



ALAMO INDUSTRIAL

PO BOX 549
SEGUIN TX 78156-9967

Please fold (do not tear), tape, and drop in any mailbox.

**PLEASE FILL OUT OWNER WARRANTY REGISTRATION INFORMATION
SIGN, AND DROP LAST COPY IN ANY MAILBOX.**

IMPORTANT!
**TO PLACE THIS WARRANTY IN EFFECT,
THIS WARRANTY REGISTRATION MUST BE
FILLED OUT, SIGNED, AND MAILED WITHIN 30
DAYS OF DELIVERY DATE OF THIS MACHINE.
DEALER AND PURCHASER MUST SIGN.**

**ATTENTION: ANY CLAIM SUBMITTED TO ALAMO INDUSTRIAL®
WILL BE REFUSED UNTIL COMPLETED, SIGNED
WARRANTY REGISTRATION CARD IS ON FILE.**

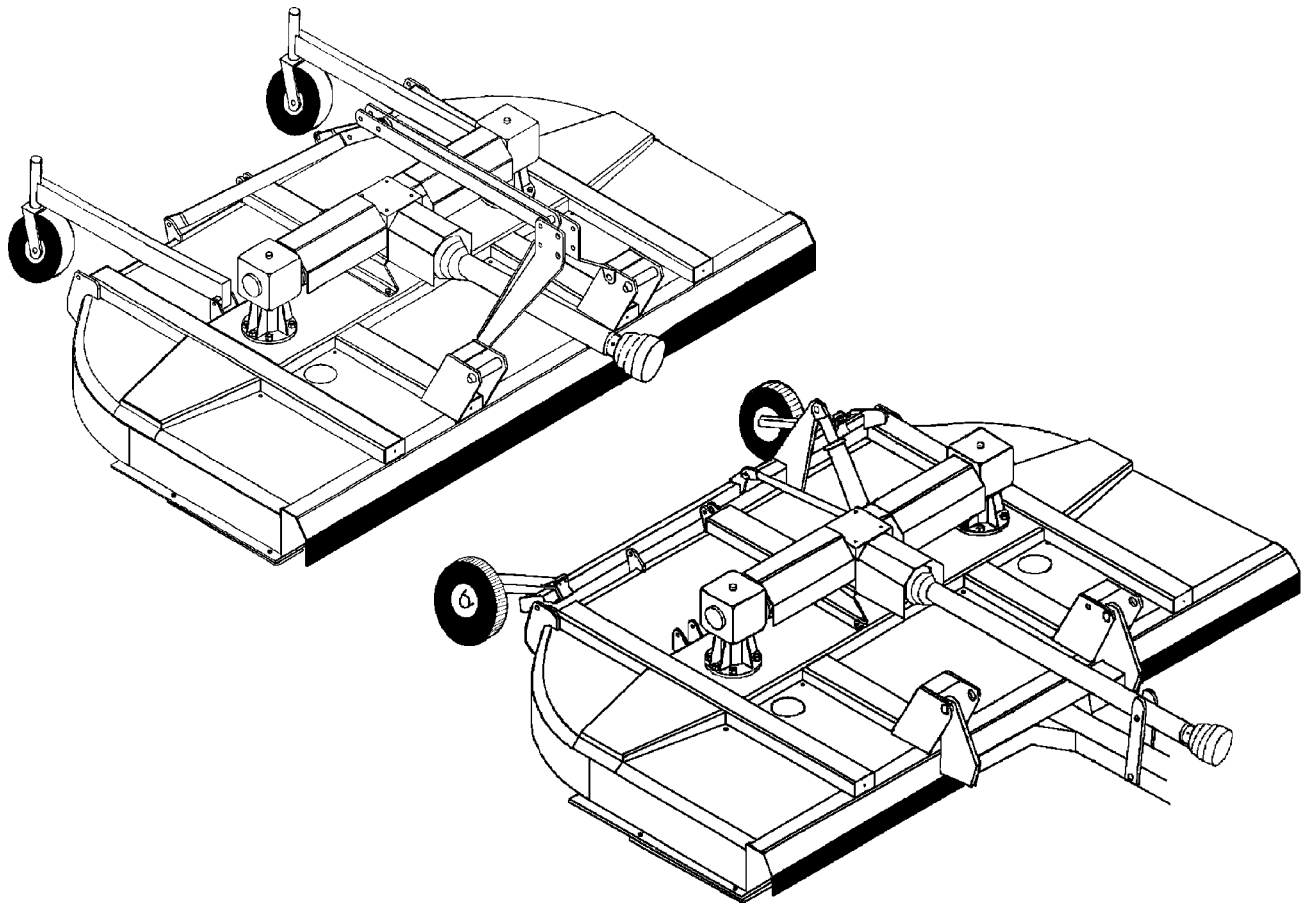


A120

ROTARY MOWER

Rev 03-13

P/N 00767311



OPERATOR'S MANUAL with PARTS LISTING

ATENCIÓN!

LEA EL INSTRUCTIVO

Si No Lee Ingles, Pida Ayuda a Alguien
Que Si Lo Lea Para Que le Traduzca las
Medidas de Seguridad.



ALAMO INDUSTRIAL

1502 E. Walnut
Seguin, Texas 78155
830-372-9595



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 your manual.
Observe the rules of safety and common sense!

 <h1 style="font-size: 4em; margin: 0;">DANGER</h1>			
<p>FAILING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS BODILY INJURY OR EVEN DEATH TO OPERATOR AND OTHERS IN THE AREA.</p>			
<p>1.</p> 	<p>2. NO RIDERS. NO CHILDREN OPERATORS.</p> 	<p>3. USE SAFETY SHOES, HARD HAT, SAFETY GLASSES, SEAT BELTS, & ROPS.</p> 	<p>4. BLOCK UP SECURELY BEFORE WORKING UNDER.</p> 
<p>1. Study and understand Operator's Manuals, Safety Signs, 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.</p> <p>2. Allow no children on or near implement or tractor. Allow no riders on tractor or implement. Falling off may cause serious injury or death from being run over by tractor or cutter or contact with rotating blades.</p> <p>3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seatbelt fastened securely and snugly to prevent injury and possible death from falling off or tractor overturn. Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety shoes, and Ear Plugs are recommended.</p> <p>4. Block up or support raised machine and all lifted components securely before putting hands or feet under or working underneath any lifted components to prevent crushing injury or death from sudden dropping or inadvertent operation of controls. Make certain area is clear before lowering or folding.</p> <p>5. Before transporting, put Lift Lever in detent or full-lift position. Install *Cylinder Stops as Transport Blocks securely on pull-type and folding implements. Slow down when turning and on hillsides. ● Attach **Safety Chain to cutter and towing unit securely. See Operator's Manual.</p> <p>6. Make certain that SMV sign, Warning Lights, and Reflectors are clearly visible. Follow local traffic codes.</p> <p>7. Never operate with Cutting Head 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 cutter structure.</p> <p>8. Before dismounting, secure implement in transport position or lower to ground. ● Put tractor in park or set brake, disengage PTO, stop engine, and remove key, and wait until noise of rotation has ceased to prevent entanglement in rotating parts which can cause injury or death. ● Never mount or dismount a moving vehicle. Crushing from runover may cause injury or death.</p>			
<p>5. TRANSPORT SAFELY, LOCK UP.</p> 	<p>6. USE SMV, LIGHTS, & REFLECTORS.</p> 	<p>7. DO NOT OPERATE WITH CUTTER OR WING RAISED.</p> 	<p>8. DO NOT MOUNT OR DISMOUNT WHILE MOVING.</p> 

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 30 Days. Make certain the Serial Number of the Machine is recorded on the Warranty Card and on the Warranty Form that you retain. The use of "will-fit" parts will void your warranty and can cause catastrophic failure with possible injury or death.

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SAFETY SECTION

SAFETY

A safe and careful operator is the best operator. Safety is of primary importance to the manufacturer and should be to the owner/operator. Most accidents can be avoided by being aware of your equipment, your surroundings, and observing certain precautions. The first section of this manual includes a list of Safety Messages that, if followed, will help protect the operator and bystanders from injury or death. Read and understand these Safety Messages before assembling, operating or servicing this 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 safely and responsibly.

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

CAUTION!

The lowest level of Safety Message; warns of possible injury. Decals located on the Equipment with this Signal Word are Black and Yellow.



WARNING!

Serious injury or possible death! Decals are Black and Orange.



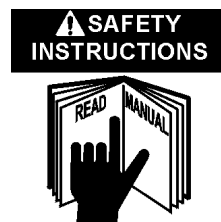
DANGER!

Imminent death/critical injury. Decals are Red and White. (SG-1)



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

(SG-2)



SAFETY

PELIGRO!



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

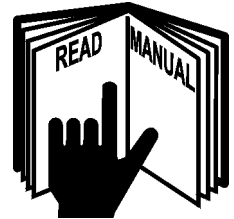


¡LEA EL INSTRUCTIVO!

DANGER!



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



WARNING!

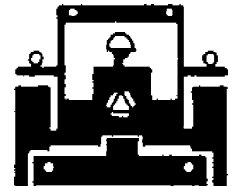


Always maintain the safety decals in good readable condition. If the decals are missing, damaged, or unreadable, obtain and install replacement decals immediately. (SG-5)

WARNING!



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



WARNING!



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



WARNING!

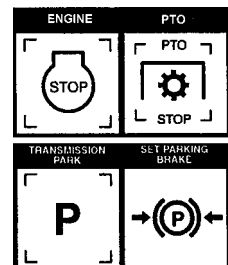


Do not modify or alter this Implement. Do not permit anyone to modify or alter this Implement, any of its components or any Implement function. (SG-8)

DANGER!



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



SAFETY

DANGER!



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



DANGER!



Never allow children to operate or ride on the Tractor or Implement. (SGM-11)



WARNING!



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



DANGER!



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



DANGER!



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



DANGER!



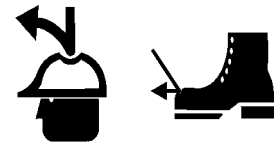
Do not operate this Equipment with hydraulic oil leaking. Oil is expensive and its presence could present a hazard. Do not check for leaks with your hand! Use a piece of heavy paper or cardboard. High-pressure oil streams from breaks in the line could penetrate the skin and cause tissue damage including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



WARNING!



The operator and all support personnel should wear hard hats, safety shoes, safety glasses, and proper hearing protection at all times for protection from injury including injury from items thrown by the equipment. (SG-16)



CAUTION!



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



SAFETY

WARNING!

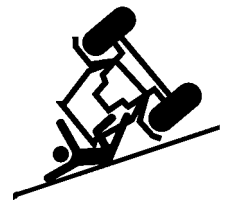


Transport only at safe speeds. Serious accidents and injuries can result from operating this equipment at unsafe speeds. Understand the Tractor and Implement and how it handles before transporting on streets and highways. Make sure the Tractor steering and brakes are in good condition and operate properly.



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

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

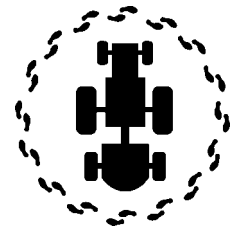


Be aware of the operating conditions. Do not operate the Tractor with weak or faulty brakes. When operating down a hill or on wet or rain slick roads, the braking distance increases: use extreme care and reduce your speed. When operating in traffic always use the Tractor's flashing warning lights and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

WARNING!



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



WARNING!



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



WARNING!



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



DANGER!



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

SAFETY

DANGER!



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

WARNING!

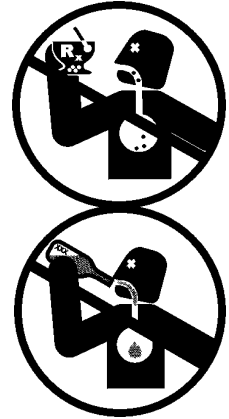


Do not exceed the rated PTO speed for the Implement. Excessive PTO speeds can cause Implement driveline or blade failures resulting in serious injury or death. (SG-26)

DANGER!



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



DANGER!



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

WARNING!



Mow only in conditions where you have clear visibility in daylight or with adequate artificial lighting. Never mow in darkness or foggy conditions where you cannot clearly see at least 100 yards in front and to the sides of the tractor and mower. Make sure that you can clearly see and identify passersby, steep slopes, ditches, drop-offs, overhead obstructions, power lines, debris and foreign objects. If you are unable to clearly see this type of items discontinue mowing. (SGM-1)

DANGER!



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

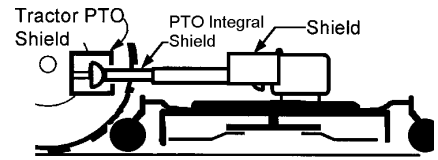


SAFETY

DANGER!



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



DANGER!



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

WARNING!



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



WARNING!



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

WARNING!



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

WARNING!

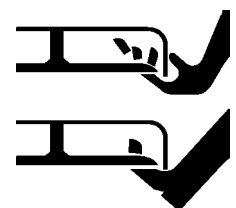


Avoid mowing in reverse direction when possible. Check to make sure there are no persons behind the mower and use extreme care when mowing in reverse. Mow only at a slow ground speed where you can safely operate and control the tractor and mower. Never mow an area in the reverse direction that you have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

WARNING!



Do not put hands or feet under mower decks. Blade Contact can result in serious injury or even death. (SGM-9)



SAFETY

DANGER!



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

WARNING!

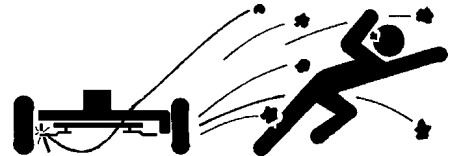


Do not mow with two machines in the same area except with Cab tractors with the windows closed. (SGM-11)

DANGER!



Rotary Mowers are capable under adverse conditions of throwing objects for great distances (100 yards or more) and causing serious injury or death. Follow safety messages carefully



STOP MOWING IF PASSERSBY ARE WITHIN 100 YARDS UNLESS:

- Front and Rear Deflectors, Chain Guards, or Bands are installed and in good, workable condition;
- Mower sections or Wings are running close to and parallel to the ground without exposed Blades;
- Passerby 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, eliminate streaking, and make the final cut more uniform.) (SRM-1)

DANGER!



Always disconnect the main PTO Driveline from the Tractor before performing service on the Mower. Never work on the Mower with the tractor PTO driveline connected and running. Blades or Drivelines could turn without warning and cause immediate entanglement, injury or death. (SRM-3)

DANGER!

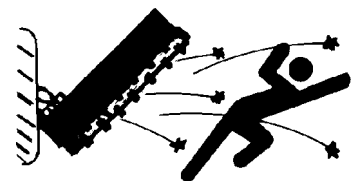


Do not turn so sharp or lift mower so high to produce a severe "knocking" of the Driveline which will cause accelerated wear and breakage of drive train components and could result in injury from the separated Driveline sections. (SRM-4)

WARNING!



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



WARNING!



Never leave Tractor and Implemented unattended while the implement is in the lifted position. Accidental operation of lifting lever or a hydraulic failure may cause sudden drop of unit with injury or death by crushing. To properly park the implement when disconnecting it from the tractor, lower the stand and put the retaining pin securely in place, or put a secure support under the A-Frame. Lower the implement carefully to the ground. Do not put hands or feet under lifted components. (S3PT-1)

SAFETY

WARNING!



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

DANGER!



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

DANGER!



Make sure the PTO shield is installed when using PTO-driven equipment. Always replace the PTO shield if it is damaged or missing. (S3PT-8)



WARNING!



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



WARNING!



The rotating parts of this machine continue to rotate even after the PTO has been turned off. The operator should remain in his seat for 60 seconds after the brake has been set, the PTO disengaged, the tractor turned off, and all evidence of rotation has ceased. (S3PT-10)

“Wait a minute...Save a life!”

DANGER!



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

DANGER!



Be particularly careful when transporting the Implement using the tractor. Turn curves or go up or down hills only at a low speed and at a gradual steering angle. Make certain that at least 20% of the tractor's weight is on the front wheels to maintain safe steering. Slow down on rough or uneven surfaces. (STI-1)

WARNING!



Never unhitch without using the Tongue Jack. The Tongue is very heavy. Attempting to lift the Tongue without using the Tongue Jack could cause **strains or other injury**. Allowing the tongue to fall **suddenly and unexpectedly** could result in **crushing injury**. Use the Tongue Jack for **lifting the mower only**. Overloading the Tongue Jack can cause failure with possible **serious bodily injury or even death**. (STI-4)

SAFETY

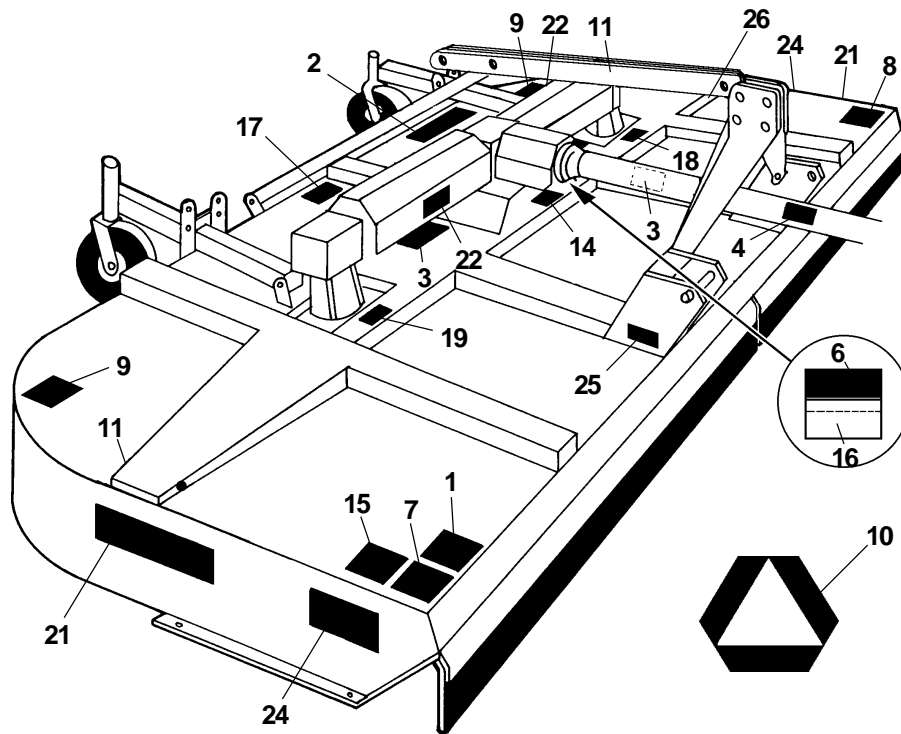
In addition to the design and configuration of this Implement, including Safety Signs and Safety Equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence, and proper training of personnel involved in the operation, transport, maintenance, and storage of the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

PARTS INFORMATION

Servis-Rhino 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 Servis-Rhino 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 Servis-Rhino mower parts for economy and safety. (SPRM-1)

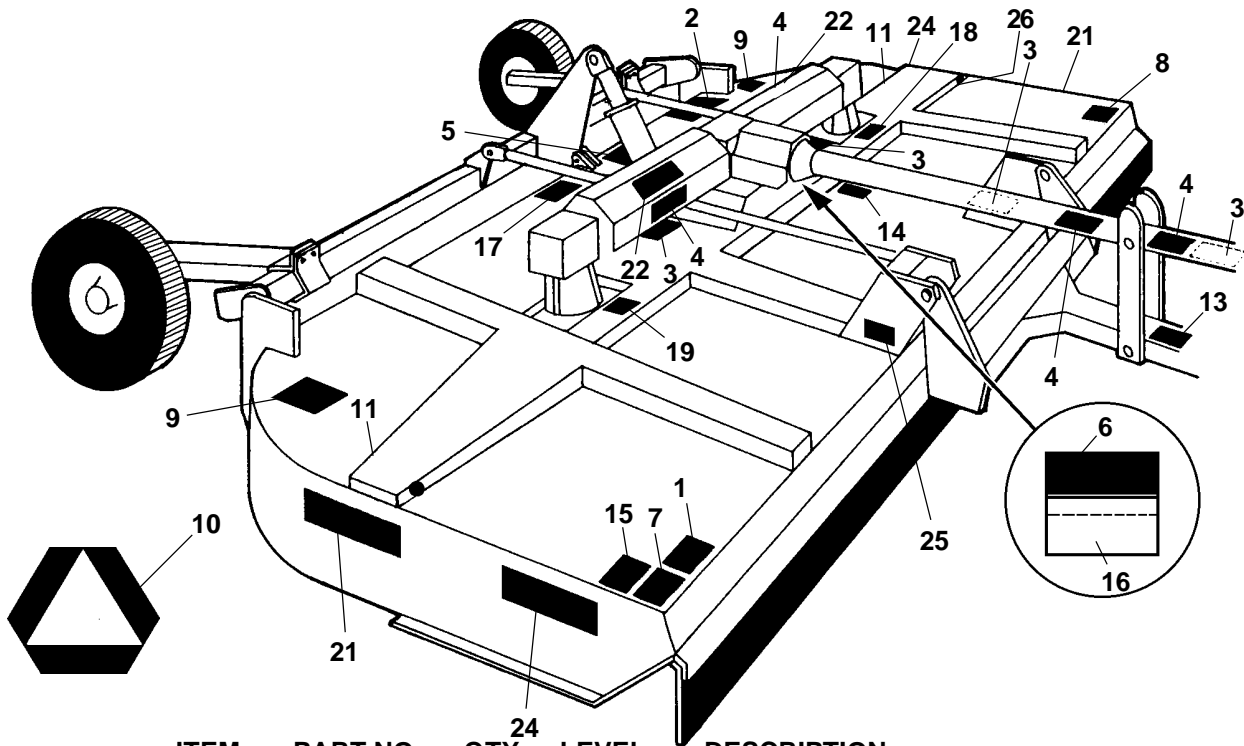
SEE YOUR SERVIS-RHINO DEALER

SAFETY



ITEM	PART NO.	QTY	LEVEL	DESCRIPTION
1	00725746	1	PELIGRO	Translate Safety Material
2	00749117	1	DANGER	Multiple Hazard
3	00756004	2[3(4)]	DANGER	D/L Shield missing. Do Not Operate
4	00756005	2[3(4)]	DANGER	Rotating Driveline/Entanglement/all Shields
5	00756059	0(1)	WARNING	Oil Leak Detection
6	00756494	1	DANGER	Driveline Hazards
7	02925100	1	INSTRUCT	Alamo Parts, Rotary Mowers
8	00769736	1	WARNING	Use/Repair Shields/Guards
9	00769737	2	DANGER	Cutting Blades
10	03200347	*	REFLCTR	SMV
11	1458392	2	REFLCTR	Red Reflectors
13	00764848	0(1)	INSTRUCT	Drawbar-to-PTO Adjustment
14	00763613	1	INSTRUCT	Slip Clutch Adjustment
15	00763977	1	INSTRUCT	Notice to Owner
16	D103	{1}	INSTRUCT	540 RPM (As Needed)
16	D114	{1}	INSTRUCT	1000 RPM (As Needed)
17	D132	1	INSTRUCT	Blade Timing
18	D137	1	INSTRUCT	CCW Blade Rotation
19	D138	1	INSTRUCT	CW Blade Rotation
21	00757139	2	LOGO	Alamo Logo (5-1/8 x 18-3/4)
22	02960766	2	L.NAME	Alamo (4 x 5)
24	00771342	2	NAME	A120 Name
25	00767310	1	SER PLT	A120 Serial Plate
26	1458393	1	REFLCTR	Red Reflector
		[]		Installed by D/L Mfr. (Not on BOM)
		()		Quantity for Pull-Type Only
		{ }		Use one or the other as required.
		*		Furnished by Tractor Manufacturer

SAFETY



ITEM	PART NO.	QTY	LEVEL	DESCRIPTION
1	00725746	1	PELIGRO	Translate Safety Material
2	00749117	1	DANGER	Multiple Hazard
3	00756004	2{3(4)}	DANGER	D/L Shield missing. Do not operate
4	00756005	2{3(4)}	DANGER	Rotating Driveline/Entanglement/all shields
5	00756059	0(1)	WARNING	Oil Leak Detection
6	00756494	1	DANGER	Driveline Hazards
7	02925100	1	INSTRUCT	Alamo Parts, Rotary Mowers
8	00769736	1	WARNING	Use/Repair Shields/Guards
9	00769737	2	DANGER	Cutting Blades
10	03200347	*	REFLCTR	SMV
11	1458392	2	REFLCTR	Red Reflectors
13	00764848	0(1)	INSTRUCT	Drawbar-to-PTO Adjustment
14	00763613	1	INSTRUCT	Slip Clutch Adjustment
15	00763977	1	INSTRUCT	Notice to Owner
16	D103	{1}	INSTRUCT	540 RPM (As Needed)
16	D114	{1}	INSTRUCT	1000 RPM (As Needed)
17	D132	1	INSTRUCT	Blade Timing
18	D137	1	INSTRUCT	CCW Blade Rotation
19	D138	1	INSTRUCT	CW Blade Rotation
21	00757139	2	LOGO	Alamo Logo (5-1/8 x 18-3/4)
22	02960766	2	L.NAME	Alamo (4 x 5)
24	00771342	4	NAME	A120 Name
25	00767310	1	SER PLT	A120 Serial Plate
26	1458393	1	REFLCTR	Amber Reflector
		[]		Installed by D/L Mfr (Not on BOM)
		()		Quantity for Pull-Type Only
		{ }		Use one or the other as required
		*		Furnished by Tractor Manufacturer

SAFETY

! DANGER



**GUARD MISSING
DO NOT OPERATE**

00756004

! DANGER



**GUARD MISSING
DO NOT OPERATE**

00756004

! DANGER

3 - 00756004

! DANGER



**ROTATING DRIVELINE
CONTACT CAN CAUSE DEATH
KEEP AWAY!**

DO NOT OPERATE WITHOUT—

- ALL DRIVELINE, TRACTOR AND EQUIPMENT SHIELDS IN PLACE
- DRIVELINES SECURELY ATTACHED AT BOTH ENDS
- DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE

00756005

4- 00756005

! WARNING

USE PAPER OR CARDBOARD TO CHECK FOR LEAKS. **NEVER USE YOUR HAND.** IF OIL PENETRATES SKIN, GANGRENE OR OTHER SERIOUS INJURY COULD OCCUR. **GET IMMEDIATE MEDICAL ATTENTION.**
See Operator's Manual.

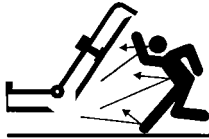
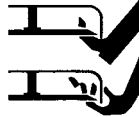


00756059

5 - 00756059

DANGER

THROWN OBJECTS CUTTING BLADES

KEEP AWAY - ROTATING BLADES

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

- Stop mowing if passersby enter the area of thrown objects (See Operator's Manual).
- Do not operate with Mower or Wing raised off the ground. (See Operator's Manual).
- Operate only if all Guards-Deflectors are in place and in good condition.

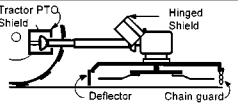

00769737

9 - 00769737

! WARNING

FAILURE TO USE AND MAINTAIN SHIELDS AND DEFLECTORS IN GOOD CONDITION MAY LEAD TO INJURY OR DEATH FROM ENTANGLEMENT WITH ROTATING PARTS, BEING HIT BY OBJECTS THROWN WITH GREAT FORCE BY BLADES, OR BY BLADE CONTACT.

- Always replace Guards which have been removed for maintenance. Never operate with Guards missing or broken.
- Chain Guards, Gearbox & Driveline Shields, Rubber-Fabric Deflectors, and Soidic Band Enclosures are subject to wear and lost or broken parts and must be repaired or replaced as soon as damage is found.
- Safety Shielding must be installed and in good condition to reduce the possibility of thrown objects any time this machine is operated in any area where thrown objects could cause property damage or bodily injury.


ROTARY 00769736

8 - 00769736



21 - 00757139

ATTENTION!

Do not operate PTO until ALL Slip Clutches are properly adjusted and checked to make certain that NONE ARE FROZEN and that ALL WILL SLIP under excessive load. See Operator's Manual for complete instructions.

00763613

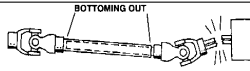
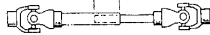
14 - 0073613

SAFETY

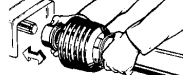
⚠ DANGER

1. MAKE CERTAIN DRIVELINES ARE OF THE CORRECT LENGTH AND SECURELY ATTACHED. **DRIVELINE SEPARATION AND/OR PTO STUB SHAFT FAILURE CAN CAUSE INJURY OR DEATH.** (See Operator's Manual for procedure.)

* SEE MANUAL FOR MINIMUM OVERLAP & MINIMUM/MAXIMUM LENGTHS



2. MAKE CERTAIN THAT DRIVELINE SHIELDS ARE INSTALLED CORRECTLY AND **TURN FREELY** TO PREVENT INJURY OR DEATH FROM ENTANGLEMENT



3. MAKE CERTAIN THAT DRIVELINE IS INSTALLED CORRECTLY ON TRACTOR PTO SHAFT. MOVE YOKE BACK AND FORTH UNTIL LOCKING COLLAR CLICKS FORWARD AND LOCKS YOKE IN PLACE

4. **540 PTO RPM** UNLESS SPECIFICALLY MARKED OTHERWISE. 00756494

6 - 00756494

**OPERATE THIS MACHINE WITH
1000 RPM
TRACTOR P.T.O. SPEED** D-114

16 - D114

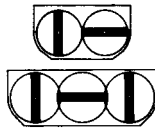
**OPERATE THIS MACHINE WITH
540 RPM
TRACTOR P.T.O. SPEED**

16 - D103

IMPORTANT

Time Blade Carriers
Perpendicular To
Each Other.

Servis-Rhino Co.
Seguin, TX.



D132

17 - D132

⚠ PELIGRO

LEA EL INSTRUCTIVO

Si No Lee Ingles, Pida Ayuda a Alguien
Que Si Lo Lea Para Que le Traduzca las
Medidas de Seguridad.



00725746

1 - 00725746

IMPORTANT

For your safety and to guarantee optimum product reliability, always use Genuine ALAMO INDUSTRIAL replacement parts. The use of inferior "will-fit" parts will void Warranty of your ALAMO INDUSTRIAL implement and may cause premature or catastrophic failure which can result in serious injury or death. If you have any questions concerning the repair parts you are using, contact ALAMO INDUSTRIAL, 1502 E. Walnut Seguin, TX 78155 (830) 372-3551.



7 - 02925100

NOTICE TO OWNER

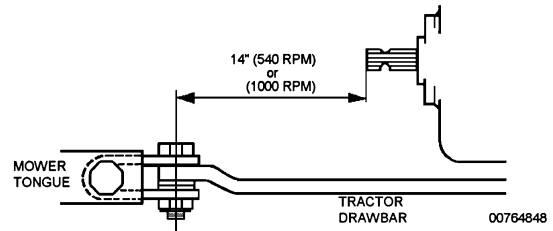
An OPERATOR'S MANUAL (with Repair Parts Listing) and a WARRANTY REGISTRATION CARD were attached to this implement during final inspection at the factory.

If they were not attached at the time of purchase, please contact your selling dealer at once.

1. Read and understand Manual before operating the implement.
2. Complete, sign, and mail the Warranty Registration Card in today. 00763977

15 - 00763977

IMPORTANT REQUIRED FOR EQUAL ANGLE DRIVELINE UNIT



13-00764848



BLADE ROTATION

D138

19- D138



BLADE ROTATION

D137

18- D137

A120

24 - 00771342



22 - 02960766

2 - 00749117 - Not Shown
(See Inside Front Cover of Manual)

INTRODUCTION SECTION

INTRODUCTION

This Rotary Mower is designed with care and built with quality materials by skilled workers. Proper assembly, maintenance, and operating practices, as described in this manual, will help the owner/operator get years of satisfactory service from the machine.

The purpose of this manual is to familiarize and instruct. The Assembly Section instructs the owner/operator in the correct assembly of the Mower using standard and optional equipment. The Parts Listing section is designed to familiarize the owner/operator with replaceable parts on the Mower. This section provides exploded assembly drawings of each mower component illustrating each piece and the corresponding part number.

Careful use and timely service saves extensive repairs and costly downtime losses. The Operation and Maintenance Sections of the manual train the owner/operator how to work the Mower correctly and attend to appropriate maintenance. The Trouble Shooting Guide helps diagnose difficulties with mower and offers solution to the problems.

Safety is of primary importance to the owner/operator and to the manufacturer. 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. Many of the Safety Messages will be repeated throughout the manual. The owner/operator/dealer should know these Safety Messages before assembly and be aware of the hazards of operating this mower during assembly, use, and maintenance. The Safety Alert Symbol combined with a Signal Word, as seen below, is intended to warn the owner/operator of impending hazards and the degree of possible injury faced when operating this machine.

CAUTION The lowest level of Safety Message; warns of possible minor injury. Decals located on the Mower with this Signal Word are Black and Yellow.



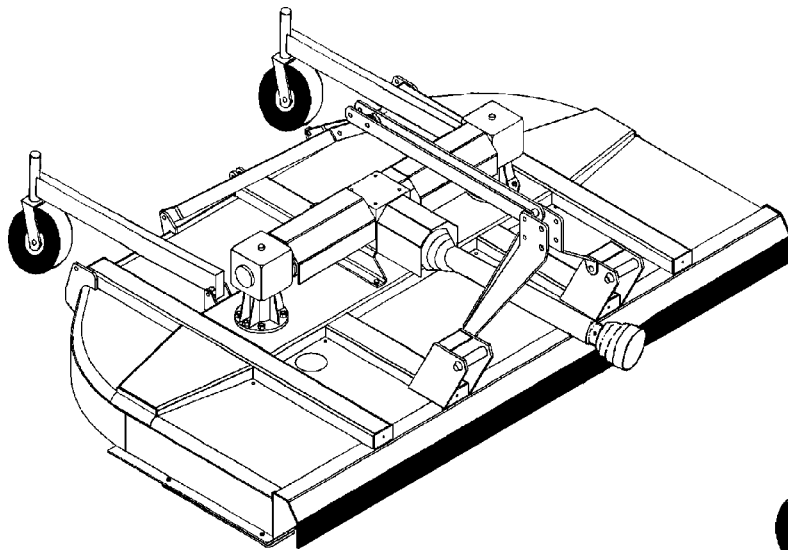
WARNING Serious injury or possible death! Decals are Black and Orange.



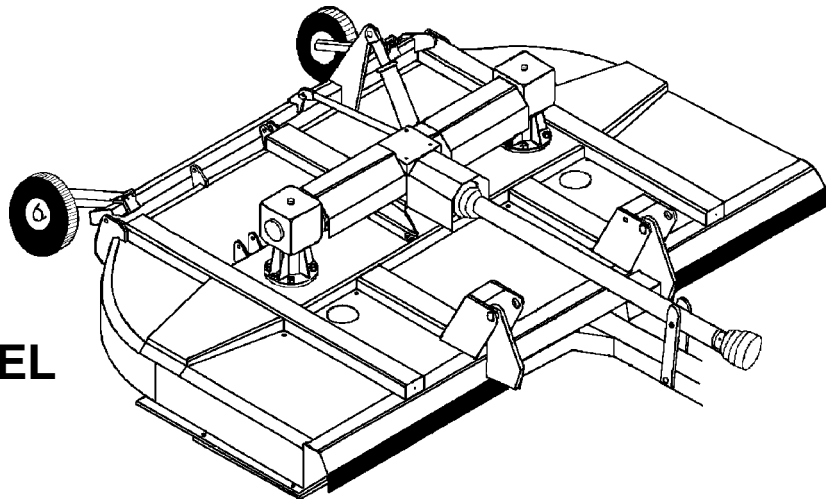
DANGER Imminent death/critical injury. Decals are Red and White.



INTRODUCTION



LIFT TYPE MODEL



PULL TYPE MODEL

These mowers are available in lift-type and pull-type. These rugged Mowers are designed for medium-duty work, including grass, weeds and material up to 2" in diameter.

DANGER



For Non-Agricultural use, OSHA, ASAE, SAE, and ANSI standards require the use of Chain Guards, Deflectors, or Solid Skirts at all times. The Mower manufacturer strongly recommends the use of Chain Gaurds, Deflectors, or Solid Skirts for Agricultural purposes as well to reduce the risk of property damage, serious bodily injury, or even death from objects thrown out by or from contact with the Cutting Blades.

The 10' Lift Type machine requires a minimum of 60 HP with adequate front end weight.

WARNING



At least 20% of the tractor's total weight must be on the front tires with the Mower lifted to provide adequate traction for safe steering under good conditions. Slow down on hills, rough terrain, and curves.

Front and rear, and left and right are determined by the normal direction of travel (the same as on your automobile).

INTRODUCTION

ATTENTION OWNER/OPERATOR

BEFORE OPERATING THIS MACHINE:

1. Carefully read the Operator's Manual, completely understand the Safety Messages and instructions, and know how to operate correctly both the tractor and Mower.
2. Fill out the Warranty Card in full. Be sure to answer all questions, including the Serial Number of the Mower. Mail within 30 days of delivery date of this implement.

NOTE: *Warranties are honored only if completed "Owner Registration and Warranty" forms are received by Alamo Group within thirty days of delivery of the mower.*

3. Record the Mower Model and Serial Numbers on the Warranty page at the front of the Operator's Manual. Keep this as part of the permanent maintenance file for the Mower.

IMPORTANT

For your safety and to guarantee optimum product reliability, always use Genuine ALAMO INDUSTRIAL replacement parts. The use of inferior "will-fit" parts will void Warranty of your ALAMO INDUSTRIAL implement and may cause premature or catastrophic failure which can result in serious injury or death. If you have any questions concerning the repair parts you are using, contact ALAMO INDUSTRIAL, 1502 E. Walnut Seguin, TX 78155 (830) 372-3551.



ASSEMBLY SECTION

ASSEMBLY

The A120 Mower will attach to most tractors with Cat. II & III and II & III Quick Hitch. The A120 can be purchased for tractors with 540 or 1000 RPM PTO.

DEALER SET-UP INSTRUCTIONS

Assembly of this mower is the responsibility of the Alamo dealer. The mower should be delivered to the owner completely assembled, lubricated, and adjusted for normal cutting conditions.

Set up mower as received from the factory with these instructions. Open parts box and lay parts out to make location easy. Refer to the parts lists and exploded view drawings for more detail.

This mower is shipped partially assembled. Assembly will be easier if components are aligned and loosely assembled before tightening hardware.

CAUTION!



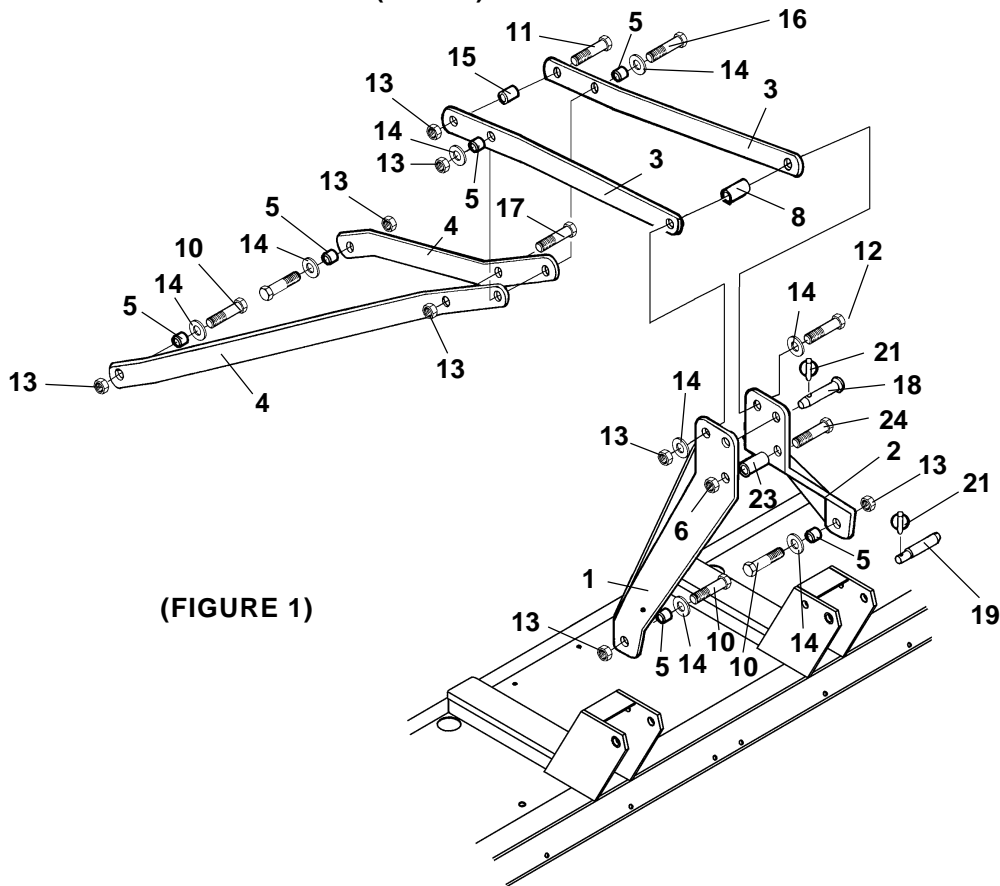
Always use personal protection devices such as eye, ear and feet protectors during assembly.

A-FRAME ASSEMBLY - LIFT TYPE (FIGURE 1)

1. Insert bushing (5) into lower end of each A-Frame half (1 & 2). Position each A-Frame half so the large hole in the top is towards the tractor. Install 3/4 x 2" bolt (10) with Flatwasher (14) through bushing (5) in A-Frame half (1 & 2) and rear hole in inside Main Frame lug. Install locknut.
2. Install bushing (8) between braces (3) through top rear hole of A-frame and insert bolt (12), flatwasher (14) and locknut (13).
3. Install bushing (22) between A-Frame halves (1 & 2) and insert bolt (23) and locknut (13). Install bushings (6) through Braces (4) and install bolt 3/4 x 5 (10), flatwashers (14) and locknut (13).
4. Attach Braces (3) to Braces (4) with bushings (6), flatwashers (14), bolt 3/4 x 2-1/2 (16), and locknut (13). Retain the rear of Braces (3) together with bushing (15), bolt 3/4 x 2-1/2 (11) and locknut (13). Attach braces (4) together with bolt 3/4 x 1-1/2 (17) and locknut (13).
5. Install Brace supports (4) to the rear lugs on the Main Frame with bolts 3/4 x 2 (10), flatwashers (14), bushings (6) and locknuts (13).

ASSEMBLY

A-FRAME ASSEMBLY - LIFT TYPE (Cont'd)

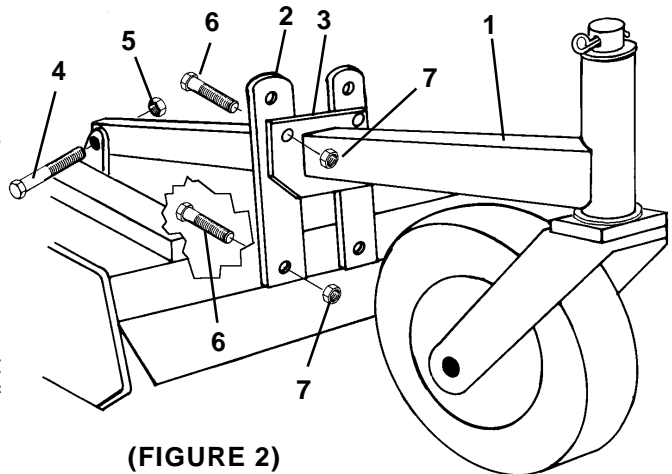


(FIGURE 1)

ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION	ITEM	QTY	DESCRIPTION
1	1	A-Frame - RH	10	2	Bolt	17	1	Bolt
2	1	A-Frame - LH	11	1	Bolt	18	1	Pin
3	2	Brace	12	2	Bolt	19	2	Pin
4	2	Brace	13	9	Nut	21	3	Clip
5	6	Bushing 1-1/8OD x 9/16Lg	14	8	Washer	22	1	Bushing 1 1/4 x 2 1/8 Lg
6	1	Nut	15	1	Spacer	23	1	Bushing
8	2	Spacer	16	2	Bolt	24	1	Bolt

TAIL WHEEL ASSEMBLY - LIFT TYPE FIGURE 2

1. Attach Beam Support Weldments (2) to the Main Frame Assembly with 1/2 x 1-1/2 Bolts (6) & Locknuts(7).
2. Slide the Beam Weldment (1) through Bracket (3) and attach to the Mower Lugs with 5/8 x 4-1/2 Bolt(4) and Locknut(5).
3. Install 1/2 x 1-1/2 Bolts (6) through Beam Support Weldment (2) and Bracket (3). (Install through pair of holes which will give approximate desired cutting height). Install Locknut (7).



(FIGURE 2)

ASSEMBLY

CAUTION



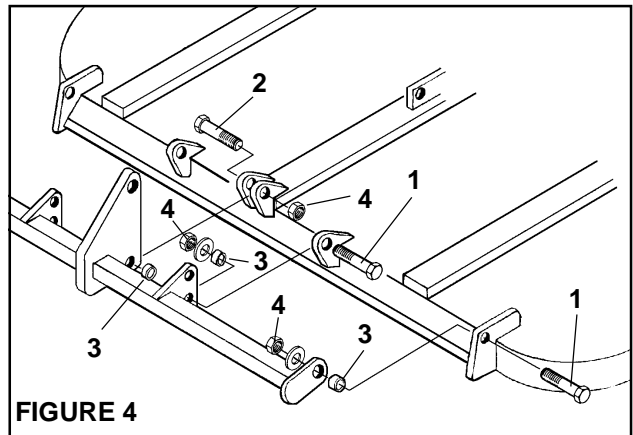
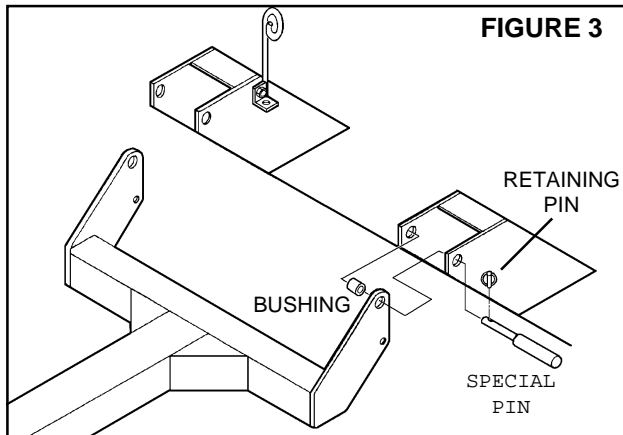
The Components of these machines are quite heavy. Block all components up securely before working under or putting extremities under such parts.

TONGUE

Insert tongue lugs between mainframe uprights and retain using Bushings & Special Pins. Insert Retaining Clip to Special Pins. **FIGURE 3.**

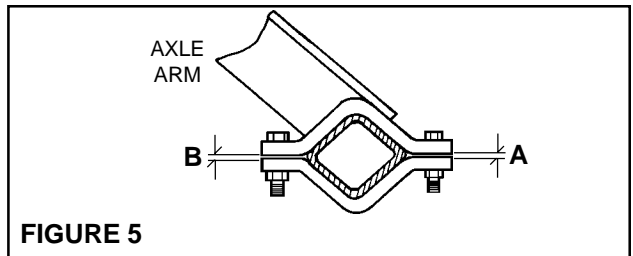
AXLE ASSEMBLY

Attach the Rear Axle to the lugs on the rear of the Mainframe using (4) 3/4 x 3-1/2 bolts (#1), (1) 3/4 x 3 bolt (#2), (5) bushings (#3), (5) Locknuts (#4) and (4) Flatwashers. **FIGURE 4.**



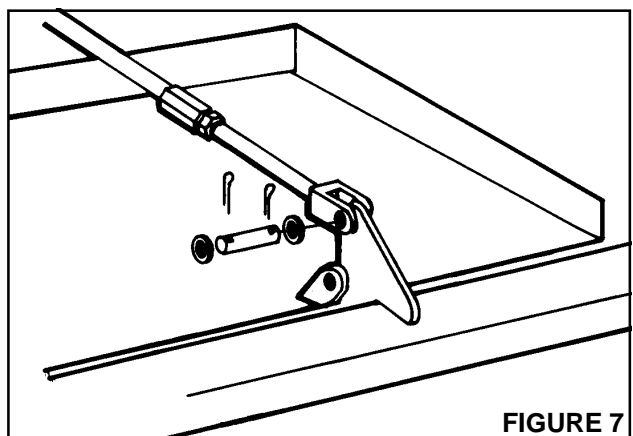
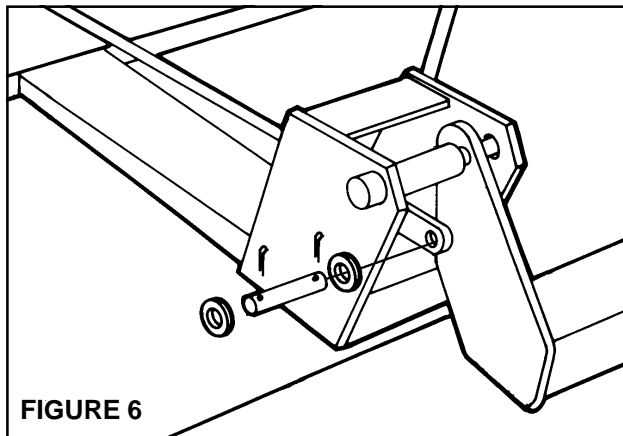
AXLE ARMS

Attach the Axle Arms to the Main Axle maintaining Dim. A. approximately equal to Dim. B. when clamp bolts are tightened. However, these dimensions may vary slightly if needed to heap level the Mower Deck from side to side. Note: Axle Arms may be moved on the main tube to the desired wheel tread but it is always recommended that wheels be placed as wide as possible for stability. **FIGURE 5.**



CONTROL RODS

Attach the two level-lift control rods to the lower lugs on tongue and to lugs on the rear axle tube using pins, washers and cotter pins. **Note:** The adjusting nuts on control rods should be to rear of machine and should always be adjusted with equal tension on both rods. **Figure 6 & 7.**



ASSEMBLY

OFFSET TONGUE

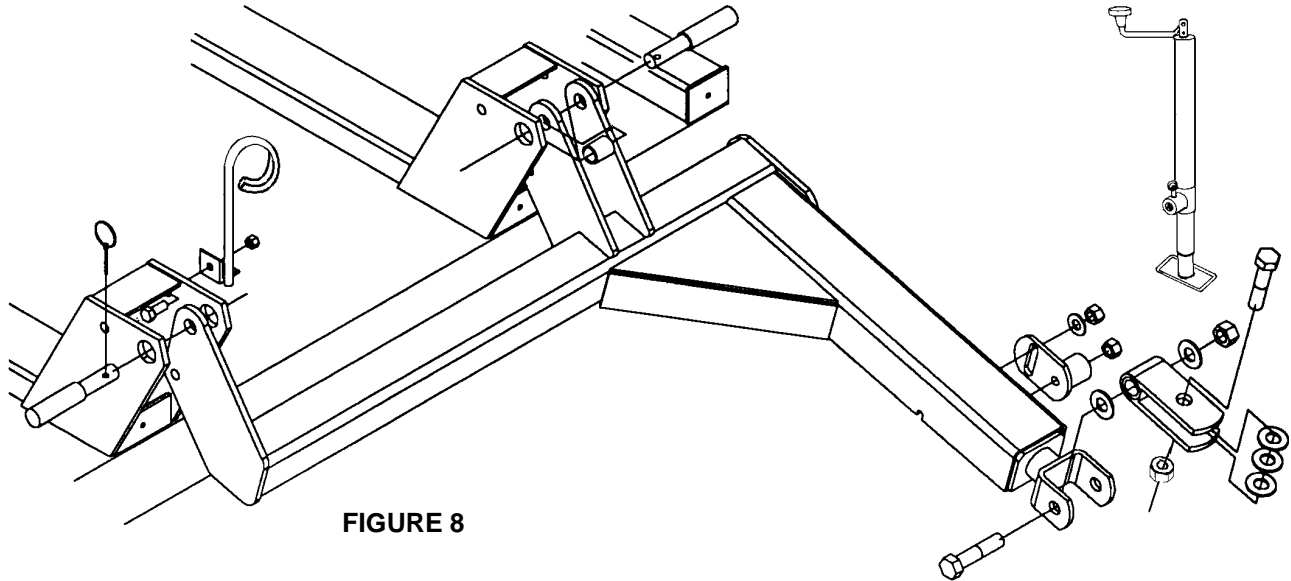
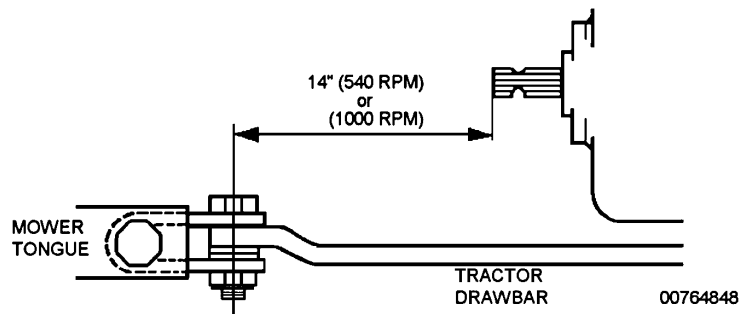


FIGURE 8

NOTE: On Offset Models tension the left rod to carry majority of weight. Adjust length of right control rod to be approximately 1/8" longer than left rod.

IMPORTANT
REQUIRED FOR EQUAL
ANGLE DRIVELINE UNIT



ASSEMBLY

MOWER LEVELING

Often when the unit is first assembled and placed on a horizontal surface, the cutter is not level front to rear or side to side. Proper leveling must be obtained in order to prevent skid shoes from plowing in the dirt and to obtain a clean, level cutting performance.

Leveling must first be conducted left to right with measurements being taken at the front corner of the mower deck from the ground to the bottom of the skid shoe. If the two dimensions measured are not equal, the cutter must be leveled left to right. This may be done by the following procedure:

Using the axle arm assembly on the high side of the mower deck, loosen the bottom two clamp bolts one or two turns and tighten the top two clamp bolts. This should be done in an alternating sequence, measuring the height of the skid shoes after each adjustment. Continue with this process until no additional leveling from side to side can be obtained. If the unit is still not level, work must then be done on the axle arm assembly which is on the low side of the cutter.

This cannot be done until the weight of the mower is removed from the axle arm by placing a jackstand underneath the mower and putting the hydraulic valve in the float position (or loosening the ratchet hack if the hydraulic cylinder is not used), which will then release pressure on the cylinder and the load on the axle arm.

Once this has been done, the axle arm may be adjusted by first loosening the top two bolts one or two turns and then tightening the bottom two bolts. After each adjustment, the mower should be lifted off of the jackstand using the hydraulic cylinder or ratchet jack and then placed back on the jackstand if further adjustment is needed. This process should be continued until the mower becomes level left to right.

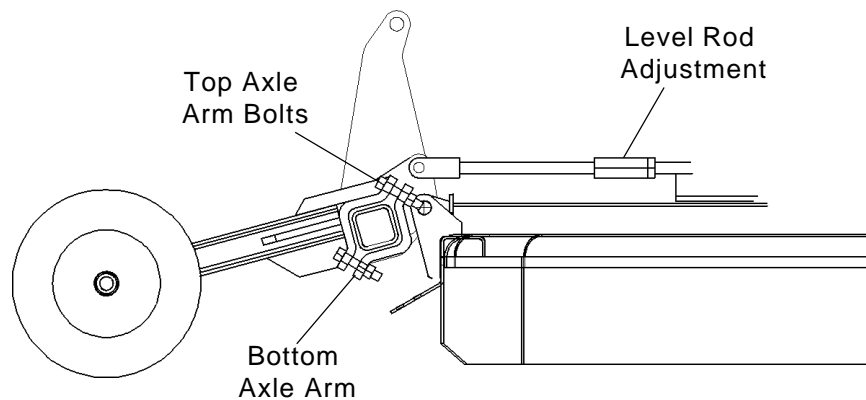


FIGURE 8

Once leveling from side to side has been completed, leveling from front to rear should be done. To level the mower from front to rear, the leveling rod which links the tongue and the rear axle must be adjusted. To lower the front, lengthen the level rods and to raise the front, shorten the level rods. **IMPORTANT:** Adjust level rods the same length to maintain equal tension in rods. Improper adjustment may cause rods to snap or bend.

Once machine has been leveled according to directions, the cutting height can be set.

ASSEMBLY

HYDRAULIC OR MANUAL LIFT

Attach the Spring Assembly option (**Figure 9**) to the lug on the mower deck behind the Center Gearbox. Retain using 3/4 x 3 capscrew and locknut. Install the Hydraulic Cylinder (**Figure 9**) or the manual Ratchet Lift Screw 1"x2 3/4" (**Figure 10**) between the Axle Center Lug and the Lug directly behind the Center Gearbox. Tighten all Bolts securely.

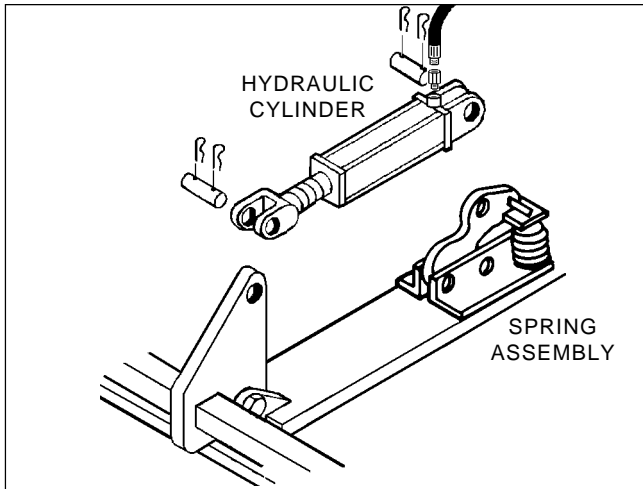


FIGURE 9

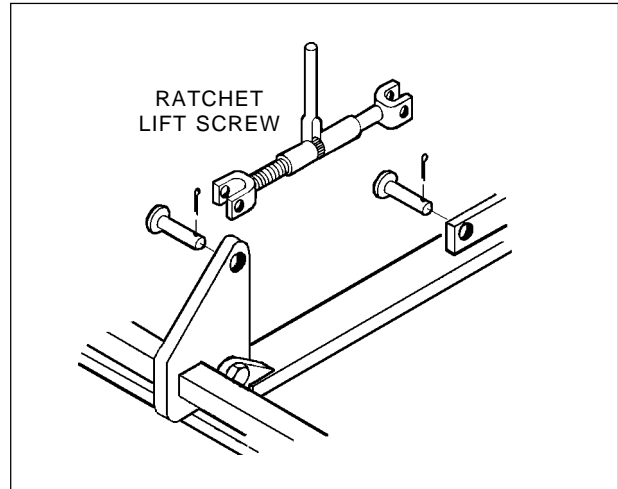


FIGURE 10

WHEELS

Install the Wheels on the Wheel Hubs. **Note:** If Laminated Tires are used, place the flat side of the Lug Nut against the Wheel **Figure 11**. Note direction of travel and curvature of rubber segments in tire and install as shown in Figure 11.

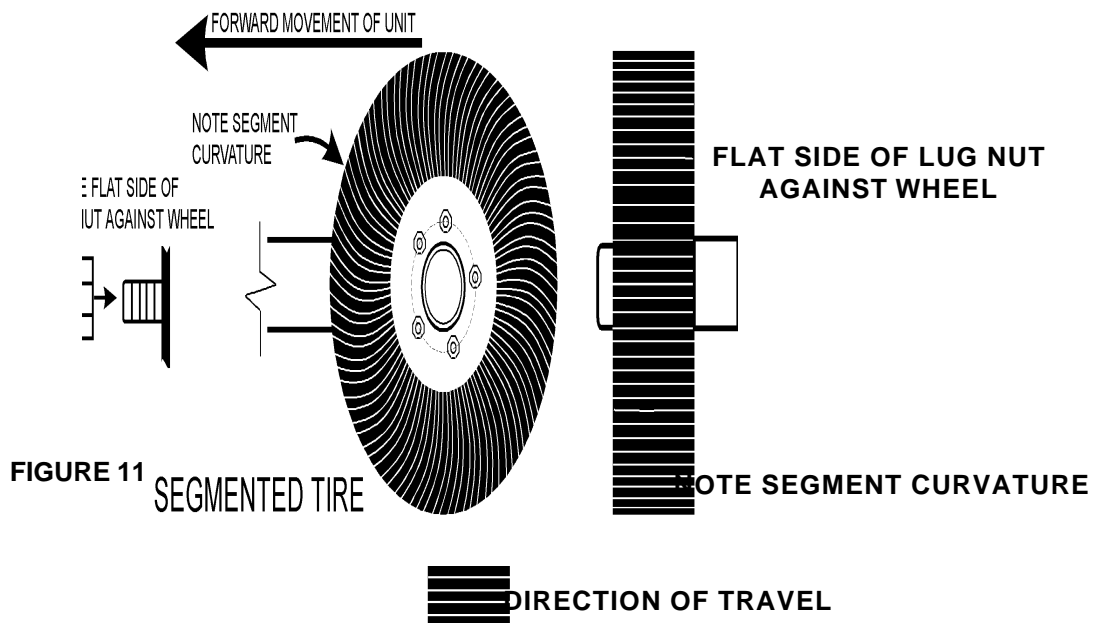


FIGURE 11

ASSEMBLY

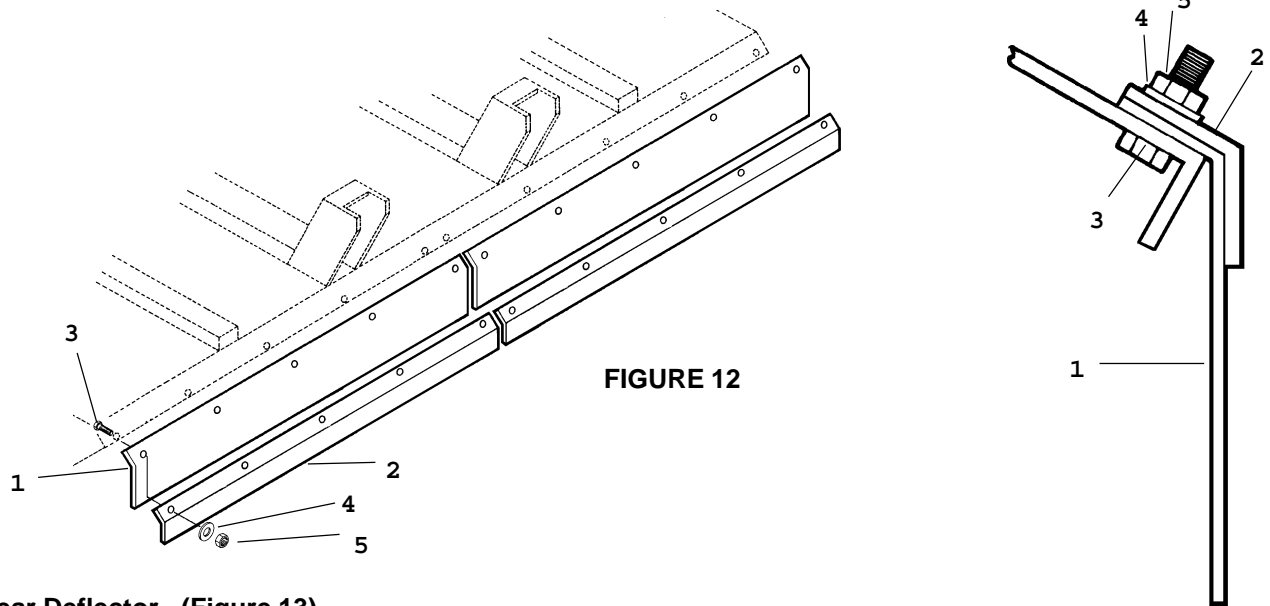
SHIELDS, GUARDS, AND DEFLECTORS

Shields, Guards, and Deflectors are provided for the protection of the operator and bystanders. The Manufacturer strongly recommends the use of Protective Shielding at all times. Do not operate the machine without Shields in place.

A. Rubber Fabric Deflectors (Standard Equipment)

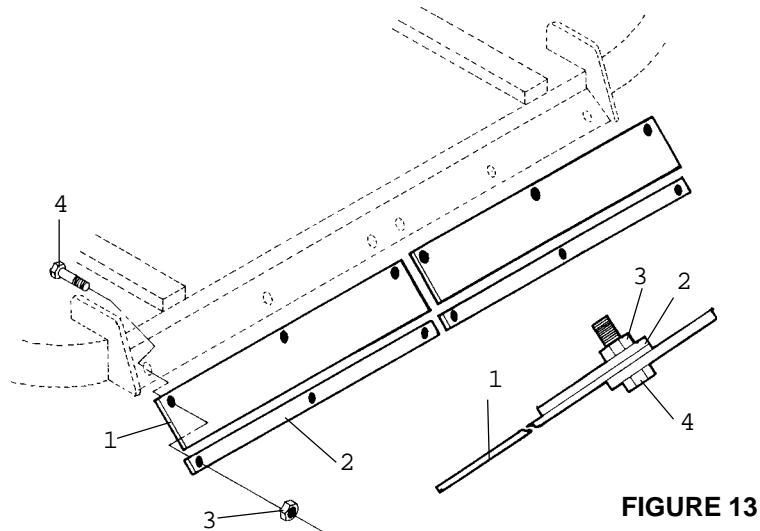
Front Deflector - (Figure 12)

1. Attach the front rubber Deflectors (1) to the Mower with bracket Straps (2), 1/2" x 1-1/4" Bolts (3), Flatwashers (4) and Locknuts (5).



Rear Deflector - (Figure 13)

2. Attach the rear Rubber Deflectors (1) to the Mower with bracket Straps (2), 1/2" x 1-1/4" Bolts (4), and Locknuts (3).



ASSEMBLY

CHAINGUARD (EXTRA EQUIPMENT)

Front Chain Guards (Figure 14)

1. Attach the right and left Chain Guard assemblies (1) to the mower with 1/2" x 1-1/4" Bolts (2), Flatwashers (3), and Locknuts(4).

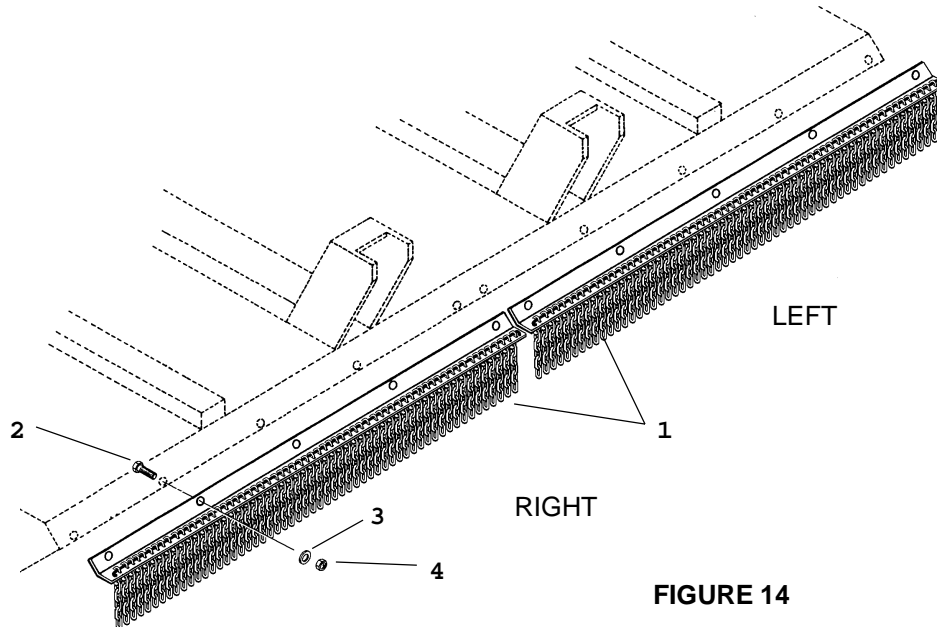


FIGURE 14

Rear Chain Guards (Figure 15)

1. Attach the right and left Chain Guard assemblies (1) to the mower with 1/2" x 1-1/4" Bolts (2), Flatwashers (3), and Locknuts(4).

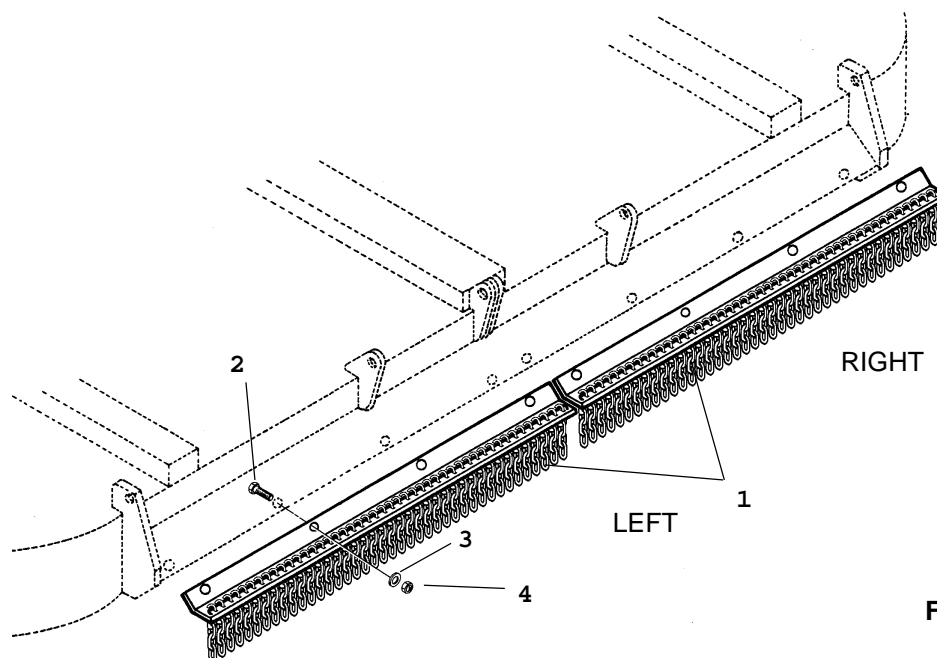


FIGURE 15

ASSEMBLY

DRIVELINES ATTACHMENT (Figure 15)

Before starting assembly, make certain that all paint, dirt, and grease are removed from gearbox shaft (1). To ease assembly apply a light coat of grease to splines and assemble. Do not assemble a driveline without a shield.

1. Attach the slip clutch end of the driveline to the gearbox input shaft securely. Make certain that the slip clutch is fully onto the input shaft splines. Tighten the locknuts (2) alternately until they have reached the proper torque. Refer to Torque Chart in Maintenance Section.

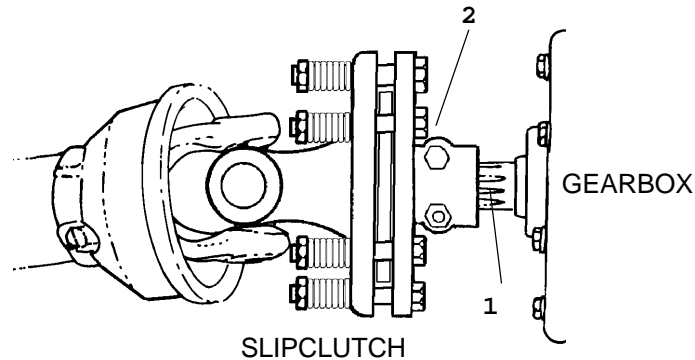


FIGURE 15. Driveline Attachment

SHIELD ASSEMBLY (Figure 16)

Attach the Bracket (1) to the Center Gearbox with M10 x 35 bolts (2), and Flatwasher (3). Install Shield (5) and retain with 1/2" Wing Nut (4)

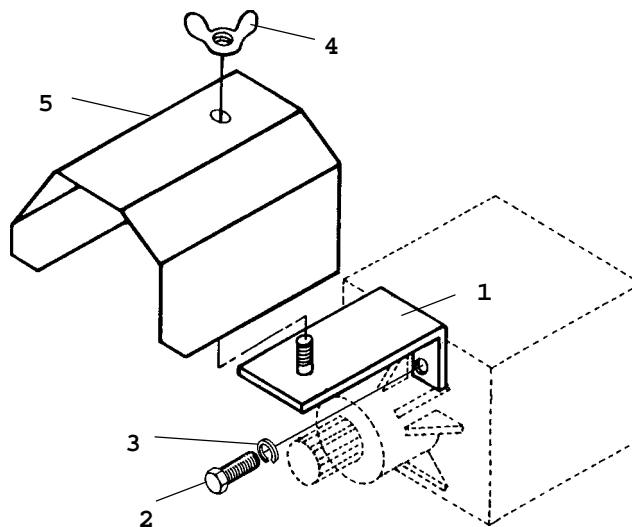


FIGURE 16. Shield Assembly

ASSEMBLY

CHECK CHAINS (EXTRA EQUIPMENT) FOR LIFT-MODELS (Figure 17)

Check Chains are available for attachment to front of Mower as an accessory. Check chains are used to control cutting height and especially to allow Mower to be lowered to the same preset cutting height effortlessly.

Install lower end of check chain (4) to hitch ears (6) through lower holes (7) using bolts, nuts and lockwashers(8). Tighten securely.

Install chain lugs (3) on either side of tractor top link mounting (5) using bolt or pin of required diameter and length. Cat I kit requires a 3/4" diameter bolt. Cat II kit requires a 1" diameter bolt. Install top end of check chains in brackets (3).

Cutting height is then set by placing proper chain link in keyhole slot. Cutting height is easily adjustable by hooking chain higher or lower in the keyholes in chain lug (3).

CAUTION!



For additional safety in transport, raise mower as high as possible without having driveline hit deck and shorten check chains as much as possible to prevent inadvertent falling in transport.

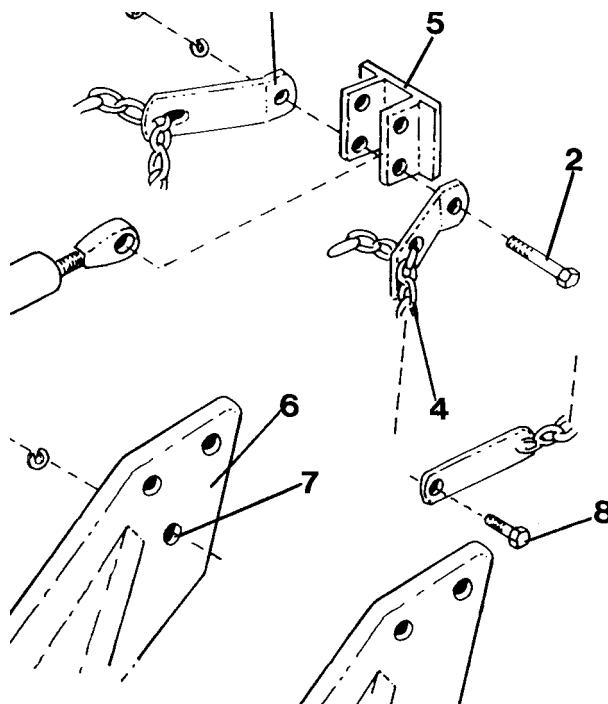
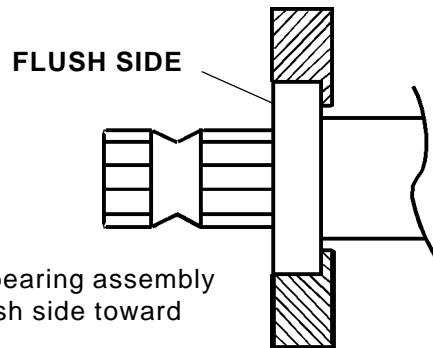


FIGURE 17. Check Chain Assembly

ASSEMBLY

Attaching Jackshaft Bearing Support.

Insert the splined end of jackshaft into the Bearing Support, (**Figure 19**), and attach the Jackshaft Bearing Support to the Tongue Lugs as shown. Insert bushing (item 1) into Bearing Supports, install 5/8 x 8 capscrew (item 2) with flatwasher (item 3) against bushing, and install locknut (item 4) and tighten securely.



NOTE: Install bearing assembly with flush side toward tractor.

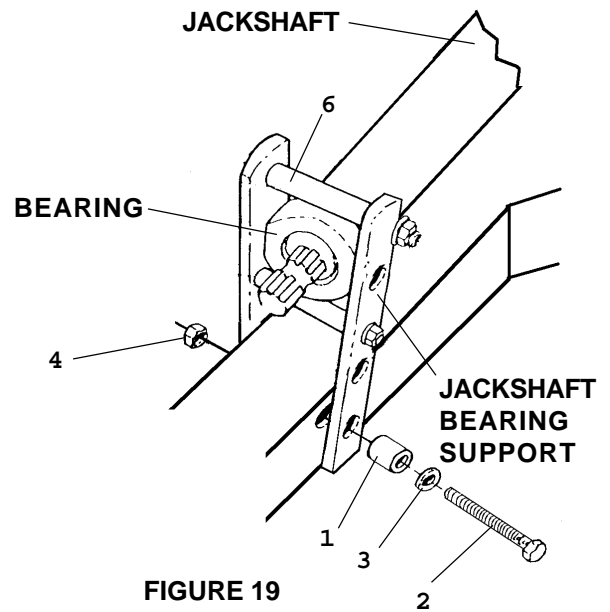


FIGURE 19

OPERATION

OPERATION

The safe operation of this machine is the responsibility of the operator. The operator should be familiar with the cutter and tractor and all safety practices before starting operation. This cutter is designed primarily for weed and grass control. It is equipped with suction Blades. Recommended cutting speed for most conditions is from 2 to 5 mph. Always operate tractor PTO at 540 RPM.

IMPORTANT: To avoid damage to cutter, retorque all bolts after the first 10 hours of operation. Retorque blade carrier retaining nut on gearbox lower shaft to 450 ft. lbs.

MOWER PREPARATION

LIFT TYPE:

The Category II or III Hitch, (**Figure 1**), requires no adaptors to attach to a tractor with a Category II or III, 3-Point Hitch.

The tractor Lift Arms are attached to the Hitch Pins.

To mount Category II or III Quick Couplers, the top spacer must be moved to the bottom hole in A-Frame.

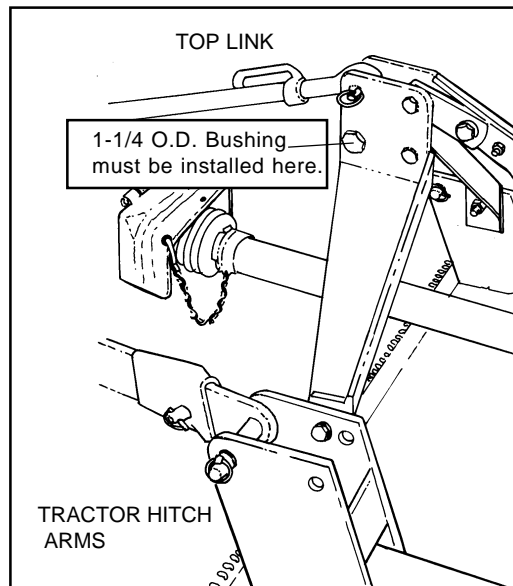


FIGURE 1

PULL-TYPE:

No adaptors are required for attaching a standard Pull-Type Unit to a tractor with either 540 RPM or 1000 RPM PTO. Proper distance between the Drawbar Hitch and the tractor PTO must be maintained for satisfactory operation. **Figure 2.**

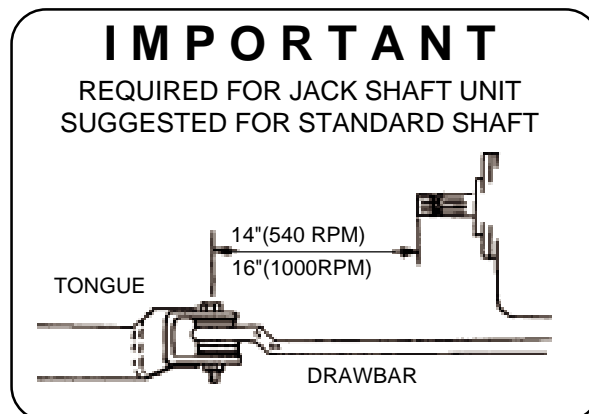


FIGURE 2

OPERATION

TRACTOR PREPARATION

Ballast

An implement code of 7.85 has been assigned to the fully-equipped Lift-Type A120 mower so that you can determine the tractor front ballast requirements. Refer to your tractor Operator's manual for the code number and ballasting requirements.

WARNING!

Do not operate with less than 20% of tractor's gross unballasted mass on front Wheel with Shredder in transport position.



Wheel Treads

Tractor wheel tread spacing should be increased when working on inclines or rough ground to reduce the possibility of tipping.

Stabilizer Bars or Sway Blocks

Use stabilizer bars or sway blocks to prevent side sway of the mower. Stabilizer bars must be used with the Offset Adaptor.

Draft Links

The linkage to the Lower Draft Links should be set in the "float" position, allowing the unit to follow the contour of the terrain.

Drawbar

Shorten or remove the tractor Drawbar so it will not interfere with the up and down movement of the Mower.

WARNING!

Do not get between Tractor and Mower when engine is running!



Attaching Mower To Tractor - Lift Type

Back the tractor up to the Mower so that the lower Draft Arms are in alignment with the Mower lower Lift Pins. Stop the engine, lock the brakes or place the tractor in park. Connect the tractor and Stabilizer Bars to the lower Lift Pins. Adjust the Top Link so it will pin to the top holes in the A-Frame or into holes in floating top link.

Category II, III and II, IIIN Quick Coupler

After installing the Bushings in the A-Frame (see "Mower Preparation Section"), back the tractor up to the Mower so the Quick Coupler Lower Lift Lugs and Upper Lift Lugs are in line with the Mower Lift Pins. Raise the Three-Point Lift on the tractor slowly, so the Quick Coupler Lift Lugs engage the A-Frame and Lift Pin of the Mower. After the Lift Pins are securely engaged in the Quick Coupler, latch the Quick Coupler Lower Lift Lug Retaining Locks. Attach Driveline to tractor PTO.

OPERATION

Attaching Mower To Tractor - Pull Type

Block the mower wheels in place and use the Parking Jack to raise to the Tongue Clevis to the correct attaching height.

Adjust the tractor drawbar to proper length to provide dimensions shown in **figure 3** for proper Driveline attachment at 540 or 1000 RPM PTO speed as indicated on the Mower.

Keep every one clear and back toward the Mower until holes in clevis and tractor drawbar are aligned.

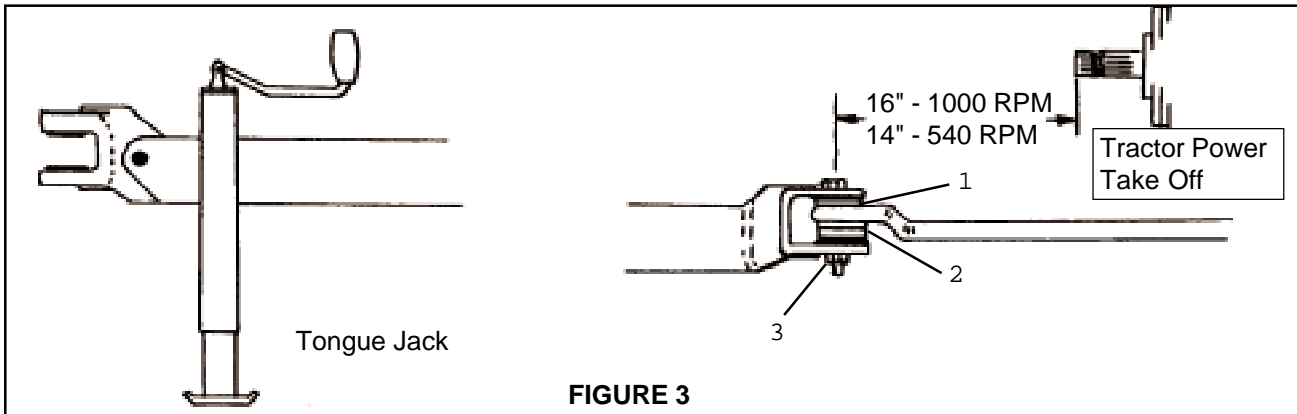


FIGURE 3

Place two 1" washers (1) under top lip of a WELDED Clevis. Add enough 1" spacer washers (2) between bottom of drawbar and bottom lip of Clevis to fill the open space. Install a 1" grade 5 or 8 bolt. Install a locknut (3) onto the bolt beneath the Clevis and tighten the 1" locknut & bolt securely. See **Figure 3**.

NOTE: If attaching Mower Clevis to a three -point-hitch drawbar, tractor drawbar must extend to rear to allow turning without binding in the Tongue Clevis. **DO NOT USE THIS TYPE DRAWBAR WITHOUT STABILIZERS.** Install washers the same as detailed drawn above. See art below.

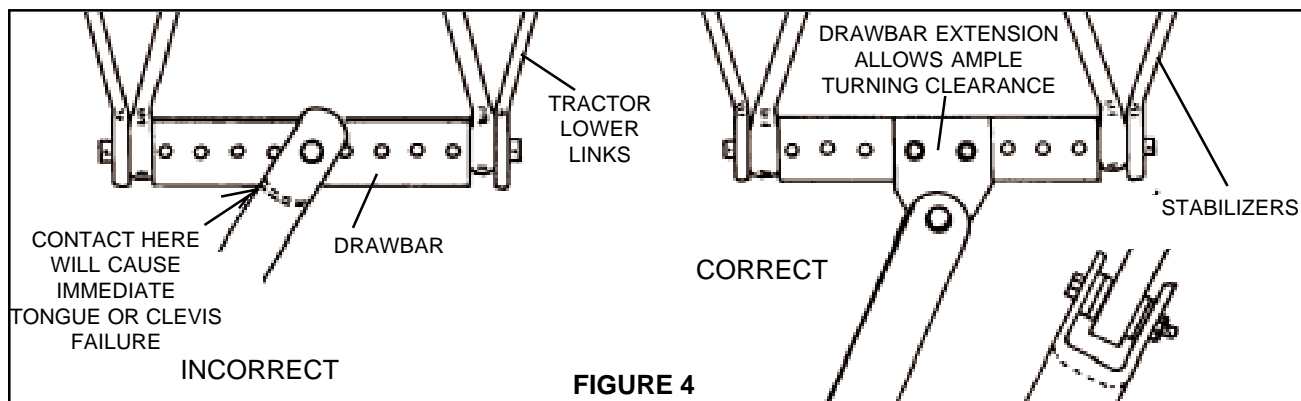


FIGURE 4

The two halves of the Clevis must be bolted together securely to carry the load properly without springing or breaking the Clevis.

DANGER!



Failure to adjust the Drawbar to the CORRECT LENGTH, failure to PROVIDE DRAWBAR CLEARANCE sufficient for short turns, and/or failure to ATTACH CLEVIS TO THE DRAWBAR correctly and securely MAY ALLOW THE MOWER TO SEPARATE FROM THE TRACTOR AND/OR THE DRIVELINE HALVES TO SEPARATE WHICH CAN CAUSE SERIOUS BODILY INJURY OR DEATH TO THE OPERATOR OR OTHERS.

OPERATION

PARKING JACK ADJUSTMENT

Tongue is equipped with jack mounting which can be rotated approximately 15 degrees in each direction so that jack may always be positioned in a near vertical position.

Loosen nut A, install parking jack, and then rotate until jack is vertical. Retighten nut A. **Figure 5.**

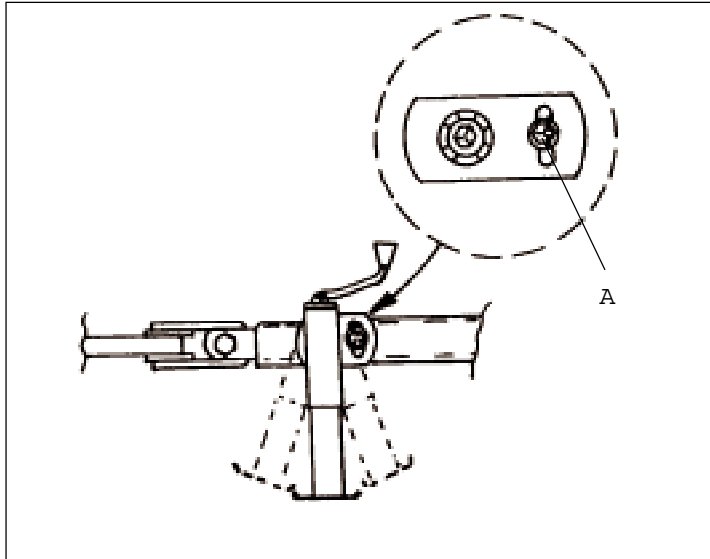


FIGURE 5

NOTE: Always place jack foot on firm surface or place board under jack for support.

When removing parking jack from tongue, place on storage bracket on left side of main frame.

Driveline Attachment to Tractor

1. Grab and pull collar on end of attaching yoke toward cutter.
2. Slide yoke (with collar depressed) onto PTO shaft.
3. Move yoke back and forth until locking collar clicks forward and locks the yoke in place.

SAFETY CHAINS - PULL TYPE

When towing implements on the highway, use a safety chain with tensile strength equal to or greater than the gross weight of the implement to be towed by the tractor. This will control the implement in the event the hitch pin is lost.

After attaching the safety chain, make a trial run by driving the tractor to the right and to the left for a short distance to check the safety chain adjustment. If necessary, readjust to eliminate tight or loose chain.

Safety chains and attaching hardware are available from your tractor dealer.

OPERATION

CUTTING HEIGHT ADJUSTMENT

WARNING!



Avoid personal injury! Be sure tractor engine is off, key is removed, and **ALLOW BLADES TO STOP TURNING** before dismounting to make adjustments.

Important: Avoid very low cutting heights. Striking the ground with blades gives the most damaging shock loads a cutter can encounter and will cause damage to cutter and drive.

To achieve maximum cutting efficiency and provide the most uniform cut, the mower should be operated with the rear of cutter slightly higher (1/2" - 3/4") than the front.

Cutting Height Adjustment - Lift Type

1. Place tractor and mower on level surface.
2. Raise the mower to approximate desired cutting height with tractor hydraulic lift control lever.

NOTE: Install *OPTIONAL* check chains when there is a problem with tractor hydraulic system or when a constant preadjusted cut height is required. See check chain accessory.

4. Lower the cutter slowly until mower is 1/2" - 3/4" higher at rear than at front. Position the adjustable stop on the tractor lift quadrant against the lift control lever so the cutter can be returned to the same height.
5. Adjust the length of the top link so that when lifting the cutter the front of the cutter will raise 2 to 2-1/2 inches before the gauge wheels leave the ground. (This will allow the flexible hitch to pivot and allow the cutter to follow the contour on uneven ground.)
6. Level the cutter side to side with the tractor lower link adjustment.

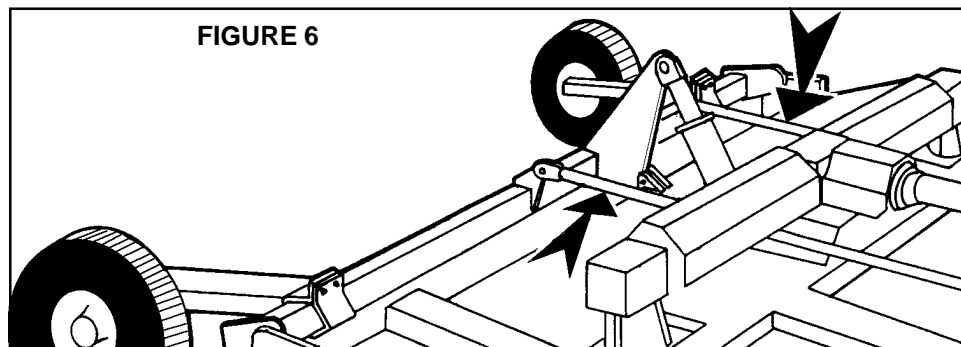
IMPORTANT: When raising cutter to transport height, be sure there is clearance between the cutter and driveline. Damage will result if driveline hits cutter deck.

CUTTING HEIGHT ADJUSTMENT - PULL TYPE

1. Place tractor and cutter on level surface.
2. Using axle hydraulic cylinder(or Ratchet Jack), raise or lower center section to approximate cutting height.
3. Level the cutter deck front to rear, by adjusting the leveling rods linking the tongue and rear axle. To lower front, lengthen level rods and to raise front, shorten level rods. **Figure 6.**

IMPORTANT: Adjust level rods the same length to maintain equal tension in rods. Improper adjustment may cause rods to snap or bend.

4. Once machine has been leveled according to directions, exact cutting height can be set. Use split collar assemblies provided and inserted on axle hydraulic cylinder rod to set height so when cylinder is lowered against collars, cut height is set.



OPERATION

STARTING & STOPPING CUTTER

Power for operating mower is supplied from tractor PTO. Refer to your tractor manual instructions for engaging and disengaging the PTO. Always engage the PTO at low engine rpm. Always operate at recommended PTO speed of 540 or 1000 RPM. Learn how to stop tractor and cutter quickly in case of an emergency.

IMPORTANT: Stop mower and tractor immediately upon striking an obstruction. Inspect the cutter and repair any damage before resuming operation. **Do not disengage PTO when engine is at full PTO RPM. Always idle engine before disengaging PTO.**

WARNING!



Avoid personal injury. When attempting to stop a tractor which does not have live PTO, the momentum created by the blade carrier of a rotary cutter can cause the tractor to be pushed forward. **DO NOT** operate this cutter unless tractor has live or independent PTO.

To commence operation, reduce engine speed and engage the tractor PTO. Before starting to cut, gradually increase engine speed to develop full PTO speed.

DANGER!



Chain guards must be installed if operating with people or livestock in the area or close to highways or buildings and in all non-agricultural operations.

Enter the area to cut with the cutter operating at PTO speed and, if it becomes necessary to temporarily regulate engine speed during operations, increase or decrease the throttle gradually.

CUTTING SPEED

Proper ground speed for cutting will depend upon the height, type, and density of material to be cut.

Normally, ground speed will range from 2 to 5 mph. Tall dense material should be cut at low speed while thin medium height material can be cut at a faster ground speed.

CUTTING TIPS

Always operate PTO at recommended RPM when cutting. This is necessary to maintain proper blade speed and to produce a clean cut.

Under certain conditions, tractor tires may roll some grasses down and prevent them from being cut at the same height as the surrounding area. When this occurs, reduce the tractor ground speed, but maintain PTO RPM. The lower speed will permit grasses to be at least partially rebound and be cut. Taking a partial cut and/or reversing the direction of travel may also produce a cleaner cut.

As often as possible, stop mowing when other people are passing by. Although the Mower is shielded to prevent objects from being thrown out by the blades, no one shield device is 100% effective. The safest possible course is the only sensible approach to the problem of endangering a passerby. The operator has greater knowledge of the dangers of being around this Mower while it is operational than the person on the street.

WARNING!



Avoid personal injury. Pick up all rocks and other debris before cutting. Enter new areas carefully. Cut material higher the first time to allow cutter to clear unseen objects. Never assume an area is clear. Always check.

Extremely tall grass should be cut twice. Raise cutter and cut twice the desired height. Cut the second time at desired height at 90 degrees to first pass.

Remember, sharp blades produce cleaner cuts and use less power.

Before cutting, analyze the area to determine the best cutting procedure. Consider the height and type of material and the terrain type: hilly, level or rough.

OPERATION

DETACHING AND STORING

Lower the Mower to the Ground. Park the Tractor with the transmission in the correct gear (Automatic Transmission--Park; Standard Transmission--Neutral). Set the parking brake, shut off the engine, and remove the key. Wait until the PTO stops rotating before getting down from the tractor.

Disconnect the Driveline from the tractor PTO. Disconnect the Top Link and the Lower Lift Links from the Mower.

If this is a Pull-Type, raise Tongue with Jack. Disconnect Driveline. Remove Hitch Bolt.

Always reinstall the Master Shield over the tractor PTO Shaft. This Shield should always remain in place except when connecting or disconnecting Driveline.

Keep hands and feet out from under Tongue or Mower

BEFORE OPERATING OR TRANSPORTING THIS MOWER:

Always display this SMV emblem (**Figure 8**) on the rear of the tractor transporting this mower where it is clearly visible to oncoming traffic. Prominent display of this symbol will help the operator avoid accidents which could cause injury or possibly death.

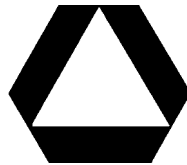


FIGURE 8

DRIVELINE LENGTH CHECK PROCEDURE

WARNING!

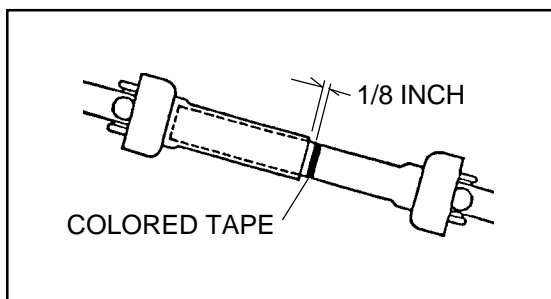


A loose shaft could slip off and result in personal injury or damage to cutter. When attaching PTO yoke to tractor PTO shaft, it is important that spring activated locking collar slides freely and locking balls are seated in groove on PTO shaft.

WARNING! Before operating cutter, check to make sure the driveline will not bottom out or become disengage.



- Disengage the Driveline from the tractor PTO Shaft.
- Slide the Driveline together until it "bottoms out" solidly.
- Apply colored tape to the Inner Shield 1/8" from the end of the Outer Shield. **Figure 9**
- Re-attach the Driveline to the PTO Shaft.



Driveline in maximum compressed position
FIGURE 9

OPERATION

LIFT TYPE

Raise mower and watch the Driveline as it approaches the colored tape. If the distance between colored tape and the end of the outer shield tube is 1-9/16" or less Drive Tubes should be shortened per **Figure 10**.

Always maintain 1-9/16" clearance when operated in shortest working position. Shorten inner and outer guard tubes equally. Shorten inner and outer sliding profiles by the same amount that the shield tubes were shortened. Round off all sharp edges and remove burrs. Grease sliding profiles. **Figure 10**.

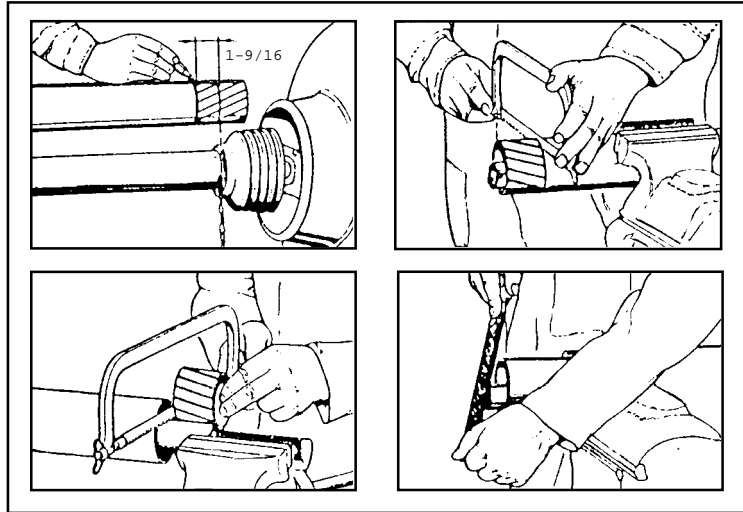


FIGURE 10

Lower mower to lowest position possible. Turn off the Tractor and apply Parking Brake. Apply a second piece of colored tape to the Inner Shield 1/8" from the end of the Outer Shield. Disconnect Driveline from Tractor and then separate the two Driveline halves. Check the distance from the new piece of colored tape to the end of the inner profile. If distance is less than 12" consult dealer to obtain a longer Driveline. Driveline Tube engagement must always exceed 12".

PULL TYPE

With the PTO NOT TURNING, slowly drive the tractor with mower attached through sharpest turn possible and watch shaft movement.

With the PTO NOT TURNING, slowly drive the tractor with Mower attached through the most severe terrain conditions expected and watch Shaft movement.

Check position which places driveline at maximum extended length and at maximum compressed length. Maximum extended length must always maintain at least 12 inches of profile tube engagement. Maximum compressed length should always maintain 1-9/16 clearance. If not shorten driveline as described in **Figure10**.

If driveline cannot be shortened and still maintain 12 inches of tube engagement then the operator should note test so the operator can recognize the terrain conditions that might cause the problem and avoid possible damage by disconnecting driveline from tractor or crossing terrain in different manner.

See special instructions for rough terrain operations.

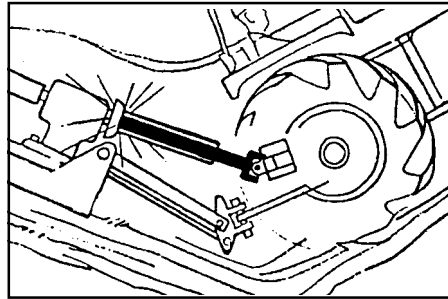
OPERATION

SPECIAL INSTRUCTIONS FOR ROUGH TERRAIN OPERATIONS

Pull Type Only

When crossing ditches with steep banks or going up sharp inclines, it is possible to “bottom out” the Driveline that connects the tractor PTO to the Gearbox on mower.

Note: To bottom out means that the Inner Shaft has penetrated into the Outer Housing to its maximum depth until the Assembly becomes solid - it can shorten no more. See **Figure 11**.



Driveline bottom out.
FIGURE 11

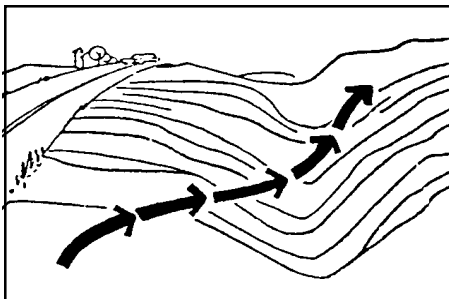
If this happens, it can cause serious damage to the tractor PTO by pushing the PTO into the tractor and through the Support Bearings or downward onto the PTO Shaft, breaking it off.

WARNING!

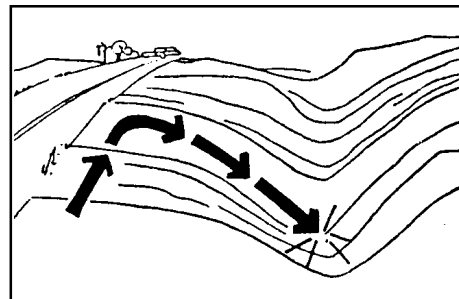


Either failure can allow the Driveline to come loose from the tractor which could cause bodily injury to the operator or others in the vicinity along with expensive damage to the tractor and/or Cutter.

If you have a condition where your tractor will be going up a steep incline with your mower still on the flat area or coming down the opposite incline, you have a potential problem. **Figure 13**. The correct preventive measure is to instruct the operator to cross this kind of terrain at an angle. **Figure 12**. This will reduce the angle between the tractor and the Mower. The problem is more likely to occur if the Mower is in the raised position while the tractor is turning sharply and going up an incline.



CORRECT: Approach ditch at an angle
FIGURE 12



INCORRECT: DO NOT approach ditch straight on.
FIGURE 13

OPERATION

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	REMEDY
NOT CUTTING CLEAN	Blades dull. Blade rotation incorrect. Using Straight Blades. Carrier RPM too low. Mower not leveled. Tires mashing down grass. Ground speed too fast. Blades locked back. Blades riding up due to Blade Bolt wear. Blades bent up.	Sharpen or replace Blades. Use correct Blade for Carrier. Use Fan Blades in grass. Increase PTO speed. Adjust machine level (in very heavy weeds, 1/2" to 1" low in front). Increase Tire spread to 90". Reduce ground speed. Free Blades. Replace Blade Bolts Replace Blades.
BREAKING BLADE BOLTS	Operating with loose Blade Bolts. Worn Blade Bolt.	Tighten Blade Bolts to 350 ft./lbs (Right Hand threads) Replace Bolt.
CUTTING TOO HIGH	Blades bent up. Blade Carrier bent. Blades on upside down.	Replace Blades. Straighten or replace Blade Carrier. Turn Blades right side up and tighten.
MOWER VIBRATES	Blade locked back. Drivelines not phased. Blade broken. Blade Carrier bent. Blade Hub not properly seated on Shaft. New Blade matched with worn Blade.	Loosen locked Blade. Replace Driveline. Replace Blades in sets. Repair or replace Carrier. Remove Hub, check for wear, and replace or seat properly. Replace Blades in sets
MOWER WINDROWING	Cutting heavy material.	Raise Mower and reduce ground speed.
BLADES WEAR FAST	Cutting in sandy or rocky conditions. Blades too soft.	Increase cutting height. Replace Blades; with hardened, high-quality, Rhino Blades from the manufacturer.
BLADE BOLTS WORKING LOOSE	Bolts not tightened. Bolt hole elongated or oversized. Locknut worn out.	Tighten Bolts to 350 ft. lbs. Replace Blade Carrier. Replace Locknut.

OPERATION

TROUBLESHOOTING (Continued)

PROBLEM	POSSIBLE CAUSE	REMEDY
BROKEN CROSS OR CUPS	Load too high for joint.	Use protective device with joint. Check joint angles and phasing. Slow down or raise Mower. (See Clutch Maintenance)
END GALLING OF CROSS AND CUPS	Speed too high.	Reduce speed to 540.
NEEDLE ROLLERS HAVE BRINELLED INTO CUP AND CROSS	Load too high for joint.	Check for small joint angles. Use protective device. Check joint angles and phasing.
SHAFT OR TUBE TWISTED	Over-loaded.	Replace part and then slow down or raise Mower. Use protective device. (See Clutch Maintenance)
TUBE BROKEN IN WELDED SEAM	Over-loaded.	Replace part or service Clutch. (See Clutch Maintenance)
YOKE BROKEN AT EAR TIP	Over-loaded.	Replace part and service Clutch. (See Clutch Maintenance)
GEARBOX NOISY	Improper backlash. Rough gears. Worn Bearing.	See your local Rhino Dealer Run in or change Gears. Replace Bearing.
SLIP CLUTCH SLIPPING EXCESSIVELY	Excessive load. Springs weak. Improper adjustment. Too much power for Slip Clutch. Friction Facings worn. Oil on Facings. Friction Facings glazed.	Reduce speed and/or raise Mower. Replace Springs. Re-adjust Slip Clutch. Reduce ground speed and material intake. Replace Facings. Replace Facings Clean with emery cloth.
OIL BLOWING OUT VENT PLUG	Flat bottomed Vent Plug or shallow cavity Plug. Oil level too high.	Replace with proper Vent Plug, Cavity in Oil Plug should be approximately 5/8". Lower oil level to Plug.

OPERATION

TROUBLESHOOTING (Continued)

PROBLEM	POSSIBLE CAUSE	REMEDY
GEARBOX LEAKING	Damaged Oil Seal. No Oil Seal. Oil too light. Bent Shaft. Oil Seal race rough. Oil Seal installed wrong. Oil Seal not sealing in the housing. Bearings loose. Vent Plug stopped up. Oil level too high. Gasket damaged. Bolts loose.	Replace Seal. Install Oil Seal. Use EP140. Replace Oil Seal and Shaft. Replace Shaft or repair Race. Replace Seal. Replace Seal or use a sealant on O.D. of Seal. Adjust Bearings. Open Vent Plug. Drain oil to proper level. Replace Gasket. Tighten Bolts.
DRIVELINE INTEGRAL SHIELDS RATTLING OR NOT TURNING FREELY	Integral Shields deformed. Nylon Bearing worn.	Replace Shield. Replace Nylon Bearing.
RAPID CLEVIS WEAR	Washer not used	Install washers above and below drawbar
CLEVIS BENDING OR SPREADING OPEN	Using Pin or Bolt not tightened	Use 1" grade 5 or 8 Bolt & tighten Nut
TONGUE BENDING OR BINDING ON TURNS	Improper Drawbar	Add Attaching Plate to all 3-point drawbar

MAINTENANCE SECTION

MAINTENANCE

Before operating your Rotary Cutter, make sure it is properly lubricated and thoroughly inspected. Only a minimum of time and effort is required to regularly lubricate and maintain this machine to provide long life and trouble free operation.

WARNING!



Always disengage the PTO before raising the Rotary Cutter for transporting or making adjustments.

LUBRICATION INFORMATION

Do not let excess grease collect on or around parts, particularly when operating in sandy areas. The illustrations below shows lubrication points. The chart gives the frequency of lubrication in hours, based on normal operating conditions. Severe or unusual conditions may require more frequent lubrication. **FIGURE 1 & 2.**

Use an SAE multi-purpose, lithium-type grease for all grease locations shown. Be sure to clean the fitting thoroughly before using grease gun. Daily lubrication of the main driveline slip joint is necessary. Failure to maintain proper lubrication will result in damage to U-joints, gearbox, and/or driveshaft.

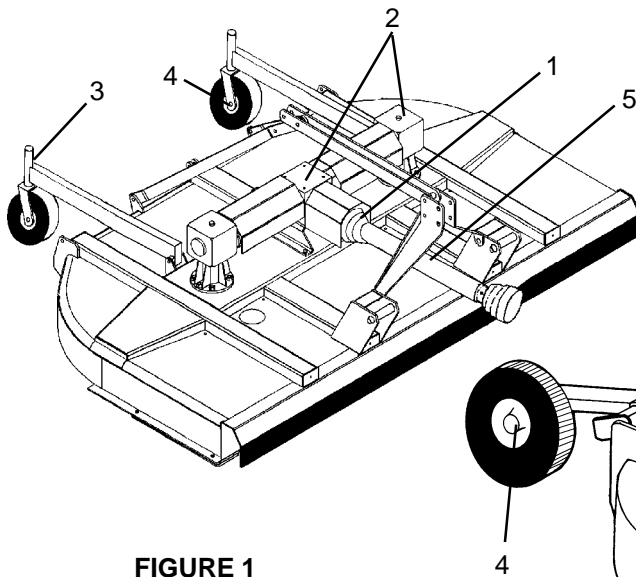


FIGURE 1
Lift Type Model

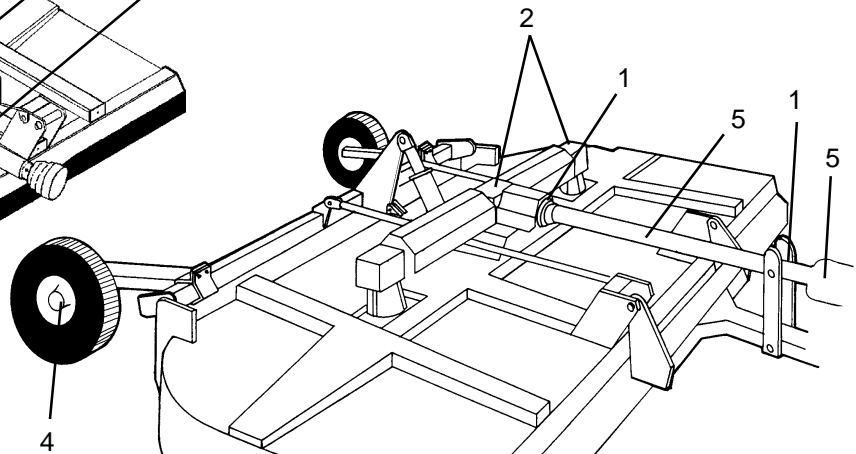


FIGURE 2
Pull Type Model

LUBRICATION FITTING LOCATION

ITEM	DESCRIPTION	FREQUENCY	NO OF LOCATIONS
1	U-Joints	8 hours	2
2	Gearbox	Check daily	3
3	Tailwheel Pivot	10 Hours	2
4	Wheel Hubs	Weekly	2
5	Telescoping	8 hours	1

MAINTENANCE

GEARBOX

The Gearbox has been filled with lubricant to the Test Plug Level prior to shipment. However, you should check the oil level at Test Plug before operating, and frequently thereafter.

The gearbox should not require additional lubricant unless the box is cracked or a seal is leaking. It is recommended that the oil level plug be removed after every 8 to 10 hours of operation and oil added until it runs out Test Plug hole. The Test Plug is located on the rear of the Gearbox. Filler Plug is located on top of Gearbox.

FIGURE 3.

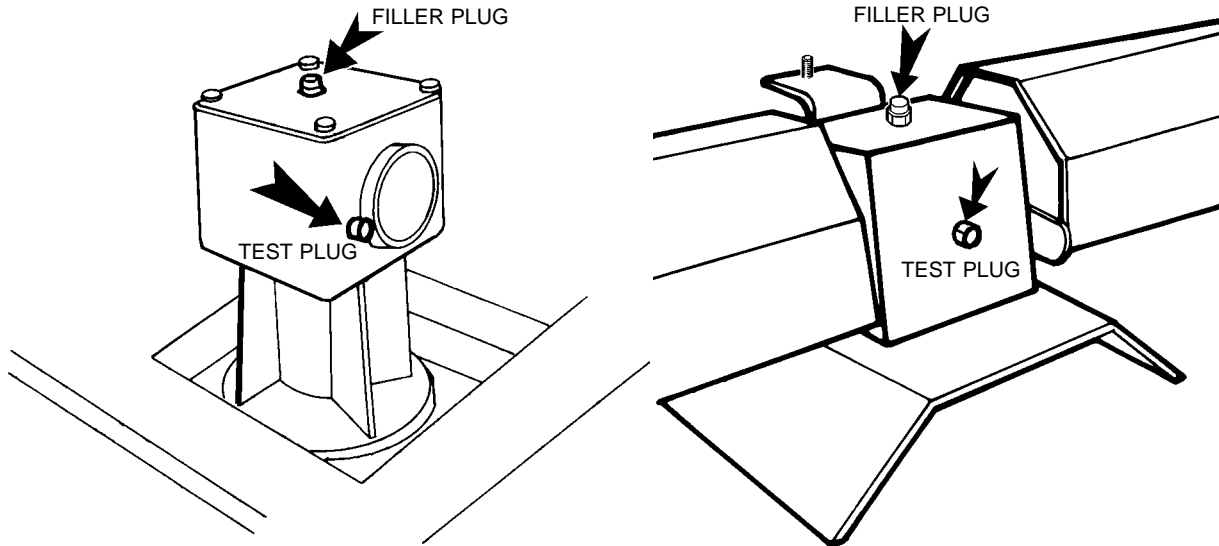


FIGURE 3. Gearbox Maintenance

Required lubricant is NLGI 000 Grease (P/N 00765444) for extreme pressure and temperature.

NOTE: *Overfilling the Gearbox will cause pressure to build up and cause Oil Seals to leak.*

ATTENTION: *If the Gearbox suddenly starts making an unusual noise, stop at once, check for leaks, and refill Gearbox as required.*

TAIL WHEEL ASSEMBLY

Tail Wheel Bearings are packed at the factory with heavy-duty bearing grease. Grease Fittings are provided in the Wheel Hub and Tail Wheel Beam. Grease after every 10 hours of use. **FIGURE 4.**

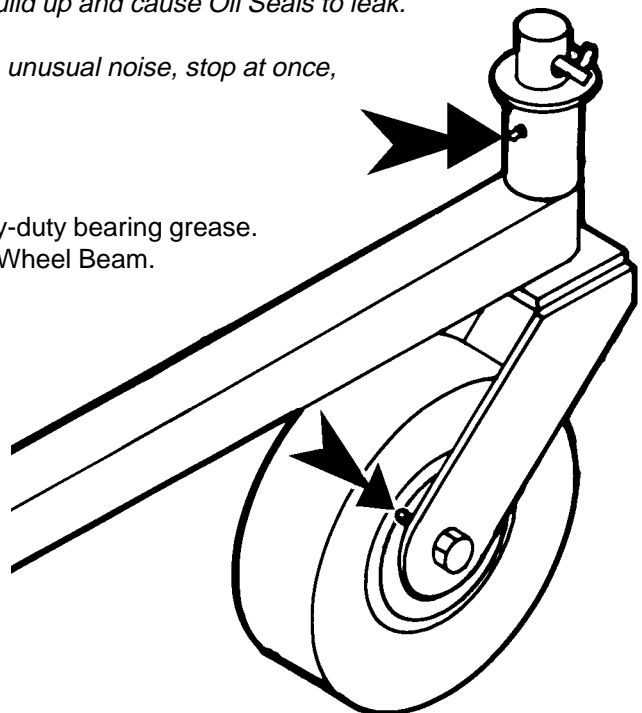


FIGURE 4. Tail Wheel Bearing Lubrication

MAINTENANCE

DRIVELINE LUBRICATION

Grease Fittings are located on the Cross Assembly of each U-Joint and on the telescoping tubes. Grease the U-Joint after each 8 hours of use. **FIGURE 6.** Do not force grease through the Needle Cup Assemblies. Grease the telescoping tubes after every 8 hours use. Some PTO-to-Hitch connections may necessitate cutting a hole in the shields to be able to align the Grease Fitting holes for lubrication. **FIGURE 7.**

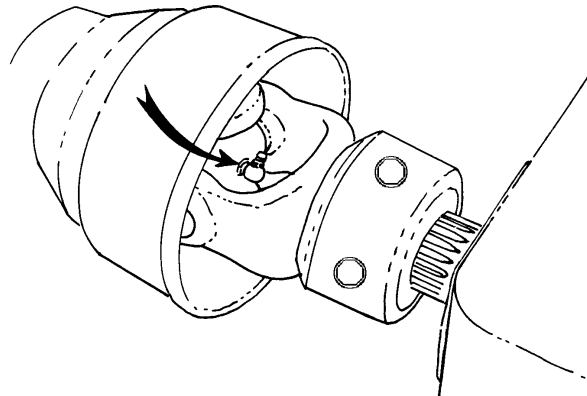


FIGURE 6. U-Joint Lubrication

The Driveline Integral Shields should not become dented or otherwise damaged. The Integral Shield Assembly has a Nylon Bearing at each end and should turn freely. This nylon bearing should require lubrication every 8 hours. To remove the Integral Shields for replacement or repair, turn the three Nylon Nuts 1/4 turn in the Shield Slots of the Cone and Tube and remove them. Slip the Shield Cone Assembly off inner section of the Driveline. Install the new or repaired Shield on the Driveline. Place the split Nylon Bearing over the Driveline Housing of Shaft against the Yoke and in the Bearing groove. Install shield over the Housing so the Nylon Bearing fits into the Shield Bearing Retainer. Align a slot in the Shield Cone with one of the slots in the Shield. Put one of the Nylon Nuts back in through the aligned slots and turn until it is perpendicular to the slots. Add the other two Nylon Nuts.

CAUTION! Make certain that the Driveline Integral Shields are free to telescope and rotate around the Driveline without binding.

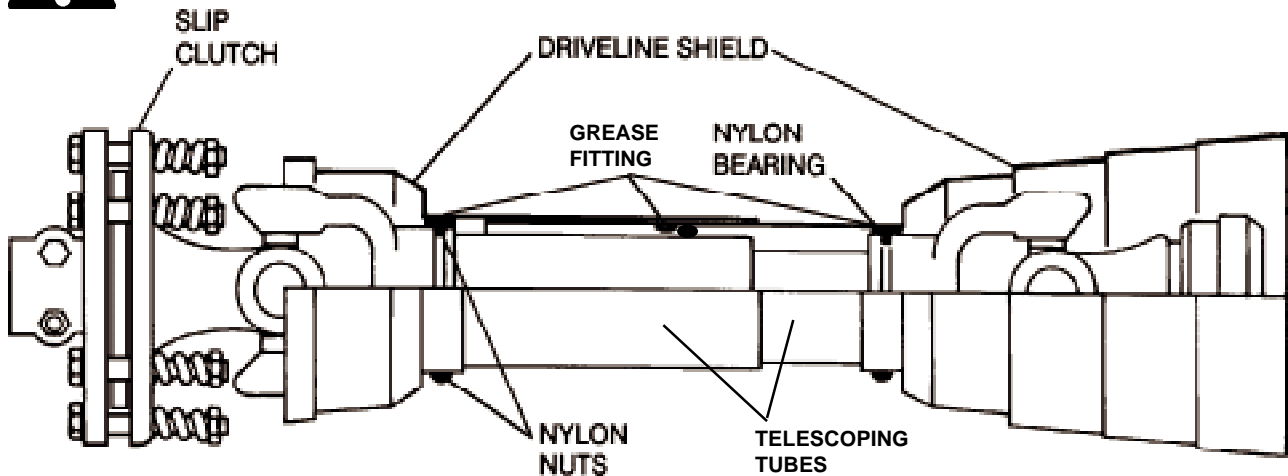


FIGURE 7. Driveline Maintenance

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WARNING!



When attaching PTO yoke to tractor PTO shaft, it is important that spring-activated locking collar slides freely and locking balls are seated in groove on PTO shaft. A loose shaft could slip off and result in personal injury or damage to cutter.

BLADE SERVICING

Inspect blades before each use to determine that they are properly installed and in good condition. Replace any blade that is bent, excessively nicked, worn, or has any other damage. Small nicks can be ground out when sharpening.

IMPORTANT! When sharpening blades, grind each blade the same amount to maintain balance. The difference in blade weights should not exceed 1 ounce. Unbalanced blades will cause excessive vibration which can damage gear box bearings. Vibration may also cause structural cracks in cutter housing.

WARNING!



Use only original equipment blades on this cutter. They are made of special heat-treated alloy steel. Substitute blades may not meet specifications and may fail in a hazardous manner that could cause injury.

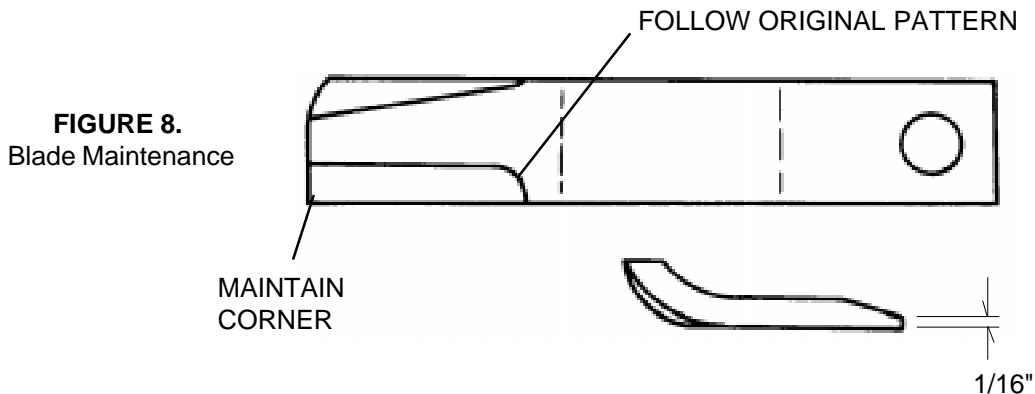
BLADE SHARPENING

Always sharpen both blades at same time to maintain balance. Follow original sharpening pattern as shown in **FIGURE 8**. Always sharpen blades by grinding. **DO NOT** heat and pound out edge. Do not sharpen blade to a razor edge, but leave a 1/16" blunt edge. Do not sharpen back side of blade.

WARNING!

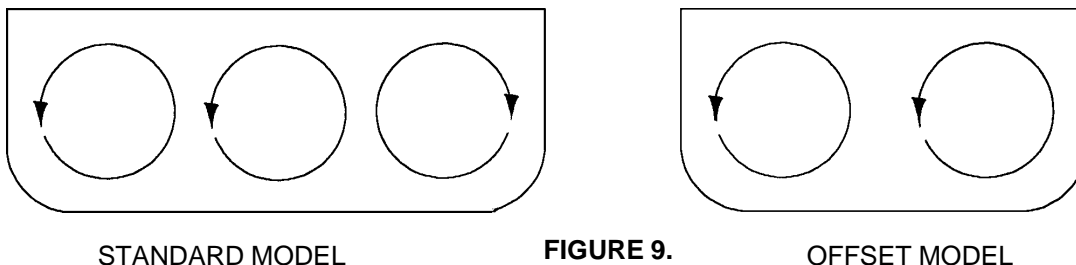


Avoid personal injury. Always block the cutter up to prevent it from falling when the blades and/or carrier are being serviced.



BLADE ROTATION

Check Blade rotation per figures below. **FIGURE 9.**



MAINTENANCE

BLADE REMOVAL

To remove blades for sharpening or replacement, remove the cover plate on deck of cutter near gear box. Remove lock nut from blade bolt. **NOTE:** *Inspect lock nut after removal and replace if threads are damaged.* Always replace nut when replacing blade bolt. When installing blades be sure and check blade bolt pivot diameter for wear. Replace bolt if worn more than 1/4 inch at any point. Install blade bolts with partially worn side of bolt either toward or away from center. Tighten lock nut to 350 ft. lbs.

WARNING!



Avoid personal injury. Blade and/or blade carrier removal should be done only with the tractor engine shut off, key removed, in neutral, parking brake on, and PTO disengaged and the cutter blocked in the raised position.

BLADE CARRIER REMOVAL

Remove cotter pin and loosen slotted nut on gearbox shaft. Loosen but do not remove the nut until the blade carrier is loosened. Use a suitable 2 jaw gear puller to pull carrier off tapered gearbox shaft. If gear puller is not available use long bar inserted through blade bolt access hole with end against rotor bar. Strike opposite end of bar with sledge hammer. Rotate blade carrier 180 degrees and repeat process.

BLADE CARRIER INSTALLATION

Clean the splines on both the blade carrier and output shaft. Position carrier on the gearbox output shaft and install special washer, and nut.

Tighten nut holding blade carrier to minimum 450 ft. pounds, strike the carrier near the hub several times with a heavy hammer to seat the hub. Use a suitable spacer over the nut to prevent damage to the nut and threads. Retighten the nut to 450 ft. pounds. Install cotter pin and spread.

IMPORTANT: Always recheck gearbox output shaft slotted blade carrier retaining nut torque after a few hours operation.

WARNING: Avoid personal injury. Do not work under cutter without support blocks to keep frame from falling.



SLIP CLUTCH

A slip clutch is incorporated in the PTO driveline. It is designed to slip, absorb the shock load, and protect the driveline.

Clutch torque setting is factory set. If clutch slips excessively, check friction discs for excessive wear. Discs are 1/8" thick when new. Replace after 1/32" wear.

To adjust slip clutch first check length of springs as assembled on clutch. Length should be 1 5/16 inch. If not adjust length of bolt to obtain proper spring length. If additional adjustment is required tighten each bolt 1/2 turn.

Note! *DO NOT tighten spring bolts over 1/2 turn at any adjustment. Excessive tightening can cause clutch to become frozen and not slip which could cause damage to tractor PTO, Drivelines or gearbox.*

MAINTENANCE

SLIP CLUTCHES

Avoid overheating of clutches caused by too long or too frequent slipping of the clutch since this can damage the friction plates and clutch .

SEASONAL CLUTCH MAINTENANCE

It is important that the clutches slip when an obstacle or load heavier than the clutch setting is encountered. Before using the cutter each season, use the following procedure to make sure the clutch will slip and give the overload protection required.

1. Loosen nuts (1) **FIGURE 10** until the spring is free, and then retighten approximately one turn.
2. Attach machine to tractor, set engine at approximately half throttle and quickly engage PTO. This procedure will break clutch facings loose and allow the proper torque to be maintained.
3. Return the nuts and bolts to their original position of 1-5/16" compressed spring length. This setting is approximately 1-3/4 turns of the nut after the nut has contacted the spring.

NOTE: If machine sits outside longer than 30 days and is exposed to rain and humid air, the clutches should be removed from machine and stored in dry area. Clutch facings will soak up moisture and cause the metal plates to rust badly. When this occurs, the break-away torque increases greatly and damage to gearbox, driveline, or tractor PTO can occur.

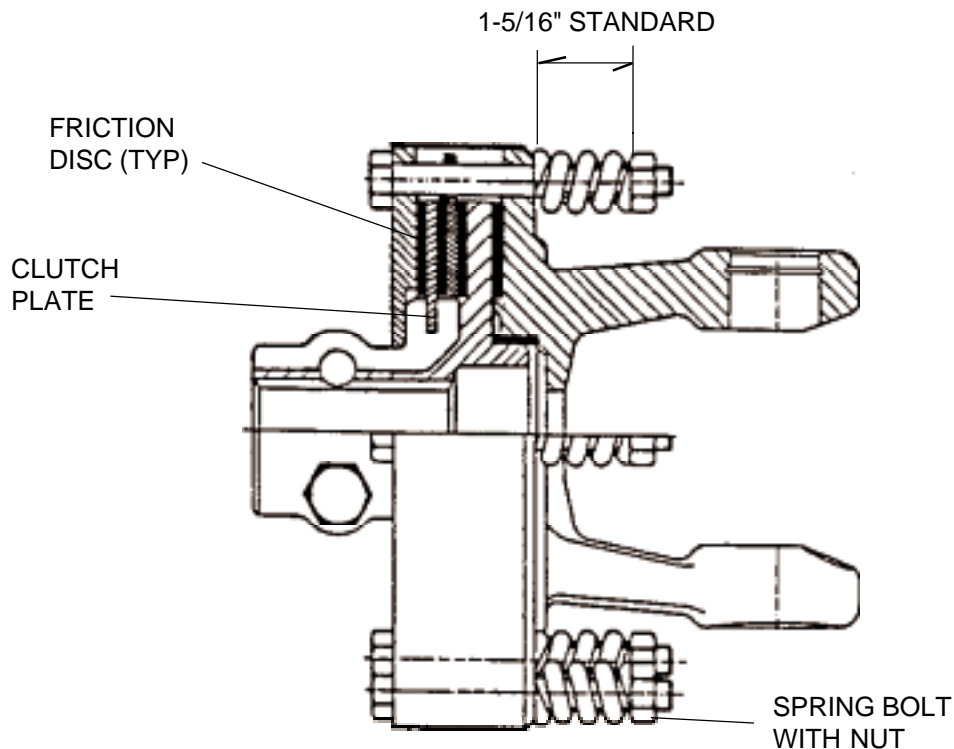


FIGURE 10. Slip Clutch Maintenance

MAINTENANCE

STORAGE

Your rotary mower represents an investment from which you should get the greatest possible benefit. Therefore, when the season is over, the cutter should be thoroughly checked and prepared for storage so that a minimum amount of work will be required to put it back into operation for the next season. The following are suggested storage procedures:

1. Thoroughly clean the cutter.
2. Lubricate the cutter as covered in Maintenance Section.
3. Tighten all bolts and pins to the recommended torque.
4. Check the cutter for worn or damaged parts. Make replacements immediately.
5. Store the cutter in a clean, dry place with the cutter housing resting on blocks.
6. Use spray touch-up enamel where necessary to prevent rust and maintain the appearance of the cutter.




PROPER TORQUE FOR FASTENERS

The chart lists the correct tightening torque for fasteners. When bolts are to be tightened or replaced, refer to this chart to determine the grade of bolts and the proper torque except when specific torque values are assigned in manual text.





NOTE: These values apply to fasteners as received from supplier, dry or when lubricated with normal engine oil. They do not apply if special graphited or molydisulphide greases or other extreme pressure lubricants are used. This applies to both UNF fine and UNC coarse threads.

RECOMMENDED TORQUE IN FOOT POUNDS UNLESS OTHERWISE STATED IN THE MANUAL *

Proper Torque values for bolts that are measured in Inches

Bolt Diameter			
	Head Marking No Marks Grade Two	Head Marking Three Lines Grade Five	Head Marking Six Lines Grade Eight
	Pound - Foot Value Dry	Pound - Foot Value Dry	Pound - Foot Value Dry
1/4"	5.5	9	12.5
5/16"	11	18	26
3/8"	20	33	46
7/16"	32	52	75
1/2"	50	80	115
9/16"	70	115	160
5/8"	100	160	225
3/4"	175	280	400
7/8"	175	450	650
1"	270	675	975
1-1/8"	375	850	1350
1-1/4"	530	1200	1950
1-3/8"	700	1550	2550
1-1/2"	930	2100	3350

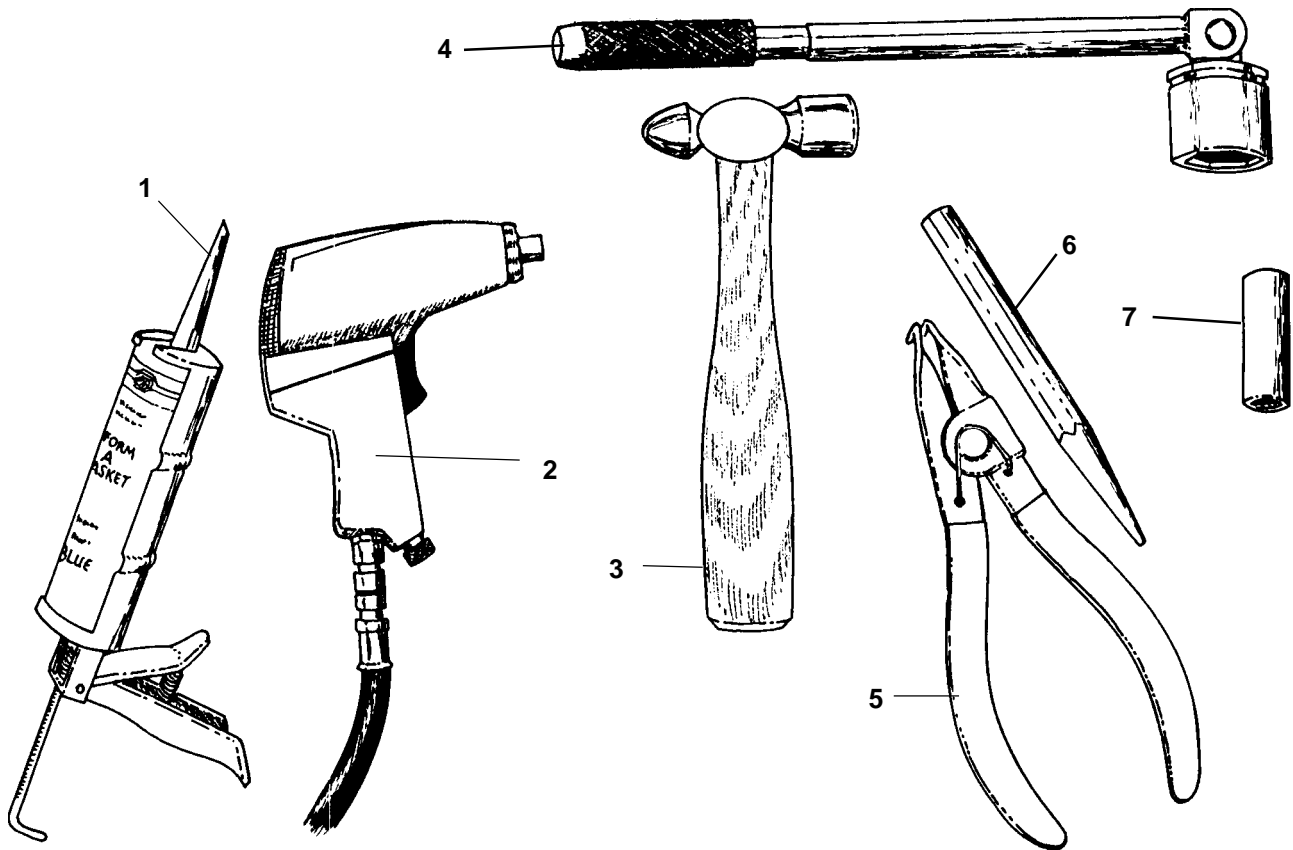
Proper Torque values for Metric bolts

Bolt Diameter				
	Head Marking 4.8	Head Marking 8.8 or 9.8	Head Marking 10.9	Head Marking 12.9
	Pound - Foot Value Dry	Pound - Foot Value Dry	Pound - Foot Value Dry	Pound - Foot Value Dry
6mm	4.5	8.5	12	14.5
8mm	11	20	30	35
10mm	21	40	60	70
12mm	37	70	105	120
14mm	60	110	165	190
16mm	92	175	255	300
18mm	125	250	350	410
20mm	180	350	500	580
22mm	250	475	675	800
24mm	310	600	850	1000
27mm	450	875	1250	1500
30mm	625	1200	1700	2000


* To get Newton-Meters multiply pound-foot of torque by 1.356

MAINTENANCE

TOOLS NEEDED FOR DISASSEMBLY AND ASSEMBLY OF DIVIDER GEARBOX



- | | | | |
|---|------------------------|---|-----------------------|
| 1 | Caulking Gun w/Silicon | 5 | Retaining Ring Pliers |
| 2 | Impact Wrench | 6 | 3/16" Punch |
| 3 | Ball Pin Hammer | 7 | 10 mm & 14 mm Socket |
| 4 | Torque Wrench | | |

WARNING  BE CERTAIN TO CLAMP OR SECURELY SUPPORT THE GEARBOX AND SUB-ASSEMBLIES TO PREVENT INJURIES TO HANDS AND FEET DUE TO INADVERTENT DROPPING OR FALLING OVER.

ALWAYS WEAR SAFETY GLASSES AND GLOVES TO PREVENT EYE AND HAND INJURY WHEN CHISELING OR HAMMERING ON METAL COMPONENTS. HARDENED METAL WILL CHIP UN-EXPECTEDLY.

AN ASSEMBLED GEARBOX IS QUITE HEAVY. USE A HOIST OR GET HELP TO HANDLE THEM SAFELY. LIFT CAREFULLY AND PROPERLY USING YOUR LEGS TO LIFT - NOT YOUR BACK.

NOTICE: REFER TO OPERATOR'S MANUAL FOR INSTRUCTIONS FOR PROPER RE-ASSEMBLY ONTO THE MOWER DECK. TIGHTEN CORRECTLY.

MAINTENANCE

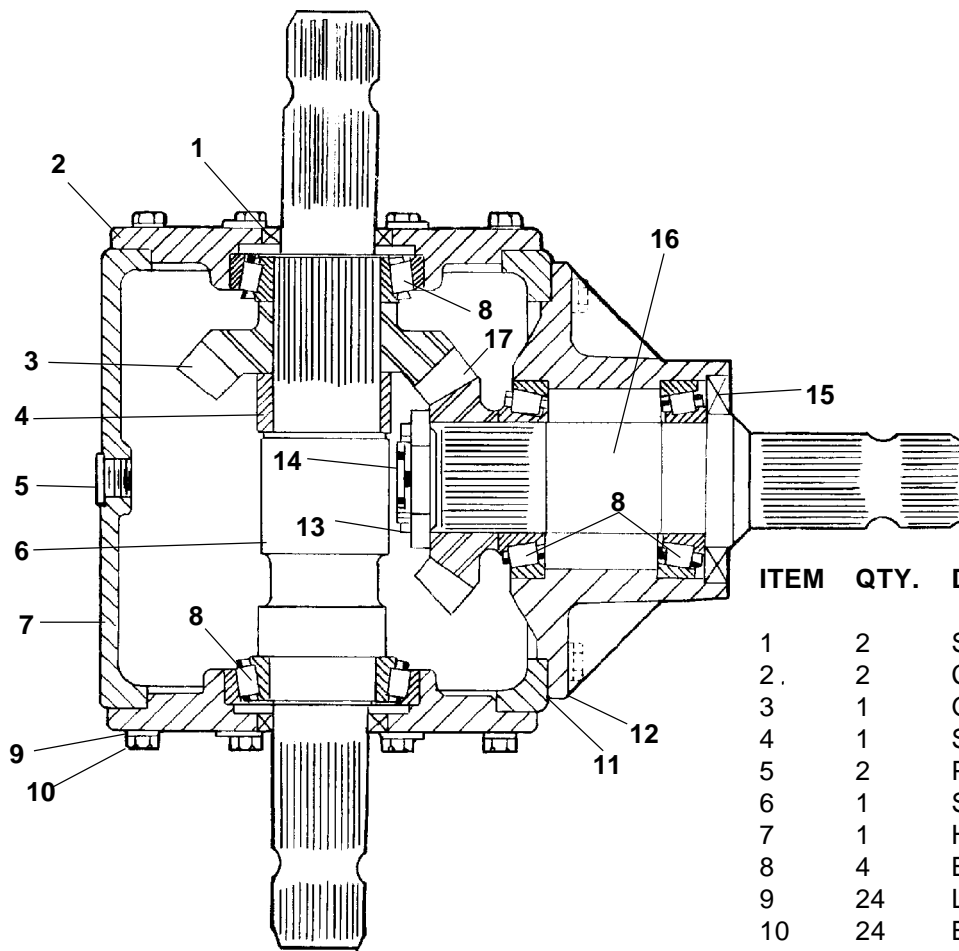


FIGURE 11

ITEM	QTY.	DESCRIPTION
1	2	Seal
2	2	Cap - Side
3	1	Gear - 14 Tooth
4	1	Spacer
5	2	Pipe Plug
6	1	Shaft
7	1	Housing
8	4	Bearing
9	24	Lockwasher
10	24	Bolt
11	AR	Gaskets (includes 0.40, 0.25, & 0.30)
12	1	Cap - Hub Input
13	1	Adjusting Nut
14	1	Cotter Pin
15	1	Seal
16	1	Shaft
17	1	Gear - 17 Tooth
18	1	Pipe Plug Vented (not illustrated)

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Disassembly and Assembly Procedures for T-BOX

Refer to figure ____ for location of all item numbers in procedures.

Remove Main Input Shaft

Step I.

Drain oil from gearbox. Place gearbox on appropriate work surface. Remove 8 bolts retaining input housing hub. Remove hub assembly from main housing. Note Quantity and thickness of shims between hub and main housing.

Step II.

Remove cotter pin (14) and adjusting nut (13).

Step III.

Remove gear (17). Tap on threaded end of shaft (16) to remove from hub.

Step IV.

Press bearing cone (8) from shaft (16).

Step V.

Remove bearing cups (8) from hub housing.

Step VI.

Remove 8 bolts (10) from one side cap (2). Tap on opposite side shaft end (6) to remove side cap (2) and on side shaft assembly.

Step VII.

Remove 8 bolts retaining remaining side cap (2) in place. Using end of hammer handle tap inside of cap to remove from main housing. Note quantity and thickness of shims under both side caps.

Step VIII.

Lap shaft ends on solid metal surface to remove bearings (8), gear (3), and spacer (4). Gearbox is now completely disassembled. Inspect and replace all worn or damaged parts.

Also mark side cap which was closest to gear and main housing, so it may be reassembled later in same location.

Assembly Procedure for T - BOX

Assembly can be accomplished by reversing the disassembly procedure.

Step I.

Install spacer (4), gear (3), and bearing cones (8) onto shaft. If any shims were present between gear and bearing or gear and spacer always reinstall at same location. Make sure that all parts are fully slated.

Step II.

Press new bearing cups into side caps (2).

Step III.

Assemble side cap (2) which was against the gear onto main housing using same shim pack as when disassembled. IF shim pack not available use .030 inches of total shim thickness. Install capscrews and tighten to recommended torque. Install three shaft assembly into housing with gear against the first side cap.

Step IV.

Assemble second side cap (2) onto main housing (7) using same shim pack as when disassembled or if not available use .030 inch shim between cap and housing. Install capscrews (12) and tighten.

Step V.

Check bearing adjustment on rolling torque on cross shaft. If endplay exists in shaft, shims must be removed from stand side cap or cap opposite plan (3). Proper rolling torque should be 10 to 12 inch

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points. If preload to tight shims must be added under side cap opposite gear.

Step VI.

Input Hub Assembly

Press bearing cups into hub making sure they are fully seated. Press bearing cone onto shaft properly seated against shaft shoulder. Assemble shaft into hub (12), add second bearing cone and gear. Apply a thin coat of Liquid Lock (such as Loctite #271) to the shaft threads. Assemble adjusting nut and tighten to insure that all parts are seated. Then loosen the adjusting nut until a rolling torque of 10 to 12 inch pounds is reached. Insert cottir pin through shaft and adjusting nut. Bend cotter pin ends around radial surface of nut. Do Not Bend Cotter Over End of Shaft.

Step VII.

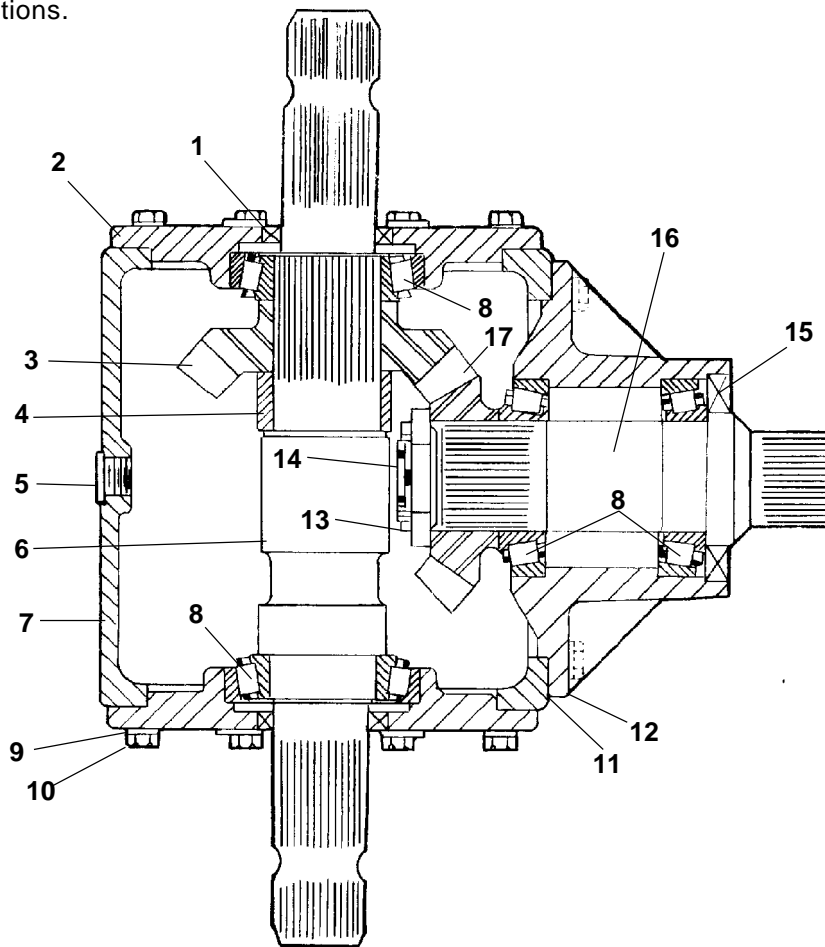
Assemble input hub into main housing using some shim pack as when disassembled. If not available .020 inch shim to start. Install capscrews and tighten to recommended torque.

Step VIII.

Check backlash between gear set. Backlash should be .012 to .024 inches. If backlash to small add shims between main housing and input hub. Remove shims for excessive backlash.

Step IV.

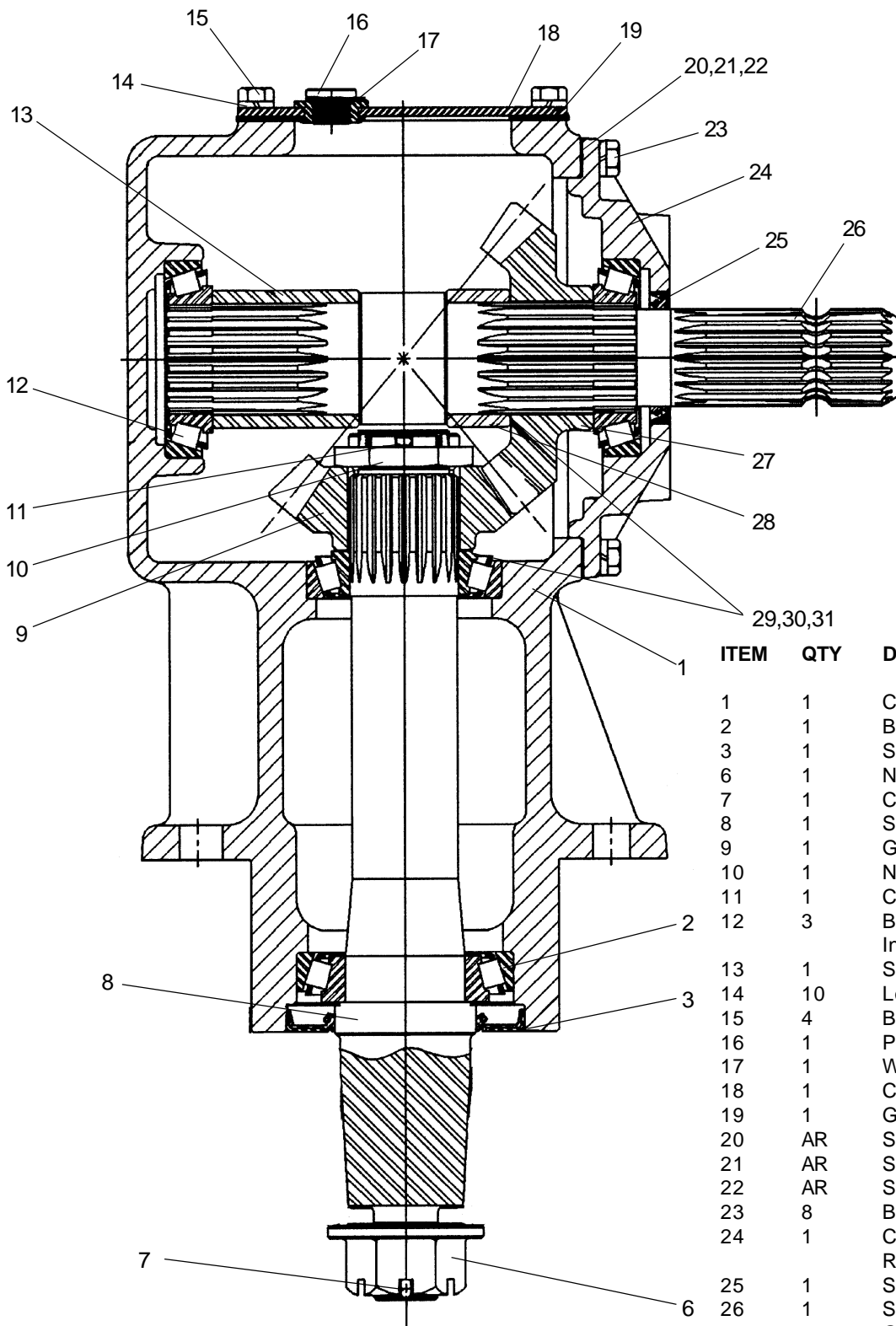
Remove side caps one at a time, seal with sealer and reinstall. Repeat process for input hub assembly. Gearbox is ready to be filled with good grade of NLGI 000 Grease. See maintenance section for specifications.



ITEM	QTY	DESCRIPTION
1	2	Seal
2	2	Cap - Side
3	1	Gear - 14 Tooth
4	1	Spacer
5	2	Pipe Plug
6	1	Shaft
7	1	Housing
8	4	Bearing
9	24	Lockwasher
10	24	Bolt
11	AR	Gaskets (includes 0.40, 0.25, & 0.30)
12	1	Cap - Hub Input
13	1	Adjusting Nut
14	1	Cotter Pin
15	1	Seal
16	1	Shaft
17	1	Gear - 17 Tooth
18	1	Pipe Plug Vented (not illustrated)

FIGURE 12

MAINTENANCE



ITEM	QTY	DESCRIPTION
1	1	Casing
2	1	Bearing, Lower Output
3	1	Seal, Lower Output
6	1	Nut, Slotted
7	1	Cotter Pin
8	1	Shaft, Output
9	1	Gear, Output
10	1	Nut, Slotted
11	1	Cotter Pin
12	3	Bearing, Upper Output, Inner & Outer Input
13	1	Spacer, Long
14	10	Lockwasher
15	4	Bolt, Top Cover
16	1	Plug, Pressure Vent
17	1	Washer, Sealing
18	1	Cover, Top Inspection
19	1	Gasket, Top Cover
20	AR	Shim (0.10)
21	AR	Shim (0.25)
22	AR	Shim (0.50)
23	8	Bolt, Front Cover
24	1	Cap, Front Bearing Retaining
25	1	Seal, Input
26	1	Shaft, Input
27	1	Gear, Input
28	1	Spacer, Short
29	AR	Shim (0.30)
30	AR	Shim (0.40)
31	AR	Shim (0.50)

FIGURE 12

MAINTENANCE

RIGHT ANGLE GEARBOX (OUTBOARD) ASSEMBLY & DISASSEMBLY PROCEDURES

INPUT SHAFT REMOVAL

- Step 1.** Place Gearbox on appropriate work surface.
- Step 2.** Remove Vent Plug (item #16) or Complete Top Cover (item #18)
- Step 3.** Turn Gearbox upside down allowing Oil to drain from gearbox into catch pan for proper disposal.
- Step 4.** Turn Gearbox right side up and drop bottom into a hole for support or lay it on its side laying flat.
- Step 5.** Remove Bolts (item # 23) from front Bearing Cap (item # 24), this will allow front cover to be removed, It may be required to drive a wedge between front cover and main housing to loosen cover.
- Step 6.** Remove Input shaft (item #26) and Input Gear (item #27), Input Shaft should pull out with Gear and Bearing Cones (item #12) still on it, Inner Bearing Cone may stay in Housing and Outer Bearing Cone may have come off with front Bearing cover.
- Step 7.** Remove Inner Bearing Cone, Inner Spacer (item # 13), Outer Bearing Cone, Input Gear, Check now for Shims (item # 29,30,31) always note quantity of Shims. Remove outer Spacer (item # 28) from Input Shaft.
- Step 8.** Remove Input Seal (item # 25), Bearing Cup (item #12) from front Cover and bearing Cup (item #12) from back of Main Housing (Casing) (item # 1).

OUTPUT SHAFT REMOVAL

- Step 1.** Remove Cotter Pin (item # 11) from Nut (item # 10) and Output Shaft (item # 8) this can be done by reaching through opening in front of Main Housing.
- Step 2.** Slide Output (Pinion) Gear (item # 9) up off of Output Shaft and out of Main Housing.
- Step 3.** Output Shaft will come out of Main Housing through the bottom, If Output Seal is still in bottom of the Main Housing use a Soft Metal (Brass or Aluminum) Pin to Drive Shaft down from the top, This will drive Output Seal out at the same time.
- Step 4.** Reach in from front or top of Main Housing and remove upper Output Shaft Bearing Cone (item # 12)
- Step 5.** From the Bottom of Main Housing drive out top Bearing Cup (item # 12) and from the top drive out the bottom Bearing Cup (item # 2).

PARTS INSPECTION

Step 1. Inspect and Clean all Parts. Check Bearings, Shafts, Gears, Housing and Covers. Shafts should be inspected at Seal wear areas, Bearing areas, Splines, Threads and all surface areas. Housings for cracks and condition of all holes that are threaded. Housing and covers where Seals drive in for Burrs and scratches, If Bearing Cones are replaced always replace Cups with them. Gears should not have any rough surfaces where the gears run together. On Main Housing remove any old Gasket Sealer, Scratches, Wash and completely clean it.

OUTPUT SHAFT INSTALLATION

- Step 1.** Install Upper Output Shaft Bearing Cup (item # 12) into Main Housing from the top, Install Output Shaft Lower Bearing Cup (item # 2) into Main Housing (item # 1) from the bottom, Make sure both Bearing Cup are seated firmly against housing.
- Step 2.** Install Lower Bearing Cone (item #2) down over Output Shaft from top making sure it is completely seated against shoulder on lower part of Output Shaft.
- Step 3.** Insert Output Shaft (item # 8) into Main Housing from the bottom till Lower Bearing Cone is seated into Lower Bearing Cup, Slide Upper Bearing Cone down over Output Shaft from the top till it seats down against and into upper output Shaft Bearing Cup.
- Step 4.** Slide Output Gear (item # 9) down over Output Shaft till it sits against upper Bearing Cone.
- Step 5.** Install Output Shaft Bearing Adjusting nut (item # 10) Tighten Nut to set Pre-Load on Output Shaft Bearings. Bearing Preload should be from 12 to 14 inch pounds of Rolling Torque.

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- Step 6.** Using Soft Metal (Brass or Aluminum) Pin Strike both ends of Shaft with a hammer and recheck the Bearing Pre-Load, This is to ensure Bearings and components are centered and seated. If Bearing Pre-Load is OK insert Cotter Pin (item # 11) and Bend ends.
- Step 7.** Output Seal, Put a light coat of Grease on ID of Seal or on OD of shaft where Seal rides. Install the Output Seal using a Seal Driver.

INPUT SHAFT REMOVAL

- Step 1.** Install Inner Bearing Cup (item # 12) into back of main Housing (item # 1), Make sure Cup is seated into Main Housing.
- Step 2.** Install Outer Bearing Cup (item # 12) into back of Front Bearing Cover (item # 24). Make sure Cup is Seated into front Cover.
- Step 3.** Install Spacer (item # 13) onto Back side of Input Shaft (item # 26), Install Spacer (item # 28) onto input Shaft (item # 26) from the front. Install Shims (item # 29,30 & 31) onto input Shaft from the front. For quantity of Shims refer to how many were removed.
- Step 4.** Install Input Gear (item #27) on to Input Shaft From, Install Outer Bearing Cone (item # 12) on to input shaft and slide down till it seats against Gear. Install Inner Bearing Cone (item # 12) Onto input shaft.
- Step 5.** Slide Input Shaft with all components down into Main Housing till Inner Bearing Cone is seated into Inner Bearing Cup. Look at Input Gear and Output at this time, Input Gear should not be held up by Outer Gear, if it is it will be required to add Shims (item # 29,30 & 31). If Input Gear and Output Gear Seem to far away from each other remove some Shims (item # 29,30 & 31).
- Step 6.** Input Seal (item # 25) can be installed now or wait till later. With Shims (item # 20,21 & 22) lower Input Bearing Cap (item # 24) down over Input Shaft. Install Bolts (item # 23) into Bearing Cap and tighten them, Check Bearing Pre-Load and Gear Back Lash. Bearing Preload should be from 12 to 14 pounds of Rolling Torque, Gear Back Lash should be from .016" to .021". If these are not, shims will have to be removed or added to get these readings.
- Step 7.** Install Top Cover (Item # 18) and Gasket (item # 19), Install Pressure Vent Plug (item # 16) with Sealing Washer (item # 17), Vent Plug must be 5 pounds pressure relief type.
- Step 8.** Fill Gearbox with Oil, remove Oil Level Plug (item # not shown) on side of Main Housing, Remove the vent Plug (item # 16) and fill with oil till oil starts to seep out of Oil Level Plug, Stop and wait about 20 minutes so oil will have time to seep down around Output Shaft bearings then finish filling with oil, This procedure may take longer on Cold days or Shorter on Hot days. Always recheck Oil Level after gearbox has been run approximately 1/2 hour.

PARTS SECTION

PARTS ORDERING GUIDE

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

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 include 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 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 are 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: Please refer to The Safety Section in the front of this Manual for the proper Part Number when ordering Replacement Safety Decals.



For maximum safety and to guarantee optimum product reliability, always use genuine Rhino 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:



ALAMO
1502 E. Walnut
Seguin, Texas 78155
830-372-3551

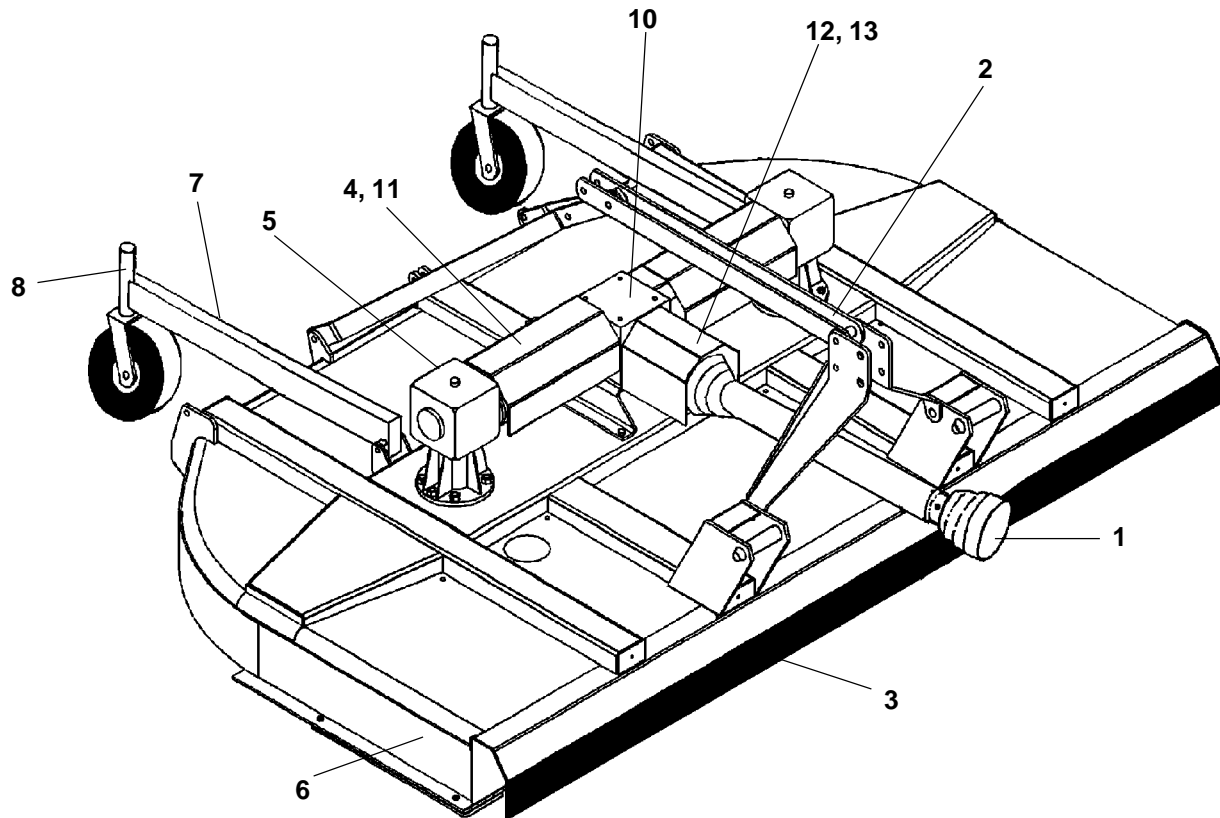
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Tailwheel Assembly - Lift Type	6-14
Tongue Assembly	6-7
Wheel Assembly	6-10
Wheel Hub	6-11

OFFSET MODEL

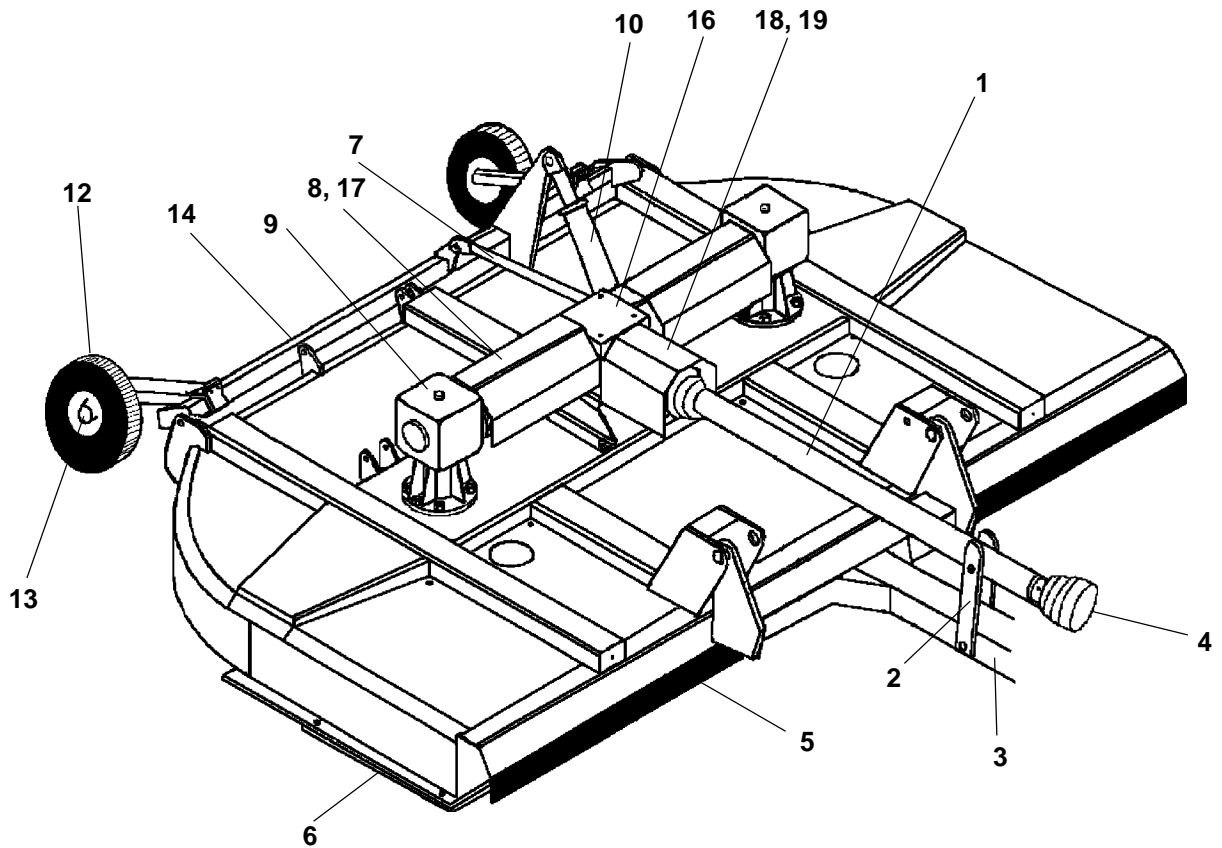
Axle Assembly (Semi-Mount)	6-50
Blade Pan Assembly	6-48
Driveline - Side	6-45
Gearbox - Center 540 RPM	6-42
Gearbox Mounting	6-44
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Jackshaft Support - Pull Type	6-47
Shields	6-46
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GENERAL ASSEMBLY - LIFT TYPE



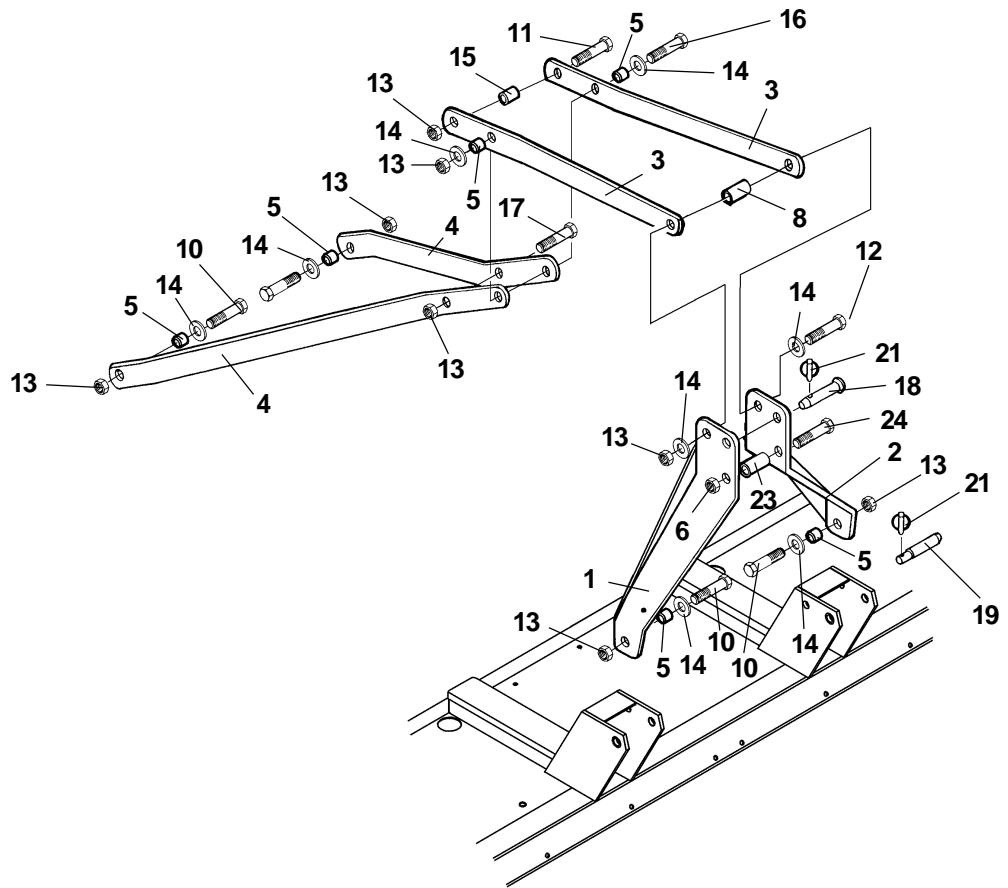
ITEM	PAGE NO.	DESCRIPTION
1	6-16	Main Driveline
2	6-6	A-Frame
3	6-31	Deflectors
4	6-22	Shield - Outer Driveline
5	6-26	Outer Gearbox
6	6-30	Skid Shoes
7	6-14	Tailwheel
8	6-13	Caster Wheel
9	6-23	Blade Pan (Not Shown)
10	6-24	Divider Gearbox
11	6-15	Outer Driveline
12	6-22	Shield - Slip Clutch
13	6-18	Slip Clutch

GENERAL ASSEMBLY - PULL TYPE



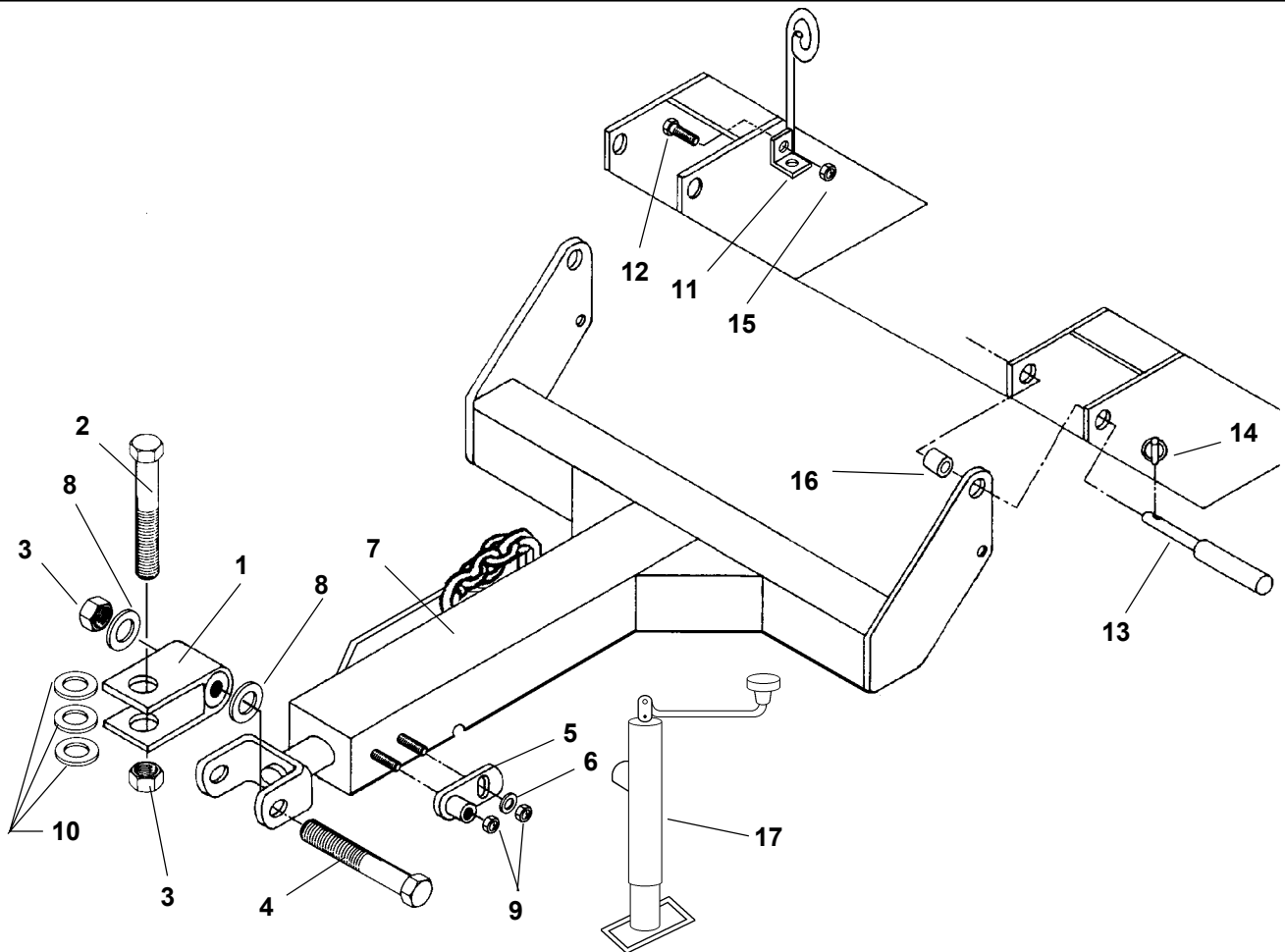
ITEM	PAGE NO.	DESCRIPTION
1	6-19	Jackshaft
2	6-21	Support - Jackshaft
3	6-7	Tongue
4	6-17	Driveline
5	6-31	Deflectors
6	6-30	Skid Shoes
7	6-8	Control Rods
8	6-22	Shield - Outer Driveline
9	6-26	Outer Gearbox
10	6-36	Hydraulic Cylinder
11	6-12	Spring Shock (Not Shown)
12	6-10	Wheel
13	6-11	Hub
14	6-9	Axle
15	6-23	Blade Pan (Not Shown)
16	6-24	Divider Gearbox
17	6-15	Outer Driveline
18	6-20	Slip Clutch
19	6-22	Shield - Slip Clutch

A-FRAME ASSEMBLY - CAT II & III



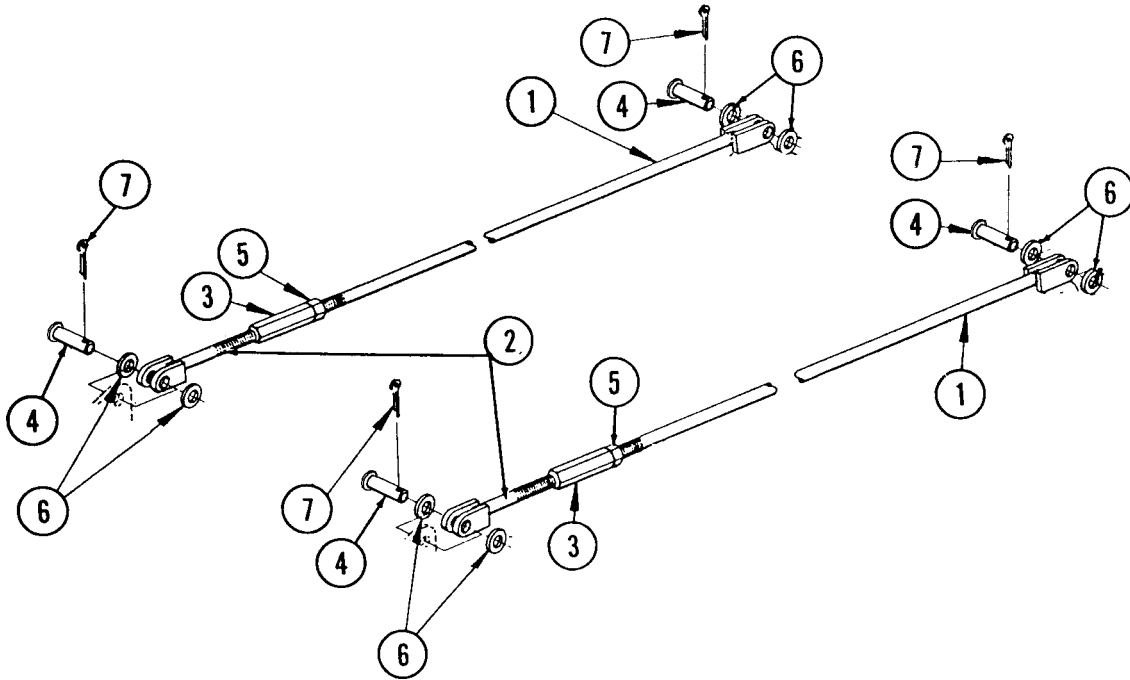
ITEM	PART NO.	QTY	DESCRIPTION
1	0758550010	1	Wldmt. A-Frame - (RH)
2	0758550020	1	Wldmt. A-Frame - (LH)
3	00766516	2	Bar, Front Brace
4	00766515	2	Bar, Rear Brace
5	0758550070	6	Bushing
6	5JRC16140	1	Nut Toplock
8	0758550030	2	Spacer
10	00037100	2	Bolt
11	02959391	1	Bolt
12	00009500	2	Bolt
13	00037200	9	Nut Toplock
14	5312316	8	Washer
15	00761267	1	Spacer
16	00007800	2	Bolt
17	000037100	1	Bolt
18	3730110M	1	Pin
19	69141	2	Pin
21	2196	3	Clip
23	0758550031	1	Bushing
24	7AH5161436	1	Bolt

TONGUE ASSEMBLY



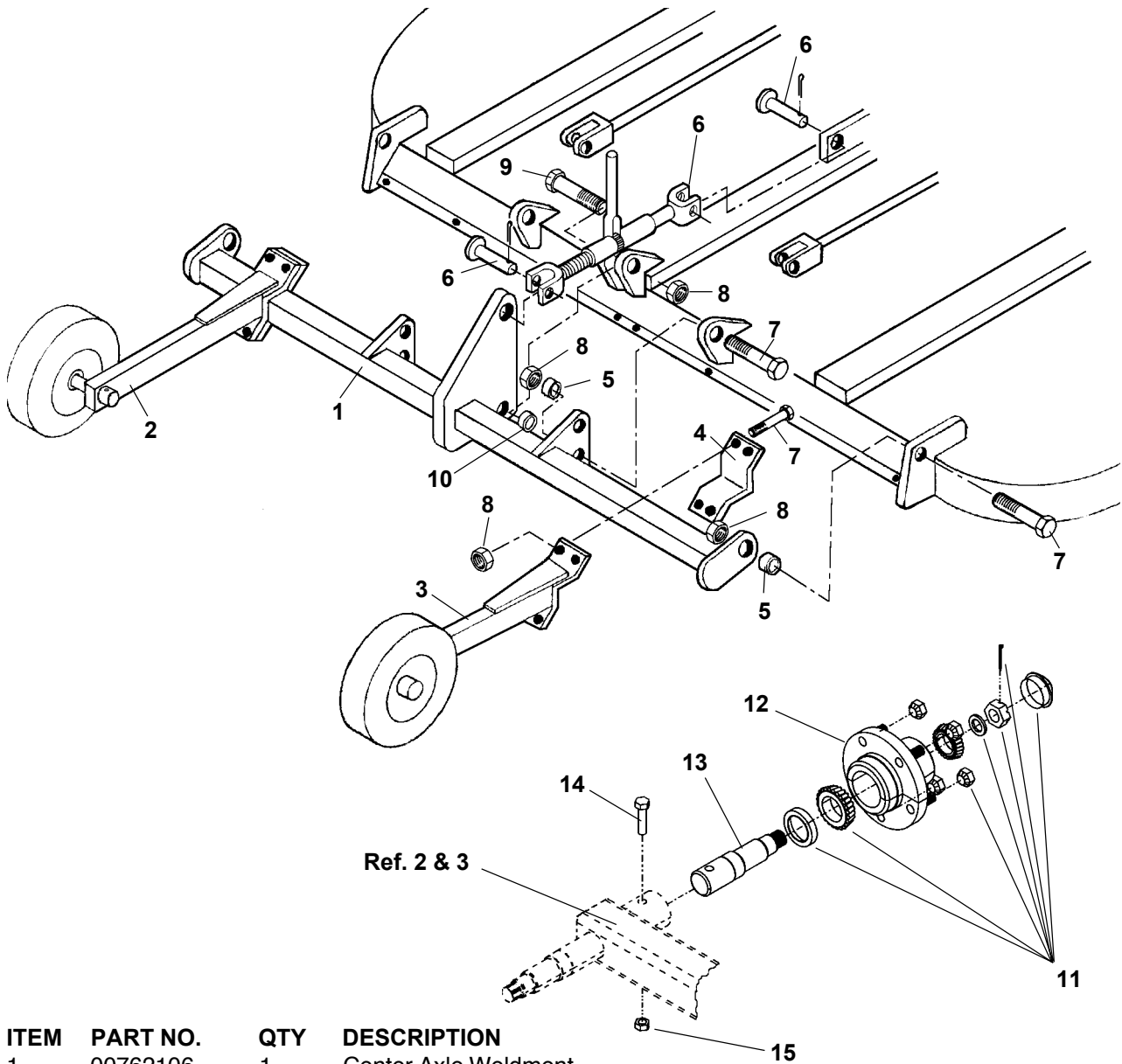
ITEM	PART NO	QTY	DESCRIPTION
1	00748807	1	Clevis Weldment
2	02712500	1	Bolt
3	02030300	2	Nut
4	00755305	1	Bolt
5	00760941	1	Jack Tube Mount
6	00001400	1	Washer
7	00765810	1	Tongue Weldment
8	00757478	2	Spring Washer
9	00695100	2	Nut, Toplock 5/8 NC PLC
10	00759275	3	Washer
11	8343	1	Hose Holder
12	00748823	1	Bolt
13	00758146	2	Tongue Pivot Pin
14	2196	2	Clip
15	00001800	1	Locknut TLM 1/2 NC PLC
16	00761890	2	Spacer
17	00756655	1	Parking Jack

CONTROL ROD ASSEMBLY



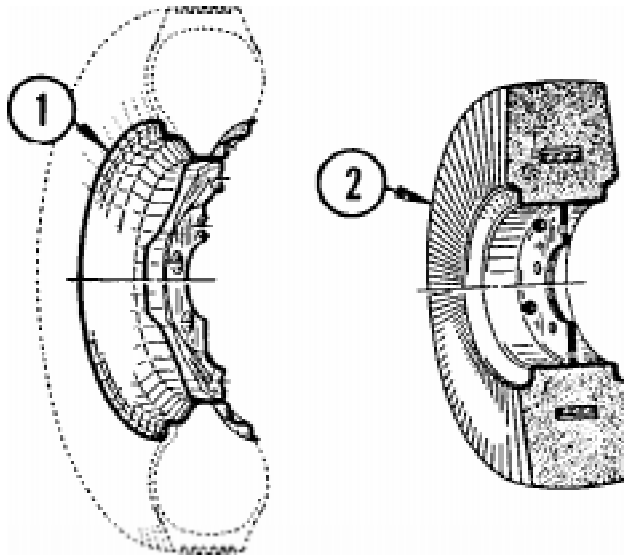
ITEM	PART NO.	QTY.	DESCRIPTION
	00762147	1	Control Rod Assy
1	743031	2	Control Rod, Wldt, L.H. Thds
2	584042	2	Control Rod, Wldt. R.H. Thds
3	421062	2	Nut, Adjusting
4	651102	4	Rod Pin, Control
5	5C1490	2	Nut, Jam
6	15B1200	8	Washer
7	00755153	8	Pin, Cotter

AXLE ASSEMBLY



ITEM	PART NO.	QTY	DESCRIPTION
1	00762106	1	Center Axle Weldment
2	00761175	1	Left Hand Axle Arm Weldment
3	00761073	1	Right Hand Axle Arm Weldment
4	00761174	2	Flat Clamp
5	00759561	4	Bushing
6	00554600	1	Ratchet Jack Assembly
7	00037100	12	Bolt
8	00037200	13	Locknut
9	00007800	1	Bolt
10	8327	1	Bushing
OPTIONAL PARTS			
11	00756528	2	Wheel Hub Accessory Kit
12	00756489	2	Hub (with Cups and Studs)
13	00771296	2	Spindle Shaft
14	000245	2	Bolt
15	00001800	2	Locknut TLM 1/2 NC PLC

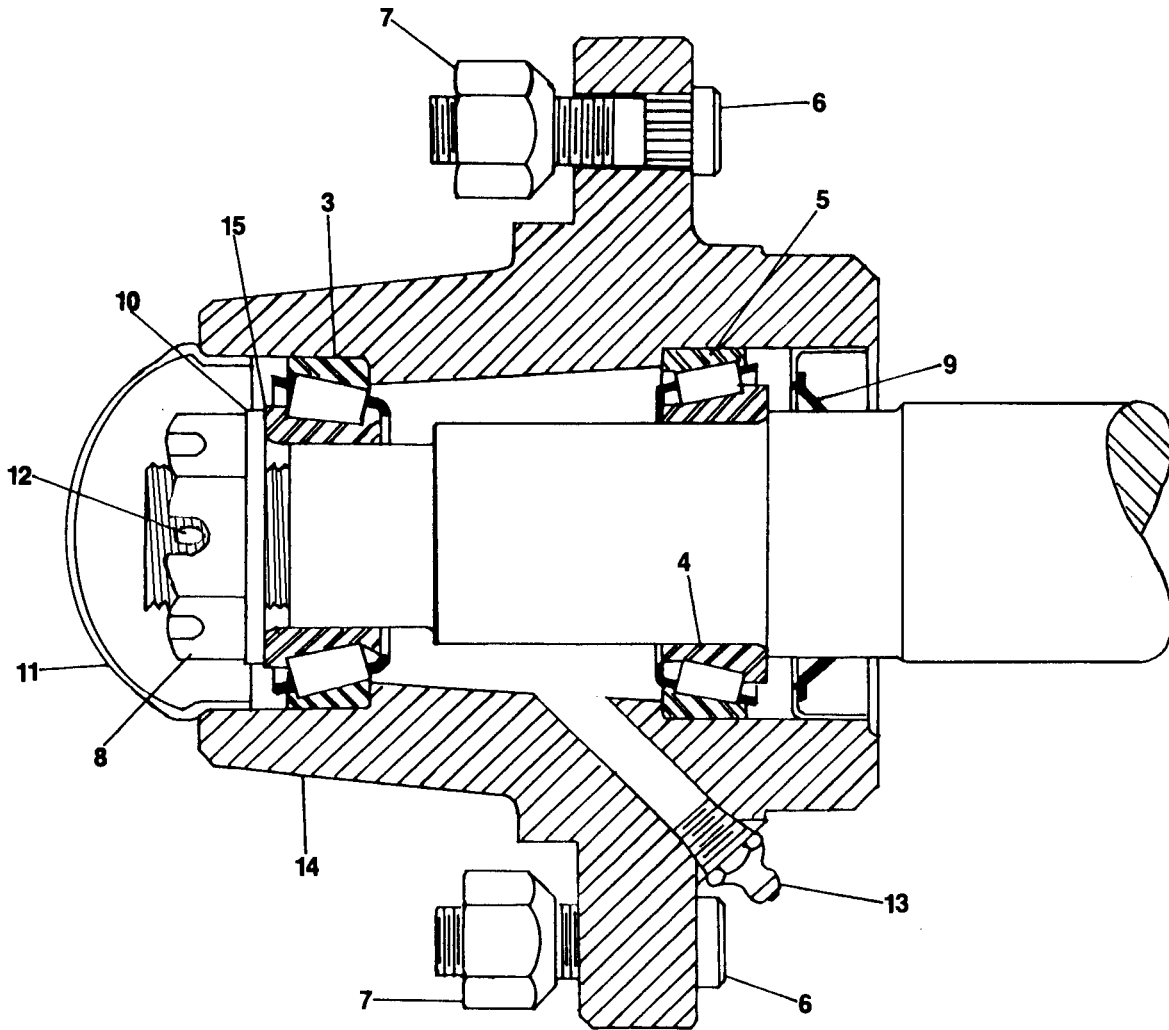
WHEEL ASSEMBLY



Wheel Group
(Quantities Shown for 1-Cutter, Complete)

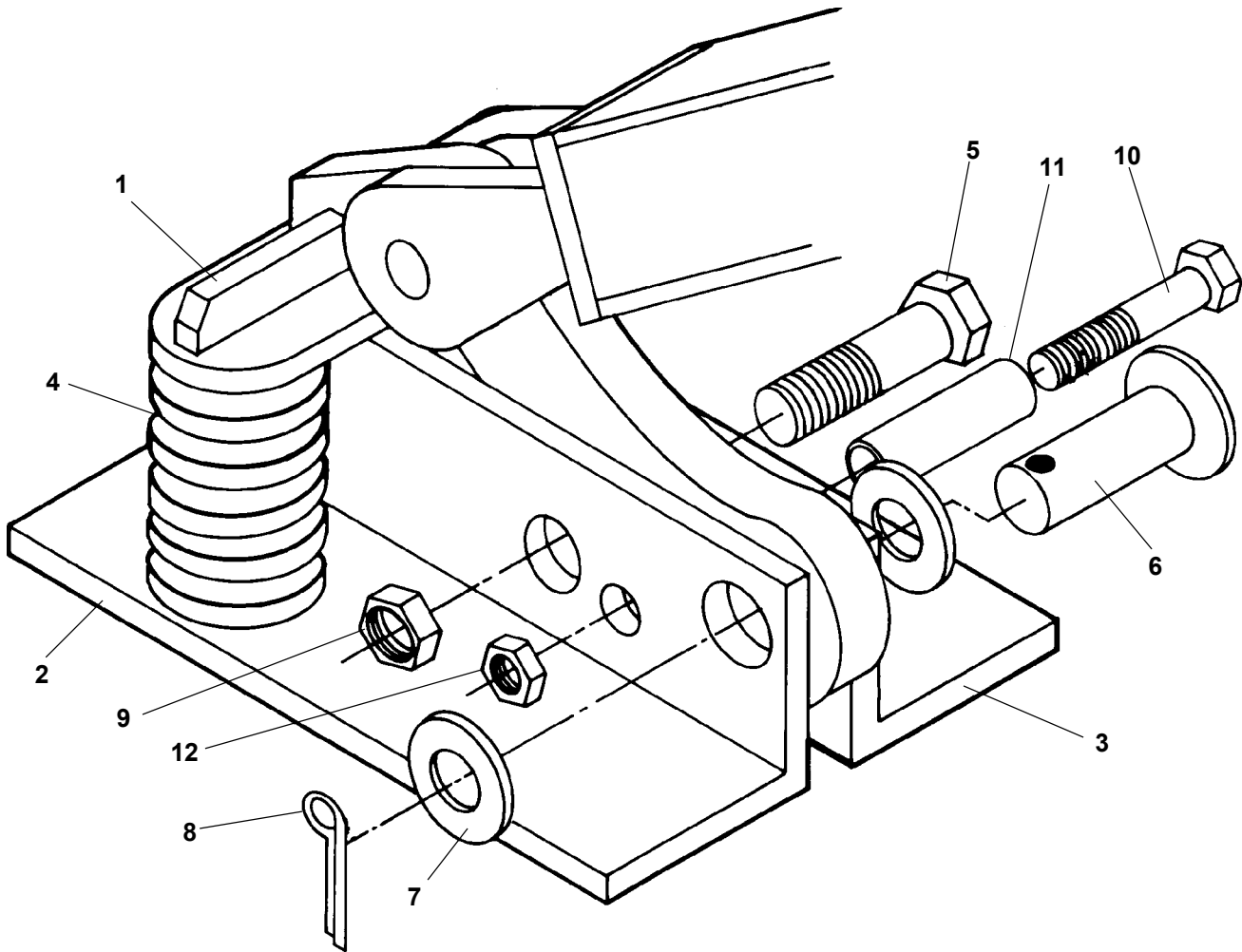
ITEM	PART NO.	QTY.	DESCRIPTION
1	00008700	2	Wheel
2	00025200	2	Laminated Puncture-Proof Tire & Wheel Assembly
	00749700	2	Used 14" Airplane Tire/Wheel (Not Shown)
	00749698	2	Implement Tire/Wheel (Not Shown)

WHEEL HUB ASSEMBLY



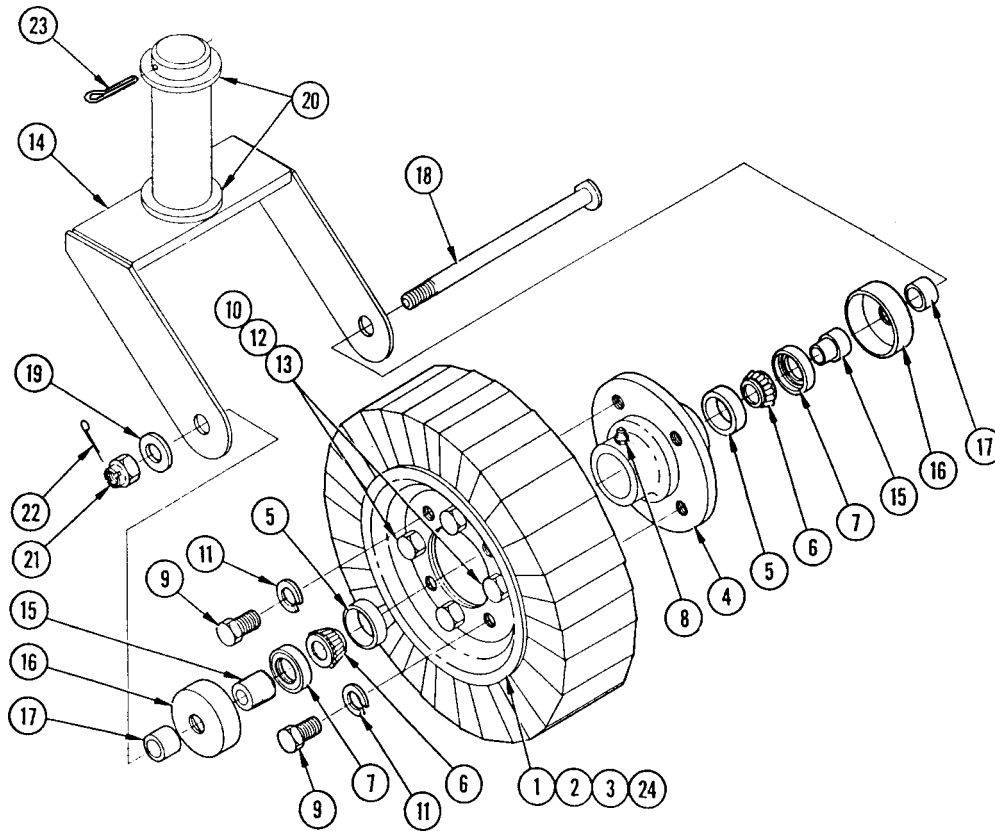
ITEM	PART NO.	QTY	DESCRIPTION
3	00756576	1	Bearing Cup(Outside)
4	00750434	1	Bearing Cone(Inside)
5	00756577	1	Bearing Cup(Inside)
6	00756488	5	Stud Bolt
7	00750614	5	Nut
8	00756490	1	Bearing Adjusting Nut
9	00750616	1	Seal
10	00756493	1	Washer
11	00756492	1	Dust Cap
12	00000400	1	Cotter Pin
13	00003500	1	Grease Fitting
14	00756489	1	Wheel Hub
15	0371242102	1	Bearing Cone(Outside)
16	00756001	ref	Spindle, Single Wheel
	00756489	ref	Hub(w/Cups & Studs)
	00756528	ref	Wheel Hub Accessory Kit

SPRING SHOCK ASSEMBLY



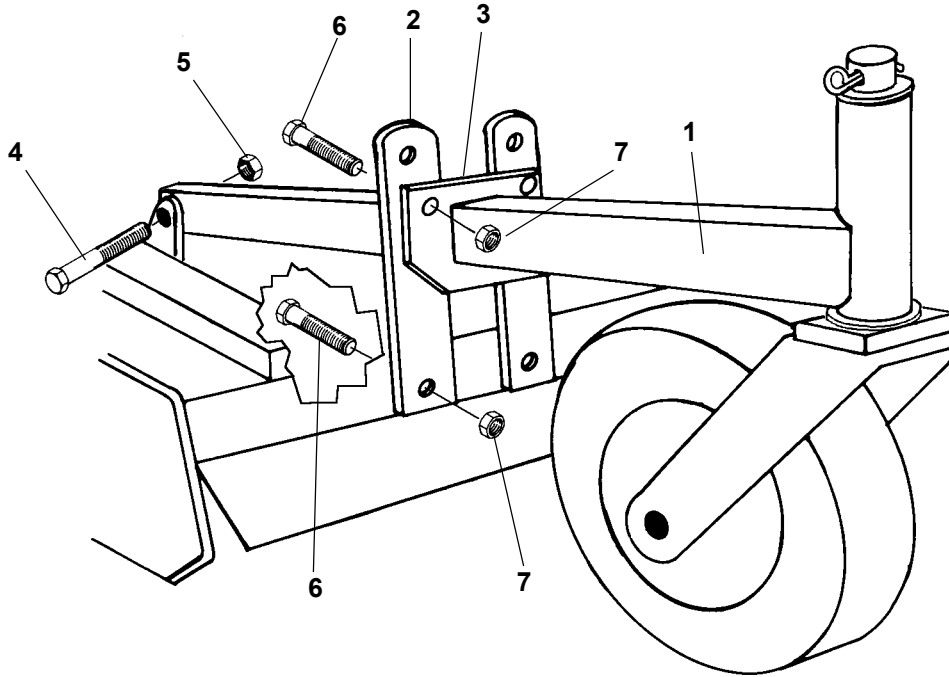
ITEM	PART NO.	QTY.	DESCRIPTION
	00759191	1	Spring Shock Assy
1	00759190	1	Spring Shock Weldment
2	00759189	1	Angle Bracket Weldment LH
3	00759188	1	Angle Bracket Weldment RH
4	371063A	2	Spring
5	02782100	1	Bolt
6	8354	1	Pin
7	02822500	1	Washer
8	00606000	1	Cotter Pin
9	02030300	1	Locknut
10	00750952	1	Bolt
11	00761199	1	Spacer
12	00695100	1	Nut, Toplock 5/8 NC PLC

CASTER ASSEMBLY - LIFT TYPE



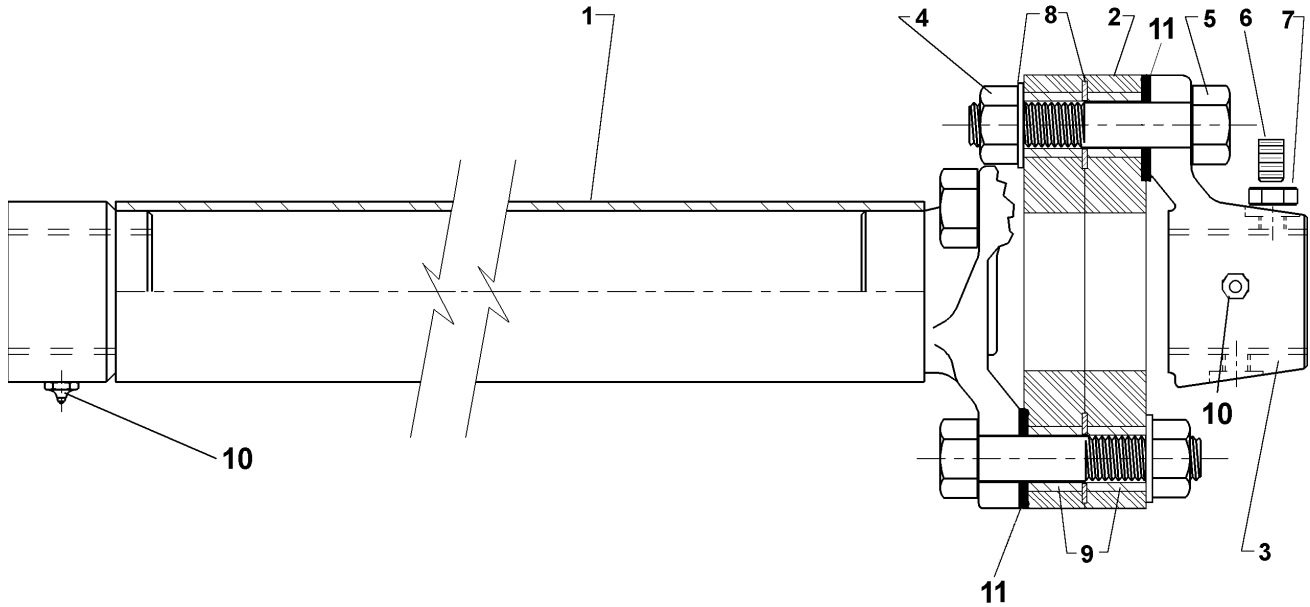
ITEM	PART NO.	QTY	DESCRIPTION
	0585020200	1	Caster Assy
1	373024	1	Wheel Assembly
2	373024A	1	Tire
3	373024B	1	8" Dia. Wheel (Bolted Assy)
4	373024D	1	Hub Assembly (with bearings and seals)
5	00750621	2	Bearing Cup
6	373024F	2	Bearing Cone
7	373024E	2	Grease Seal
8	00752670	1	Grease Fitting (Threaded)
	00600000	1	Grease Fitting (Drive in)
9	7A8208	4	Bolt
10	7A6166	4	Bolt
11	00001300	4	Lockwasher
12	00012101	4	Lockwasher
13	00013901	4	Nut
14	0585020210	1	Fork Weldment
15	37302C2C	2	Shoulder Sleeve
16	37302D2B	2	Dust Cap
17	511016	2	Spacer Bushing
18	37302D2A	1	Spindle Bolt
19	15B1200	1	Washer
20	15B2400	2	Washer
21	5E12160	1	Castle Nut
22	00026200	1	Cotter Pin
23	00758899	1	Cotter Pin
24	373024H	1(REF)	Tire and Wheel Assembly (Bolted Assy. only, less Hub)

TAILWHEEL ASSEMBLY- LIFT MODEL



ITEM	PART NO.	QTY	DESCRIPTION
1	00762127	2	Beam Weldment
2	4744	2	Beam Support Weldment
3	4745	2	Bracket
4	02845800	2	Bolt
5	00695100	2	Nut, Toplock 5/8 NC PLC
6	00748823	8	Bolt
7	00001800	8	Locknut TLM 1/2 NC PLC

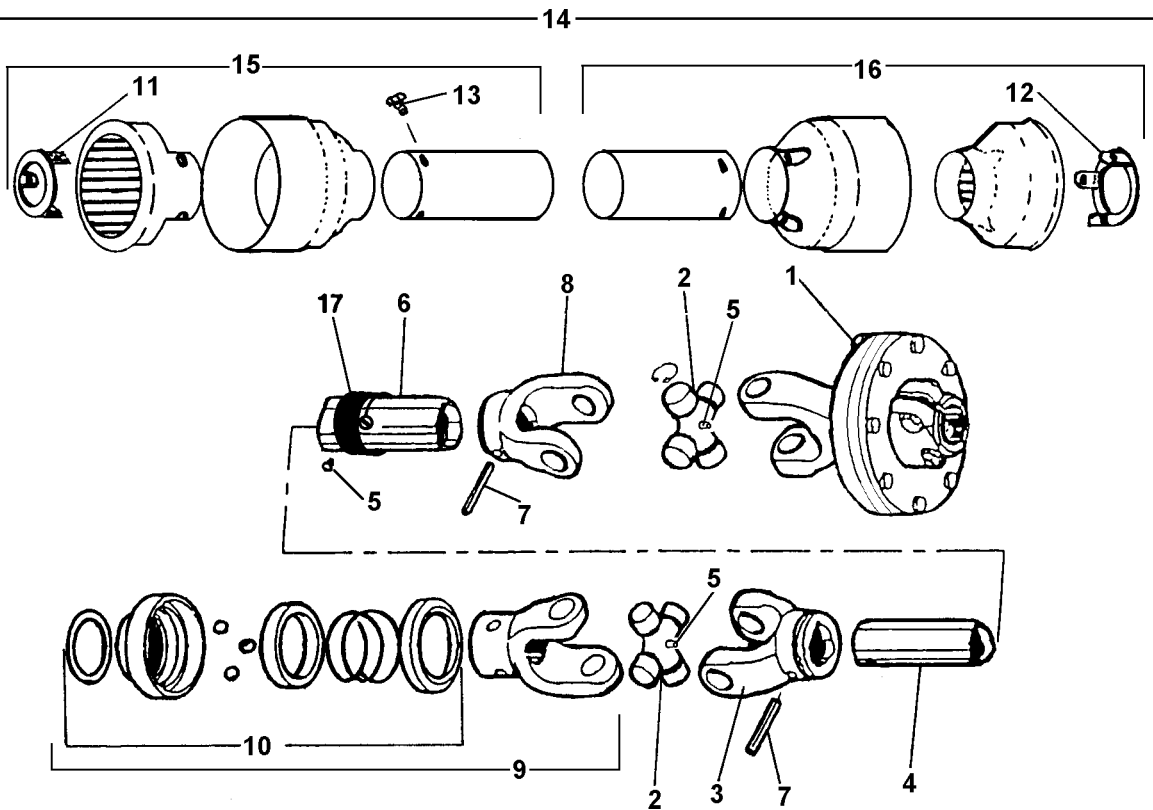
DRIVELINE - OUTER



2 Complete Assemblies Required per Machine

ITEM	PART NO.	QTY	DESCRIPTION
	00762116	1	Driveline Assy
1	00762583	1	Weldment - Sleeve
2	00762215	2	Rubber Disc Assembly
3	00762216	1	Spider
4	00759276	6	Locknut
5	00752661	6	Bolt
6	3167	1	Set Screw
7	5C6160	1	Jam Nut
8	00756077	12	Washers
9	00762930	12	Bushing
10	00764386	2	Grease Fitting
11	00766475	6	Shaped Washer

DRIVELINE - LIFT TYPE 540 & 1000 RPM



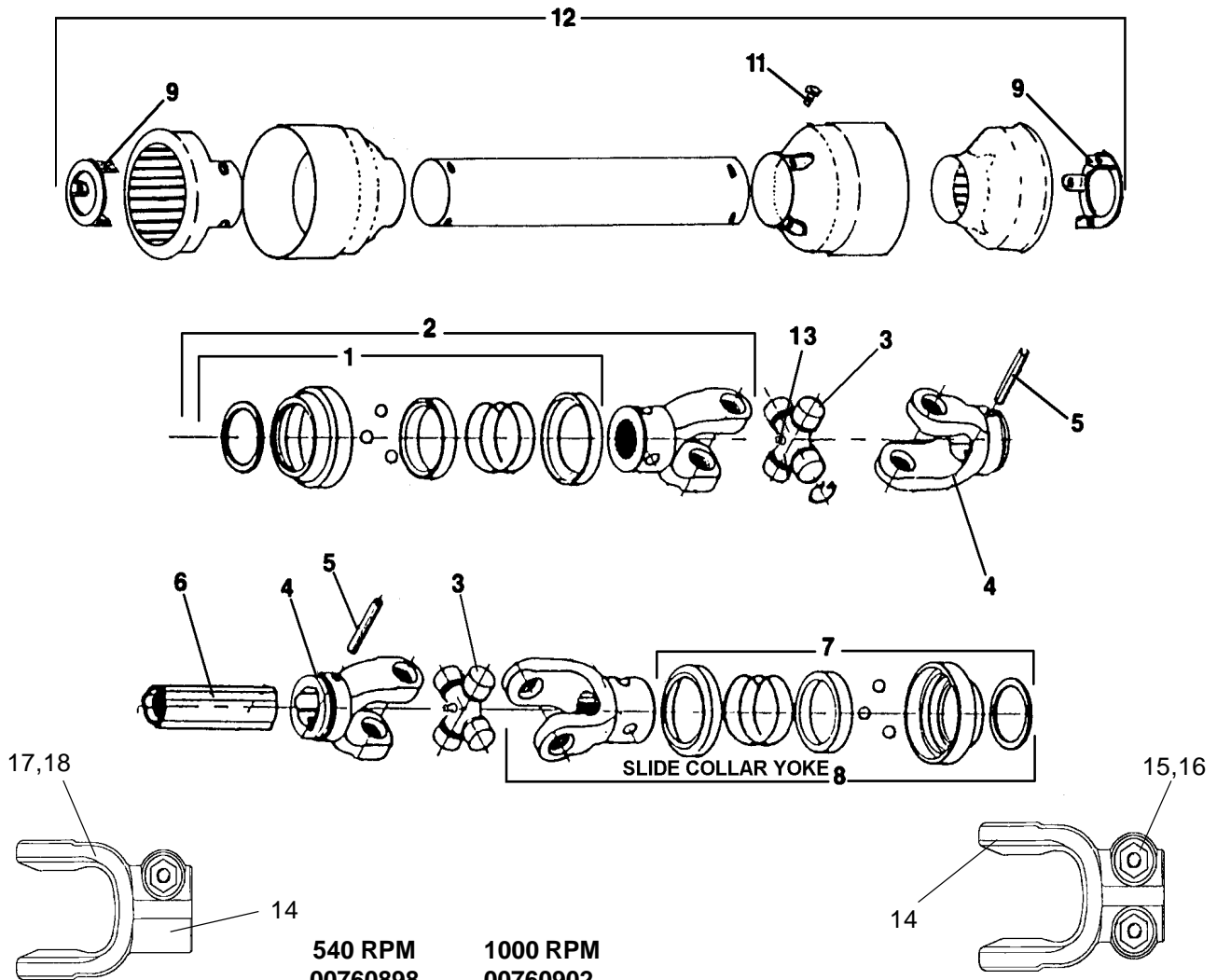
540 RPM 00761322	1000 RPM 00761325
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ITEM	PART NO.	PART NO.	QTY	DESCRIPTION
1	00756075	00756075	1	Slip Clutch(w/ Spring)
*Obsolete	00756075A	00756075A	1	Slip Clutch(w/o Spring)
2	00752896	00752896	2	Cross Journal Set
3	00754153	00754153	1	Inner Yoke
4	00762735	00762735	1	Hardened Inner Tube
5	00754335	00754335	1	Grease Fitting
6	00762726	00762726	1	Outer Tube
7	00754167	00754167	2	Roll Pin
8	00754154	00754154	1	Outer Yoke
9	00752883	00760002	1	Complete Collar Yoke
10	00757144	00757144	1	Collar Kit
11	00754332	00754332	1	Retaining Collar for Outer Tube
12	00754331	00754331	1	Retaining Collar for Inner Tube
13	00754330	00754330	6	Bolt
14	00754379	00754379	1	Complete Shield (Both Halves)
15	00754377	00754377	1	Outer Shield Half
16	00754378	00754378	1	Inner Shield Half
17	00761075	00761075	1	Centering Spring
	00754376	00761326	1	Inner Tube Half w/Shield
	00761324	00761324	1	Outer Tube Half w/Shield and Clutch

***NOTE:**

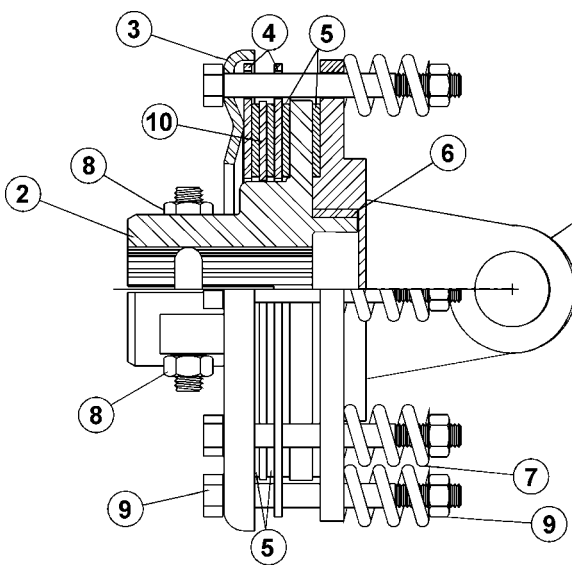
Some of the drivelines shipped in 1997/98 were shipped with a springless slip clutch (P/N 00756075A) which is no longer available. Please refer to Slip Clutch Assembly page for replacement parts.

DRIVELINE - PULL TYPE 540 & 1000 RPM

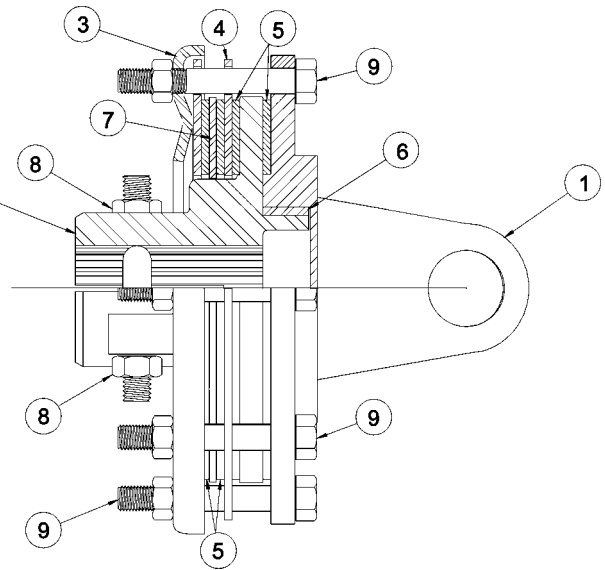


ITEM	540 RPM PART NO.	1000 RPM PART NO.	QTY	DESCRIPTION
1	00757144	00757144	1	Collar Kit
2	00752883	00760002	1	Complete Collar Yoke
3	00752896	00752896	2	Cross Journal Set
4	00754154	00754154	2	Outer Yoke
5	00754167	00754167	2	Roll Pin
6	00761207	00761207	1	Tube
7	00757052	00757052	1	Collar Kit
8	00757051	00757051	1	Complete Collar Yoke
9	00754332	00754332	2	Retaining Collar
11	00754330	00754330	6	Bolt
12	00761208	00761208	1	Complete Shield
13	00755610	00755610	2	Grease Fitting
14	00771337	00771337	1	Complete Clamp Yoke
15	02964955	02964955	2	Clamp Bolt
16	00755881	00755881	2	Locknut
17	00767655	00767655	1	Tapered Pin
18	00770777	00770777	1	Locknut

SLIP CLUTCH ASSEMBLY



P/N 00756075
P/N 00759985



P/N 00756075A
P/N 00759985A
(Obsolete)

NOTE:

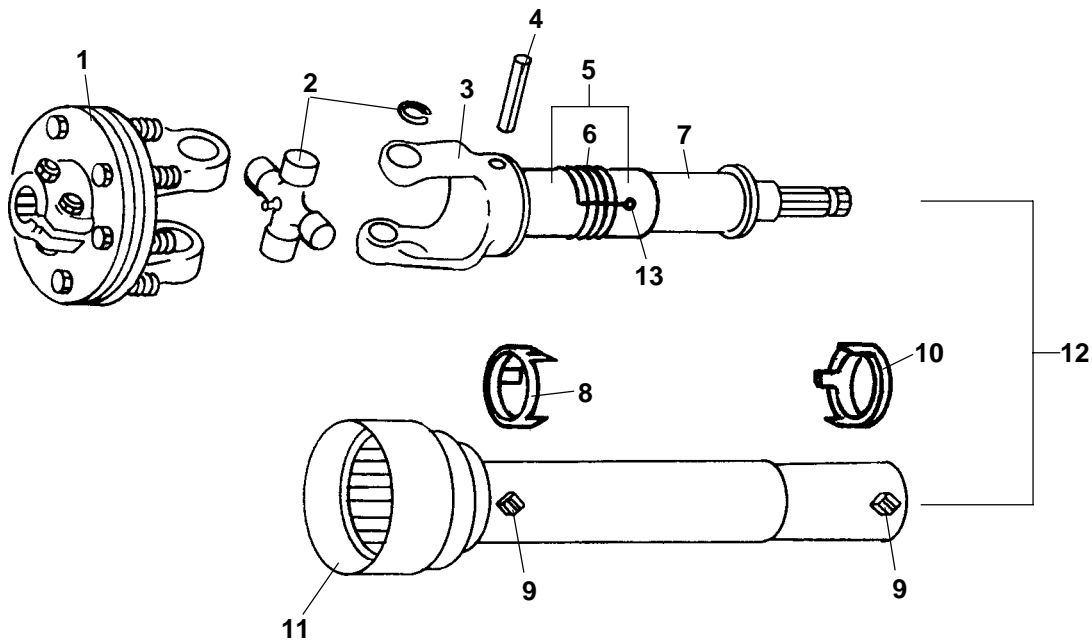
The difference between P/N 00756075(A) & P/N 00759985(A) is the torque on the bolts. P/N 00756075(A) is 900ft/lbs and P/N 00759985(A) is 1100ft/lbs.

ITEM	(*Obsolete see note below)		QTY	DESCRIPTION
	00759985 00756075 PART NO.	00759985A 00756075A PART NO.		
1	00754302		1	Flange Yoke
2	00755599		1	Clutch Support
3	00766810		1	Pressure Plate
4	00754314		2	Plate with Holes
5	00754202		4	Lining Ring
6	00754301		1	Bushing
7	00754303		8	Spring
8	00755600		2	Nut & Bolt
9	00754199		8	Nut & Bolt
			8	Nut & Bolt
10	00754201		1	Intermediate Plate

***NOTE:**

This slip clutch is no longer available. Order Spring Kit (P/N 00773222) as replacement part to convert to a spring clutch.

JACKSHAFT - PULL TYPE

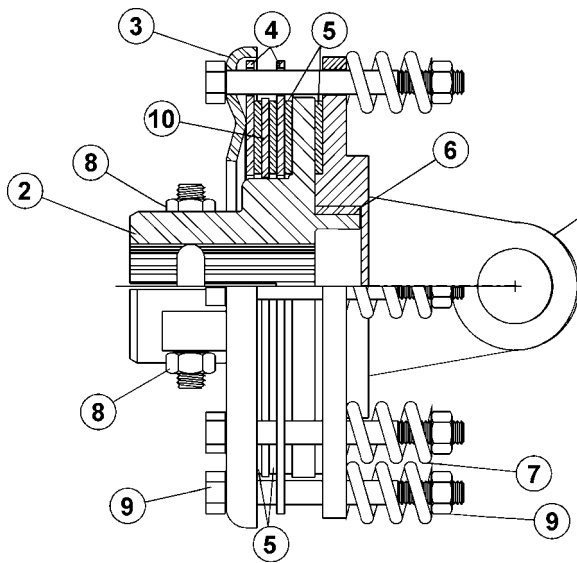


ITEM	PART NO.	QTY	DESCRIPTION
	00761470	1	Jackshaft Assy
1	00759985	1	Slipclutch (w/ Spring)
*Obsolete	00759985A	1	Slipclutch (w/o Spring)
2	00752896	1	Cross Journal Set
3	00754154	1	Outer Yoke
4	00754167	1	Roll Pin
5	00762604	1	Outer Tube & Shield Support
6	00761075	1	Shield Support
7	00762605	1	Inner Tube w/Spline
8	00754332	1	Retaining Collar
9	00754330	6	Bolt
10	00754331	1	Retaining Collar - Inner Tube
11	00762607	1	Complete Shield
12	00762606	1	Half Shaft w/Retaining Shield
13	00754335	1	Grease Nipple

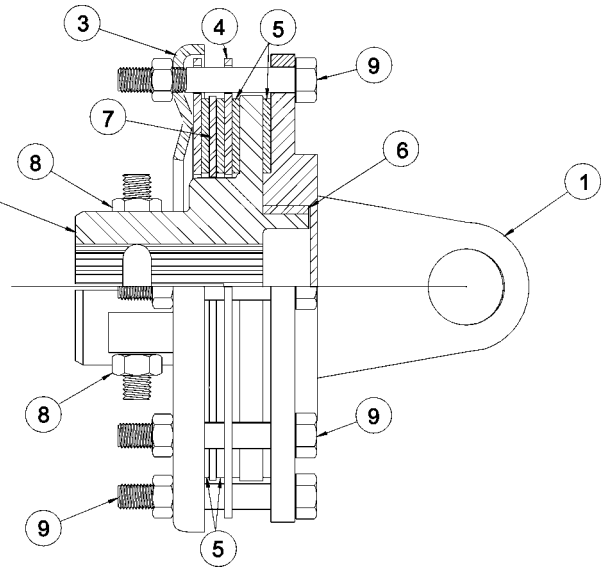
***NOTE:**

Some of the jackshafts shipped in 1997/98 were shipped with a springless slip clutch (P/N 00759985A) which is no longer available. Please refer to Slip Clutch Assembly page for replacement parts.

SLIP CLUTCH ASSEMBLY



P/N 00759985



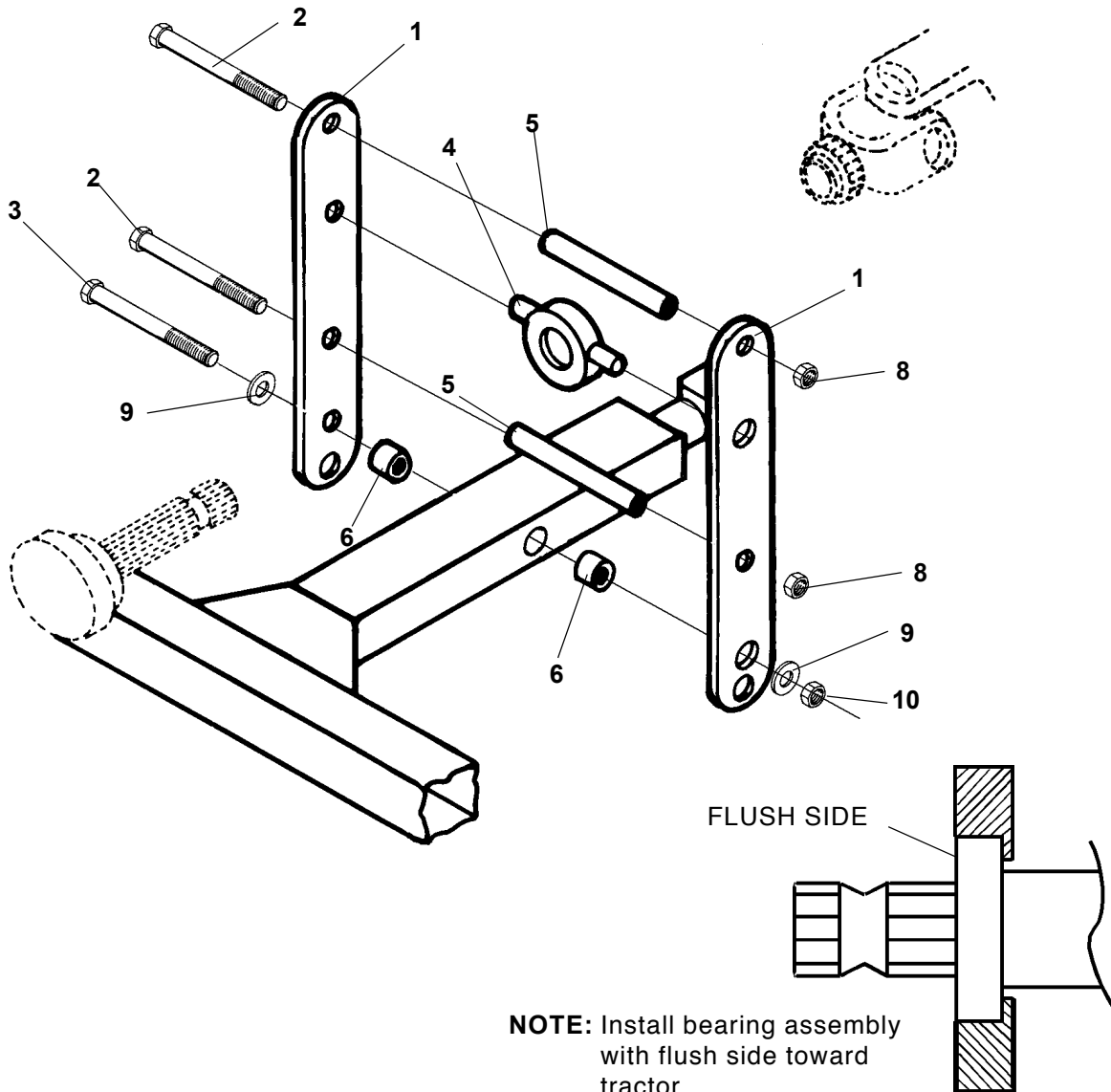
P/N 00759985A
(Obsolete)

ITEM	(*Obsolete see note below) 00759985A		QTY	DESCRIPTION
	00759985 PART NO.	PART NO.		
1	00754302		1	Flange Yoke
2	00755599		1	Clutch Support
3	00766810		1	Pressure Plate
4	00754314		2	Plate with Holes
5	00754202		4	Lining Ring
6	00754301		1	Bushing
7	00754303		8	Spring
8	00755600		2	Nut & Bolt
9	00754199		8	Nut & Bolt
			8	Nut & Bolt
10	00754201		1	Intermediate Plate

***NOTE:**

This slip clutch is no longer available. Order Spring Kit (P/N 00773222) as replacement part to convert to a spring clutch.

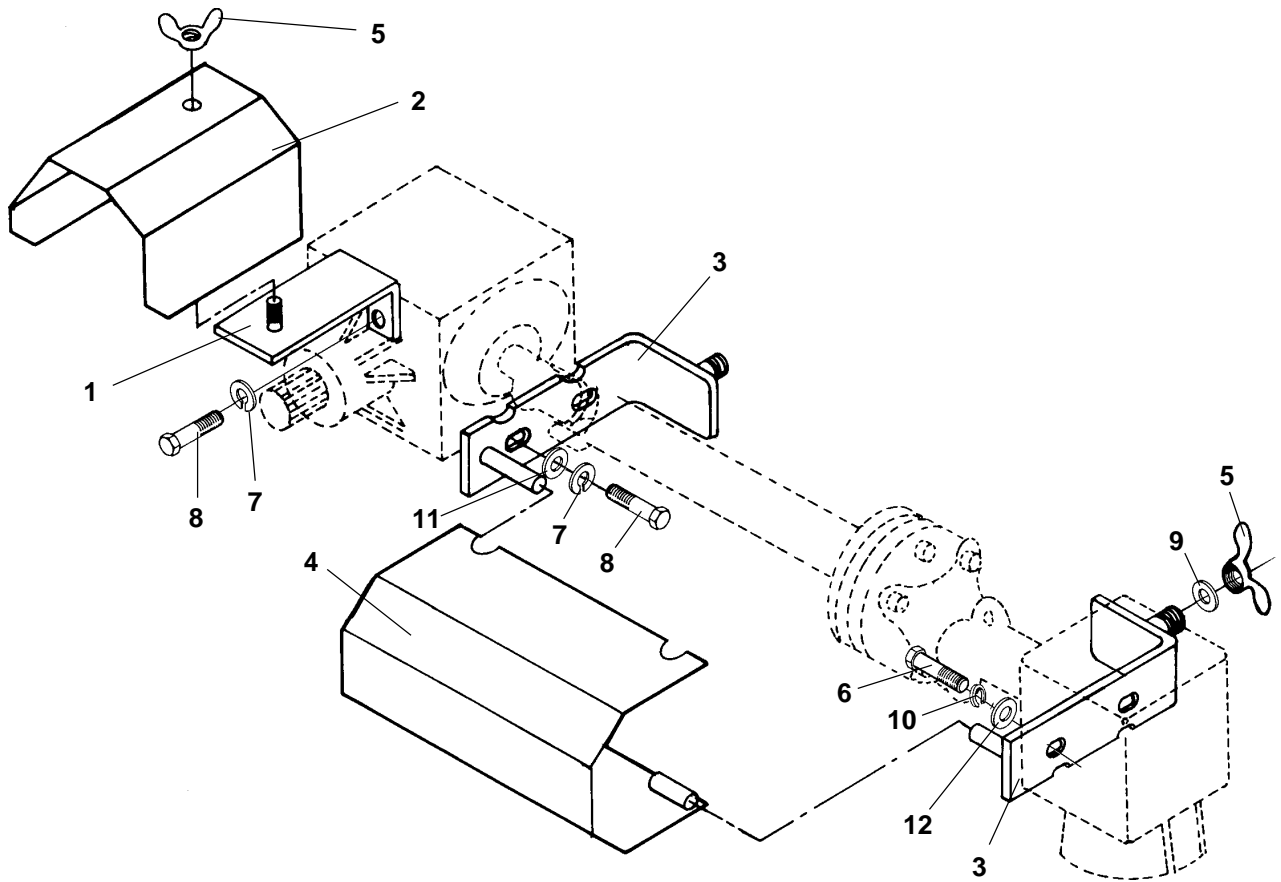
JACKSHAFT SUPPORT - PULL TYPE



NOTE: Install bearing assembly with flush side toward tractor.

ITEM	PART NO.	QTY.	DESCRIPTION
1	00764455	2	Flat Bearing Support
2	02956953	2	Bolt
3	00016400	1	Bolt
4	00764416	1	Bearing and Housing Assembly
	00764417	1	Bearing
5	00764457	2	Spacer
6	0811180520	2	Bushing
8	00001800	2	Locknut TLM 1/2 NC PLC
9	00001400	2	Flatwasher
10	00695100	1	Nut, Toplock 5/8 NC PLC

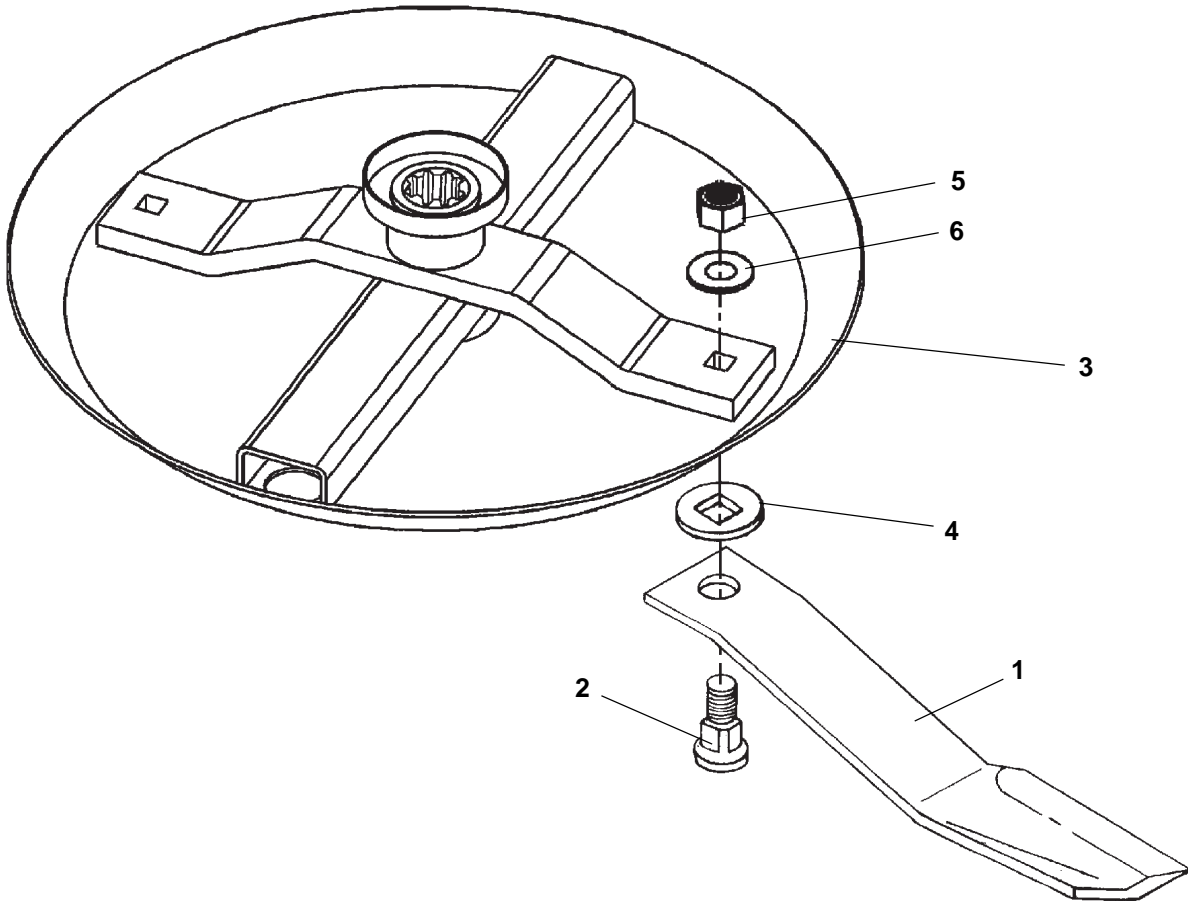
SHIELDS



ITEM	PART NO.	QTY.	DESCRIPTION
1	00761405	1	Weldment Bracket
2	00760909	1	Shield Front
3	00763236	4	Weldment Bracket
4	00762113	2	Weldment Shield
5	5F8130	5	Wing Nut
6	00751693	4	Bolt
7	00022200	6	Lockwasher
8*	00758659	6	Bolt
9*	00002700	4	Flatwasher
10	00011700	4	Lockwasher
11	00019700	4	Flatwasher
12	00023500	4	Flatwasher

* Existing Hardware

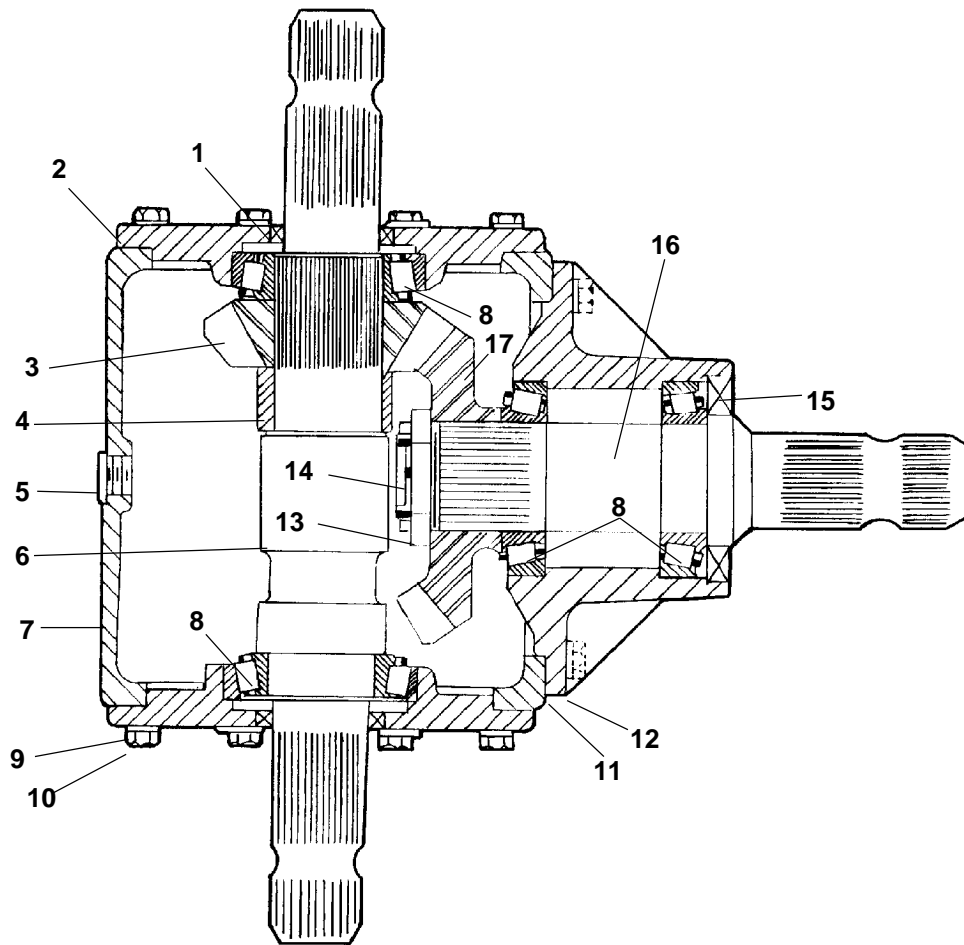
BLADE PAN ASSEMBLY



NOTE: Offset Model uses 8589A Blade **ONLY**.

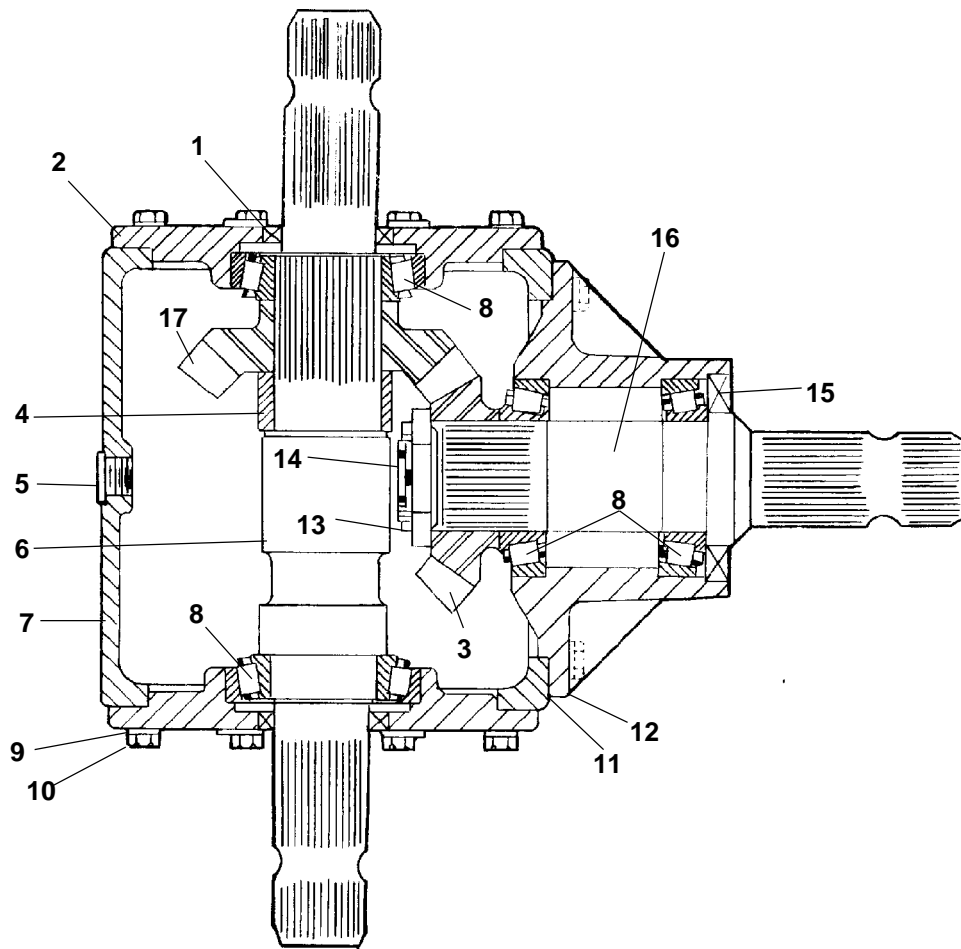
ITEM	PART NO.	QTY .	DESCRIPTION
1	8589A	2	Blade (CCW Rotation)
	8590A	2	Blade (CW Rotation)
2	8251	2	Bolt
3	00770392	1	Weldment - Dishpan
4	00758579	2	Washer
5	5JRC16140	2	Locknut
6	9216	2	Washer

GEARBOX - DIVIDER 540 RPM



ITEM	PART NO.	QTY	DESCRIPTION
	00760880	1	Gearbox Assy
1	00758653	2	Seal
2	00762516	2	Cap - Side
3	00758693	1	Gear - 13 Tooth
4	00758657	1	Spacer
5	00762517	2	Pipe Plug
6	00762518	1	Shaft
7	00762519	1	Housing
8	00755628	4	Bearing
9	00755954	24	Lockwasher
10	00758659	24	Bolt
11	00748531	AR	Gaskets (includes 0.40, 0.25, & 0.30)
12	00762520	1	Cap - Hub Input
13	00762121	1	Adjusting Nut
14	00026200	1	Cotter Pin
15	00762521	1	Seal
16	00762522	1	Shaft
17	00758694	1	Gear - 19 Tooth
18	00762114	1	Pipe Plug Vented (not illustrated)

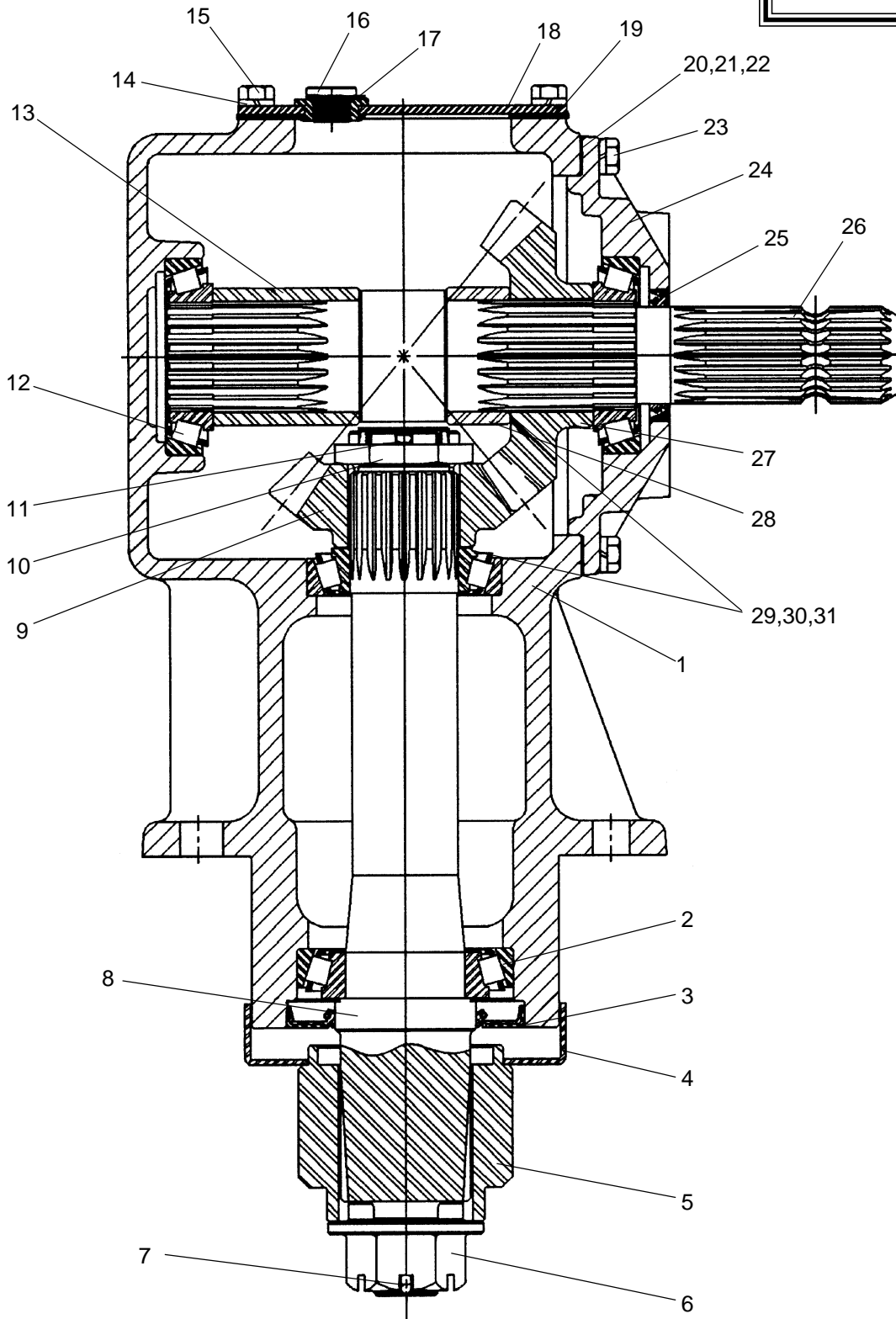
GEARBOX - DIVIDER 1000 RPM



ITEM	PART NO.	QTY	DESCRIPTION
	00758996	1	Gearbox Assy
1	00758653	2	Seal
2	00762516	2	Cap - Side
3	00759487	1	Gear - 14 Tooth
4	00758657	1	Spacer
5	00762517	2	Pipe Plug
6	00762518	1	Shaft
7	00762519	1	Housing
8	00755628	4	Bearing
9	00755954	24	Lockwasher
10	00758659	24	Bolt
11	00748531	AR	Gaskets (includes 0.40, 0.25, & 0.30)
12	00762520	1	Cap - Hub Input
13	00762121	1	Adjusting Nut
14	00026200	1	Cotter Pin
15	00762521	1	Seal
16	00762522	1	Shaft
17	00759488	1	Gear - 17 Tooth
18	00762114	1	Pipe Plug Vented (not illustrated)

GEARBOX

NEW
S/N 01011 & Up

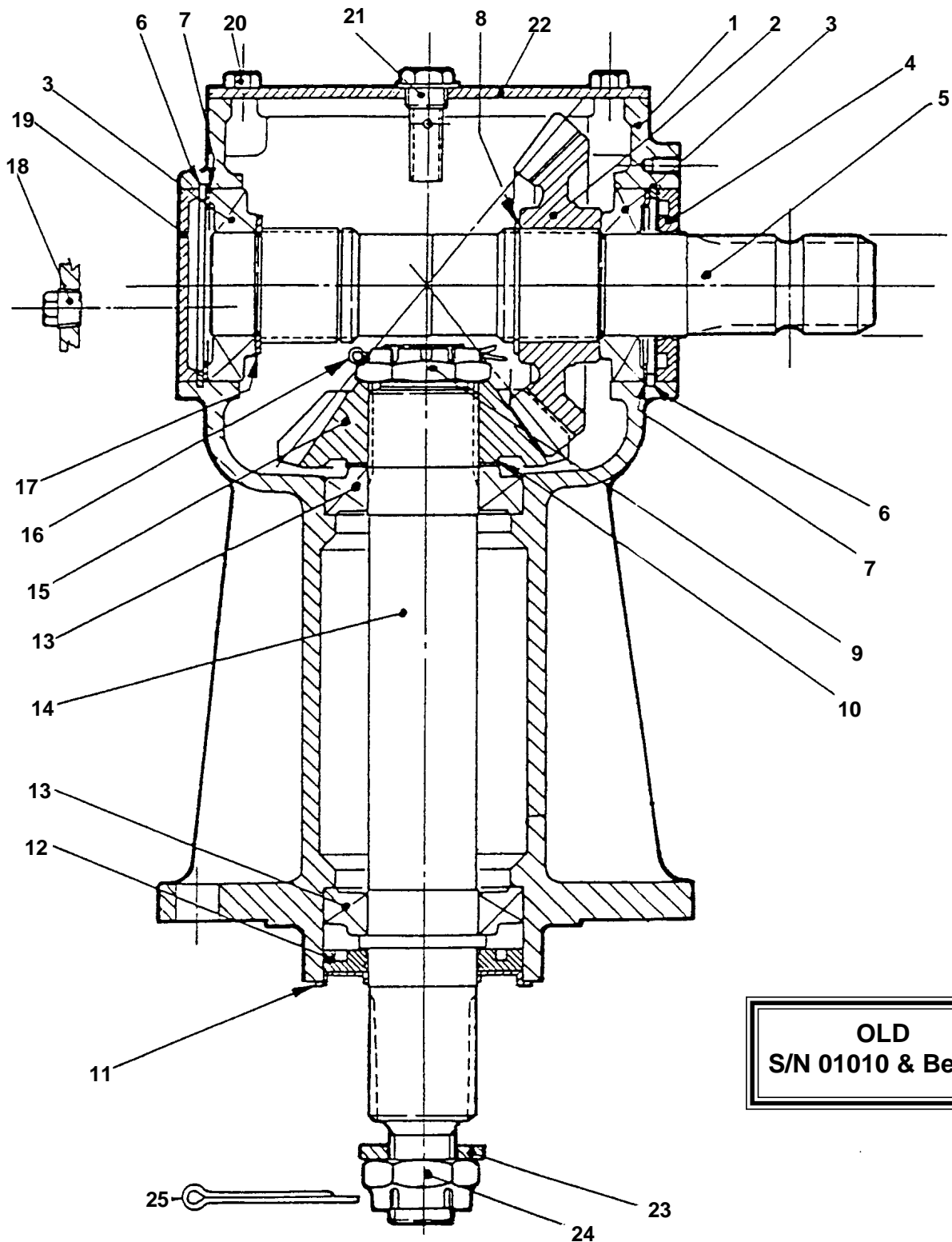


GEARBOX

**NEW
S/N 01011 & Up**

ITEM	PART NO.	QTY	DESCRIPTION
	00769918	1	Gearbox Assy
1	00770724	1	Housing
2	00770725	1	Bearing
3	00770726	1	Oil Seal
4	00770727	1	Seal Protector
5	00771227	1	Blade Hub
6	00771226	1	Nut
7	01422502	1	Cotter Pin
8	00770728	1	Shaft
9	00770738	1	Gear (14 Tooth)
10	00762121	1	Nut
11	00606000	1	Cotter Pin
12	00755628	3	Bearing
13	00770731	1	Spacer
14	00766083	10	Lockwasher
15	00754338	4	Cap Screw
16	00762517	2	Plug
17	00769321	3	Washer
18	00770732	1	Inspection Cover
19	00770733	1	Gasket
20	00758646	VAR	Gasket (0.10)
21	00758647	VAR	Gasket (0.25)
22	00758648	VAR	Gasket (0.50)
23	00765905	8	Cap Screw
24	00770734	1	Input Cap
25	00758653	1	Oil Seal
26	00770735	1	Shaft
27	00770739	1	Gear (17 Tooth)
28	00758657	1	Spacer
29	00758667	VAR	Shim (0.30)
30	-----	VAR	Shim (0.40)
31	00758668	VAR	Shim (0.50)
32	00762114	1	Relief Valve (not shown)
33	-----	2	I.D. Tag Rivet
34	-----	1	I.D. Tag

GEARBOX

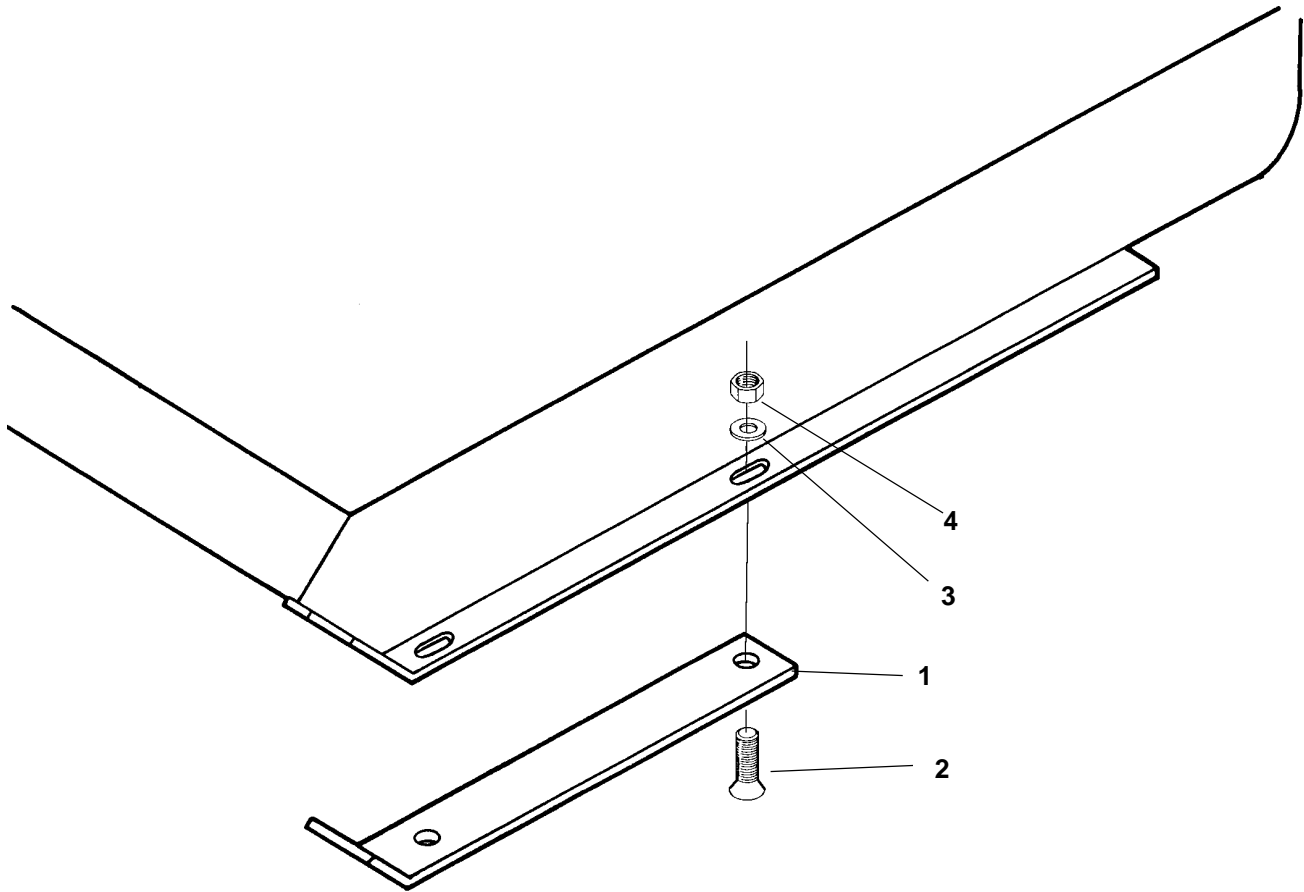


GEARBOX

**OLD
S/N 01010 & Below**

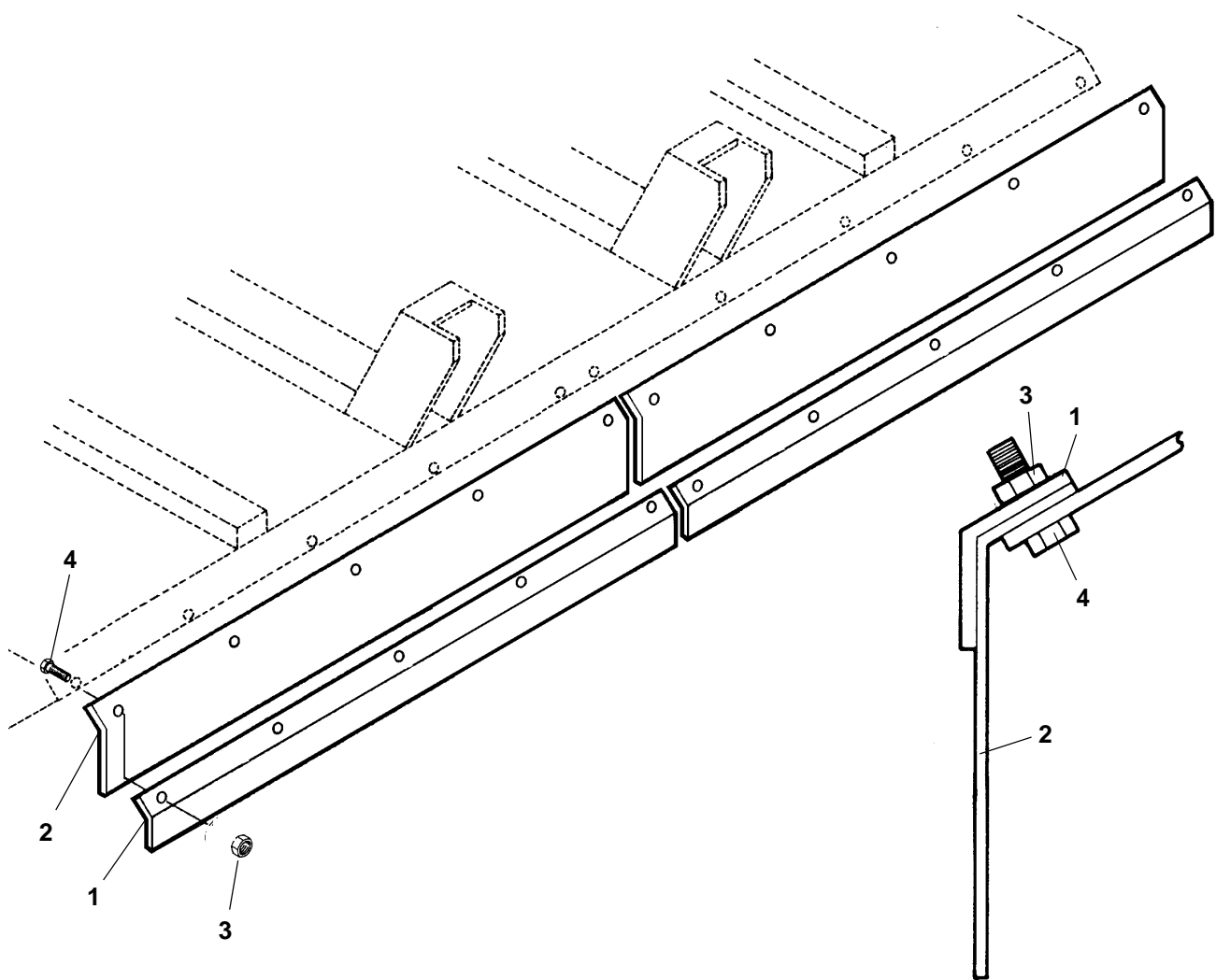
ITEM	PART NO.	QTY	DESCRIPTION
	00756739	1	Gearbox Assy
1	00755613	1	Casing
2	00756899	1	Gear (24 Teeth) 1000 or 540 RPM
3	00755615	2	Bearing
4	00753238	1	Oil Seal
5	00755617	1	Shaft
6	00755618	2	Internal Circlip
7	00755619	2	Shim
8	00755620	1	External Circlip
9	00756943	1	Nut
10	00755622	1	Shim
11	00755626	1	Protective Shield
12	00755627	1	Oil Seal
13	00769938	2	Bearing
14	00756945	1	Shaft
15	00756900	1	Gear (20 Teeth) 1000 or 540 RPM
16	00756946	1	Cotter Pin
17	00755632	1	Shim
18	00755633	1	Plug
19	00755634	1	Cap
20	00755635	4	Hex Bolt
21	00758654	1	Vent Plug
22	00755637	1	Cover
23	00755623	1	Washer
24	00755624	1	Nut, Castle
25	00606000	2	Cotter Pin

SKID SHOE ASSEMBLY



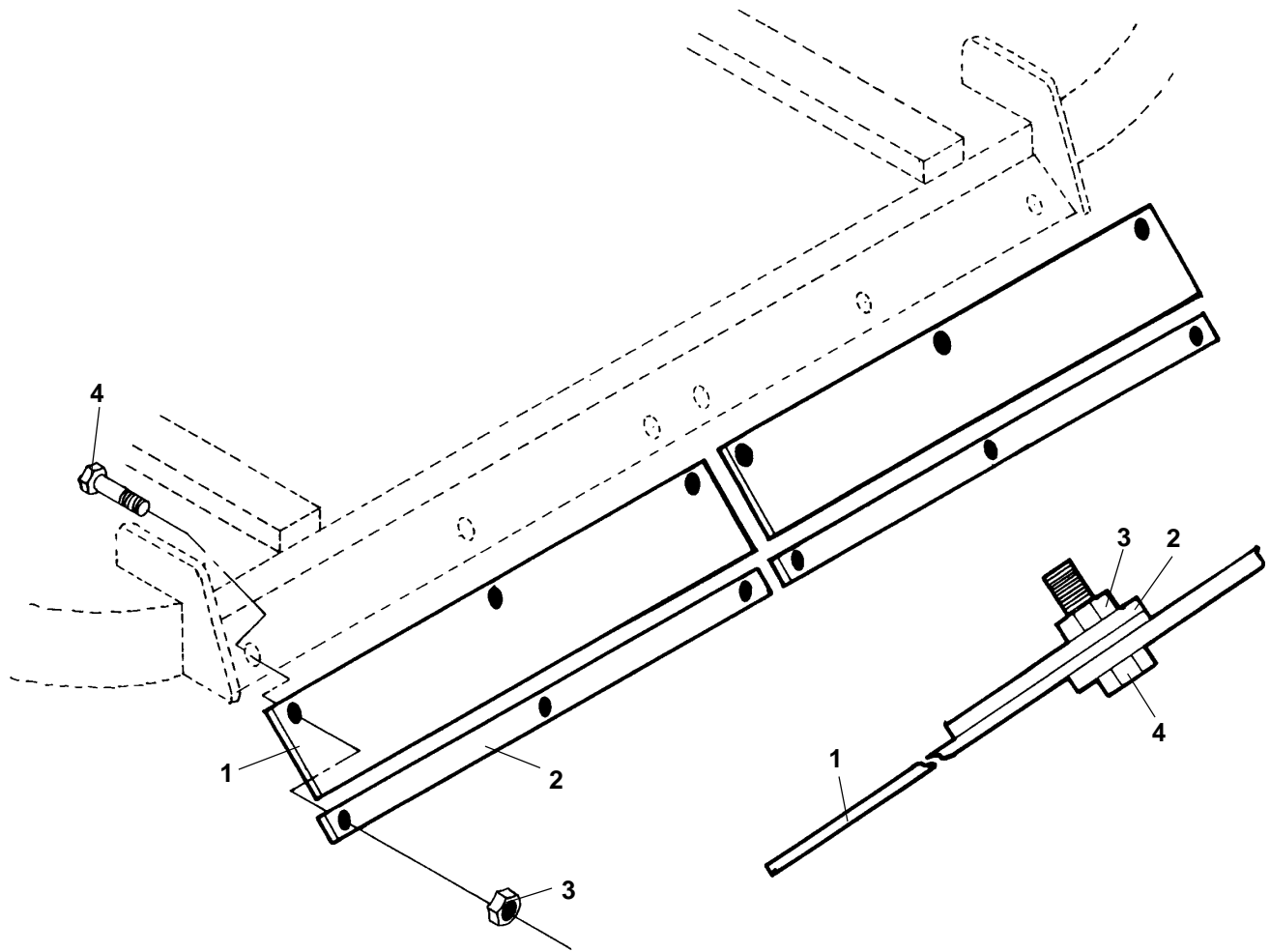
ITEM	PART NO.	QTY.	DESCRIPTION
1	0622000001	2	Skid Shoe
2	2A361612	6	Plow Bolt
3	00011100	6	Flatwasher
4	00015800	6	Nut

DEFLECTOR ASSEMBLY - FRONT



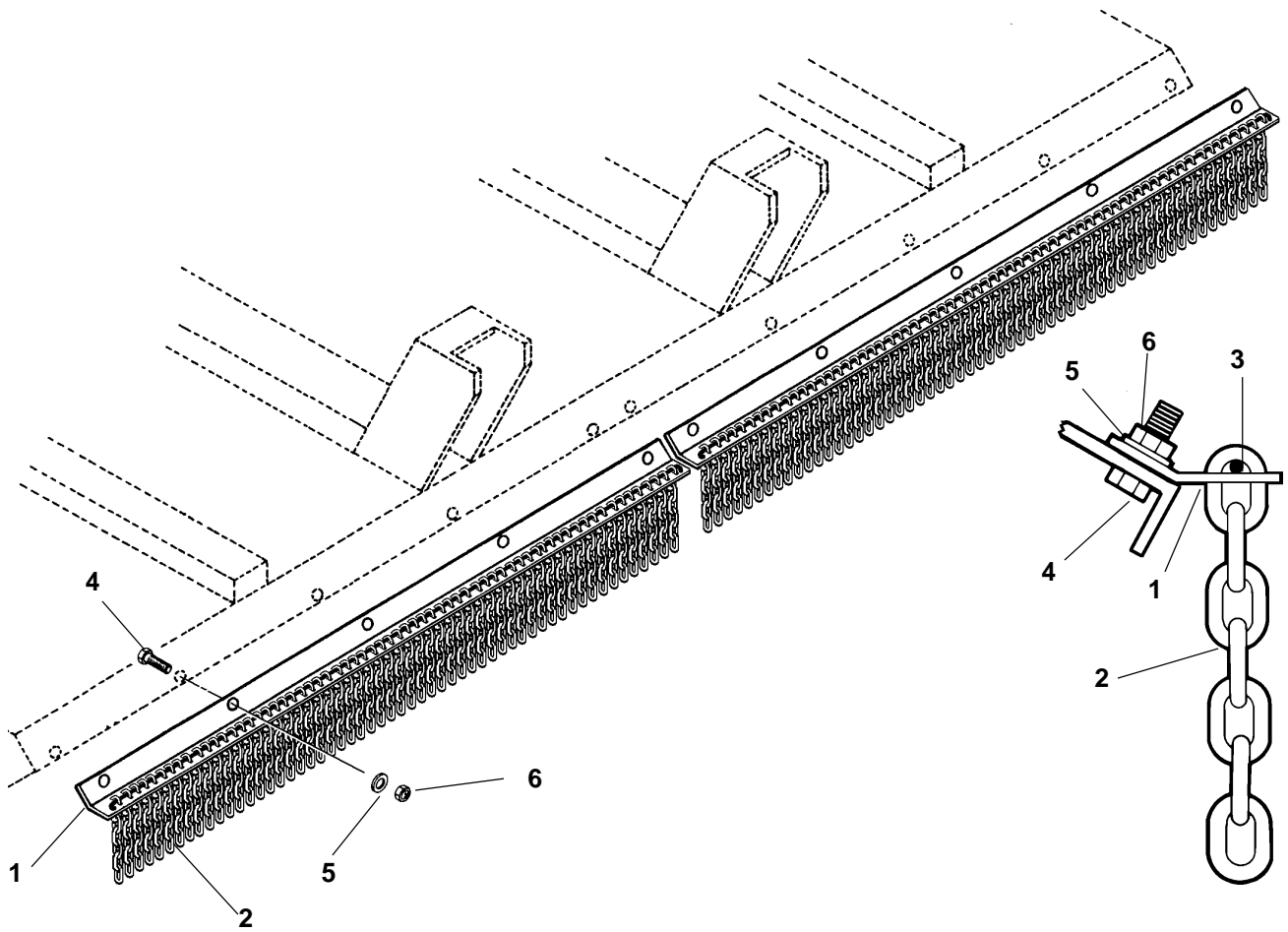
ITEM	PART NO.	QTY.	DESCRIPTION
	00762179	1	Front Deflector Assy
1	00762145	2	Bracket Strap
2	00762143	2	Shield
3	4526	10	Locknut
4	02030700	10	Bolt

DEFLECTOR ASSEMBLY - REAR



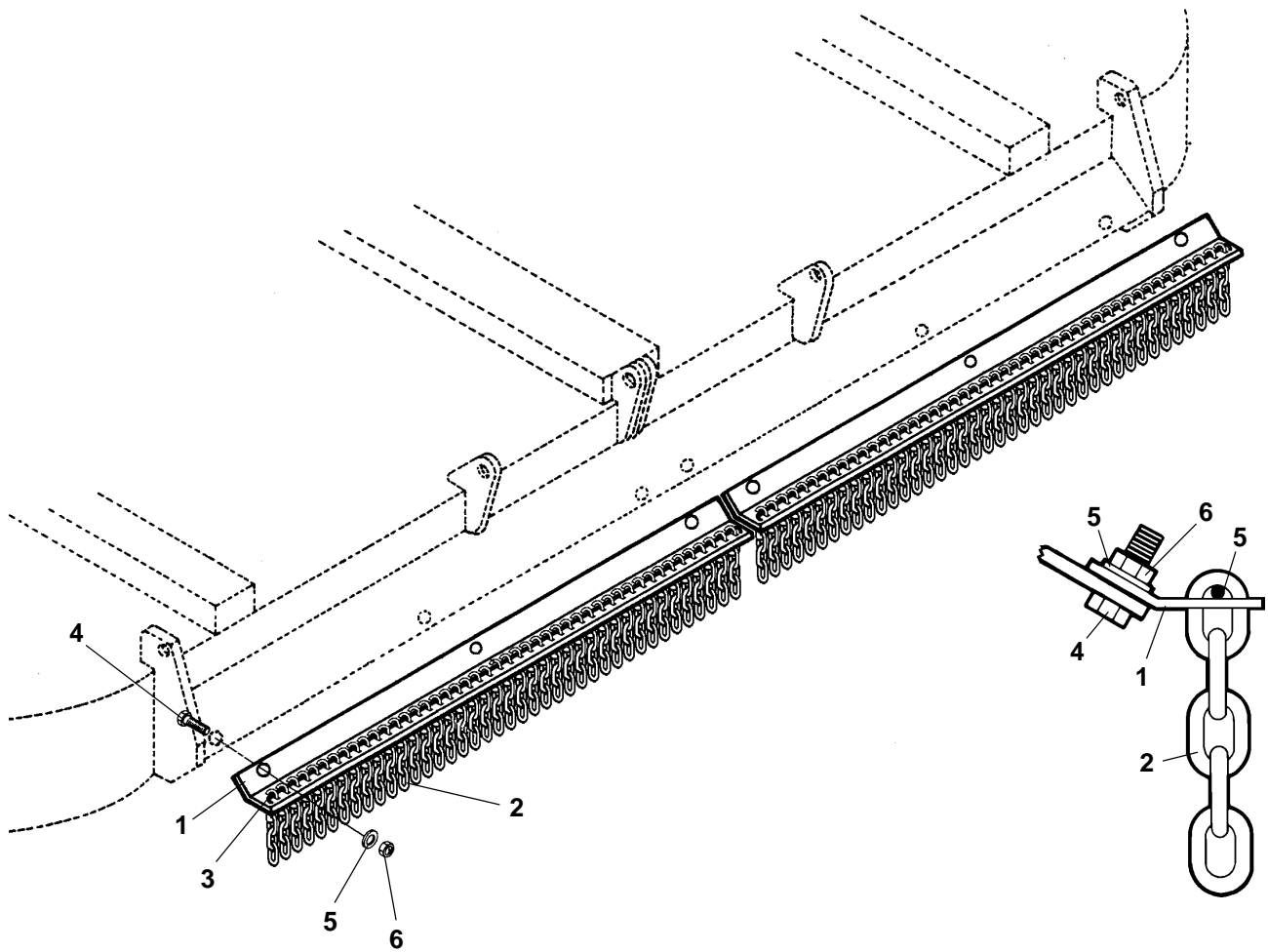
ITEM	PART NO.	QTY.	DESCRIPTION
	00762180	1	Rear Deflector Assy
1	00762142	2	Shield
2	00762144	2	Bar Strap
3	4526	6	Locknut
4	02030700	6	Bolt

CHAIN GUARD ASSEMBLY - FRONT



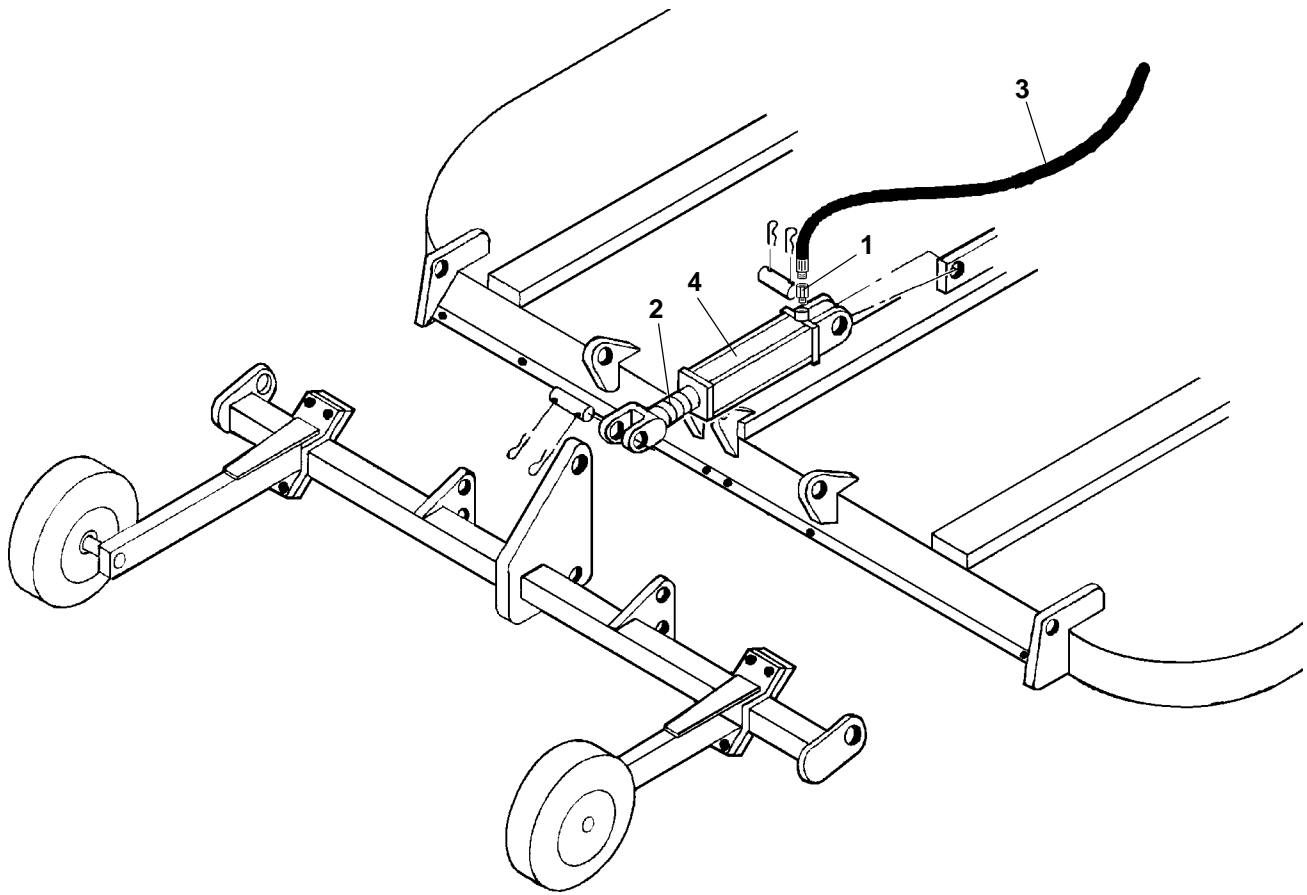
ITEM	PART NO.	QTY.	DESCRIPTION
	00762181	1	Front Chain Guard Assy
1	00762135	2	Bracket
2	0758341005	108	Chain
3	0652110201	2	Rod
4	02030700	10	Bolt
5	00002700	10	Washer
6	4526	10	Nut

CHAIN GUARD ASSEMBLY - REAR



ITEM	PART NO.	QTY.	DESCRIPTION
	00762182	1	Rear Chain Guard Assy
1	00762139	2	Bracket
2	00755090	70	Chain
3	0371200102	2	Rod
4	02030700	6	Bolt
5	00002700	6	Washer
6	4526	6	Nut

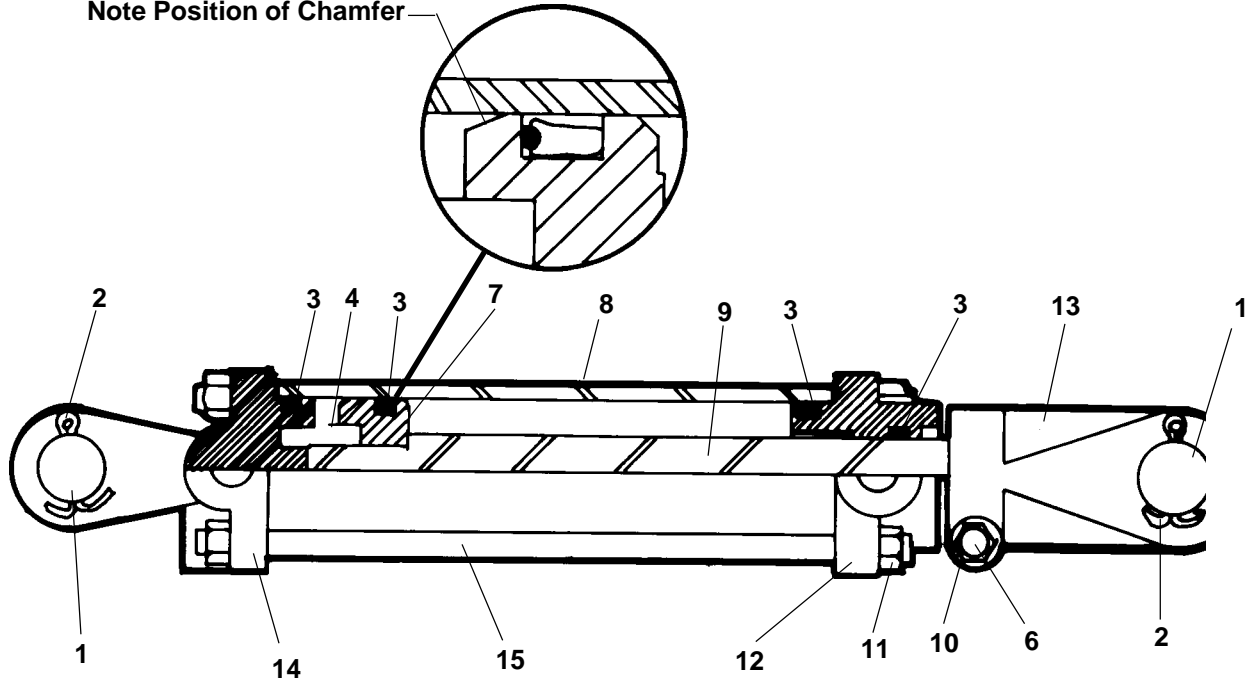
LIFT ATTACHMENT, HYDRAULIC - PULL TYPE



ITEM	PART NO.	QTY.	DESCRIPTION
1	7329	1	Hyd. Fitting w/ Restrictor
2	00755234	1	Segment Control
3	651132	1	Hyd. Hose
4	8727	1	Hyd. Cylinder

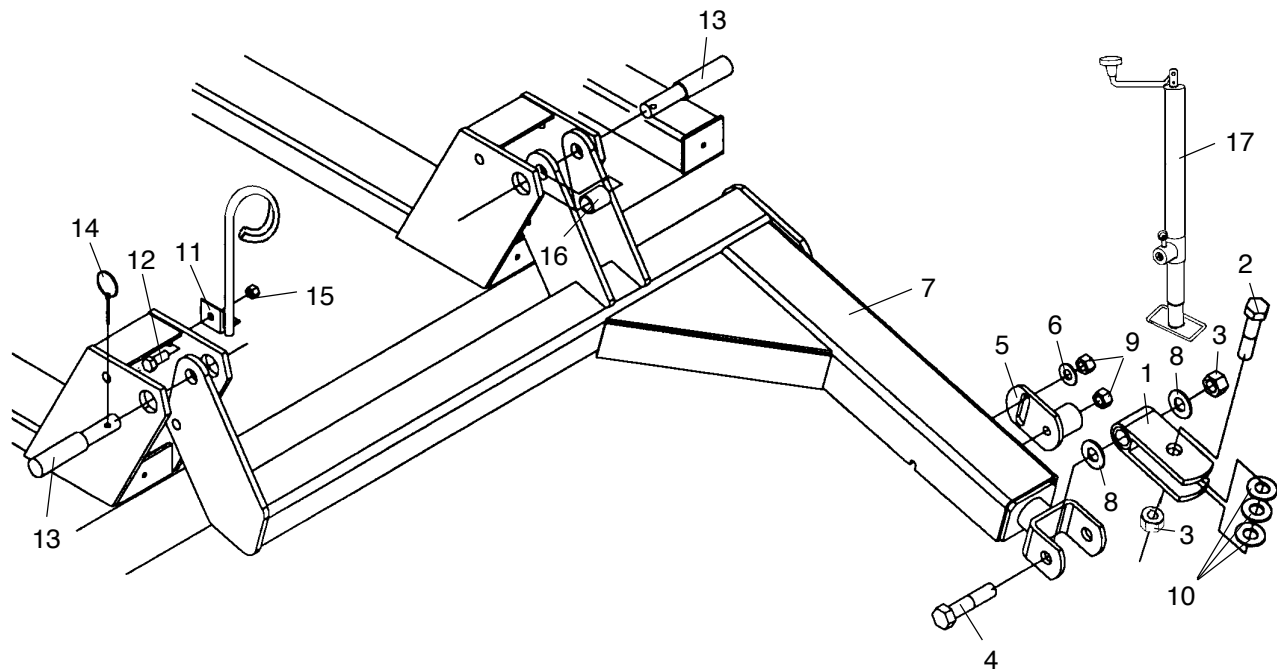
CYLINDER, HYDRAULIC (OPTIONAL)

NOTE: Seal to install over Chamfer Side of Piston
Note Position of Chamfer



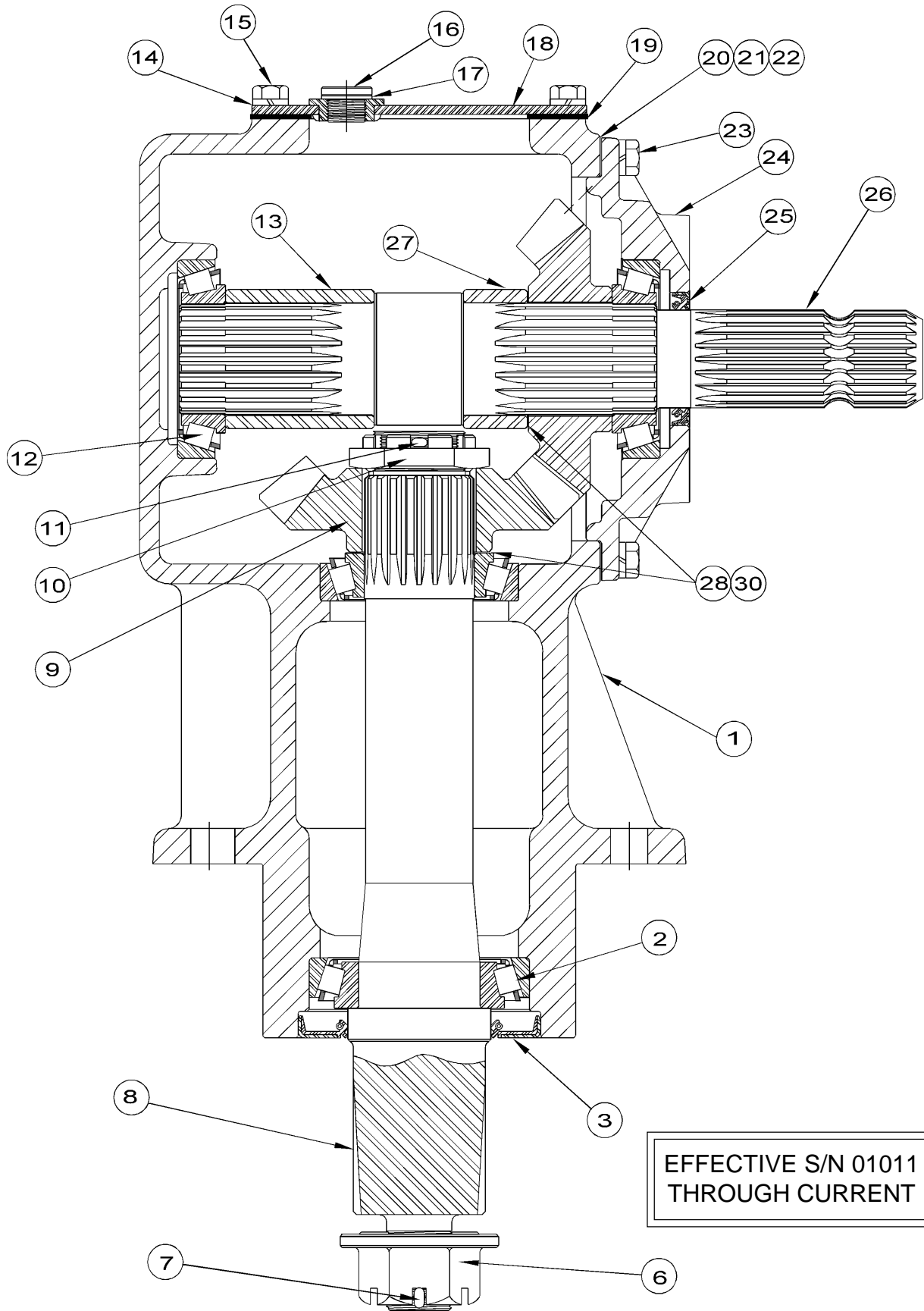
ITEM	PART NO.	QTY	DESCRIPTION
	8727	1	Cylinder, Hydraulic
1	8354	2	Pivot Pin
2	00606000	2	Cotter Pin
3	8763	1	Seal Kit
4	4675	1	Piston Nut
5	7339	1	Breather Plug
6	00023100	1	Bolt
7	00760671	1	Piston
8	8752	1	Tube
9	8753	1	Piston Rod
10	00013901	1	Nut
11	02031800	8	Nut
12	8757	1	Head
13	8754	1	Outer Clevis
14	8755	1	Cap
15	8756	4	Tie Rod

TONGUE ASSEMBLY (OFFSET MODEL)



ITEM	PART NO.	QTY	DESCRIPTION
1	00748807	1	Clevis Weldment
2	02712500	1	Bolt
3	02030300	2	Nut
4	00755305	1	Bolt
5	00760941	1	Jack Tube Mount
6	00001400	1	Washer
7	00761141	1	Tongue Weldment
8	00757478	2	Spring Washer
9	00695100	2	Nut, Toplock 5/8 NC PLC
10	00759275	3	Washer
11	8343	1	Hose Holder
12	00748823	1	Bolt
13	00758146	2	Tongue Pivot Pin
14	2196	2	Clip
15	00001800	1	Locknut TLM 1/2 NC PLC
16	00761890	2	Spacer
17	00756655	1	Parking Jack

GEARBOX, SIDE - OFFSET



EFFECTIVE S/N 01011
THROUGH CURRENT

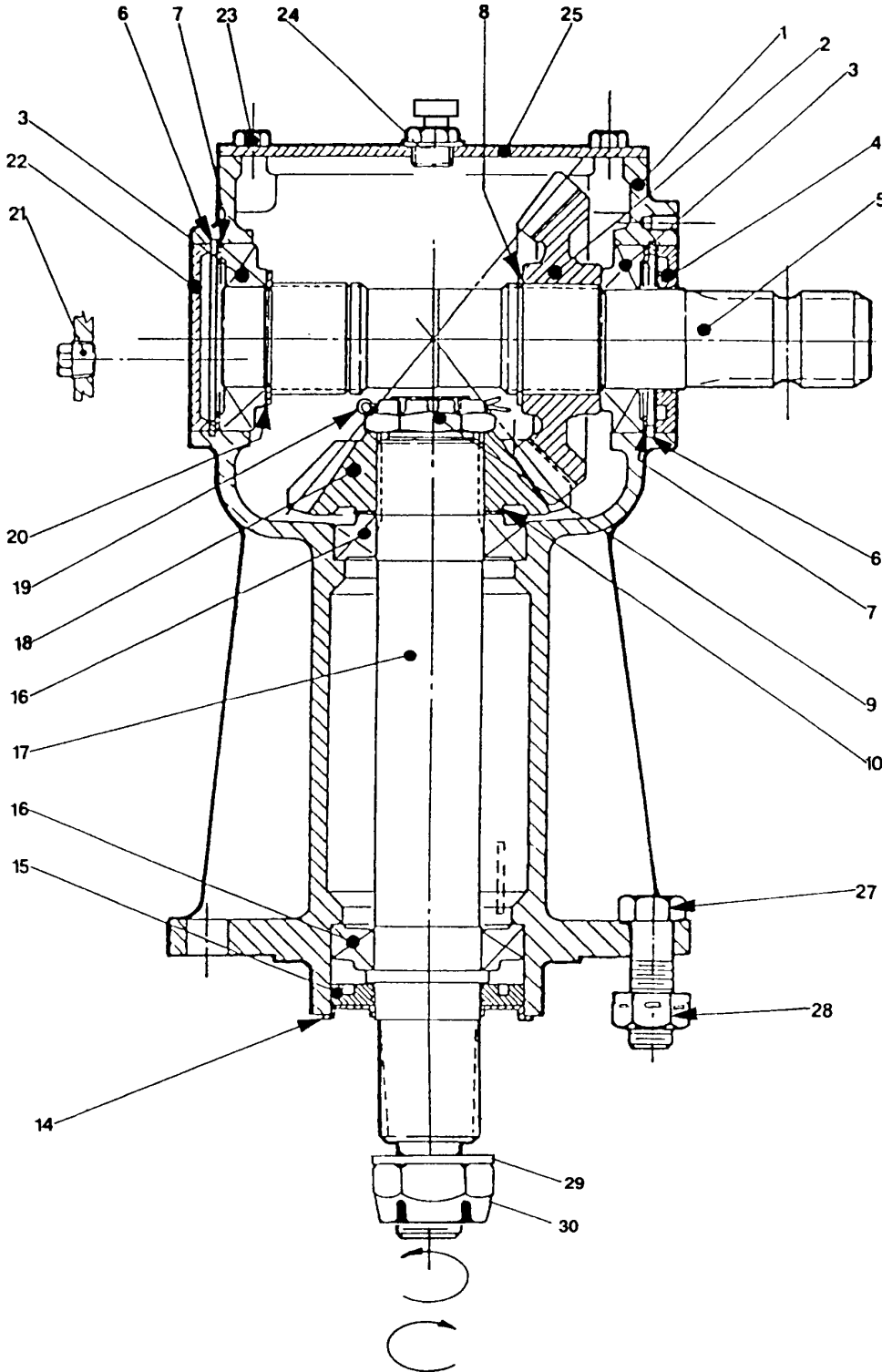
GEARBOX, SIDE - OFFSET

EFFECTIVE S/N 01011
THROUGH CURRENT

ITEM	PART N O.	QTY	DESCRIPTION
	00771225	1	Gearbox Assy
1	00770724	1	Housing
2	00770725	1	Bearing Assembly
3	00770726	1	Oil Seal
6	00771226	1	Flange Nut
7	01422502	1	Cotter Pin
8	00770728	1	Vertical Output Shaft
9	00770736	2	Pinion 13 Tooth
10	00762121	1	Bearing Adjusting Nut
11	00606000	1	Cotter Pin
12	00755628	3	Bearing Assembly
13	00770731	1	Input Shaft Spacer
14	00766083	12	Lockwasher
15	00754338	4	Bolt
16	00762517	2	Level Plug
17	00769321	3	Sealing Washer
18	00770732	1	Inspection Cover
19	00770733	1	Gasket
20	00768646	AR	Gasket (0.10)
21	00758647	AR	Gasket (0.25)
22	00758648	AR	Gasket (0.50)
23	00765905	8	Bolt
24	00770734	1	Input Cap
25	00758653	1	Oil Seal
26	00770735	1	Input Shaft
27	00758657	1	Input Shaft Spacer
28	00758667	AR	Shim (0.30)
30	00758668	AR	Shim (0.50)
31	00762114	1	Pressure Relief Plug

GEARBOX - SIDE (OFFSET MODEL)

EFFECTIVE S/N 01010
AND PRIOR

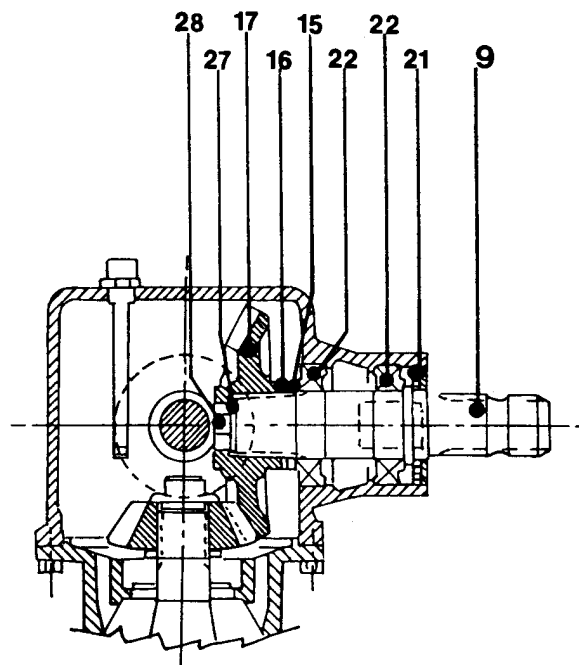
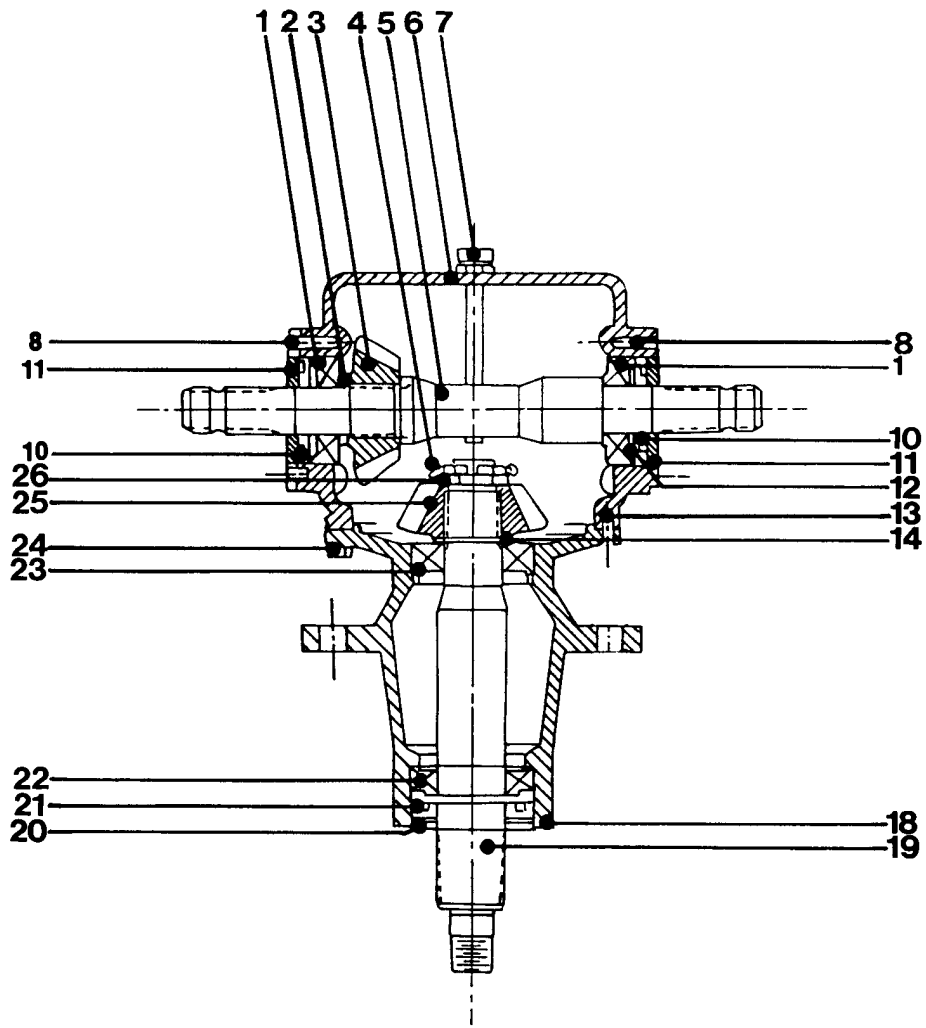


GEARBOX - SIDE (OFFSET MODEL)

EFFECTIVE S/N 01010
AND PRIOR

ITEM	PART NO.	QTY	DESCRIPTION
	00764053	1	Gearbox Assy
1	00755613	1	Casing
2	00758506	1	Gear
3	00755615	2	Bearing
4	00753238	1	Oil Seal
5	00755617	1	Shaft
6	00755618	2	Snap Ring
7	00755619	2	Shim
8	00755620	1	Snap Ring
9	00756943	1	Nut
10	00755622	1	Shim
14	00755626	1	Protective Washer
15	00755627	1	Double Lip Seal
16	00755628	2	Bearing
17	00756945	1	Shaft
18	00758506	1	Pinion Gear
19	00756946	1	Cotter Pin
20	00755632	1	Shim
21	00755633	1	Plug
22	00755634	1	Cap
23	00755635	4	Bolt
24	00758654	1	Oil Filter Plug
25	00755637	1	Cover
27	02959391	6	Bolt
28	00037200	6	Locknut
29	00755623	1	Washer
30	00755624	1	Nut, Castle

GEARBOX - CENTER 540 RPM (OFFSET MODEL)



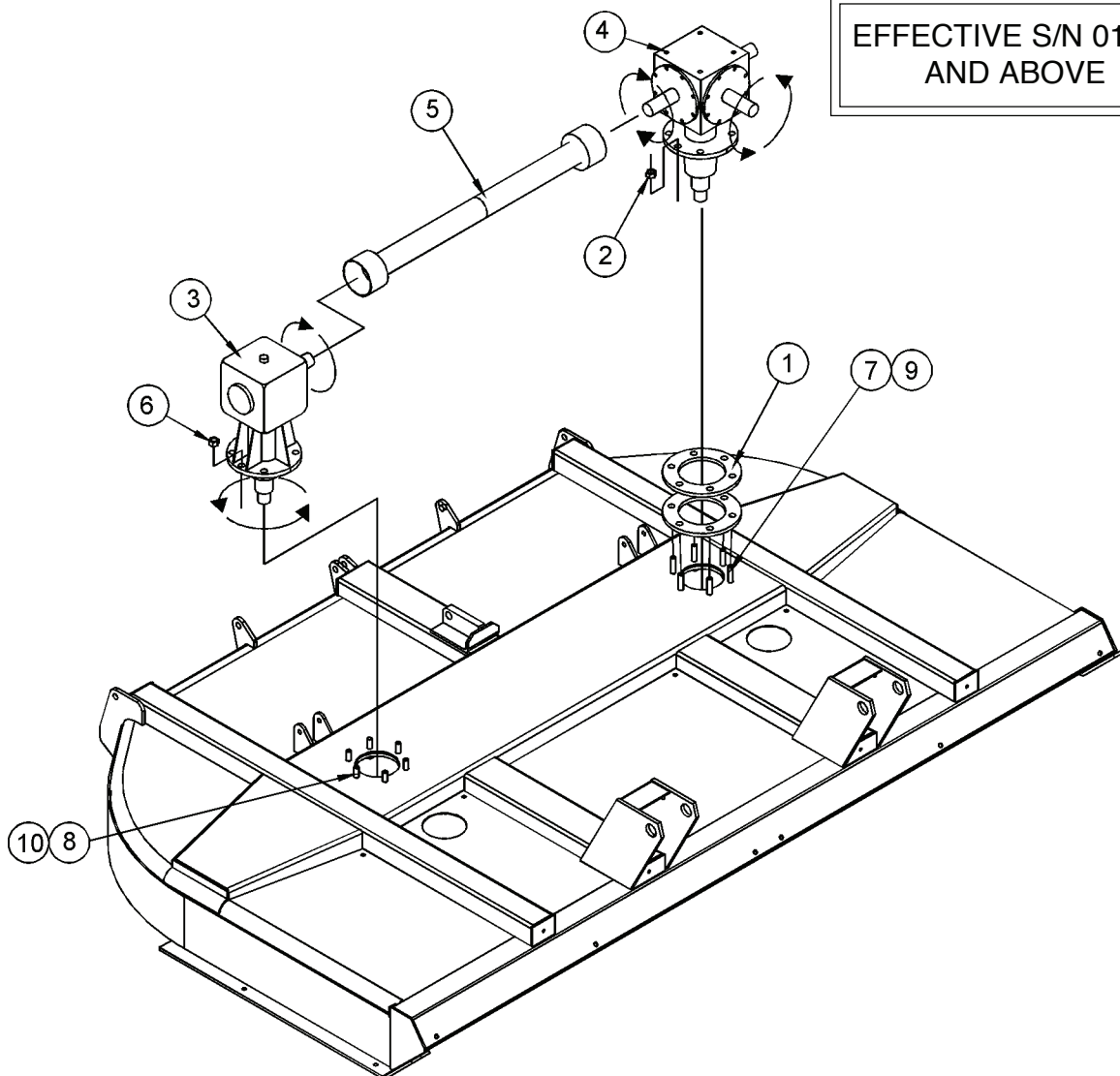
A120 02/96

Parts Section 6-42

GEARBOX - CENTER 540 RPM (OFFSET MODEL)

ITEM	PART NO.	QTY	DESCRIPTION
	00757918	1	Gearbox Assy
1	00758480	2	Bearing
2	00758481	1	Shim
3	00758482	2	Pinion Gear
4	00001600	1	Cotter Pin
5	00758487	1	Shaft
6	00758483	1	Casing
7	00758484	1	Plug
8	00744338	8	Bolt
9	00758495	1	Shaft
10	00758486	2	Oil Seal
11	00758485	2	Cover
12	00758488	1	Shim
13	00758489	2	Spring Pin
14	00758490	1	Shim
15	00758500	1	Shim
16	00758491	1	Spacer
17	00758499	1	Gear
18	00758493	1	Extension
19	00758492	1	Shaft
20	00755626	1	Protective Shim
21	00755627	2	Double Lip Seal
22	00755628	3	Bearing
23	00758494	1	Bearing
24	00751688	8	Bolt
25	00758482	2	Pinion Gear
26	00758496	1	Nut
27	00758498	1	Spring Washer
28	00758497	1	Locknut

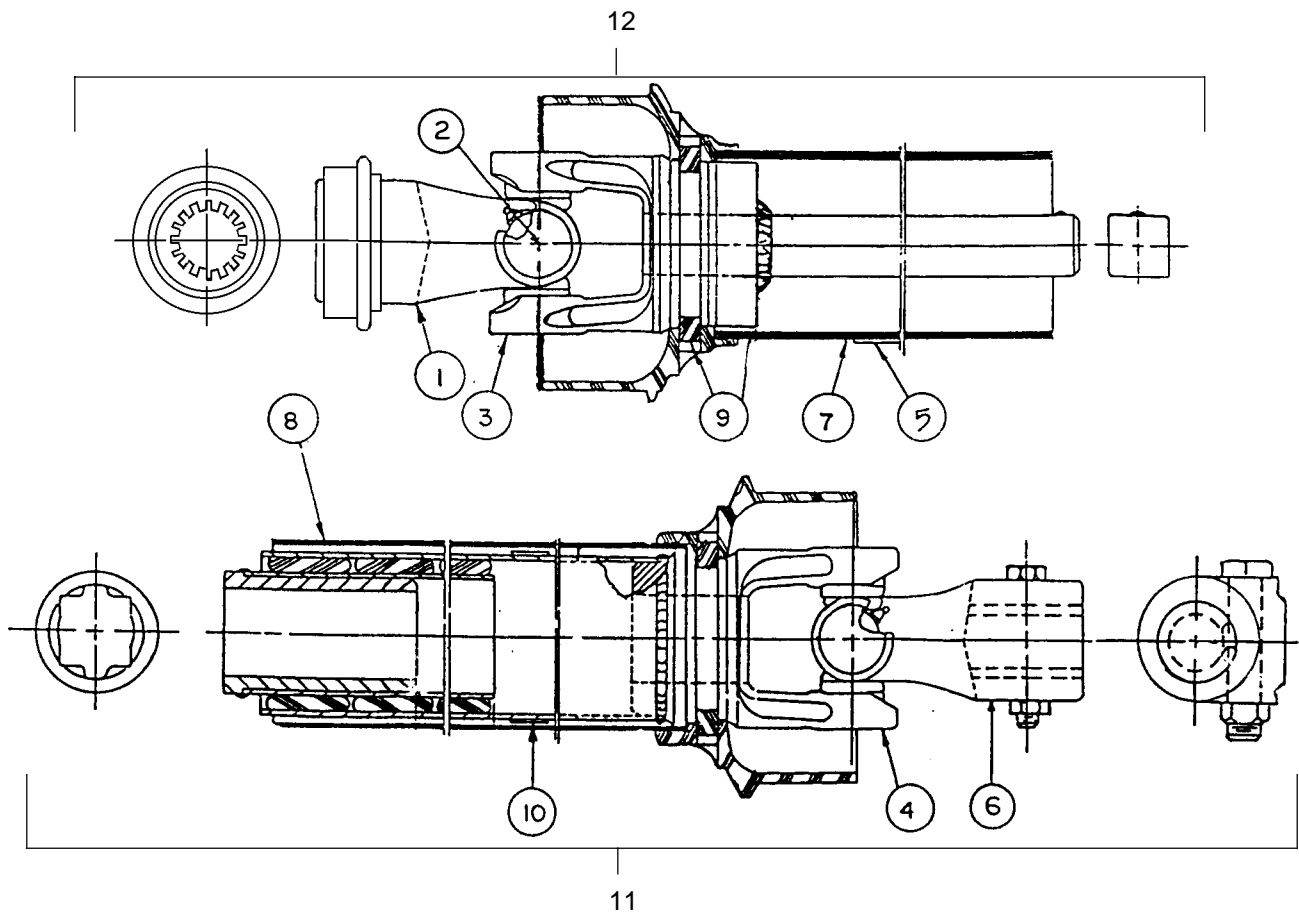
GEARBOX MOUNTING (OFFSET MODEL)



EFFECTIVE S/N 01011
AND ABOVE

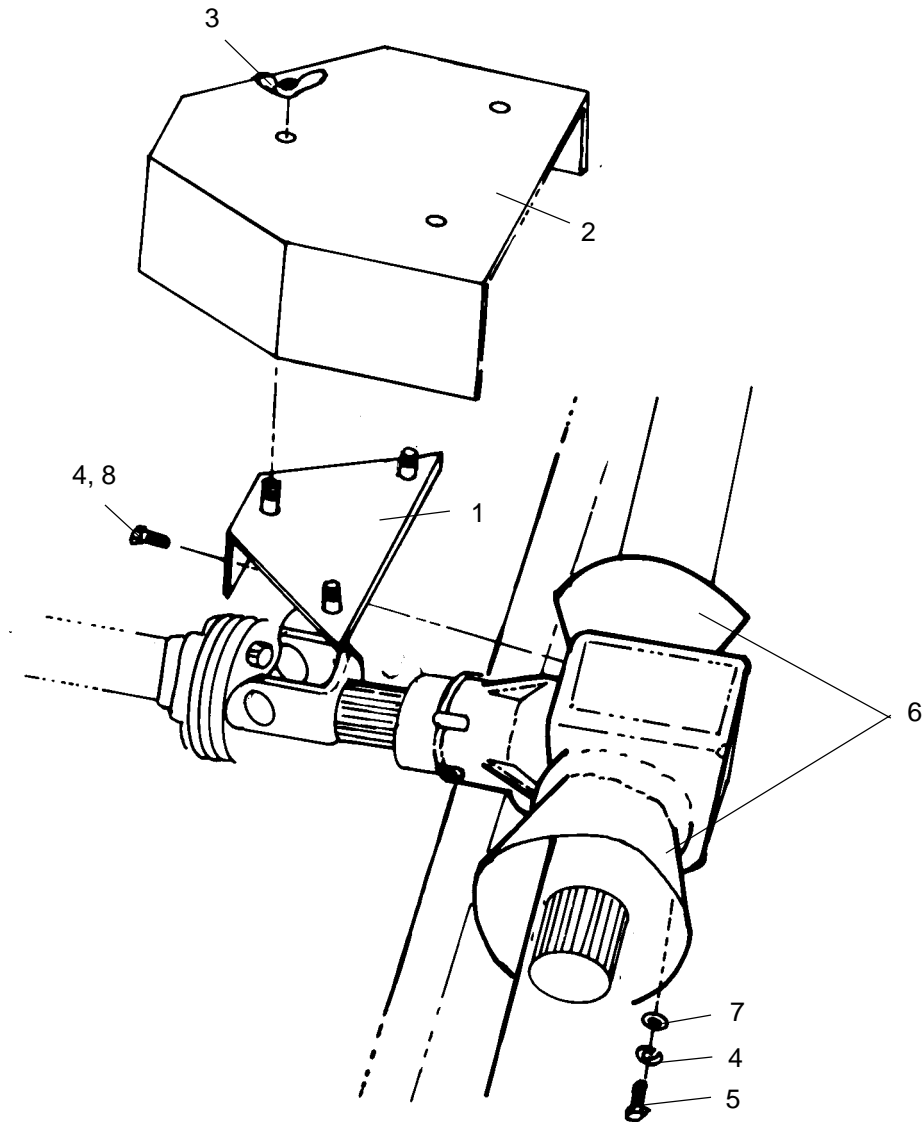
ITEM	PART NO.	QTY	DESCRIPTION
1	00767528	2	Spacer
2	00037200	6	Locknut
3	00771225	1	Side Gearbox
4	00757918	1	Divider Gearbox
5	00763920	1	Coupler
6	00695100	6	Nut, Toplock 5/8 NC PLC
7	5312316	6	Washer
8	00756077	6	Washer
9	02881000	6	Bolt
10	00750952	6	Bolt

DRIVELINE - SIDE (OFFSET MODEL)



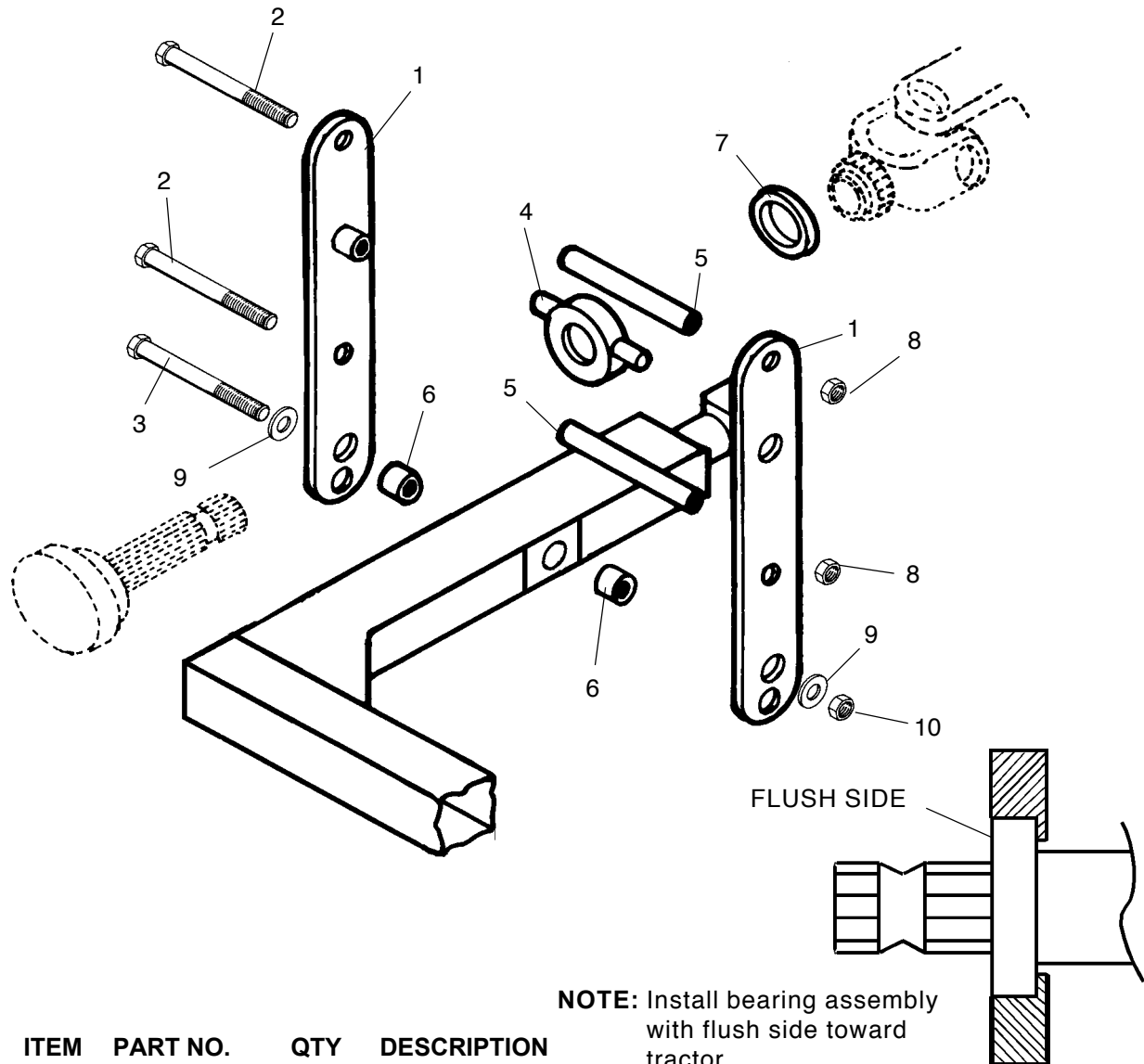
ITEM	PART NO.	QTY	DESCRIPTION
	00763920	1	Driveline Assy
1	00761762	1	Yoke
2	2100	2	Cross & Bearing Kit
3	00758470	1	Yoke & Bar
4	00758471	1	Yoke
5	00756005	1	Outer Decal
6	00758472	1	Yoke
7	00758473	1	Outer Shield Tube Assembly
8	00758473	1	Inner Shield Tube Assembly
9	00758475	4	Shield Bearing
10	00756004	1	Inner Decal
11	00758469	1	Driveline Half w/Rubber or Element
12	00758468	1	Driveline Shaft Half

SHIELDS (OFFSET MODEL)



ITEM	PART NO.	QTY	DESCRIPTION
1	00763919	1	Bracket
2	00763914	1	Shield
3	5F8130	1	Wingnut
4	00011700	4	Lockwasher
5	00751693	8	Bolt
6	00758123	2	Shield
7	00023500	8	Flatwasher
8	02958784	4	Capscrew

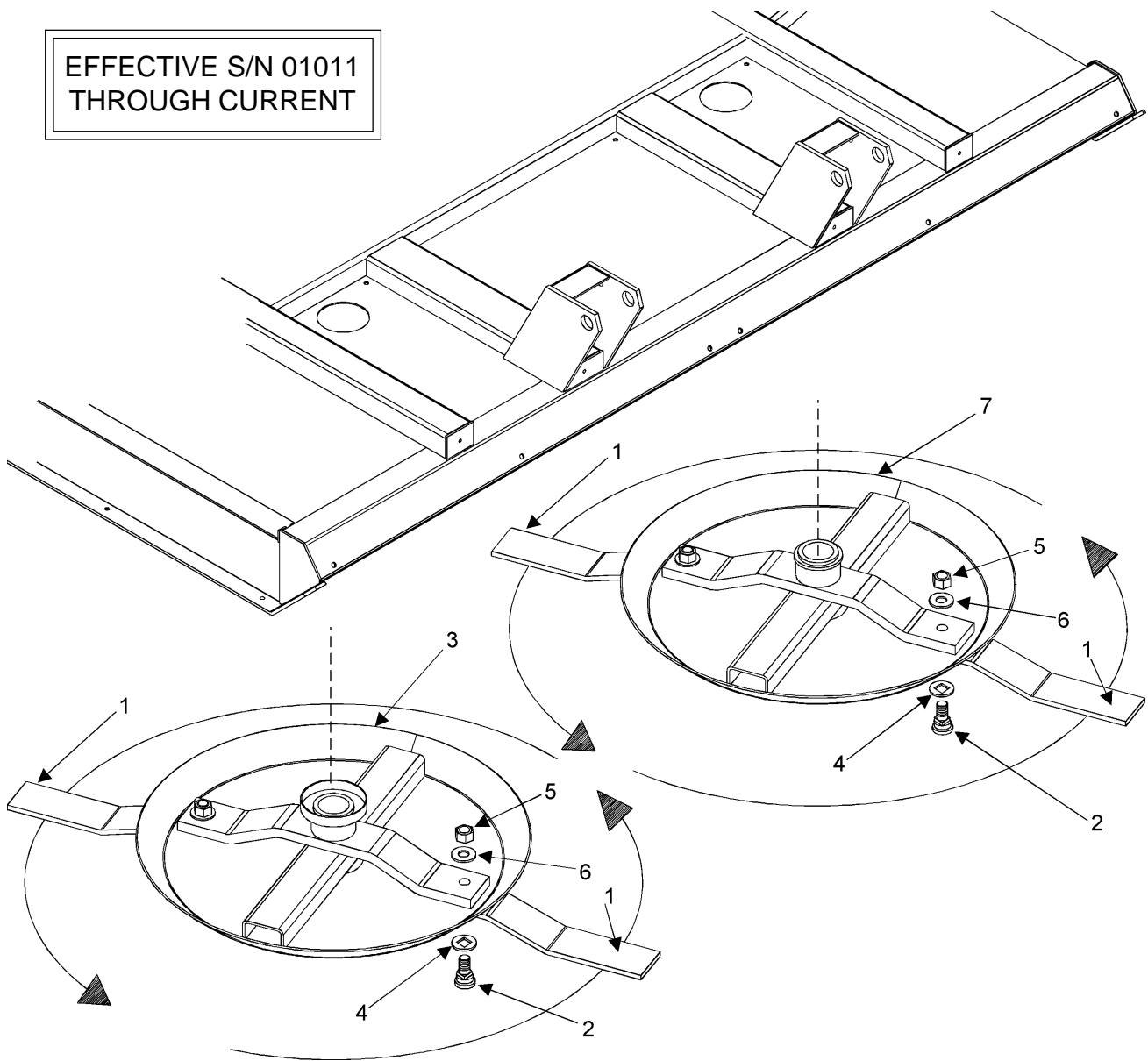
JACKSHAFT SUPPORT - PULL TYPE (OFFSET MODEL)



ITEM	PART NO.	QTY	DESCRIPTION
1	00764455	2	Support
2	02956953	2	Bolt
3	00016400	1	Bolt
4	00764416	1	Bearing and Housing Assembly
5	00764457	2	Spacer
6	0811180520	2	Bushing
7	00759868	1	Spacer
8	00001800	3	Locknut TLM 1/2 NC PLC
9	00001400	2	Flatwasher
10	00695100	1	Nut, Toplock 5/8 NC PLC

BLADE PAN ASSEMBLIES (OFFSET)

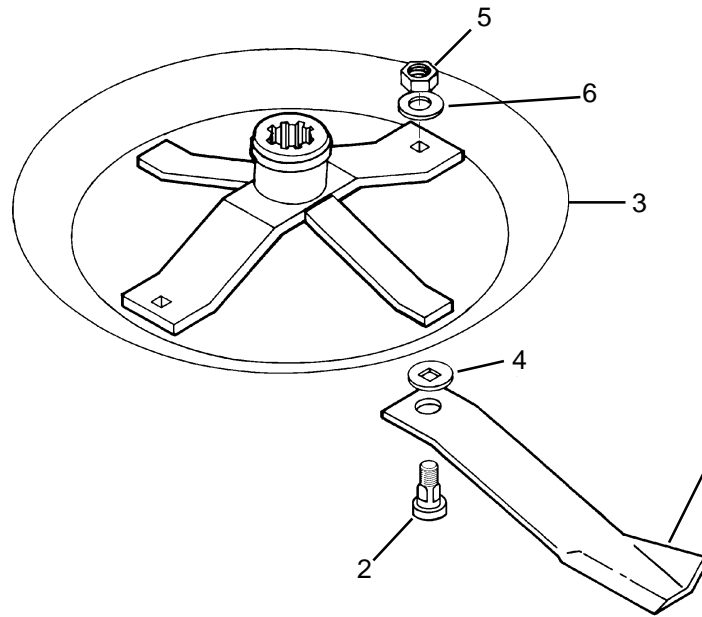
EFFECTIVE S/N 01011
THROUGH CURRENT



ITEM	PART NO.	QTY	DESCRIPTION
1	8589A	4	Blade CCW
2	8251	4	Bolt
3	00770392	1	Dish Pan
4	00758579	4	Blade Bolt Washer
5	5JRC16140	4	Locknut
6	9216	4	Washer
7	00767523	1	Dish Pan

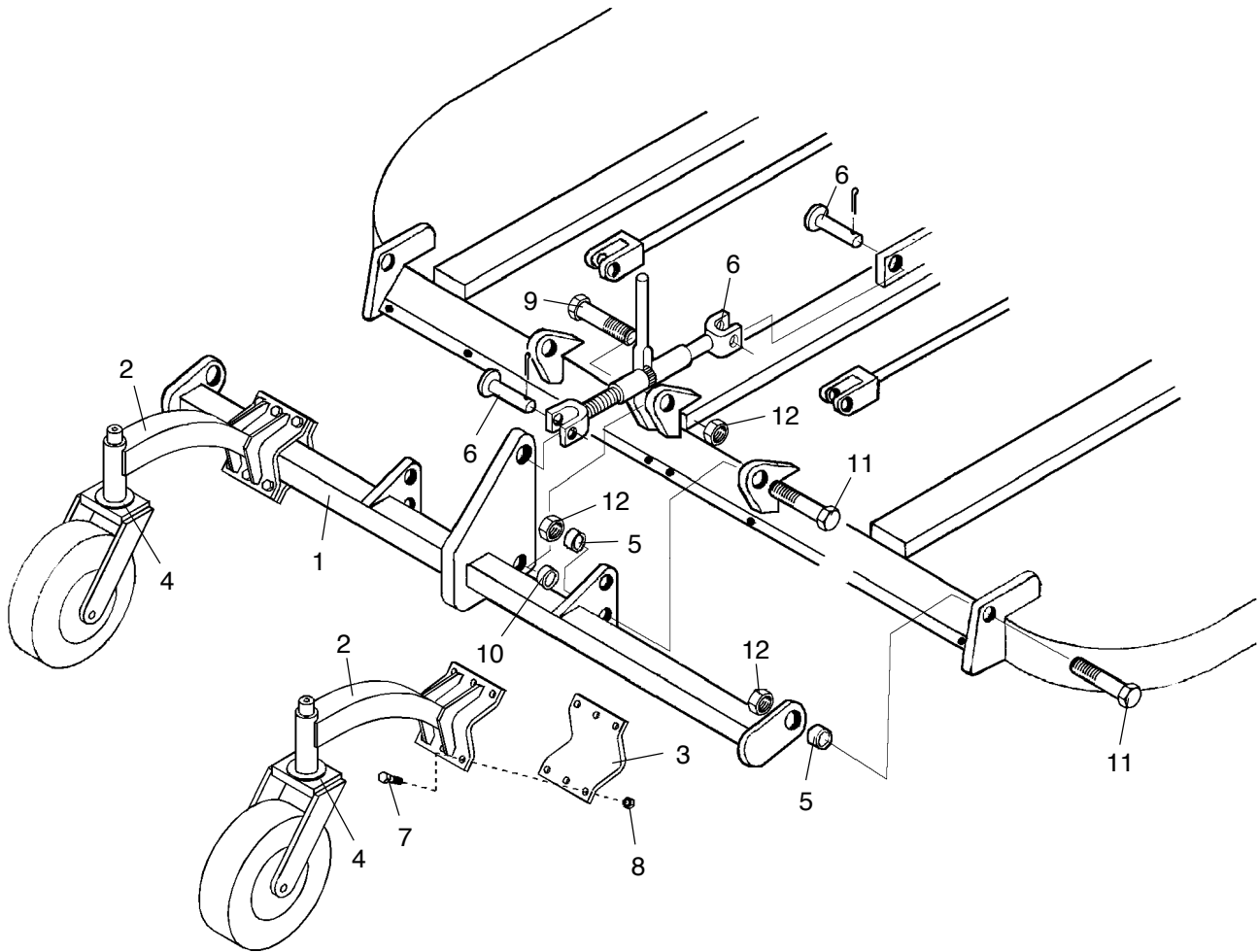
BLADE PAN ASSEMBLIES (OFFSET)

EFFECTIVE S/N 01010
AND PRIOR



ITEM	PART NO.	QTY	DESCRIPTION
1	8589A	4	Blade CCW
2	8251	4	Bolt
3	00761180	1	Dish Pan
4	00758579	4	Blade Bolt Washer
5	5JRC16140	4	Locknut
6	9216	4	Washer

AXLE ASSEMBLY (SEMI-MOUNT)



ITEM	PART NO.	QTY.	DESCRIPTION
1	00762106	1	Axle Weldment
2	00769690	2	Caster Fork Weldment
3	0683030200	2	Weldment Cap
4	0585020200	2	Caster Assembly
5	00759561	4	Bushing
6	00554600	1	Ratchet Jack Assembly
7	00750952	12	Bolt
8	00695100	12	Nut, Toplock 5/8 NC PLC
9	00007800	1	Bolt
10	8327	1	Bushing
11	00037100	4	Bolt
12	00037200	5	Locknut

ALAMO INDUSTRIAL

LIMITED WARRANTY

1. LIMITED WARRANTIES

- 1.01. Alamo Industrial warrants for one year from the purchase date to the original non-commercial, governmental, or municipal purchaser ("Purchaser") and warrants for six months to the original commercial or industrial purchaser ("Purchaser") that the goods purchased are free from defects in material or workmanship.
- 1.02. Manufacturer will replace for the Purchaser any part or parts found, upon examination at one of its factories, to be defective under normal use and service due to defects in material or workmanship.
- 1.03. This limited warranty does not apply to any part of the goods which has been subjected to improper or abnormal use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong fuel, oil, or lubricants, or which has served its normal life. This limited warranty does not apply to any part of any internal combustion engine, or expendable items such as blades, shields, guards, or pneumatic tires except as specifically found in your Operator's Manual.
- 1.04. Except as provided herein, no employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Manufacturer.

2. REMEDIES AND PROCEDURES.

- 2.01. This limited warranty is not effective unless the Purchaser returns the Registration and Warranty Form to Manufacturer within 30 days of purchase.
- 2.02. Purchaser claims must be made in writing to the Authorized Dealer ("Dealer") from whom Purchaser purchased the goods or an approved Authorized Dealer ("Dealer") within 30 days after Purchaser learns of the facts on which the claim is based.
- 2.03. Purchaser is responsible for returning the goods in question to the Dealer.
- 2.04. If after examining the goods and/or parts in question, Manufacturer finds them to be defective under normal use and service due to defects in material or workmanship, Manufacturer will:
 - (a) Repair or replace the defective goods or part(s) or
 - (b) Reimburse Purchaser for the cost of the part(s) and reasonable labor charges (as determined by Manufacturer) if Purchaser paid for the repair and/or replacement prior to the final determination of applicability of the warranty by Manufacturer.

The choice of remedy shall belong to Manufacturer.

- 2.05. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Manufacturer and for returning the goods to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the goods or part(s) from the Dealer to the designated factory.

3. LIMITATION OF LIABILITY.

- 3.01. MANUFACTURER DISCLAIMS ANY EXPRESS (EXCEPT AS SET FORTH HEREIN) AND IMPLIED WARRANTIES WITH RESPECT TO THE GOODS INCLUDING, BUT NOT LIMITED TO, MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
- 3.02. MANUFACTURER MAKES NO WARRANTY AS TO THE DESIGN, CAPABILITY, CAPACITY, OR SUITABILITY FOR USE OF THE GOODS.
- 3.03. EXCEPT AS PROVIDED HEREIN, MANUFACTURER SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO PURCHASER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS, OR DAMAGE CAUSED OR ALLEGED TO BE CAUSED DIRECTLY OR INDIRECTLY BY THE GOODS INCLUDING, BUT NOT LIMITED TO, ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES RESULTING FROM THE USE OR OPERATION OF THE GOODS OR ANY BREACH OF THIS WARRANTY. NOT WITHSTANDING THE ABOVE LIMITATIONS AND WARRANTIES, MANUFACTURER'S LIABILITY HEREUNDER FOR DAMAGES INCURRED BY PURCHASER OR OTHERS SHALL NOT EXCEED THE PRICE OF THE GOODS.
- 3.04. NO ACTION ARISING OUT OF ANY CLAIMED BREACH OF THIS WARRANTY OR TRANSACTIONS UNDER THIS WARRANTY MAY BE BROUGHT MORE THAN TWO (2) YEARS AFTER THE CAUSE OF ACTION HAS OCCURRED.

4. MISCELLANEOUS.

- 4.01. Proper Venue for any lawsuits arising from or related to this limited warranty shall be only in Guadalupe County, Texas.
- 4.02. Manufacturer may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
- 4.03. If any provision of this limited warranty shall violate any applicable law and is held to be unenforceable, then the invalidity of such provision shall not invalidate any other provisions herein.
- 4.04. Applicable law may provide rights and benefits to purchaser in addition to those provided herein.

KEEP FOR YOUR RECORDS

ATTENTION: Purchaser should fill in the blanks below for his reference when buying repair parts and/or for proper machine identification when applying for warranty.

Alamo Industrial Implement Model _____ Serial Number _____

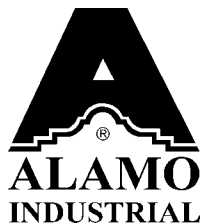
Date Purchased _____ Dealer _____

ATTENTION:
READ YOUR OPERATOR'S MANUAL

ALAMO INDUSTRIAL

An Alamo Group Company
Post Office Drawer 549
Seguin, Texas 78156
830-379-1480





In addition to the standard Limited Warranty, Alamo Group provides one year (12 months), (6 months for Commercial/Industrial Users) Limited Warranty on the Driveline components provided that these components have been properly maintained and lubricated that and have not been subjected to abused or mis-use

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. The Table of Contents clearly identifies each section where you can easily find the information you need.

The OCCUPATIONAL SAFETY AND HEALTH ACT (1928.51 Subpart C) makes these minimum safety requirements of tractor operators:

REQUIRED OF THE OWNER:

1. Provide a Roll-Over-Protective Structure that meets the requirements of this Standard; and
2. Provide Seatbelts that meet the requirements of this paragraph of this Standard and SAE J4C; 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.

REQUIRED OF THE OPERATOR

1. Securely fasten seatbelt if the tractor has a ROPS.
2. Where possible, avoid operating the tractor near 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 drawbar and hitch points recommended by the tractor manufacturer.
9. When the tractor is stopped, set brakes securely and use park lock, if available.



Keep children away from danger all day, every day...



Equip tractors with rollover protection (ROPS) and keep all machinery guards in place...



Please work, drive, play and live each day with care and concern for your safety and that of your family and fellow citizens.

