | 1    | TRAVEL LOCK EAR                    |
| 10   | 22604    | 2    | PIN HOLDER                         |
| 11   | 22601C   | 1    | TRAVEL LOCK ASY                    |
| 12   | -----    | -    | MAIN FRAME *REFER TO PARTS SECTION |

COMMON TWIN

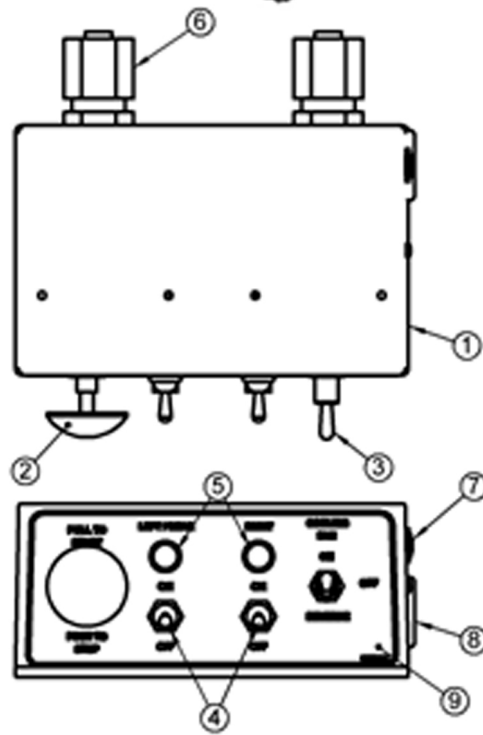
## COMBO DRAFT BEAM TRAVEL LOCK



| ITEM | PART NO. | QTY. | DESCRIPTION                        |
|------|----------|------|------------------------------------|
| 1    | -----    | -    | COMBO DRAFT BEAM                   |
| 2    | 6T0106   | 1    | TRAVEL LOCK BRACKET                |
| 3    | 21833    | 1    | CAPSCREW 3/4" X 2 1/4"             |
| 4    | -----    | -    | MAIN FRAME *REFER TO PARTS SECTION |
| 5    | 33856    | 1    | BRKT, PIN HOLDER                   |
| 6    | 21988    | 2    | LOCK WASHER 3/8"                   |
| 7    | 21629    | 2    | CAPSCREW 3/8" X 3/4"               |
| 8    | 6T3020   | 2    | R - CLIP 5/32"                     |
| 9    | 6T0107   | 2    | TRAVEL LOCK PINS 3/4" X 3 1/4"     |
| 10   | 22021    | 1    | FLAT WASHER 3/4"                   |
| 11   | 21993    | 1    | LOCK WASHER 3/4"                   |
| 12   | 21825    | 1    | HEX NUT 3/4"                       |

COMMON TWIN

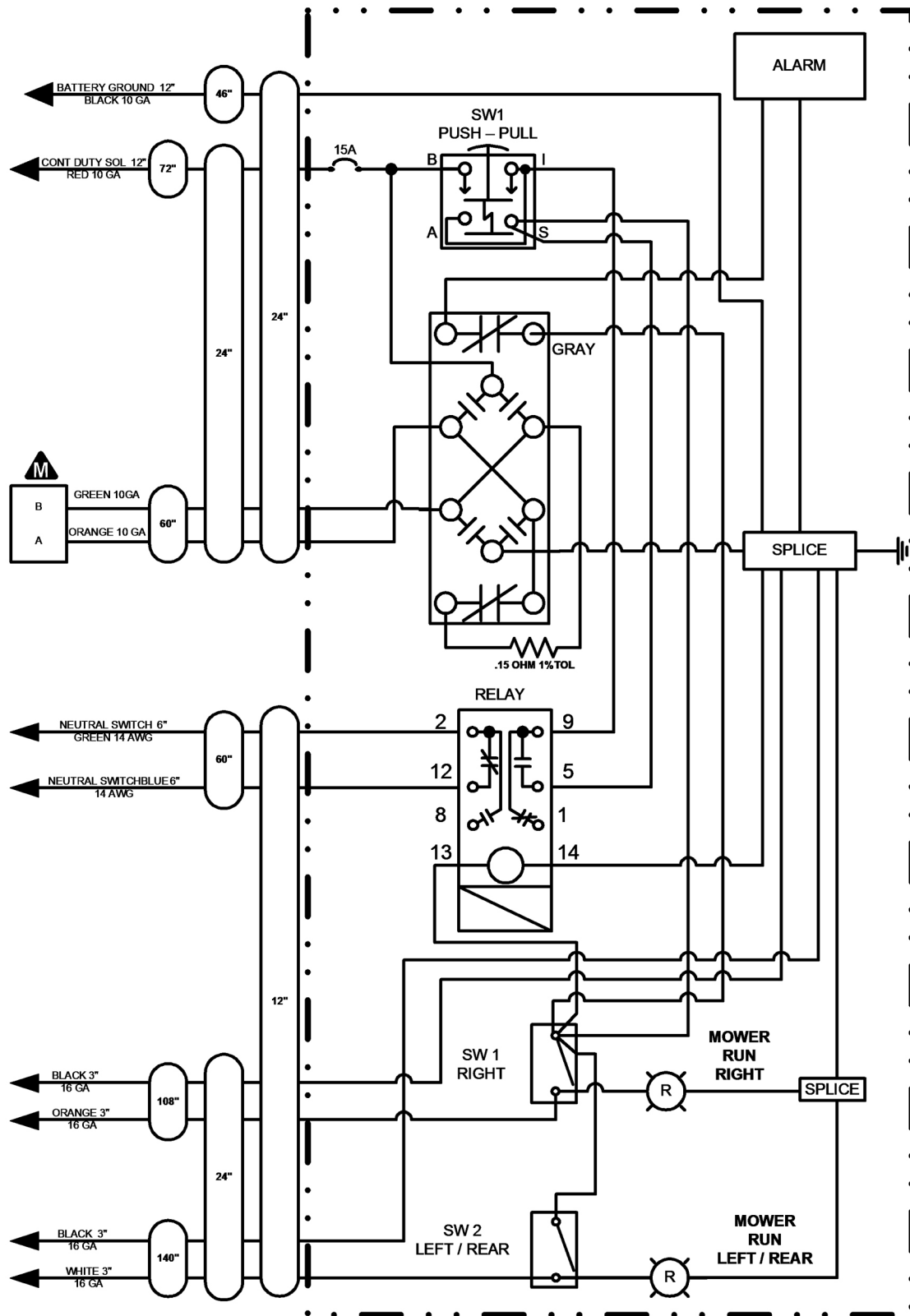
## SWITCH BOX



| ITEM | PART NO. | QTY. | DESCRIPTION                    |
|------|----------|------|--------------------------------|
| 1    | 06514011 | 1    | SWBX,ALUM,BLK,06510097         |
| 2    | 35226    | 1    | SWITCH,MOWER,COLEHERSEE        |
| 3    | 06510028 | 1    | SWITCH,FORWARD/BRAKE/REV       |
| 4    | 33811    | 2    | SWITCH,MASTER/DECK FLOAT       |
| 5    | 6T3923   | 2    | INDICTATOR LIGHT,ON,RED        |
| 6    | 34540    | 2    | STRAIN RELIEF,3/4,BLACK,NYLON  |
| 7    | 06514006 | 1    | BREAKER,15A,SWBX               |
| 8    | 06514015 | 1    | ALARM,SWBX,REVERSER            |
| 9    | 06550002 | 1    | DECAL,SWTCHBX,TWIN/T3F,REV FAN |
| 10   | 35227    | 1    | RELAY,DP,DT,12V,LY2F,35226     |

COMMON TWIN

# SWITCH BOX SCHEMATIC



COMMON TWIN

# NOTES



**WARRANTY  
SECTION**



## 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!**



1012

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 our products, we reserve the right to change specifications or design at any time.

# TO THE OWNER / OPERATOR / DEALER



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

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

## **OWNER REQUIREMENTS:**

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

## **OPERATOR REQUIREMENTS:**

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



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