TWIN ROTARY ASSEMBLIES

NH T6.145-155 T4B

Current as of 4/17/2017

PARTS LISTING WITH MOUNTING AND OPERATING INSTRUCTIONS

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

06022016

TO THE OWNER / OPERATOR / DEALER

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

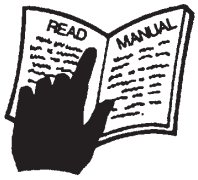
BEFORE YOU START!! Read the safety messages on the implement and shown in this manual. Observe the rules of safety and use common sense!

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

DANGER

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

1.



2. NO RIDERS. NO CHILDREN OPERATORS.

3. USE SAFETY SHOES, HARD HAT, SAFETY GLASSES, SEAT BELTS, ROPS & OPS

4. BLOCK UP SECURELY BEFORE WORKING UNDER.

1. Study and understand Operator's Manuals, Safety Decals, and Instructional Decals for tractor and implement to prevent misuse, abuse, and accidents. Practice before operating in a confined area or near passersby.
- Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children

2. Allow no children on or near folding mower or tractor. Allow no riders on tractor or implement. Falling off may cause serious injury or death from being run over by tractor or mower or contact with rotating blades.

3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seat belt securely fastened to prevent injury and possible death from falling off or tractor overturn.
- Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, & Ear Plugs are recommended.

4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted component to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain area is clear before lowering or folding

5. Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding mowers. Put Booms securely in Transport Rest.
- Folding and Boom Mowers have raised center of gravity. Slow down when turning and on hillsides.

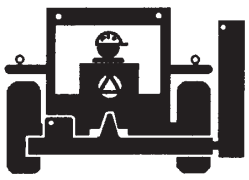
6. Make certain that SMV sign, warning lights, and reflectors are clearly visible. Follow local traffic codes.

7. Never operate with Cutting Head or Folding Section raised if passersby, bystanders, or traffic are in the area to reduce possibility of injury or death from objects thrown by Blades under Guards or mower structure.

8. Before dismounting, secure implement in transport position or lower to ground.
- Put tractor in park or set brake, disengage PTO, stop engine, remove key, and wait until noise of rotation has ceased to prevent crushing by entanglement in rotating parts which could cause injury or death.
- Never mount or dismount a moving vehicle. Crushing from runover may cause serious injury or death.

5. TRANSPORT SAFELY, LOCK UP.

6. USE SMV, LIGHTS, & REFLECTORS.



7. DO NOT OPERATE WITH CUTTER OR WING RAISED.

8. DO NOT MOUNT OR DISMOUNT WHILE MOVING.

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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
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DISTRIBUTED BY:
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1-_____-_____-_____

TABLE OF CONTENTS

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.

SAFETY SECTION

SAFETY

GENERAL SAFETY INSTRUCTIONS AND PRACTICES

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

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

Practice all usual and customary safe working precautions and above all---remember safety is up to 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 and convenient operation or repair.*

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

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

Operator Safety

Read and understand Operator's Manual	Always wear Safety Glasses	Wear Hard Hat Safety Shoes	Never use Drugs or Alcohol when operating equipment	Wear Safety Vest when operating on or near roads

WARNING **TO AVOID SERIOUS INJURY OR DEATH DO THE FOLLOWING:**

- **READ, UNDERSTAND** and **FOLLOW** Operator's Manual instructions, Warnings and Safety Messages.
- **WEAR SAFETY GLASSES**, safety shoes, hard hat, hearing protection and gloves when operating or repairing equipment
- **WEAR** appropriate breathing respirator when operating in dusty conditions to avoid respiratory diseases.
- **DO NOT WEAR** loose clothing or jewelry to avoid rotating parts entanglement injury.
- **DO NOT USE DRUGS** or **ALCOHOL** before or while operating equipment.
- **DO NOT ALLOW** anyone to operate equipment under the influence of drug or alcohol.
- **CONSULT** medical professional for medication impairment side effects.
- **STAY CLEAR** of hot surfaces such as Mufflers, hydraulic pumps, valves and tanks.
- **STAY ALERT**, prolonged operation can cause fatigue, **STOP** and **REST**.

GENERAL OPERATING SAFETY

VISIBILITY CONDITIONS WHEN MOWING:

- **OPERATE IN DAYLIGHT** or with lights that gives at least 100 yards clear visibility.
- **BE ABLE TO SEE** and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects.
- Avoid backing up while mowing, vision may be limited, severe damage or injury can occur.
- DO NOT run tractor in enclosed building without adequate exhaust ventilation.

GROUND SPEED WHEN MOWING:

- **NORMAL SPEED** range is between 1 to 2 mph(1-3 kph).
- **ADJUST MOWING SPEED** for terrain conditions and grass type, density and cut height.
- **REDUCE MOWING SPEED** when near steep slopes, ditches, drop-offs, overhead obstructions, power lines and to avoid debris and foreign objects.

TRACTOR and MOWER

- **DO NOT** operate the tractor or mower unless the equipment is maintained and operating properly.
- **DISCONTINUE OPERATION** if tractor or mower electrical and hydraulic controls do no function properly.
- **DISCONTINUE OPERATION** of the tractor if the braking or steering systems do not function properly.
- **DO NOT** operate the tractor or mower if there are any hydraulic leaks.

INSECT INFESTATION

- **DO NOT** operate in areas where bees or insects may attack unless you **WEAR PROTECTIVE CLOTHING** or use enclosed tractor cab.

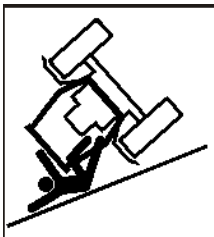
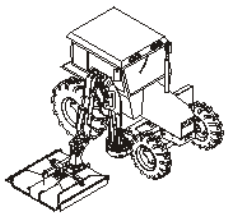
PTO SPEED:

- **DO NOT EXCEED IMPLEMENT RATED PTO SPEED**
- **AVOID** exceeding rated PTO speeds that may result in broken drivelines or blade failures.

SAFETY SIGNS:

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

CRUSHING HAZARDS

				
Crushing injury from roll over	Use Cab Tractor With Boom Mowers	Always wear seatbelt	Pinch Point Hazard Keep Hands and body parts clear of pinch points	Crushing injury from boom or mower head falling

DANGER **TO AVOID SERIOUS INJURY OR DEATH FROM FALLING OFF TRACTOR, EQUIPMENT RUN OVER, ROLLOVER AND CRUSHING BY FALLING WING OR IMPLEMENT:**

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

WHEN RAISING BOOM MOWER:

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

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

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

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

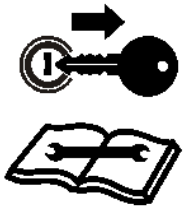
WHEN PARKING Implement and Tractor:

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

WARNING **TO AVOID CHILDREN FALLING OFF OR BEING CRUSHED BY EQUIPMENT:**

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

CONNECTING OR DISCONNECTING IMPLEMENT SAFETY

			
Stop Tractor Remove Key Read Manual	Crushing Hazard Do Not get under boom when connecting mower head to boom	Stability Hazard Ensure 20% of tractor weight is on front wheels	Stability Hazard Ensure 1500lbs down force on left tire with boom extended

⚠ DANGER **TO AVOID SERIOUS INJURY OR DEATH FROM BEING CRUSHED BY TRACTOR OR IMPLEMENT:**

WHEN connecting mower head to the boom:

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

BEFORE connecting and disconnecting the mower head or boom:

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

WHEN connecting and disconnecting the mower head or boom:

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

WHEN CONNECTING IMPLEMENT DRIVELINE:(If equipped)

TO AVOID implement driveline coming loose during operation:

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

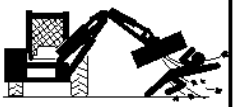
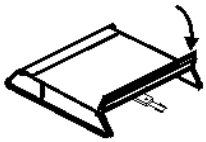
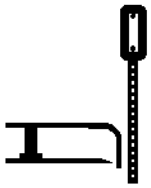
TO AVOID broken driveline during operations:

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

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

- **DO NOT USE PTO ADAPTER.**
  Using a PTO adapter can cause:
- Excessive vibration, thrown objects, blade and implement failures by doubling operating speed.
- Increased working length exposing unshielded driveline areas and entanglement hazards. ***PN CDBM-01***

THROWN OBJECTS HAZARDS

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

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

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

- KEEP bystanders 300 feet away

STOP MOWING IF PASSERSBY ARE WITHIN 300 FEET UNLESS:

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

INSPECT AREA FOR POTENTIAL THROWN OBJECTS BEFORE MOWING:

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

HIGH GRASS and WEED AREA INSPECTION:

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

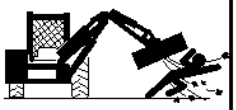
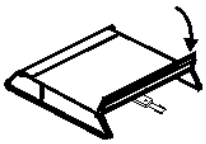
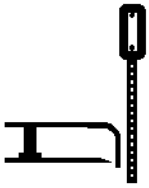
MOWER THROWN OBJECT SHIELDING:

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

RIGHT OF WAY (Highway) MOWING

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

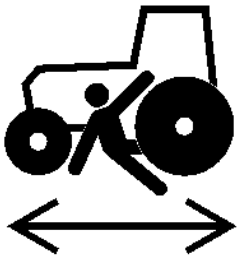
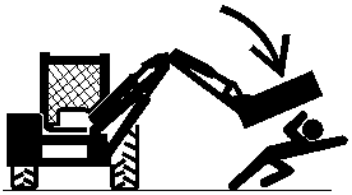
THROWN OBJECTS HAZARDS (Continued)

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

MOWER OPERATION:

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

RUN OVER HAZARDS

		
Operator run over hazard	Rider fall off run over hazard	Bystander run over hazard

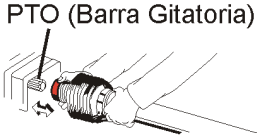
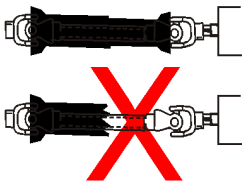
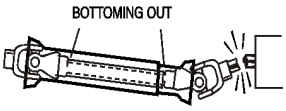
DANGER **TO AVOID SERIOUS INJURY OR DEATH FROM FALLING OFF TRACTOR OR EQUIPMENT RUN OVER:**

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

WHEN MOUNTING AND DISMOUNTING TRACTOR:

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

PTO ENTANGLEMENT HAZARDS

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

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

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

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

PTO SHIELDING:

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

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

TO AVOID broken driveline during operations:

- **CHECK** driveline for proper length between PTO shaft and implement gearbox shaft.***(Refer to Instructions in Operation Section)***
- Drivelines too short can pull apart or disengage.
- Drivelines too long can bottom out.

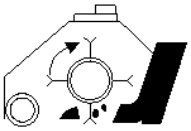
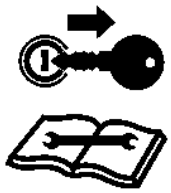
  Bottoming driveline telescoping assembly will stop sliding and become solid.
- Driveline bottoming can push through support bearings and break off PTO shaft
- **AVOID** sharp turns or lift mower to heights to cause driveline "knocking".
- Lubricate driveshaft-telescoping components weekly.

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

- **DO NOT USE PTO ADAPTER.**

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

MOWER BLADE CONTACT HAZARDS

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

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

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

HIGH PRESSURE OIL LEAK HAZARD

			
High pressure oil penetrating skin	High pressure oil eroding skin	Using cardboard to check for oil leaks	Tank contents under pressure. Allow oil to cool before slowly removing cap

DANGER **TO AVOID SERIOUS INJURY OR DEATH FROM HIGH PRESSURE HYDRAULIC OIL LEAKS PENERATING SKIN:**

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

HIGH PRESSURE FLUID LEAKS CAN BE INVISIBLE.

WHEN CHECKING FOR HYDRAULIC LEAKS AND WORKING AROUND HYDRAULIC SYSTEMS:

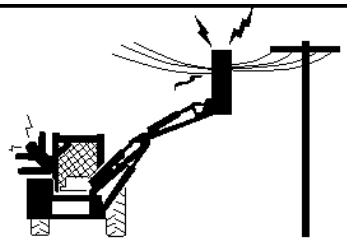
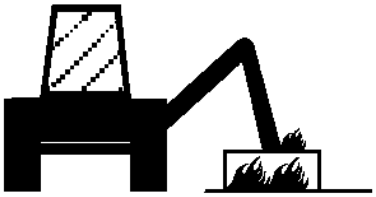
- **ALWAYS WEAR** safety glasses and impenetrable gloves.
- **USE** paper or cardboard to search for leaks.
- **DO NOT USE** hands or body parts to search for leak.
- **KEEP** hands and body **AWAY** from pin holes and nozzles ejecting hydraulic fluid.
- Hydraulic fluid may cause gangrene if not surgically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

Use caution when removing Hydraulic Tank cap.

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

PN HPBM-01

ELECTRICAL & FIRE HAZARDS

		
Mower head or Boom contacting overhead electrical lines	Strike and explosion Hazard Blades Contacting Utility or Gas Lines	Fire Hazard Do Not operate near fires. Keep debris away from hydraulic pumps and valves

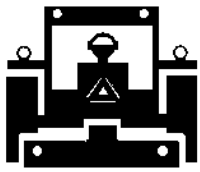
⚠ DANGER **TO AVOID SERIOUS INJURY OR DEATH FROM ELECTRICAL CONTACT WHEN WORKING AROUND ELECTRICAL POWER LINES, GAS LINES AND UTILITY LINES:**

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

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

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

TRANSPORTING HAZARDS

		
Use SMV signs and Flashing Lights	Loss of Control Stopping Hazard	Loss of Control Speeding Hazard

⚠WARNING **TO AVOID SERIOUS INJURY AND DEATH WHEN TOWING OR TRANSPORTING EQUIPMENT:**

- **KEEP** transport speed **BELOW** 20 mph to maintain control of equipment.
- **REDUCE SPEED** on inclines, on turns and in poor towing conditions.
- **DO NOT TOW** with trucks or other vehicles.
- **USE** only properly sized and equipped tractor for towing equipment.
- **FOLLOW** all local traffic regulations.

TRACTOR REQUIREMENTS FOR TOWING OR TRANSPORTING IMPLEMENTS:

- **ONLY TRANSPORT** with tractor with **ROPS** in the raised position.
- **USE** properly sized and equipped tractor that exceeds implement weight by at least 20%.
- **KEEP** 20% of tractor weight on front wheels to maintain safe steering.

BEFORE TRANSPORTING OR TOWING IMPLEMENT:

TRACTOR INSPECTION:

- **CHECK** steering and braking for proper operation and in good condition.
- **CHECK SMV** sign, reflectors and warning lights for proper operation and visibility behind unit.
- **CHECK** that your driving vision is not impaired by tractor, cab, or implement while seated in tractor seat.
- **ADJUST** your operating position, mirrors, and implement transport for clear vision for traveling and traffic conditions.

PREPARE IMPLEMENT FOR TRANSPORTING OR TOWING:

- Store Boom and Mower in transport positions and engage transport locks if equipped.

DETERMINE STOPPING CHARACTERISTICS OF TRACTOR AND IMPLEMENT FOR TRANSPORTING OR TOWING:

BRAKING TESTS:

- Stopping distance with implement attached may increase
- Observe **STOPPING** distances increases with increased speeds.
- **DETERMINE** the maximum safe transport speed that does not exceed 20 mph.
- Reduce travel speed in wet or icy roads, stopping distances increase.

DETERMINE MAXIMUM TURING SPEED BEFORE OPERATING ON ROADS OR UNEVEN GROUND:

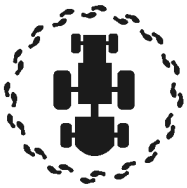
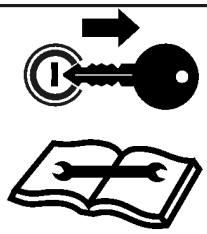
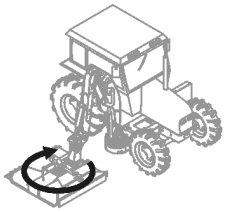
- **TEST** equipment in slowly increasing speed in turns to determine it can be operated at higher speeds.
- **USE REDUCED** turning speeds in sharp turns to avoid equipment turning over.

WHEN TOWING OR TRANSPORTING EQUIPMENT:

- Always **WEAR SEAT BELT** when operating or transporting mower.
- **USE** low speeds to avoid overturn with raised wings.
- **USE** low speeds and gradual steering on curves, hills, rough or uneven surfaces and on wet roads.
- **TURN ON** tractor **FLASHING WARNING LIGHTS**.
- **ALLOW** clearance for implement swing while turning.

KEEP raised boom mower 10 feet or greater distance from all power lines and overhead obstructions. ***PN THBM-01***

HAZARDS WITH MAINTENANCE OF IMPLEMENT

				
Periodically inspect all moving parts, lubricate drivelines, and tighten all fasteners	Lower mower head to ground or block up before servicing	Stop engine remove key before conducting maintenance	Set mower head securely on the ground before servicing blades	Thrown Objects Hazard Ensure blades rotate clockwise viewed from above mower head

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

BEFORE PERFORMING SERVICE, REPAIRS AND MAINTENANCE ON THE IMPLEMENT:

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

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

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

BLADE INSPECTION:

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

SAFETY SHIELDS, GUARDS AND SAFETY DEVICES INSPECTION:

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

PARTS INFORMATION

PARTS INFORMATION

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

SEE YOUR TIGER DEALER

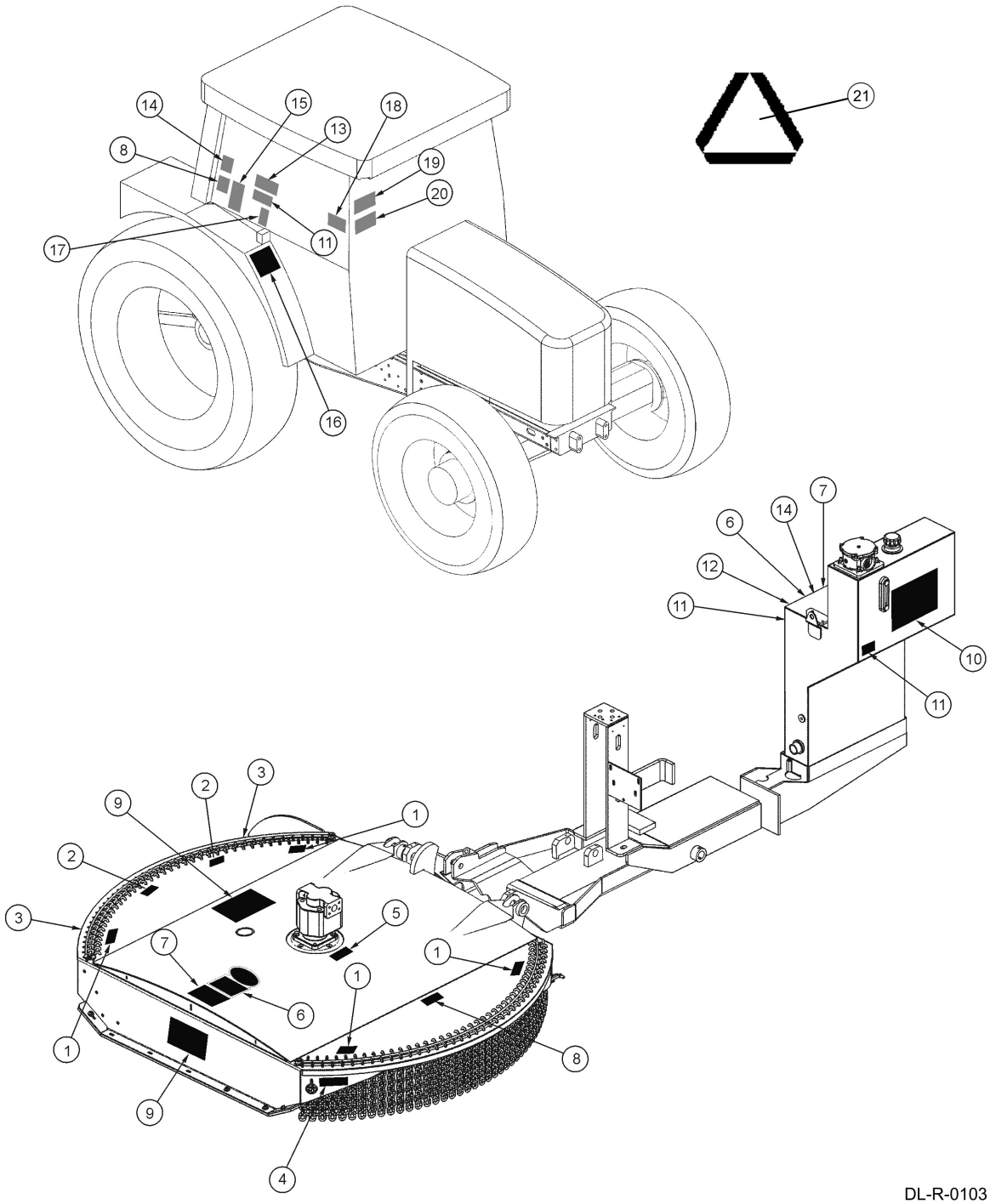
Operator’s & Parts Manuals

www.algqr.com/tpm

SAFETY

Decal Location Tractor and Side Rotary Mower

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

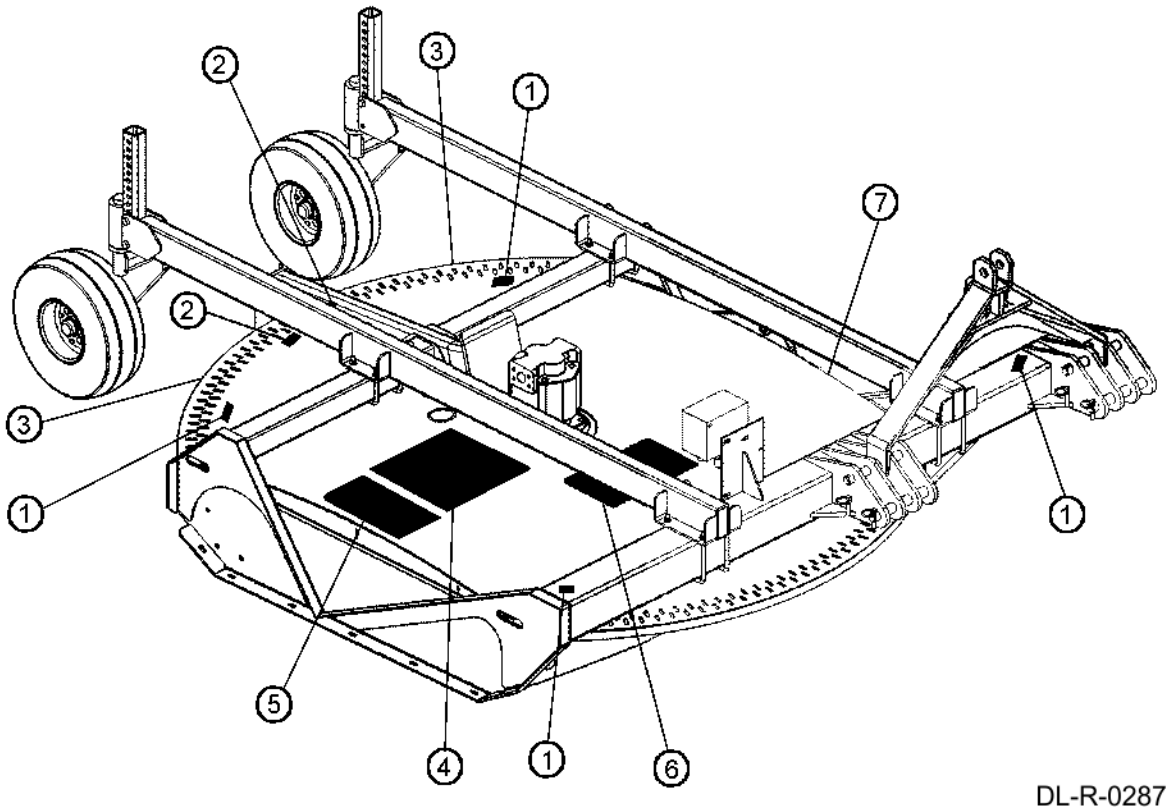


DL-R-0103

ITEM	PART NO.	QTY	LEVEL	DESCRIPTION
1.	6T3217	4	DANGER	Keep Hands and Feet Clear
2.	6T3224	2	DANGER	Stay Clear, Discharge Opening
3.	42399	2	REFLECTOR	Red Reflector
4.	42400	1	REFLECTOR	Amber Reflector
5.	22839	1	CAUTION	Do Not Grease w/ Automatic Grease Gun
6.	32709	2	IMPORTANT	Use Tiger Genuine Parts
7.	6T3236	2	LOGO	Made in U.S.A.
8.	22840	2	WARNING	Foreign Objects Contracted
9.	31522	2	LOGO	Tiger Logo (10” x 5.5”)
10.	31523	1	LOGO	Tiger Logo (18.25” x 10”)
11.	6T3233	2	IMPORTANT	Do Not Start/Run with Valves Closed
12.	34852	1	INFORMATION	Mowers Chart
13.	6T3243	1	WARNING	Replacing Blades
14.	6T3219	1	WARNING	Read Operator’s Manual Before Operating
15.	33743	1	INSTRUCT	Mowing Tips
16.	02967827	1	DANGER	Multi-Hazard
17.	6T3222	1	NOTICE	Engine Will Not Start when Mower is Engaged
18.	6T3221	1	CAUTION	Lubricate Spindle Daily or Every 10 Hours
19.	6T3230	1	WARNING	Do Not Operate w/ Bystanders in Area
20.	1059	1	INSTRUCT	Mower Positions

Decal Location Rear Rotary

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



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ITEM	PART NO.	QTY	LEVEL	DESCRIPTION
1.	6T3217	4	DANGER	Keep Hands and Feet Clear
2.	6T3224	2	DANGER	Stay Clear, Discharge Opening
3.	42399	2	REFLECTOR	Red Reflector
4.	32709	1	IMPORTANT	Use Tiger Genuine Parts
5.	6T3236	1	LOGO	Made in U.S.A.
6.	31522	1	LOGO	Tiger Logo (10” x 5.5”)
7.	NFS	1	SERIAL NO.	Serial Number Plate

Decal Description

⚠ WARNING

Non-genuine parts can fail catastrophically.
TO AVOID SERIOUS INJURY OR DEATH:

- ONLY use genuine TIGER replacement parts.
- Non-genuine parts can fail creating hazardous conditions for operator and bystanders.

Contact local dealer or TIGER about repair parts at:

3301 N. LOUISE AVE.,
SIOUX FALLS, SD 57107
Customer Service: 800-843-6849.
Email: feedback@tiger-mowers.com

www.algqr.com/tpm

32709_1

IMPORTANT

BE AWARE
BE ALERT
BE ALIVE

BE TRAINED
Before Operating this Mower

To prevent serious injury to yourself and/or bystanders, be trained in Safe Mowing Practices. Alamo Group Companies as well as AEM and FEMA provide training material that is critical for your Safety and the Safety of others when operating this equipment.

www.algqr.com/tbv

Make these Safety Procedures an important part of every workday. Read and understand the Operator's Manual. Do not let untrained individuals operate this equipment. Contact your Dealer, AEM (www.aem.org), FEMA (314-878-2304, www.FarmEquip.org), or Alamo Group (www.Alamo-Group.com) for information on training material or courses that provide training in Safer Operating Practices for Mowers.

32709_2

32709

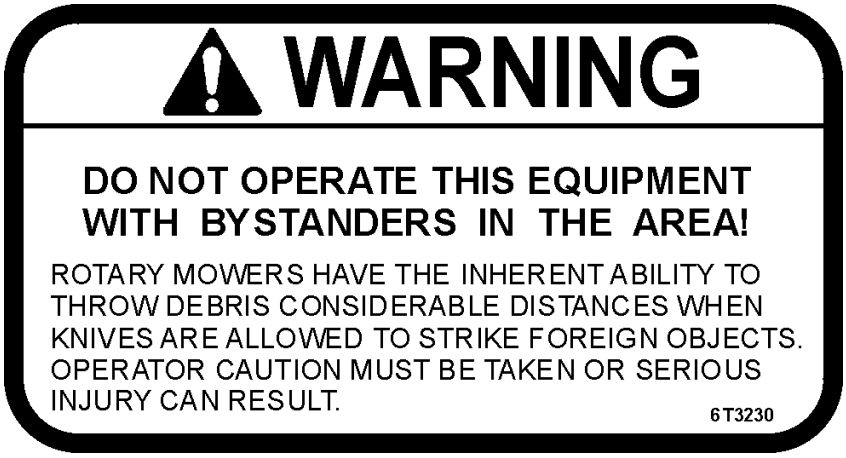
⚠ WARNING

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

IMPORTANT

- WHEN REPLACING BLADES, IT IS RECOMMENDED THAT ALL BLADES BE REPLACED FOR PROPER BALANCE TO AVOID EXCESSIVE VIBRATIONS WHICH CAN DAMAGE SPINDLE ASSEMBLY.
- SEE YOUR OPERATOR'S MANUAL FOR PROPER INSTALLATION INSTRUCTIONS.

6T3243



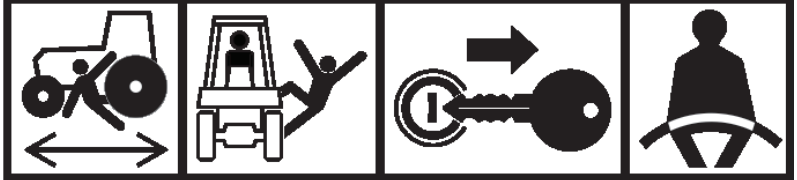
⚠ DANGER

THROWN OBJECTS HAZARD

Mower can throw objects up to 300 feet. TO AVOID SERIOUS INJURY OR DEATH to operator or bystanders:

- STOP mowing if bystanders or traffic come within 300 feet.
- DO NOT OPERATE with thrown object shielding removed.
- KEEP thrown object shielding in place and in good condition during operation. Thrown Objects shielding is subject to wear.
- REPAIR OR REPLACE shielding if damaged, broken or missing. See Operator's Manual for all Shields and Guards.
- INSPECT area for potential mower thrown object hazards before mowing.
- Remove and AVOID objects such as wire, cable, metal objects and all other foreign material.
- DO NOT ALLOW blades to contact solid objects like wire, rocks, posts, curbs or guard rails.
- DO NOT operate without operator protective shielding or cab.

⚠ DANGER



Run Over Hazard - Injury or Death

TO AVOID SERIOUS INJURY OR DEATH:

- ALWAYS BUCKLE UP seat belt.
- ONLY START Tractor while seated in the operator's seat.
- STOP ENGINE and PTO, engage parking brake, lower implement, allow all moving parts to stop and remove key before dismounting from tractor.
- KNOW HOW to stop tractor and equipment quickly for an emergency.
- DO NOT MOUNT or DISMOUNT Tractor in motion.
- NEVER ALLOW riders on tractor or implement.
- NEVER ALLOW children to operate or ride on tractor or implement.
- KEEP BYSTANDERS CLEAR of area before moving tractor or implement.
- KEEP ALERT and AVOID hitting stumps, holes, ruts, and uneven terrain.
- AVOID tree limbs, brush and other overhanging objects that can strike and throw the operator from seat. 02967827_4

⚠ DANGER

ENTANGLEMENT HAZARD

TO AVOID SERIOUS INJURY OR DEATH:

- DO NOT operate without guards in place and in good condition. PTO and gearbox guarding are SUBJECT TO WEAR.
- STAY AWAY and KEEP hands, feet and body AWAY from rotating blades, drivelines and parts that continue to move after power shut-off. WAIT until all moving elements have stopped.
- ALWAYS REPLACE GUARDS that have been removed for service or maintenance.
- STOP, LOOK and LISTEN for rotating motion before approaching implement.

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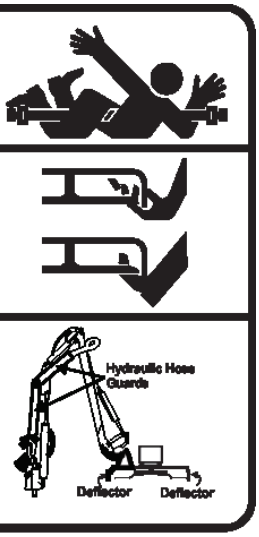
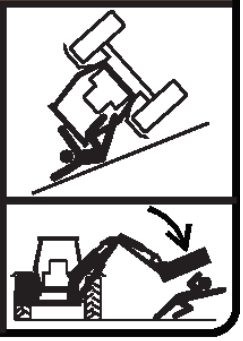


⚠ DANGER

Crushing Hazard - Injury or Death

TO AVOID SERIOUS INJURY OR DEATH: 02967827_3

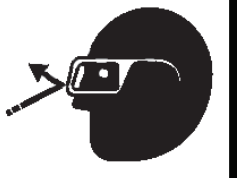
- USE tractor equipped with Rollover Protective Structure ("ROPS") including roll bar and seat belt. Keep roll bar in raised position.
- CLEAR AREA of bystanders before raising or lowering mower.
- IMPLEMENT CAN FALL from hydraulic failure or accidental operation of controls.
- BLOCK UP and securely support equipment before putting hands, feet or body under raised equipment or lifted components.



⚠ DANGER

02967827_5

www.algqr.com/tbe



TO AVOID SERIOUS INJURY OR DEATH: 02967827

- READ AND UNDERSTAND the provided Operator's Manuals, safety signs and information decals for tractor and implement before operating equipment.
- CONTACT DEALER immediately if you do not have manuals.
- CONTACT DEALER to explain any instructions not fully understood.
- ALWAYS WEAR safety glasses.
- WEAR hard hat, safety shoes and gloves for protection when operating equipment.

Federal Laws and Regulations

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

Employer-Employee Operator Regulations

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

This Act Seeks:

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

DUTIES

Sec. 5 (a) Each employer-

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

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

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

OSHA Training Requirements

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

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

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

Permit no riders on equipment

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

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

Employer Responsibilities:

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

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

Child Labor Under 16 Years of Age

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

ASSEMBLY SECTION

ASSEMBLY

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

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

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

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

TRACTOR PREPARATION

A. Remove right and left hand steps.

B. Disconnect battery cables from both batteries.

C. Remove engine side panels, or raise hood to access front pulley.

D. Remove plugs from tractor casting where mainframe and pump mount will be attached.

E. Remove any front weights and weight supports.

F. Raise the tractor onto jack-stands and remove the right and left rear wheels.

(ASM-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)

FRONT PUMP MOUNTING

Install the pump mounting bracket on the front of the tractor with capscrews and washers as shown in the Parts Section 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 driveshaft. 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 driveshaft. After all bolts are torqued, the end play on the driveshaft should be 1/16” to 1/8”, and the 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.

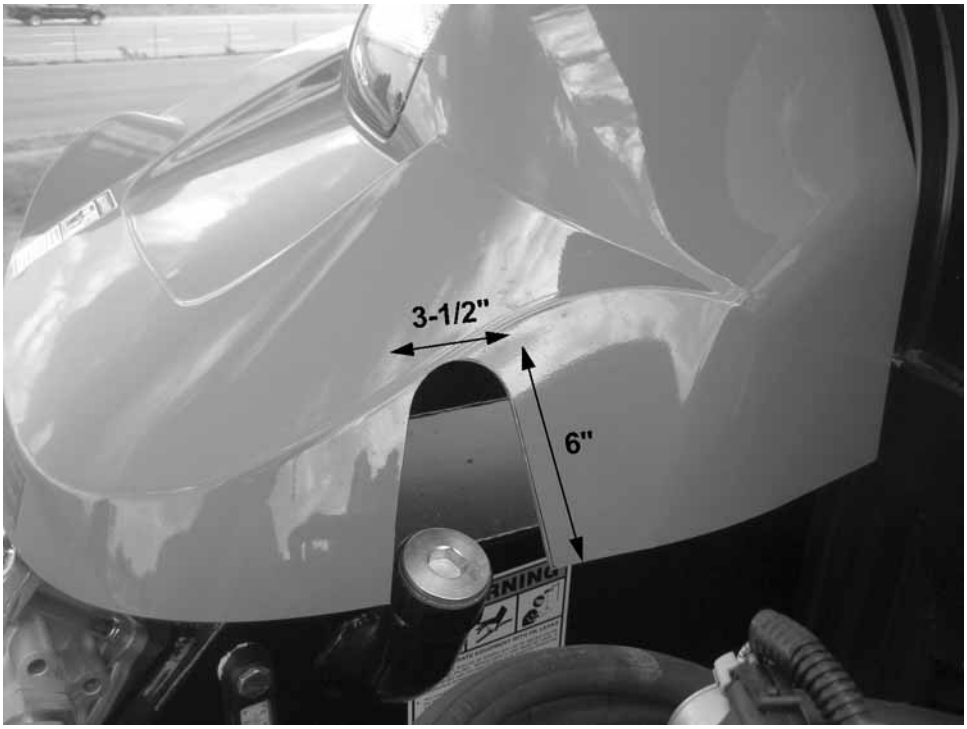
CAUTION: DO NOT START THE TRACTOR UNTIL ALL HOSES ARE ATTACHED, TANK IS FILLED WITH PROPER OIL AND BALL VALVES ARE OPEN! STARTING AT THIS TIME WILL CAUSE SERIOUS DAMAGE TO THE PUMP. *(ASM-NH-0024)*

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)*

NH T6.155 T4B FENDER CUT

Installation of the wheel well tank requires modification of the left fender, as shown below. Before cutting the fender, mask the uncut area to prevent scratches. Cut to the approximate size shown below. After cutting TrimLock may be applied to the edges. *(ASM-NH T6 155 T4B FENDER CUT*



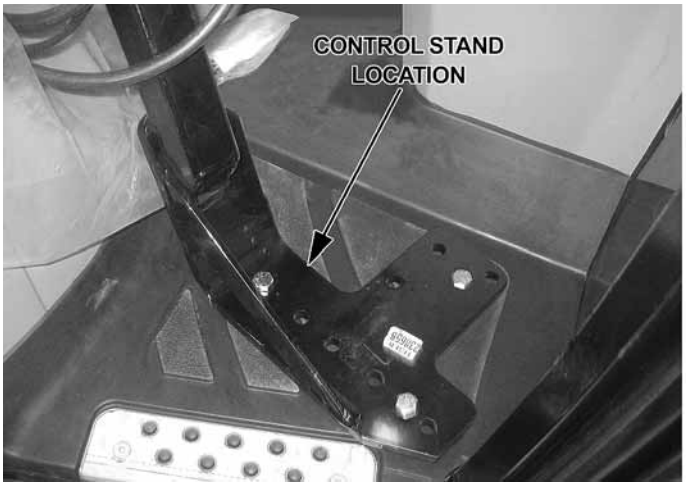
MAINFRAME INSTALLATION

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

CABLE CONTROL/JOYSTICK STAND

Place the beveled edge of the control stand 3/4" in parallel to the door. Locate the control stand bracket approximately 6-1/2" from the fender wall to the formed edge of the bracket. 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 control stand as a template, mark and drill the 3 holes and secure with capscrews and nylock nuts noted in the Parts Section. Support bracket #30750A runs from the control cable handles to the cab corner post, as shown below. See the Parts Section for more details. *(ASM-NH-0105c)*



MANUAL SWITCHBOX MOUNTING

The switchbox is to be secured to the operator's side of the control handles, or valve stand. Refer to the Parts Section for assembly and components needed. *(ASM-C-0053d)*

TRAVEL LOCK SWITCH

Mount the switch for the electronic travel lock on the right side of the cable control stand as shown in the photo below. Switch #34532 is to be inserted in travel lock mounting bracket #34874 and attached to the cable control stand using capscrew #21545. See the instructions for the 3 Spool Cable Control Mount in the Parts Section for more information.

(ASM-NH-TRAVEL LOCK SWITCH T6 155

LIFT VALVE CABLE/WIRE ROUTING

Secure cables and wires from the control stand with zip ties and route along the floor past the right side of the driver's seat to the rear of the cab. The bottom right corner of the rear window contains a rubber grommet. This can be cut in a crosshair pattern to allow the cables to pass through to the outside of the cab. Wrap the cables with split hose where they will pass through the window. Apply RTV sealer around individual cables and split hose on both the inside and outside of the window for a watertight seal. .*(ASM-NH-0109a)*

SWITCHBOX WIRING

Refer to the Parts Section for wiring diagrams. Remove top instrument panel (tach and hour meter) for access to the wires.

Route the red and green switch box wires from the switchbox to the bottom right corner of the instrument panel near window. Connect the red wire to the white wire. (hot when key is in the 'on' position)

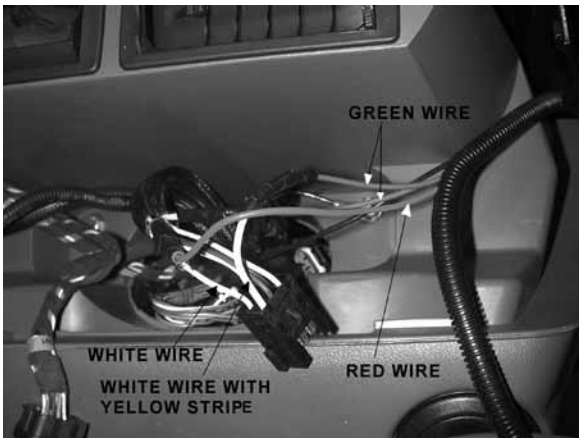
NOTE ONLY FOR ELECTRONIC VALVE: +12 VOLTS ELECTRICAL POWER MUST BE TAKEN FROM A SOURCE LOCATION WHERE IT IS LIVE ONLY WHEN THE IGNITION SWITCH IS IN THE "ON" POSITION. THIS WIRE MUST BE FUSED AT THE SOURCE LOCATION.

Route the white wire to the hydraulic solenoid brake valve.

The switchbox is to be secured to the operator's side of the control handles, or corner switch box mount.

The green wires will connnect to the neutral safety switch wires (white with yellow stripe), under the cowl panel. *(ASM-NH-0061)*

BEFORE WIRING



AFTER WIRING

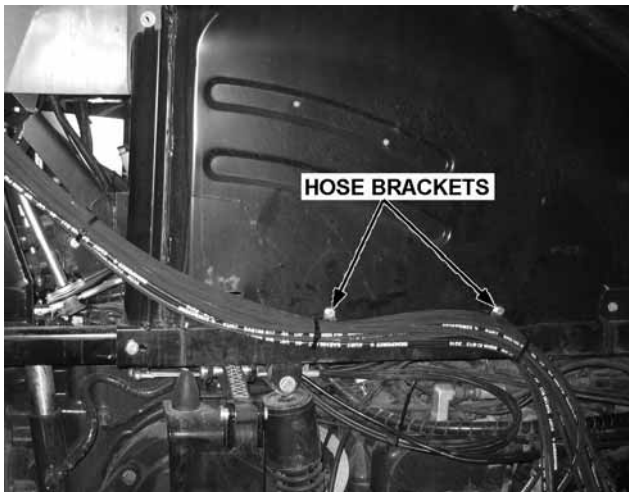
LIFT VALVE HOSE AND CABLE ROUTING

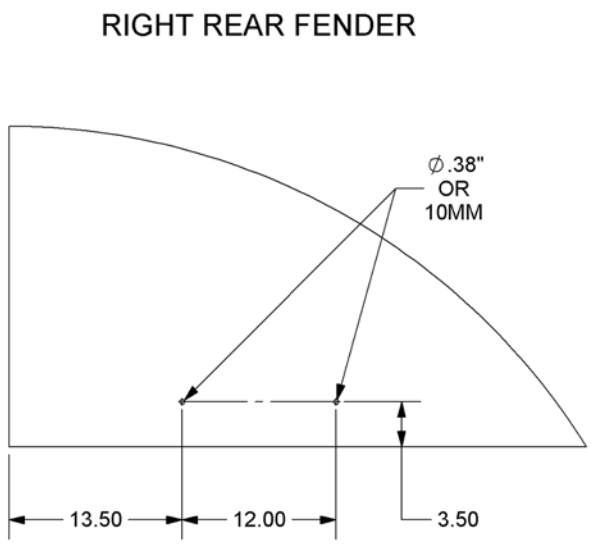
Attach two clamps to the right rear wheel well for proper hose/cable routing. Drill one hole for each clamp. Use the lower rear corner of the wheel well as an origin for measuring. The holes should be Ø10mm or Ø3/8" reamed to accept 3/8" hardware.

Measure from the back edge of the wheel well 13-1/2" from the origin. Use a square to measure 3-1/2" up. Refer to the images below to see the first hole placement.

The second hole should run parallel to the bottom edge of the wheel well. Mark the hole 12" from the first hole and 3-1/2" from the bottom edge. Use the images below for reference.

NOTE: DO NOT CUT INTO TUBES / HOSES / WIRES WHEN DRILLING THROUGH METAL OR PLASTIC!





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

(ASM-NH-0067)

FILLING HYDRAULIC RESERVOIR

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

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

(ASM-C-0004hydro resrv)

INSTALLING O-RING FITTINGS

Installing straight, 45º and 90º 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)*

PREFORMED TUBE INSTALLATION

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

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

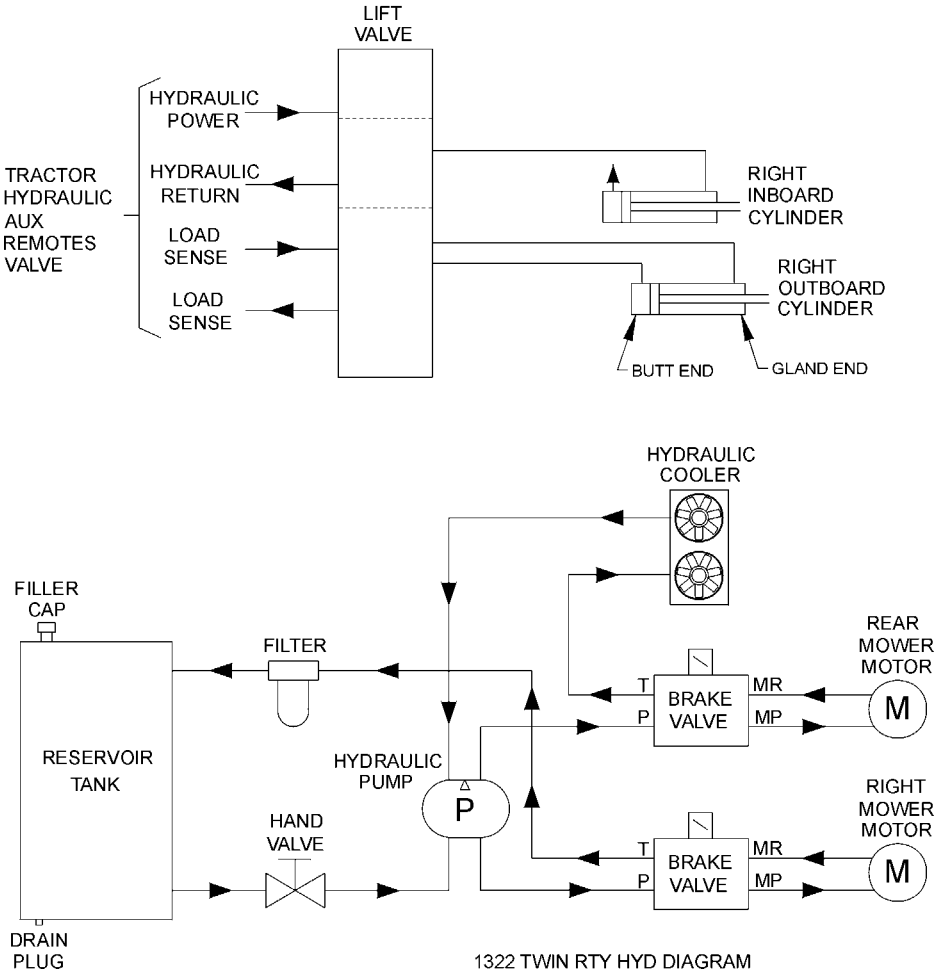
ACCUMULATOR INSTALLATION

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

SOLENOID BRAKE VALVE

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

TWIN MOWER HYDRAULIC DIAGRAM



(ASM-C-0095)

WHEEL WELL HYDRAULIC TANK INSTALLATION

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

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

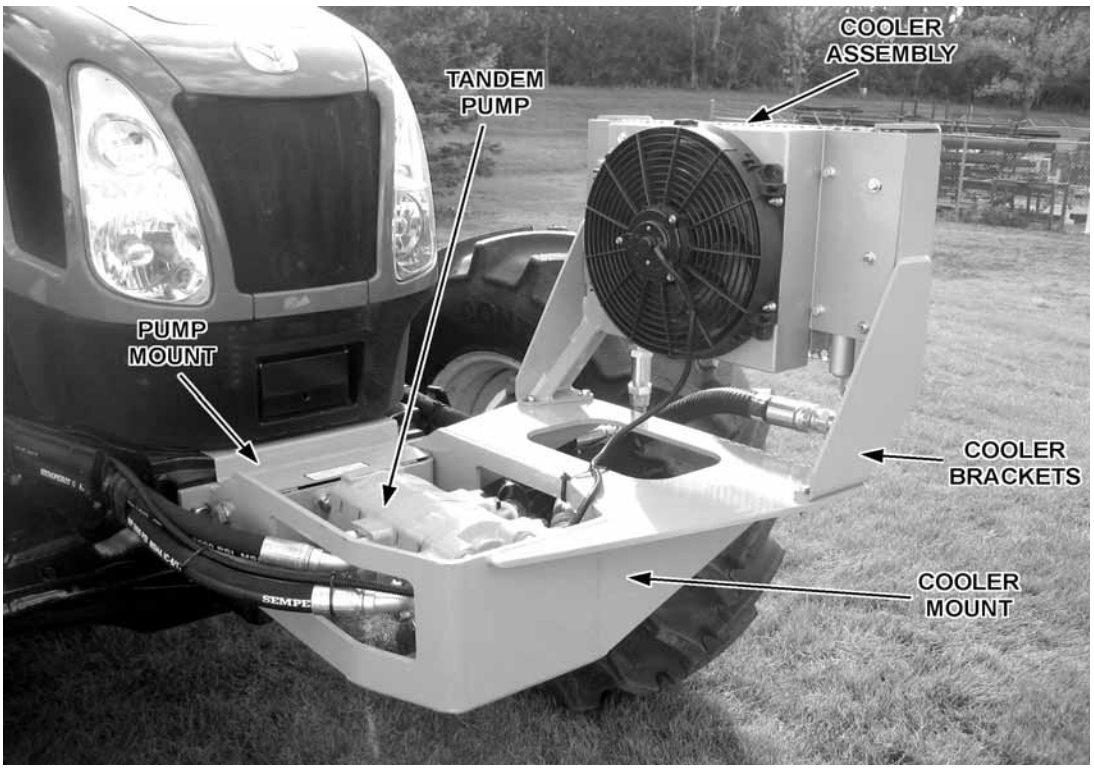
Install the filter gauge into the filter housing so that it points to the rear of the tractor and is clearly visible to the operator. The tank breather cap is ready for use as the tank is filled. Some of these items may already be installed. *(ASM-C-0103)*

TEMPERATURE GAUGE MOUNTING (OPTIONAL)

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

COOLER MOUNTING

Attach the cooler mount to the pump mount using the hardware provided. Attach cooler brackets to the cooler mount and attach the screen and cooler to the brackets. Refer to the Parts Section for details on hardware, hoses and adapters used. *(ASM-C-0092a)*



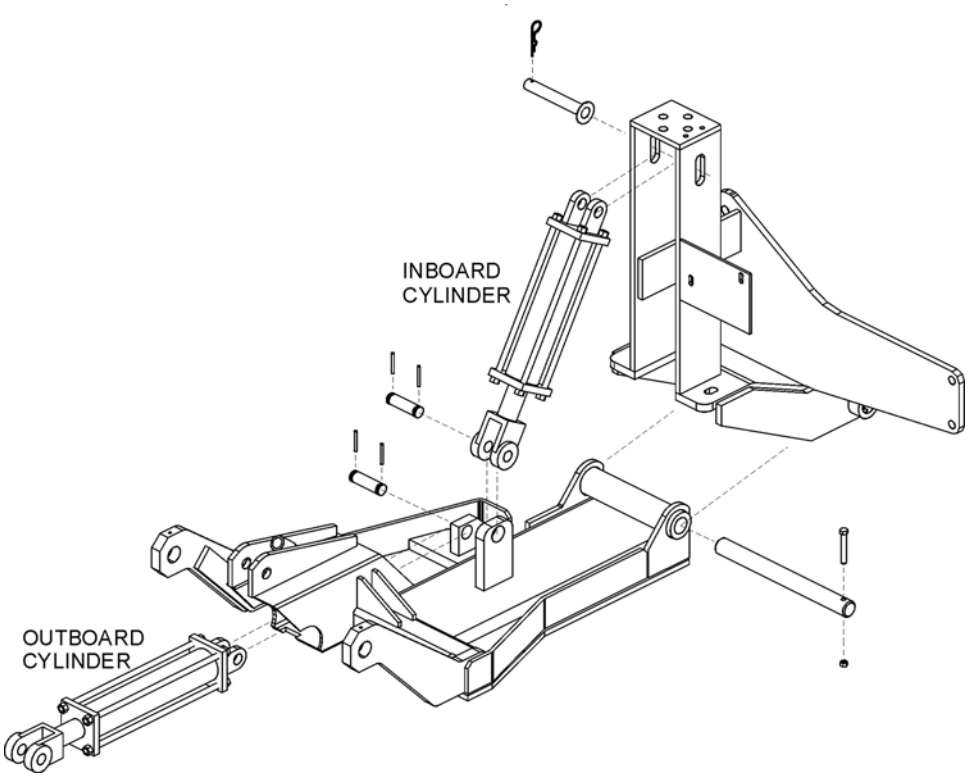
DRAFT BEAM INSTALLATION

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 Common Parts 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 main frame mast with the pin, flatwasher and R-clip as shown below.

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 Section. 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. *(ASM-C-0076)*



DRAFT BEAM MOUNTING

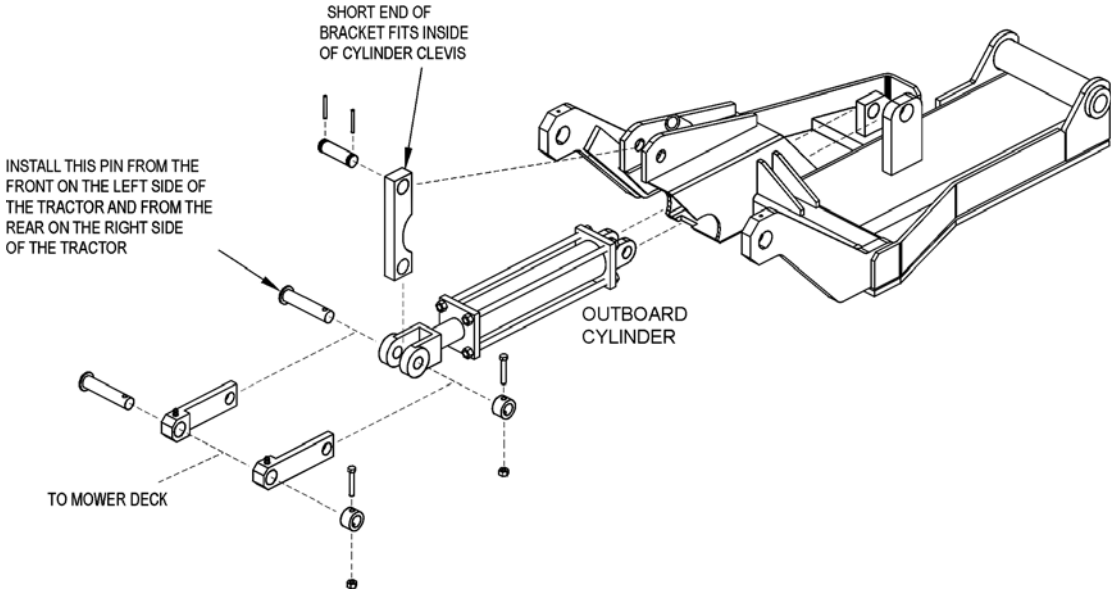
Pull the inboard cylinder piston rod down to the extreme extended position. Slide the draft beam under the cylinder

Using the inboard cylinder as a pivot point, slide the draft beam under the tractor and install draft beam pin. Align hole in draft beam pin with holes in mainframe boss and install capscrew and nylock nut. *(ASM-C-0078)*

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 cutout 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 Parts Section 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.

TWIN ROTARY MOWER INSTRUCTIONS

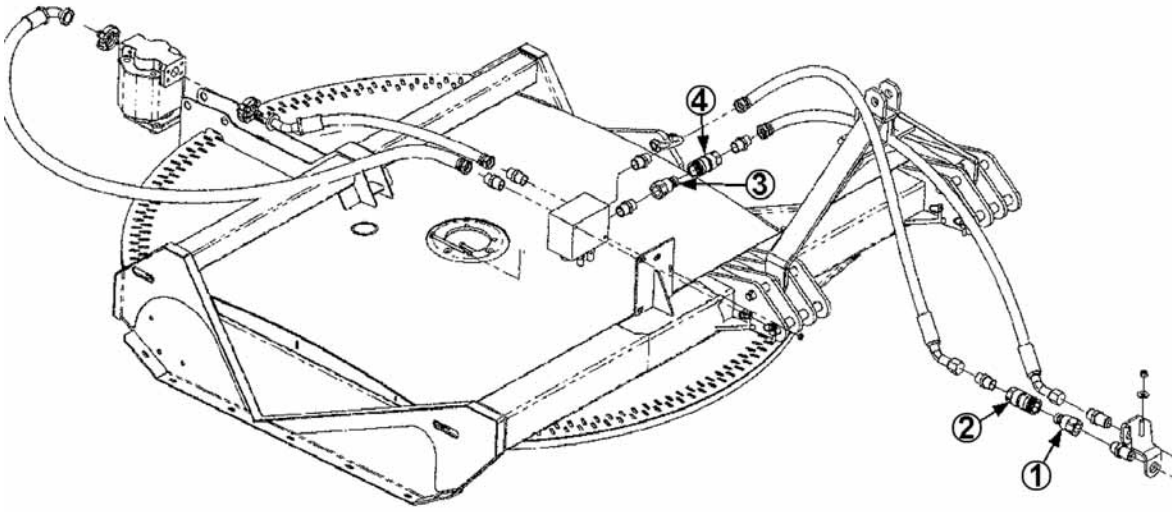
HOW TO REMOVE REAR MOWER

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.

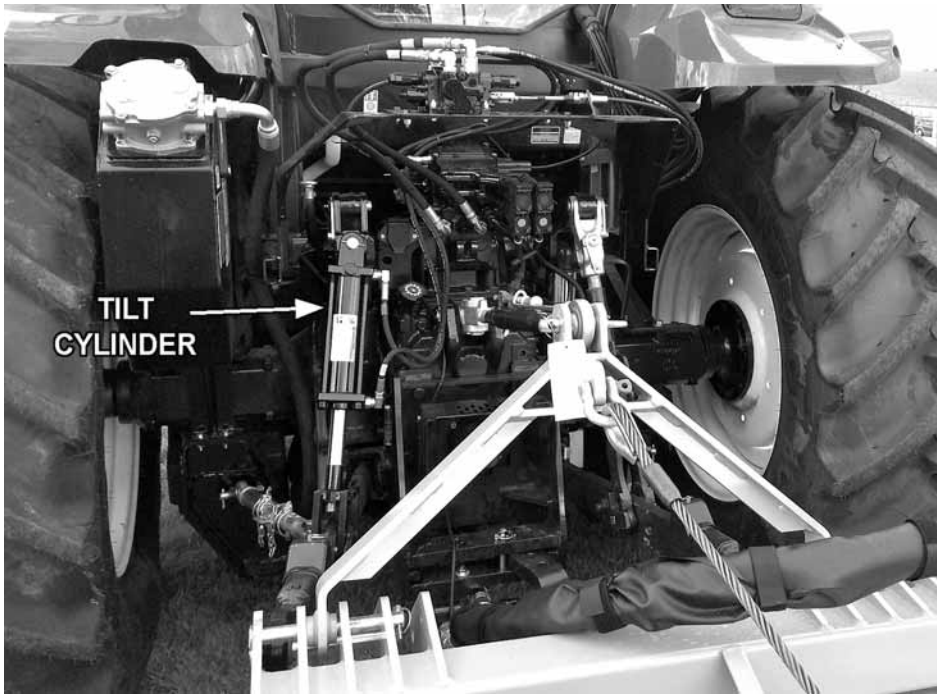
CAUTION: NEVER DISCONNECT ONLY 2 FROM 1 WITHOUT CONNECTING 4 INTO 1. CATCH AND CONTAIN ANY HYDRAULIC OIL WHEN DISCONNECTING FITTINGS.

(ASM-C-0033)



3-POINT DECK TILT CYLINDER

Remove the lift rod 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.
(ASM-3-PT DECK CYL-0001a)



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 ¾" hex nut.

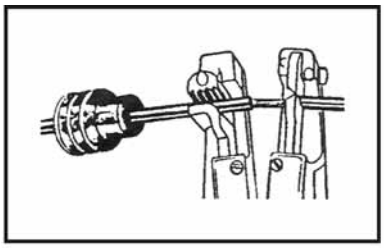
NOTE: When the outboard cylinder is fully extended, the bonnet or deck should either be up against the stop, or if travel locks are installed, it should be up against the travel lock. It may be necessary to use either external or internal slugs on the cylinder to get the correct stroke. If the cutter head is against the stop and the cylinder has stroke remaining, serious damage will occur.
(ASM-SIDE MNTS-0003)

WEATHER-PACK / METRI-PACK ASSEMBLY

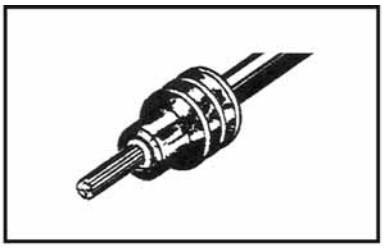
These instructions apply to both Weather-Pack and Metri-Pack connectors.

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

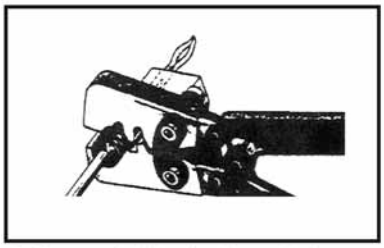
(ASM-C-0009)



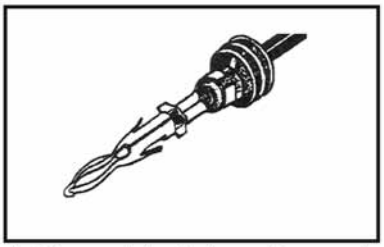
1. Apply seal to cable, before stripping insulation.



2. Align seal with cable insulation.



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



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

DECK / MOTOR FEEDLINE

For standard rotation, install one 1” hose with a 90 degree flange on the side of the motor farthest from the tractor to the MR port of the solenoid valve. Secure to the motor using the flange kit. Install the other 1” hose with a 45 degree flange on the side of the motor closest to the tractor to the MP port of the solenoid valve. Secure to the motor using the flange kit. For reverse rotation, switch the hoses to the opposite locations at the solenoid valve.

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 Maintenance Section. Re-check all fittings for tightness and be sure teflon tape has been used at all pipe thread connections.

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 ¾ stroke repeatedly to clear the lines of air.

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-SIDE MNTS-0007 rotary T4a)*

CONTINUOUS DUTY SOLENOID SWITCH

Mount the solenoid switch behind the right side steps. Secure with provided 3/8" x 1" capscrews, lockwashers, and hex nuts.

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

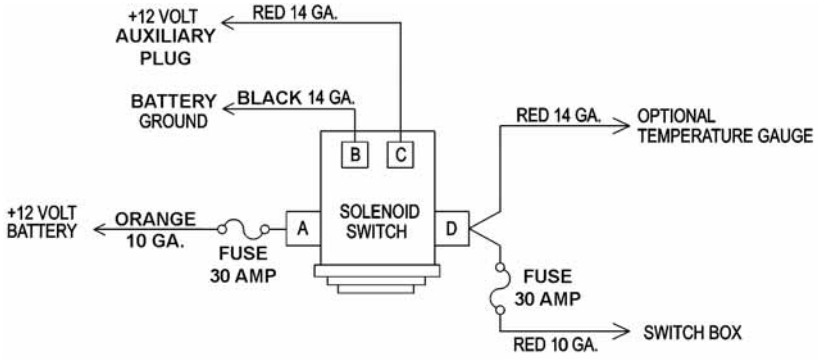
A.) ORANGE 10 GA. wire from terminal (A) to +12V battery fusible link.

B.) RED 14 GA. wire from terminal (C) to tractor plug in cab.

C.) BLACK 14 GA. wire from terminal (B) 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 T6 155 T4B)*



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.

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

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

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

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

MOWER TESTING

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

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

OPERATION SECTION

OPERATION

TIGER TWIN ROTARY MOWER
OPERATING INSTRUCTIONS

Tiger Twin Rotary Mowers are manufactured with quality material by skilled workers. The Twin mower positions may optionally be controlled with the tractors remote hydraulic connections or a combination of lift valve and remote hydraulics. If so, determine which position of the mower is to be controlled by each remote lever. The mower is equipped with safety warning decals, protective deflectors, shields, and other safety features to provide operator and passerby protection, however, no shielding is 100% accurate. ALL safety equipment and safety warning decals must be maintained on the unit in good operational condition at all times.

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

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

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

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

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

1. STANDARD EQUIPMENT AND SPECIFICATIONS

SIDE ROTARY

Cutting Width	60ò and 72ò Actual Cut.
Spindle Drive	Direct Spline and Direct Flexible Coupler
Cutter Assembly	One-piece formed dish type with one-piece forged spindle assembly.
Cutter Head Arc	180Áon Cable Lift and 159Áon Combo Draft Beam.
Knives	Two full swinging high suction heat treated knives standard. Optional three, four or six knives available
Main Frame	*Solid mount design may include front, mid and rear braces.
Lift Control	Tractor Hydraulic or Optional Cable control and valves.

REAR ROTARY

Cutting Width	60ò and 72ò Actual Cut
Cutter Assembly	One-piece formed dish type with one-piece forged spindle assembly.
Knives	Two full swinging high suction heat treated knives standard. Optional three, four or six knives available
Mount	CAT II 3-Point Hitch
Cutter Head Tilt	Hydraulically adjustable up to 15Ü
Lift Control	Tractorôs 3-Point Hitch.

* May vary depending on tractor model.

Meets all applicable ANSI/SAE test standards.

⚠ DANGER The Mower is designed for certain mowing applications and is rated to cut up to a specific size vegetation (see Mower Standard Equipment and Specifications). DO NOT use this mower to cut vegetation above the Mowerôs rated capacity or to cut any type of non-vegetative material. Only operate this Mower on a properly sized and equipped Tractor. Operating this Mower in an application for which it is not designed and/or operating the Mower with the wrong size Tractor can cause Mower component damage and equipment failure resulting in possible serious injury or death. (SGM-14)

2. OPERATOR REQUIREMENTS

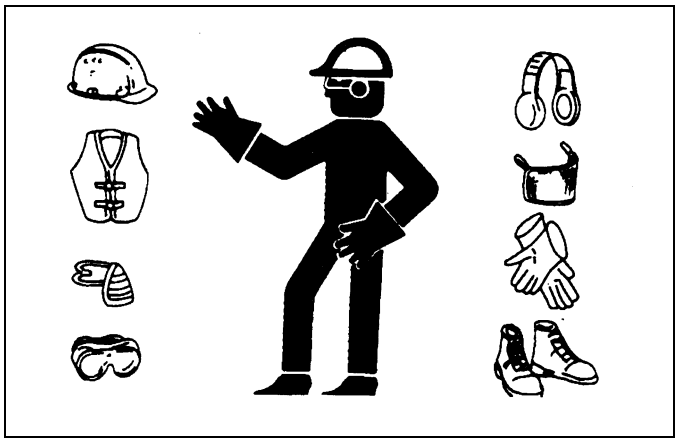
Safe operation of the unit is the responsibility of a qualified operator. A qualified operator has read and understands the implement and tractor Operatorís Manuals and is experienced in implement and tractor operation and all associated safety practices. In addition to the safety messages contained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

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

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

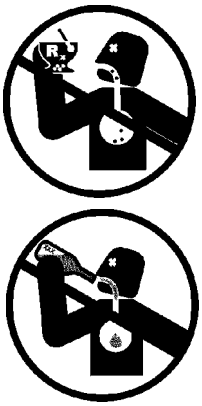
PERSONAL PROTECTIVE EQUIPMENT (PPE)

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



DANGER

NEVER use drugs or alcohol immediately before or while operating the Tractor and Implement. Drugs and alcohol will affect an operatorís alertness and coordination and therefore affect the operatorís 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)



3. TRACTOR REQUIREMENTS

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

Tractor Requirements and Capabilities

- ASABE approved Roll-Over Protective Structure (ROPS) or ROPS cab and seat belt.
- Tractor Safety Devices ..... Slow Moving Vehicle (SMV) emblem, lighting
- Tractor Horsepower-Minimum ..... 90 HP Min Recommended.
- Tractor Ballast ..... 20% Minimum of total tractor weight on front end of tractor.

3.1 ROPS and Seat Belt

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

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)

3.2 Tractor Safety Devices

If transporting or operating the tractor and implement near a public roadway, the tractor must be equipped with proper warning lighting and a Slow Moving Vehicle (SMV) emblem which are clearly visible from the rear of the unit. Lights and a SMV emblem must be equipped directly on implements if the visibility of the tractor warning signals are obscured.

Maintain all manufacturer equipped safety shields and guards. Always replace shields and guards that were removed for access to connect, service, or repair the tractor or implement. *OPS-U- 0004_A*

3.3 Tractor Horsepower

The horsepower required to operate the mower depends on many factors including vegetation to be cut, terrain condition, operator experience and condition of the mower and tractor. For most mowing conditions, the Twin Mount mower requires a tractor with at least 90 HP. Operating the mower with a tractor that does not have adequate power may damage the tractor engine.

OPERATION

3.4 Front End Weight

A minimum of 20% total tractor weight must be maintained on the tractor front end at all times. Front end weight is critical to maintain steering control and to prevent the tractor from rearing up while driving. If the front end is too light, add weight until a minimum of 20% total weight is reached on the front tires. Front weights and weight carriers can be purchased through an authorized tractor dealership. *OPS-U- 0005*

4. GETTING ON AND OFF THE TRACTOR

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

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

4.1 Boarding the Tractor

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

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

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

⚠ 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)

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

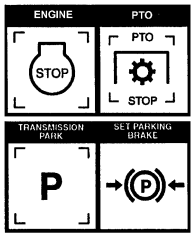
4.2 Dismounting the Tractor

Before dismounting, park the tractor and implement on a reasonably level surface, apply the parking brake, idle the engine down and lower the implement to the ground. Shut down the tractor engine according to the operatorÕs manual, remove the key, and wait for all motion to completely stop. Never leave the seat until the tractor, its engine and all moving parts have come to a complete stop.

Use hand rails and steps when exiting the tractor. Be careful of your step and use extra caution when mud, ice, snow or other matter has accumulated on the steps or hand rails. Use all handrails and steps for support and never rush or jump off the tractor. *OPS-U- 0009_A*

⚠ DANGER

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



5. STARTING THE TRACTOR

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

Essential Tractor Controls:

- Locate the light control switch.
- Locate the engine shut off control.
- Locate the brake pedals and the clutch.
- Locate the PTO control.
- Locate the 3-point hitch control lever.
- Locate the hydraulic remote control levers.

Before starting the tractor ensure the following:

- Conduct all pre-start operation inspection and service according to the tractor operatorÕs manual.
- Make sure all guards, shields, and other safety devices are securely in place.
- The parking brake is on.
- The PTO control lever is disengaged.
- The 3-point hitch control lever is in the lowered position.
- The hydraulic remote control levers are in the neutral position.
- The tractor transmission levers are in park or neutral.

Refer to the tractor ownerÕs manual for tractor starting procedures. Only start the tractor while seated and belted in the tractor operatorÕs seat. Never bypass the ignition switch by short circuiting the starter solenoid.

After the tractor engine is running, avoid accidental contact with the tractor transmission to prevent sudden and unexpected tractor movement. *OPS-U-0028*

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)

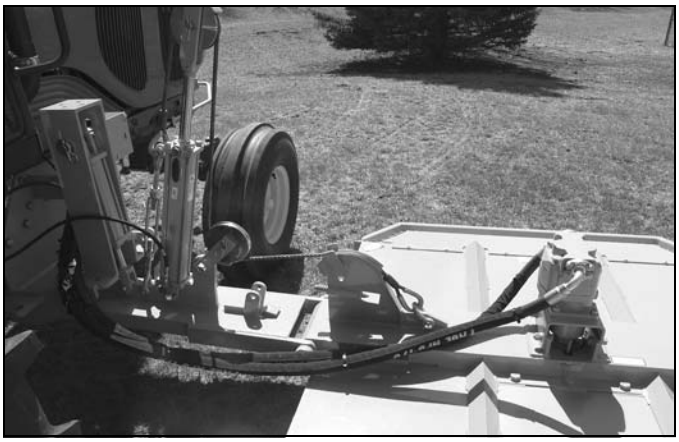
DANGER Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)

6. CONNECTING THE MOWER TO THE TRACTOR

Use extreme caution when connecting the mower to the tractor. The mower should be securely resting at ground level or setting on blocks. Keep hands and feet from under the mower deck and clear of pinch points between the tractor hitch arms and mower pins. *OPS-R-0001*

6.1 Connecting Mower Hydraulics

Attach the 1" Hoses from the Brake Valve to the hydraulic motor on the Rotary Head. (Refer to **Figure Ops-1252**). Secure the hose sleeves on each hose with zip ties on both ends. *OPS-R-0104*



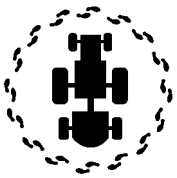
WARNING Avoid contact with hot surfaces including hydraulic oil tanks, pumps, motors, valves and hose connections. Relieve hydraulic pressure before performing maintenance or repairs. Use gloves and eye protection when servicing hot components. Contact with a hot surface or fluid can cause serious injury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

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

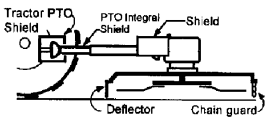
7. PRE-OPERATION INSPECTION AND SERVICE

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

⚠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 have attaching hardware. Serious injury may occur from not maintaining this machine in good working order. (SG-21_A)



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



OPERATION

7.1 Tractor Pre-Operation Inspection/Service

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

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

7.2 Mower Pre-Operation Inspection/Service

Before each mower use, a complete inspection and service is required to ensure the mower is in a good and safe working condition. Damaged and/or broken parts should be repaired and/or replaced immediately. To ensure the mower is ready for operation, conduct the following. *OPS-R-0007*

⚠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 have attaching hardware. Serious injury may occur from not maintaining this machine in good working order. (SG-21_A)

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

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


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.*

FRAME ASSEMBLY

- Inspect condition of mounting frame weldment.
- Inspect condition of frame Assembly.
- Ensure all bolts and screws are in position and are properly torqued.
- Ensure all pins are in place and fastened with screws.
- Ensure frame is properly mounted to tractor and hardware is propely installed and tightened. *OPS-R-0099*


Ops-1250

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

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

HYDRAULIC LINE INSPECTION

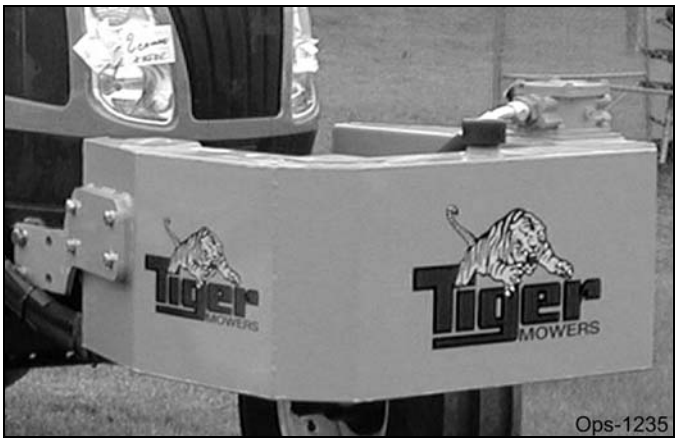
- Check for hydraulic leaks along hoses, cylinders and fittings. **IMPORTANT**: DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to check for hydraulic oil leaks.
- Inspect the condition of the valve weldment.
- Ensure fitting is properly connected
- Inspect condition of bushings. *OPS-R-0100_A*

WARNING

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

HYDRAULIC PUMP/OIL RESERVOIR

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



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

OPS-R-215

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

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

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

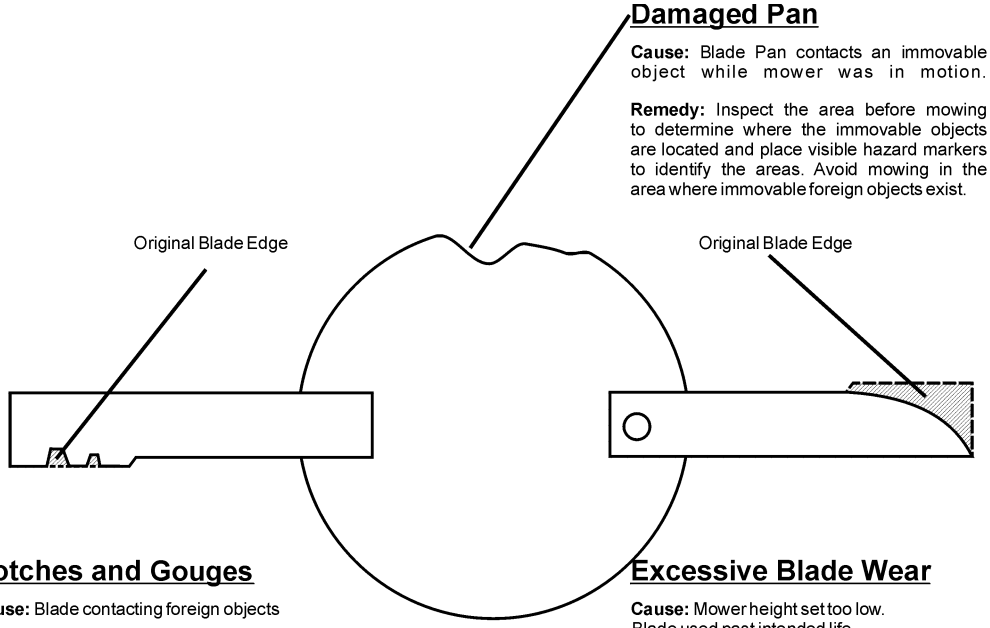
ROTARY HEAD INSPECTION

- Inspect blades and blade bolts for looseness and excessive wear. Rotate to 90Áto make for checking easier. Replace damaged, worn, and missing blades as complete sets to maintain rotary balance.
- Ensure blade carrier nuts are torqued to proper specifications.
- Ensure rubber deflectors are in position and not damaged. Replace worn, broken, and missing sections immediately.
- Ensure hydraulic lines are properly connected to the hydraulic motor. Check for hydraulic leaks along hoses and fittings. DO NOT use your hands to check for oil leaks. Use a piece of heavy paper or cardboard to ch eck for hydraulic oil leaks.
- Inspect the condition of deck skid shoes and hardware. *OPS-R-216*

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

7.3 Cutting Component Inspection

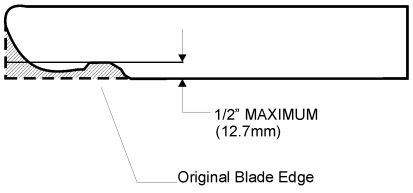
Inspect blade pan and blade assembly for the following: *OPS-U-0031*



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

- Become bent or deformed from its original shape or
- Any cracks are visible, or
- Deep gouges in the blades surface are present, or
- Gouges or chipped areas in the cutting edge are larger than 1/2" (12.7mm), or
- The material on the leading edge has been worn away by more than 1/2(12.7mm)"

Failure to replace abnormally worn blades may lead to catastrophic failure of the blades and ejection of the broken part with tremendous force which may cause serious bodily injury or death. *OPS-U-0032*



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

7.4 Blade Bolt Inspection

Inspect Blade Bolt Head daily for wear as followed:

Excessive Blade Bolt Wear

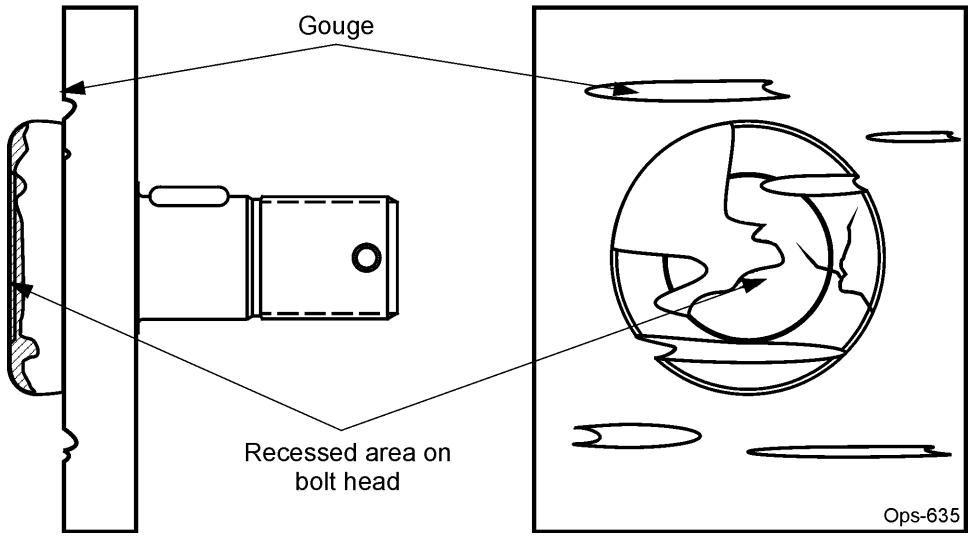
Cause: Blade Bolt contacts a foreign or solid object while Blade is in motion.

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 Inspect the Blade Bolt Heads daily for abnormal wear. REPLACE BOTH BLADE BOLTS on the Blades IMMEDIATELY if either blade bolts has:

- Visible cracks or
- If the recessed area on blade bolt is worn off or
- If Blade Bolt has gouges or chipped areas.

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

Always replace Blade Bolts with new bolts whenever replacing the Blades. *OPS-U-0037*

Tractor PRE-OPERATION Inspection

Mower ID#_____ Make _____

Date: _____ Shift _____

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

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

Operator's Signature: _____

DO NOT OPERATE an UNSAFE TRACTOR or MOWER

This Inspection Form may be freely duplicated for extra copies.

Rotary Mower PRE-OPERATION Inspection

Mower ID#_____ Make _____

Date: _____ Shift _____

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

Table 1:

Item	Condition at Start of Shift 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

DRIVING THE TRACTOR AND IMPLEMENT

Safe tractor transport requires the operator possess a thorough knowledge of the model being operated and precautions to take while driving with an attached implement. Ensure the tractor has the capacity to handle the weight of the implement and the tractor operating controls are set for safe transport. To ensure safety while driving the tractor with an attached implement, review the following. *OPS-U- 0012*

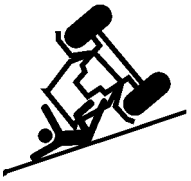
⚠ DANGER Never run the Tractor engine in a closed building or without adequate ventilation. The exhaust fumes can be hazardous to your health. (SG-23)

⚠ WARNING Transport only at speeds where you can maintain control of the equipment. Serious accidents and injuries can result from operating this equipment at high speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.

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

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

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



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

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

OPERATION

7.5 Starting the Tractor

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

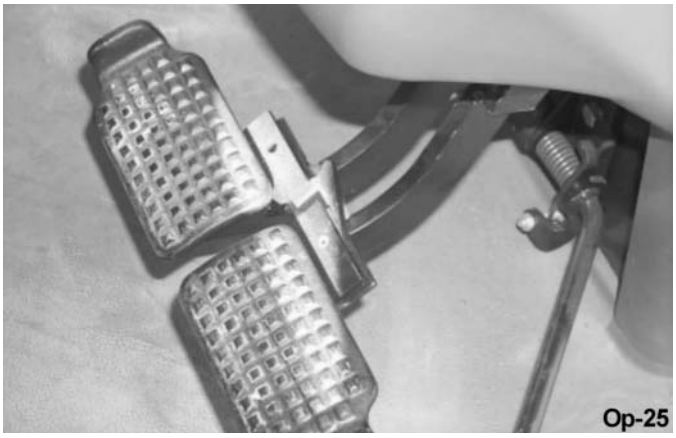
⚠ DANGER Start tractor only when properly seated in the Tractor seat. Starting a tractor in gear can result in injury or death. Read the Tractor operators manual for proper starting instructions. (SG-13)

7.6 Brake and Differential Lock Setting

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

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

OPS-U- 0013



7.7 Raising the Mower

Using the tractor 3-point hitch control lever, raise the mower off the ground about 6ò, or just high enough to clear any ground obstacles.
OPS-R-0042_A

7.8 Driving the Tractor and Implement

Start off driving at a slow speed and gradually increase your speed while maintaining complete control of the tractor and unit. Moving slowly at first will also prevent the tractor from rearing up and loss of steering control. The tractor should never be operated at speeds that cannot be safely handled or which will prevent the operator from stopping quickly during an emergency. If the power steering or engine ceases operating, stop the tractor immediately as the tractor will be difficult to control.

Perform turns with the tractor and units at slow speeds to determine how the tractor with an attached mower handles a turn. Determine the safe speed to maintain proper control of the tractor when making turns. Allow additional clearance for the units when turning.

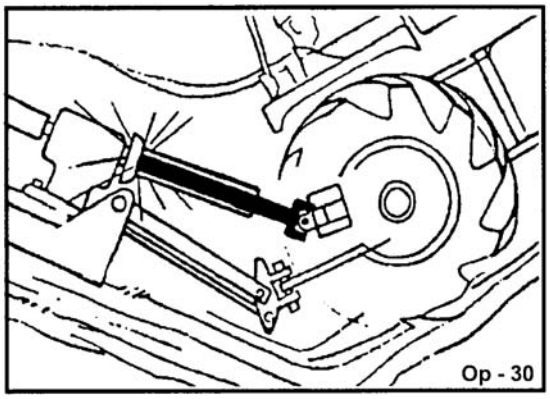
To avoid overturns, drive the tractor with care and at safe speeds, especially when operating over rough ground, crossing ditches or slopes, and turning corners. Tractor wheel tread spacing should be increased when working on inclines or rough ground to reduce the possibility of tipping.

Use extreme caution when operating on steep slopes. Keep the tractor in a low gear when going downhill. DO NOT coast or free-wheel downhill. *OPS-U- 0014_A*

7.9 Crossing Ditches and Steep Inclines

When crossing ditches with steep banks or going up sharp inclines, it is possible that the tractor 3-point arms may bottom out. This type of abusive operation can cause serious damage to the tractor and mower.

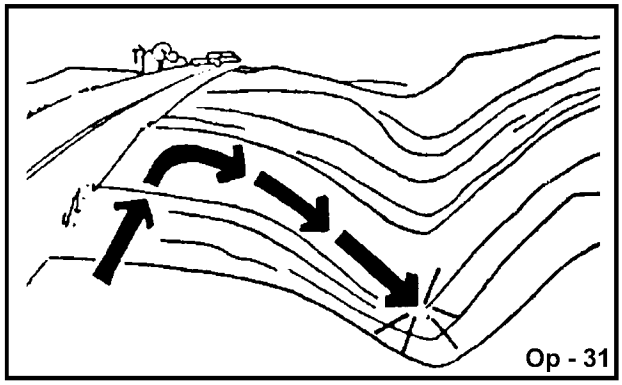
OPS-R-0020_A



7.10

When confronted with an incline or ditch, do not approach from an angle which is perpendicular or straight on as damage may occur.

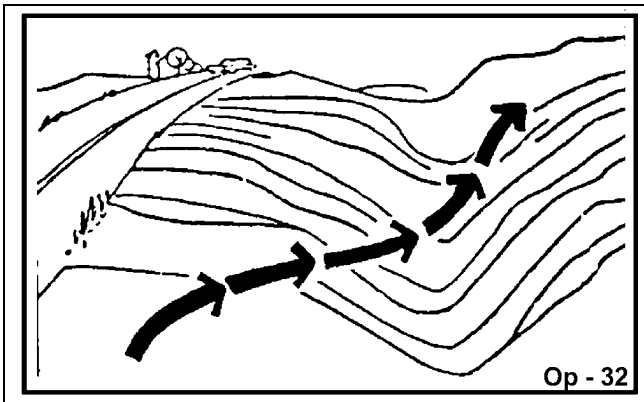
When crossing such terrain, the implement should be fully lowered for a lower center of gravity and added stability. *OPS-R-0021_A*



INCORRECT: DO NOT approach ditch straight on

Inclines and ditches should be approached along a line which is at an angle as shown. This type of path will reduce the possibility of damage. If the gradient is so steep that such an approach increases the possibility of a tractor roll-over, select an alternate crossing path.

When operating the tractor and mower across slopes and inclines, through ditches, and other uneven terrain conditions, it is important to maintain sufficient deck to ground clearance. Blade contact with the ground may cause soil, rocks and other debris to be thrown out from under the mower resulting in possible injury and/or property damage. Ground contact also produces a severe shock load on the mower drive and to the mower blades resulting in possible damage and premature wear. *OPS-R-0022_A*



CORRECT: Approach ditch at an angle

8. OPERATING THE TRACTOR AND IMPLEMENT

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

Before starting any operation, the operator must become familiar with the area to be worked in and any obstacles and hazards contained within to ensure safety to the operator, bystanders, and equipment. Special attention should be paid to foreign debris, rough terrain, steep slopes, and passersby and animals in the area. *OPS-U- 0015*

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

⚠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 300 feet (90 m) in front and to the sides of the tractor and mower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see these type of items discontinue mowing. (SGM-01)

⚠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-08)

8.1 Foreign Debris Hazards

Before mowing, inspect the area to make sure there are no foreign objects that the mower blades could hit or become entangled with. Remove all foreign objects and debris. If objects are too big to remove, mark them clearly and be sure to prevent the mower blades from contacting them.

If you hit a solid object or foreign debris, stop the mower and tractor at once. Wait for all mower rotating motion to stop, then raise the mower and move the tractor and implement off the object. Inspect the area and remove, or mark the location of the debris. Inspect the condition of the mower and make any needed repairs immediately. Make sure the blades are not damaged and the carrier is balanced before resuming operation.

Remove Foreign Material

Always wear your seat belt securely fastened and only operate the tractor and mower with the ROPS in the raised position. If the tractor or mower hits a tree stump, rock, or bump, a sudden movement could throw you off of the seat and under the tractor and/or mower. The seat belt is your best protection from falling off the tractor and the ROPS provides protection from being crushed during a tractor roll-over. *OPS-R-0023_A*

Raise Mower over solid objects

8.2 Bystanders/Passersby Precautions

If a bystander comes within 300 feet of the tractor while the mower is being operated, stop the tractor and mowers at once. Do not start the mowers again until all bystanders are well past the 300 foot distance. *OPS-R-0024_A*

⚠WARNING

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

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

⚠ DANGER Rotary Mowers are capable under adverse conditions of throwing objects for great distances (300 feet or more) and causing serious injury or death. Follow safety messages carefully.

STOP MOWING IF PASSERSBY ARE WITHIN 300 Feet UNLESS:

-Front and Rear Deflectors, Chain Guards, or Bands are installed and in good, workable condition;

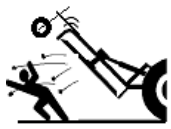
-Mowers are running close to and parallel to the ground without exposed Blades;

-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. (This will also reduce power required to mow, reduce wear and tear on the Mower drivetrain, spread cut material better, reduce streaking, and make the final cut more uniform).* (SRM-01_A)

⚠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-07)



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

8.3 RPM and Ground Speed

Ground speed for mowing will depend upon the height, type, and density of vegetation to be cut. Recommended speed for efficient mower performance is between 2 and 5 mph(3-8 kph). Operate the mower at its full rated RPM to maintain blade speed for a clean cut. Refer to the tractor operator's manual or the tractor instrument panel for the engine speed and gear to provide the required RPM and desired ground speed. Make sure that the mower is operating at its full rated speed before entering the vegetation to be cut. If it becomes necessary to temporarily regulate engine speed, increase or decrease the throttle gradually.

Ground speed is achieved by transmission gear selection and not by the engine operating speed. The operator may be required to experiment with several gear range combinations to determine the best gear and range which provides the most ideal performance from the mower and most efficient tractor operation. As the severity of cutting conditions increase, the ground speed should be decreased by selecting a lower gear to maintain the proper operating RPM. *OPS-R-0025_A*

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

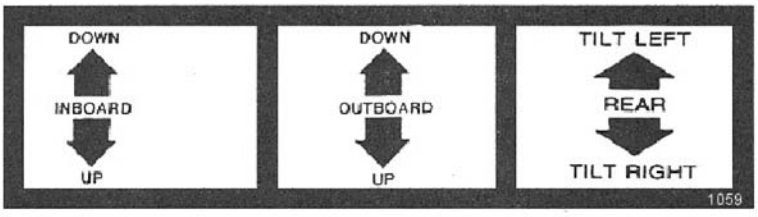
⚠ DANGER Operate the Tractor and/or Implement controls only while properly seated in the Tractor seat with the seat belt securely fastened around you. Inadvertent movement of the Tractor or Implement may cause serious injury or death. (SG-29)

9. Operating the Control Valves

POSITION CONTROL VALVE

The Valve is located to the right of the operator at a convenient height on a non-cab unit. The Valve is located behind the rear window in a cab tractor. The Valve operation plate is located on the fender for non-cab units and on the switchbox for cab units.

MOWER VALVE OPERATION PLATE



1059

MOWER LIFT

The handle nearest the center of the tractor, actuates the Lift Cylinder.

Pulling the valve handle back, towards the operator, causes the Lift Cylinder to raise the Extension Arm.

If the handle is released, the valve will automatically return to center and the Extension Arm will be locked in place.

Pushing the valve handle forward, away from the operator, causes the Lift Cylinder to lower the Extension Arm.

Pulling the handle all the way back until it locks places the mower lift function in float, allowing the unit to rise and fall with the terrain.

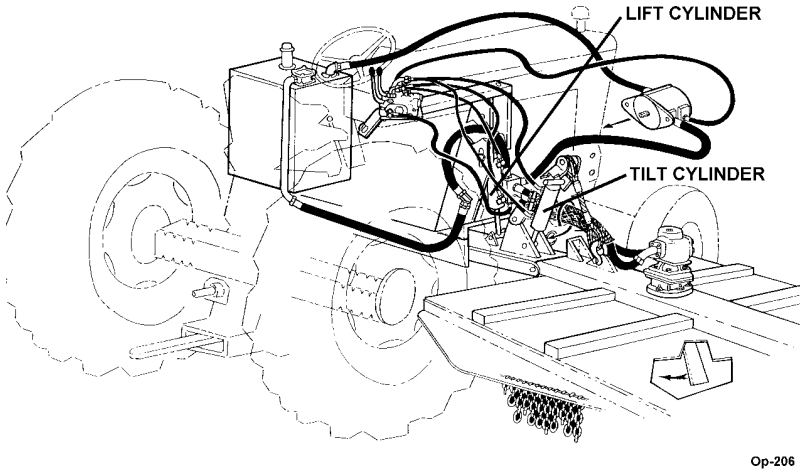
MOWER TILT

The handle furthest to the center of the tractor, actuates the Tilt Cylinder.

Pulling the valve handle back, toward the operator, causes the Tilt Cylinder to raise the Mower Head.

If the handle is released, the valve will automatically return to center and the head will be locked in place.

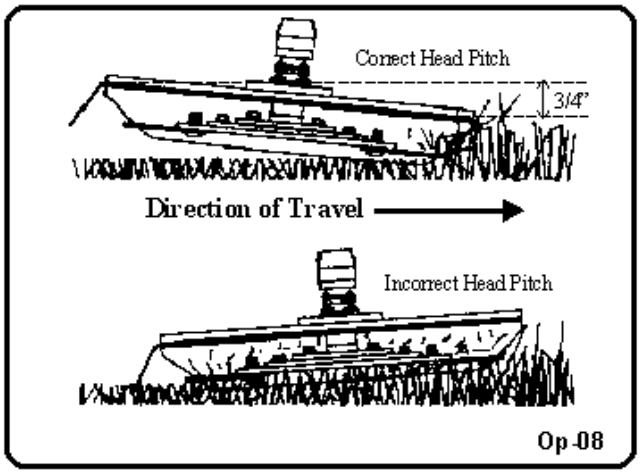
Pushing the valve handle forward, away from the operator, causes the Tilt Cylinder to lower the mower.



HEAD PITCH

Incorrect head pitch and/or alignment can cause poor cutting performance in side rotary mowers.

Head Pitch is defined as the relationship of the front of the mower to the rear of the mower, as viewed from the side. The desired head pitch for the Side Rotary 60" and 72" mowers is for the blade at the front of the mower to be between 3/4" and 1" lower than the blade at the rear.



MEASUREMENT OF HEAD PITCH

1. CUT MOWER OFF AND ALLOW BLADES TO STOP ROTATING
2. Move machine to a flat, level area such as a concrete slab
3. Lower mower head to within several inches of the ground but do not rest head on ground.
4. Stop engine.
5. Position blades toward front and rear. Measure the distance from the bottom of the b lade tips to th e ground, with the bl ades hanging (at rest). Use two people to meas ure. Normal drift of the cylinders will cause inaccurate measurements if the front and rear not measured at the same time. DO NOT ALLOW ANOTHER PERSON TO OPERATE THE CONTROLS WHILE MEASUREMENTS ARE BEING TAKEN.
6. Bent blades, bars, pans, or loose bolts will make measurements useless.

ALIGNMENT

Head alignment is defined as the relationship of the centerline of the mower to the centerline of the tractor. The desired alignment is that the centerlines of the tractor and mower are parallel to each other.

Misalignment contributes to õstreakingò due to the skid shoe laying a wide strip of grass flat. This flattened grass is sometimes not picked up by the mower on subsequent passes. Misalignment also contributes to excessive power consumption because the side skirts tend to õdozeò material against the side of the mower, adding drag to the tractor.

Alignment problems can easily be seen by standing in the front or rear of the machine. Align the front and rear of the machine. Align the front and rear edges of the rear tire and compare to the side skirt of the mower (mower head resting on the ground).

9.1 Basic Troubleshooting Guide for First Start-up.

a. Electrical solenoid valve does not work - check wiring, possible faulty switch, possible faulty solenoid.

b. Pump is making noise - check for obstruction in suction hose and tank suction assembly, check alignment of pump driveshaft.

c. Cylinders will not raise - hoses from cylinder incorrectly connected to valve bank, pump not suppling oil.

d. Cylinder raises slowly - hoses from cylinder incorrectly connected to valve bank, work port reliefs on valve bank set too low - replace as required.

e. Filter reads in red - viscosity of oil too high - wait until oil heats up before checking filter gauge. If gauge reads in red even after unit is hot, then filter must be replaced.

⚠ DANGER

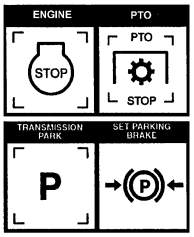
Never operate the Tractor or Implement until you have read and completely understand this Manual, the Tractor Operatorís Manual, and each of the Safety Messages found in the Manual or on the Tractor and Implement. Learn how to stop the tractor engine suddenly in an emergency. Never allow inexperienced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

⚠ WARNING

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

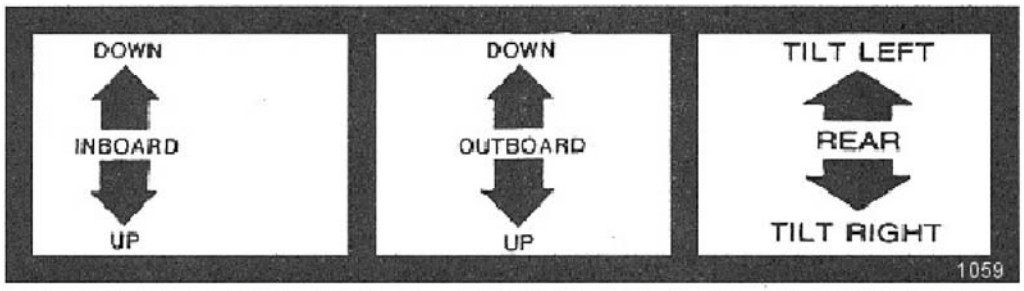
⚠ DANGER

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



9.2 Control Location and Functions

The side mower height is controlled with a two or three spool valve and is coordinated as shown below. The optional three spool valve allows for the operation of a rear rotary mower or side ditcher. If the unit is equipped with a three spool valve, do not operate the third spool handle unless a rear rotary or ditcher is mounted.



1059

The rear mower height is controlled with the 3-point hitch control lever. Follow the instructions for this control in the tractor operatorís manual. The tilt of the rear mower is controlled with the third spool of the lift valve, and is coordinated as shown in **Figure 1059.**

The side and rear mower positions may optionally be controlled with the tractorís remote hydraulic connections or a combination of lift valve and remote hydraulics. If so, determine which position of the side or rear mower is to be controlled by each remote lever.

The side mower ON/OFF switch is located in a switch box mounted to the valve stand or cable controls for non-cab and cab units respectively. If operating a rear mower, the ON/OFF switch is located in the switch box with a side mower switch.

This machine may be equipped with an auxiliary oil temperature gauge, an amp gauge or oil pressure gauge. If oil temperature reaches 200ÁF, stop mowers and see **Troubleshooting Section** for possible causes. Keep and eye on all gauges for indication of problems.

9.3 Operating the Mower

Only operate the mower from the tractor operatorôs seat with the seatbelt securely fastened. The tractor must be equipped with a ROPS in the raised position or a ROPS cab.

The mower is designed to cut vegetation up to 2ò in diameter. Sharp blades will produce a cleaner cut and require less power. Travel at a speed that allows the mower sufficient time to cut through the vegetation and maintain the RPM to prevent overloading the mower and tractor. Choose a driving pattern that provides the maximum pass length and minimizes turning.

Under certain conditions, tractor tires may roll some grasses down preventing them from being cut at the same height as the surrounding area. When this occurs, reduce the tractor ground speed while maintaining the operating speed of the mower. A slower ground speed will permit grasses to at least partially rebound and be cut. Taking a partial cut and/or reversing the direction of travel may also help produce a cleaner cut.

Avoid mowing in the reverse direction when possible. In situations where the mower must be backed to access areas to be cut, make sure there are no persons or other foreign debris behind the mower before mowing in reverse. When mowing in reverse, operate the tractor and mower at a reduced ground speed to ensure tractor and mower control is maintained. *OPS-R-0026_A*

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

⚠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 300 feet (90 m) in front and to the sides of the tractor and mower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see these type of items discontinue mowing. (SGM-01)

WARNING Follow these guidelines to reduce the risk of equipment and grass fires while operating, servicing, and repairing the Mower and Tractor:

-Equip the Tractor with a fire extinguisher in an accesible location.

-Do Not operate the Mower on a Tractor with an underframe exhaust.

-Do Not smoke or have an open flame near the Mower and Tractor.

-Do Not drive into burning debris or freshly burnt areas.

-Ensure slip clutches are properly adjusted to prevent excessive slippage and plate heating.

-Never allow clippings or debris to collect on mowers. Periodically shut down the Tractor and Mower and clean clippings and collected debris from the mower deck. (SGM-12_A)

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

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

Once on location, lower the mower deck slightly above the material to be cut, so the mower does not have to start under a load. Bring the RPM of the tractor up to 1200 and engage the side mower. If a rear mower is being used, allow the RPM to return to 1200 before engaging the rear mower.

The rotary mower deck should always be carried rather than dragged on the skid shoes when mowing on the ground. Dragging the rotary mower heads causes an extreme side load on the tractor resulting in premature tire wear. It also causes excessive horsepower consumption and drastically decreases blade life. Dragging the rear mower can also cause damage to the road. Once the necessary skill is attained at controlling the height and position of the side rotary mower, it will be easy to carry the mower head(s) and do a proficient job of cutting.

When cutting tall shrubs or small trees (maximum recommended size of material to be cut is 2ò diameter), begin each pass at the top of the material and work down with each consecutive pass. Use a low speed to allow the cutting blades time to mulch as well as cut the foliage. When the initial pass has been made, disengage the mower and return the mower to the travel position. Return to the starting point and make next, etc.

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

DO NOT use excessive force when positioning cutting head into heavy branches or small stumps (2ò diameter). Damage to the unit may result. It is best to let the cutter head ñeat awayò slowly at heavy cutting jobs.

OPERATION

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

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

When encountering a very severe condition which causes the tractor to stall, disengage mower, start tractor, raise the mower from the cut. Shut tractor off and inspect the mower, blades and disk for damage before engaging mower again.

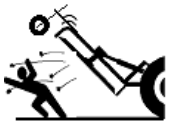
If the blades jam or stop, disengage the mower and raise the head slightly or back the tractor up. Normally, this will clear the cutter head. If not, shut off the mower(s), raise the cutter heads, turn off the tractor and set the parking brake. After all motion stops completely, leave the tractor and clear the cutting heads manually.

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

When you get to the end of a pass, slightly raise the mower (2-4ò) before turning. Never raise the mower entirely while the blades are turning. If the mower must be raised higher than 12ò from ground level, wait for all mower rotation to come to a complete stop before proceeding to raise the mower. NEVER raise the mowers while the blades are turning.

OPS-R-0027_A

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-07)



Large, dense, or wet vegetation may need to be mowed in two or more passes to achieve a uniform cut. In such conditions, raise the cutting height to 12ò or more on the first pass. *OPS-R-0043*

Then lower the mower to the desired height and mow the vegetation a second time. If possible, select a mowing pattern that is at a 90 degree angle to the first pass to reduce streaking for a more uniform cut. *OPS-R-0044*

Stay alert and watch for trees, low hanging limbs, power lines, and other overhead obstacles and solid ground objects while you are operating. Use care to avoid hitting these items. *OPS-R-0028_A*

Do not mow or drive the tractor into material that is burning or areas that recently burned and may contain hot spots. Burning material, sparks and coals could be thrown from the mower to areas of vegetation that might ignite. Tire damage can occur when driving over hot material. Oil and grease on the tractor and mower could ignite resulting in equipment destruction. Carry a fire extinguisher on the tractor at all times to extinguish possible fires encountered.

Rotary Cutter

- The Rotary Cutting Head is rated to cut vegetation up to 2" in diameter.
- Objects tend to be thrown out from under the head in the direction of blade rotation and toward the raised edge of the shroud. Avoid cutting with the head tilted at an angle that objects would be thrown towards the unit operator position.
- When mowing or mulching, be particularly careful that there are no bystanders or animals with a 100 yards. Debris tends to fly out at great speed and can injure or even cause death.

OPS-B- 0039_A

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

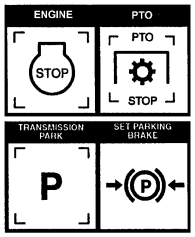
DANGER The rotating parts of this machine have been designed and tested for rugged use. However, the blades could fail upon impact with heavy, solid objects such as metal guard rails and concrete structures. Such impact could cause the broken objects to be thrown outward at very high velocities. To reduce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

9.4 Shutting Down the Implement

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

Park the tractor on a level surface, place the transmission in park or neutral and apply the parking brake, lower the attached implement to the ground, shut down the engine, remove the key, and wait for all motion to come to a complete stop before exiting the tractor. *OPS-U- 0016_A*

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



10. DISCONNECTING THE MOWER FROM THE TRACTOR

Before disconnecting the mower, the blade rotation at a complete stop. Move the mower to a level storage location and lower the rear and side mowers to the ground. If the mowers will be stored with the side mower in the raised position, install both travel locks and pins. If the mower is not resting securely on the ground, block the mower up securely before attempting to disconnect it from the tractor.

Use extreme care to keep feet and hands from under the mower and clear of any pinch points. *OPS-R-0030_A*

⚠ DANGER Never stand or allow another person to stand between a running tractor and the mower when disconnecting the implement from the tractor 3-point hitch.

⚠ DANGER Always shut the Tractor completely down, place the transmission in park, and set the parking brake before you or anyone else attempts to connect or disconnect the Implement and Tractor hitches. (S3PT-15)

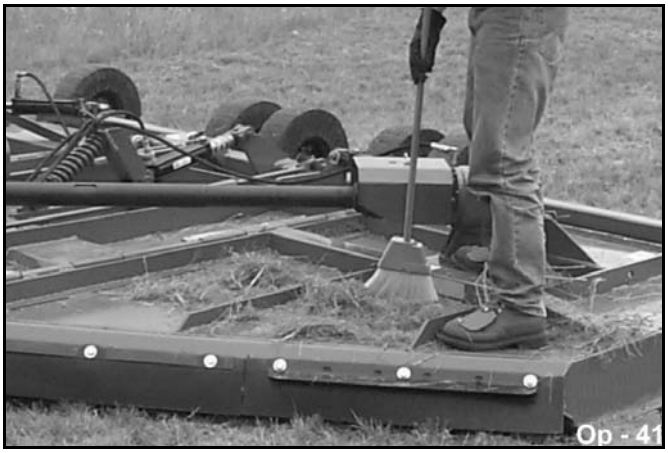
11. MOWER STORAGE

It is recommended that the mower be stored with the mower fully lowered to ground level. If the mower is stored in the raised position, select a level area and place blocks under the mower to prevent the mower from falling BEFORE disconnecting the mower from the tractor.

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

- Thoroughly clean all debris off the mower to prevent damage from rotting grass and standing water.
- Lubricate all mower grease points and fill oil levels as detailed in the maintenance section.
- Tighten all bolts and pins to the recommended torque.
- Check the mower for worn and damaged parts. Perform repairs and make repairs immediately so that the mower will be ready for use at the start of the next season.
- Store the mower in a clean, dry place with the mower housing resting securely on blocks or at ground level.
- Use spray touch-up enamel where necessary to prevent rust and maintain the appearance of the mower.

OPS-R-214



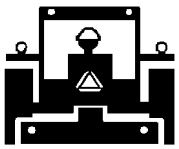
⚠ DANGER Never allow children or other persons to ride on the Tractor or Implement. Falling off can result in serious injury or death. (SG-10)

12. TRANSPORTING THE TRACTOR AND IMPLEMENT

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

Before transporting the tractor and mower, idle the tractor engine and wait for all mower moving parts to come to a complete stop. Once all mower parts are completely stopped, raise the mower to transport height.. *OPS-R-0033_A*

⚠WARNING Make certain that the ñSlow Moving Vehicleò (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)



12.1 Transporting Mower

TRANSPORTING UNDER THE UNITôS OWN POWER

When transporting between job sites or between cutting passes, the following procedure should be followed:

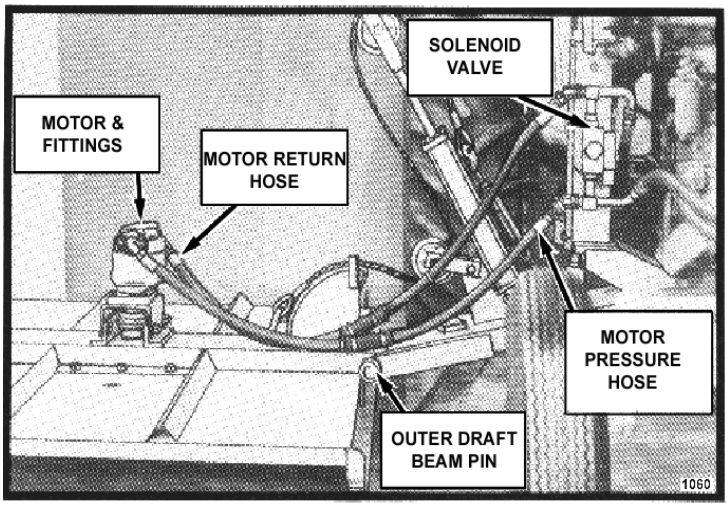
1. Shut off the power to the cutting head(s) and allow all motion to come to a complete stop.
2. Raise the draft beam to its highest position.
3. Raise the side mower until the deck stops against the draft beam.
4. Raise the rear mower with the 3-point hitch control lever. The unit is now in position for self-transportation.

TRANSPORTING UNIT BY FLATBED TRAILER

Most tractors with a side mounted mower head attached will be over legal transporting width (102ò wide). For this reason, one of the following procedures must be followed:

1. Transporting with side mower attached: Use a loading dock or ramp to load tractor onto trailer. Center the tractor with mowers attached between the sides of the trailer. Make sure the draft beam and head are fully raised and secured. Lower the rear mower onto the trailer. Secure the tractor and rear mower to the trailer with chains. Obtain proper over-width permits and mark the vehicle and mower as over-width as required by law. Check the tractor operatorôs manual for any tractor requirements to transport by flatbed trailer.

2. Transporting with side mower removed: Park the tractor and turn the engine off. Remove the key to avoid accidental starting. Close ball valves on the hydraulic reservoir. To avoid contaminating the hydraulic system, make sure all fittings on the side mower motor and solenoid control valve are clean. Disconnect the motor pressure hose at the solenoid valve and the motor return hose at the motor. See **Figure Ops-1226.**



Ops-1226

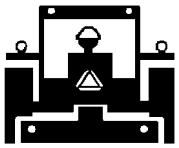
Next, cap or plug the hose ends and the ports on the solenoid valve and motor. For a cable lift mower disconnect the lift cable from the head and secure the loose end back onto the cable with the cable clevis. For a combo lift mower, disconnect the linkage from the mower and replace the pin and hardware with the draft beam to prevent loss. For all mowers, remove the hardware and draft beam outer pivot pin. Separate the mower head from the tractor. Now, reinstall the pivot pin and hardware into the draft beam to prevent loss. **OPEN THE BALL VALVES ON THE HYDRAULIC RESERVOIR BEFORE STARTING TRACTOR AGAIN!** Serious damage will be caused if tractor is started with the ball valves closed.

Use a loading dock or ramps to load the tractor onto the trailer, centering the tractor between the sides of the trailer. Make sure the tractor (and rear mower) and trailer are within legal transporting width. Lower the rear mower onto the trailer and set the loose hide mower on the trailer. Secure the tractor and mowers to the trailer with chains. Check the tractor operatorôs manual for any requirements to transport by flatbed trailer. Reverse this procedure to unload and remount the mowers after transporting. Be sure all pins are secure, all connections are tight and any lost fluid is replaced before using mowers. Use teflon tape when connecting all pipe style fittings.

12.2 Transporting on Public Roadways

Extreme caution should be used when transporting the tractor and implement on public roadways. The tractor must be equipped with all required safety warning features including a SMV emblem and flashing warning lights to alert drivers of the tractorôs presence. Remember that roadways are primarily designed for automotive drivers and most drivers will not be looking out for you, therefore, you must look out for them. Check your side view mirrors frequently and remember that vehicles will approach quickly because of the tractorôs slower speed. Be extremely cautious when the piece of equipment that you are towing is wider than the tractor tire width and/or extends beyond your lane of the road. *OPS-R-217*

WARNING Make certain that the ñSlow Moving Vehicleò (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)



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

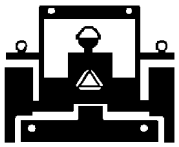
Make sure that all tractor flashing warning lights, headlights, and brake/tail lights are functioning properly before proceeding onto public roads. While newer model tractors have plenty of lighting to provide warning signals and operating lighting, most older models are only equipped with operating lights. Consult an authorized tractor dealer for lighting kits and modifications available to upgrade the lighting on older tractor models. *OPS-U- 0021*

OPERATION

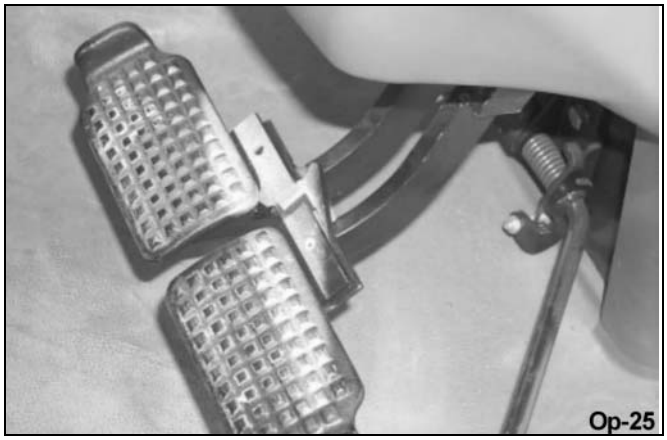
When operating on public roads, have consideration for other road users. Pull to the side of the road occasionally to allow all following traffic to pass. Do not exceed the legal speed limit set in your country for agricultural tractors. Always stay alert when transporting the tractor and implement on public roads. Use caution and reduce speed if other vehicles or pedestrians are in the area. *OPS-U- 0022*

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)

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



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



12.3 Hauling the Tractor and Implement

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

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

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

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

13. TROUBLESHOOTING GUIDE

HYDRAULIC CYLINDER NOT WORKING - Check level of hydraulic fluid (see sight gauge on tank). Check to see if pump is functioning properly by attempting to use another cylinder or pressure gauge. If pump is working properly, check the pressure on the line. The relief valve may be by-passing fluid at too low pressures. If cylinder is still not functioning properly, check the line for stoppage. The pistons in hydraulic cylinders are virtually trouble-free, but occasionally one will have a scored wall and allow oil to flow around the piston. In this case, replace the cylinder.

NOTE: Refer to repair parts section on valve bank settings on individual relief cartridges.

HYDRAULIC MOTOR NOT WORKING - Check lines for kinks or pinched place. If the motor is "bogging down" under load, recheck the relief valve setting on the cutter valve - 2500 P.S.I.

HYDRAULIC VALVE - Failures in the hydraulic system are almost always caused by other elements in the system other than the valve; so the entire system should be checked before the valve is changed. A malfunction In any hydraulic valve section will require replacement of that section (but not the replacement of the valve bank) since the insides are honed to fit individually. Attachments such as the relief valves and detent may be serviced individually.

MOWER

The control valve consists of a body, three spool assemblies, one high pressure relief valve, and two handle assemblies. Only the pressure relief valve and handle assemblies can be replaced if damaged. Otherwise, the whole valve must be replaced.

STRUCTURAL MEMBERS

Failure in structural members generally results from rough treatment. While they are constructed to withstand abuse, they cannot be made strong enough to withstand abnormal abuse. The factory does not warrant these parts to any extent other than in normal use in grass, weeds, brush, small bushes, and small trees which the unit is designed to cut. This mounted implement removes weight from front wheels and can cause loss of steerage with possible overturn. Add front end weight until 20% of tractor original weight is on front wheels when boom is in transport position for steering safety & prevention of bodily injury. Transport slowly on rough surface to prevent bouncing front wheels off surface with loss of steerage and possible injury.

MAINTENANCE SECTION

MAINTENANCE

GENERAL INSTRUCTIONS

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

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

MAINTENANCE PRECAUTIONS

- Be sure end of grease gun and zerks are clean before using. Debris injected into bearings, etc. with grease will cause immediate damage.
- DO NOT use a power grease gun to lubricate bearings. These require very small and exact amounts of lubrication. Refer to the detailed maintenance section for specific lubrication instructions. DO NOT over-grease bearings.
- Lexan windows should be washed with mild soap or detergent and lukewarm water, using a soft clean sponge or soft cloth. DO NOT use abrasive or alkaline cleaners or metal scrapers on lexan windows!
- Be alert to maintenance indicators such as the in-tank filter pressure gauge, hydraulic reservoir sight gauge, etc. Take the required action to correct any problems immediately.
- Release of energy from pressurized systems may cause inadvertent actuation of cylinders, or sudden release of compressed springs. Before disconnecting any hoses relieve pressure by shutting tractor off, setting cutter on ground and actuating lift valve handles.

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

BREAK IN PERIOD

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

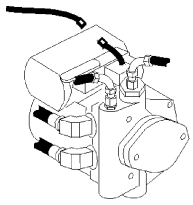
Re-torque wheel lugs after first five hours of operation and periodically thereafter. See torque specifications listed in the tractor's service manual for your particular model. **Wheel lugs must always be re-torqued whenever a wheel is removed and reinstalled.**

⚠ DANGER Never work under the Implement, the 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)

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)

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

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



REGULAR MAINTENANCE

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

Daily or Every 8 Hours

ITEM	SERVICE	COMMENTS
Drive Shaft Yoke, U-Joint & Stub Shaft	Grease	Grease as instructed in detailed Maintenance Section
Pump Drive Shaft	Check and Lube	Insure drive shaft end play
Crankshaft Adapter	Check rubber grommets	Replace grommets if damaged or missing
Pivot Points	Lubricate	Inject grease until it appears at end
Hydraulic Fittings	Check for leaks	Tighten when needed. Do Not use hands to check for leaks. See Maintenance Precautions
Spindle mounting bolts (spindle to deck)	Check	3/4” x 2” torque to 331ft. lbs.

ITEM	SERVICE	COMMENTS
Disk mounting bolts (disk to spindle)	Check	5/8” X 1-3/4” bolt torque to 204 dry or 184 oiled ft. lbs.
Main Frame and Deck	Check	Retorque bolts to torque specifications in this section
Hydraulic Fluid Level	Check	Add if required per fluid recommendations

WEEKLY OR EVERY 40 HOURS

ITEM	SERVICE	COMMENTS
Rotary Spindle	Lubricate	Grease as instructed in detailed Maintenance Section

WEEKLY OR EVERY 50 HOURS

ITEM	SERVICE	COMMENTS
In Tank Hydraulic Fluid Filter **(10 micron filter)**	Change	Change after first 50 hours only then every 500 hours or yearly
In-Line High Pressure Filter **(10 micron filter)**	Change	Change after first 50 hours only then every 500 hours or yearly

MONTHLY OR EVERY 150 HOURS

ITEM	SERVICE	COMMENTS
Hydraulic Fluid Level	Check	Add as needed
Hydraulic Tank Breather	Clean/Check/Replace	Clean or replace Element as required

Rear Tire Type	**Max P.S.I**.
480/80R38	29
18.4-34	26
18.4-38	26

YEARLY OR EVERY 500 HOURS

ITEM	SERVICE		COMMENTS
Spindle Grease	Change		
Motor to Spindle Spline Grease	Change		
Hydraulic Tank Fluid	Change		
In Tank Hydraulic Fluid Filter **(10 micron filter)**	Change		
In-Line HP Filter **(10 micron filter)**	Change	or	Change when indicated by restriction indicator.
Hydraulic Tank Breather	Change		

TROUBLESHOOTING

SYMPTOMS	CAUSE	REMEDY
Vibration	Loose Bolts	Check all bolts and tighten to recommended torque specifications in this section
	Cutter assembly	a. Check for damaged blades, disc, unbalanced or cutter shaft.
		b. Replace if needed.
		c. Check for wire, rope, etc. entangled in the cutter assembly
Mower will not lift	Hydraulic Fluid Low	Check and refill Hyd Fluid
	Leaks in line	Tighten or replace fittings and hoses
	Faulty relief valve	Check pressure in line. Line pressure in Control Valve should be at least 2500 P.S.I.
	Kinked or blocked	Clean or replace lines
	Faulty cylinder	Inspect, repair or replace cylinder
Oil Temperature rises	Low oil level above 200°F	Bring oil to proper level.
	Kinked/blocked hoses	Inspect / Repair / Replace
	Worn pump/motor	Disable and Repair
Mower will not start or run	Blown fuse	Check fuse between mower switch and ignition / replace
	Ball valves closed	Make sure valves are open
	Low oil level	Check Hyd. tank and fill
	Line leak	Check all fittings and lines, re-tighten or replace
	Electronic solenoid faulty	a. Without the tractor running, turn the mower switch to on. A low audible click is not heard if the solenoid is engaging the solenoid spool. If click is not heard, leave switch in on position and with a screwdriver or other steel object, touch the small nut on the end of the solenoid. If the metallic object is not attracted to the nut, check the fuse and wiring for an open circuit. If the o bject is a ttracted but no “click” is heard, replace the solenoid.

		b. Remove the four bolts holding the small block to the main block. Lift and remove small block being careful not to damage O-rings/filter. c. Clean filter and re-install. d. Remove large nut on side of large valve block. Remove spring, and use needle nose vise grip to pull spool from block. Check block and spool for contaminants and scratches. Clean parts or replace if scratched.
Mower turns slowly or not at all	Contaminants restricting spool movement in valve body	Remove large nut on side of large valve block. Remove spring, and use needle nose vise grip to pull spool from block. Check block and spool for contaminants and scratches. Clean parts or replace if scratched.
	Suction lines obstructed	Check for kinks or obstruction in suction hose.
	Low oil level	Check Hyd. tank level and fill.
Pump will not work	Excessive wear on internal parts	Disassemble and repair.
Motor will not work	Excessive wear on internal parts	Disassemble and repair

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

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

TORQUE SPECIFICATIONS

Torque for Standard Fasteners

Nominal Dia. (in.)	threads per inch	Grade 2 Tightening Torque Lubed K = 0.15	Grade 2 Dry Plated K = 0.17	Grade 2 Dry plain K = 0.20	Grade 5 Tightening Torque Lubed K = 0.15	Grade 5 Dry Plated K = 0.17	Grade 5 Dry plain K = 0.20	Grade 8 Tightening Torque Lubed K = 0.15	Grade 8 Dry Plated K = 0.17	Grade 8 Dry plain K = 0.20	Grade 9 Tightening Torque Lubed K = 0.15	Grade 9 Dry Plated K = 0.17	Grade 9 Dry plain K = 0.20
Unified Coarse Thread Series													
1/4	20	49 in-lbs	59 in-lbs	66 in-lbs	76 in-lbs	86 in-lbs	101 in-lbs	107 in-lbs	122 in-lbs	143 in-lbs	126 in-lbs	143 in-lbs	168 in-lbs
5/16	18	101	122	135	157	178	209	221	251	295	259	294	346
3/8	16	15 ft-lbs	18 ft-lbs	20 ft-lbs	23 ft-lbs	26 ft-lbs	31 ft-lbs	33 ft-lbs	37 ft-lbs	44 ft-lbs	38 ft-lbs	43 ft-lbs	51 ft-lbs
7/16	14	24	29	32	37	42	49	52	59	70	61	70	82
1/2	13	37	44	49	57	64	75	80	90	106	94	106	125
9/16	12	53	63	70	82	92	109	115	130	154	135	153	180
5/8	11	73	87	97	113	128	150	159	180	212	186	211	248
3/4	10	129	155	172	200	227	267	282	320	376	331	375	441
7/8	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													
1/4	28	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
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.
Torque values calculated from formula T=KDF, where

K = 0.15 for "lubricated" conditions
K = 0.17 for zinc plated and dry conditions
K = 0.20 for plain and dry conditions

D = Nominal Diameter
F = Clamp Load

Torque-Tension Relationship for Metric Fasteners

Nominal Dia. (mm)	Pitch	Class 4.6 Tightening Torque Lubed K = 0.15 (ft-lbs)	Class 4.6 Dry Plated K = 0.17 (ft-lbs)	Class 4.6 Dry plain K = 0.20 (ft-lbs)	Class 8.8 Tightening Torque Lubed K = 0.15 (ft-lbs)	Class 8.8 Dry Plated K = 0.17 (ft-lbs)	Class 8.8 Dry plain K = 0.20 (ft-lbs)	Class 10.9 Tightening Torque Lubed K = 0.15 (ft-lbs)	Class 10.9 Dry Plated K = 0.17 (ft-lbs)	Class 10.9 Dry plain K = 0.20 (ft-lbs)	Class 12.9 Tightening Torque Lubed K = 0.15 (ft-lbs)	Class 12.9 Dry plain K = 0.20 (ft-lbs)
3	0.5	0.28	0.32	0.38	0.73	0.82	0.97	1.0	1.2	1.4	1.2	1.6
3.5	0.6	0.44	0.50	0.59	1.1	1.3	1.5	1.6	1.9	2.2	1.9	2.5
4	0.7	0.66	0.74	0.87	1.7	1.9	2.3	2.4	2.7	3.2	2.8	3.8
5	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.
All torque values are listed in foot-pounds
Torque values calculated from formula T=KDF, where

K = 0.15 for "lubricated" conditions
K = 0.17 for zinc plated, dry conditions
K = 0.20 for plain and dry conditions

D = Nominal Diameter
F = Clamp Load

LUBRICATION RECOMMENDATIONS

DESCRIPTION	APPLICATION	GENERAL SPECIFICATION	RECOMMENDED MOBIL LUBRICANT
Tractor Hydraulics	Reservoir	JD-20C MF M1135, M1141 FNHM2C134D (FNH201)	Mobilfluid® 424
Mower Hydraulics	Reservoir		
Cold Temperatures 0°F Start-Up		ISO 46 Anti-Wear-Low Temp	Mobil DTE 15M
Normal Temperatures 10°F Start-Up		JD-20C MF M1135, M1141 FNH M2C134D (FNH201)	Mobilfluid 424
Normal Temperatures 15°F Start-Up		ISO 46 Anti-Wear	Mobil DTE 25
High Operating Temp. Above 90°F		ISO 100 Anti-Wear	Mobil DTE 18M
Drive Shaft Coupler	Grease Gun	Lithium-Complex Extreme Pressure NLGI 2 - ISO 320	Mobilgrease CM-S
Drive Shaft Yoke, U-joint & Stub Shaft	Grease Gun	Lithium-Complex Extreme Pressure NLGI 2 - ISO 320	Mobilgrease CM-S
Deck Spindle (Rotary)	Grease Gun	Tiger Part Spindle Lubricant Part Number 06540000	Mobilith SHC 220
Motor Spline			Moly 52

MAINTENANCE

POLYCARBONATE CARE & MAINTENANCE

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

CLEANING THE SUPERCOAT HARD-COAT

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

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

- Aqueous Solutions of Soaps and Detergents

Windex	Top Job	Joy	Mr. Clean
Fantastik	Formula 409	Sumalight D12	Brucodecid

- Organic Solvents

Butyl Cellosolve	Kerosene	Hexel, F.O. 554	Naphtha (VM&P Grade)
Neleco-Placer	Turco 5042		

- Alcohols

Methanol	Isopropyl

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

GRAFFITI REMOVAL

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

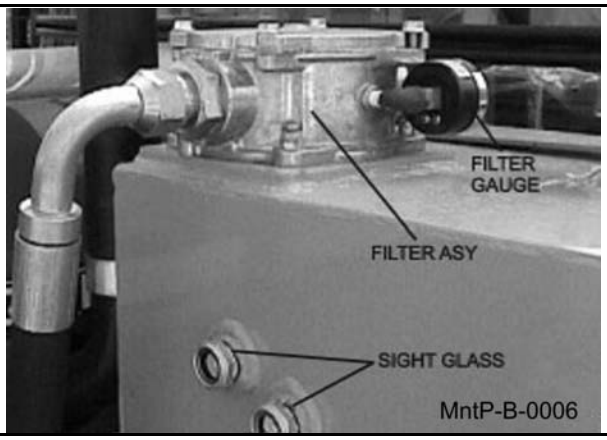
To remove labels, stickers, etc., the use of kerosene of VM&P naphtha are generally effective. When the solvent will not penetrate sticker material, apply heat (hair dryer) to soften the adhesive and promote removal.

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

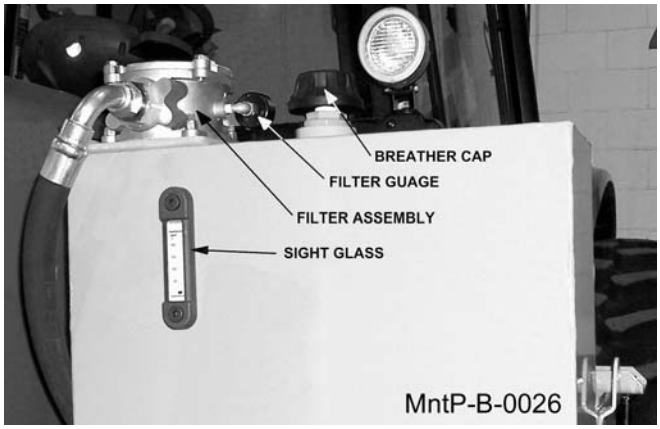
RECOMMENDED FILLING INSTRUCTIONS FOR HYDRAULIC RESERVOIRS

When filling or checking the oil level, the unit should be parked on a level surface., shut **OFF**, and allow sufficient time to cool to ambient temperature. Use caution when removing the pressurized breather. Do n ot place face o ver opening when removing breather.

If your reserv oir has two sight glasses: The reservoir should be filled to the top of the lower sight glass on the side of the tank. Do not over-fill. The reservoir has been over-filled when oil is visible in the upper sight glass. If tank has too much oil, the excess may be expelled through the pressurized breather.



If your reservoir has one sight glass/temperature gage: The reservoir should be filled to the center of the sight gla ss on the side of the tank. Do not over-fill. If the t ank has too much oil, the excess may be expelled through the pressurized breather.

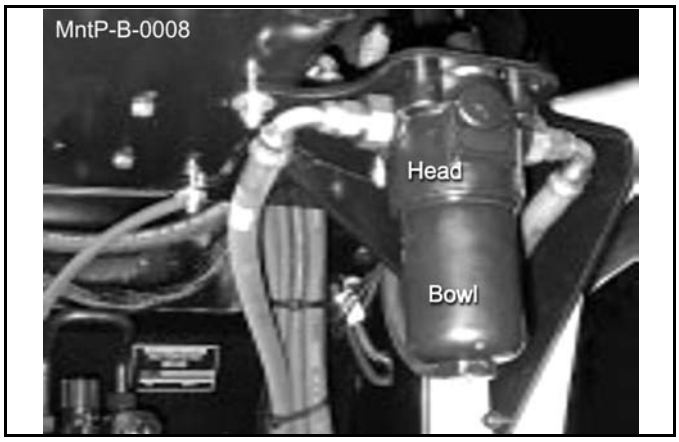


REPLACING IN-TANK HYDRAULIC FILTER

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

REPLACING HIGH PRESSURE HYDRAULIC FILTER ELEMENT

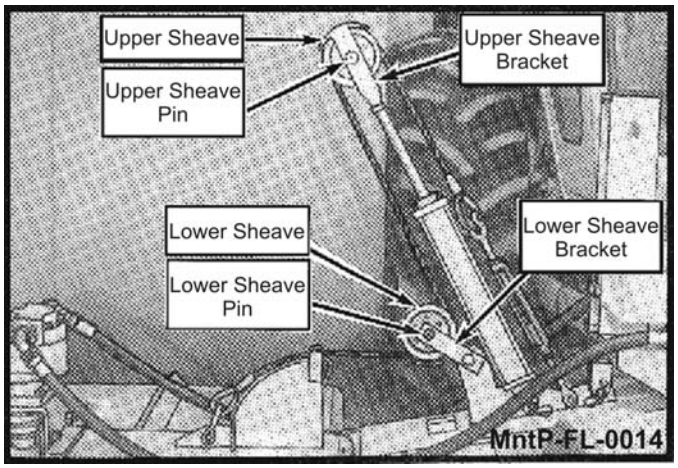
Ensure system has been shut down and depressurized. Locate High Pressure Filter housing. Confirm that the new element matches the element p/n on the filter mo del tag. *Example: V3.0510-06 (world line 100, HD049 model).* Locate the bottom of the High Pressure Bowl, and using the appropriate spanner wrench or ratchet, turn in a counterclockwise rotation, (looking at the bottom of the bowl) to remove the bowl from the head. The first couple rotations will seem tight as the o-ring passes the sealing flats. Once the o-ring has cleared the sealing flats the bowl should spin freely. Taking care not to drop the bowl, finish removing the bowl from the head.



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

GREASING THE UPPER AND LOWER SHEAVES

Locate the grease zerks on the ends of the upper and lower sheave pins as shown below. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications into each pin until it protrudes from the ends. These should also be greased daily or for every 8 hours of service.

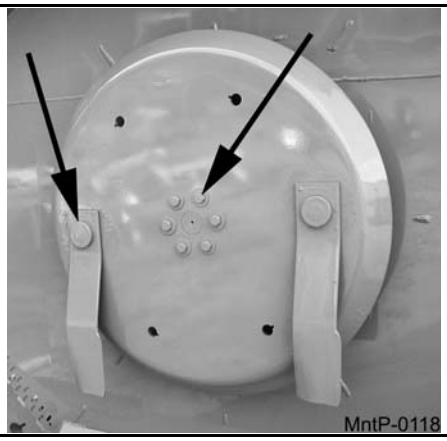


TIGHTENING BLADE BOLTS AND DISK BOLTS

After every 8 hours of operation or daily, the knife bolts and disk bolts should be tightened as follows:

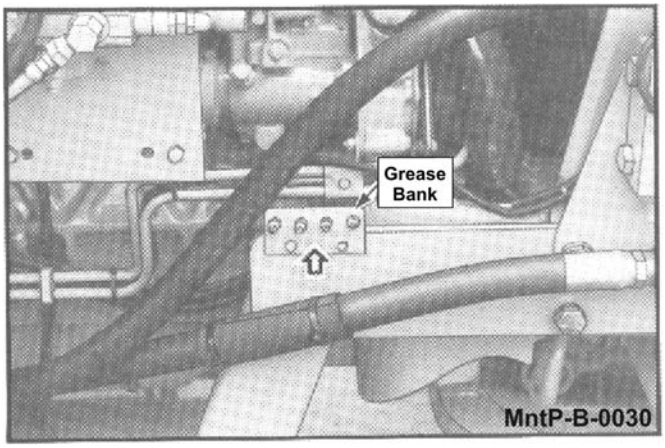
Knife Mounting Bolts (3 ea.) torque to 800 oiled ft. lbs.

Disk Mounting Bolts (6 ea.) torque to 204 dry or 184 oiled ft./lbs.

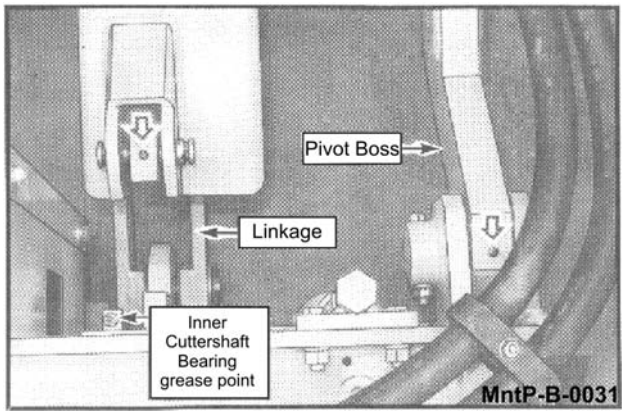


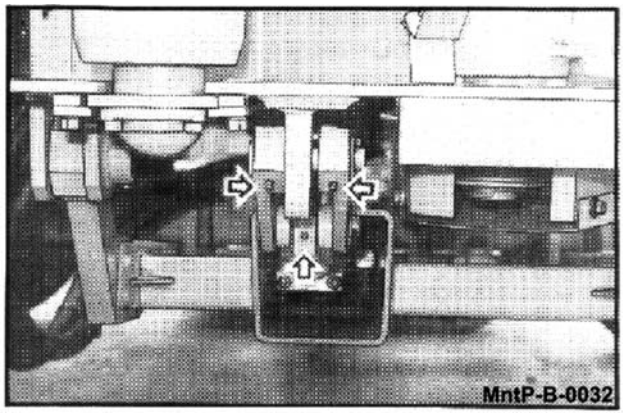
GREASING INNER AND OUTER DRAFT BEAM PIVOT POINTS

Locate the grease zerks on the inner and outer draft beam pivot bosses. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications into each zerk until grease protrudes from joints. Gr ease all pivots daily or every 8 hours of service.



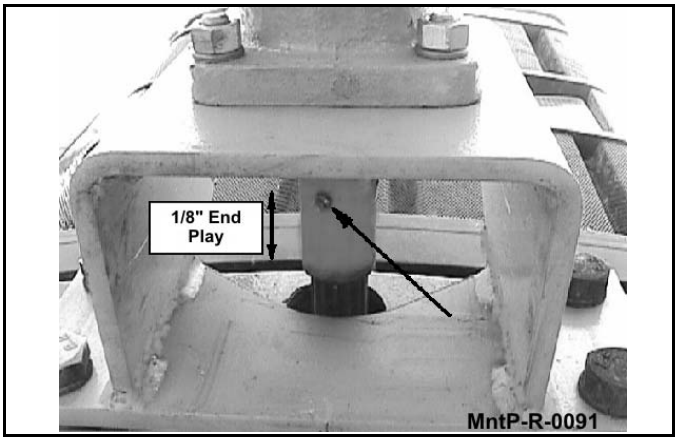
With the cutter head lowered, locate the grease zerks on the linkage and pivot bosses. Inject Lithium-Complex Extreme Pressure grease conforming to NLGI2-ISO 320 specifications until it protrudes from the ends. With the cutter head in this position it is also possible to grease the draft beam cylinder anchors and pins. Now raise the cutter head expose the remaining zerks on the deck tilt linkages and on the other end of the cylinder.





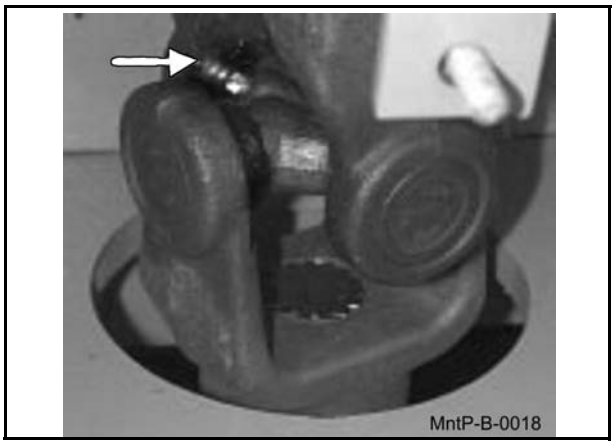
GREASING PUMP DRIVE SHAFT COUPLER

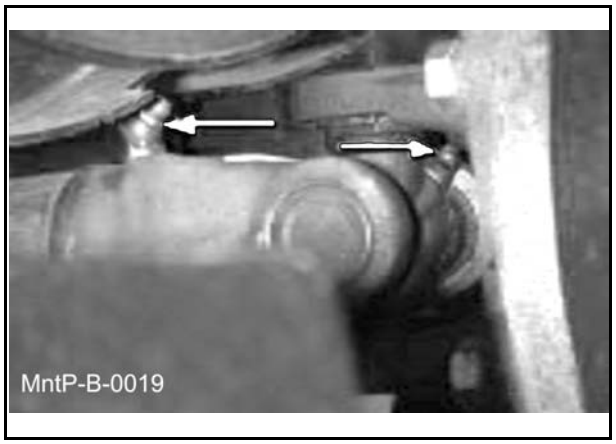
With engine stopped, ensure drive shaft alignment by grasping coupler and sliding back and forth. Coupler should slide freely with approximately 1/8” of end play. If coupler does not slide freely, inspect for loose pump mount bolts, or damaged or loose crank shaft adapter. Inject-Lithium Complex Extreme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



DRIVE SHAFT YOKE, U-JOINT & STUB SHAFT

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



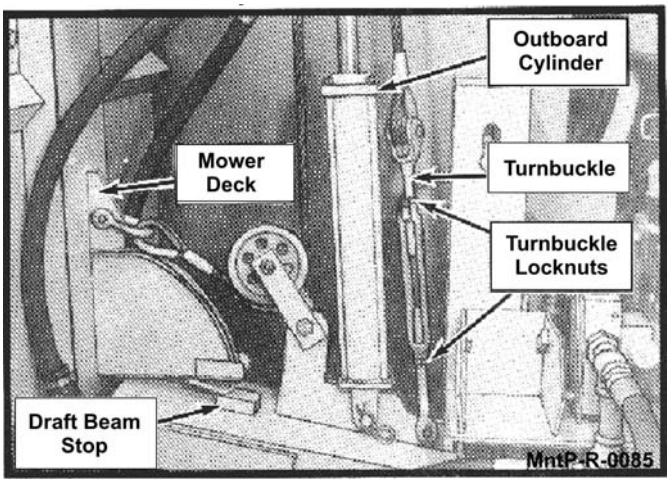


ADJUSTING THE CABLE LIFT

Extend the outboard cylinder until the mower deck touches its stop on the draft beam as shown.

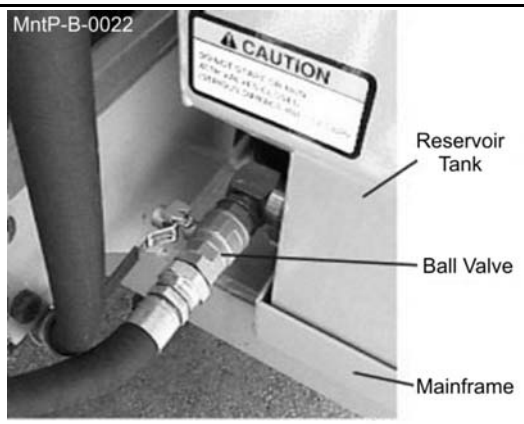
NOTE: *Make sure the cable turnbuckle is lo ose enough to allow the cylinder to reach full extension before the head reaches the stop.*

Now hold the head against the stop and tighten the turnbuckle until the cable is tight. Lower and raise the head to check the adjustment. The head should touch its stop at the same time the cylinder reaches full extension. Tighten turnbuckle lock nuts securely after adjustment is complete.



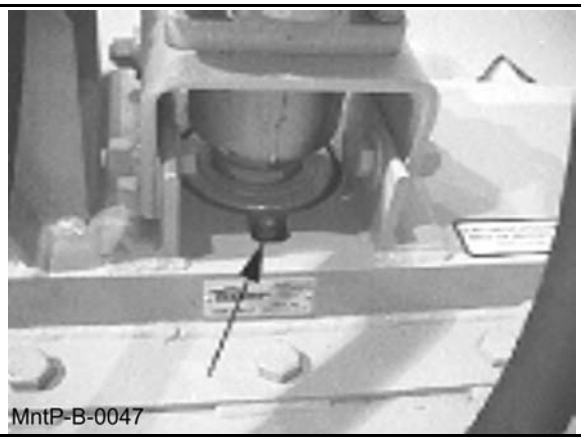
BALL VALVES

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



GREASING SPINDLE

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

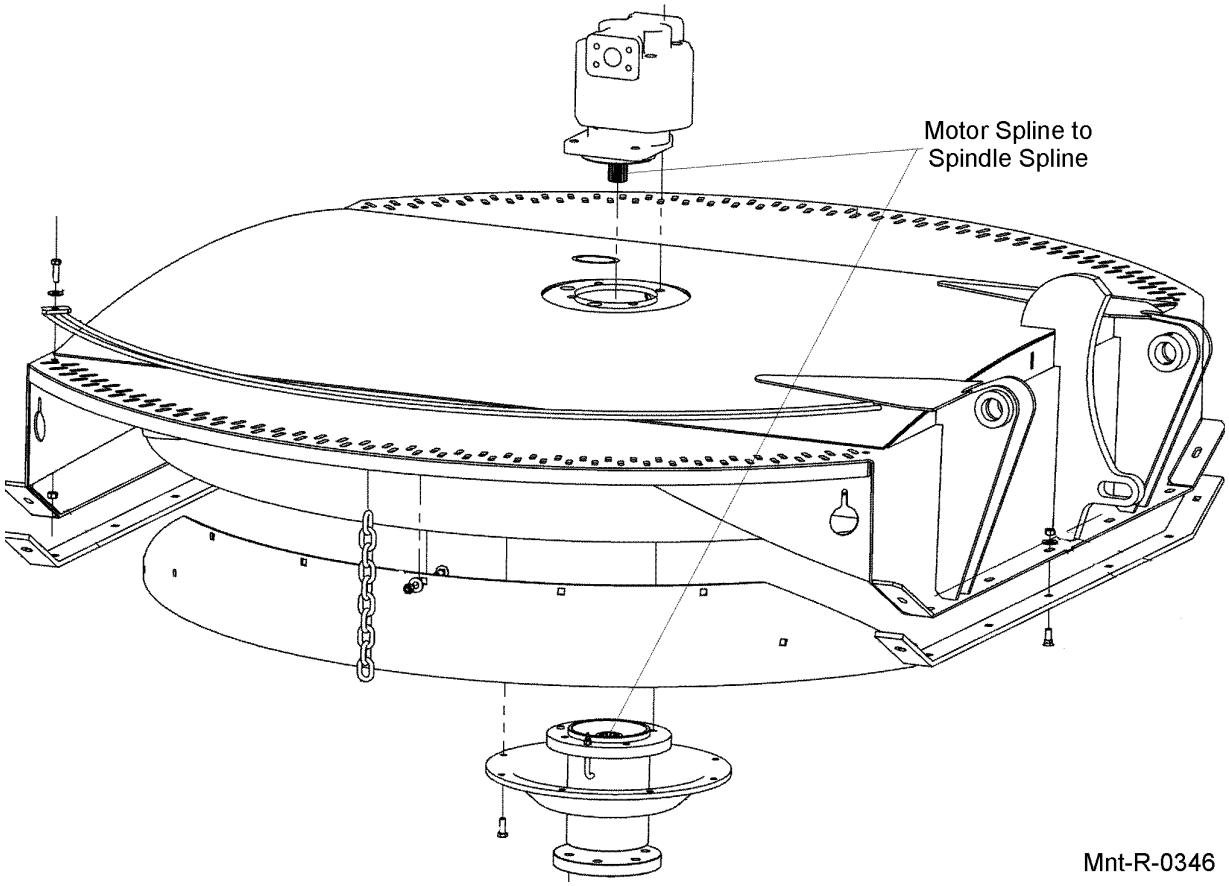


TIGHTENING SPINDLE BOLTS

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

GREASING MOTOR SPLINE TO SPINDLE SPLINE

Locate motor spline and spindle spline on the mower deck. Grease splines with Mobil moly 52. Use about 4 ounces of grease. Change grease yearly or every 500 hours.



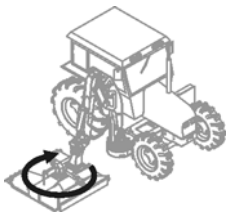
Mnt-R-0346

Blades

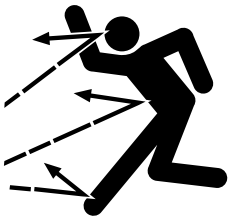
Check the Blades for cracks and wear and Blade Bolts for tightness, daily. Blades should be replaced when they are worn excessively, bent, deformed, or out of balance.

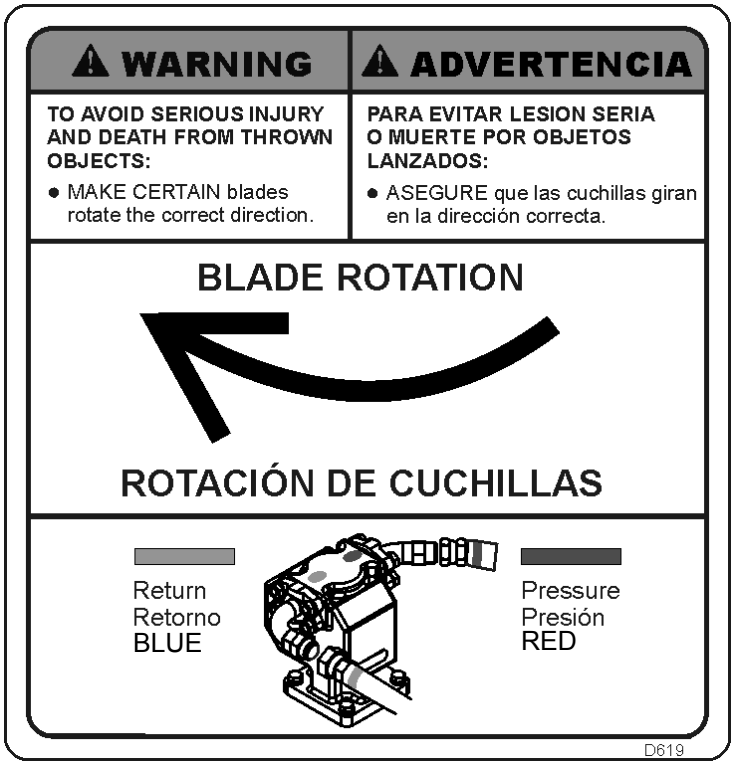
⚠ CAUTION Blades should always be replaced in pairs. Blades of different weights can cause serious imbalance and damage to the machine and personnel. When replacing blades, take care to replace the blade bolts, nuts, and washers.

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



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





ROTARY KNIFE REPLACEMENT

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

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

REPLACEMENT OF ROTARY DISK

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

The bolts that attach the knife mounting disk to the spindle must be grade 8. These 5/8 inch fine thread series bolts are to be torqued according to the chart in this section.

A thread locking agent may be applied to threads of all mounting bolts before they are installed.

Disks must be inspected daily for hairline cracks between spindle mounting bolts or around the knife mounting bolts. These cracks indicate metal fatigue caused by severe abuse. If cracks are present. the disk must be replaced.

Inspect the disk mounting bolts daily when checking tightness of blade mounting bolts. If a disk mounting bolt is loose, it must be removed, threads cleaned, fresh thread locking agent applied, and tightened to proper torque value.

If a knife mounting bolt is loose, the self locking nut must be replaced as a safety precaution. Lubricate threads with anti-seize, grease or motor oil. Place bolts through knife and disk from bottom side of disk. Install self locking nuts and torque them to 800 ft. lbs.

1. **WARNING: The disk alone weights over 100 lbs.** Be sure its weight can be supported before attempting to replace. The use of a lift mechanism will ease replacement.
2. Remove the six disk mounting bolts and the disk from the spindle.
3. Install new disk and align with mounting bolt holes.
4. Apply a thread locking agent to all of the mounting bolts and install the bolts through the disk.

   NOTE: *Disk bolts must be Grade 8.*
5. Tighten bolts down and torque to values noted.
6. See knife replacement instructions for replacing the knives onto the new disk.

HEAVY DUTY SPINDLE ASSEMBLY INSTALLATION AND BEARING ADJUSTMENT

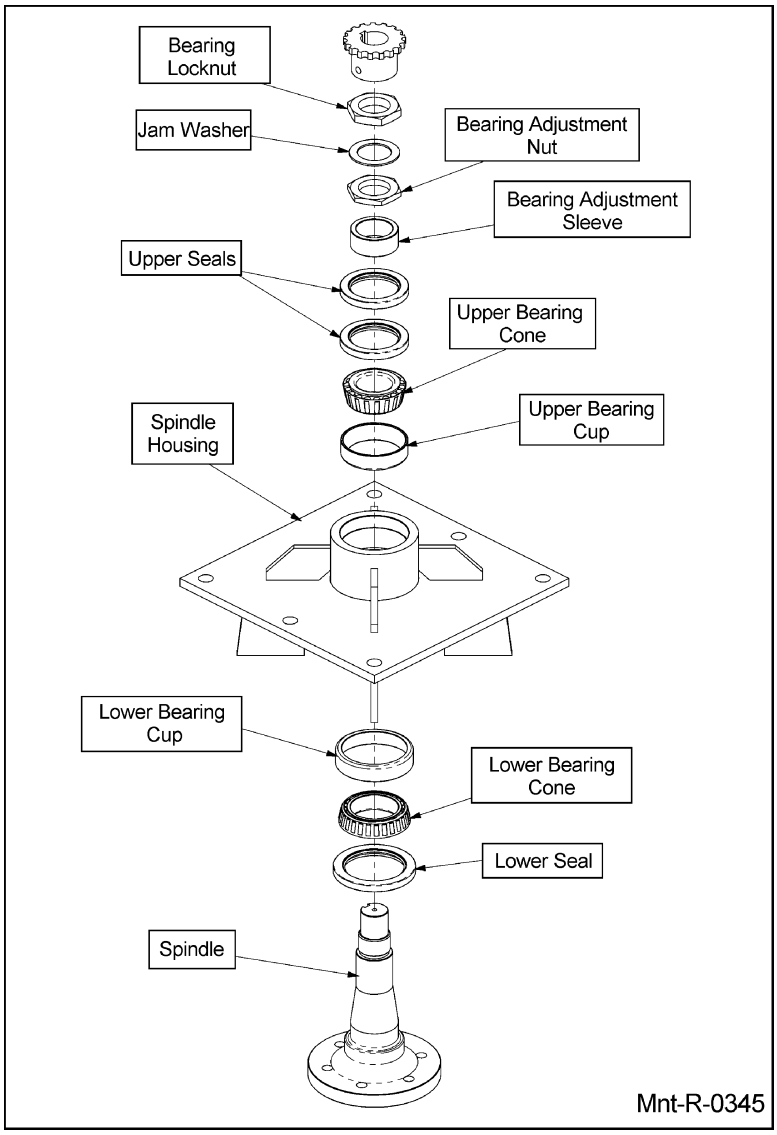
WARNING A press MUST be used to install bearing cups, bearing cones, and seals. DO NOT use a hammer to install races, bearings, or seals. The parts of assembly may be damaged.

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

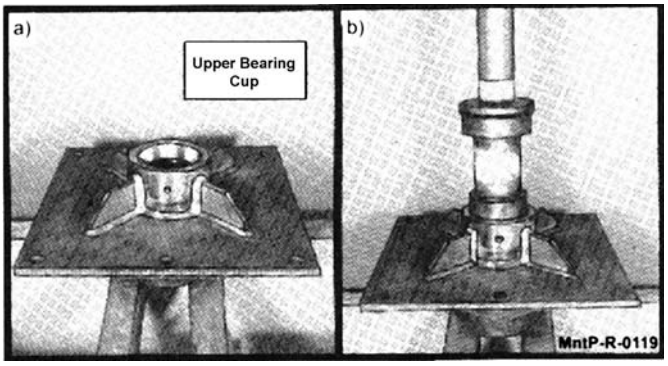
Be sure to wear eye protection and other protective equipment as needed when working on spindle assembly.

THE SPINDLE ASSEMBLY

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



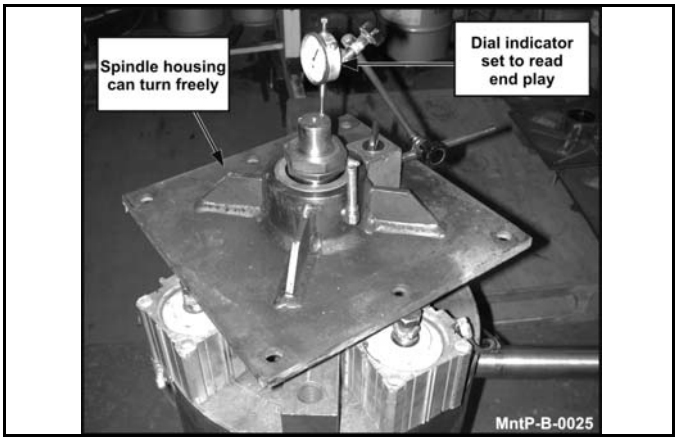
BEARING INSTALLATION



1. Press upper bearing cup into the spindle housing
2. Turn the spindle housing over and press in the lower bearing cup.
3. Place the lower bearing cone in the bearing cup. Next press the seal into the spindle housing. The inner lip of the seal must be DOWN, towards the bearing, so lubricant is sealed inside the housing.
4. Install the spindle in the housing. Lightly tap the end of the spindle with a soft faced hammer to seat the spindle against the bearing inner race.
5. Turn the spindle housing over (up position) and fill with Tiger Spindle Lubricant (part number 06540000) to the top edge of the upper bearing cup.
6. Support the bottom of the spindle and press the upper bearing cone and bearing adjustment sleeve onto the spindle.

   NOTE: *The spindle housing must turn freely when seating the bearing cone and sleeve.*
7. Press the two upper seals into the spindle housing. The inner lip of the seals must be UP, away from the bearing, so excess lubricant can escape.
8. Install the bearing adjustment nut (thin nut) so there is 1-1/6” clearance between the nut and the sleeve. Install the jam washer, placing the tab into the key-way. Install the bearing lock nut (thin nut) and hand tighten against jam washer and adjustment nut. See the following section for bearing adjustment.

BEARING ADJUSTMENT



1. Clamp the bottom end of the spindle securely in a vise so the spindle housing turns freely.
2. Position a magnetic base dial indicator on the outer diameter of the spindle housing. Locate the end of the dial indicator against the flat end of the spindle shaft. The dial indicator will now measure accurately bearing end play.
3. Tighten the bearing adjustment nut until there is 0.012 inch movement when the spindle housing is pried upward away from the vise jaws.
4. When there is 0.012 inch free play between the spindle and housing, install the bearing lock nut (thick nut). Hold the adjusting nut securely and tighten the lock nut to 300 ft. lbs. of torque.
5. After the lock nut is tightened, there must be 0.001 inch to 0.003 inch of free play when lightly prying up on the spindle housing.

If the end play is correct, 0.001 inch to 0.003 inch, bend tabs up on jam washer to prevent the lock nut from loosening.If the end play is NOT correct, loosen the lock nut and turn the adjustment nut as required and re-tighten the lock nut. Repeat first part of step 5.

MAINTENANCE

DAILY MAINTENANCE SCHEDULE

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

_____ Pump Driveshaft: Check for end play in driveshaft / coupler and lubricate at zerks.

_____ Crankshaft adapter: If equipped with rubber grommets check condition, replace if missing or damaged.

_____ Pivot points: Inject grease until it appears at ends.

_____ Hydraulic fittings: Check for leaks with paper or cardboard. Tighten fittings or replace hoses immediately

_____ Knives: Inspect for missing or damaged knives, change (only complete sets) as needed.

_____ Main Frame/Deck: Unless otherwise specified retorque bolts according to torque specifications in this section.

_____ Hydraulic Fluid Level: Add, if required, per fluid recommendations.

Service performed by:_____ Date:____/____/____ Hour

Meter:_____

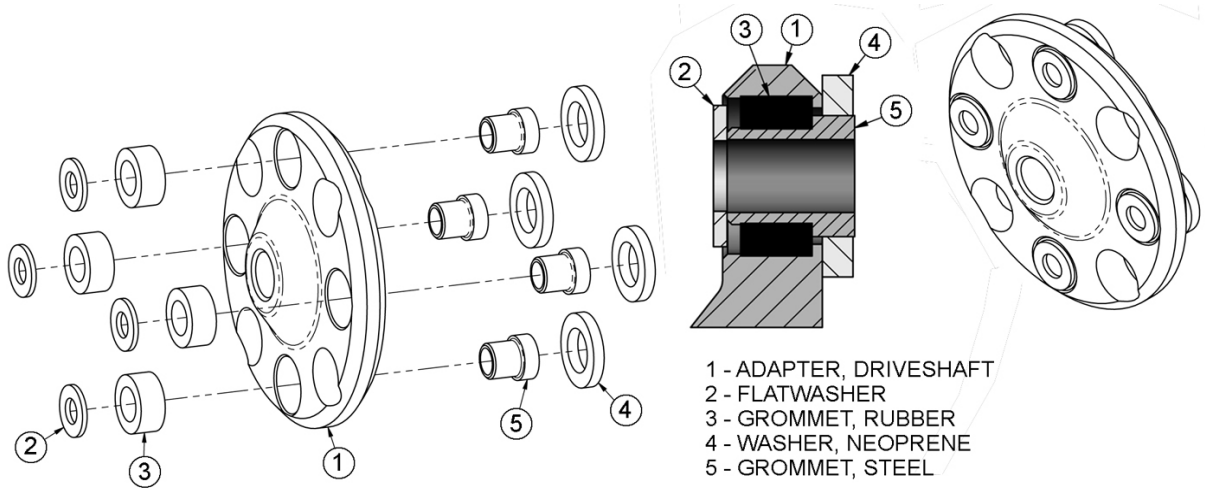
Maintenance Section

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

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

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

(ASM-JD-0051 CRANKSHAFT ADAPTER MAINTENANCE)



PARTS SECTION

PART NAME INDEX

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.

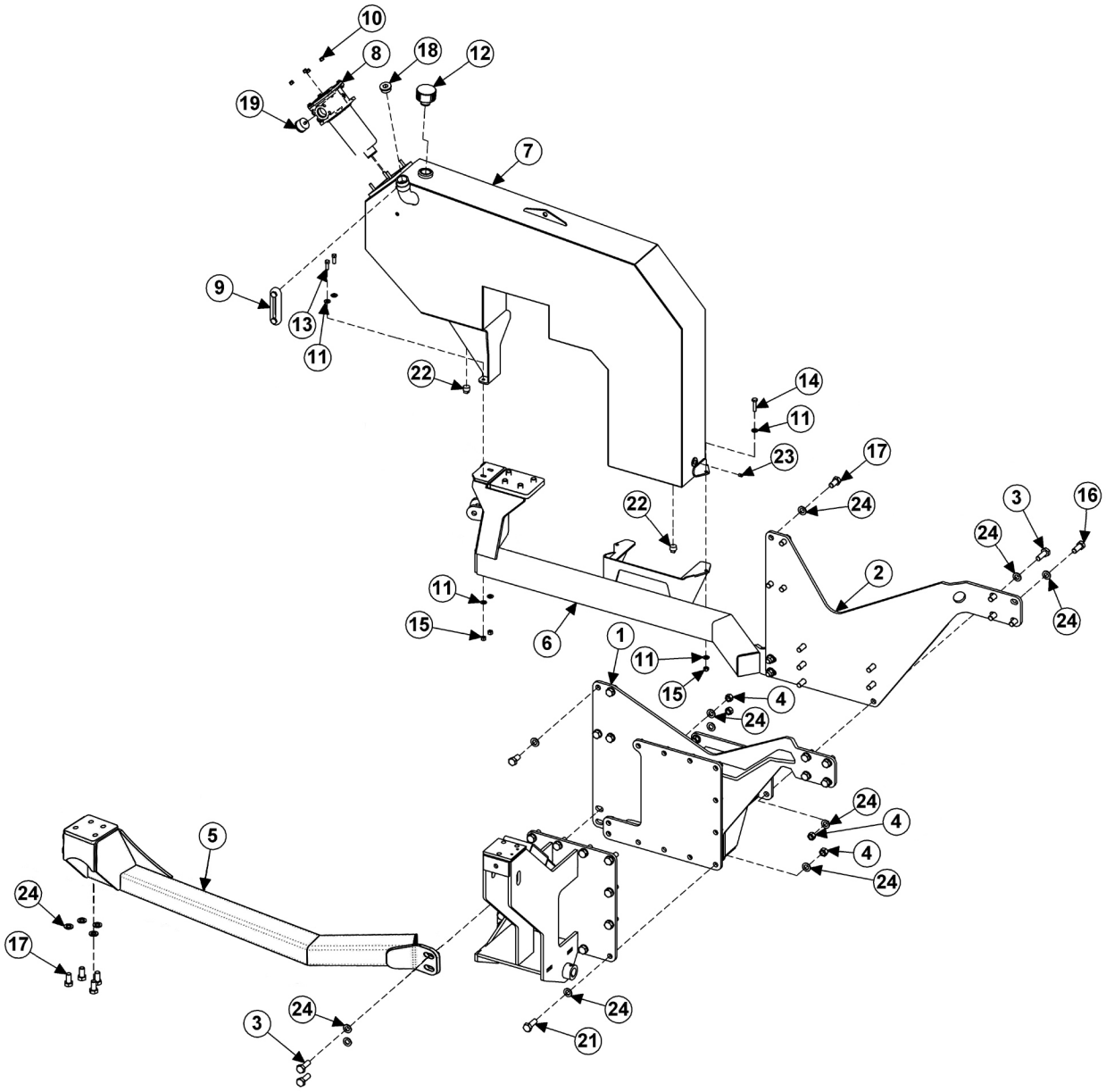

1000

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

Direct any questions regarding parts to:

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

TRACTOR MOUNT KIT

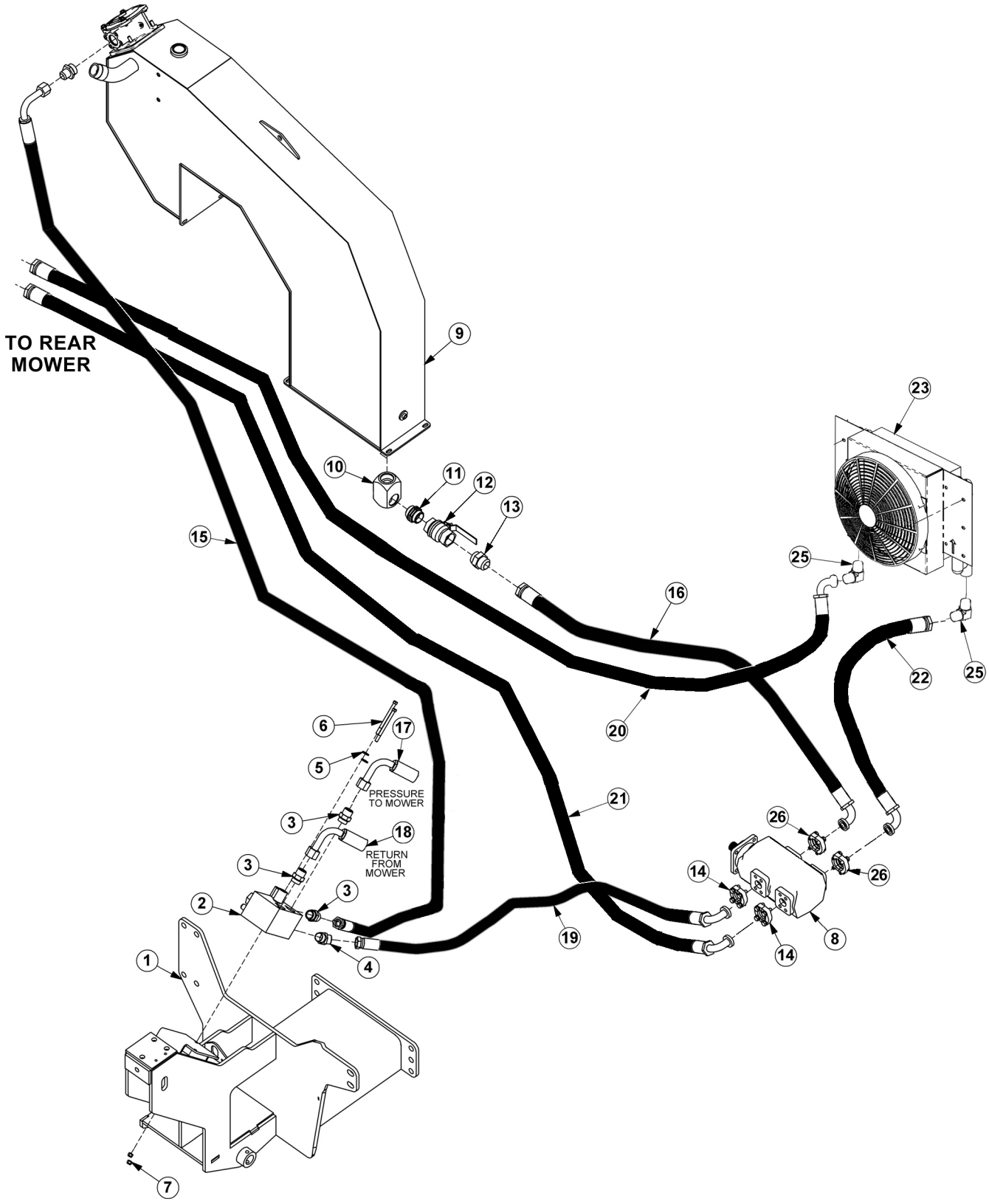


NH T6.155 T4B TWIN ROTARY

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06300371	1	MAINFRAME, T6, MXM, T4B
2	06411798	1	UPRIGHT, LH,
3	21833	10	CAPSCREW, 3/4" X 2-1/4" NC
4	21825	20	HEX NUT, 3/4" NC
5	06300311	1	AXLE BRACE, RH, T6 155
6	06300312	1	AXLE BRACE, LH, T6 155
7	06380069	1	TANK, RES. HYDRO, T6 155
8	06505044	1	FILTER, ASSY, IN-TANK, CPLT, SAE10
9	06505067	1	SIGHT GAGE
10	21627	4	NYLOCK NUT, 3/8" NC
11	22017	8	FLATWASHER, 7/16"
12	06505077	1	CAP BREATHER, 1-5/8MB
13	21680	2	CAPSCREW, 7/16" X 1-1/4" NC
14	21683	2	CAPSCREW, 7/16" X 2" NC
15	21677	4	NYLOCK NUT, 7/16" NC
16	31731	8	CAPSCREW, 20MM X 50MM (2.5 PITCH)
17	24860	16	CAPSCREW, 20MM X 40MM (2.5 PITCH)
18	06505127	1	PLUG, SAE #20
19	6T0649	1	FILTER GAUGE
20	06300332	1	MAINFRAME, T6 155 TM TSF T4B
21	06530237	10	CAPSCREW, 3/4" X 2-1/4" NC, GR8
22	6T4200	2	PLUG, PIPE 3/4"
23	6T4197	1	PLUG, PIPE, 1/8"
24	33880	64	FLATWASHER, 3/4" GR8, SAE

TRACTOR MOUNT KIT - HYDRAULICS



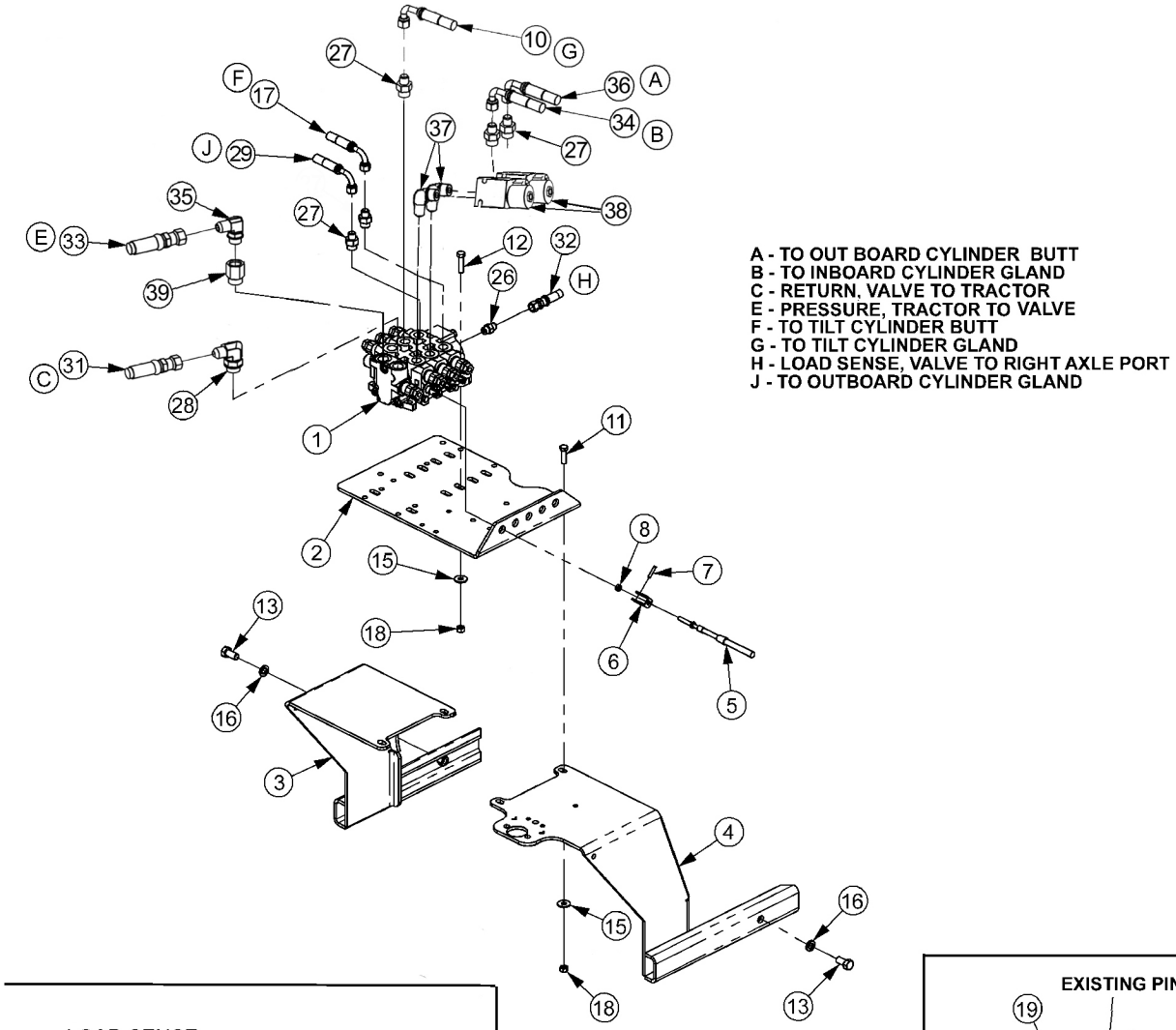
NH T6.155 T4B TWIN ROTARY

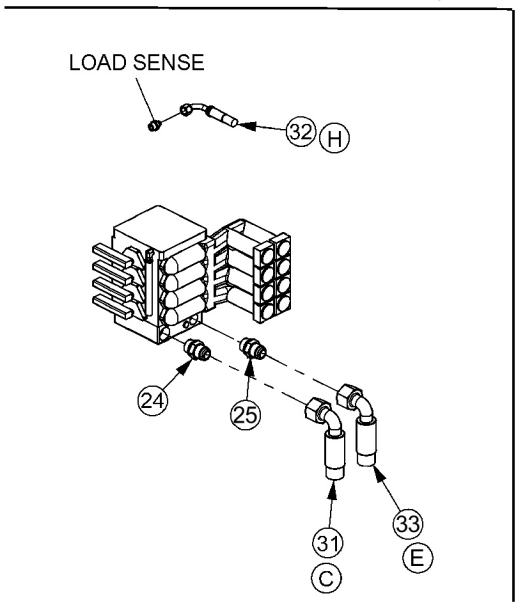
TRACTOR MOUNT KIT - HYDRAULICS

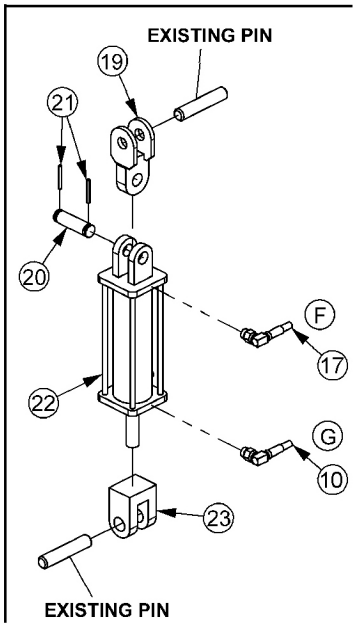
Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06300332	1	MAINFRAME, SIDE MOWER
2	06510083	1	BRAKE VALVE
3	33555	3	ADAPTER, 1"MB X 1"MJ
4	33554	1	ELBOW, 1"ORB X 1" FJX 45°
5	22016	2	FLATWASHER, 3/8" GR8
6	21644	2	CAPSCREW, 3/8" X 5" NC
7	21627	2	NYLOCK NUT, 3/8" NC
8	06504002	1	PUMP, TANDEM
9	06700204	1	TANK, RES, WW, T6 155
10	06503084	1	ELBOW, 1-1/2" FOR X 1-1/2" FOR
11	06503083	1	ADAPTER, 1-1/2"ORB X 1-1/2"ORB
12	34309	1	BALL VALVE
13	34710	1	ADAPTER, 1-1/2"ORB X 1-1/2"MJ
14	TF4852	2	KIT, FLANGE #20
15	06500360	1	HOSE, 1" X 149"
16	06500760	1	HOSE, 1-1/2" X 126"
17	---	1	HOSE, PRESSURE TO MOWER
18	----	1	HOSE, RETURN FROM MOWER
19	06500274	1	HOSE, 1" X 74"
20	33401	1	HOSE, 1" X 172"
21	06500779	1	HOSE, 1" X 185"
22	06500778	1	HOSE, 1-1/4" X 38"
23	06700166	1	COOLER
25	34117	2	ELBOW, 1"MB X 1"MJ
26	TF4854	2	KIT, FLANGE #24

CABLE (MANUAL) LIFT VALVE - 3 SPOOL







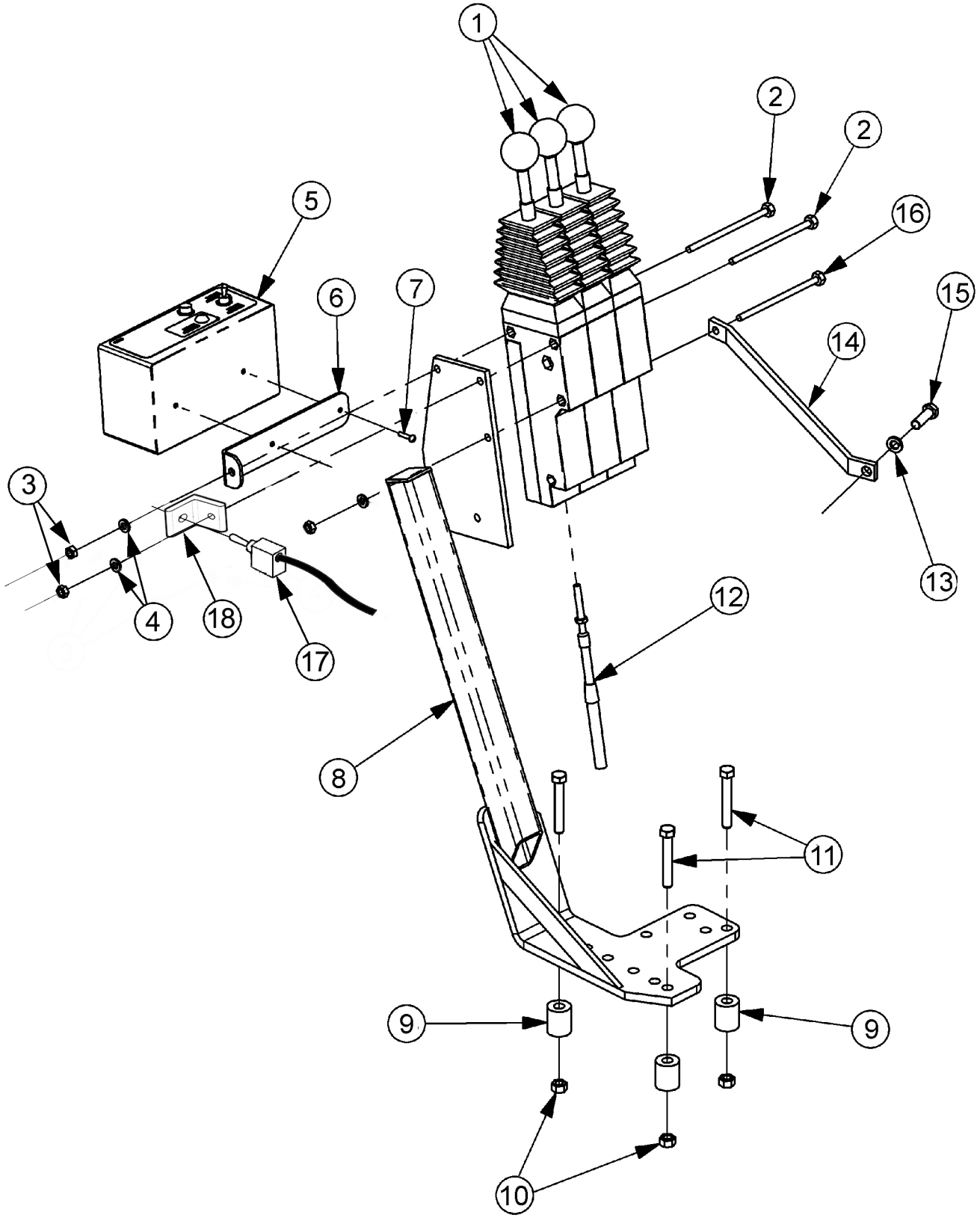
NH T6.155 T4B TWIN ROTARY

CABLE (MANUAL) LIFT VALVE - 3 SPOOL

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06502044	1	VALVE,3 SPOOL,LS,COMBO LIFT
2	34622	1	VALVE MOUNTING PLATE
3	06340008	1	VALVE MOUNT, LF
4	06340009	1	VALVE MOUNT, RF
5	06505100	3	CONTROL CABLE,108”
6	6T4411	3	CABLE CLEVIS
7	6T3017	3	ROLL PIN
8	21500	3	HEX NUT,1/4”,UNF
10	34633	1	HOSE, 1/4" X 66"
11	21631	4	CAPSCREW,3/8” X 1-1/4”,NC
12	21630	4	CAPSCREW,3/8” X 1”,NC
13	21729	2	CAPSCREW,1/2” X 1”,NC
14	21629	3	CAPSCREW,3/8" X 3/4",NC
15	22016	8	FLATWASHER,3/8”
16	21990	2	LOCKWASHER,1/2"
17	34634	1	HOSE, 1/4" X 66"
18	21625	8	HEX NUT,3/8”,NC
19	06370055	1	CLEVIS, CASE MXM, UPPER
20	TB1033	1	PIN,CLEVIS
21	TB1023	2	ROLL PIN,7/32" X 2"
22	30481	1	CYLINDER, 3" X 8"
23	27519	1	CLEVIS,3PT, LOWER
24	06503012	1	ADPTR,27MM MOR X 3/4"MJ
25	33463	1	ADAPTER,22MM MOR X 1/2"MJ
26	32901	1	ADAPTER,3/8"MOR X 3/8"MJ
27	33271	7	ADAPTER,1/2"MOR X 3/8"MJ
28	33293	1	ELBOW, 1/2"MOR X 1/2"MJ
29	06500311	1	HOSE, 1/4" X 156"
31	06500339	1	HOSE,1/2" X 35" (RETURN)
32	06500913	1	HOSE,1/4" X 20"
33	34612	1	HOSE,1/2" X 34" (PRESSURE)
34	34631	2	HOSE,1/4" X 126"
35	33383	1	ELBOW, 5/8"MB X 1/2" MJ
36	34632	1	HOSE, 1/4" X 115"
37	33382	2	ELBOW, 1/2"MB X 1/2"MJ
38	06510050	2	TRAVEL LOCK, METRIPACK COIL
39	32678	1	ADAPTER, 5/8"ORB X 1/2"FOR

3 SPOOL CABLE CONTROL MOUNT

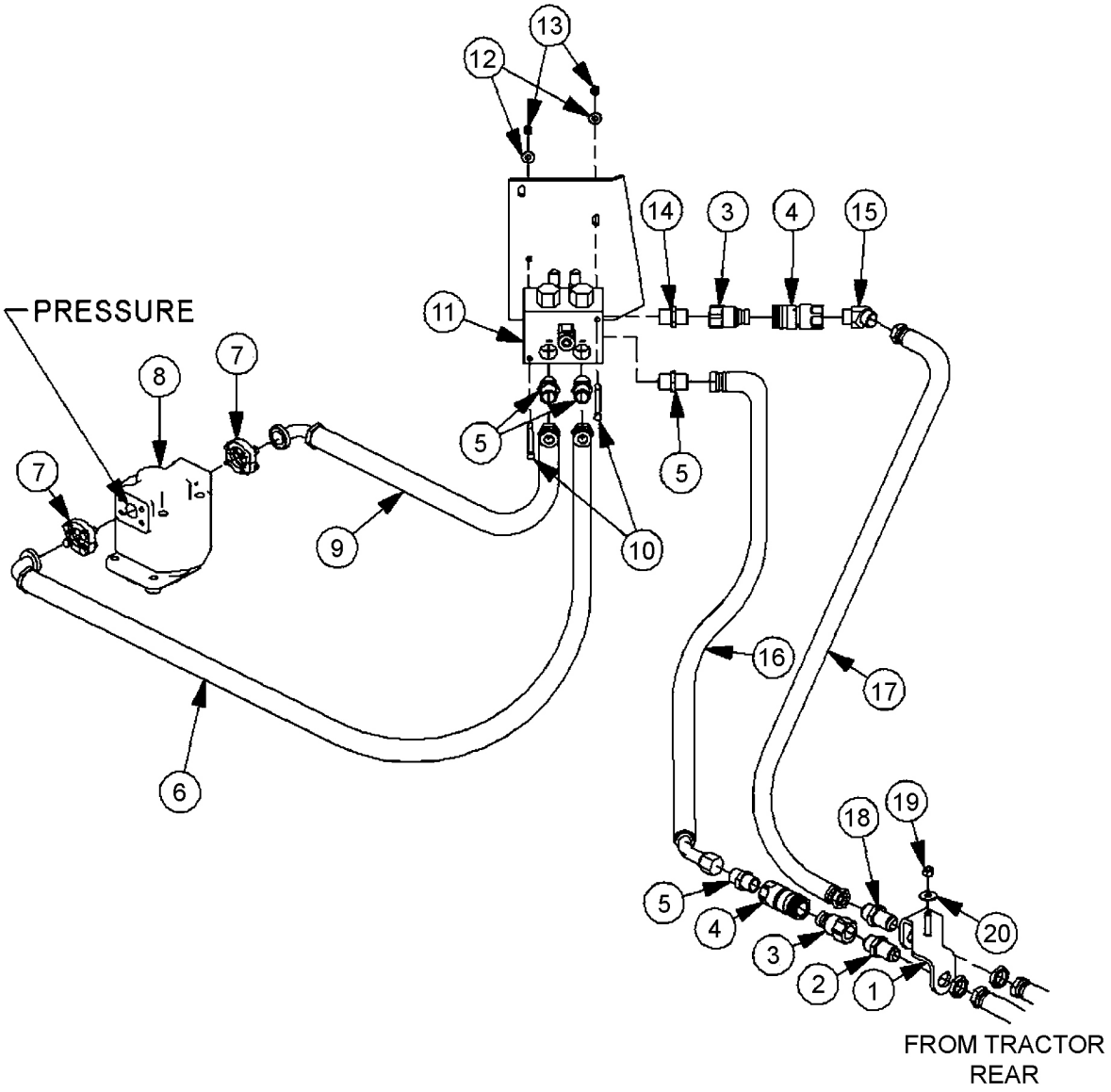


NH T6.155 T4B TWIN ROTARY

3 SPOOL CABLE CONTROL MOUNT

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	6T1251	3	CBL CTRL BOX,180 DEG
2	21542	2	CAPSCREW,1/4" X 5-1/2",NC
3	21525	3	HEX NUT,1/4",NC
4	21986	3	LOCKWASHER,1/4"
5	06510097	1	SWITCHBOX, TWIN/T3F
6	34496	1	BRKT,SWITCHBOX,UNI
7	6T3951	2	SCREW,MACHINE,8-32 X 1/2"
8	23865B	1	CBL CTRL MT BRKT
9	27082B	3	SPACER
10	21627	3	NYLOCK NUT,3/8",NC
11	21635	3	CAPSCREW,3/8" X 2-1/4" NC
12	06505100	3	CBL,CNTRL,108"
13	32691	1	LOCKWASHER,10MM
14	30750A	1	BRKT,CBL CTRL
15	23113	1	CAPSCREW,10MM X 30MM,1.5P
16	21545	1	CAPSCREW,1/4" X 6",NC
17	34532	1	SWITCH, TRAVEL LOCK
18	34874	1	BRACKET, SWITCH

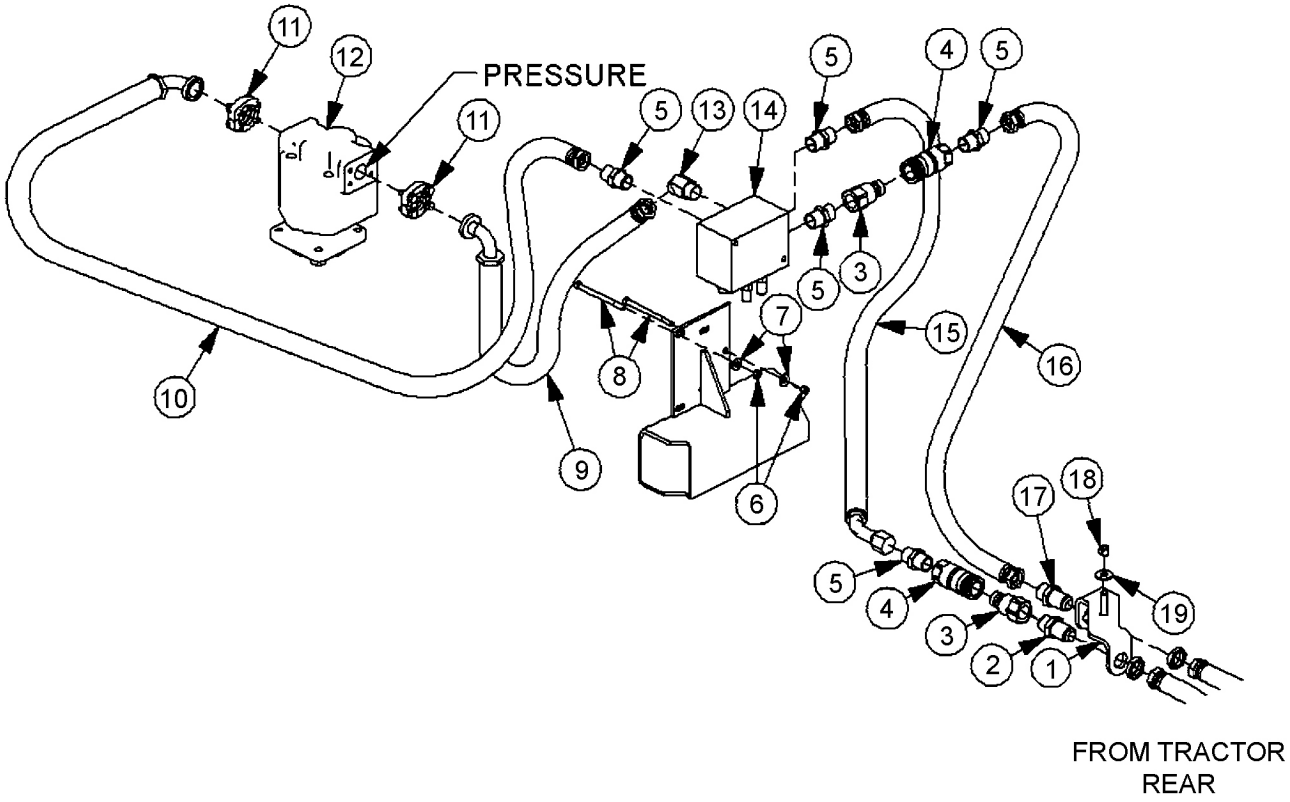


NH T6.155 T4B TWIN ROTARY

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 45º
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

TSR REAR MOWER HYDRAULICS

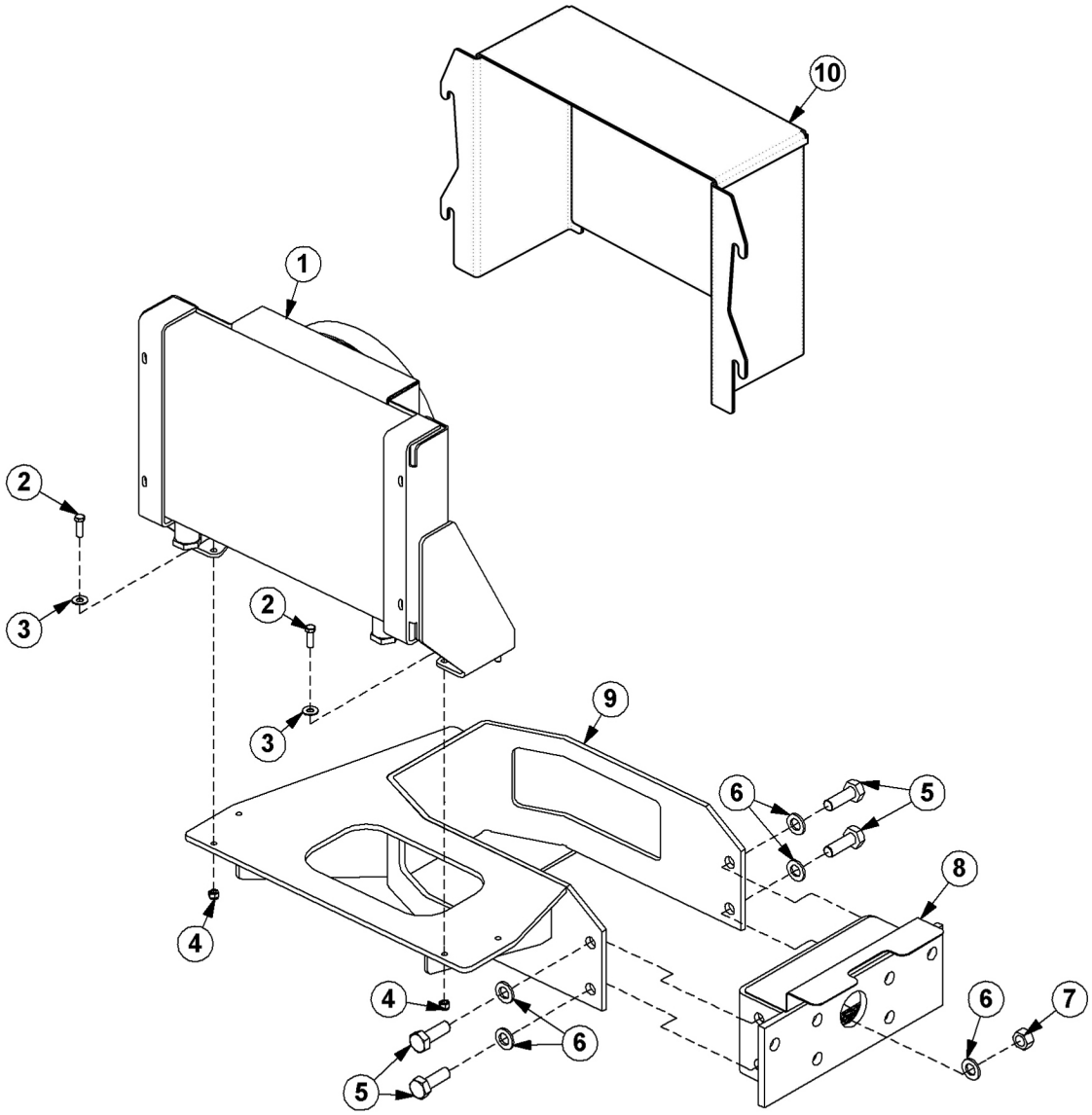


NH T6.155 T4B TWIN ROTARY

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 45º
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

COOLER MOUNT



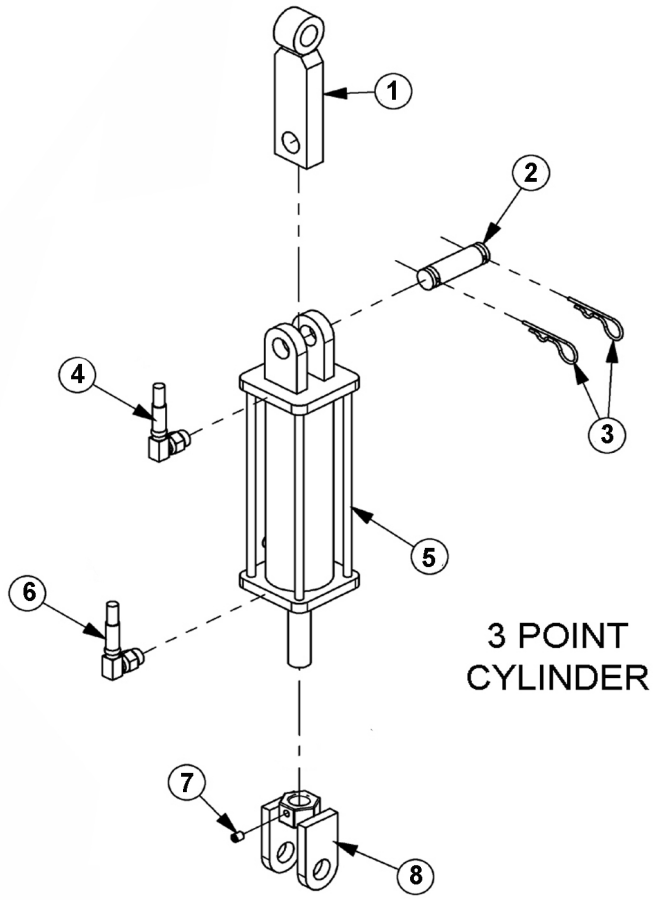
NH T6.155 T4B TWIN ROTARY

COOLER MOUNT

Continued...

ITEM	PART NO.	QTY.	DESCRIPTION
1	06700166	1	COOLER,ELEC TERM,ASSY
2	21631	2	CAPSCREW,3/8"X1 1/4", NC,GR8
3	22016	2	FLATWASHER,3/8",GR8
4	21627	2	NYLOCK NUT,3/8" NC
5	21833	4	CAPSCREW,3/4" X 2-1/4" NC
6	33880	8	FLATWASHER,3/4",GR 8,SAE
7	21825	4	HEX NUT,3/4" NC
8	-----	-	PUMP MTG BRKT* REFER TO TRACTOR MOUNT KIT
9	06380072	1	MNT,CLR,FRNT,UNI
10	06370060	1	SCREEN, COOLER, REAR

TILT CYLINDER



ITEM	PART NO.	QTY.	DESCRIPTION
1	06370055	1	CLEVIS, CASE MXM, UPPER
2	TB1033	1	PIN
3	6T3004	2	R-CLIP
4	34634	1	HOSE, 1/4" X 66"
5	30481	1	CYLINDER, 3" X 8"
6	34633	1	HOSE, 1/4" X 66"
7	6T2272	1	SETSCREW, 3/8" X 1/2" NC
8	27519	1	CLEVIS, 3PT, CASE MAXXUM, TRR, LWR

PARTS SECTION

NOTES

PART NAME INDEX

COMMON TWIN

PART NAME INDEX

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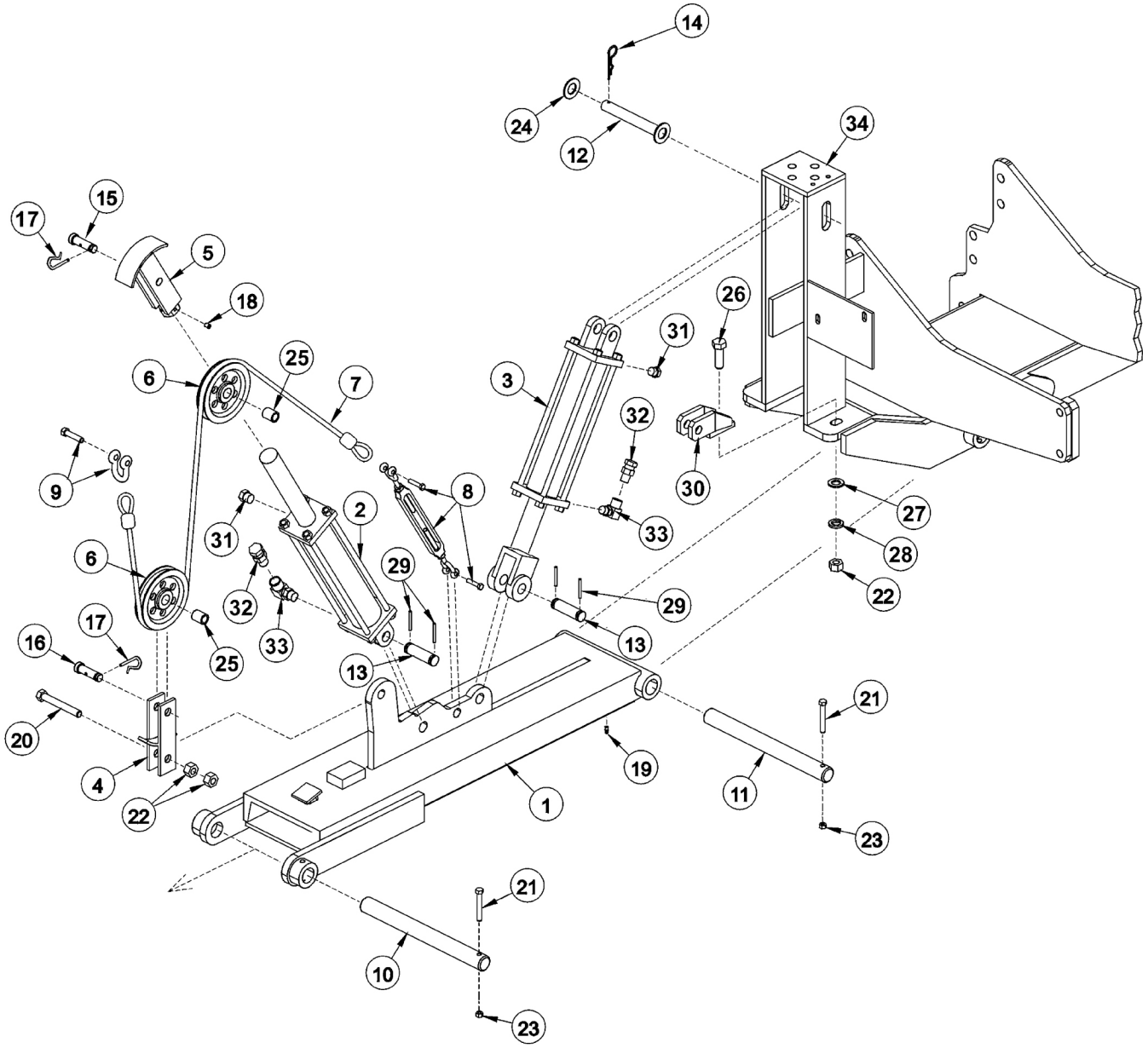
For maximum safety and to guarantee optimum product reliability, always use genuine **Tiger** replacement parts. The use of inferior replacement parts may cause premature or catastrophic failure which could result in serious injury or death.

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



COMMON TWIN

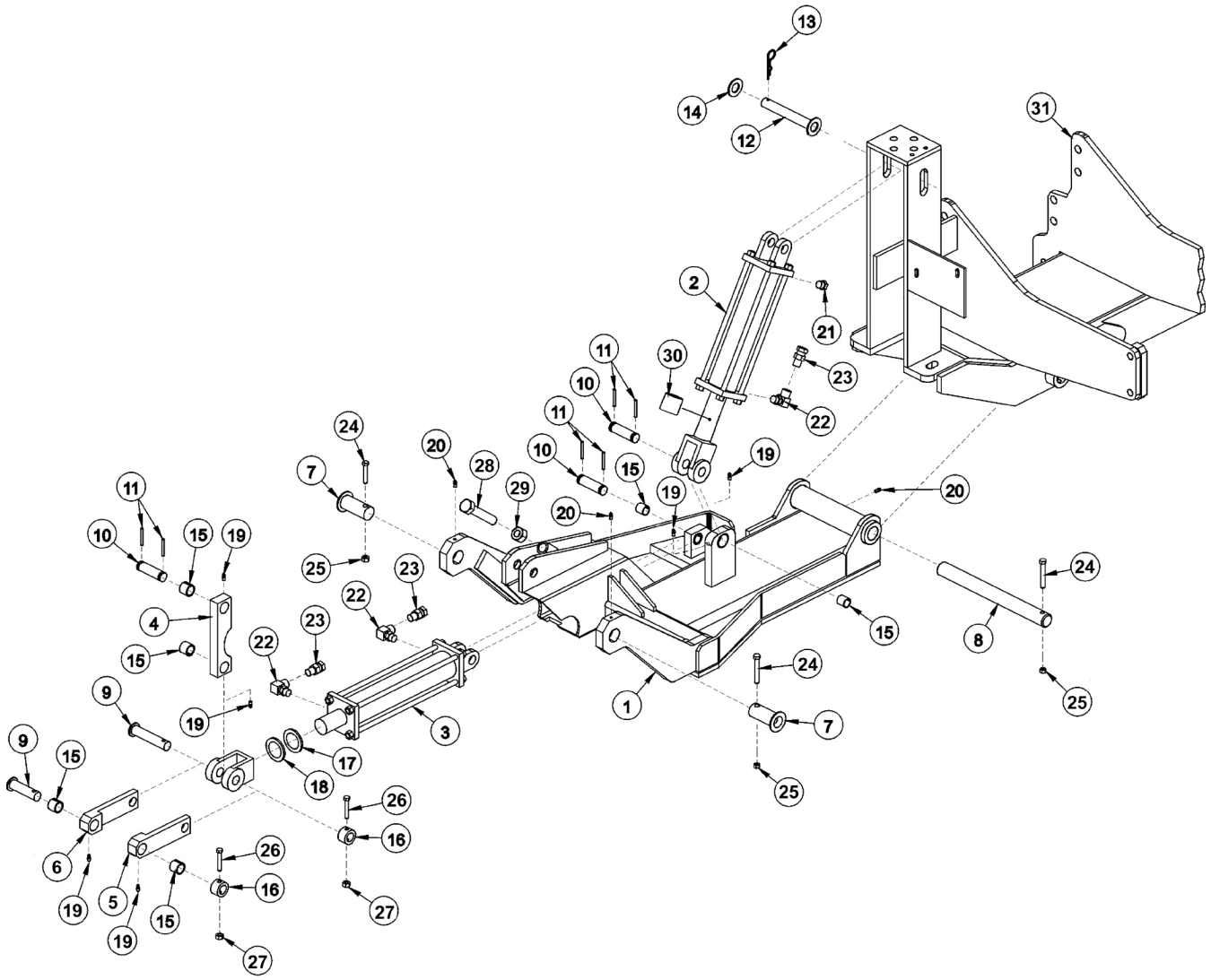
CABLE DRAFT BEAM ASSEMBLY

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**

COMMON TWIN

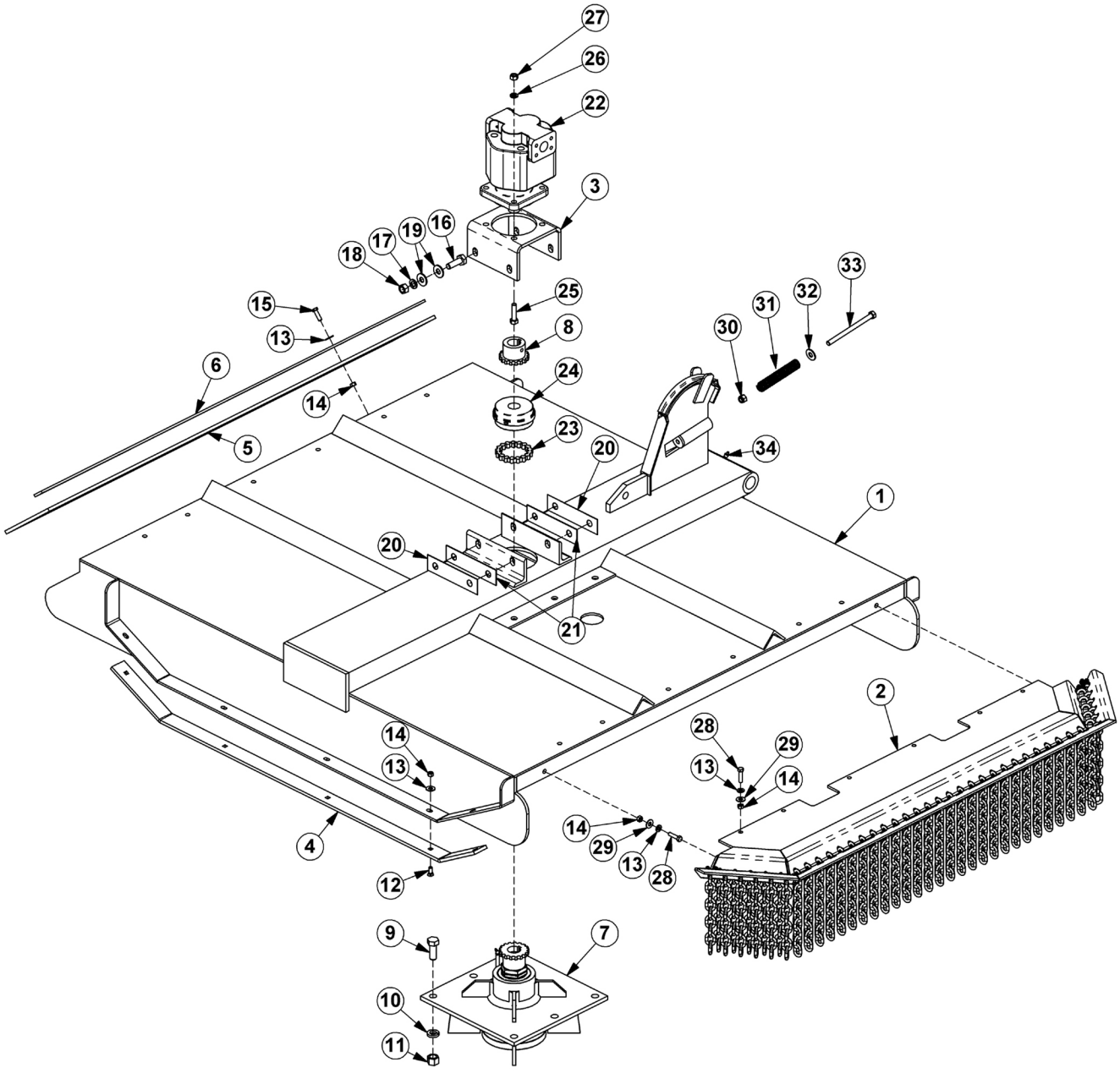
COMBO DRAFT BEAM ASSEMBLY

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



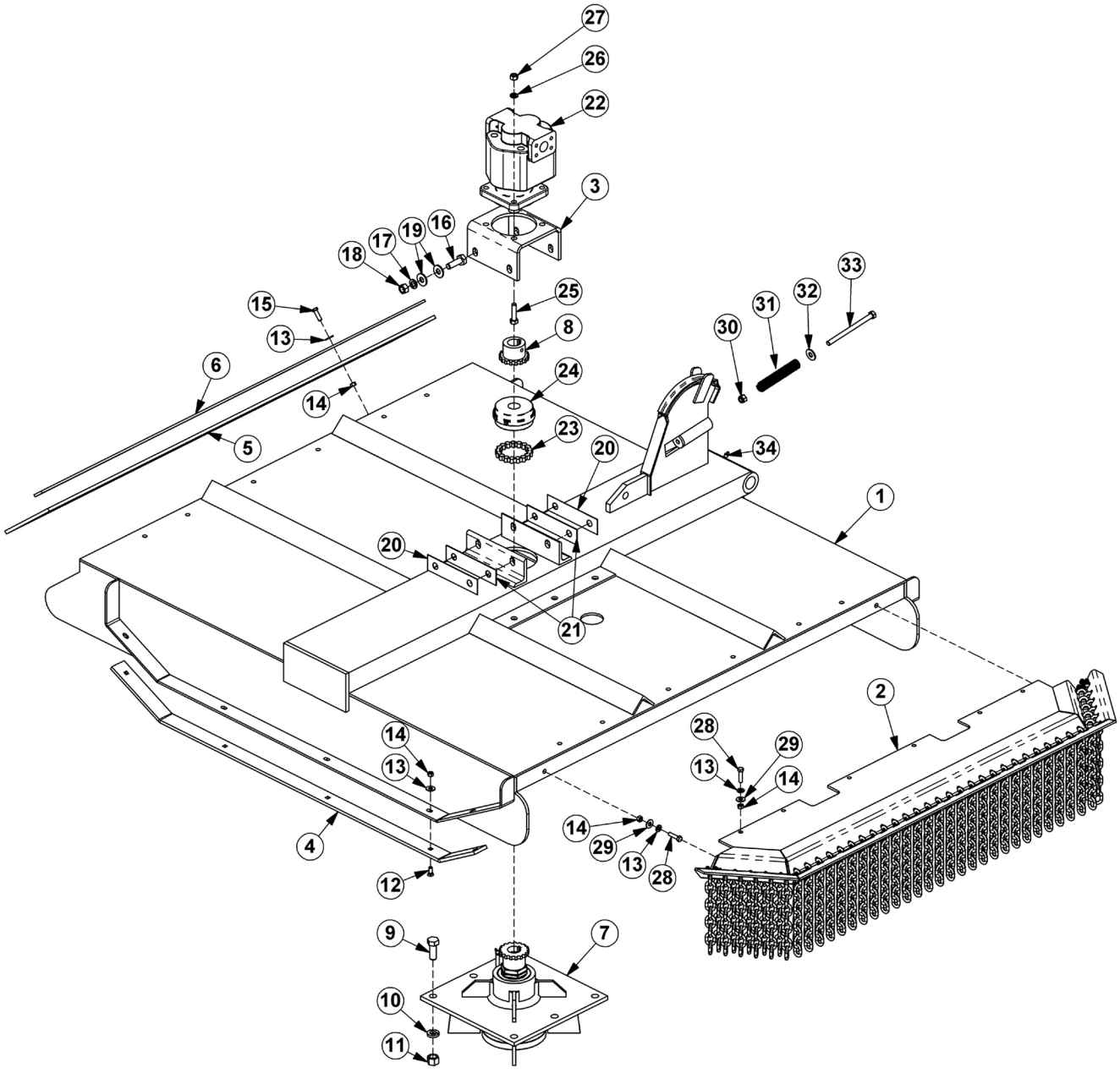
COMMON TWIN

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



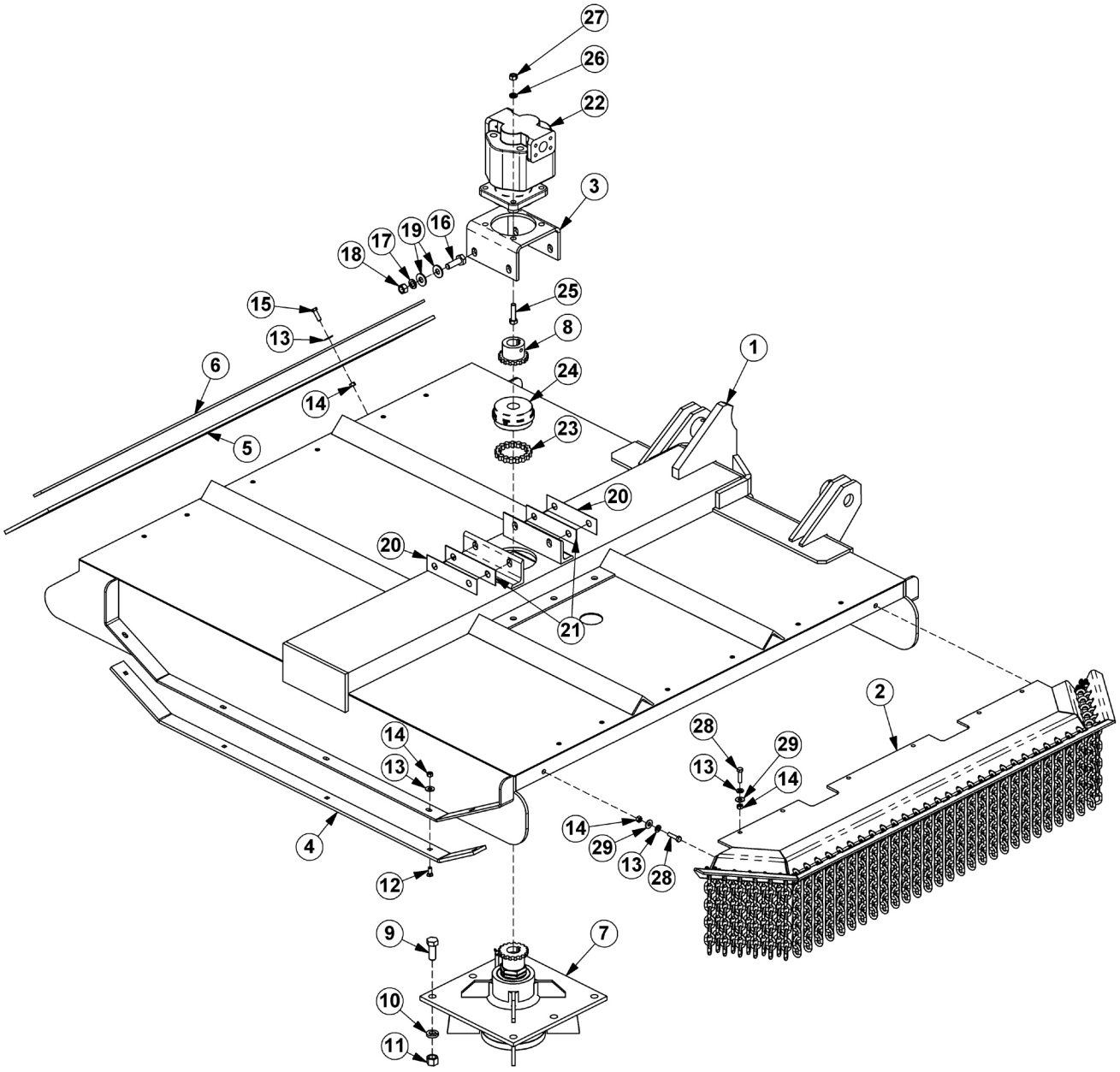
COMMON TWIN

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



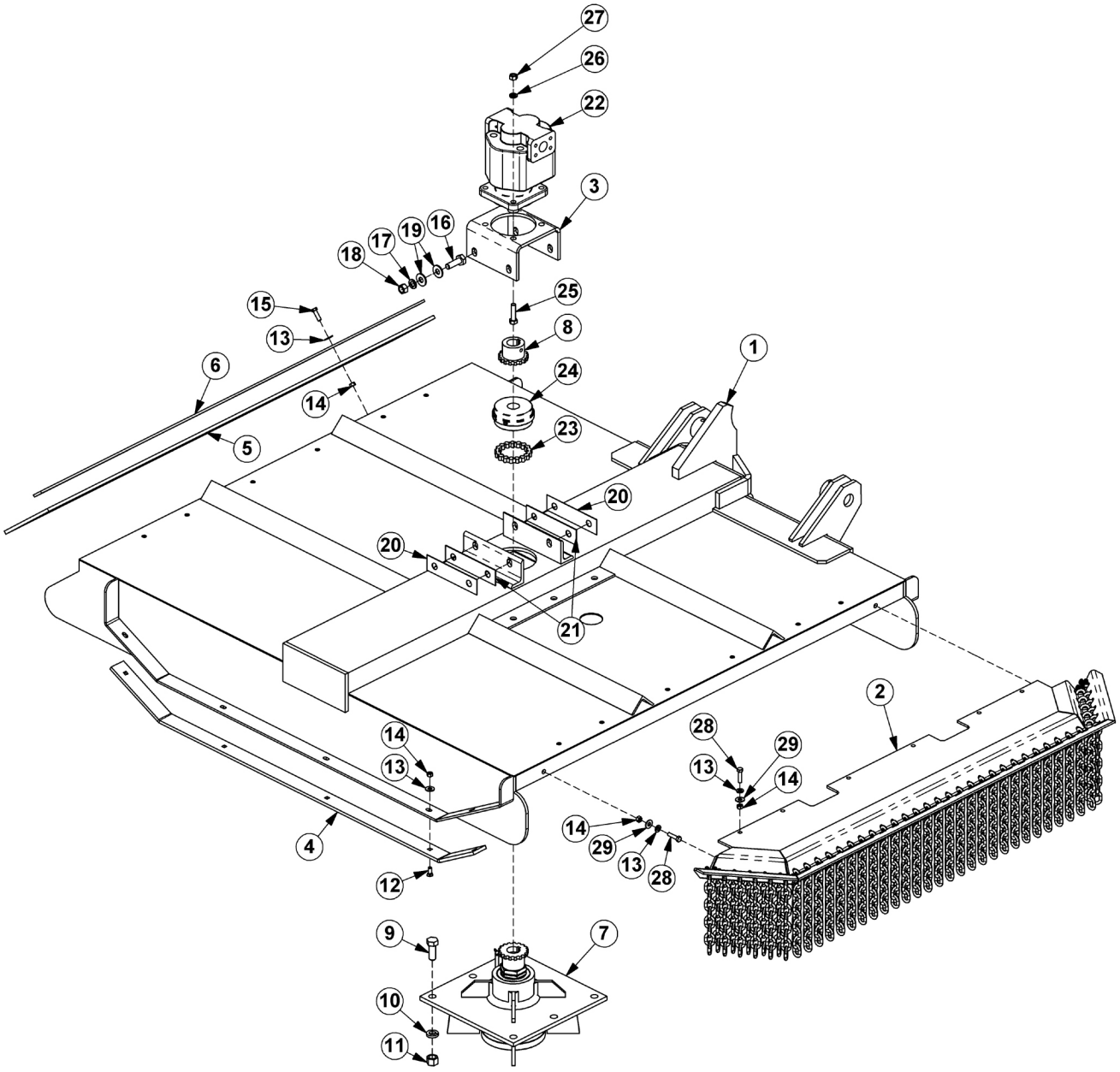
COMMON TWIN

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



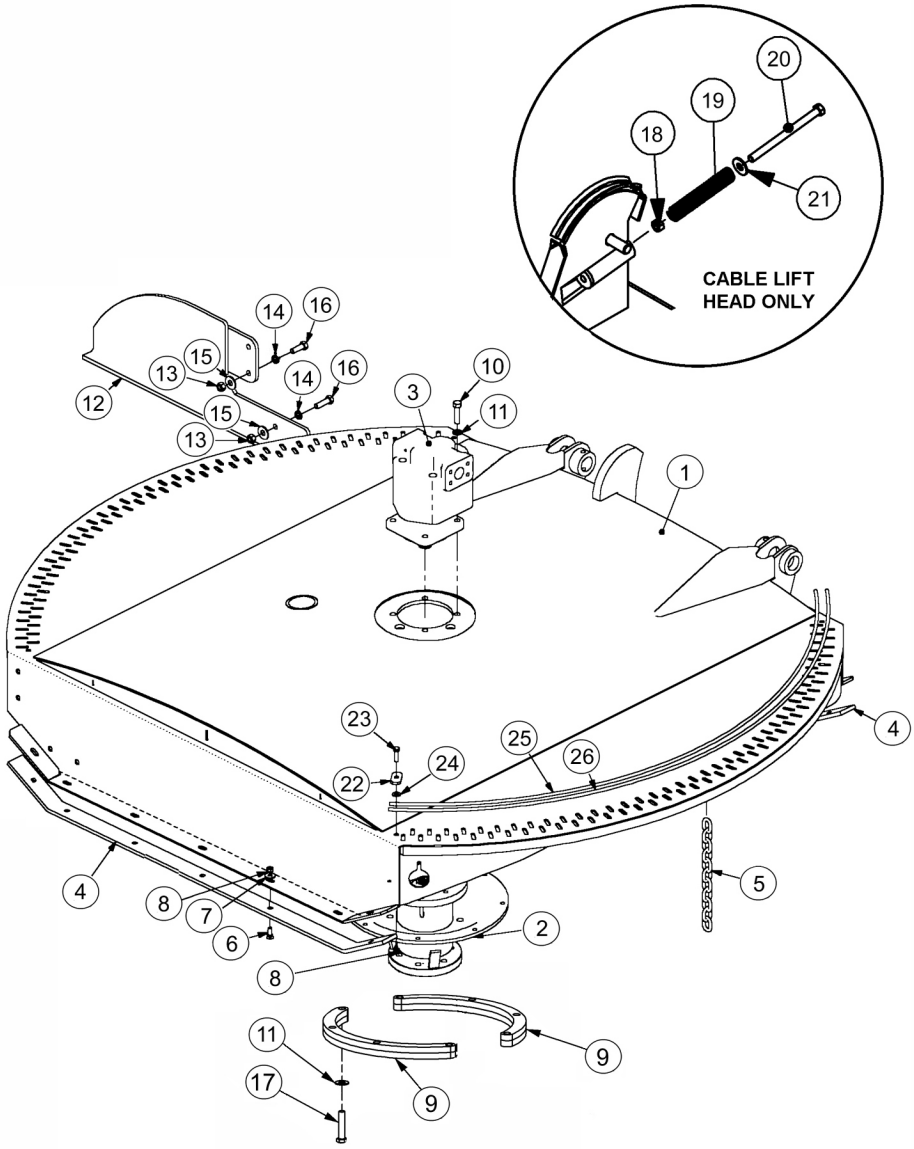
COMMON TWIN

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



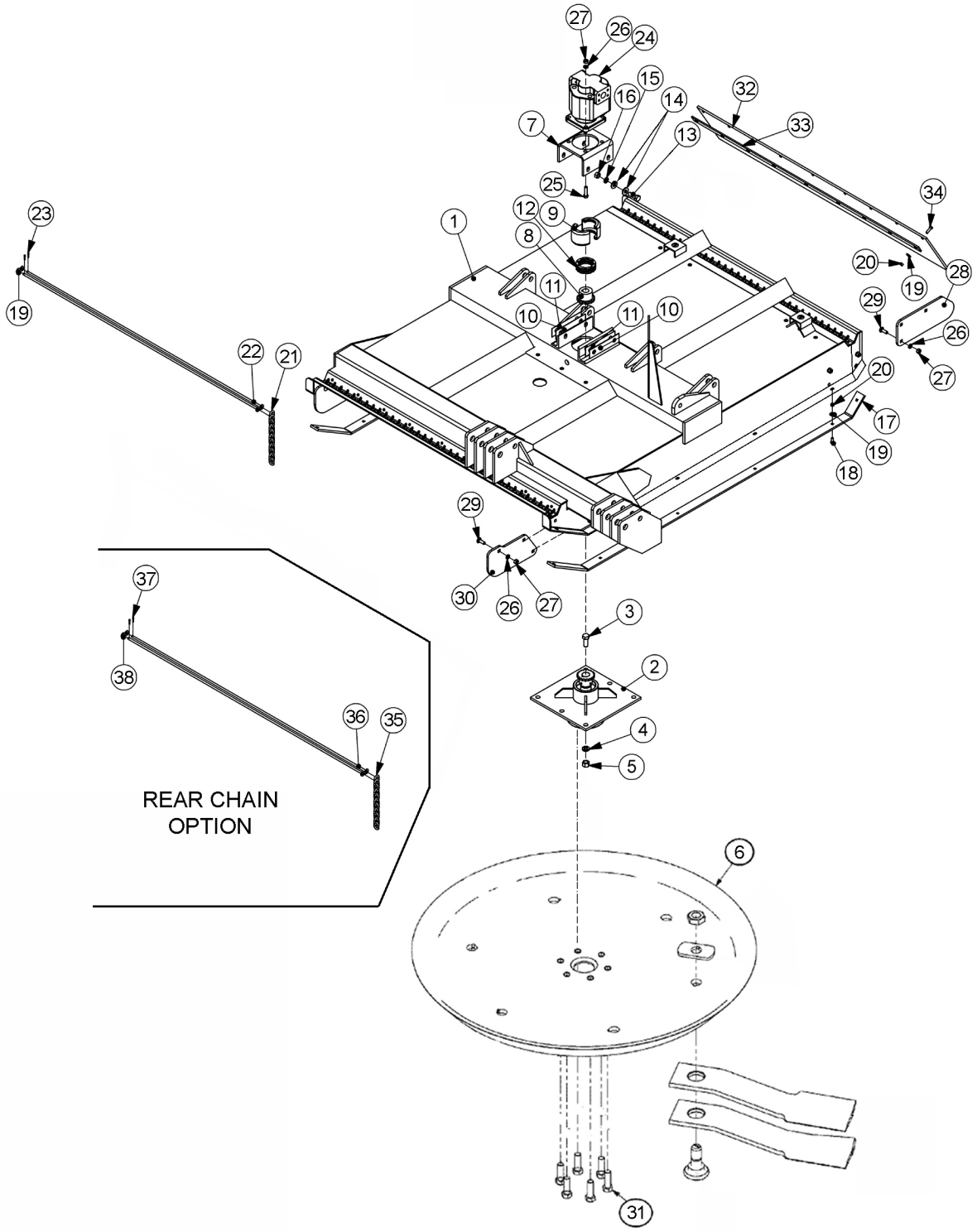
COMMON TWIN

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



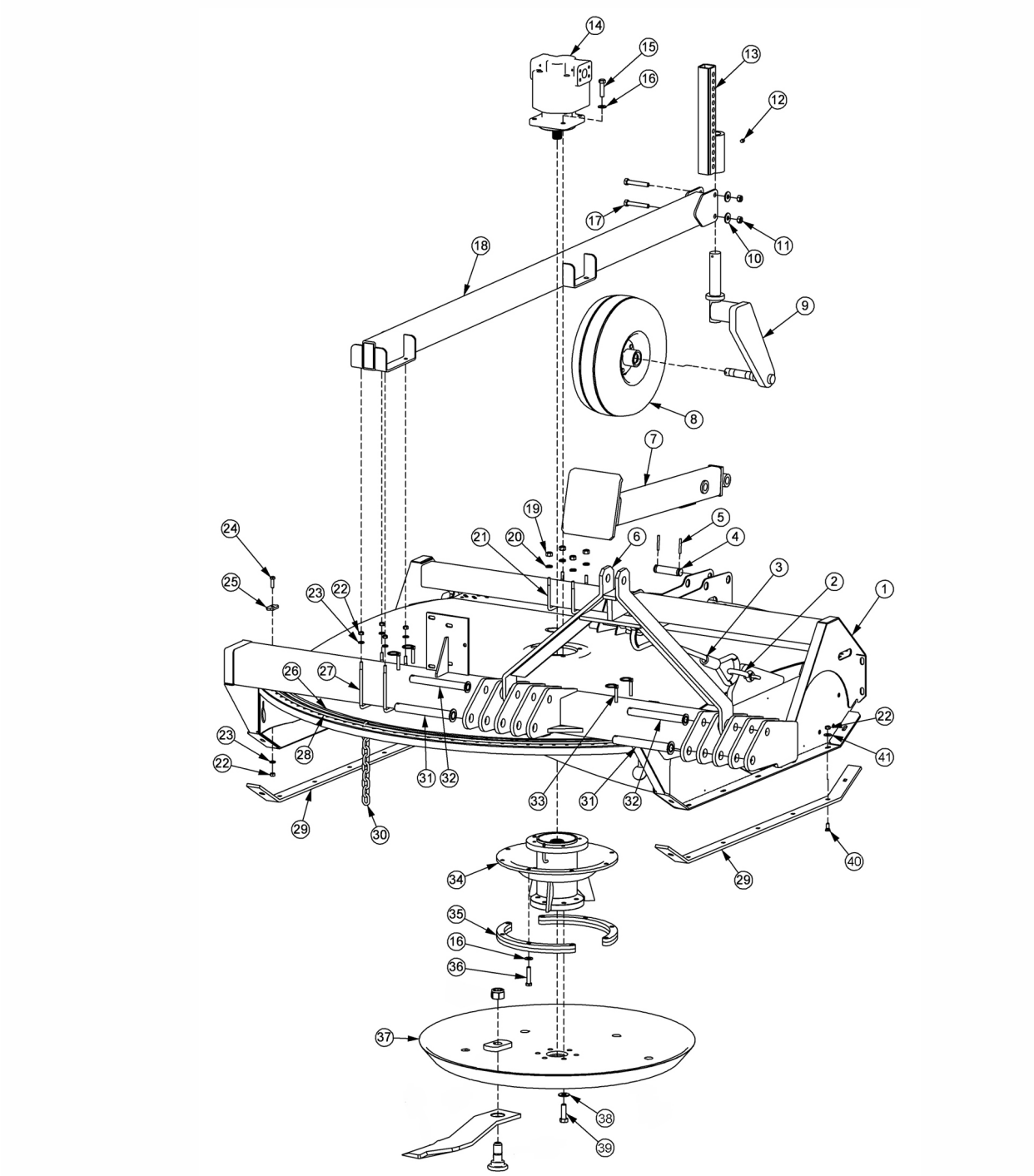
COMMON TWIN

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

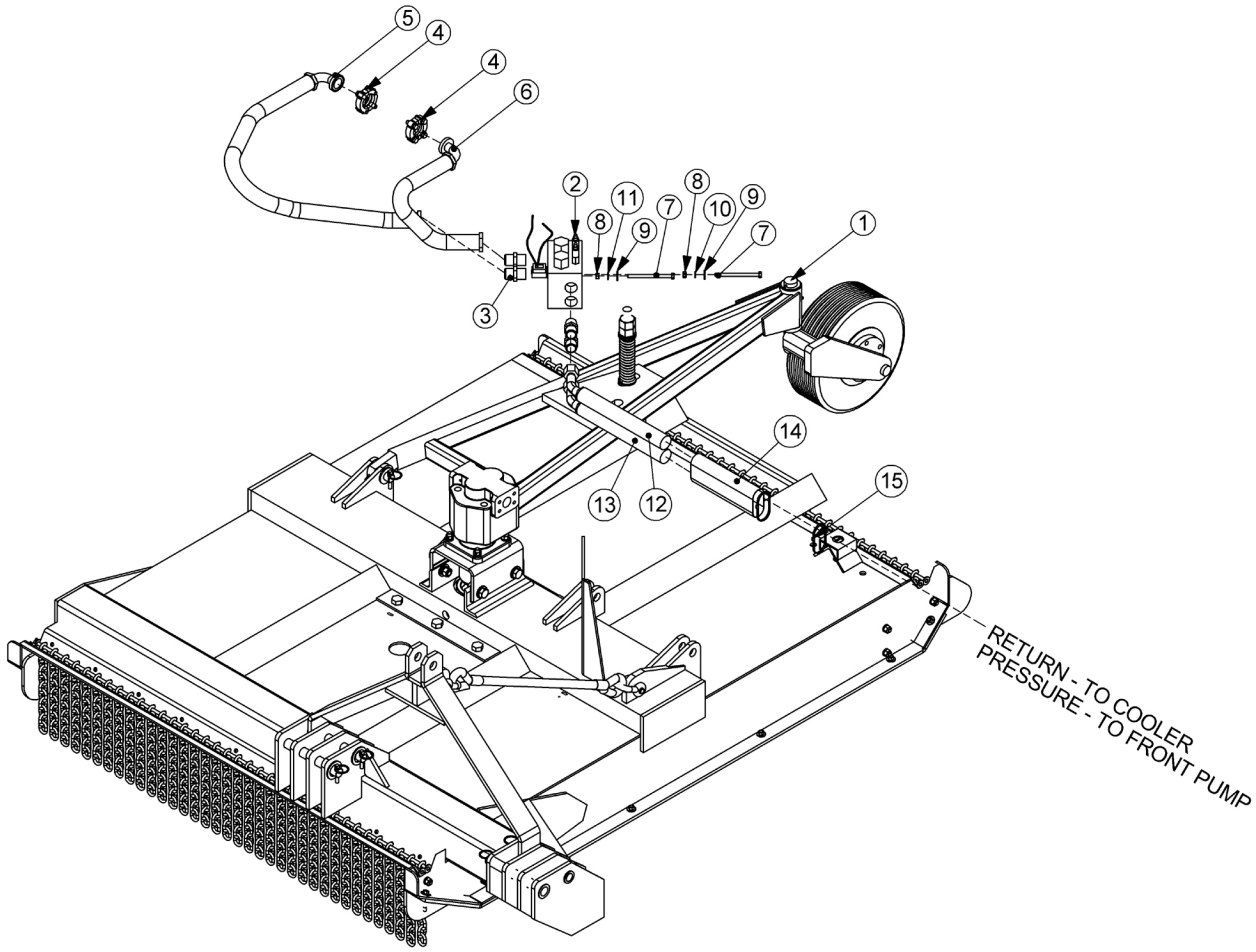
COMMON TWIN

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



COMMON TWIN

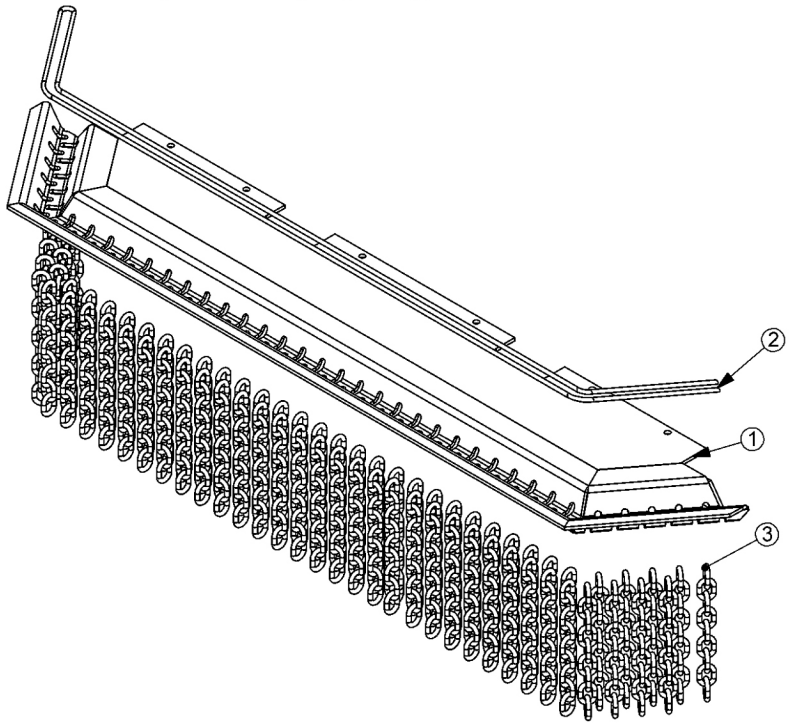
Continued...

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

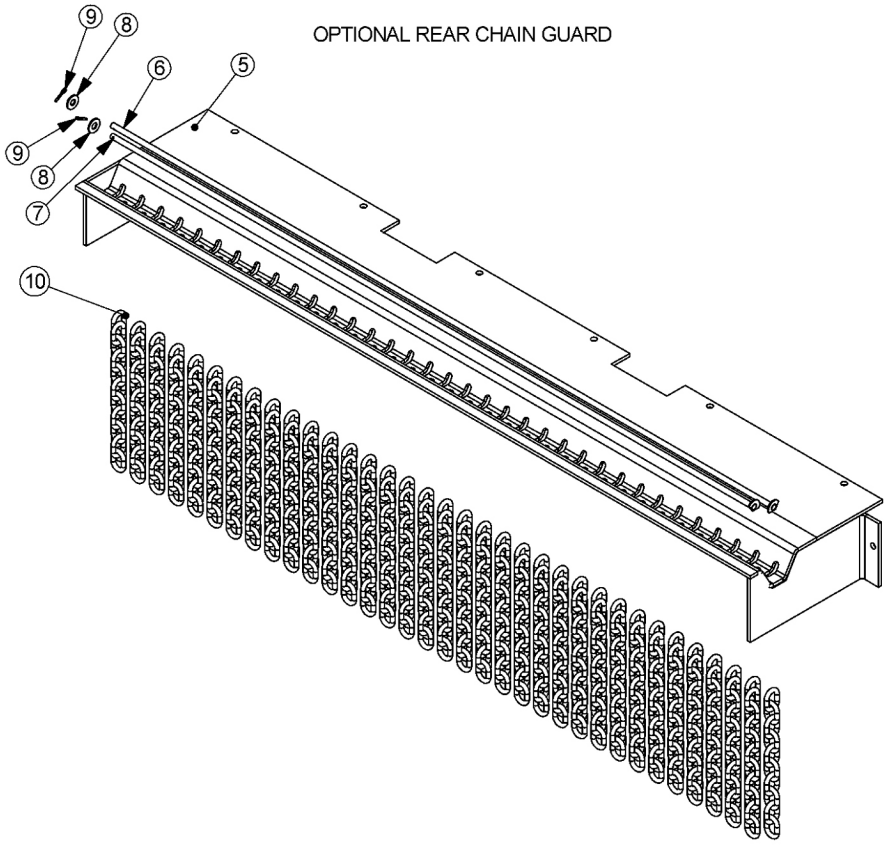
COMMON TWIN

60IN SIDE TM CHAIN GUARDS

STANDARD FRONT CHAIN GUARD



OPTIONAL REAR CHAIN GUARD



COMMON TWIN

60IN SIDE TM CHAIN GUARDS

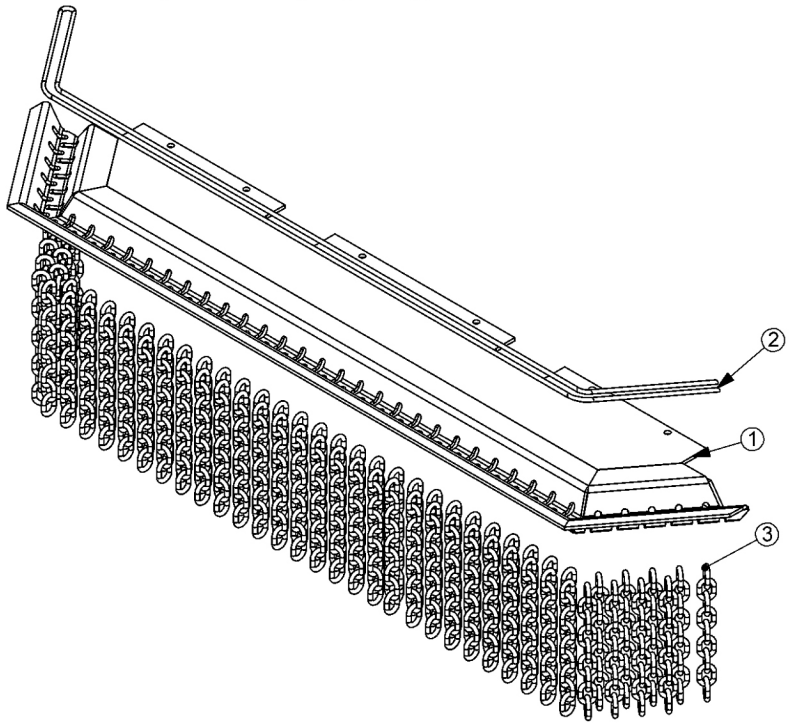
Continued...

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

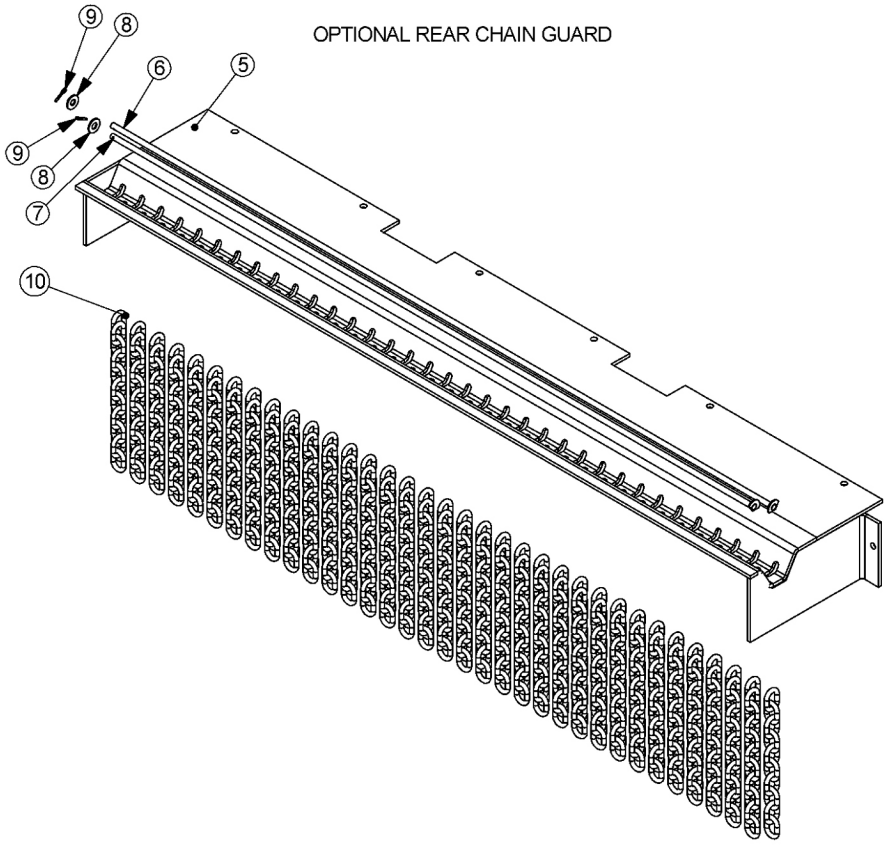
COMMON TWIN

72IN SIDE TM CHAIN GUARDS

STANDARD FRONT CHAIN GUARD



OPTIONAL REAR CHAIN GUARD



COMMON TWIN

72IN SIDE TM CHAIN GUARDS

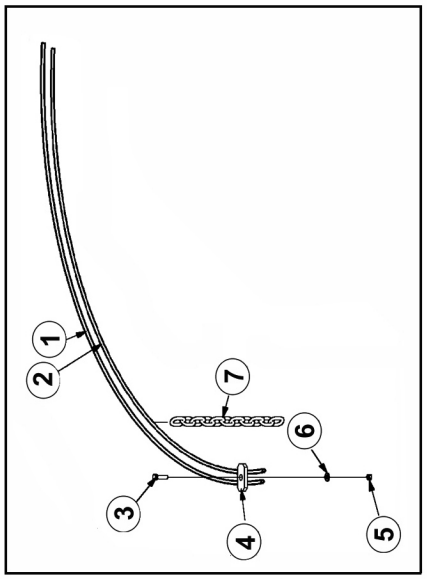
Continued...

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

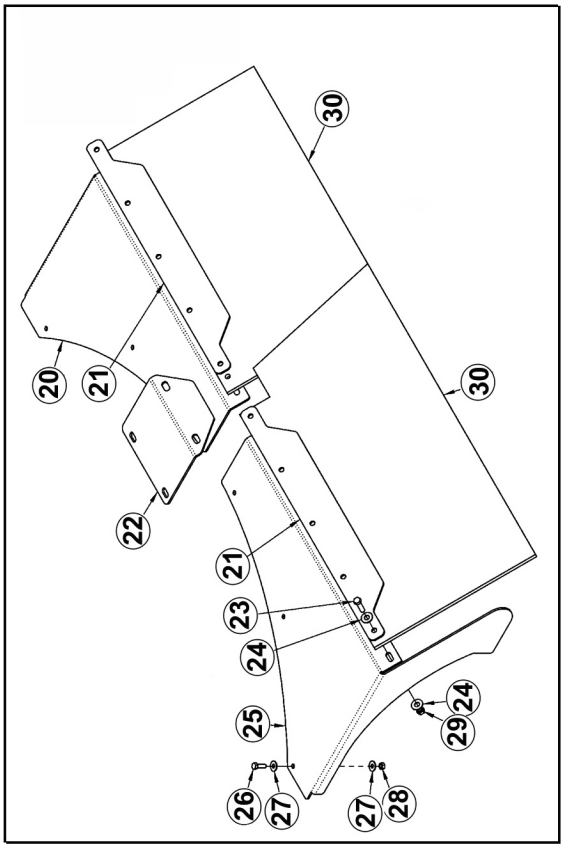
COMMON TWIN

60IN TSR REAR GUARDS

OPTIONAL REAR CHAIN GUARD



STANDARD SQUARE REAR FLAP GUARD



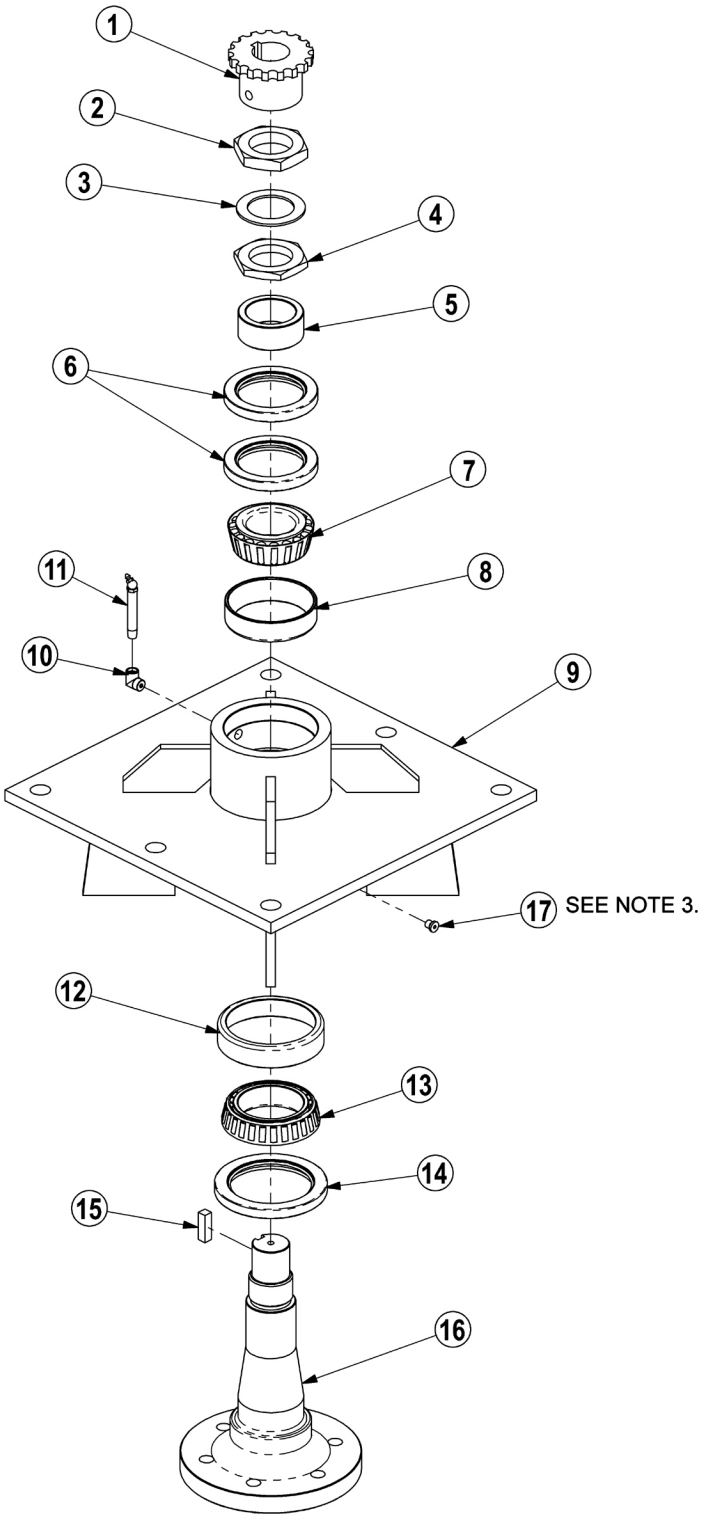
COMMON TWIN

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.

COMMON TWIN

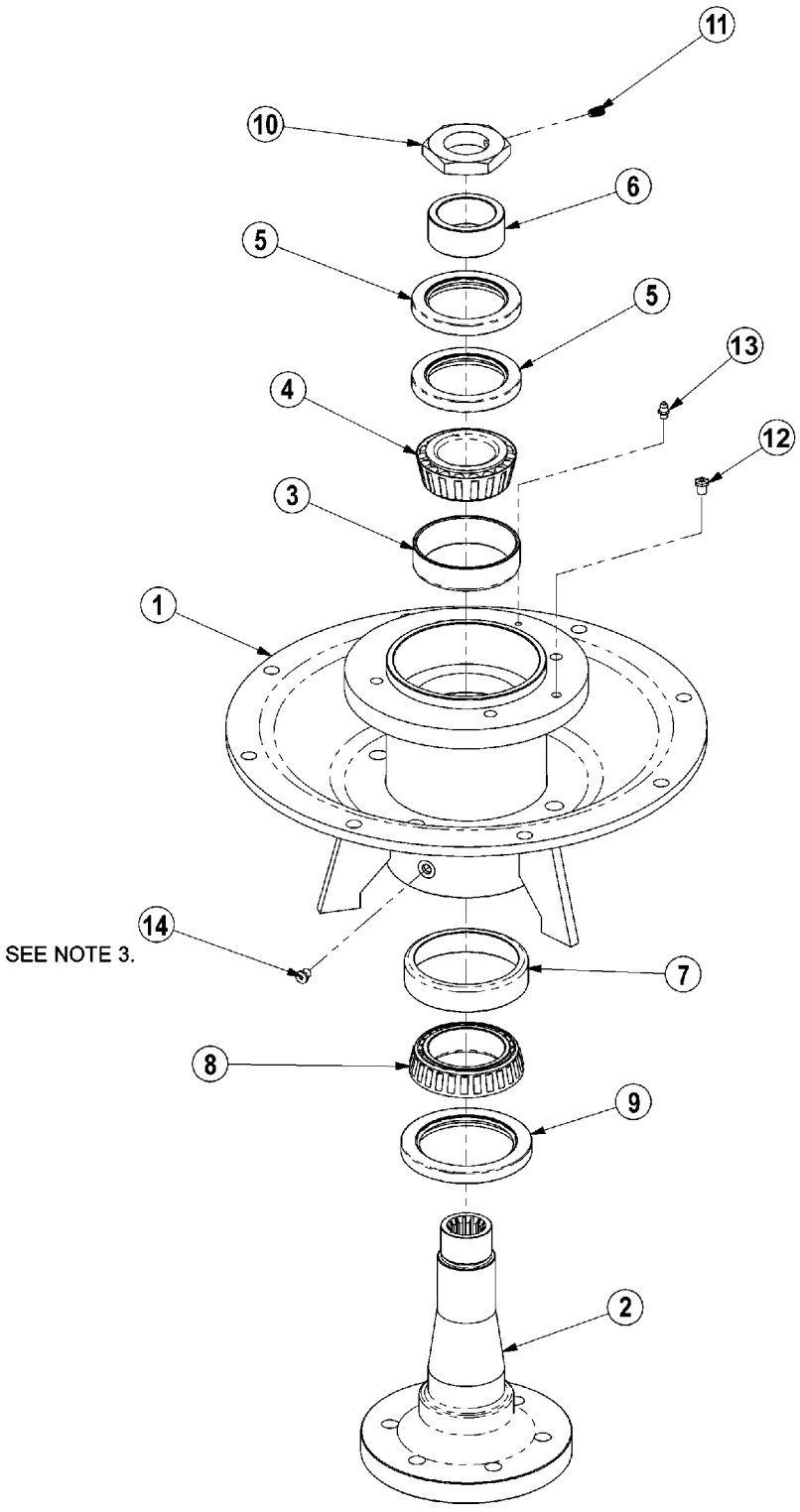
TM MOWER SPINDLE ASSEMBLY

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.

COMMON TWIN

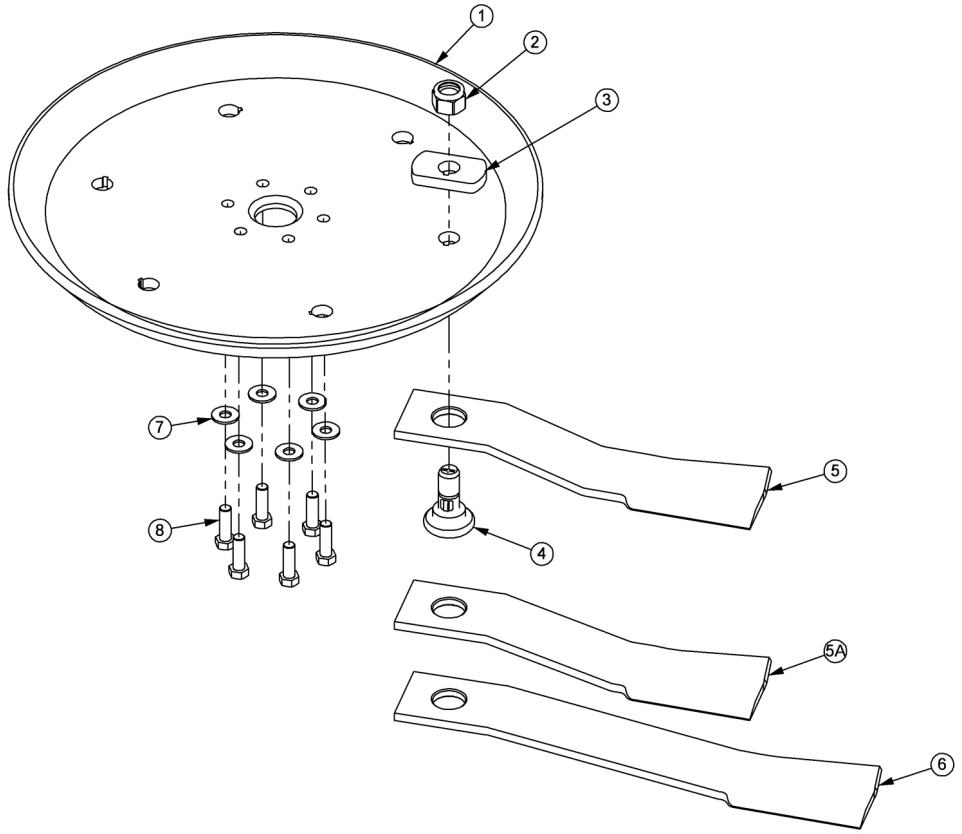
TSR MOWER SPINDLE ASSEMBLY

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

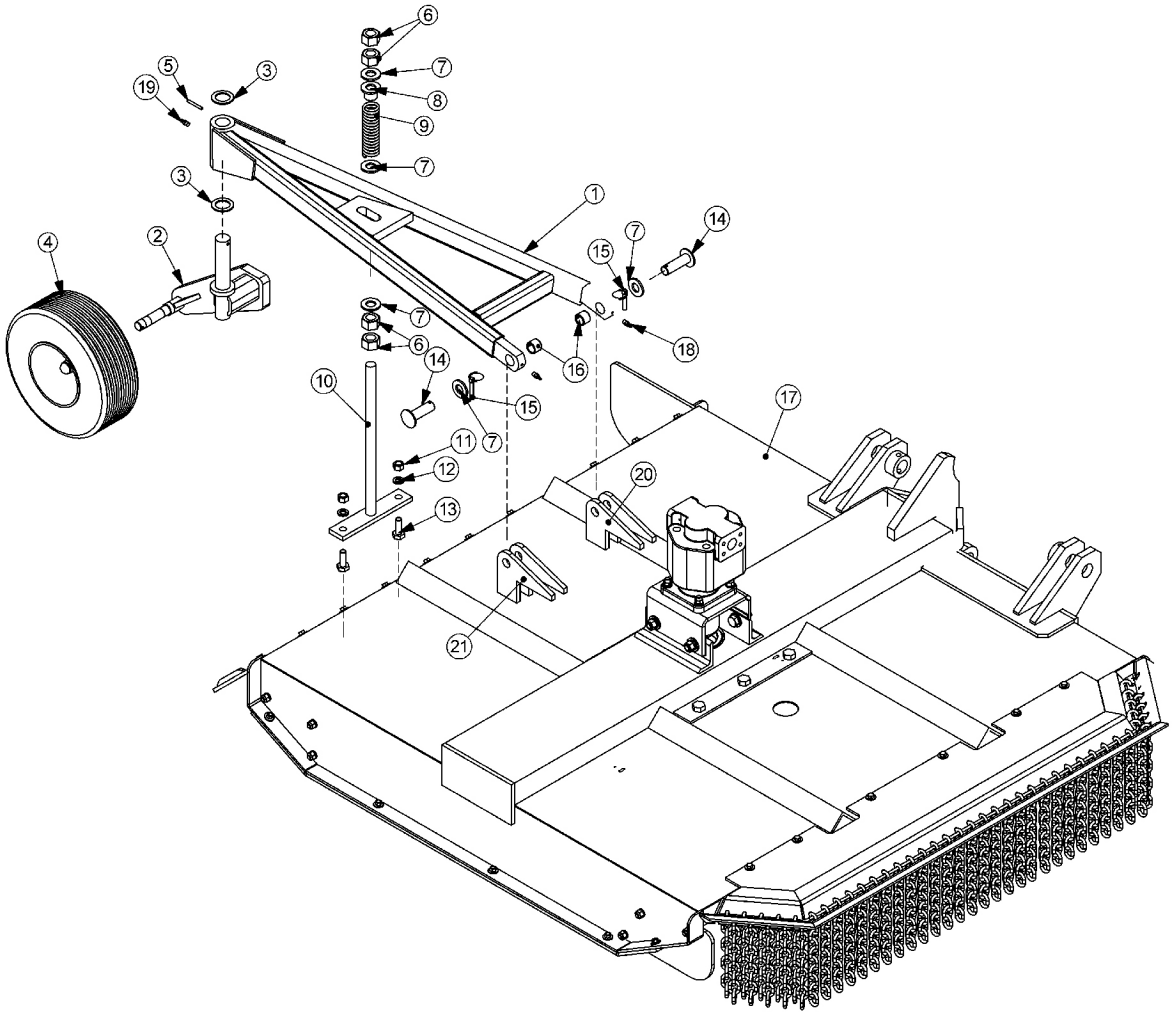


ITEM	PART NO.	QTY.	DESCRIPTION
1	34876	1	BLADE MOUNTING DISK
2	6T1023R	2	NYLOCK NUT,1-1/8”
3	34878	2	SPACER
4	34497	2	KNIFE MOUNTING BOLT
5	34685	2	KNIFE,60" HIGH SUCTION - STANDARD
5A	34684	2	KNIFE,60" - OPTIONAL
6	34682	2	KNIFE 72” (MOUNT ON 72” MOWER ONLY)
7	25270	6	FLATWASHER,5/8",USS,GR8
8	6T2259	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

SIDE ROTARY CASTER WHEEL ASSEMBLY



COMMON TWIN

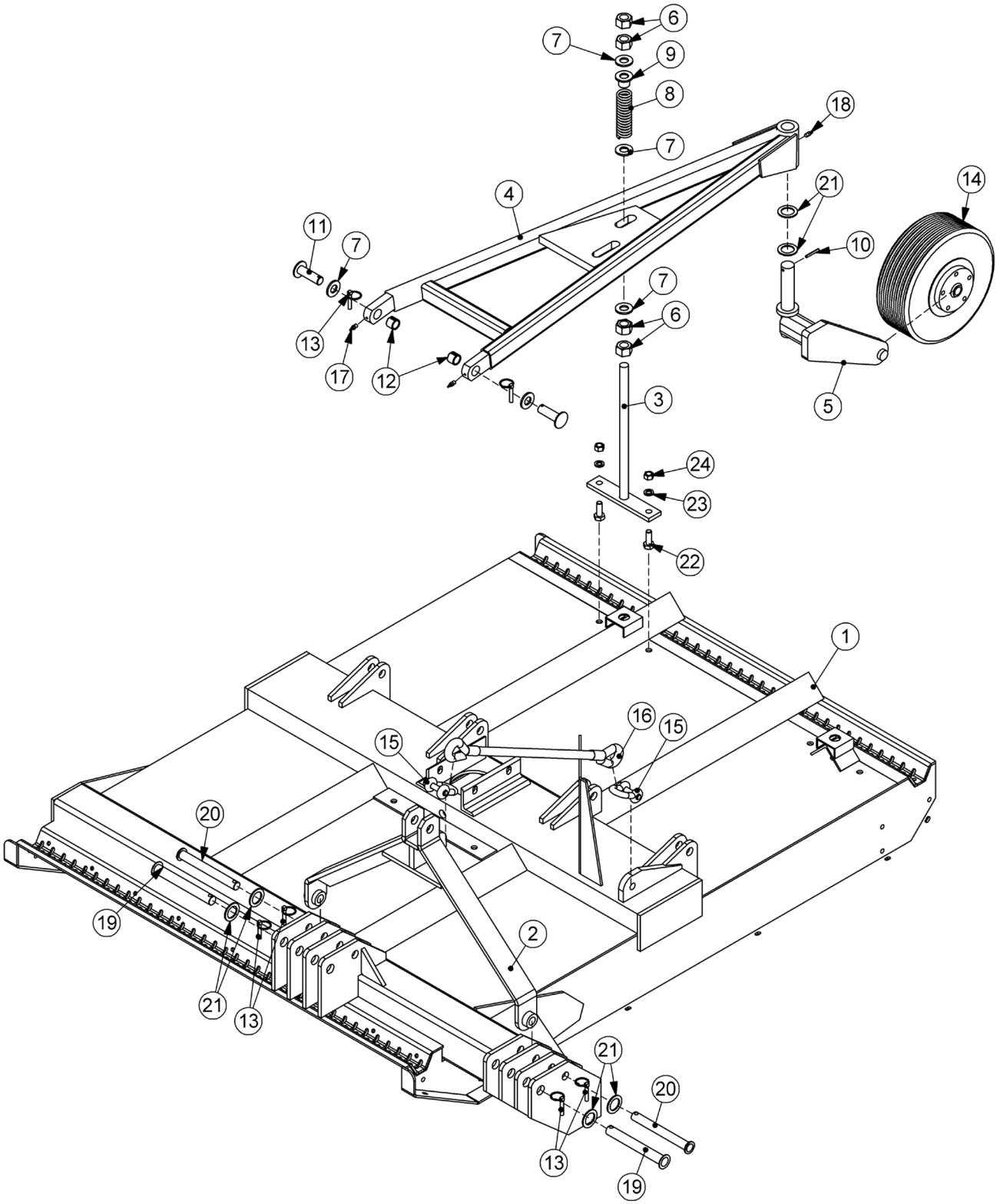
SIDE ROTARY CASTER WHEEL ASSEMBLY

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

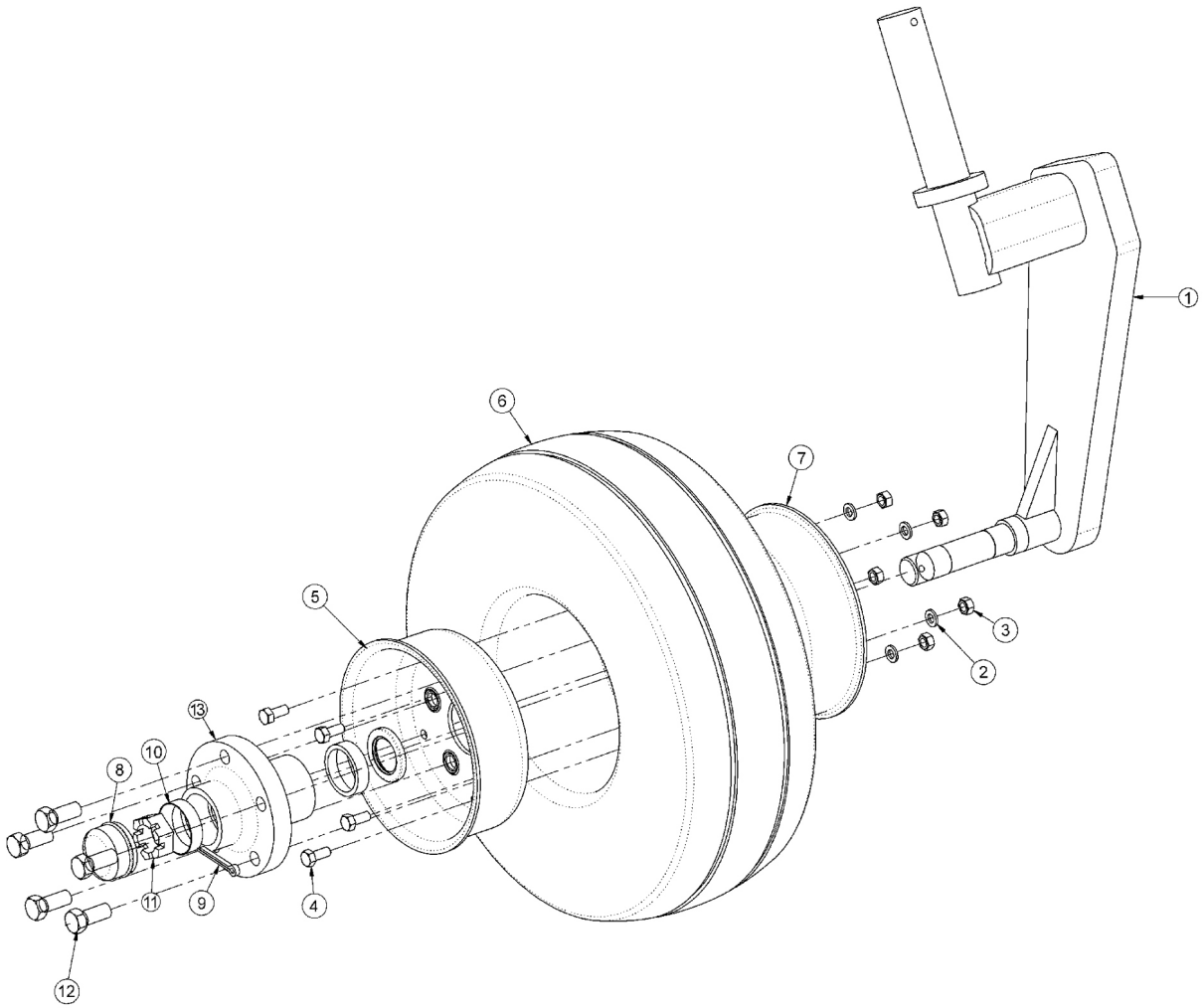
60IN TM REAR CASTER WHEEL & 3PT ASSY

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

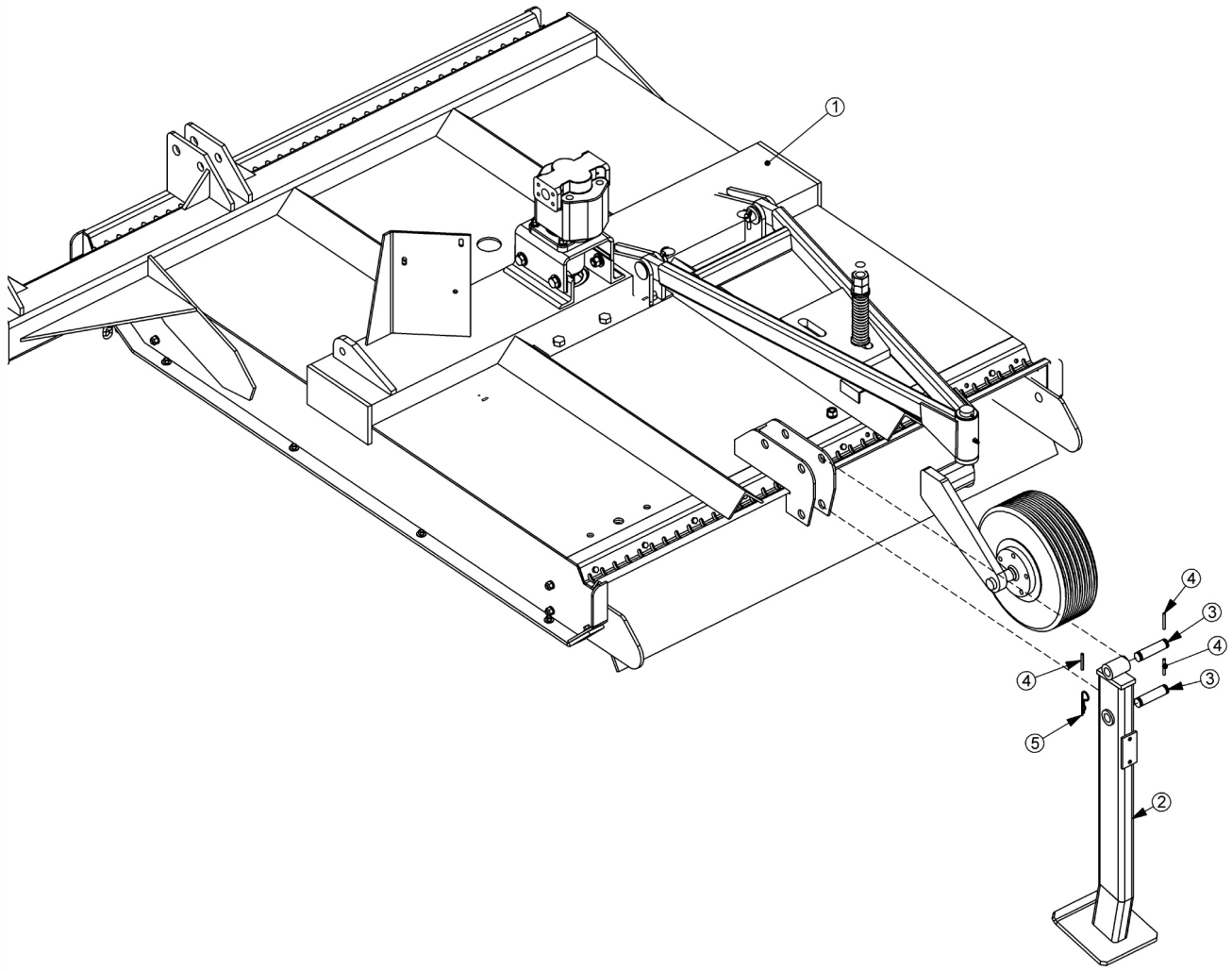
CASTER WHEEL ASSEMBLY



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

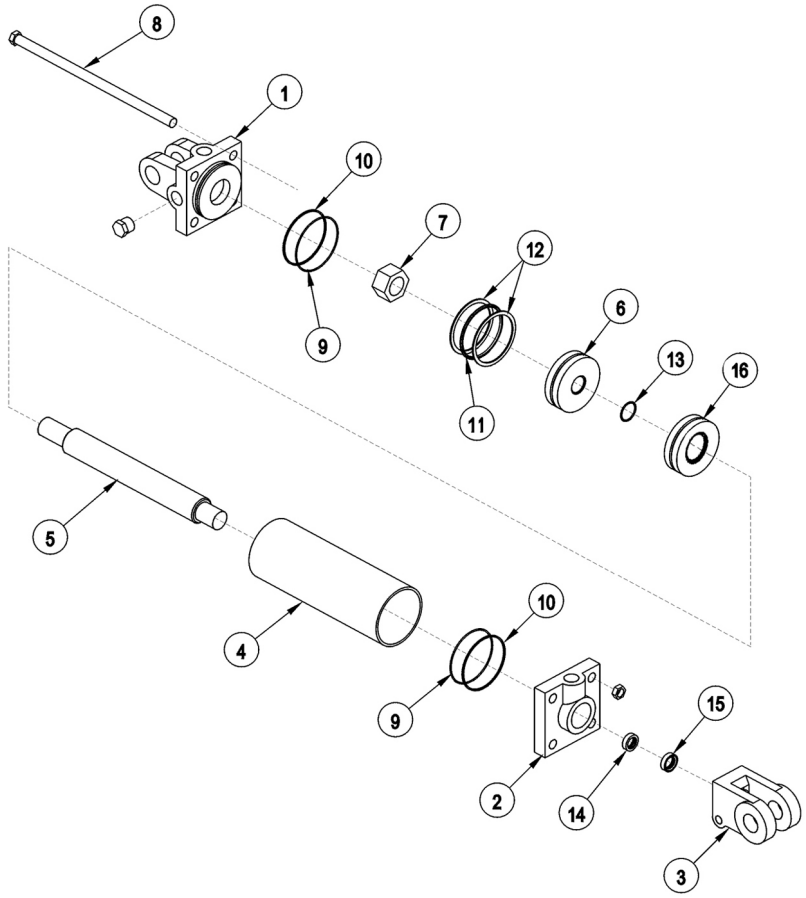
SAFETY STAND



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

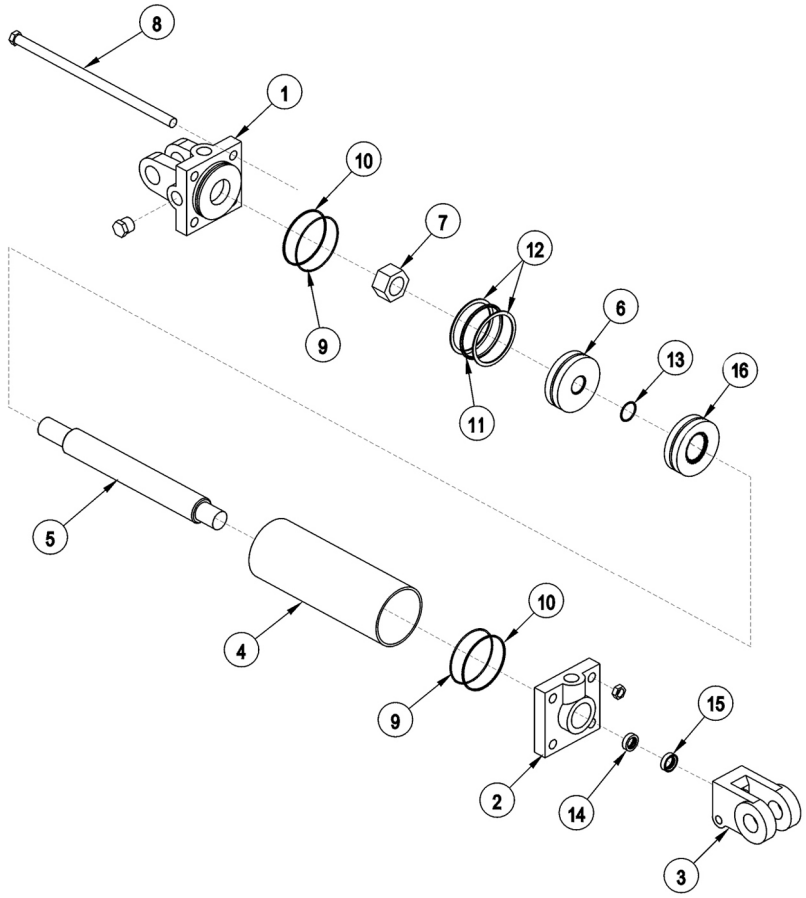
3IN X 10IN HYDRAULIC CYLINDER BREAKDOWN



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

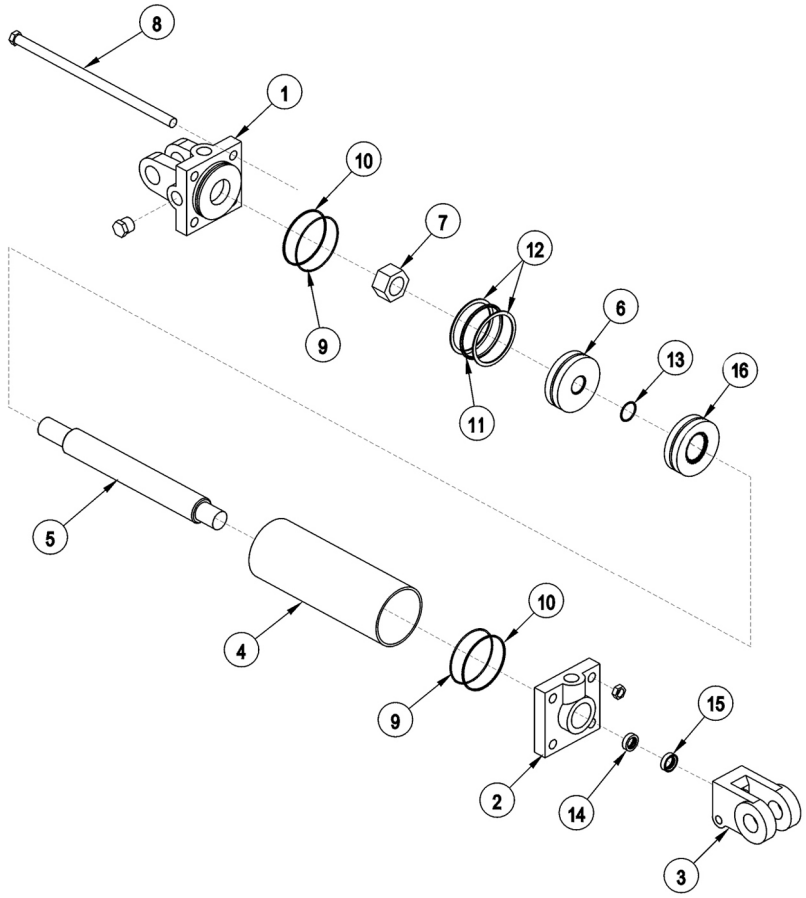
3IN X 12IN HYDRAULIC CYLINDER BREAKDOWN



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

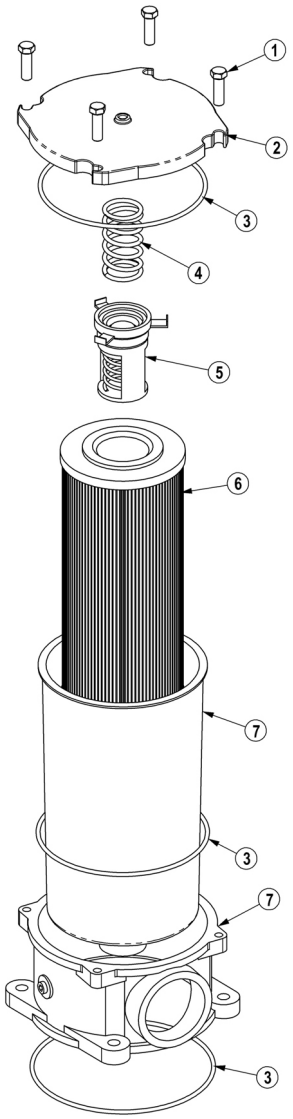
3IN X 18IN HYDRAULIC CYLINDER BREAKDOWN



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

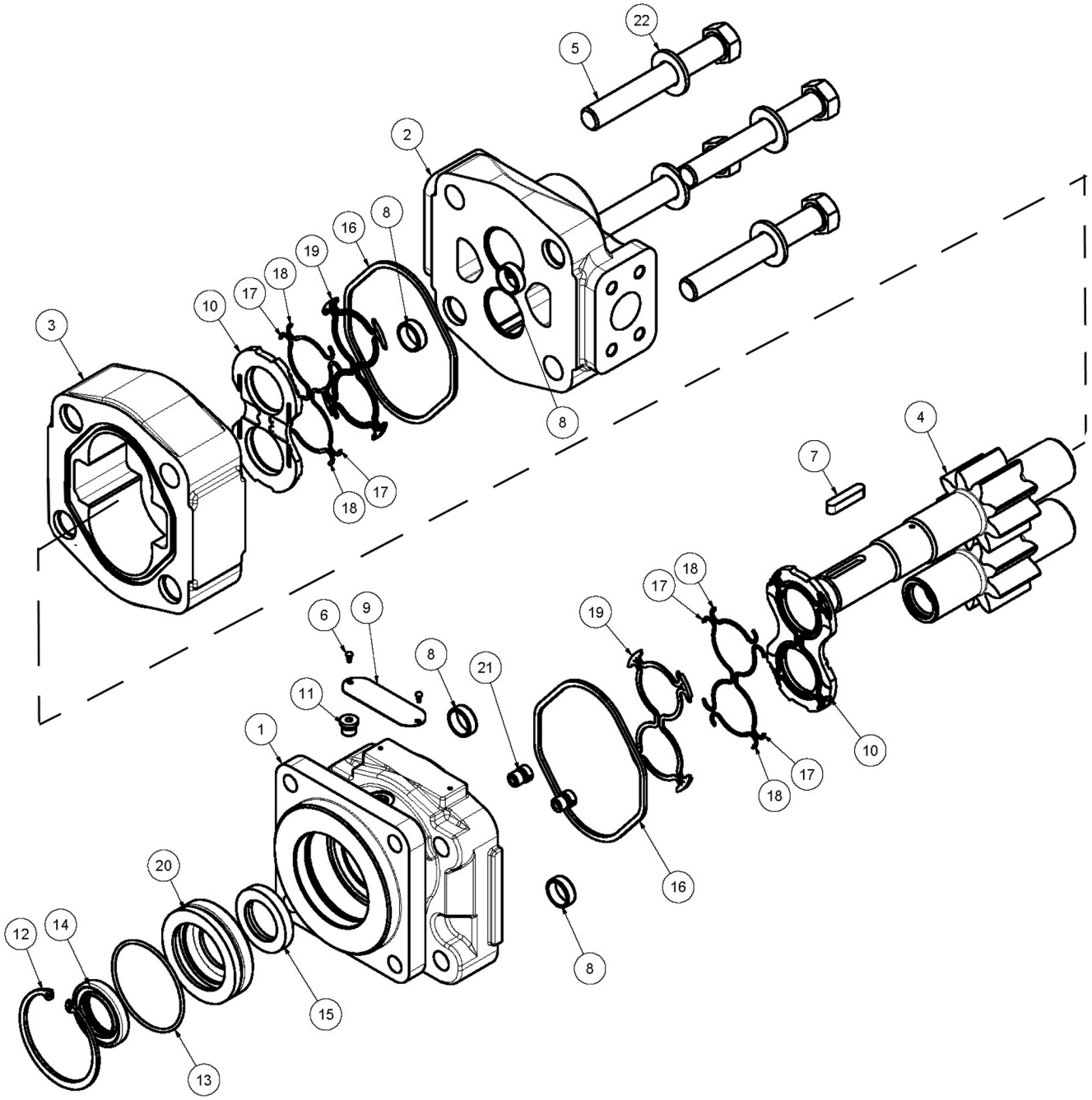
RESERVOIR TANK FILTER ASSEMBLY



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

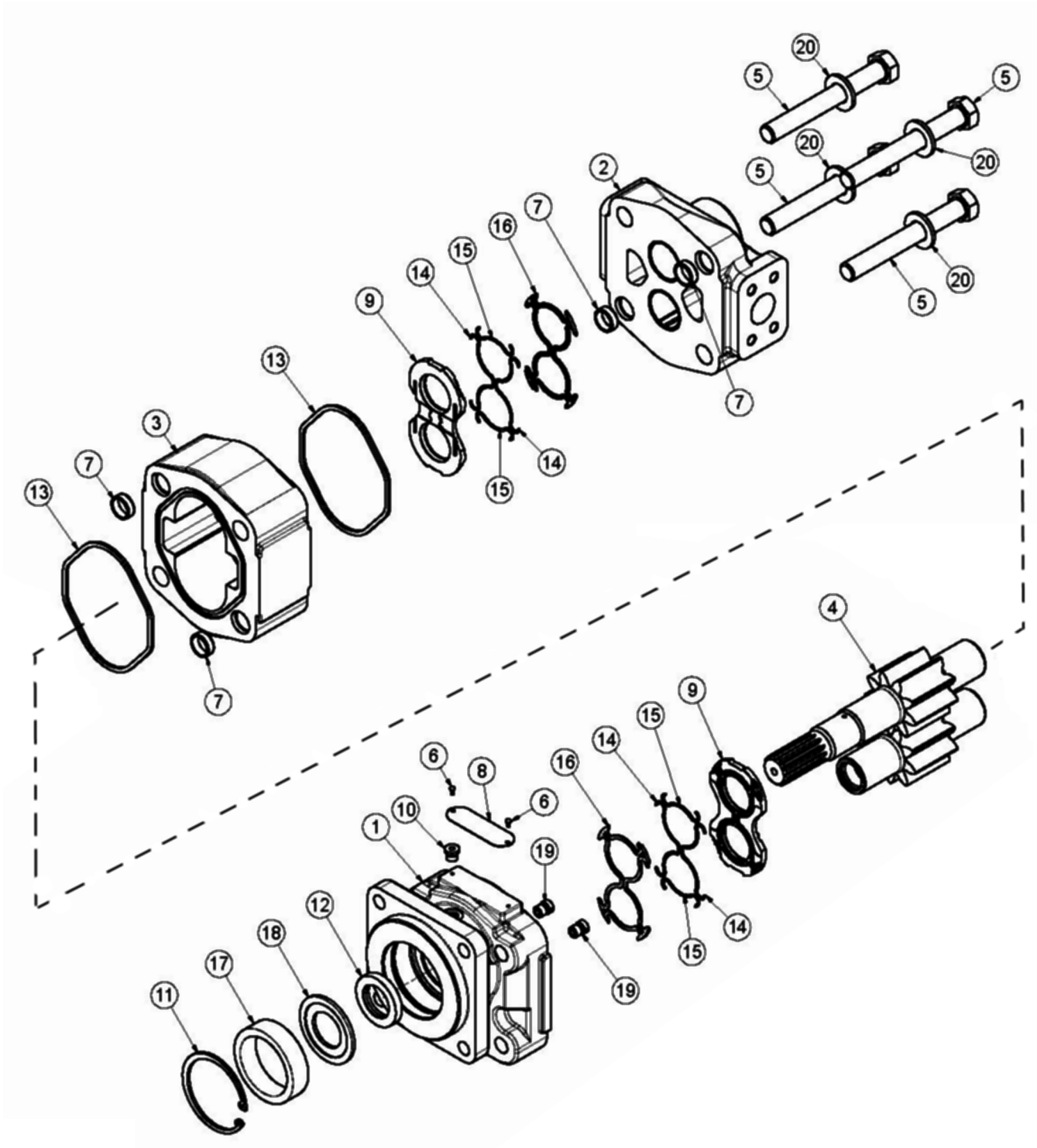
ROTARY MOTOR BREAKDOWN

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

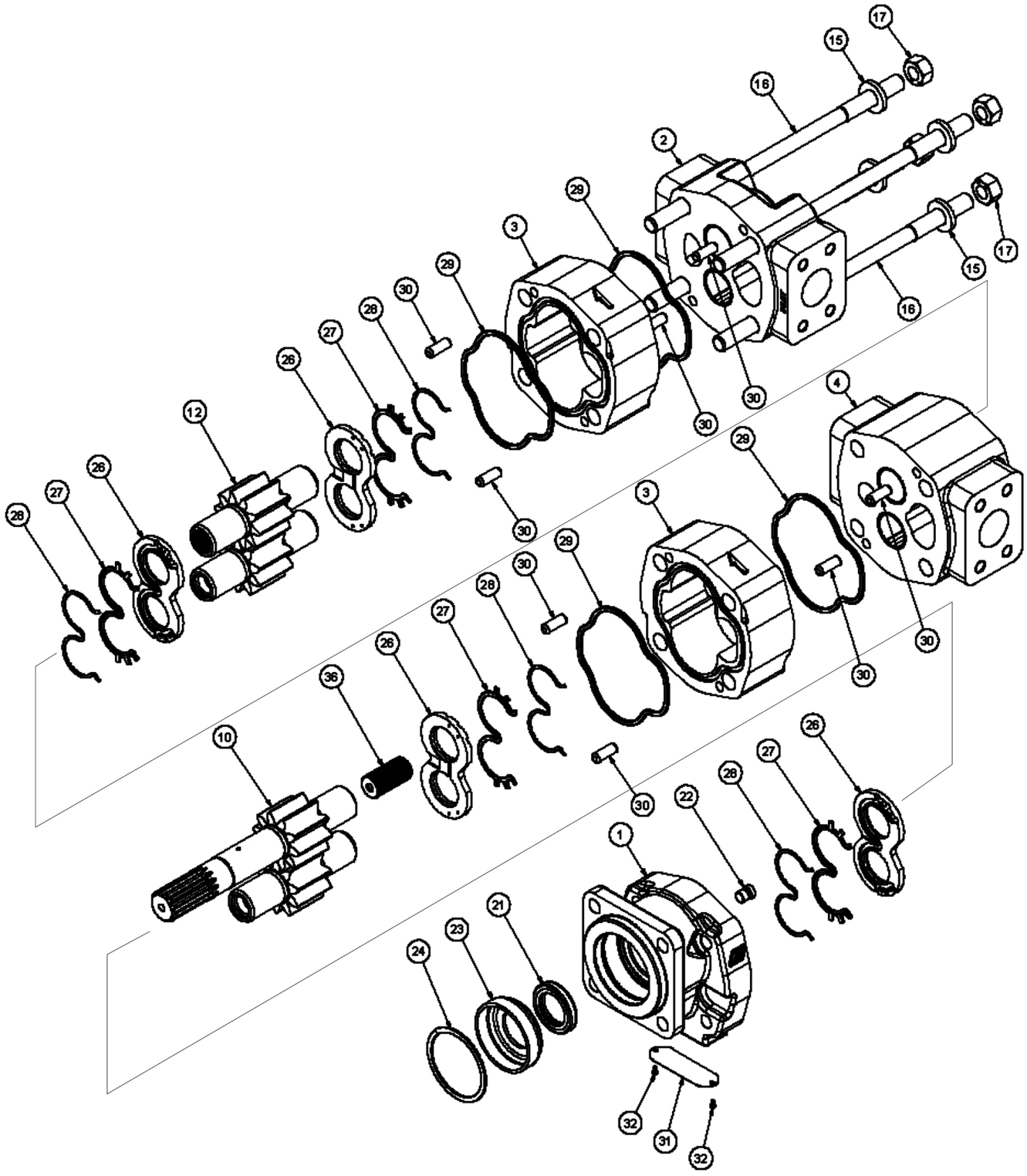
60IN TSR ROTARY MOTOR BREAKDOWN

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



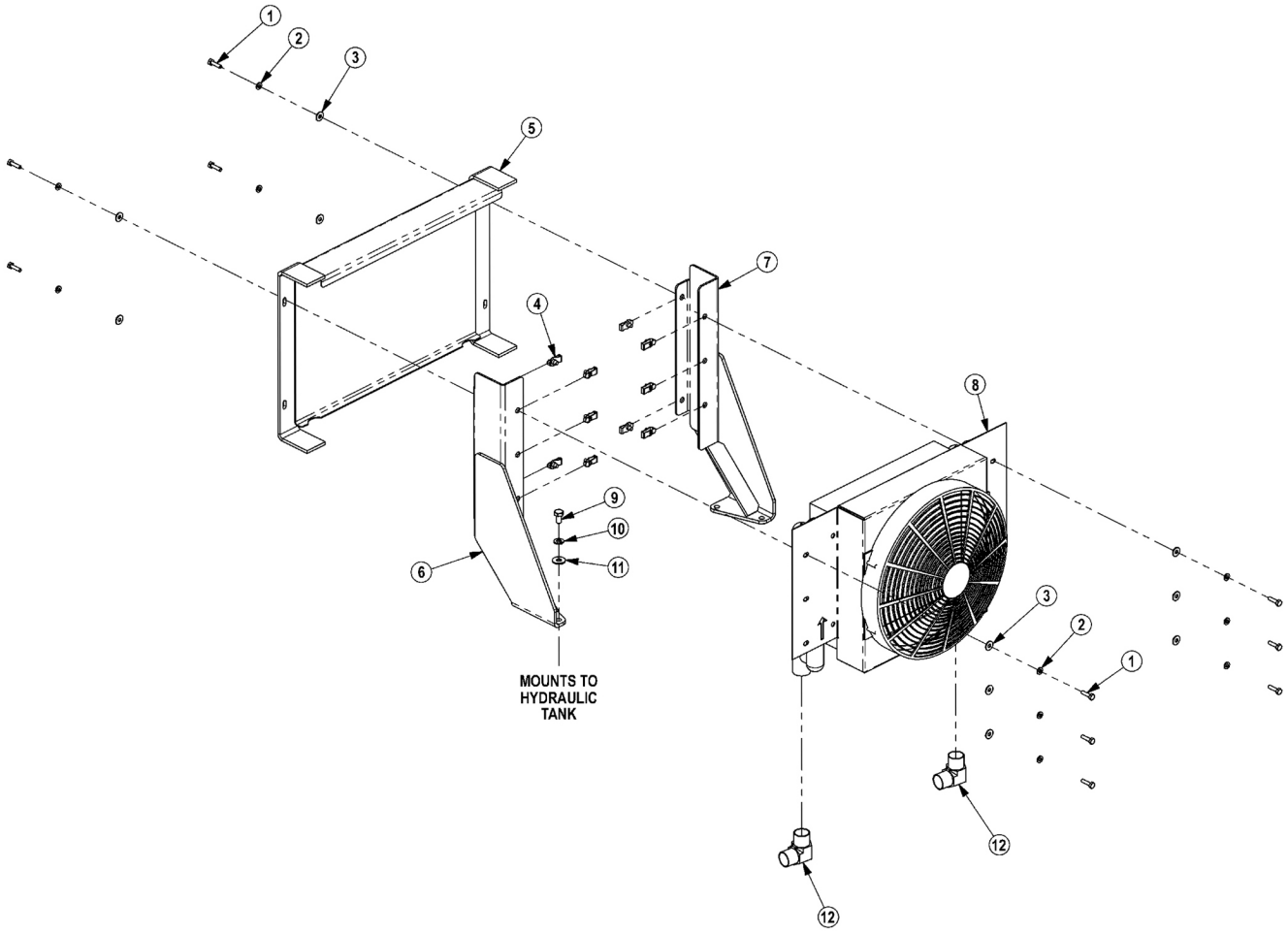
COMMON TWIN

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



COMMON TWIN

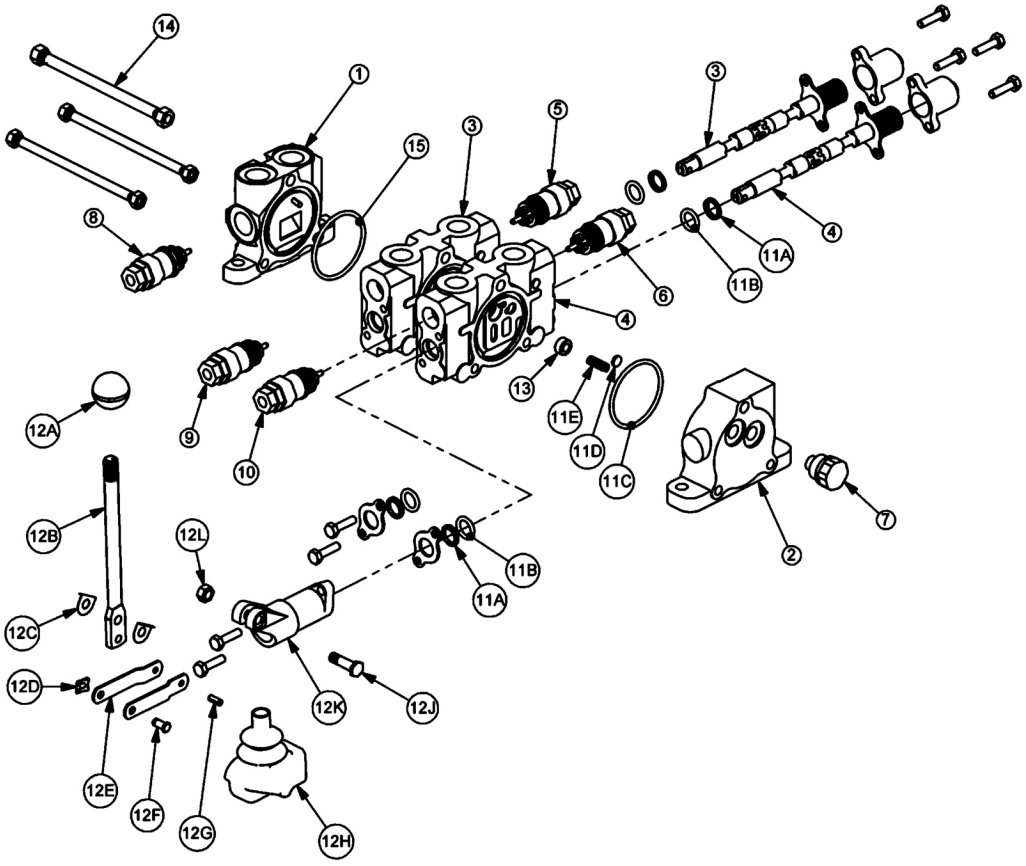
COOLER ASSEMBLY

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



COMMON TWIN

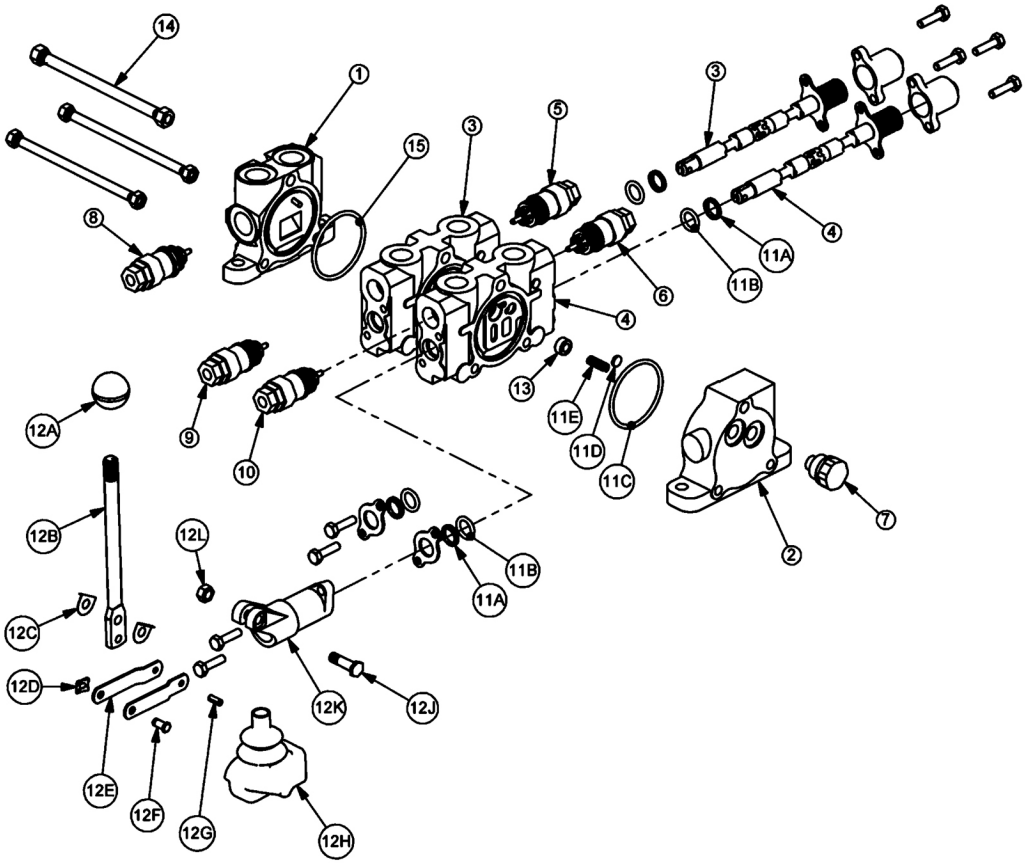
CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31320

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



COMMON TWIN

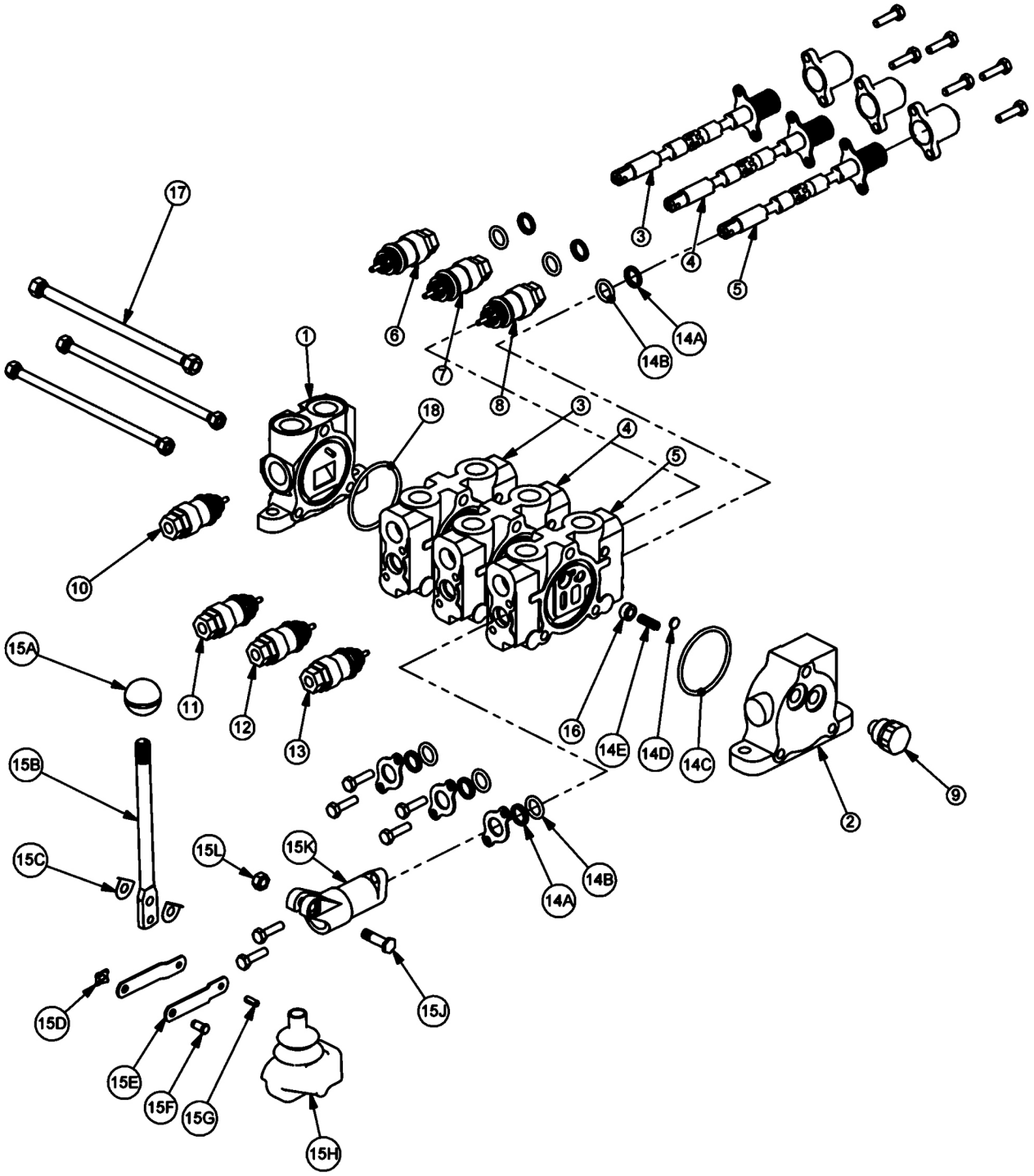
CABLE (MANUAL) LIFT VALVE BREAKDOWN - 31321

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

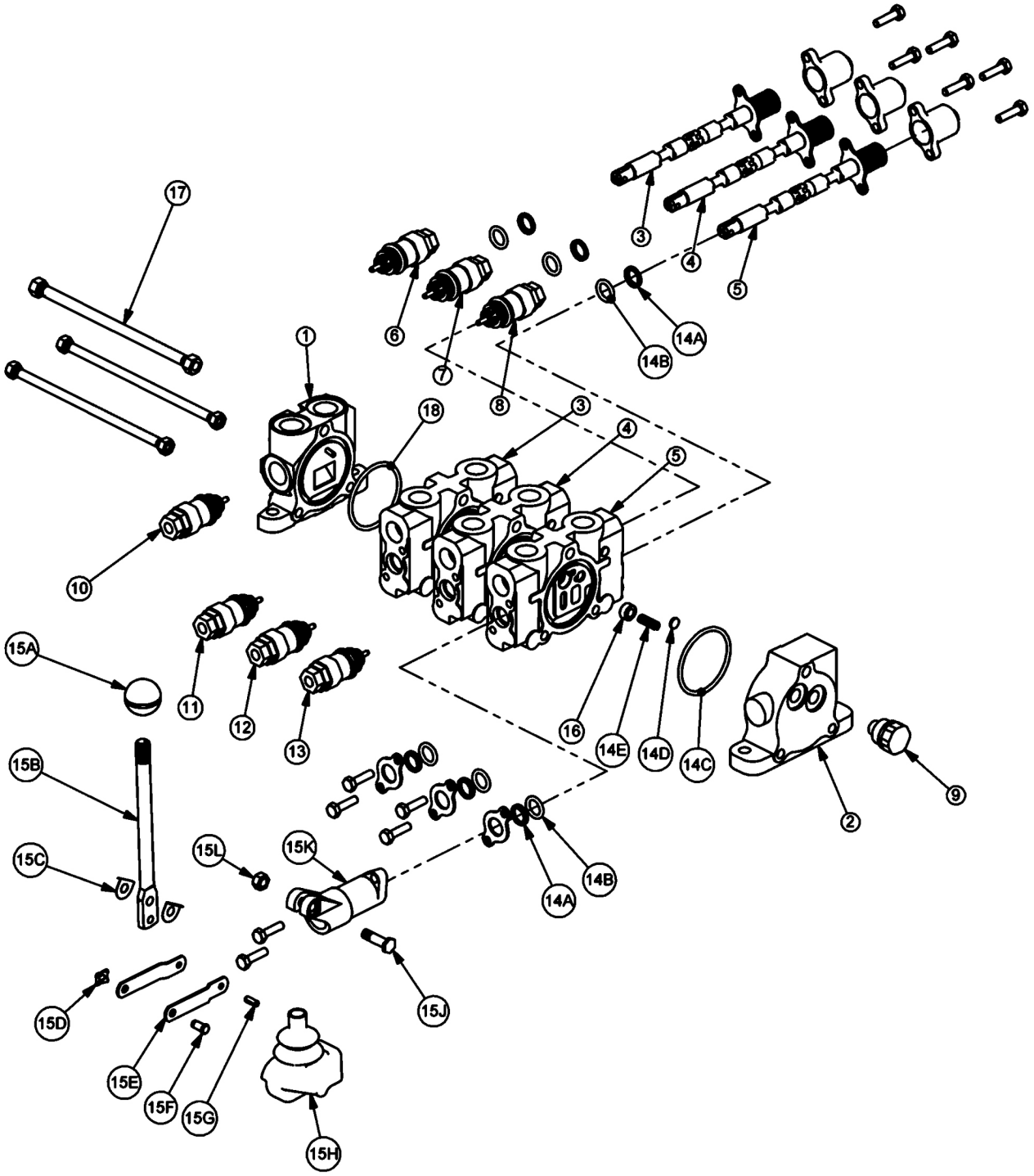
CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502043

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

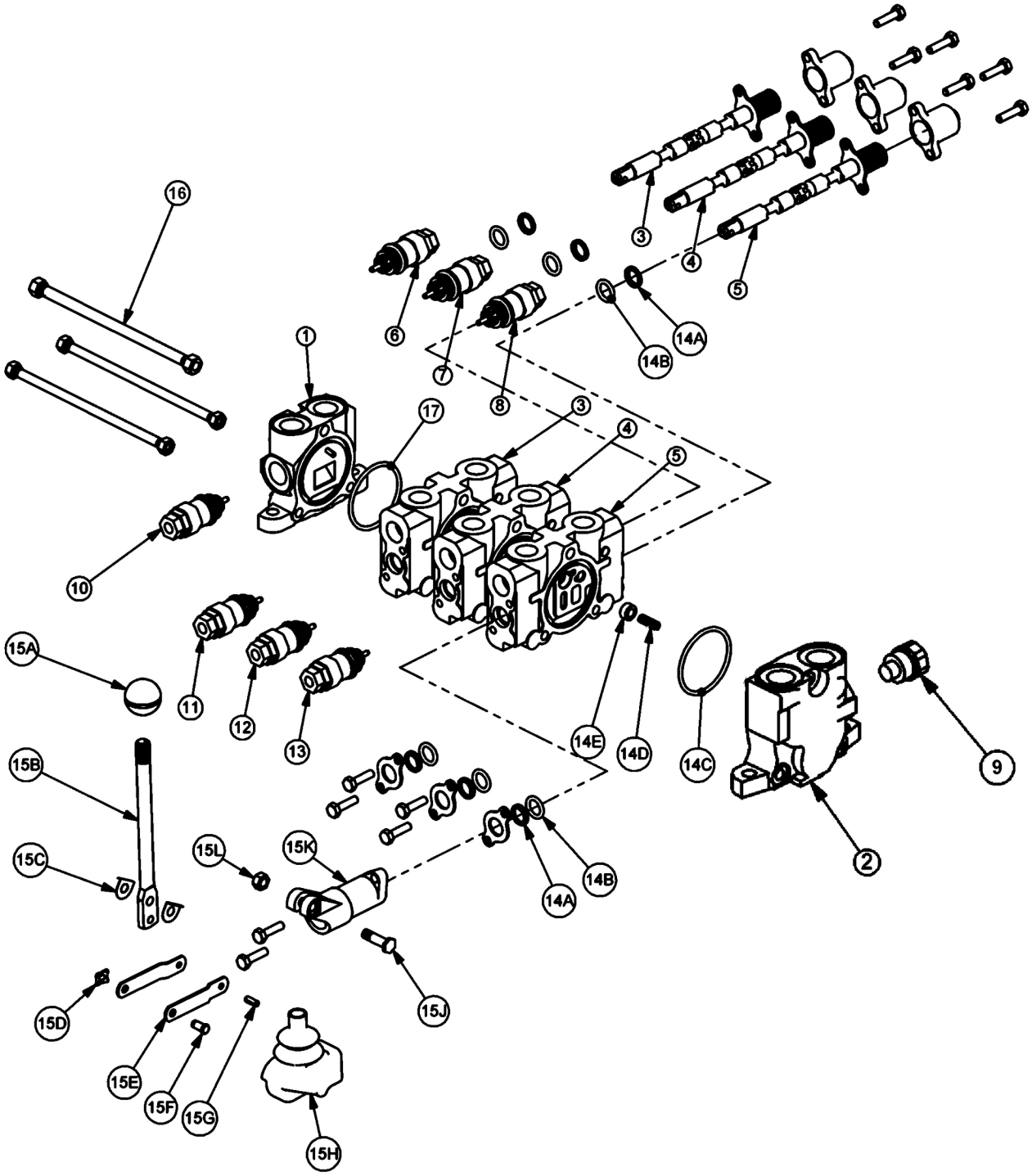
CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502044

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

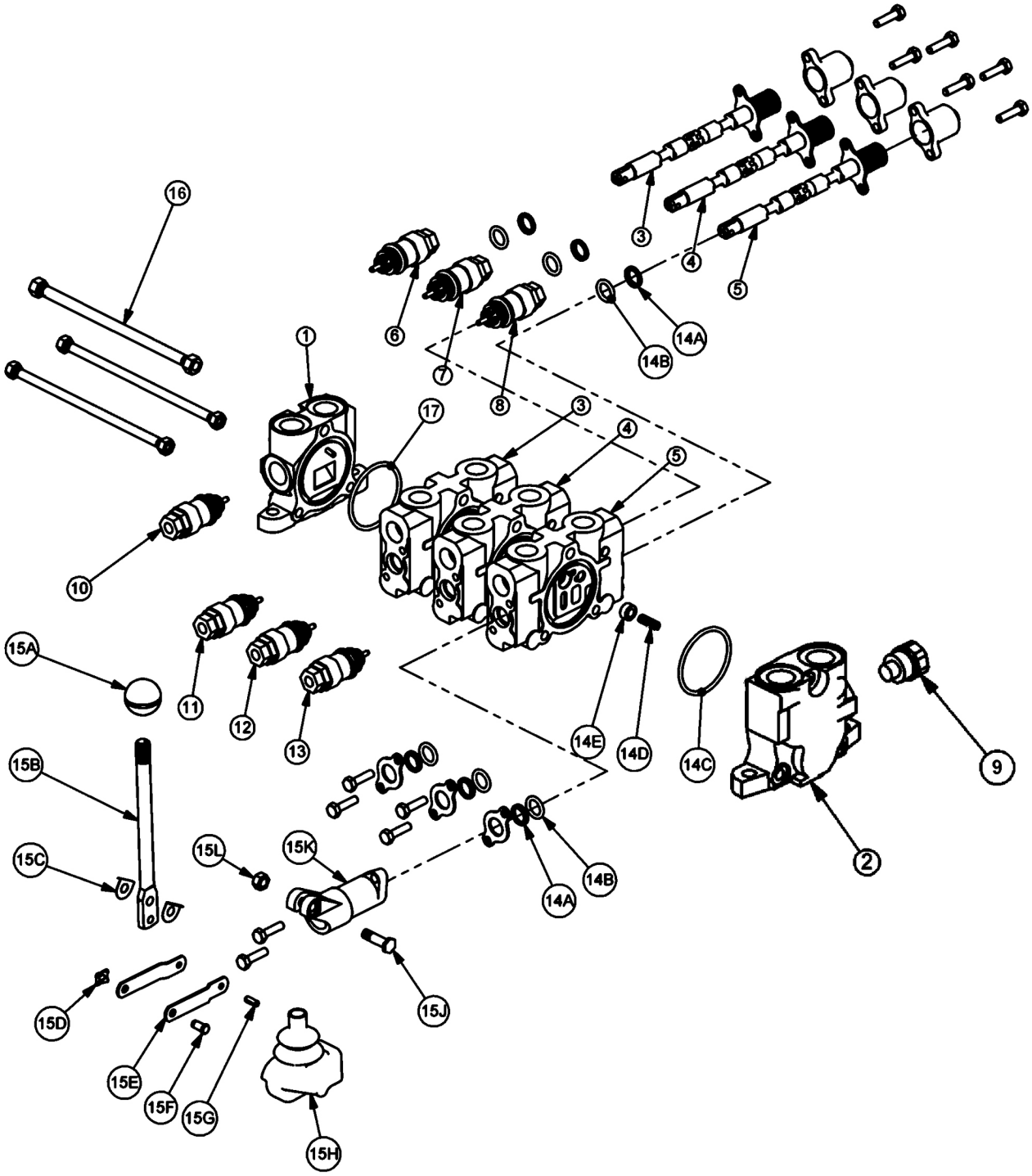
CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502087

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



COMMON TWIN

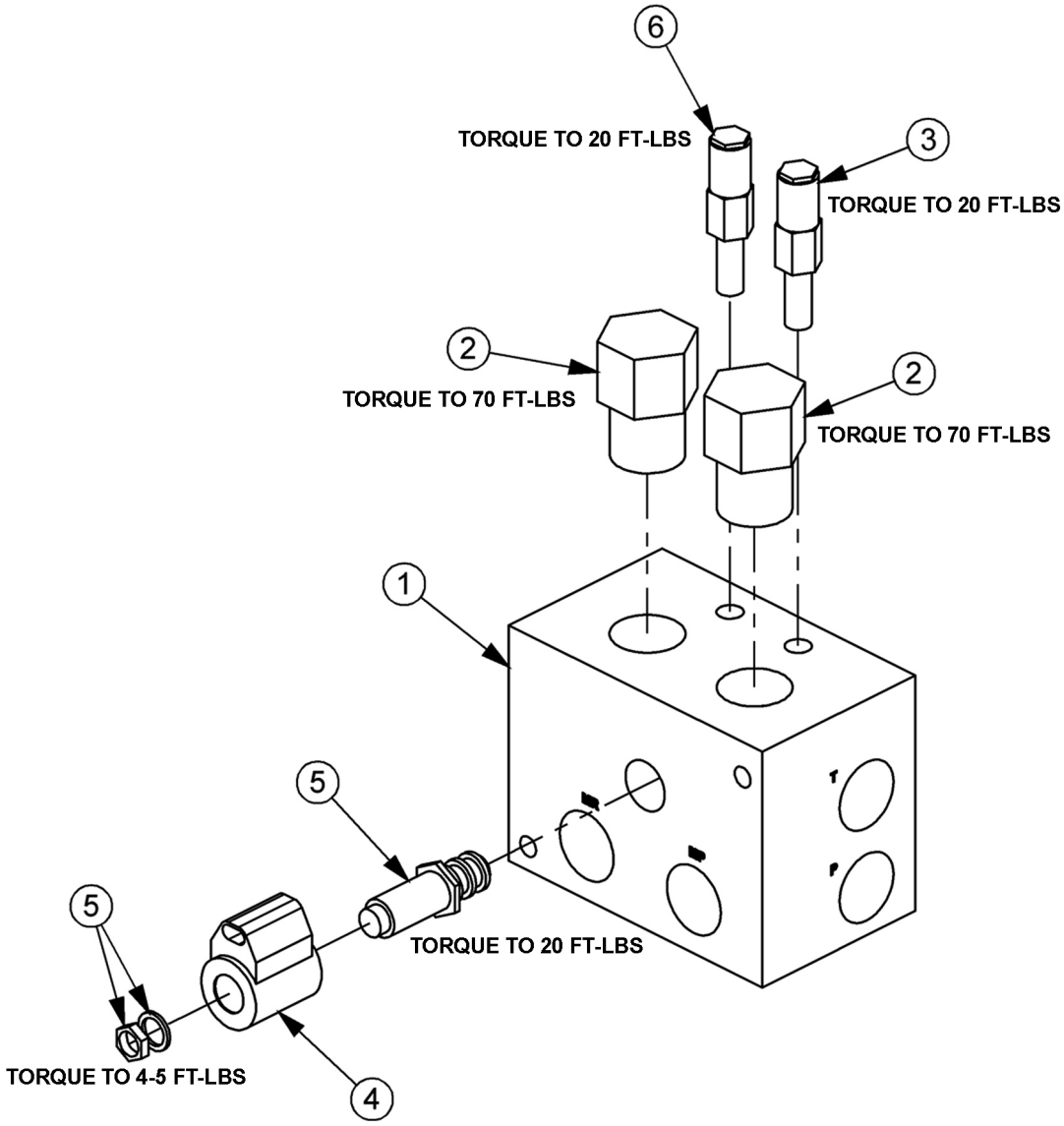
CABLE (MANUAL) LIFT VALVE BREAKDOWN - 06502088

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	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

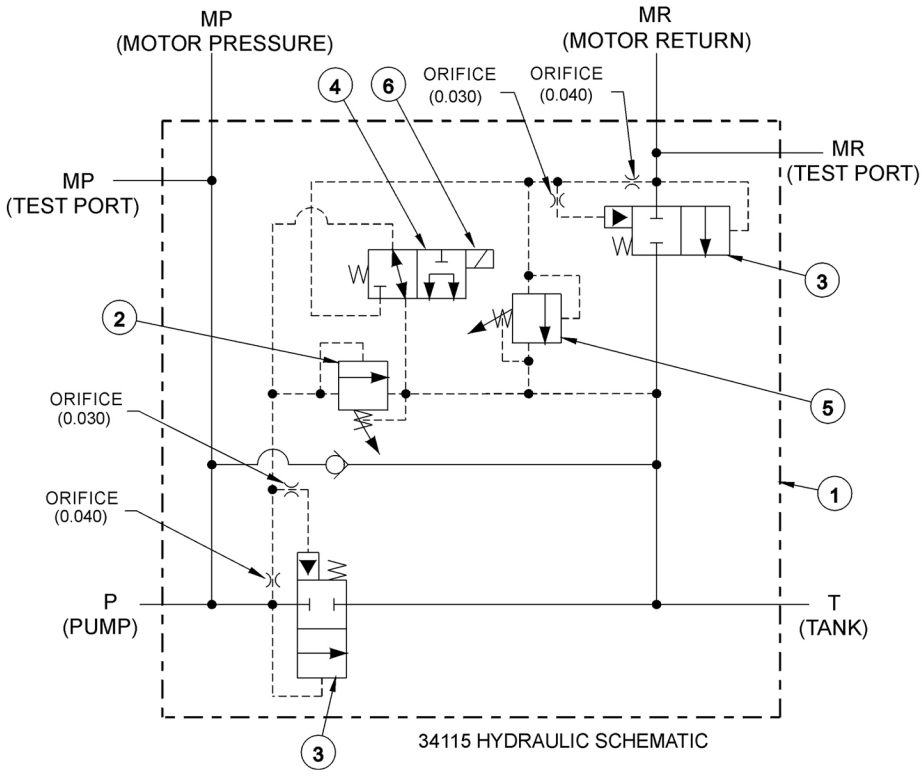
BRAKE VALVE ASSEMBLY



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

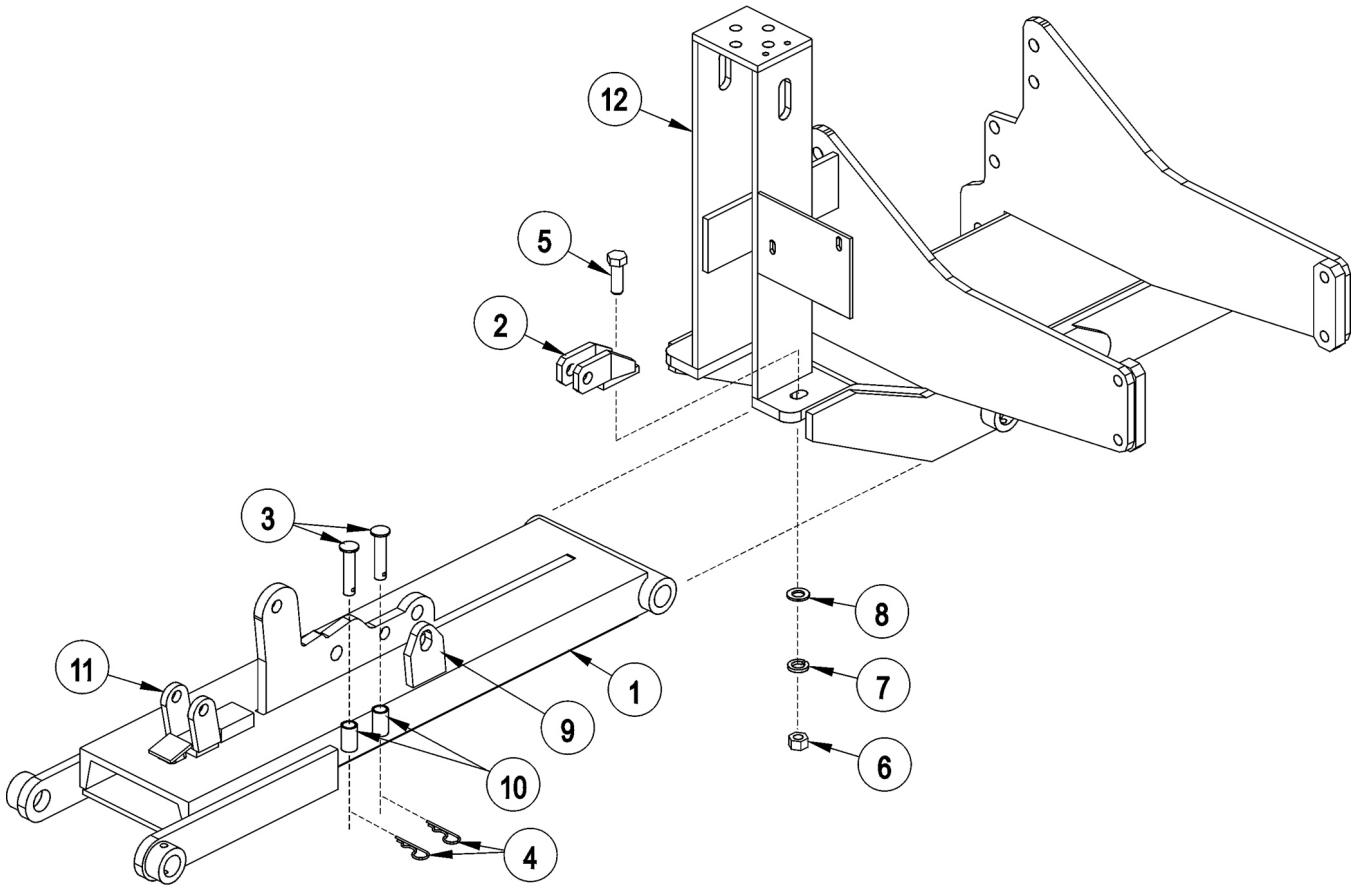
FAILURE MODE:	CHECK STEPS
- MOWER WILL NOT START - system pressure is low (engine not lugging).	1 thru 6
- MOWER WILL NOT START - system pressure is high (engine lugging). "MR" port will be high pressure.	7
- MOWER WILL NOT ROTATE AT FULL SPEED - limited power.	3 thru 5
- MOWER BLADE WILL NOT STOP -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

CORRECTIVE STEPS:

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

COMMON TWIN

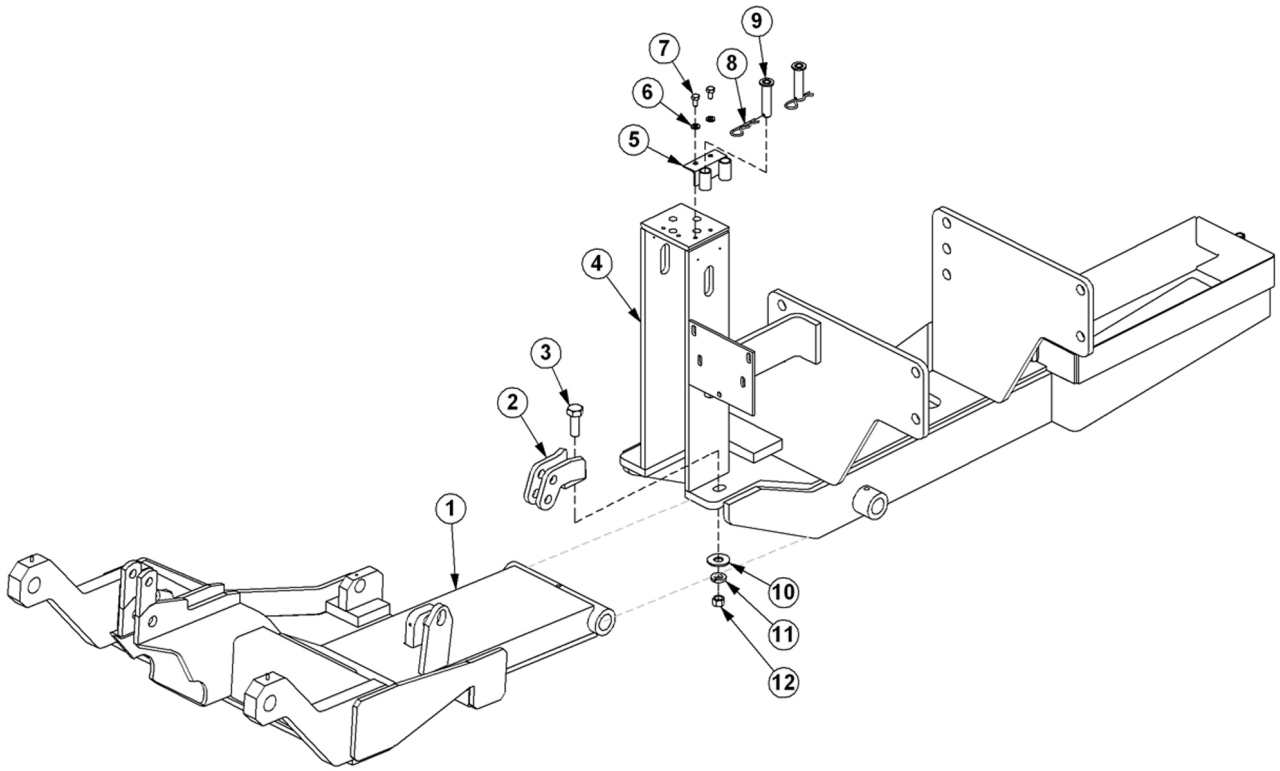
CABLE DRAFT BEAM TRAVEL LOCK



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

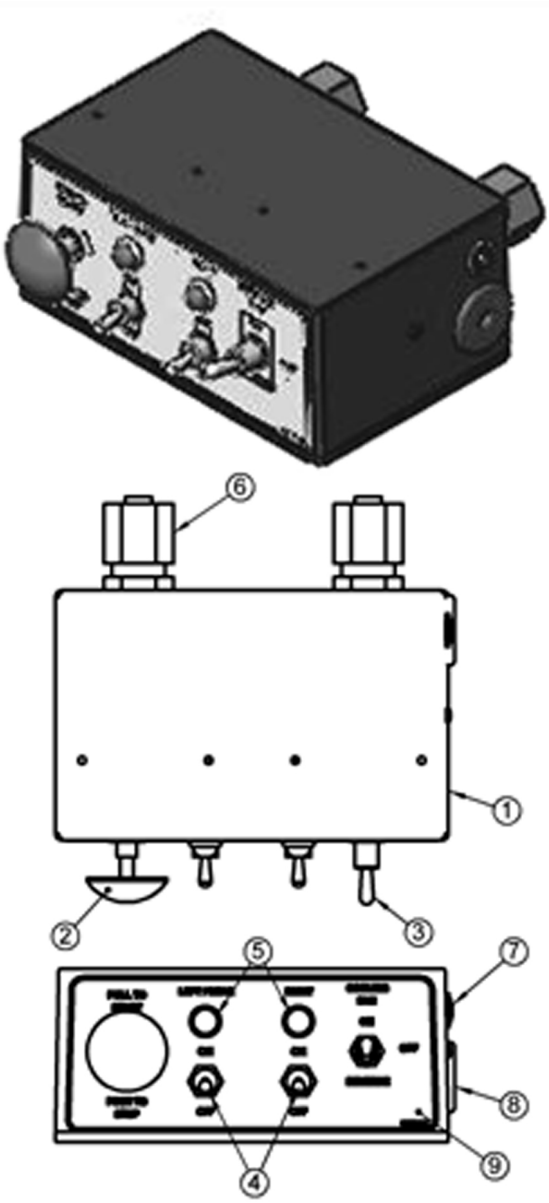
COMBO DRAFT BEAM TRAVEL LOCK



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

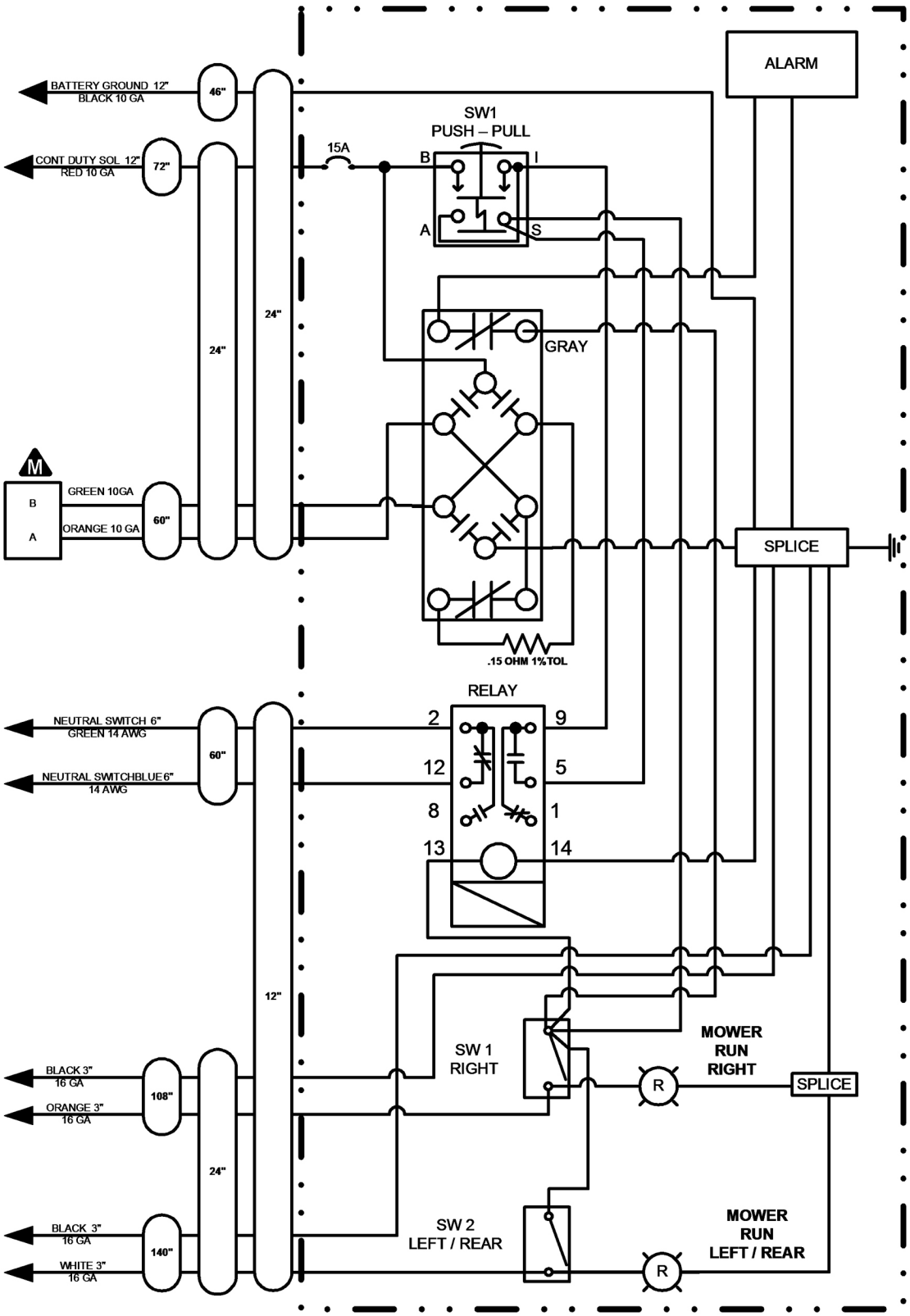
SWITCH BOX



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!**

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

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

TO THE OWNER / OPERATOR / DEALER

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

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

OWNER REQUIREMENTS:

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

OPERATOR REQUIREMENTS:

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

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