



MSV FRONT FLAIL

PARTS LISTING WITH
ASSEMBLY INSTRUCTIONS

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

Last Updated - 10/6/10

TO THE OWNER / OPERATOR / DEALER

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

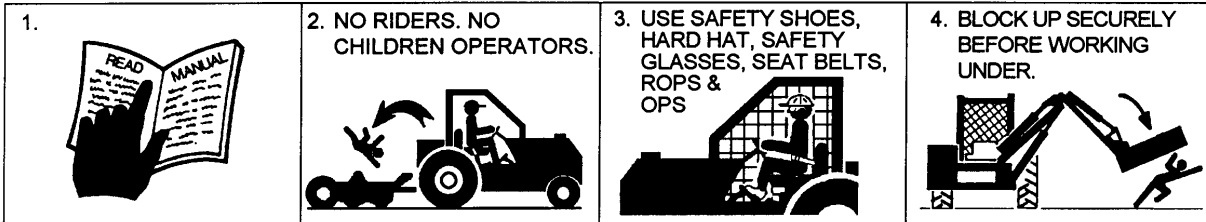
BEFORE YOU START!! Read the safety messages on the implement and shown in this manual. Observe the rules of safety and use common sense!

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



DANGER

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



1. Study and understand Operator's Manuals, Safety Decals, and Instructional Decals for tractor and implement to prevent misuse, abuse, and accidents. Practice before operating in a confined area or near passersby.

- Learn how to stop engine suddenly in an emergency. Be alert for passersby and especially children

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

3. Operate only with tractor having Roll-Over Protective Structure (ROPS) and with seat belt securely fastened to prevent injury and possible death from falling off or tractor overturn.

- Personal Protective Equipment such as Hard Hat, Safety Glasses, Safety Shoes, & Ear Plugs are recommended.

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

5. Before transporting, put Lift Lever in detent or full-lift position. Install Transport Safety Devices securely on folding mowers. Put Booms securely in Transport Rest.

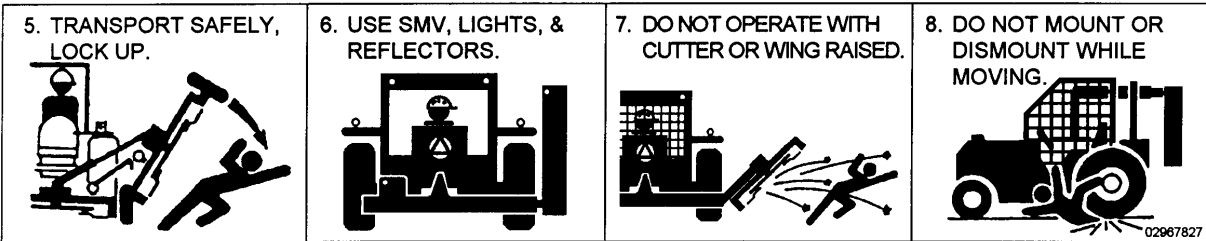
- Folding and Boom Mowers have raised center of gravity. Slow down when turning and on hillsides.

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

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

8. Before dismounting, secure implement in transport position or lower to ground.

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



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

TABLE OF CONTENTS

SAFETY SECTION	1 - 1
OPERATION SECTION	2 - 1
MAINTENANCE SECTION	3 - 1
PARTS SECTION	4 - 1
75" FRONT FLAIL ROSTA CUTTER ASSY, STD ROTATION	4 - 2
75" FRONT FLAIL ROSTA CUTTER ASSY, REV ROTATION	4 - 4
90" FRONT FLAIL ROSTA CUTTER ASSY, STD ROTATION	4 - 6
90" FRONT FAIL ROSTA CUTTER ASSY, REV ROTATION	4 - 8
DRIVE ASSY - HYDRO	4 - 10
MOTOR BREAKDOWN	4 - 12
DRIVE ASSY - PTO	4 - 14
GEARBOX BREAKDOWN	4 - 16
ANTI CAV VALVE BREAKDOWN	4 - 18

SAFETY SECTION

MSV FRONT FLAIL

OPERATION SECTION

OPERATION

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 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 injury possible during operation.

DANGER!



Indicates an imminently hazardous situation that, if not avoided, **WILL** result in **DEATH OR VERY SERIOUS INJURY**.

WARNING!



Indicates an imminently hazardous situation that, if not avoided, **COULD** result in **DEATH OR SERIOUS INJURY**.

CAUTION!



Indicates an imminently hazardous situation that, if not avoided, **MAY** result in **MINOR INJURY**.

IMPORTANT!

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

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

Before any operation of tractor and mower

CAUTION!



The user should read and understand the safety and operating instructions for both the tractor and the mower. The user should also be familiar with the location and functions of the units instruments and controls. Being familiar with the machine and its controls will increase efficiency and reduce possibility of serious injury or damage to the unit. The operator should work slowly and carefully until he feels comfortable with the machine. Speed and skill will be attained much easier if the necessary time is spent to familiarize yourself with the machine and its operations. Since tractor makes and models vary, we recommend reading and following the operators manual provided by the manufacturer pertaining to your particular unit.



OPERATION

STARTING TRACTOR AND MOWER

Check the operators manual received from the tractor manufacturer, for their recommendation and procedures pertaining to your particular make and model.

WARNING!



When rotating parts are in motion, serious injury may occur if caution is not used or danger is not recognized. Never allow bystanders within **300 feet** of the machine when mower is in operation.

WARNING!



Be sure the ball valves on the mower hydraulic tank are **OPEN** before **starting the tractor**. **Serious damage to the hydraulic system can occur if the valves are not open.**

WARNING!



Check to make sure mower switch is in the “**OFF**” position. The unit is **designed not to start if the switch is in the “on” position**. **If tractor starts with switch on, turn off tractor and contact your local Tiger dealership for assistance.**

Start the tractor and allow the instruments to stabilize. Without starting the mower, practice positioning the boom and deck. Remember, speed and skill will be attained easier if the necessary time is spent familiarizing yourself with the machine and its operations. When you feel comfortable at controlling the position of the mower, return the mower to the travel position, and transport the mower to the desired mowing location.

If mowing for the first time with a Tiger Boom Mower, we recommend choosing a ditch or area relatively flat with a minimum of sign posts, guard rails, etc. As always, you should inspect the area for other objects that can cause potential hazards.

WARNING!



Hydraulically driven mower heads must operate at 2,200 to 2,300 RPMs. **Hydraulic flow to the motor should be 25 GPM, operating at a higher rate could result in damage to mower system.**

MOWER OPERATION

WARNING!



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

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



OPERATION

Mower Operation Continued

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

The flail mower deck should be carried so that part of the weight is carried by the ground roller. When the flail is carried this way, the roller also follows the contour of the ground more easily during mowing operations.

When cutting small shrubs or brush, begin each pass at the top of the material and work down with each consecutive pass. Use a low speed to allow the cutting blades time to mulch as well as cut the foliage. When the initial pass has been made, disengage the mower and return the mower to the travel position. Return to the starting point and make next pass, etc. The flail head is not intended for cutting heavy brush, or for continually cutting brush. Wear or damage of the blades will occur rapidly when the flail cutter is used this way.

The hydraulic front flail shall be supplied a **maximum of 25 GPM.**

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

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

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

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

After the first day of operation, all bolts should be checked and tightened securely.

This should be done periodically to ensure the bolts do not become loose and cause damage to the tractor or mower, or injury to the operator.



OPERATION

TRANSPORTING MOWER

Transporting under the units own power:

When transporting between job sites or between cutting passes, the following procedure should be followed: Shut off the power to the cutting head(s) and allow all motion to come to a complete stop. Raise the mower head to it's highest position. The unit is now in position for self transportation.

Transporting unit by flatbed trailer:

One of the following procedures must be followed.

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

2: Transporting with mower removed: Park the tractor and turn the engine off. Remove the key to avoid accidental starting. Dettach all hydraulic hoses at the quick couplers. To avoid contaminating the hydraulic system, make sure all fittings on the mower motor and quick connectors are clean.

CAUTION!



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

The next page is a pre-operation inspection sheet, please make photocopies available to all operators before each use of the mower.



OPERATION

Flail Mower PRE-OPERATION Inspection



Tractor ID# _____ Make _____

Date: _____ Shift _____

Before conducting the inspection, make sure the Tractor engine is off, all rotation has stop and the tractor is in the Park with the parking brake engaged. The Mower head is resting on the ground (or is securely blocked up and supported) and all hydraulic pressure has been relieved.

Item	Condition at Start of Shift	Specific Comments if not O.K.
The Operator's Manual is in the Canister on the mower		
All Safety Decals are in place and legible		
The Hitch connection bolts & pins are tight		
There are no cracks in Hitch		
There mower deck is clear of cut grass and debris		
The Thrown object Guards/Deflectors are in place		
There Guards/Deflectors are in good condition		
The Driveline/Gearbox shields are in good condition		
The Driveline clutch is in good condition, not frozen		
The driveline tubes & u-joints have been lubricated		
The Driveline yoke is securely attached to the PTO		
The Gearbox oil level is full		
Blades are not broken, chipped, cracked or bent		
Blade shackles are in good condition with no cracks		
The Blade pins are properly retained		
The Skid shoes are in good condition & tight		
The Rear Roller is in good condition and turns freely		

Operator Signature: _____

DO NOT OPERATE AN UNSAFE TRACTOR OR MOWER!



MSV FRONT FLAIL

MAINTENANCE SECTION

MAINTENANCE

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

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

MAINTENANCE PRECAUTIONS

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

WARNING!



DO NOT use hands to check for suspected leaks in hydraulic hoses!

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

BREAK IN PERIOD

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

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



MAINTENANCE

REGULAR MAINTENANCE

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

This symbol indicates a point that needs to be greased at an interval noted in the section below. Refer to the Detailed Maintenance section for further instructions on greasing. Copy and use the Daily Maintenance sheet located at the end of this section.

DAILY OR EVERY 8 HOURS

ITEM	SERVICE	COMMENTS
Drive Shaft Yoke, U-Joint & Stub Shaft Grease		Grease as instructed in detailed maint. section
Pump Drive Shaft	Check and Lube	Insure drive shaft end play
Crankshaft Adapter	Check rubber grommets	Replace grommets if damaged or missing
Pivot Points	Lubricate	Inject grease until it appears at ends
Hydraulic Fittings	Check for leaks	Tighten when needed. Do Not use hands to check for leaks, see maint. Precautions
Knives	Check	Inspect for missing or damaged knives, change or sharpen as needed
Cutter shaft mounting bolts (cutter shaft to deck)	Check	1/2" x 2" torque to 84 ft. lbs.
Knife mounting bolts (knife to cutter shaft)	Check	Retorque to knife replacement specifications
Belts	Check / Adjust	Check if broken, tighten as required
Rear Flail Drive (if applicable) Bearing Flange and Shaft Coupler	Lubricate	Grease as instructed in detailed maint. section
Cutter Shaft and Ground Roller	Lubricate	Grease as instructed in detailed maint. section



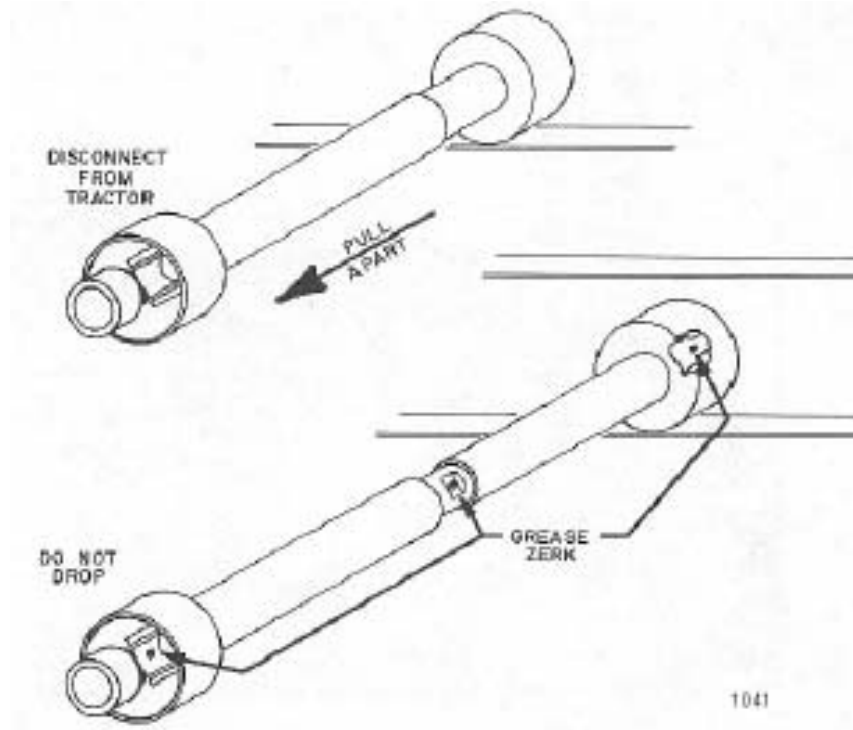
MAINTENANCE

LUBRICATION RECOMMENDATIONS

Description	Application	General Specification	Recommended Mobil Lubricant
Flail Rear Gearbox	Grease	PAO Synthetic Extreme Pressure Gear Lube	Mobil SHC 75W-90 Mobil 1 Synthetic Gear
Cutter Shaft & Ground Roller Shaft (Flail)	Grease Gun	Lithium-Complex Extreme Pressure	Mobilgrease CM-S NLGI 2 - ISO 320

GREASING P.T.O. SHAFTS





After bringing the tractor to a complete stop, shut off the engine and remove the P.T.O. shaft from the tractor. Slide the shaft apart to expose the grease zerk. Grease the shaft with 5 pumps of grease and the U-joints until grease protrudes from caps per the scheduled interval in the maintenance section.







MAINTENANCE

TORQUE SPECIFICATIONS

* These are intended to be general specifications. See tractor operators or service manual for exact specifications for your unit.

Torque for Standard Fasteners													
Nominal Dia. (in.)	threads per inch	 Grade 2			 Grade 5			 Grade 8			 Grade 9		
		Tightening Torque			Tightening Torque			Tightening Torque			Tightening Torque		
		Lubed	Dry Plated	Dry plain	Lubed	Dry Plated	Dry plain	Lubed	Dry Plated	Dry plain	Lubed	Dry Plated	Dry plain
		K = 0.15	K = 0.17	K = 0.20	K = 0.15	K = 0.17	K = 0.20	K = 0.15	K = 0.17	K = 0.20	K = 0.15	K = 0.17	K = 0.20
Unified Coarse Thread Series													
1/4	20	49 in-lbs	59 in-lbs	66 in-lbs	76 in-lbs	86 in-lbs	101 in-lbs	107 in-lbs	122 in-lbs	143 in-lbs	126 in-lbs	143 in-lbs	168 in-lbs
5/16	18	101	122	135	157	178	209	221	251	295	259	294	346
3/8	16	15 ft-lbs	18 ft-lbs	20 ft-lbs	23 ft-lbs	26 ft-lbs	31 ft-lbs	33 ft-lbs	37 ft-lbs	44 ft-lbs	38 ft-lbs	43 ft-lbs	51 ft-lbs
7/16	14	24	29	32	37	42	49	52	59	70	61	70	82
1/2	13	37	44	49	57	64	75	80	90	106	94	106	125
9/16	12	53	63	70	82	92	109	115	130	154	135	153	180
5/8	11	73	87	97	113	126	150	159	180	212	186	211	248
3/4	10	129	155	172	200	227	267	282	320	376	331	375	441
7/8	9	125	150	167	322	365	429	455	515	606	533	604	710
1	8	187	225	250	483	547	644	681	772	909	799	905	1065
1 1/8	7	266	319	354	596	675	794	866	1095	1288	1132	1283	1510
1 1/4	7	375	450	500	840	952	1121	1363	1545	1817	1597	1810	2130
1 1/2	6	652	783	869	1462	1657	1950	2371	2688	3162	2779	3150	3706
Fine Thread Series													
1/4	28	56 in-lbs	68 in-lbs	75 in-lbs	87 in-lbs	99 in-lbs	116 in-lbs	123 in-lbs	139 in-lbs	164 in-lbs	144 in-lbs	163 in-lbs	192 in-lbs
5/16	24	112	135	150	174	197	231	245	278	327	287	325	383
3/8	24	17 ft-lbs	20 ft-lbs	23 ft-lbs	26 ft-lbs	30 ft-lbs	35 ft-lbs	37 ft-lbs	42 ft-lbs	49 ft-lbs	43 ft-lbs	49 ft-lbs	58 ft-lbs
7/16	20	27	32	36	41	47	55	58	66	78	68	78	91
1/2	20	41	49	55	64	72	85	90	102	120	105	120	141
9/16	18	59	71	78	91	103	121	128	146	171	151	171	201
5/8	18	82	99	110	127	144	170	180	204	240	211	239	281
3/4	16	144	173	192	223	253	297	315	357	420	369	418	492
7/8	14	138	165	184	355	403	474	502	568	669	588	666	784
1	14	210	252	280	542	614	722	765	867	1020	896	1016	1195
1 1/8	12	298	357	397	668	757	890	1083	1227	1444	1269	1439	1693
1 1/4	12	415	498	553	930	1055	1241	1509	1710	2012	1768	2004	2358
1 1/2	12	734	880	978	1645	1865	2194	2668	3024	3557	3127	3544	4169

Torque values for 1/4 and 5/16-in series are in inch-pounds. All other torque values are in foot-pounds. K = 0.15 for "lubricated" conditions
 Torque values calculated from formula T=KDF, where K = 0.17 for zinc plated and dry conditions
 K = 0.20 for plain and dry conditions
 D = Nominal Diameter
 F = Clamp Load

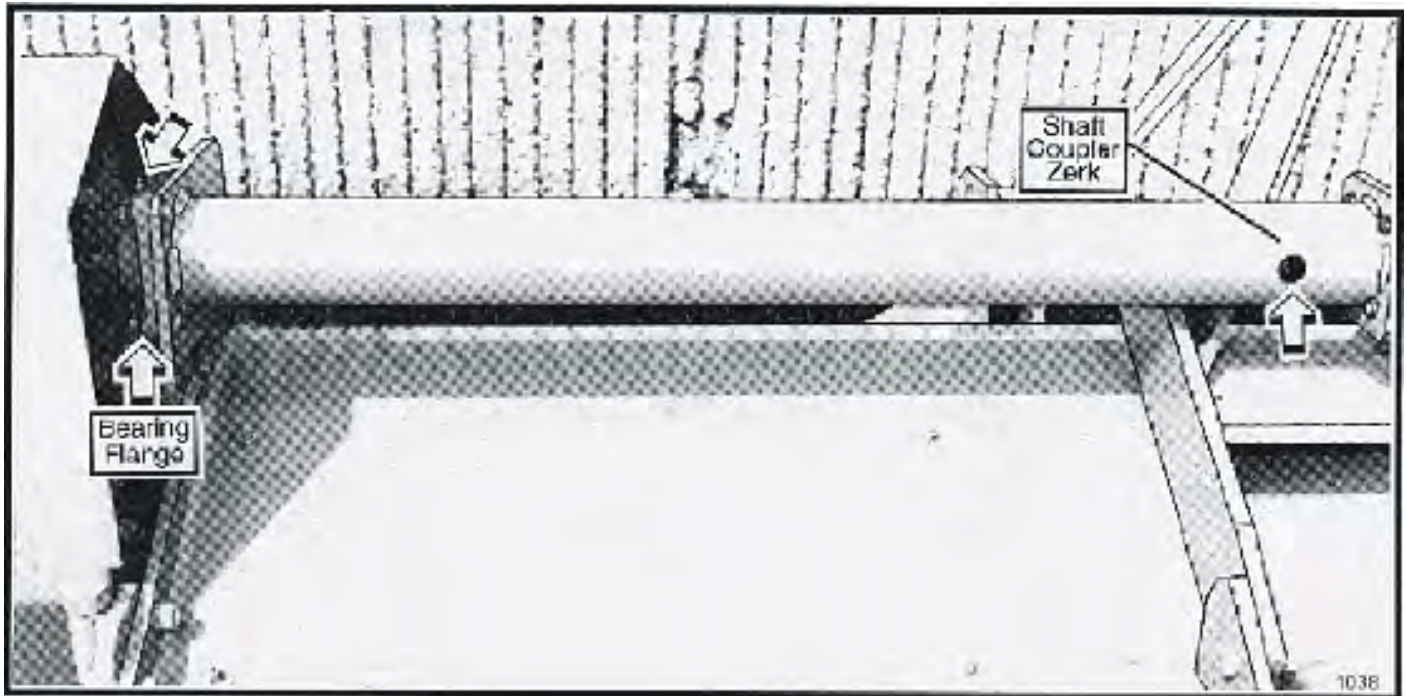
Torque-Tension Relationship for Metric Fasteners													
Nominal Dia. (mm)	Pitch	 Class 4.6			 Class 8.8			 Class 10.9			 Class 12.9		
		Tightening Torque			Tightening Torque			Tightening Torque			Tightening Torque		
		Lubed	Dry Plated	Dry plain	Lubed	Dry Plated	Dry plain	Lubed	Dry Plated	Dry plain	Lubed	Dry plain	
		K = 0.15	K = 0.17	K = 0.20	K = 0.15	K = 0.17	K = 0.20	K = 0.15	K = 0.17	K = 0.20	K = 0.15	K = 0.20	
		(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	(ft-lbs)	
3	0.5	0.28	0.32	0.38	0.73	0.82	0.97	1.0	1.2	1.4	1.2	1.8	
3.5	0.6	0.44	0.50	0.59	1.1	1.3	1.5	1.6	1.9	2.2	1.9	2.5	
4	0.7	0.66	0.74	0.87	1.7	1.9	2.3	2.4	2.7	3.2	2.8	3.8	
5	0.8	1.3	1.5	1.8	3.4	3.9	4.5	4.9	5.5	6.5	5.7	7.8	
6	1	2.3	2.6	3.0	5.8	6.6	7.7	8.3	9.4	11	9.7	13	
6	1.25	2.1	2.3	2.7	5.3	6.0	7.0	7.6	8.6	10	8.8	12	
7	1	3.8	4.3	5.0	9.7	11	13	14	16	19	16	22	
8	1	5.9	6.6	7.8	15	17	20	22	24	29	25	34	
8	1.25	5.5	6.2	7.3	14	16	19	20	23	27	24	31	
10	1.25	11	13	15	29	33	39	42	48	56	49	66	
10	1.5	11	12	14	26	32	37	40	45	53	47	62	
12	1.25	21	23	28	53	60	71	76	86	101	89	119	
12	1.5	20	22	26	51	58	68	73	82	97	85	113	
12	1.75	19	21	25	49	55	65	70	79	93	81	108	
14	1.25	26	29	34	66	75	89	95	108	127	111	148	
14	1.5	28	32	37	72	82	96	103	117	138	121	161	
14	2	30	34	40	78	88	104	111	126	148	130	173	
16	1.5	50	57	67	129	146	171	184	208	245	215	287	
16	2	47	53	62	121	137	161	173	196	230	202	269	
18	1.5	73	82	97	187	212	249	268	303	357	313	417	
18	2.5	65	73	86	167	189	222	239	270	318	279	372	
20	2.5	91	104	122	236	267	314	337	382	449	394	525	

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

MAINTENANCE

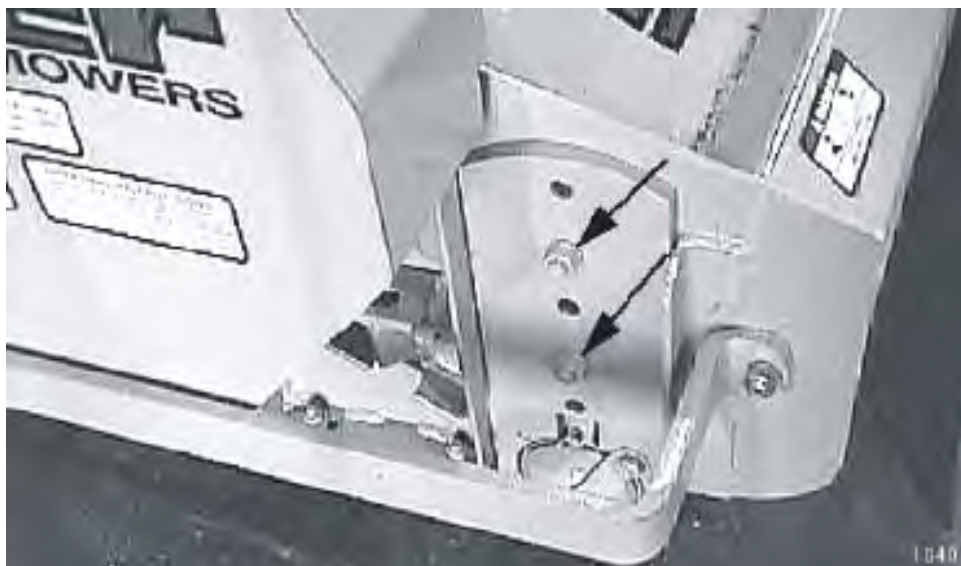
GREASING BEARING AND EXTENSION COUPLER SHAFT

Locate the grease zerks for the rear flail drive extension shaft. Make sure the zerks are clean before injecting grease. One pump of grease into flange zerk and shaft coupler once every day or for every 8 hours of service.



ADJUSTING CUT HEIGHT

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



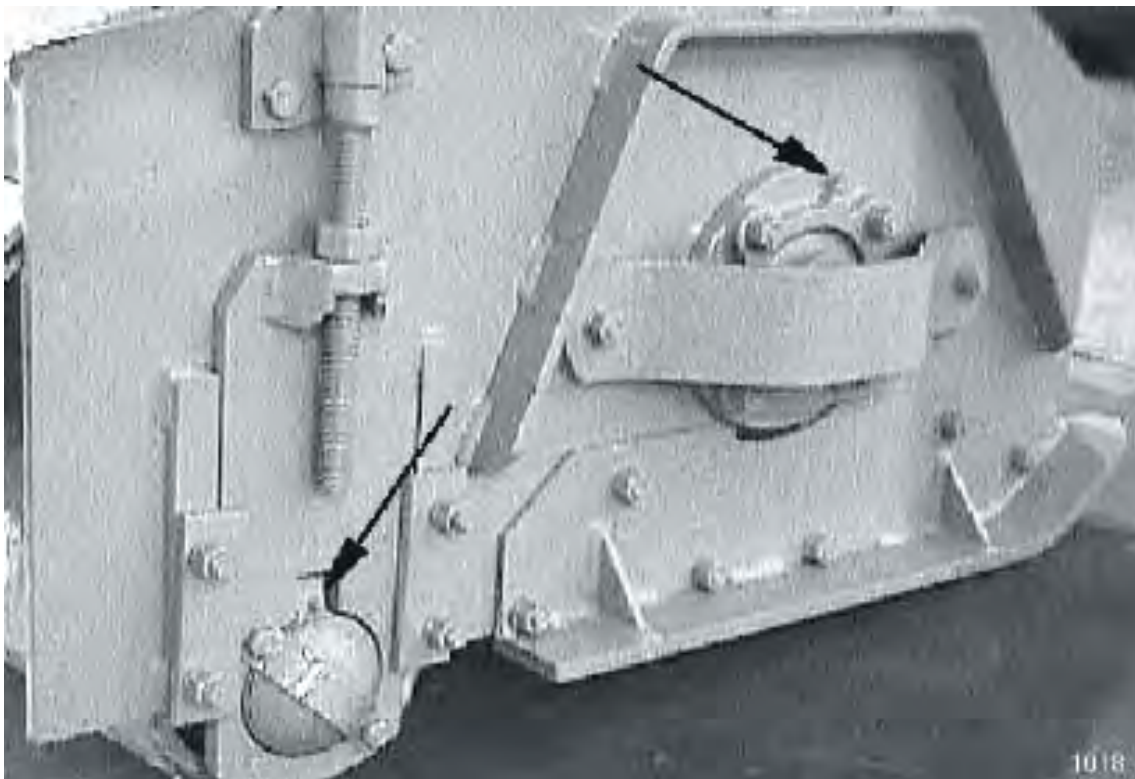
MAINTENANCE

GREASING CUTTER SHAFT

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

GREASING GROUND ROLLER SHAFT

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



MAINTENANCE

ROSTA TENSIONER

Remove the cuttershaft guard over the belt shield. Then remove the belt shield that covers the tensioner, belt and sheaves.

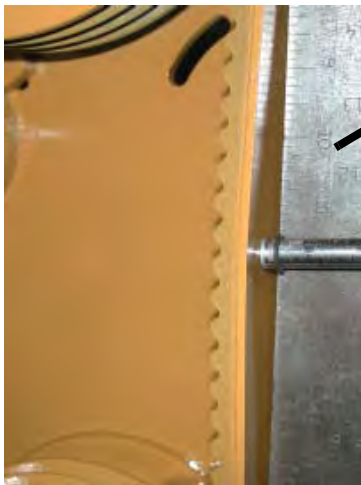


BELT SHIELD

CUTTERSHAFT
GUARD



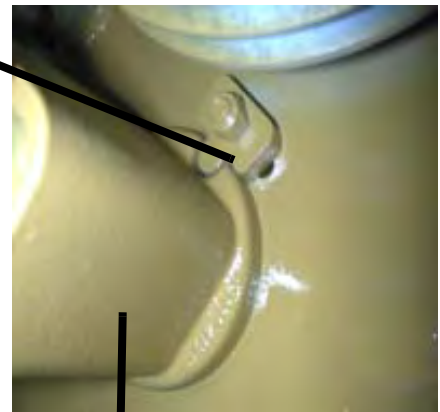
Place a straight edge over both sheaves and measure the belt tension (See TENSIONER MEASUREMENT PROCEDURE). To adjust the Rosta Tensioner, first, loosen the Rosta Stop and Rosta bolt that secures the Rosta to the flail. Next use the Wrench (PN# 06401023 available) to adjust the tension of the belt. After the tension has been set, secure the Rosta Stop and re-torque the Rosta Bolt to specs.



STRAIGHT EDGE

ROSTA STOP

ROSTA WRENCH



ROSTA ARM



MAINTENANCE

TENSIONER MEASUREMENT PROCEDURE

1. Measure the Belt Span (SEE SKETCH).
2. Position the bottom of the Large "O" Ring on the Span Scale at the measured Belt Span.
3. Set the Small "O" Ring on the Deflection Force Scale to zero.
4. Place the tension gauge squarely on the belt at the center of the belt span. Apply a force on the plunger perpendicular to the belt span until the bottom of the Large "O" Ring is even with the bottom of a straight edge laid across the sheaves.
5. Remove the tension gauge and read the force applied from the bottom of the Small "O" Ring on the Deflection Force Scale.
6. Compare the force denoted by the Small "O" Ring with the values shown. The force should be between the values given for either a New Belt or Used Belt.
7. Make sure to use the force values in pounds if the span is measured in inches. Use kilograms of force if the span is measured in centimeters.
8. NOTE: The ratio of the deflection to belt span is 1/64 in either units of measurements.

Deflection Force Values - Standard Duty

New Belt: 20 to 25 pounds

Used Belt: 12 to 20 pounds

FIGURE A

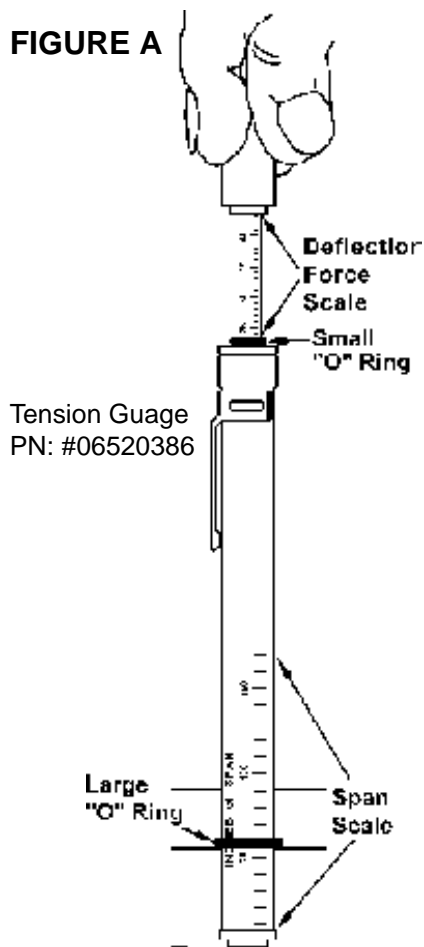
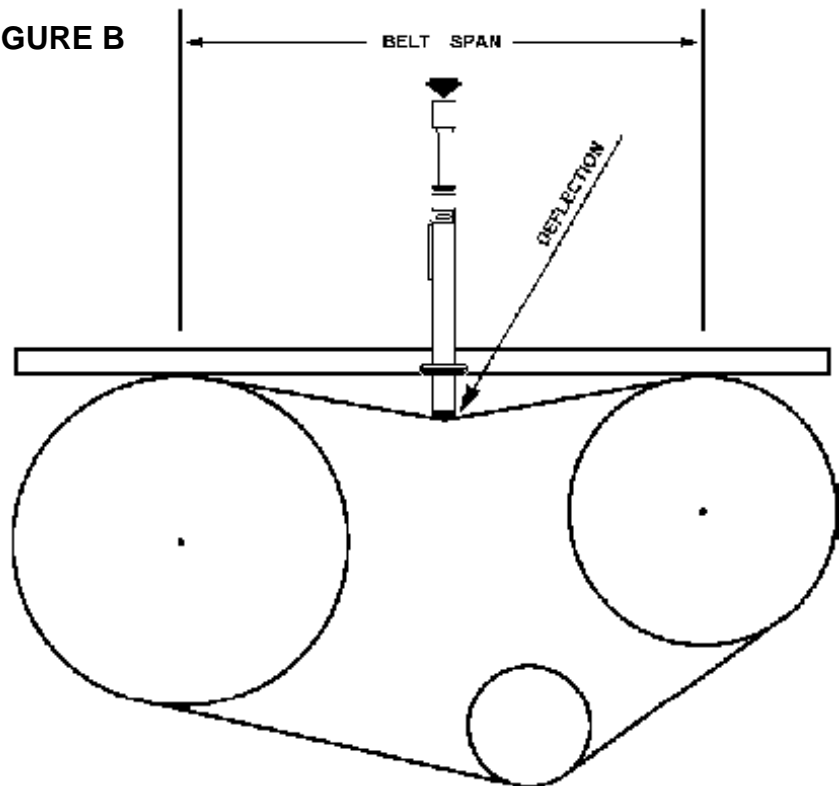


FIGURE B



MAINTENANCE

REVERSING PTO MOWER ROTATION

Remove the rear shaft guard and disconnect the chain coupling to the shaft. Disconnect the P.T.O. drive shaft from the right angle gear box. Remove the gear box from the flail frame and lay down flat so that gear oil does not leak out.

Switch the top breather vent plug with the drain plug on the bottom. Remove the input shaft guard. The input shaft must be pressed through or turned around so the rear extension is equal to what the original front dimension was. Turn the gear box 180° and install on the flail frame so the chain coupling sprockets are side by side and the breather vent plug is on the top of the case.

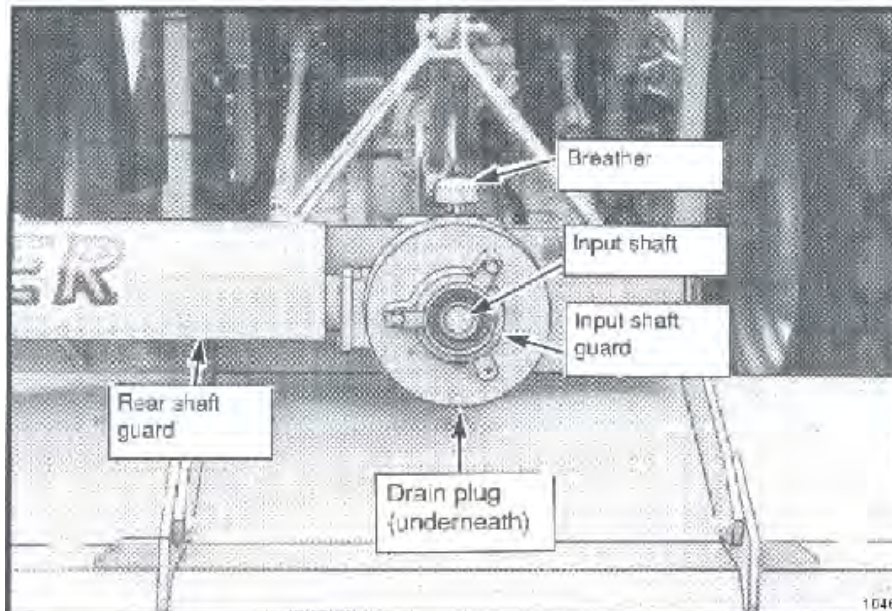
The sprockets must be aligned and spaced approximately 3/8" apart. When changing from standard cut to smooth cut rotation, a spacer plate may have to be installed between the gear box and the frame. When changing from smooth cut to standard cut rotation the spacer plate is to be omitted. Install the chain for the chain coupling. If there is any binding, or no free movement in the chain, the bearing next to the coupler may be shimmed as required to eliminate the chain binding.

Change all the knives on the cutter shaft as required. The cutter shaft rotates in the same direction as the tractor tires when going forward for standard knives. The cutter shaft rotates opposite the tractor tires for smooth cut knives.

Remove the belt shield. Then remove the adjusting nuts, washer and spring from the idler tensioning rod. Remove the clevis rod and small bushing from the idler arm. Remove the idler arm with the pulley attached. Remove the idler pulley from the idler arm and install the pulley on the other end of the idler arm. Reinstall the idler arm in the pivot bracket. For standard cut rotation the pulley is toward the front, for reverse rotation with smooth knives, the idler pulley is toward the rear. Install the small bushing in the idler arm and connect the idler tensioning rod.

Tighten the adjusting nuts for the idler arm tensioner as shown previously in the maintenance section. Install the belt shield, the shaft guard and P.T.O. shaft guards.

When operating the mower in reverse rotation with smooth cut knives, remove the baffle and install the front shield. When operating the mower in standard rotation with standard cut knives, remove the front shield and install the baffle.



MAINTENANCE

FLAIL KNIFE REPLACEMENT

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

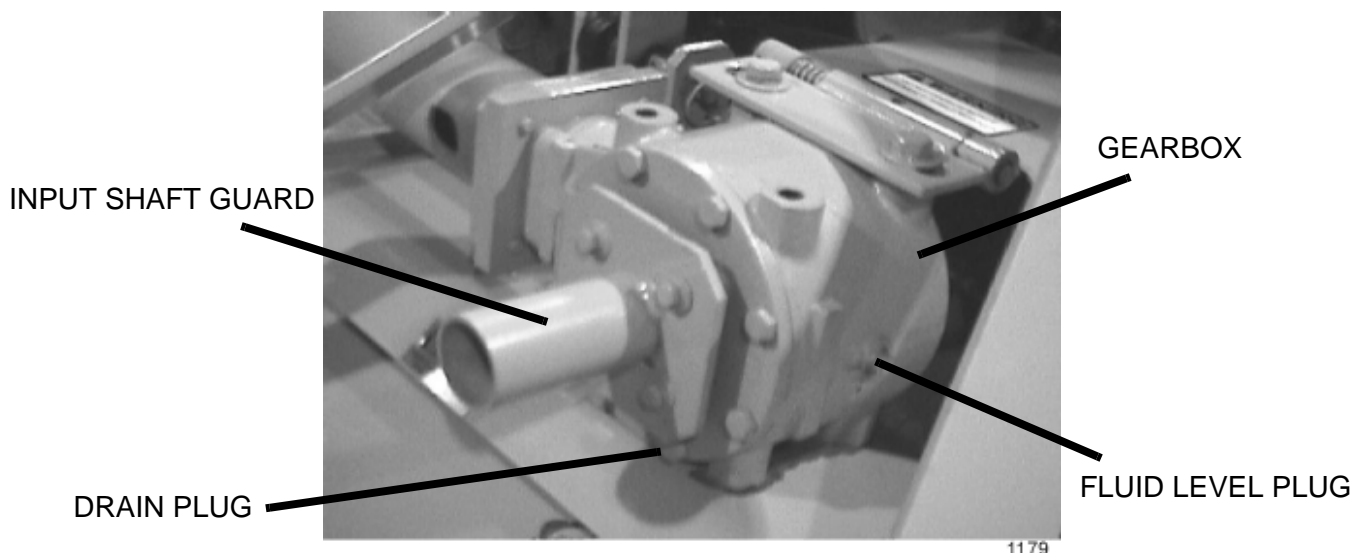
WARNING!



DO NOT re-use the locking hex nuts for mounting the knives. If hex nut become loose, or require removal for knife replacement or any other reason, they must be discarded and replaced with new nuts. Knives should NEVER be welded on for any reason.

RECOMMENDED FILLING INSTRUCTIONS FOR GEAR BOX

When filling or checking the fluid level, the unit should be parked on a level surface with rear flail down on surface, shut “**OFF**”, and cold,(at ambient temperature). Remove the fluid level plug located on the side of the gear box. The gear box should be filled to the bottom of the fluid level hole. If necessary, use 75 - 90 wt. PAO Synthetic Extreme Pressure Gear Lube to raise level to bottom of the hole. **Do not over-fill.** excessive gear oil will run back out of the hole. Reinstall fluid level plug into gear box. If gear box has been over-filled, the excess may be expelled through the pressurized breather.



MAINTENANCE

DAILY MAINTENANCE SCHEDULE

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

_____ Pump Drive Shaft: Check for end play in drive shaft / coupler and lubricate at zerks.

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

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

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

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

_____ Belts: Check / Tighten / Replace belts as needed.

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

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

_____ Rear Flail Drive, Bearing Flange and Shaft Couplers: Grease as instructed in the detailed (if applicable) maintenance section.

_____ Cutter Shaft and Ground Roller: Grease as instructed in the detailed maintenance section

Service performed by:_____ **Date:**___/___/___ **Time:**_____ **Meter:**_____

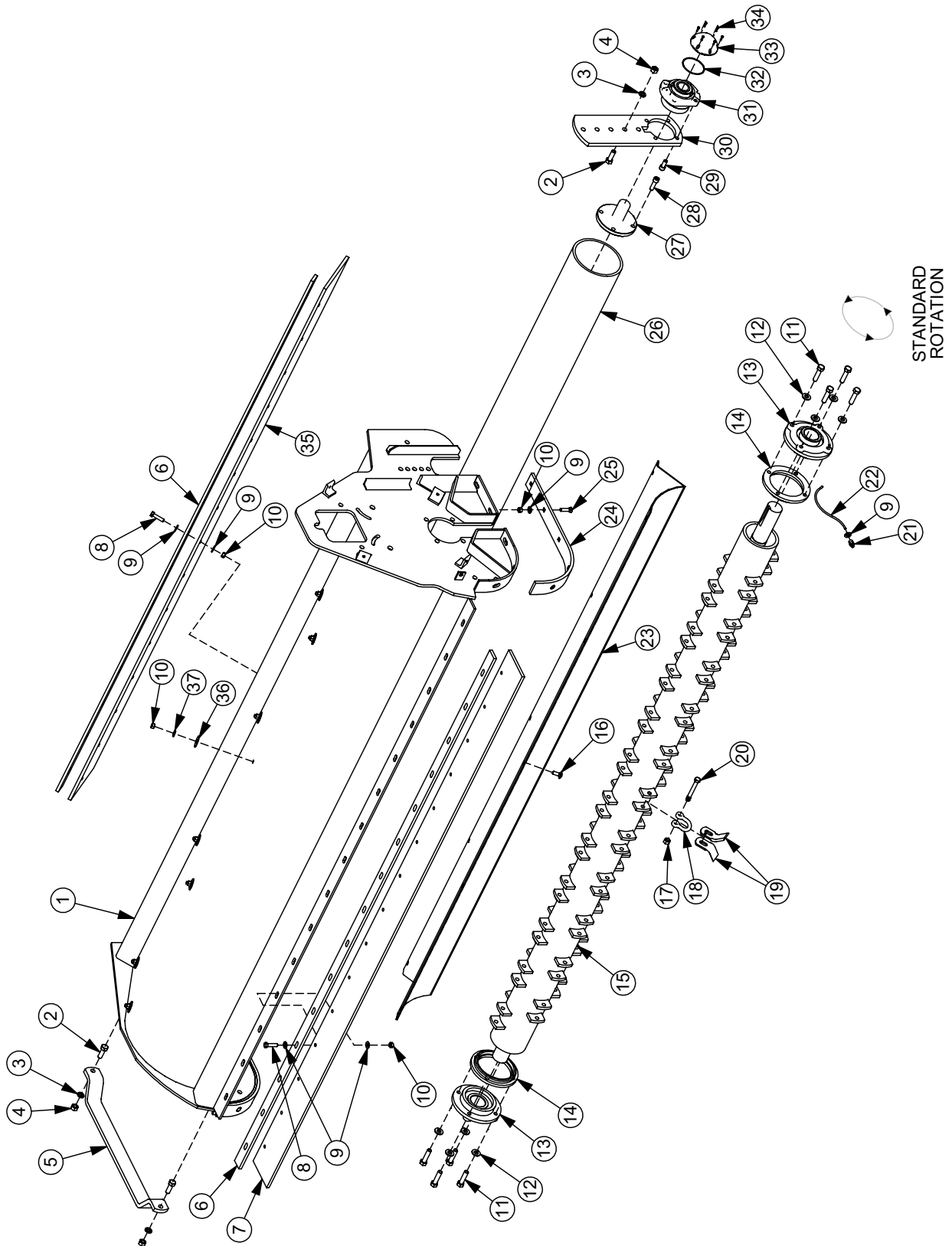
This page may be copied and used as part of the daily maintenance routine.



MSV FRONT FLAIL

PARTS SECTION

75" FRONT FLAIL ROSTA CUTTER ASSY, STD ROTATION

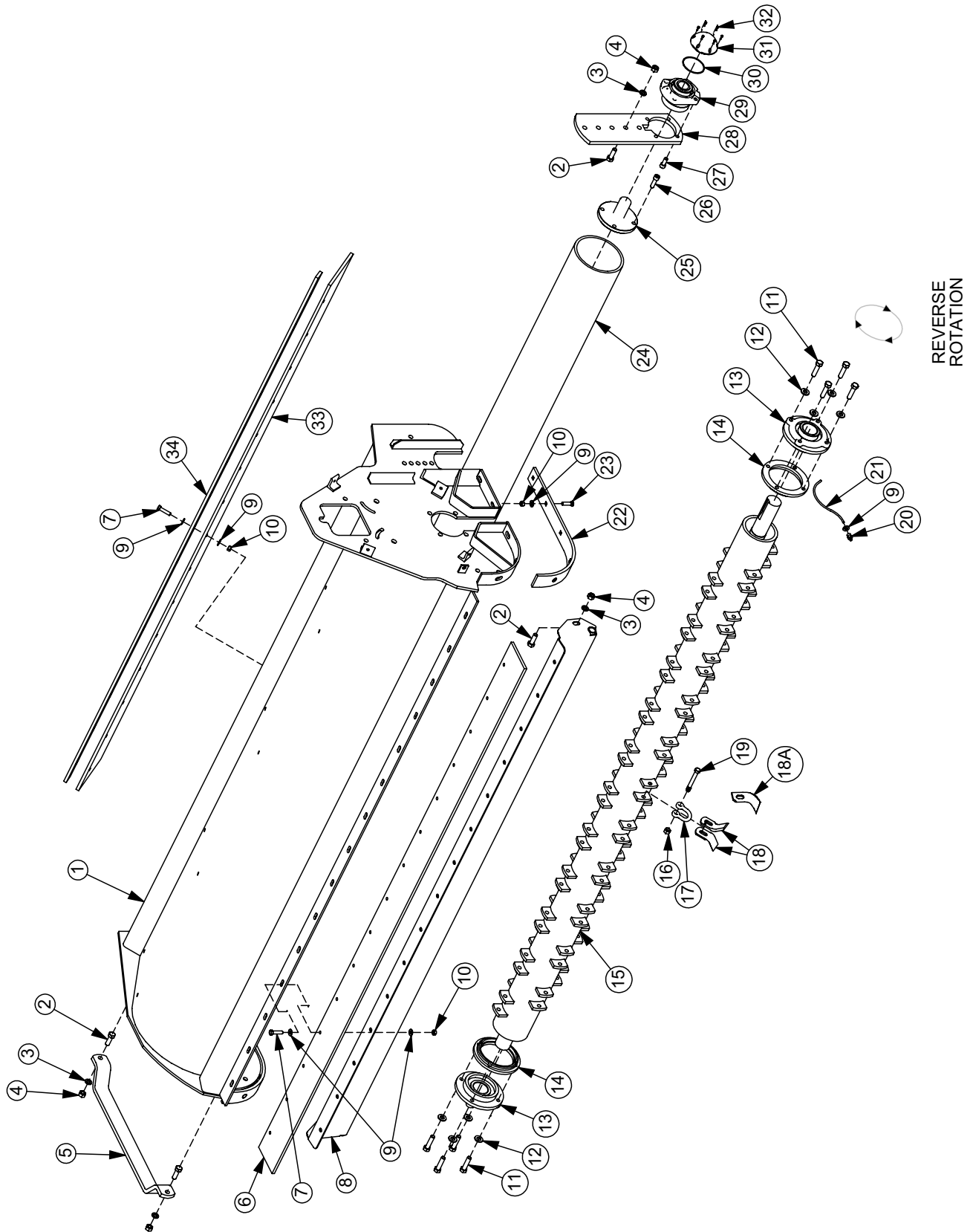


75" FRONT FAIL ROSTA CUTTER ASSY, STD ROTATION

ITEM	PART NO.	QTY.	DESCRIPTION
1	06320142	1	BONNET,75,STD,ROSTA,RCM
2	21731	6	CAPSCREW,1/2 X 1-1/2 NC
3	21990	6	LOCKWASHER,1/2
4	21725	6	HEX NUT,1/2 NC
5	27975A	1	GUARD,CUTTERSCHAFT 5
6	TF1029	2	BAR,FLAP,TSF/TRF 75
7	06520242	1	FLAP,75",FRONT
8	21632	20	CAPSCREW,3/8 X 1-1/2 NC
9	22016	81	FLATWASHER,3/8,GR8
10	21625	40	HEX NUT,3/8 NC
11	06530217	8	CAPSCREW,3/4 X 2 1/2NC GR8
12	06533006	8	FLATWASHER,1/2,SAE,L9
13	28683	2	BEARING,FLANGE,1-15/16STD TSF
14	33863	2	STRING GUARD,STD
15	28643B	1	CUTTERSCHAFT,75STD,W/EARS
16	6T2283	10	CARRIAGE BOLT,3/8 X 1 NC
17	21677	40	NYLOCK NUT,7/16 NC
18	TF1020	40	KNIFE MTG CLEVIS,FLAIL
19	33713	80	KNIFE,FLAIL,SHORT
20	34011	40	CAPSCREW,7/16x3 7/16,NC GR8
21	TF1033	1	GREASE ZERK,1/8 FPT
22	TF1032	1	GRS HOSE,3/16X8(1/8MPX1/8MP)
23	28737	1	BAFFLE,75,STD ROT-STD
24	28086A	2	SKID SHOE,STD DUTY REAR FLAIL
25	30013	10	PLOW BOLT,3/8 X 1-1/4NC GR5
26	28738	1	GROUND ROLLER,75
27	TF1045B	2	STUB SHAFT,GROUND ROLLER
28	6T2330	8	CAPSCREW,SKT HD,7/16X1-1/2NC
29	6T2331	4	CAPSCREW,SKT HD,7/16 X 1 NC
30	28735	2	GROUND ROLLER ADJ BRKT,STD DTY
31	06520028	2	BEARING,FLANGE,1 3/8,GRNDRLR
32	06520029	2	O-RING,2 3/4x3/32,AS568A-148
33	06520027	2	CAP,BEARING,GRNDRLR
34	06530001	12	CAPSCREW,SKT HD,8-32x1/2,SS
35	TF1016	1	FLAP,DEFLECTOR,TSF/TRF 75
36	6T2615	10	WASHER,FENDER 3/8
37	21988	10	LOCKWASHER,3/8



75" FRONT FLAIL ROSTA CUTTER ASSY, REV ROTATION

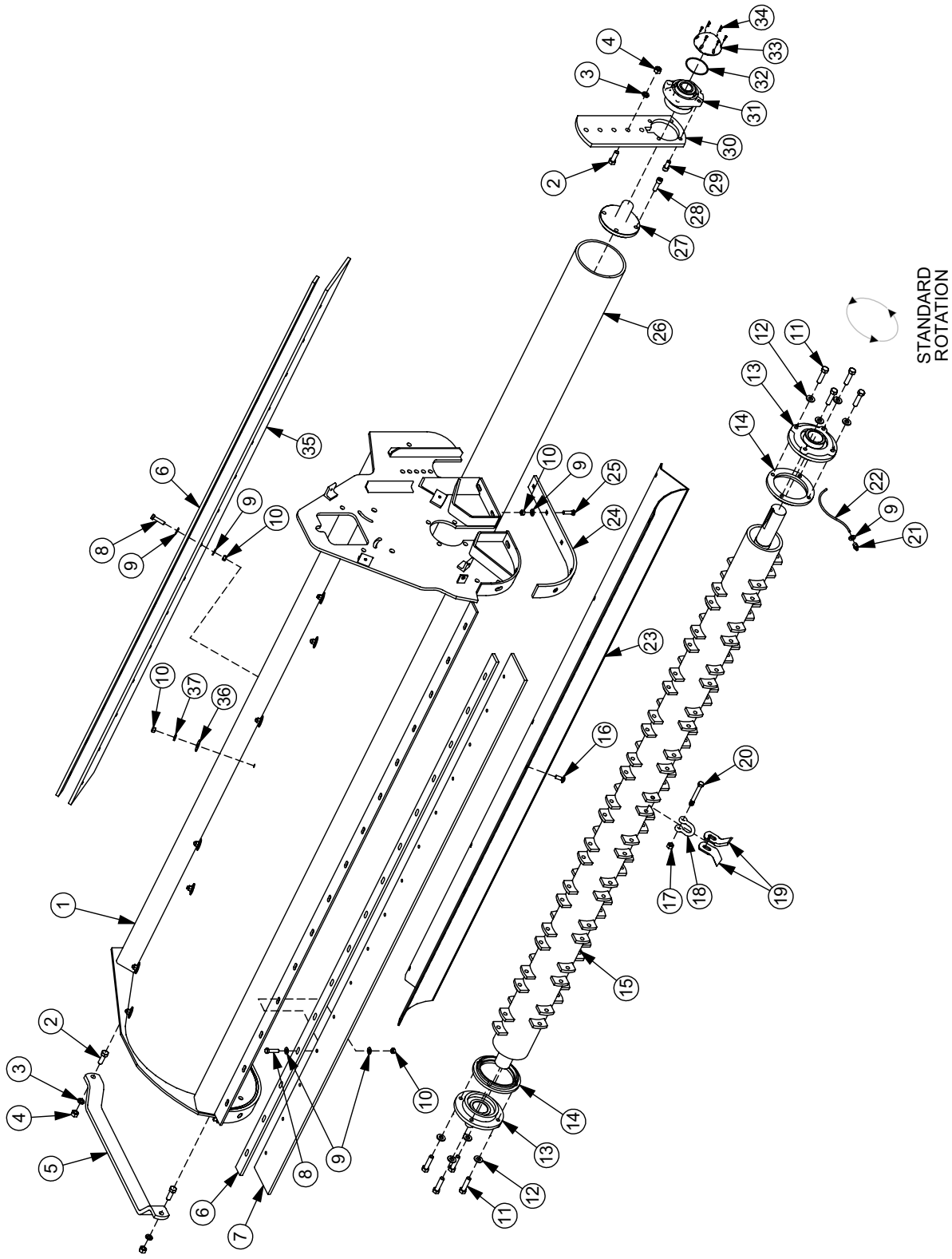


75" FRONT FLAIL ROSTA CUTTER ASSY, REV ROTATION

ITEM	PART NO.	QTY.	DESCRIPTION
1	06320142	1	BONNET,75,STD,ROSTA,RCM
2	21731	8	CAPSCREW,1/2 X 1-1/2 NC
3	21990	8	LOCKWASHER,1/2
4	21725	8	HEX NUT,1/2 NC
5	27975A	1	GUARD,CUTTERSHAFT 5
6	06520242	1	FLAP,75",FRONT
7	21632	20	CAPSCREW,3/8 X 1-1/2 NC
8	28968A	1	TRASH GUARD, 75"
9	22016	81	FLATWASHER,3/8,GR8
10	21625	40	HEX NUT,3/8 NC
11	06530217	8	CAPSCREW,3/4 X 2 1/2NC GR8
12	06533006	8	FLATWASHER,1/2,SAE,L9
13	28683	2	BEARING,FLANGE,1-15/16STD TSF
14	33863	2	STRING GUARD,STD
15	28643B	1	CUTTERSHAFT,75STD,W/EARS
16	21677	40	NYLOCK NUT,7/16 NC
17	TF1020	40	KNIFE MTG CLEVIS,FLAIL
18	33713	80	KNIFE,FLAIL,SHORT
18A	28184A	40	KNIFE,FLAIL,SMC,STD
19	34011	40	CAPSCREW,7/16x3 7/16,NC GR8
20	TF1033	1	GREASE ZERK,1/8 FPT
21	TF1032	1	GRS HOSE,3/16X8(1/8MPX1/8MP)
22	28086A	2	SKID SHOE,STD DUTY REAR FLAIL
23	30013	10	PLOW BOLT,3/8 X 1-1/4NC GR5
24	28738	1	GROUND ROLLER,75
25	TF1045B	2	STUB SHAFT,GROUND ROLLER
26	6T2330	8	CAPSCREW,SKT HD,7/16X1-1/2NC
27	6T2331	4	CAPSCREW,SKT HD,7/16 X 1 NC
28	28735	2	GROUND ROLLER ADJ BRKT,STD DTY
29	06520028	2	BEARING,FLANGE,1 3/8,GRNDRLR
30	06520029	2	O-RING,2 3/4x3/32,AS568A-148
31	06520027	2	CAP,BEARING,GRNDRLR
32	06530001	12	CAPSCREW,SKT HD,8-32x1/2,SS
33	TF1016	1	FLAP,DEFLECTOR,TSF/TRF 75
34	TF1029	2	BAR,FLAP,TSF/TRF 75



90" FRONT FLAIL ROSTA CUTTER ASSY, STD ROTATION

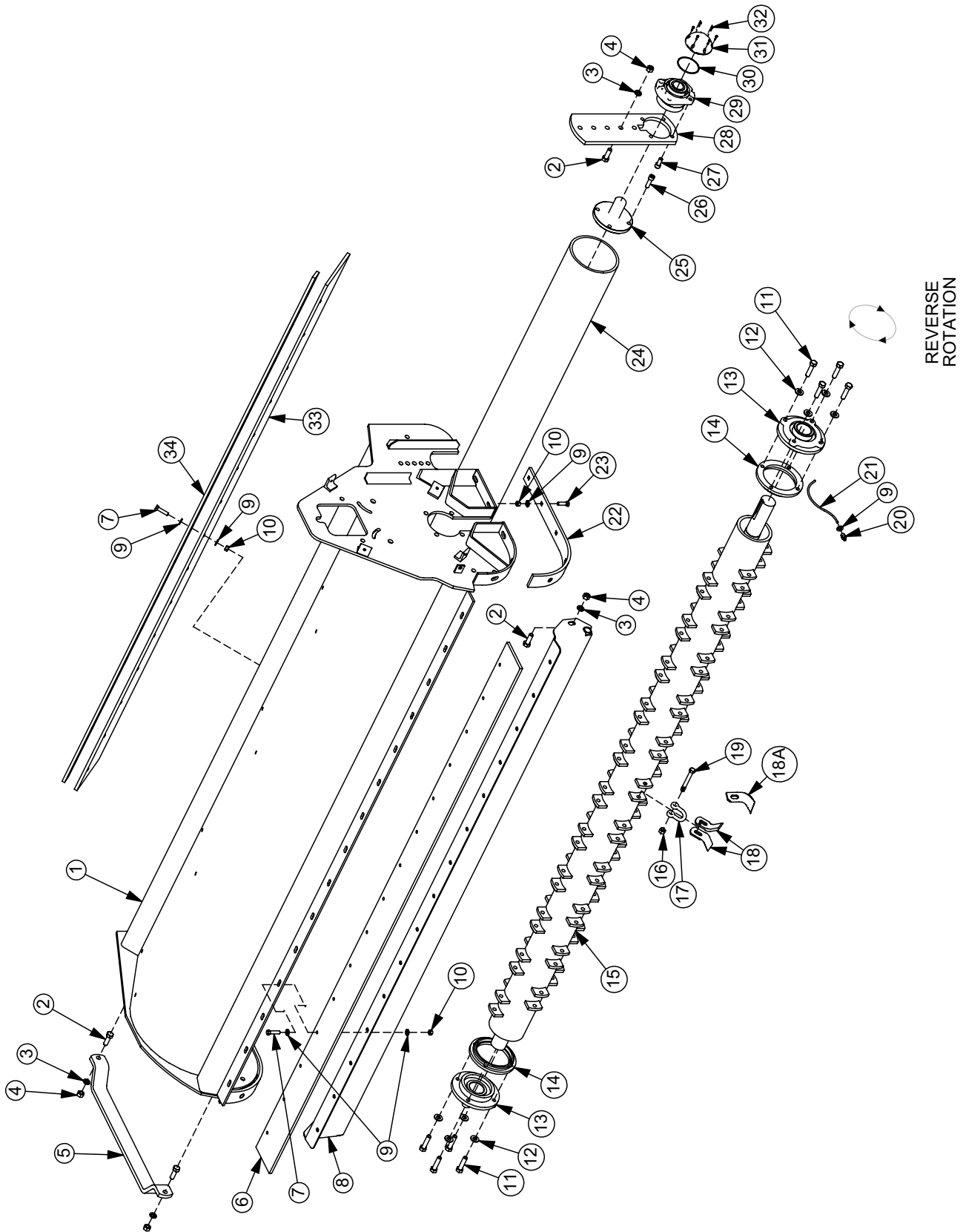


90" FRONT FLAIL ROSTA CUTTER ASSY, STD ROTATION

ITEM	PART NO.	QTY.	DESCRIPTION
1	06320143	1	BONNET,90,STD,ROSTA,RCM
2	21731	6	CAPSCREW,1/2 X 1-1/2 NC
3	21990	6	LOCKWASHER,1/2
4	21725	6	HEX NUT,1/2 NC
5	27975A	1	GUARD,CUTTERSCHAFT 5
6	TF1135	2	BAR,FLAP,TSF/TRF 90
7	06520243	1	FLAP,90",FRONT
8	21632	20	CAPSCREW,3/8 X 1-1/2 NC
9	22016	81	FLATWASHER,3/8,GR8
10	21625	40	HEX NUT,3/8 NC
11	06530217	8	CAPSCREW,3/4 X 2 1/2NC GR8
12	06533006	8	FLATWASHER,1/2,SAE,L9
13	28683	2	BEARING,FLANGE,1-15/16STD TSF
14	33863	2	STRING GUARD,STD
15	27964C	1	CUTTERSCHAFT,90STD,W/EARS
16	6T2283	10	CARRIAGE BOLT,3/8 X 1 NC
17	21677	48	NYLOCK NUT,7/16 NC
18	TF1020	48	KNIFE MTG CLEVIS,FLAIL
19	33713	96	KNIFE,FLAIL,SHORT
20	34011	48	CAPSCREW,7/16x3 7/16,NC GR8
21	TF1033	1	GREASE ZERK,1/8 FPT
22	TF1032	1	GRS HOSE,3/16X8(1/8MPX1/8MP)
23	27971	1	BAFFLE,90,STD ROT-STD
24	28086A	2	SKID SHOE,STD DUTY REAR FLAIL
25	30013	10	PLOW BOLT,3/8 X 1-1/4NC GR5
26	27972A	1	GROUND ROLLER,90
27	TF1045B	2	STUB SHAFT,GROUND ROLLER
28	6T2330	8	CAPSCREW,SKT HD,7/16X1-1/2NC
29	6T2331	4	CAPSCREW,SKT HD,7/16 X 1 NC
30	28735	2	GROUND ROLLER ADJ BRKT,STD DTY
31	06520028	2	BEARING,FLANGE,1 3/8,GRNDRLR
32	06520029	2	O-RING,2 3/4x3/32,AS568A-148
33	06520027	2	CAP,BEARING,GRNDRLR
34	06530001	12	CAPSCREW,SKT HD,8-32x1/2,SS
35	TF1116	1	FLAP,DEFLECTOR,TSF/TRF 90
36	6T2615	10	WASHER,FENDER 3/8
37	21988	10	LOCKWASHER,3/8



90" FRONT FLAIL ROSTA CUTTER ASSY, REV ROTATION



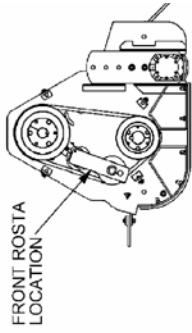
90" FRONT FAIL ROSTA CUTTER ASSY, REV ROTATION

ITEM	PART NO.	QTY.	DESCRIPTION
1	06320143	1	BONNET,90,STD,ROSTA,RCM
2	21731	8	CAPSCREW,1/2 X 1-1/2 NC
3	21990	8	LOCKWASHER,1/2
4	21725	8	HEX NUT,1/2 NC
5	27975A	1	GUARD,CUTTERSHAFT 5
6	06520243	1	FLAP,90",FRONT
7	21632	20	CAPSCREW,3/8 X 1-1/2 NC
8	28967A	1	TRASH GUARD
9	22016	81	FLATWASHER,3/8,GR8
10	21625	40	HEX NUT,3/8 NC
11	06530217	8	CAPSCREW,3/4 X 2 1/2NC GR8
12	06533006	8	FLATWASHER,1/2,SAE,L9
13	28683	2	BEARING,FLANGE,1-15/16STD TSF
14	33863	2	STRING GUARD,STD
15	27964C	1	CUTTERSHAFT,90STD,W/EARS
16	21677	48	NYLOCK NUT,7/16 NC
17	TF1020	48	KNIFE MTG CLEVIS,FLAIL
18	33713	96	KNIFE,FLAIL,SHORT
18A	28184A	48	KNIFE,FLAIL,SMC,STD
19	34011	48	CAPSCREW,7/16x3 7/16,NC GR8
20	TF1033	1	GREASE ZERK,1/8 FPT
21	TF1032	1	GRS HOSE,3/16X8(1/8MPX1/8MP)
22	28086A	2	SKID SHOE,STD DUTY REAR FLAIL
23	30013	10	PLOW BOLT,3/8 X 1-1/4NC GR5
24	27972A	1	GROUND ROLLER,90
25	TF1045B	2	STUB SHAFT,GROUND ROLLER
26	6T2330	8	CAPSCREW,SKT HD,7/16X1-1/2NC
27	6T2331	4	CAPSCREW,SKT HD,7/16 X 1 NC
28	28735	2	GROUND ROLLER ADJ BRKT,STD DTY
29	06520028	2	BEARING,FLANGE,1 3/8,GRNDRLR
30	06520029	2	O-RING,2 3/4x3/32,AS568A-148
31	06520027	2	CAP,BEARING,GRNDRLR
32	06530001	12	CAPSCREW,SKT HD,8-32x1/2,SS

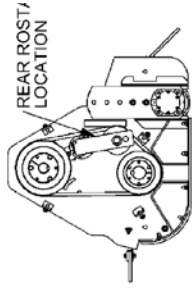


DRIVE ASSY - HYDRO

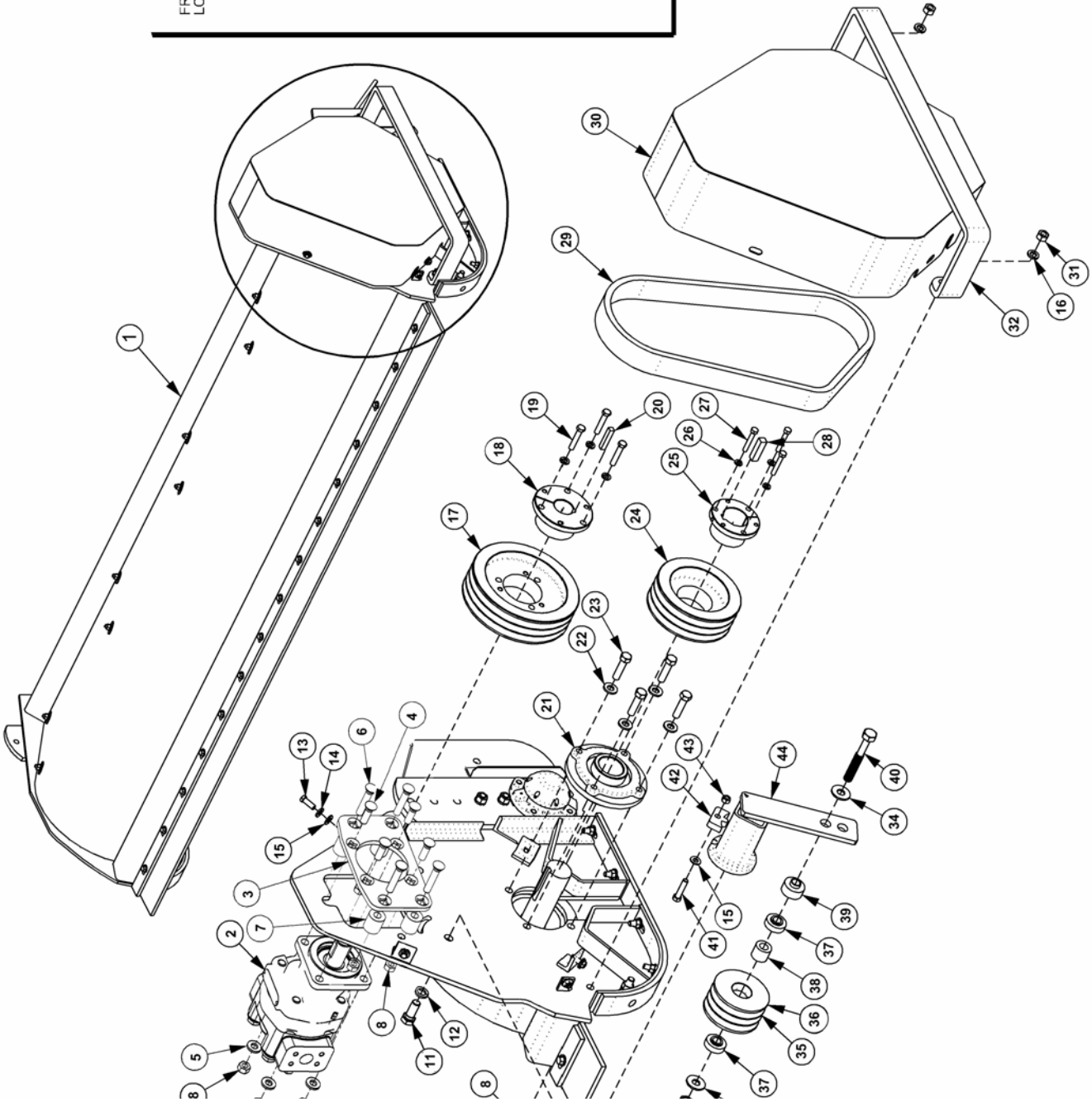
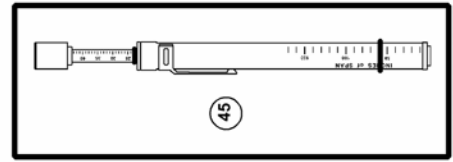
DRIVE
ORIENTATION



STANDARD ROTATIOI



REVERSE ROTATION

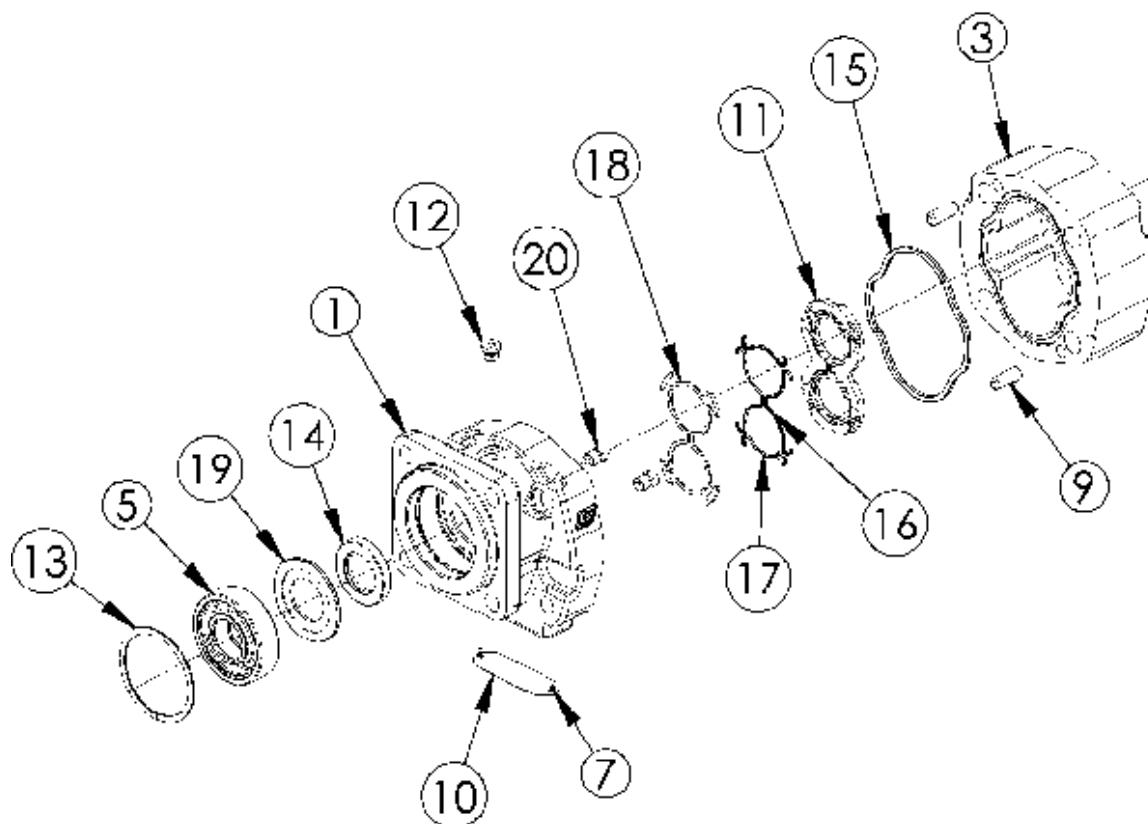
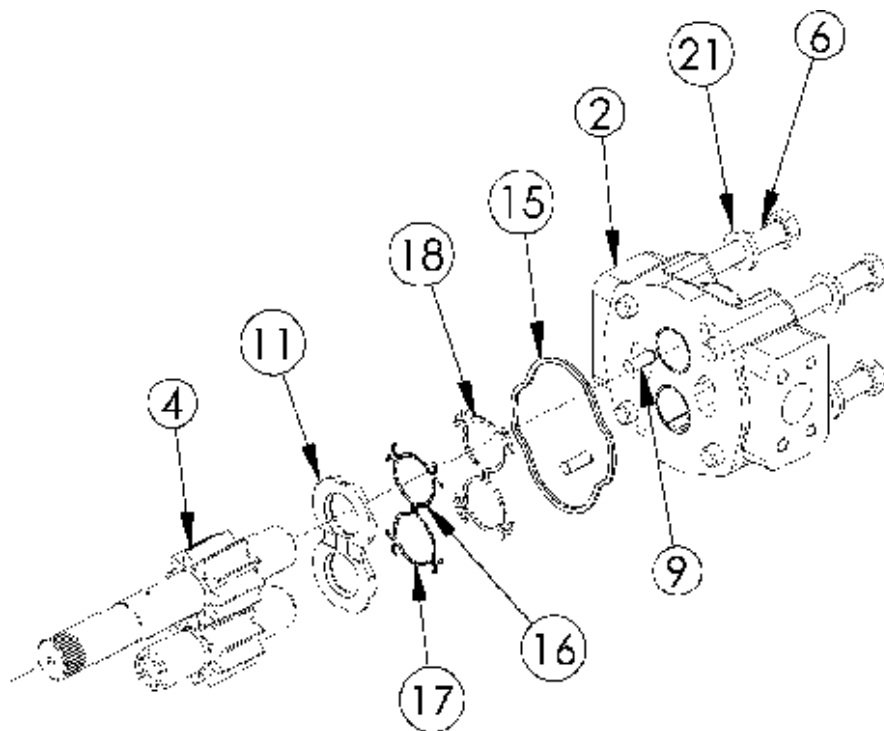


DRIVE ASSY - HYDRO

ITEM	PART NO.	QTY.	DESCRIPTION
1	*	1	BONNET - REFER TO CUTTER ASSEMBLY
2	06504066	1	MOTOR,HD,(M350-1 GEAR),SEALED
3	06401053	1	PLATE,MNT,MOTOR
4	23293	4	PLOW BOLT,1/2x1 3/4,NC
5	06533004	4	FLAT WASHER,1/2,SAE,GR 8
6	06537024	4	PLOW BOLT,1/2x2 3/4,NC
7	06470007	4	BOSS,1.25x.56x1.347
8	21727	4	NYLOCK NUT,1/2 NC
9	21731	4	CAPSCREW,1/2 X 1-1/2 NC
10	22018	2	FLATWASHER,1/2,WIDE
11	22421	1	CAPSCREW,16MM x 40MM(2.0P)
12	31956	1	FLATWASHER,16MM,HARDENED
13	21630	4	CAPSCREW,3/8 X 1 NC
14	21988	4	LOCKWASHER,3/8
15	22016	5	FLATWASHER,3/8,GR8
16	21990	2	LOCKWASHER,1/2
17	02967325	1	PULLEY, 3G5V-8.50 DIA.
18	06520304	1	BUSHING,QD,SF 1-1/2,3/8 KEY
19	21634	3	CAPSCREW,3/8 X 2 NC
20	28224	1	KEY,3/8 SQ X 2
21	28683	2	BEARING,FLANGE,1-15/16STD
22	06533006	8	FLATWASHER,1/2,SAE,L9
23	06530217	8	CAPSCREW,1/2 X 2,NC,L9
24	06520218	1	SHEAVE,6.7,3G5V,QD,SK
25	28723	1	BUSHING,QD,SK 1-15/16
26	21987	3	LOCKWASHER,5/16
27	21584	3	CAPSCREW,5/16 X 2 NC
28	26142A	1	KEY,1/2 SQ X 2
29	06520312	1	BELT,BANDED,3/5VX560
30	06320114	1	SHIELD,BELT,WLDMNT,STD
31	21725	2	HEX NUT,1/2 NC
32	06410723	1	BAR,RUB
33	32838	1	HEX NUT,5/8-11 UNC, GR8,
34	25270	2	FLATWASHER,5/8,GRD8,USS
35	06700092	1	ASSY,SHEAVE,IDLER,3 GRV
36	06420072	1	SHEAVE,IDLER,3 GRV
37	31298	2	BRG,FAFNIR,203KRR2
38	06430072	1	SPACER,1.25X.69X1.03
39	06420094	1	SPACER,1.00x1.63ODx.64ID
40	33854	1	CAPSCREW, 5/8 X 4 1/2,NC,GR 8
41	21632		CAPSCREW,3/8 X 1-1/2 NC
42	06400717	1	STOP,ROSTA
43	21627	1	NYLOCK NUT,3/8 NC
44	06520306	1	TNSNR,ROSTA,SE38,W/ MTG BOLT
45	06520386	1	GAGE,TENSION,PLUNGER



MOTOR BREAKDOWN



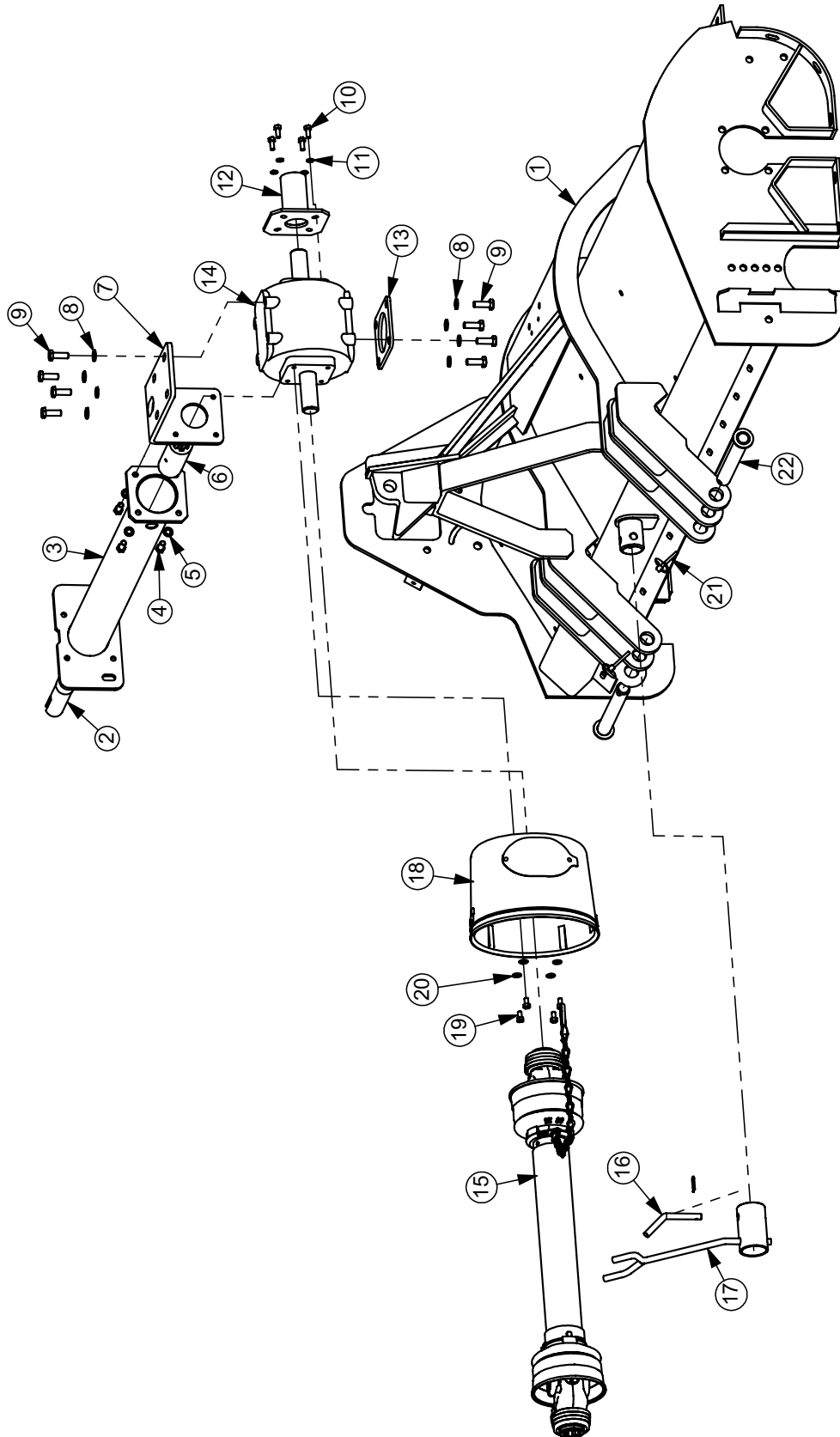
MOTOR BREAKDOWN

ITEM	PART NO.	QTY.	DESCRIPTION
*	06504066		MOTOR ASSEMBLY 350 - T3F
1	06504039	1	SHAFT END COVER
2	06504054	1	PORT END COVER
3	06504055	1	GEAR HOUSING
4	06504056	1	MATCHED GEAR SET
5	TF4402	1	BALL BEARING
6	06504057	4	CAP SCREW
7	06504044	2	SET SCREW
9	06504045	4	DOWEL PIN
10		1	NAMEPLATE
11	763759	2	THRUSTPLATE
12	02961940	1	HEX PLUG
13	TF4401	1	SNAP RING
14	06504049	1	LIP SEAL (INCLUDED IN SEAL KIT)
15	TF4410	2	GASKET SEAL (INCLUDED IN SEAL KIT)
16	06504046	4	SIDE SEAL (INCLUDED IN SEAL KIT)
17	06504047	4	END SEAL (INCLUDED IN SEAL KIT)
18	TF4407	2	BACK-UP SEAL (INCLUDED IN SEAL KIT)
19	02961932	1	SEAL RETAINER
20	6T5809	2	CHECK ASSEMBLY
21	02961917	4	WASHER

*06504022 AVAILSEAL KIT (INCLUDES 14, 15, 16, 17, AND 18)



DRIVE ASSY - PTO

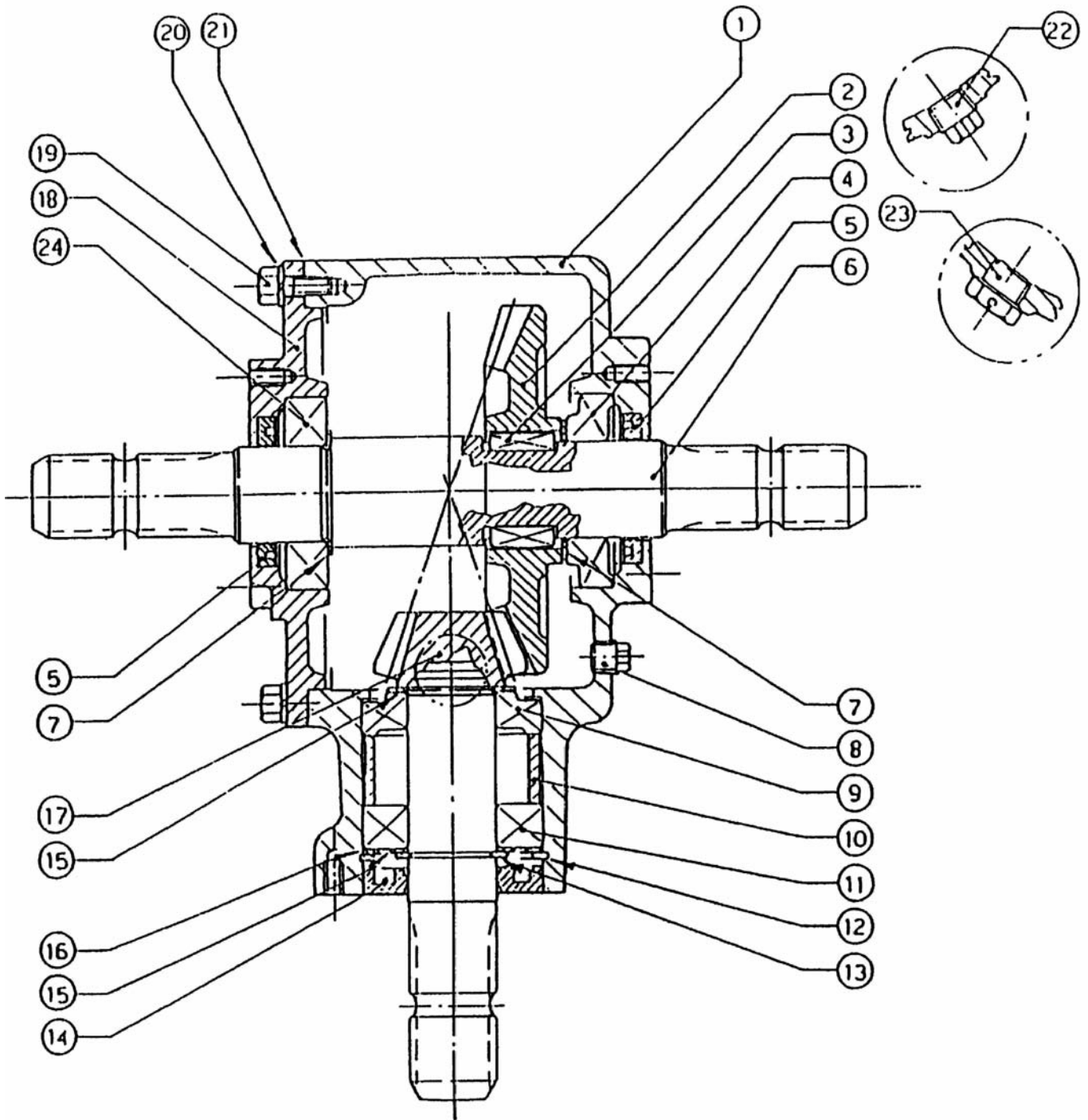


DRIVE ASSY - PTO

ITEM	P/N	QTY.	DESCRIPTION
1	06320142	1	FLAIL,75,SD,MB
2	06420110	1	SHAFT,OUTPUT,TRF75
3	06320133	1	TUBE,SAFETY,75,SD
4	21679	4	CAPSCREW, 7/16 x 1,NC
5	21989	4	LOCKWASHER, 7/16"
6	28914	1	COUPLING,6 SPLINE W/ZERK
7	33204	1	PLATE,MNT,GUARD
8	27724	8	LOCKWASHER,12MM
9	34890	8	CAPSCREW,12MMx35MM(1.75 PITCH)
10	27508	4	CAPSCREW,8MMx20MM(1.25 PITCH)
11	6T2619	4	LOCKWASHER,8MM
12	28447E	1	SHAFT GUARD
13	06400018	1	SPACER,REAR FLAIL
14	28950	1	GEARBOX
15	06520257	1	PTO DRIVESHAFT
16	06520048	1	PIN,.5x2.5,BENT,W/R-CLIP
17	06370022	1	SUPPORT,PTO
18	06520181	1	GUARD,PTO,GRBX
19	27507	4	CAPSCREW,8MMx15MM(1.25 PITCH)
20	34948	4	FLATWASHER,3/8"
21	RD1032	2	PIN,LYNCH 1/4" X 2"
22	33698	2	PIN,CAPPED,1 1/8 x 9



GEARBOX BREAKDOWN

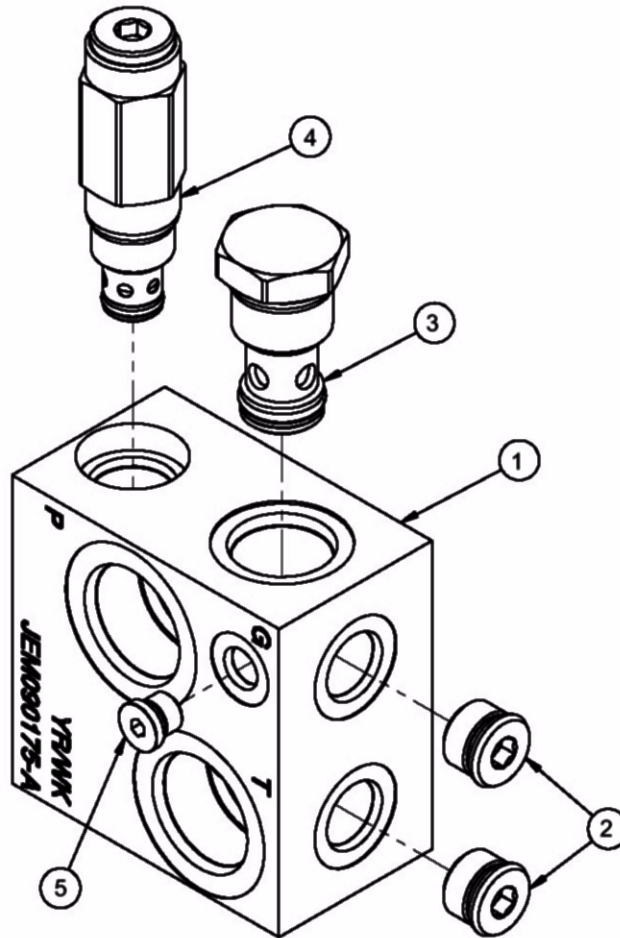


GEARBOX BREAKDOWN

ITEM	P/N	QTY	DESCRIPTION
1	30133	1	CASING
2	30134	1	CROWNWHEEL Z30
3	30135	2	PARALLEL KEY
4	28604	1	BEARING 30208
5	30136	2	OIL SEAL 40 x 62 x 7
6	30137	1	SHAFT
7	28603	2	SHIM
8	30138	1	PLUG
9	30139	1	BEARING 30207
10	30140	1	SPACER
11	30141	1	BEARING 6207
12	30142	1	INTERNAL CIRCLIP 72
13	30143	1	EXTERNAL CIRCLIP 35
14	30144	1	OIL SEAL 35 x 72 x 10
15	30145	2	SHIM
16	30146	1	SHIM
17	30147	1	PINION Z10
18	30148	1	COVER
19	30149	6	HEX BOLT M8 x 22
20	30150	6	SINGLE COIL WASHER 8,1
21	30151	1	SEAL
22	30152	1	PLUG
23	30153	1	OIL FILLER PLUG
24	30154	1	BEARING 6208



06502112 BREAKDOWN



ITEM	PN	QTY	DESCRIPTION
1	06505154	1	BLOCK,MNFLD,06502112
2	06505153	2	PLUG,Z LEAK,SAE,06502112
3	06505152	1	VLV,CHECK,06502112
4	06505151	1	VLV,RELIEF,06520112
5	06505150	1	PLUG,SOCKET,SAE,06502112



WARRANTY INFORMATION

Tiger Corporation, 3301 N. Louise, Sioux Falls, South Dakota, warrants to the original Retail Customer, the new Tiger equipment is free of defects in material and workmanship. Any part of equipment that in Tiger's judgement, show evidence of such defects will be repaired or replaced without charge, provided that the failure of part(s) shall have occurred within twelve (12) months from the date of delivery of said equipment to the Retail Customer. Expendable components such as knives, oil, chain sprockets, skid shoes, knife mounting disks and the like are excluded but not limited to this warranty.

The Retail Customer must pay the transportation cost to and from the Tiger Dealer's service shop for warranty service. Warranty service will be performed by the Tiger Dealer from whom the equipment was purchased, during service shop regularly scheduled days and hours of operation.

All Tiger obligation under this warranty shall be terminated if the equipment is modified or altered in ways not approved in writing by Tiger, if repair parts other than genuine Tiger repair parts have been used, or if the equipment has been subject to misuse, neglect, accident, improper maintenance or improper operation.

Tiger Corporation reserves the right to make improvements in design or changes in specification at any time without incurring any obligation to owners of equipment previously sold.

No agent or person has authority to alter, add to or waive the above warranties which are agreed to be in the only warranties, representations or promises, expressed or implied, as to the quality or performance of the products covered and which do not include any implied warranty of merchantability or fitness. In no event will Tiger be liable for incidental or consequential damages or injuries, including, but not limited to, loss of profits, rental or substitute equipment or other commercial loss.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THOSE EXPRESSED HEREIN.

It is the Purchasers obligation to sign the warranty registration form **AFTER** he / she has Read and Understands the Operation and Safety Instructions stated within this manual.

ONE LAST WORD

This manual cannot possibly cover all of the potentially hazardous situations you will encounter. By being familiar with the safety rules, operating and maintenance instructions in this manual you can help prevent accidents. The objective of this manual is to help make you a better operator. Remember, **SAFETY IS YOU!**



1012

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

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

TO THE OWNER / OPERATOR / DEALER



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

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

OWNER REQUIREMENTS:

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

OPERATOR REQUIREMENTS:

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



Printed in USA
© Tiger Corporation