

S.N. 1399097 - 1499098
ROTO GRIND

**OPERATOR AND PARTS MANUAL
TUB GRINDER
MODEL 760**



BURROWS ENTERPRISES, INC.
2024 East 8th Street
Greeley, Colorado 80631
*970-353-3769 * Fax 970-353-0839*

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LIMITED WARRANTY

The **Burrows Enterprises Incorporated** warrants products sold by it to be free from defects in material and workmanship for a period of one (1) year for agricultural applications and for a period of ninety (90) days for industrial applications after the date of delivery to the first purchaser subject to the following conditions:

1. **Burrows Enterprises Incorporated's** obligation and liability under this warranty is to repair or replace at the company's option, any parts which upon manufacture were defective in material or workmanship.
2. All parts and repairs under this warranty shall be supplied at an authorized **Burrows Enterprises Incorporated** dealer or at the factory at the option of **Burrows Enterprises Incorporated**.
3. **Burrows Enterprises Incorporated's** warranty does not extend to parts and elements not manufactured by **Burrows Enterprises Incorporated** and which carry the warranty of the other manufacturer.
4. Transportation or shipping to an authorized dealer for necessary repairs is at the expense of the purchaser.
5. **Burrows Enterprises Incorporated** MAKES NO OTHER WARRANTY EXPRESS OR IMPLIED AND MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE BEYOND THAT EXPRESSLY STATED IN THIS WARRANTY. **Burrows Enterprises Incorporated's** LIABILITY IS LIMITED TO THE TERMS SET FORTH IN THIS WARRANTY AND DOES NOT INCLUDE ANY LIABILITY FOR DIRECT, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR EXPENSE OF DELAY AND THE COMPANY'S LIABILITY IS LIMITED TO REPAIR OR REPLACEMENT OF DEFECTIVE PARTS AS SET FORTH HEREIN IN THE WARRANTY.
6. Any improper use, including operation after discovery of defective or worn parts, operation beyond rated capacity, substitution or parts not approved by **Burrows Enterprises Incorporated**, or any alteration or repair by other than an authorized **Burrows Enterprises Incorporated** dealer which affects the product materially and adversely, shall void this warranty.
7. No dealer, employee, or representative is authorized to change this warranty in any way or grant any other warranty unless such change is made in writing and signed by an officer of **Burrows Enterprises Incorporated** at its home office.
8. Some states do not allow limitations on how long an implied warranty lasts or exclusions of or limitations on relief such as incidental or consequential damages so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

INFORMATION FOR ORDERING PARTS

OWNERS NAME. _____

ADDRESS _____

DEALERS NAME _____

ADDRESS _____

SERIAL NUMBER _____

(FOR LOCATION SEE PAGE 6)

DATE PURCHASED _____

Burrows Enterprises Incorporated reserves the right to make changes or add improvements to its products at any time without incurring any obligation to make such changes to products manufactured previously. **Burrows Enterprises Incorporated**, or its dealers, accept no responsibility for variations which may be evident in the actual specifications of its products and the statements and descriptions contained in this publication.

TO THE OWNER

This **Burrows** unit is the finest equipment made and the purpose of this manual is to assist you in realizing the benefits you anticipated when you purchased this unit. Many people have contributed to the production of this product. They all have an interest in its successful performance and we are providing this manual to give you the benefit of the experience we have gained thorough the years of building and testing this equipment. The way you operate and the care you give this unit will have much to do with the successful performance of this unit. This operators manual has been carefully prepared and illustrated to make it as easy as possible for you in the operation of your unit. It will pay you to read the entire manual carefully and familiarize yourself with all operations "**before operating**" the unit. For further information call or write:

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SPECIAL PRECAUTIONS

1. Do not climb on, or stand on the unit when it is turned by the P. T .O. of the tractor. All moving parts are guarded for your protection but foreign objects such as rocks and pieces of iron can be thrown out of the tub as it runs empty of material.
2. Leave all shields and guards on the machine while operating. They are for your protection and removal of them will hinder the operation of the machine. Warranty is void if the machine is operated with any of the shields missing.
3. The **ROTO Grind** is designed to be turned at 1000 R.P.M. with tractor power take off. Do not, under any circumstances, turn the mill over 1250 R.P .M. or serious damage could result to the machine. Do not operate at 540 R.P .M. unless application is approved in writing from a **Burrows Enterprises Inc.** officer. Failure to operate at other R.P.M.'s will void warranty.
4. The **ROTO Grind** is designed to grind roughage materials either loose or baled. The machines are equipped with twine guards and will keep almost all of the sisal twine from wrapping on the rotor shaft if they are adjusted properly, however the shaft should be checked periodically for twine build up and removed if any has accumulated.
Plastic twine should not be ground because it is not only non-digestible, it is more likely to wrap on the rotor shaft. Any plastic twine build up will create heat and melt into a solid lug that can only be removed by burning it off.
5. In loose material, the **ROTO Grind** will operate with more capacity if the size of the bites of material being loaded are small enough to fit into the tub. Do not allow material to hang over the side of the tub. This will cause a bridging effect and will slow up grinding.
6. Do not attempt to grind foreign materials such as rocks, bricks, dirt, sand, and any type metal pieces or products, tree branches over 3" in diameter, glass, and ceramics. These products can damage the machine and voids warranty.

WORK SAFELY –FOLLOW THESE RULES



This safety alert symbol identifies important safety messages in this manual.

It means -ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED !

When you see this symbol, be alert to the possibility of personal injury and read the message that follows

A CAREFUL OPERATOR IS THE BEST INSURANCE AGAINST AN ACCIDENT.

BEFORE OPERATING:

- Review this entire manual.
- Do not wear loose fitting clothing which may catch in moving parts.
- Use extreme care when making adjustments. Shut off machine before making adjustments. Shut off tractor and put key in pocket.
- After servicing, be sure all tools, or parts, or servicing equipment are removed from the machine.
- Keep all safety shields in place.
- Make sure that there is no one near the machine before operating.
- Be sure that the correct power take-off parts are used and that, they are properly secured.
- Be sure the tractor power take-off is disengaged before starting the tractor engine.
- Review all safety decals.
- Securely block unit before working on it.
- When working with flammable materials, be sure you do not smoke.

DURING OPERATION:

- No one other than the operator should ride on the tractor.
- Do not attempt to remove any obstructions while operating the machine. First shut off the tractor and put key in pocket.
- Always -disengage -the -P. T .0., before transporting. Do not open any covers and expose the rotor or belts while they are rotating.
- Shut off the tractor engine and be sure to wait until all moving parts have come to a complete stop before adjusting, cleaning, or lubricating.

- Keep hands, feet, clothing and objects away from moving parts.
- Use extreme care when transporting over uneven or rough terrain.
- Keep all shields in place and in good condition.
- Keep children away from machine in operation.
- Have your fire extinguisher checked at regular intervals and place it in a position on the unit where it is readily accessible without reaching over or around moving parts.
- Crop materials often have an extremely high rate of flammability, which increases the possibility of fires. A decrease in the risk can be attained by, stopping the machine, shutting the tractor off, and removing the key from the ignition and placing it in your pocket. Then proceed to remove accumulations of material from the tractor, and the machine. Now check for any parts that may be over heating.

TRANSPORTING and ON-HIGHWAY OPERATION:

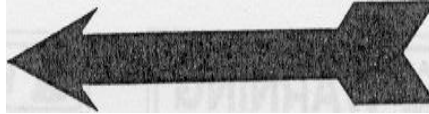
- Check clearance carefully before towing the machine over bridges and into buildings.
- Always place the machine in the transport position.
- For daytime and nighttime, accessory light and devices should be used for adequate warning to operators of other vehicles.
- Comply with your state and local laws governing highway safety, and with regulations when moving machinery on a highway.
- Drive at a reasonable speed to maintain complete control of the machine at all times.
- When transporting on the highway, always use a safety chain between the towing vehicle and the machine.

SAFETY SIGNS

Located at strategic points on this machine are safety signs. These signs warn you of potential danger if the warnings on the decals are not followed.

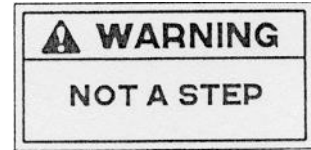


1 -"ROTO GRIND" Part No. 224-09



Part No. 224-05

#2 -"ARROW"



3 -"WARNING-
NOT A STEP"
Part No. 224-114



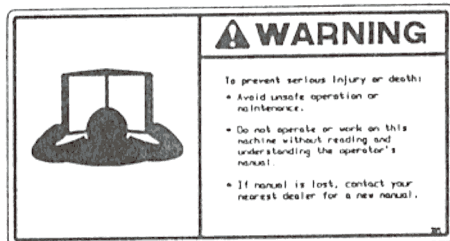
4 -"CAUTION -DO
NOT OPERATE MILL
ABOVE 1200 RPM"
Part No. 224-113



5 -"CAUTION -KEEP ALL
SHIELDS IN PLACE: STOP ENGINE
BEFORE LEAVING OPERATOR'S
POSITION" -Part No. 224-07 LISTS 8
BASIC RULES TO OBSERVED AT
ALL TIMES.



6 -"THROWN OBJECT
HAZARD-KEEPAWAY"
Part No. 224-03



NO.7 -"WARNING -AVOID
UNSAFE OPERATION OR
MAINTENANCE. "
Part No. 224-01



NO.8 -"HIGH PRESSURE
FLUID HAZARD"
Part No. 224-02

9
"MOVING
PART HAZARD"
Part No. 224-04



11
"DANGER-
STAY OFF
MACHINE"
Part No. 224-06



10
"KEEP SHIELD
IN PLACE"
Part No. 224-117



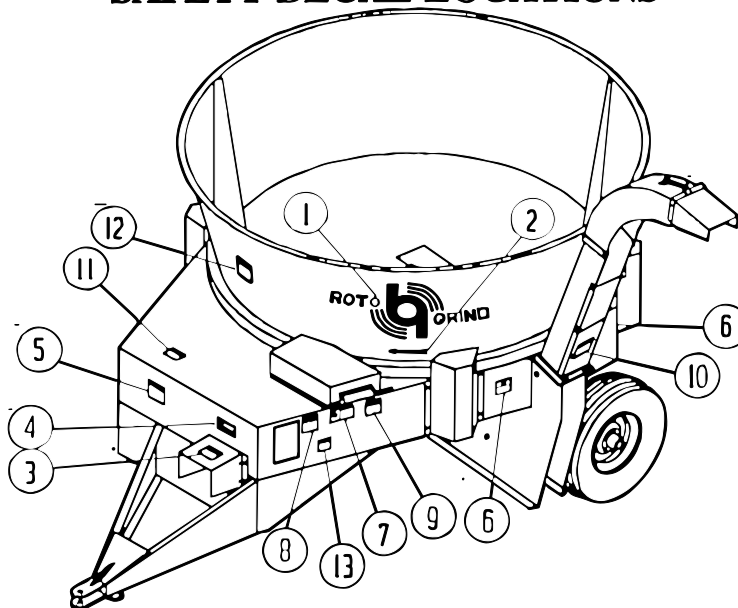
12
"WARNING
INSIDE STEP"
Part No. 224-08



13
"WARNING,
12 VOLTS ONLY"
Part No. 224-10



SAFETY DECAL LOCATIONS



The terms front, rear, right side, and left side are defined as standing behind the machine and facing in the direction of forward travel.

The delivery service form in the rear of the Operators Manual must be completed and returned to the factory in order to establish proper warranty.

GENERAL OPERATION

IMPORTANT: BEFORE USING, WITH PTO DISENGAGED AND TRACTOR ENGINE STOPPED (KEY IN POCKET), INSPECT THE MACHINE AND REMOVE ANY FOREIGN OBJECTS WHICH MAY HAVE FALLEN INTO THE MACHINE DURING TRANSIT.

CAUTION: NEVER PUT YOUR HANDS INSIDE OF THE MACHINE DURING OPERATION, OR PERFORM ANY KIND OF AN ADJUSTMENT, LUBRICATION, OR REPAIR TO THE MACHINE WITHOUT SHUTTING OFF THE TRACTOR IGNITION AND PLACING KEY IN POCKET.

KEEP CHILDREN AWAY FROM MACHINE IN OPERATION

When corresponding with the company, distributor, or dealer regarding this machine, please specify both the model number and serial number.

1. **SHEAR PLATES.** These parts, in the mill housing assembly, control the fineness of grind of the material. They are individually adjustable and for a very fine grind it is recommended that all of the shear plates be positioned as close to the end of the hammers as possible. When coarser grinds are required, move the top plates out first.

EXAMPLE: Top plate all the way out, the next plate, three quarters of the way out; the next one, half way out and the fourth one down from the top, one quarter of the way out. Moving the top plates out before the bottom ones, make the unit pull easier with less shock loads.

2. **ADJUSTABLE RISER.** Can be operated from the rear of the machine with a hand crank. For tough grinding, or low horsepower, adjust the riser up by turning handle clockwise, for easier grinding, higher horsepower and more capacity, lower the riser by turning the crank handle counter clockwise. Range is from 5" to 9" above floor. Adjust in conjunction with the tub speed and how often the governor kicks in and out.

3. **HYDRAULICS.** Tractor hydraulics is used to turn the tub. There is a dial mounted on the left front of the machine that is a pressure compensated flow divider to control the rotation speed of the tub. This is to be used in conjunction with height of risers to match the grinding speed to the tractor horsepower. Try to avoid constant, very slow turning of the tub as this means that most of the oil is going through the pressure side of the flow divider and tends to heat the oil. If the tub must be turned very slowly, check the hydraulics periodically for heat. (Temperature should be kept below 150 degrees F.)

In the hydraulic circuit there is a normally open solenoid operated valve plumbed into the circuit between the two hydraulic lines that run from the flow divider to the hydraulic motor. Being a normally open valve, the oil will take the line of least resistance and will dump through this open valve and back to the tractor instead of going through the hydraulic motor, which rotates the tub. The reason that the tub will always turn backwards when the direction of the flow is reversed in the tractor is because there is a check valve installed on the "out" side of this solenoid valve. The solenoid valve only works on the one direction of flow of oil and you would not be able to ever turn the tub backwards without the check valve installed.

NOTE: Continuous grinding in the reverse tub rotation is not recommended. The flow divider is also designed to work in one direction of flow and wants to let the tub turn at maximum RPM in the reverse direction.

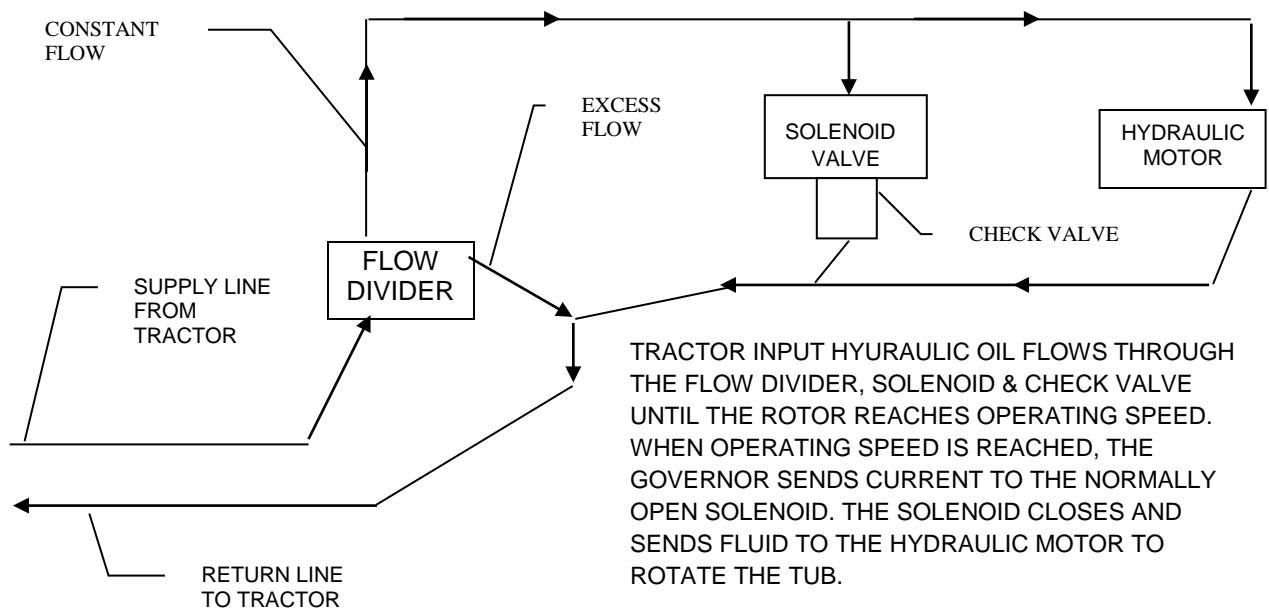
The function of the governor is to send an 12 volt current to the solenoid valve when the desired PTO RPM is reached. This will close the valve and force the oil flow to go through the hydraulic motor and rotate the tub in the proper clockwise rotation. When a heavy load lowers the PTO RPM, the governor will cut off the 12 volt current to the valve and allow the valve to return to its normal open position which lets the oil go through it instead of the hydraulic motor. This stops the tub rotation and allows the power unit to return to normal speed at which time the governor will re-introduce the 12 volt current to the valve to close it and the oil will again go through the hydraulic motor to start the tub rotation and resume grinding.

Since the introduction of the " ALFALFA HAMMERS" which are designed to grind good quality alfalfa at 540 RPM PTO speed instead of the normal 1000 RPM, it is necessary to reset the governor to start and stop the tub at the lower RPM. In order to make the governor work at the 540 RPM settings it is necessary to install a smaller sheave on the governor to speed it up, or reset the controls on the AEC governor. There are some cases where the customer would like to be able to grind at both 540 RPM for alfalfa and at 1000 RPM for other feeds. This requires two front halves of the PTO to be able to switch speeds. The installation of all alfalfa hammers in the machine, produces excessive" blow" at 1000 RPM. We recommend either half alfalfa hammers and half standard hammers or a set of pins to tie the standard hammers to the lead hammer. The reason that the hammers must be pinned together is that at the lower 540 RPM, the lead hammer is not heavy enough to stay extended to tear the material off of the bale. Pinning them together adds the weight of the standard hammers plus the pin to the weight momentum of the lead hammer which will keep it extended at the lower RPM's, and eliminate excess wear on the hammer pin.

NOTE: CAUTION:

540 RPM operation is not recommended for tough grass hay grinding. It will rock the hammers back to the point where the hammers will destroy the mill itself, and void your warranty.

ROTO GRIND HYDRAULIC SCHEMATIC



4. **POWER TAKE OFF.** The drive line is at a slight angle to the machine. Before starting the grinder, move the front of the tractor to the right to straighten it. If it is not straight at the tractor joint it will cause vibration and serious damage could result.

Always start the machine and check for operation of all parts prior to each day of operation and after transporting. Materials and dirt can pack into the mill while transporting or over a few days when it is windy. To prevent this from "locking" the mill you should step into the tub and roll the mill backwards before you connect the machine to the tractor. Then, after the machine has been properly connected to the tractor, set the tractor at low RPM and slowly engage the PTO clutch. If the mill is still "locked", disengage the *PTO*, shut off the tractor, remove key and place in pocket, or in absence of key (older model tractors), disconnect the PTO shaft from the tractor. Now step inside of the tub and clean out the mill.

After you have finished grinding and want to shut the machine down, reduce the tractor RPM slowly to an idle and wait for the mill to slow down before disengaging the *PTO*. Some tractors have a brake on the *PTO* when disengaged and if disengaged at high RPM the weight of the rotor may damage the PTO in your tractor

Set your draw bar to the correct operating length of 16" from the end of the *PTO* shaft on your tractor to the center of the hole on your draw bar. Make sure that the square shaft is at least 8" into the square shaft tube while in operation. If you are not engaged at least 8", you can cause damage to the PTO, and voids the warranty.

DO NOT MOVE THE MACHINE WHILE THE PTO IS IN MOTION.
SHORT TURNS WHILE THE ROTOR IS TURNING MAY DAMAGE THE PTO

5. **DISCHARGE SPOUT.** The discharge spout can be mounted to direct ground material to the side of the machine or the back of the machine. The standard spout will allow you to build a pile about 10' high. There are 2' spout extensions available and a maximum of two can be added to the standard spout. Longer spout usage requires fairly dry material or plugging may occur. An adjustable swivel spout is available as an option. Spout extensions should not be added if using the swivel.

6. **EAR CORN HOOD.** This attachment is designed for ear corn, bark, or wood chips to be loaded with a front end loader. It shields the mill to stop the material from being thrown out of the tub. If the grind is too fine when the hood is installed, move the bottom adjustable shear plates in the mill out. **DO NOT** try to reposition the hood.

Caution should be used in loading ear corn. Do not load the machine faster than it can grind. Ear corn turns very hard in the tub and as a result, you should not load the corn more than three feet deep. Over loading will cause excessive hydraulic pressure and tend to heat the hydraulic oil.

7. **GRAIN HOOD.** The grain hood is designed for loading with an auger. It bolts down directly over the hammer mill inside the tub. It has four more shear plates that allow you to grind extra fine. **"IMPORTANT!"** Be sure to disconnect the hydraulic hoses that turn the tub. Tub rotation is not required with this attachment and serious damage could result if it was accidentally turned with the grain hood installed.

8. **DISCHARGE CONTROL.** (Optional on all models after serial number 1267026.) Allows you to shut down the amount of air coming out of the spout.

MAINTENANCE

CAUTION: Never put your hands inside of the machine during operation, or perform any kind of an adjustment, lubrication, or repair to the machine without shutting off the tractor ignition and placing key in pocket. Keep children away from machine in operation.

1. **LUBRICATION.** The three bearings on the driveline and the PTO should be greased every eight to ten hours of operation. Be careful not to over grease as this pushes out the seals and allows dirt to enter the bearing shortening the bearing life. The tub roller bearings should be greased once a season or every one hundred hours, whichever occurs first.

a) Check the bearings on the driveline every time the unit is greased. If one of these bearings go out and the machine is operated, it may cause the drive line to break, causing serious damage to the machine.

2. **HAMMER REPLACEMENT.** The hammer pins have a flat side on one end to fit a "D" hole in the mill. When turning the hammers, remove the snap ring and drive the pin back out of the mill through the holes provided in the mill housing. When the hammers have been turned, replace the snap ring.

3. If for any reason the mill ever needs to be removed, it is attached to the driveline by a 5/8" shear bolt. Remove the shear bolt and apply rust remover. Loosen the lock collar on the back bearing and unbolt the front two bearings. Lock the drive line with the PTO, apply forward pressure on the driveline and turn the mill on the shaft. It is a slip fit and should come off without too much difficulty.

4. The alignment of the sprocket to the drive chain should be checked periodically. If mis-alignment occurs, remove the tub roller shields and adjust the tub rollers for proper height. Mis-alignment will cause excessive wear in the sprocket and chain.

Serial #'s 1368027 & Higher

5. **GOVERNOR ADJUSTMENT ON A.E.C. LS-1 GOVERNORS:** This unit has a set of magnets attached to the drive shaft, and a speed sensor set next to the magnets. As the drive shaft turns, the sensor delivers the RPM to the LS-1 governor.

A. **SPEED ADJUSTMENT: High RPM Setting:** Start engine and run up to desired high speed RPM setting as shown on the engine tachometer. On the LS-3, turn the adjusting screw "HIGH RPM" until its green LED just comes on. **Low RPM Setting:** Run the engine speed down to the low RPM speed setting where unloading is desired. Turn the adjusting screw "LOW RPM" until its red LED just comes on. At this time the green LED marked "relay" will turn off indicating the relay has de-energized, and the NO contacts have opened unloading the engine. The relay will remain de-energized until the engine high speed setting has been regained.

The governor will work only in the clockwise rotation of the tub. See which way turns the tub backwards and then lock your hydraulic lever in the opposite position when grinding. **NOTE:** you cannot get the tub to turn the correct way unless your RPM's are above 1000 on the PTO, if you do not have a complete 12 volt circuit, or if your governor is not adjusted correctly.

LOAD SENSING SWITCH -Model LS-1 FOR DIESEL POWERED SELF CONTAINED ROTO GRIND

Function. Load Sensing switch LS-1 senses RPM from an engine tachometer within a frequency range of 3,900 to 5,900 Hertz. A 10 amp rated SPDT relay is energized at high RPM speed and de-energizes whenever low speed is sensed, and remains de-energized until the high speed setting is regained. This feature is useful, for example, in removing a load from engine, preventing a stall or severe slugging condition, or indicating a low speed engine condition.

Power Supply. The device is shipped for use with a power supply of from 11.8 to 28 VDC. Correct power supply and polarity is indicated by a slow flash on the "POWER/INPUT" green LED light.

Inputs. Connect a twisted pair of minimum 18 AWG to the two tachometer (or signal) inputs labeled "A" and "B" to the engine tachometer sensor input terminals or alternator (leave the original wires in place). Note the engine type, and refer to the Engine List on the reverse of the attached technical sheet. This list shows engine types, RPM generally selected and used, corresponding tachometer inputs in frequency (Hz). AEC offers several models in addition to the LS-1 to match any engine frequency. Call 1-800-932-1221 with the frequency range required for further information.

Installation. Connect machine control power to the relay common terminal. Connect the normally open terminal to the solenoid or other device to be de-energized under conditions of low RPM. Connect the normally closed set of contacts to the alarm light or device to indicate engine low RPM if this feature is to be used.

RPM Setting. The LS switch is now ready for speed setting as follows:

HIGH RPM SETTING: Start engine and run up to desired high speed RPM setting as shown in the engine tachometer. Turn the "HIGH RPM" adjusting screw **UNTIL IT'S GREEN LED just comes on.** (Counter Clockwise). You may have to turn the low RPM dial counter clockwise a little to make the red light go out.

LOW RPM SETTING: run the engine speed down to the low RPM speed setting where unloading is desired. Turn the "LOW RPM" ADJUSTING SCREW UNTIL **IT'S RED LED just comes on.** At this time the green LED marked "relay" will turn off indicating the relay has de-energized, and the NO contacts have opened unloading the engine. The relay will remain de-energized until the engine high speed setting has been regained.



ROTO GRIND PTO UNITS - Use optional speed sensor

Optional Speed Sensor. If you are using the AEC Speed Sensor kit installed on a shaft or pulley please refer to the information sheet supplied with that kit and be sure to install the supplied jumper with that kit across terminals "C" and "D" on the LS-1.

Correct tachometer input is indicated by the pulsations of the "POWER/INPUT" green LED light, which increase with RPM.

With PTO units, make sure to attach electrical clips to 12 volts on the tractor (red clip to positive, black clip to negative).

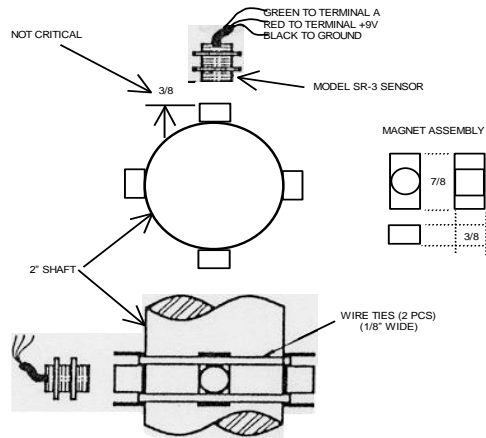
COARSE AND FINE THREADS

GRADE 5 THREE RADIAL DASHES	GRADE 8 SIX RADIAL DASHES
	

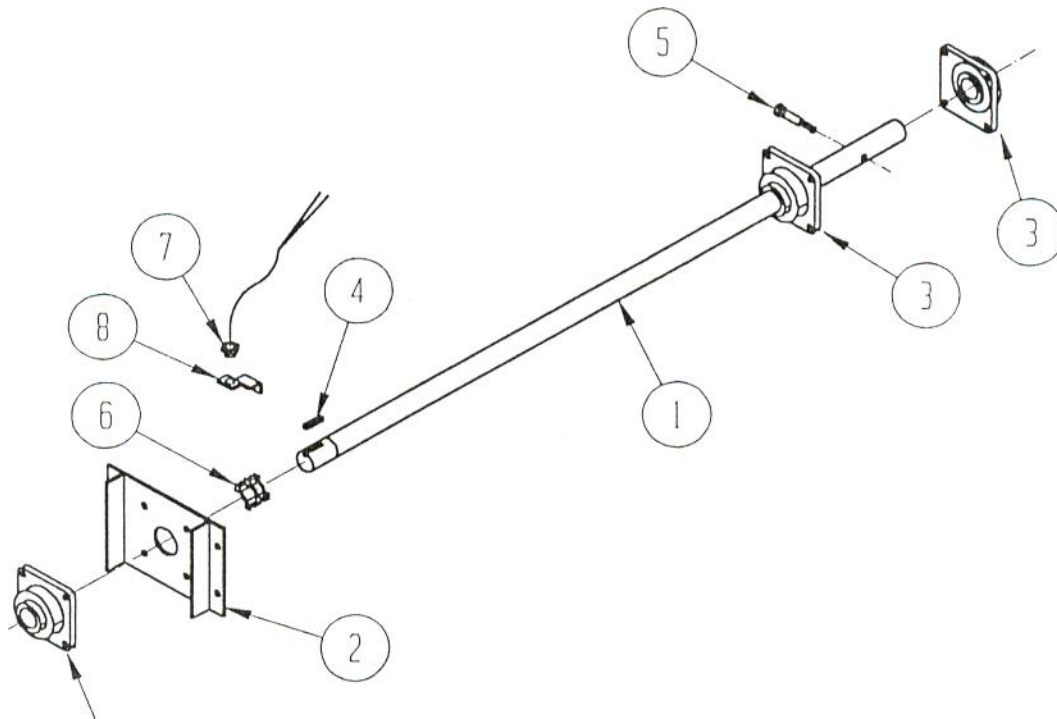
A.E.C. MODEL LS-1 (1399097+)



MAGNET ASSEMBLY AND TRANSDUCER INSTALLATION

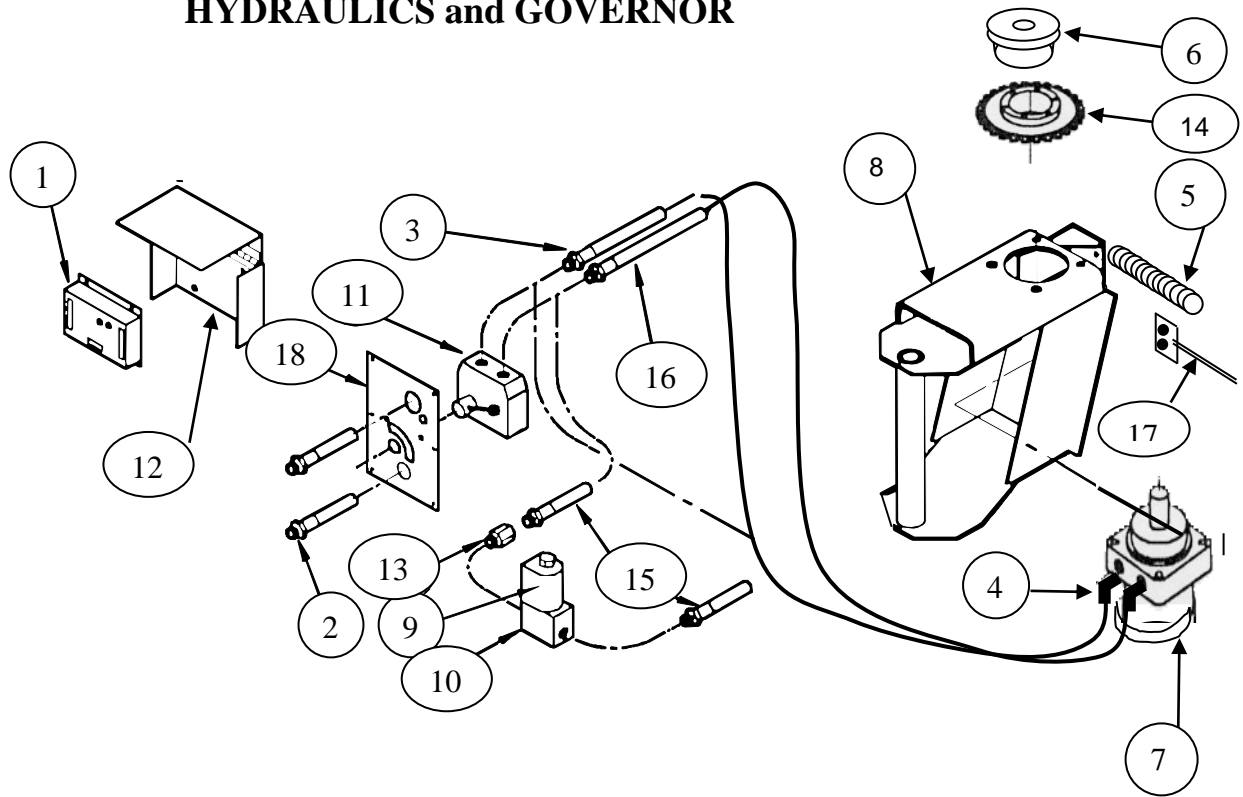


MODEL 760 MAIN DRIVE ASSEMBLY



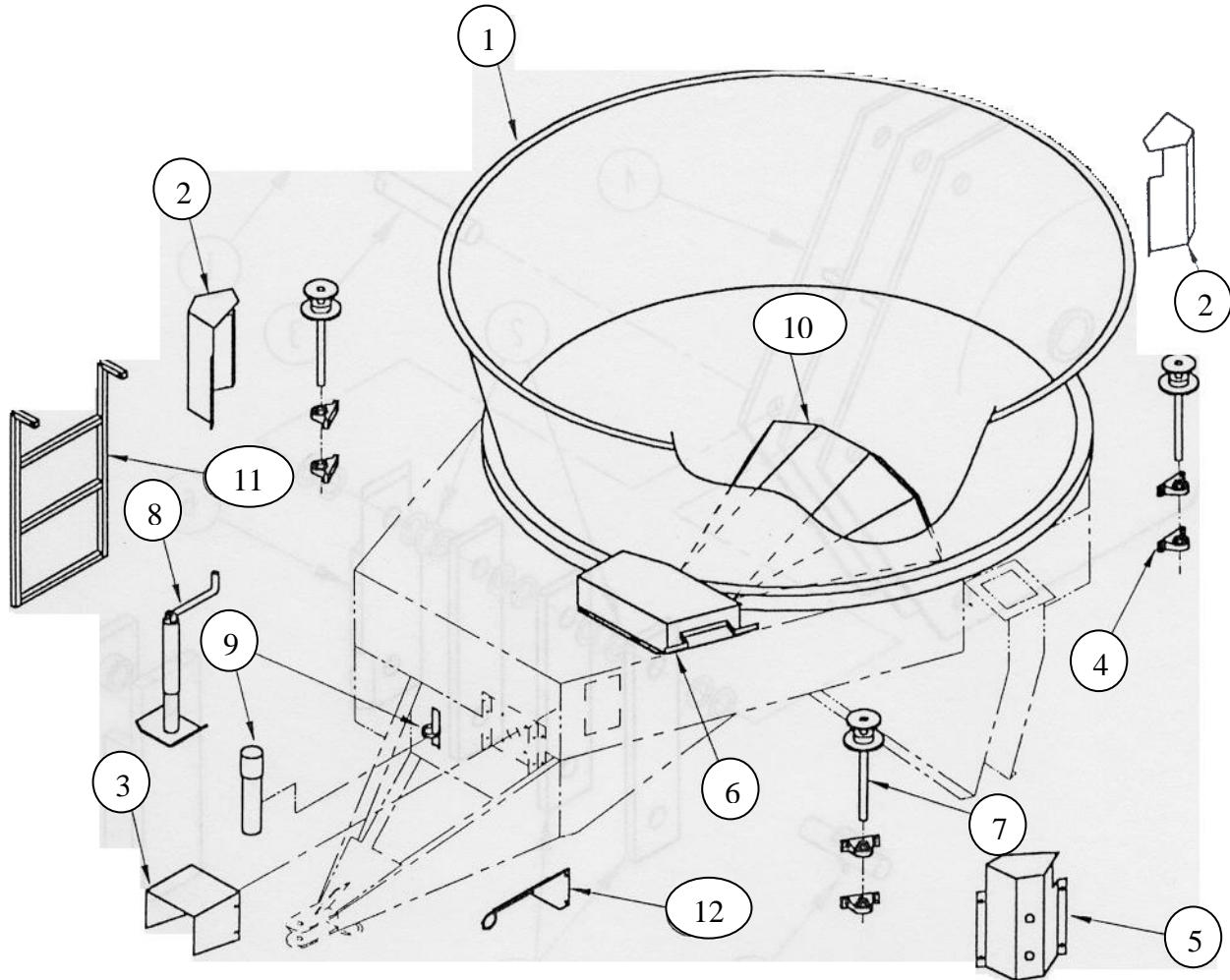
KEY	PART #	DESCRIPTION
1	682-724	DRIVE SHAFT
2	590-117	BEARING MOUNTING PLATE
3	072-445	2" FLANGE BEARING
4	338-028	3/8"X 2-1/2" KEY
5	672-346	5/8"X 4-1/2" GRADE 8 SHEAR BOLT
	552-024	5/8" LOCK NUT
6	765-104	A.E.C. MAGNET ASSEMBLY
7	765-100	A.E.C. SENSOR (for govenor)
8	104-12	SENSOR BRACKET

HYDRAULICS and GOVERNOR



KEY	PART #	DESCRIPTION
1	765-000	GOVERNOR (A.E.C. Sensor)
2	356-084	1/2"X 96" HYDRAULIC HOSE
3	356-082	1/2"X 30" HYDRAULIC HOSE
4	276-127	90 DEGREE COUPLING UNION
5	738-038	TIGHTENER SPRING
6	126-127	QD HUB
7	540-034	HYDRAULIC MOTOR
8	544-025	MOTOR MOUNT ASSEMBLY
9	183-001	COIL, SOLENOID VALVE
10	826-034	SOLENOID VALVE
11	826-033	FLOW DIVIDER
12	694-02	GOVERNOR COVER BOX
13	826-035	CHECK VALVE
14	740-269	#80 SERIES SPROCKET
15	356-081	1/2"X 16" HYDRAULIC HOSE
16	356-083	1/2"X 36" HYDRAULIC HOSE
17	790-013	TIGHTENER BOLT
18	210-075	COVER PLATE

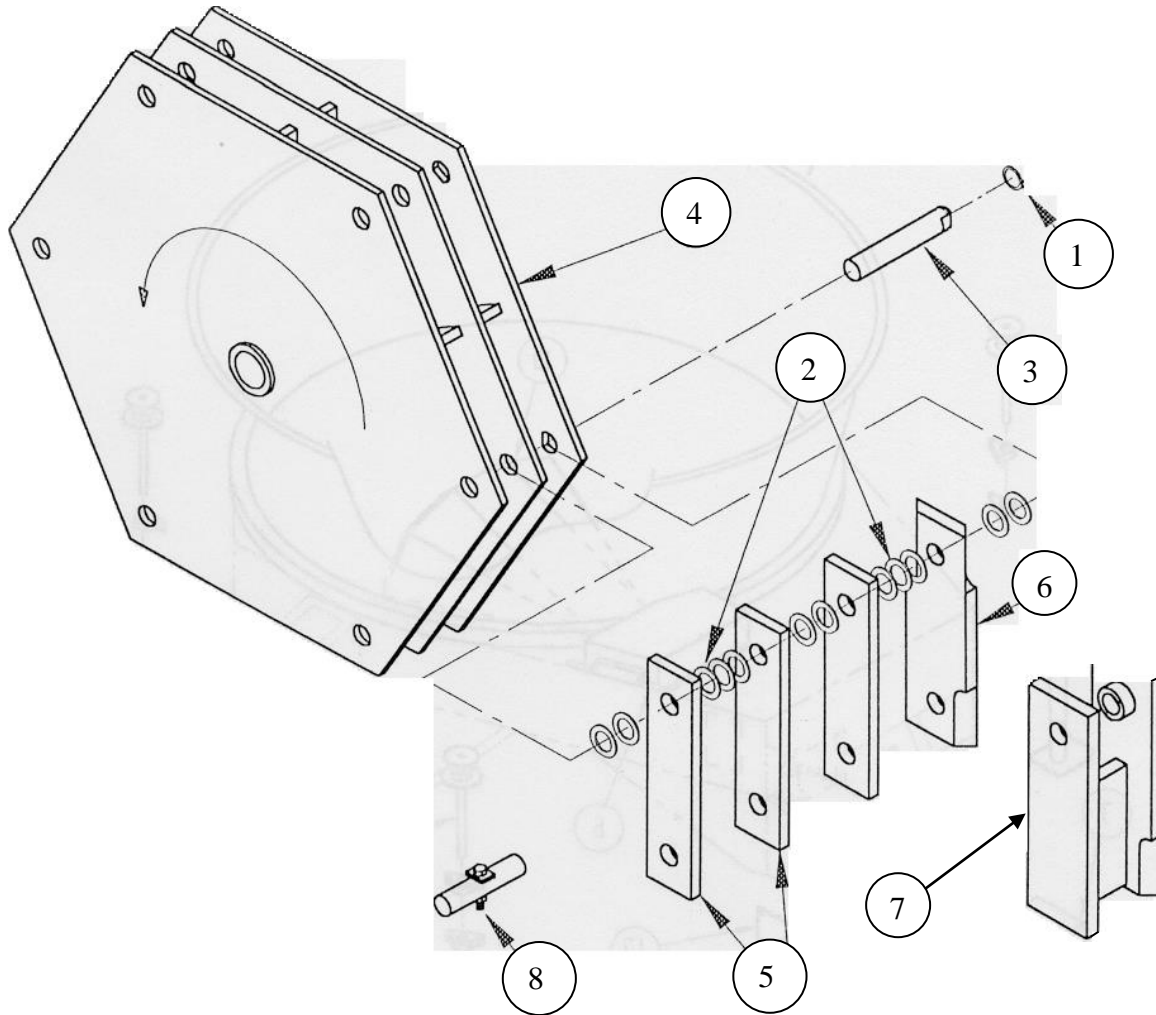
TUB and SHIELDS



TUB and SHIELDS

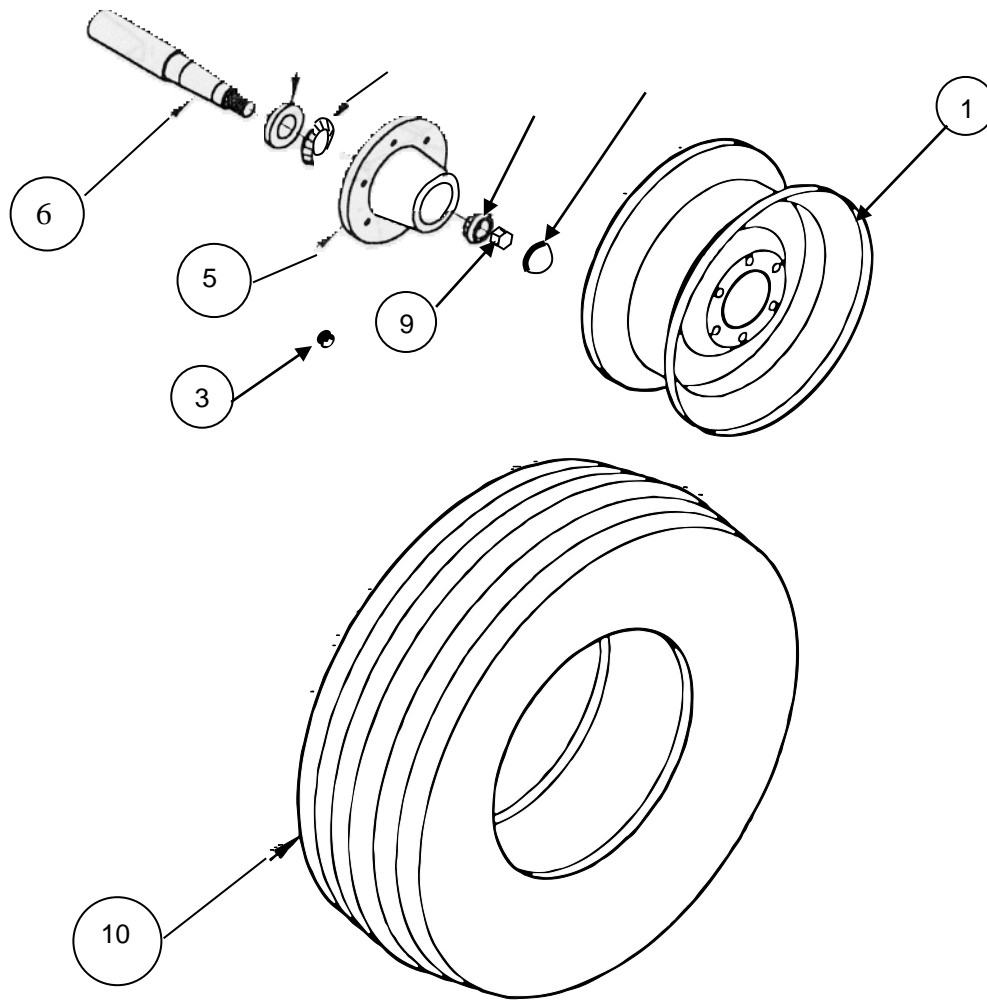
KEY	PART #	DESCRIPTION
1	815-001	TUB WELDMENT (51" deep)
Optional	815-04	TUB WELDMENT (36" deep)
2	694-363	TUB ROLLER SHIELD (R.F.&L.R.)
3	694-380	PTO SHIELD
4	072-458	1-3/16" PILLOW BLOCK BEARING
5	694-364	TUB ROLLER SHIELD (L.F. & R.R)
6	694-361	HYDRAULIC MOTOR SHIELD
7	682-654	TUB ROLLER WELDMENT
	184-042	1-3/16" LOCK COLLAR
8	748-011	HITCH JACK
9	350-05	LITERATURE CANNISTER
	104-08	CANNISTER BRACKET
10	348-021	STABILIZER HOOD
11	389-01	LADDER
12	150-008	HOSE CARRIER

MODEL 760 ROTOR ASSEMBLY



KEY	PART #	DESCRIPTION
1	642-055	SNAP RING
2	724-214	HAMMER SPACER (10 gauge)
	126-058	THIN HAMMER SPACER
3	580-207	HAMMER PIN
4	656-068	ROTOR WELDMENT
5	328-001H	STANDARD HAMMER (hard faced)
6	328-003H	LEAD HAMMER (hard faced & case hardened)
7 Optional	328-006	ALFALFA HAMMER
8 Optional	580-101	HAMMER LOCKING PIN ASSEMBLY

WHEEL AND HUB ASSEMBLY

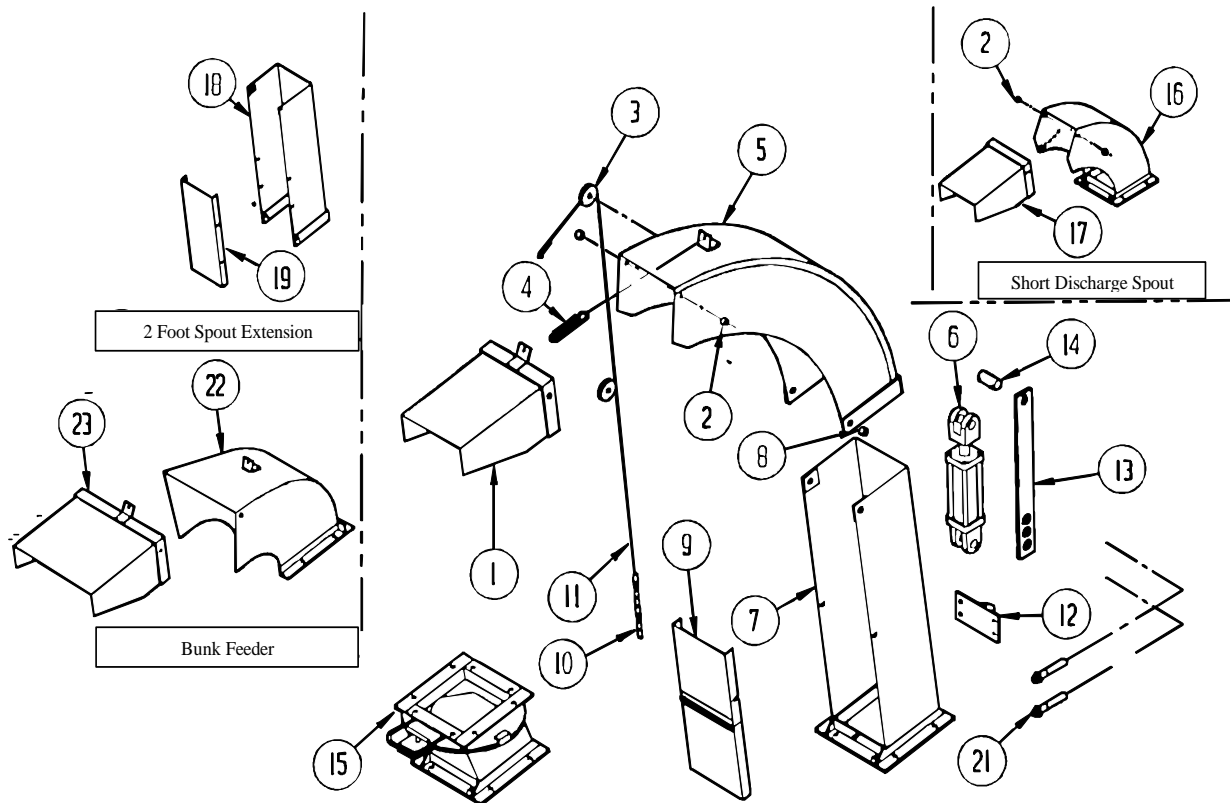


WHEEL and HUB ASSEMBLY

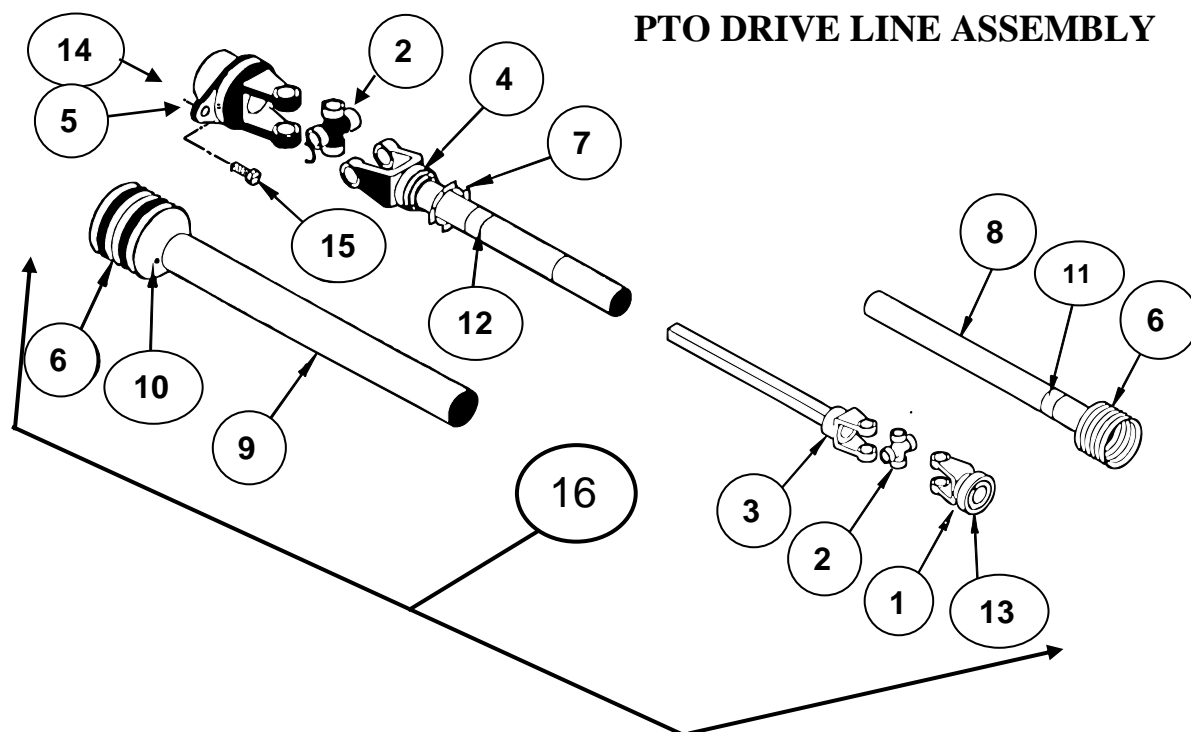
KEY	PART #	DESCRIPTION
1	640-02	WHEEL RIM (15"x 6" 6 hole)
2	910-259	OUTER WHEEL BEARING
3	552-06	LUG NUT (1/2"x 20 UNF)
4	909-905	DUST CAP, HUB
5	280-551	HUB, 6 BOLT W/ CUPS
6	280-720	SPINDLE, WHEEL
7	910-264	CONE, INNER BEARING
8	906-284	SEAL, GREASE
9	552-030	CASTLE NUT, 7/8"x 14 UNF
10	800-020	RADIAL TIRE, P235/70R15

STANDARD SPOUT ASSEMBLY

(Including Extension, Short Discharge, & Bunk Feeder Spout)

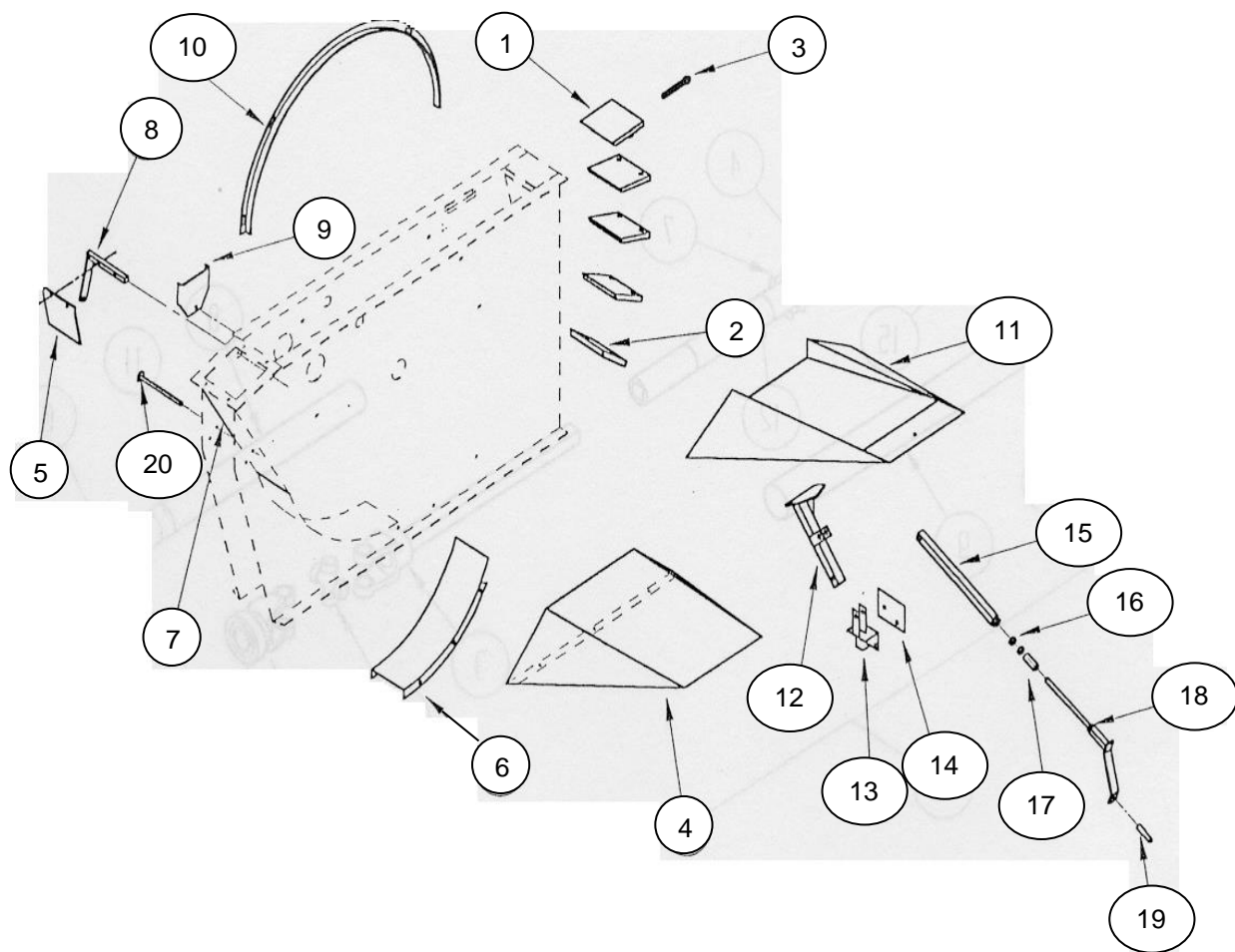


KEY	PART #	DESCRIPTION
1	348-02	DEFLECTOR HOOD
2	126-121	BUSHING
3	706-01	PULLEY
4	738-01	SPRING
5	348-01	UPPER HOOD
6	222-02	CYLINDER, HYDRAULIC 2" x 4' STROKE
7	734-06	SPOUT, LOWER HALF
8	126-121	BUSHING
9	210-04	CHUTE COVER
10	136-01	COIL CHAIN, 1/4 x 12'
11	130-01	CABLE, 1/8 x 60
12	222-03	CYLINDER EAR
13	036-04	CYLINDER STRAP
14	580-01	CYLINDER STRAP PIN
15	734-050	SPOUT SWIVEL ASSEMBLY
16	734-11	SHORT DISCHARGE
	734-07H	SHORT DISCHARGE with HYD ATTACHMENTS
17	348-11	DEFLECTOR HOOD
18	257-02	2 ft SPOUT EXTENSION
19	210-081	EXTENSION COVER
20	330-014	EXTENSION HANDLE EXTENSION
21	356-080	1/4"x 16' HYDRAULIC HOSE
22	350-001	BUNK FEEDER SPOUT
23	348-12	BUNK FEEDER DEFLECTOR HOOD

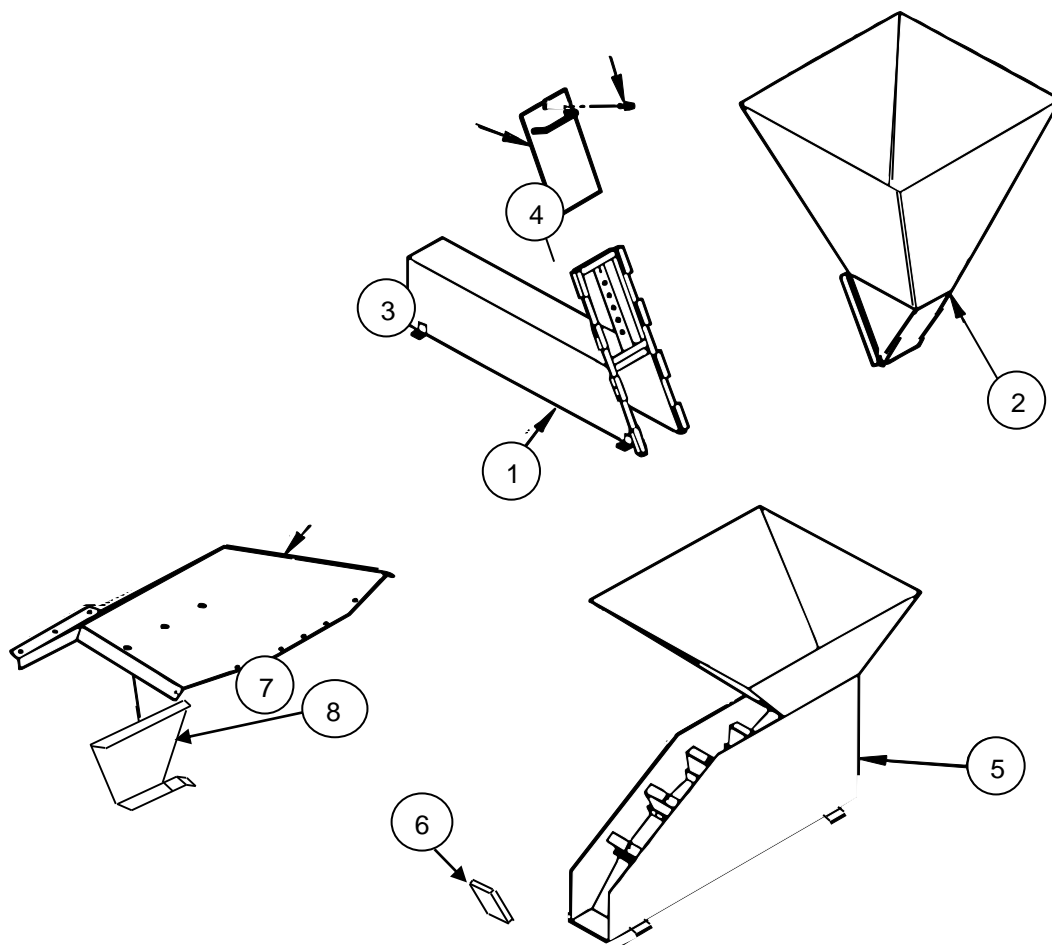


PTO DRIVE LINE ASSEMBLY
Walterscheid brand from S.N. 1400097 & higher
SHEAR BOLT YOKE

KEY	PART #	DESCRIPTION
1	362430	SLIDE YOKE, TRACTOR, 1 3/8 - 21 SPLINED
	362428	SLIDE YOKE, TRACTOR, 1 3/8 - 6 SPLINED
	362434	SLIDE YOKE, TRACTOR, 1 3/4 - 20 SPLINED
2	312209	CROSS & BEARING KIT
3	391294	YOKE & BAR WLD., INBOARD
4	391295	YOKE, SLEEVE & TUBE, WLD., INBOARD
5	391809	CLUTCH, SHEAR BOLT
6	365387	CONE, SHIELD 7 RIB
7	87276	BEARING RING, SC25/I
8	391434	SHIELD TUBE, OUTER
9	391433	SHIELD TUBE, INNER
10	365305	SCREW
11	383333	DECAL, OUTER
12	383334	DECAL, INNER
13	364915	REPAIR KIT, COLLAR
14	10490	LOCK NUT, M12
15	20466	BOLT, M12 x 60 - 8.8
16	391296	COMPLETE W2500 SERIES PTO W/ 1 3/8 - 21 SPLINE TRACTOR SLIDE YOKE & 1 15/16 IMPLEMENT SHEAR YOKE.



KEY	PART #	DESCRIPTION
1	590-092	SHEAR PLATE, MAIN (No Acme Bolt)
2	590-155	SHEAR PLATE, STANDARD
3	096-121	ACME BOLT, SHEAR PLATE (590-092)
4	348-015	LOW RISER - 6" HIGH
	348-015	HIGH RISER - 8" HIGH
	348-017	MEDIUM RISER - 7" HIGH
5	234-008	DAMPER DOOR
6	234-003	REPLACABLE BOTTOM SECTION
7	234-04	DOOR, LOWER DISCHARGE, HINGED
8	036-213	PIVOT ARM WELDMENT
9	223-004	AIR DAMPER DOOR
10	322-006	TWINE GUARD
11	348-020	ADJUSTABLE RISER
12	036-05	SUPPORT ARM
13	104-11	MOUNTING BRACKET
14	590-04	BACKING PLATE
15	036-06	ADJUSTING ARM
16	360-03	SET COLLAR
17	724-03	ADJUSTABLE RISER HANDLE BUSHING
18	320-03	ADJUSTING HANDLE
19	400-308	HANDLE GRIP
20	580-04	LOWER DOOR PIN

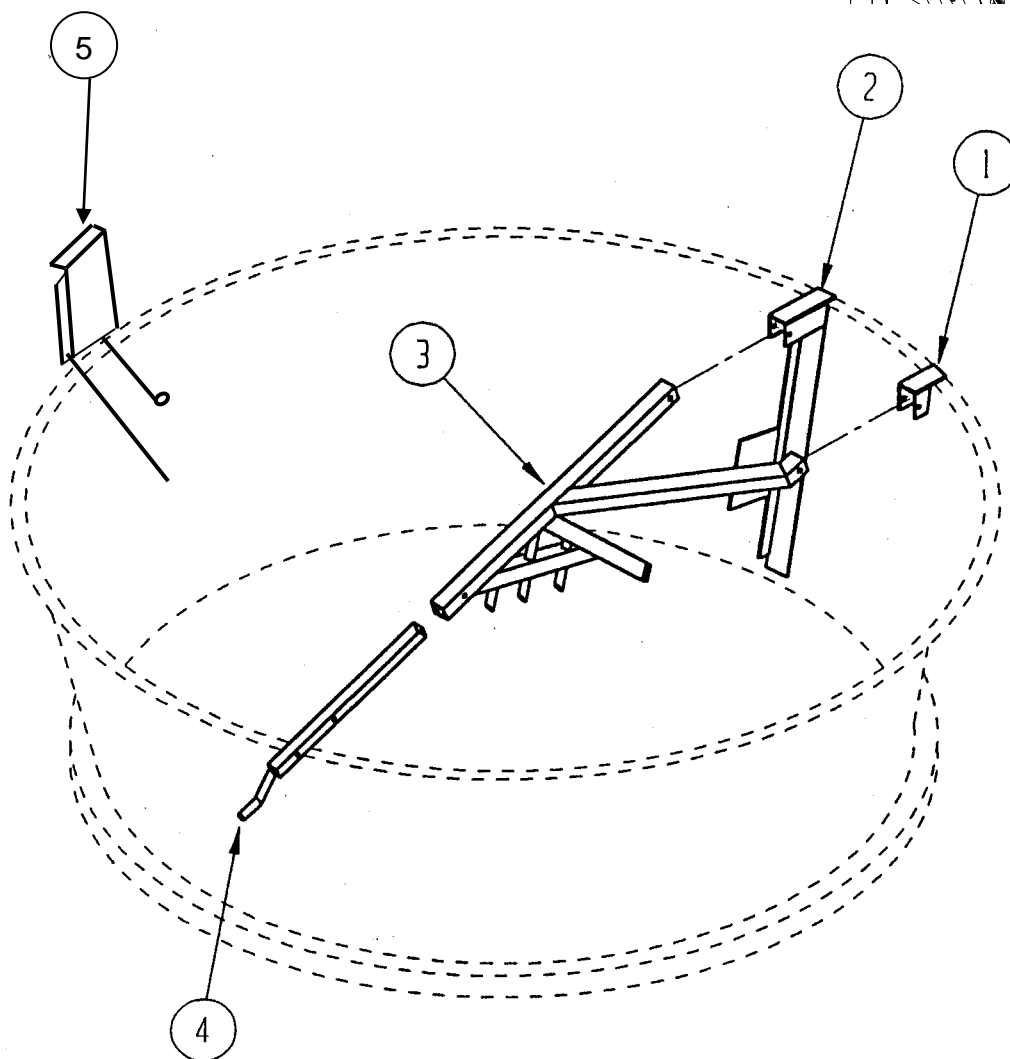
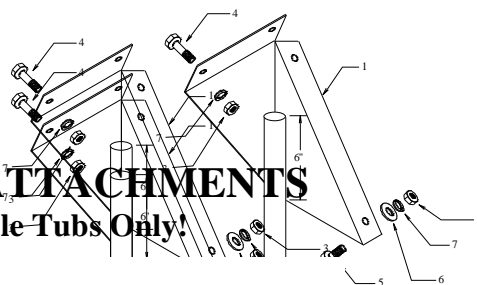


CORN AND GRAIN ATTACHMENT

KEY	PART #	DESCRIPTION
1	348-05	SHELL CORN HOOD
2	348-06	FILL CHUTE
3	234-03	GATE
4	580-02	GATE PIN
5	348-019	GRAIN HOOD
6	590-155	SHEAR PLATE
7	215-260	EAR CORN SHIELD
8	215-240	SHIELD SUPPORT

SILAGE AND ROUND BALE TURNER ATTACHMENTS

NOTE: Silage Bale Turner Mounts In Low Profile Tubs Only!



KEY	PART #	DESCRIPTION
1	104-05	SHORT PIVOT BRACKET
2	104-04	LONG PIVOT BRACKET
3	036-02	BALE TURNER ARM
4	036-03	ARM EXTENSION
5	014-001	BIG ROUND BALE ASSIST

DELIVERY SERVICE FOR ROTO GRIND

This form must be filled out by the dealer and signed by both the dealer and the customer **at** the time of delivery.

Delivered to: _____
R.R. No. _____ Box No. _____
Town _____ Phone _____
State _____ Zip _____

Dealer _____
Town _____ State _____
Serial _____
Product _____

I have thoroughly instructed the buyer on the above described equipment which review included the Operator's Manual content, equipment care, adjustments, and safe operation. The warranty policy provisions were also explained and reviewed.

DEALER'S SIGNATURE _____

Above equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation, and applicable warranty policy.

DATE _____ **OWNERS SIGNATURE** _____

CUSTOMER COPY

DELIVERY SERVICE FOR ROTO GRIND

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Delivered to: _____
R.R. No. _____ Box No. _____
Town _____ Phone _____
State _____ Zip _____

Dealer _____
Town _____ State _____
Serial _____
Product _____

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DEALER'S SIGNATURE _____

Above equipment and Operator's Manual have been received by me and I have been thoroughly instructed as to care, adjustments, safe operation, and applicable warranty policy.

DATE _____ **OWNERS SIGNATURE** _____

MANUFACTURER COPY

DELIVERY SERVICE FOR ROTO GRIND

This form must be filled out by the dealer and signed by both the dealer and the customer **at** the time of delivery.

Delivered to: _____
R.R. No. _____ Box No. _____
Town _____ Phone _____
State _____ Zip _____

Dealer _____
Town _____ State _____
Serial _____
Product _____

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DEALER'S SIGNATURE _____

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DATE _____ **OWNERS SIGNATURE** _____

DEALER COPY