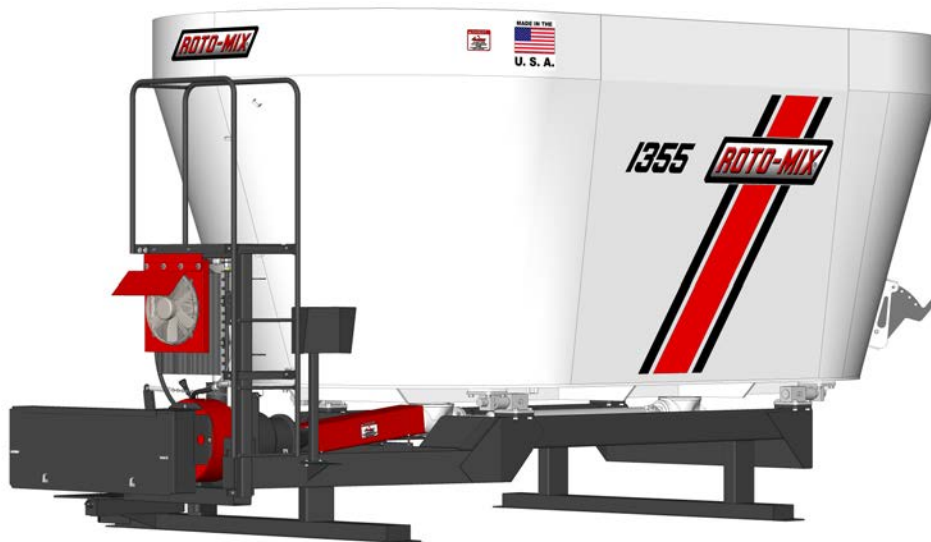




1105 - 1355 - 1505
STATIONARY VERTICAL FEED MIXER
ELECTRIC - AUTOMATIC DRIVE
& HYDRAULIC DRIVE



OPERATION AND PARTS MANUAL

ROTO-MIX LLC
P.O. BOX 1724
2205 E. Wyatt Earp Blvd.
Dodge City, Kansas 67801
(620) 225-1142

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SERIAL NUMBER _____

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TABLE OF CONTENTS

	PAGE NO.
WARRANTY	4
SCALES WARRANTY & SERVICE POLICY	5
INTRODUCTION.....	6
OPERATOR QUALIFICATIONS	7
SAFETY	8-14
PRE-OPERATION	15
MAINTENANCE.....	15
LOADING INSTRUCTIONS & PRECAUTIONS	16
AUTOMATIC TRANSMISSION SERVICE & OPERATION.....	17
LUBRICATION	18-19
V-BELT TENSIONING INSTRUCTIONS	20-21
TROUBLE SHOOTING.....	22
FEATURES & SPECIFICATIONS	23
DIMENSIONS	24-25
REPAIR PARTS CONTENTS PAGE.....	27
REPAIR PARTS TABLE OF CONTENTS	27

Revision Date	Changes
05/2023	Add OHLA gear oil details on page 19.



Limited Warranty Statement

ROTO-MIX LLC warrants to the original purchaser all products manufactured by it to be free from defects in material and workmanship under normal use and service.

ROTO-MIX's obligation under this warranty is limited to repairing or replacing, as the company may elect, free of charge and without charge for installation, at the place of business of a dealer or distributor authorized to handle the equipment covered by this warranty or at a ROTO-MIX facility, any parts that prove, in the company's judgment, to be defective in material or workmanship within one (1) year after delivery to the original purchaser, and still owned by the original purchaser. This warranty shall in no way make ROTO-MIX liable to anyone for personal injuries or damages, loss of time, or expense of any kind either direct or indirect resulting from part failure or defect. This warranty is subject to acts of God, fire and existing conditions of supply and demand, or production, or ability or inability to deliver, or for any other valid reason beyond the reasonable control of ROTO-MIX, to obtain materials, manufactured replacement parts, or make delivery thereof. No distributor, dealer, agent, or ROTO-MIX employee (other than the CEO or President in writing) is authorized to extend any other or further express or implied warranty or incur any additional obligation on ROTO-MIX's behalf in connection with the sale of this product.

If ROTO-MIX, or its duly authorized representative, shall find that such returned part or parts are defective and such defects, or defect, are included in and covered by said warranty, then such defective part or parts shall promptly be replaced without charge to the purchaser, F.O.B. the ROTO-MIX plant.

Product Registration - It is a condition of this warranty that the original purchaser must fill out the warranty card furnished by ROTO-MIX and that it be returned to ROTO-MIX within 10 days of purchase and be recorded in ROTO-MIX's owner file for this warranty to be valid. In the event an owner's card is not on file at the ROTO-MIX office, the warranty period will extend only from date equipment was picked up or shipped from the ROTO-MIX plant.

Maintenance - It is the customer's responsibility to maintain their equipment in accordance with the instructions provided in the Operator's Manual. ROTO-MIX recommends that you keep records and receipts; you may be asked to prove that maintenance instructions have been followed.

Operation - It is the customer's responsibility to operate the equipment only for the purpose for which it was designed and in accordance with all safety and operational recommendations contained in the Operators Manual. If a defect in materials or workmanship occurs, it is the customer's responsibility to cease operating the equipment until authorized repairs are made. **Damage, which occurs from continued operation, may not be covered by this warranty.**

What this Warranty Covers

This warranty covers failures caused by defects in materials or workmanship only.

This Warranty does not cover failures caused by:

- Improper operation
- Natural calamities
- Unauthorized modifications
- Unauthorized repairs
- Use of Non ROTO-MIX parts
- Neglected maintenance
- The use of PTO Shaft Adaptors
- Usage contrary to the intended purpose of the product

Warranty continues on the next page.

Limited Warranty Statement continued

This Warranty does not cover replacement of Wear or Maintenance Items including, but not limited to.

- | | | | |
|--------------|----------|-------------|----------|
| - Lubricants | - Tires | - Chains | - Blades |
| - Filters | - Augers | - Idlers | - Belts |
| - Hoses | - Wipers | - Batteries | |

This Warranty does not cover:

- Pickup and delivery of the equipment
- Service Calls or Travel Time to and from sites
- Rental of replacement equipment during repair period
- Products that have been declared a total loss and subsequently salvaged
- Overtime labor charges
- ROTO-MIX is not responsible and will not be liable for damage caused to persons or property, commercial loss, loss of time or production, loss of use by reason of the installation or use of ROTO-MIX products or their mechanical failure.

Right to Make Changes

ROTO-MIX reserves the right to make any changes to a ROTO-MIX product at any time without incurring any obligation with respect to any product previously ordered, sold or shipped, with or without notice.

Parts Warranty

ROTO-MIX warrants replacement parts against defects in materials or workmanship for a period of 90 days or the remainder of the product warranty, whichever is longer. Remedy for defective replacement parts for units that are beyond the original product warranty, will be limited to replacement of the failed part. Failures that are due to damage, improper installation, lack of maintenance or improper operation will not be covered.

ROTO-MIX 2205 East Wyatt Earp Blvd., Dodge City, KS 67801 (620) 225-1142 Fax: (620) 225-6370

SCALES WARRANTY & SERVICE POLICY

DIGI-STAR SCALE SYSTEMS

Digi-Star, LLC warrants for a period of one year from date of installation, to correct by repair or replacement, at Digi-Star's option, any defect in material or workmanship in any part of this product. In the event of replacement, Digi-Star's sole obligation shall be to provide replacement products or parts. F.O.B. Digi-Star, LLC, W5527 Hwy 106, Fort Atkinson, WI 53538 USA.

WEIGH-TRONIX SCALE SYSTEMS

WEIGH-TRONIX warrants for a period of one year from date of installation, to correct by repair or replacement, at Weigh-Tronix's option, any defect in material or workmanship in any part of this product. In the event of replacement, Weigh-Tronix's sole obligation shall be to provide replacement products or parts. F.O.B. Avery Weigh-Tronix, 1000 Armstrong Drive, Fairmont, MN 56031-1439 USA.

INTRODUCTION

Congratulations on the purchase of your new Vertical Mixer from ROTO-MIX. With proper operation and preventative maintenance it will last for years.



This SAFETY ALERT SYMBOL indicates important safety messages in the manual. When you see this symbol, be alert to the possibility of PERSONAL INJURY and carefully read the message that follows.

⚠ WARNING NEVER OPERATE WITHOUT ALL COVERS, SHIELDS AND GUARDS IN PLACE. KEEP HANDS, FEET AND CLOTHING AWAY FROM MOVING PARTS.

Some covers and guards have been removed for illustrative/photographic purposes only in this manual. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.

The Guarantee appears in the front of this book along with the Registration and Inspection Certificate.

For information on ordering repair parts, refer to the Repair Parts section at the back of this book.

The serial number plate is located on the drivers side lower front of the main frame. This number should be recorded on the Registration and Inspection Certificate for your reference and for proper identification of your mixer by ROTO-MIX.

You are urged to study this manual and follow the instructions carefully. Your efforts will be repaid in better operation and service as well as a savings in time and repair expense.

Failure to read this manual and understand the safe operation of the mixer could lead to serious injury.

If you do not understand the instructions in this manual contact either your dealer or ROTO-MIX at Dodge City, Kansas 67801.

This supersedes all previous published instructions.

OPERATOR QUALIFICATIONS

Operation of this mixer/feeder shall be limited to competent and experienced persons. In addition, anyone who will operate or work around a mixer/feeder must use good common sense. In order to be qualified, he or she must also know and meet all other qualifications, such as:

1. Some regulations specify that no one under the age of sixteen (16) may operate power machinery. It is your responsibility to know what these regulations are in your area and/or situation.
2. Current OSHA regulations state in part: At the time of initial assignment and at least annually thereafter, the employer shall instruct **EVERY** employee in the safe operation and servicing of all equipment with which the employee is, or will be involved.
3. Unqualified persons are to **STAY OUT OF THE WORK AREA.**
4. A person who has not read and understood all operating and safety instructions is not qualified to operate the machinery.

FAILURE TO READ THIS MIXER/FEEDER MANUAL AND ITS SAFETY INSTRUCTIONS IS A MISUSE OF THE EQUIPMENT.



SAFETY

TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND THE SAFETY OF OTHERS. FAILURE TO FOLLOW THESE ISTRUCTIONS CAN RESULT IN INJURY OR DEATH.



THIS SYMBOL MEANS

-ATTENTION!

-BECOME ALERT!

-YOUR SAFETY IS INVOLVED!

SIGNAL WORDS: Note the use of the signal words **DANGER**, **WARNING**, and **CAUTION** with the safety messages. The appropriate signal word for each has been selected using the following guidelines:

DANGER: Indicates an imminently hazardous situation that, if not avoided, will result in serious injury or death. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

WARNING: Indicates a potentially hazardous situation that, if not avoided, will result in serious injury or death, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

CAUTION: Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual or require additional copies or the manual is damaged, please contact your dealer or ROTO-MIX, 2205 E. Wyatt Earp, Dodge City, Kansas, 67801. (Telephone) 620-225-1142 (Fax) 620-225-6370

SAFETY FIRST

REMEMBER: The careful operator is the best operator. Most accidents are caused by human error. Certain precautions must be observed to prevent the possibility of injury or death.



DO NOT ALLOW PERSONNEL OTHER THAN THE QUALIFIED OPERATOR NEAR THE MACHINE.



NEVER START MACHINE UNTIL ALL GUARDS AND SAFETY SHIELDS ARE IN PLACE.



DO NOT CLEAN, ADJUST OR LUBRICATE THE MACHINE WHILE IT IS IN MOTION.



LOOSE OR FLOPPY CLOTHING SHOULD NOT BE WORN BY THE OPERATOR.

OPERATING PRECAUTIONS & INSTRUCTIONS

- A. Check to see that no obstructions are present in the mixer prior to start up.
- B. Before loading, run the mixer empty and check all operations.
- C. Do not overload the mixer, as the mixing efficiency may be reduced and unit damage may occur. (See loading instructions).
- D. Remove all moisture drain plugs if the mixer is going to set in the rain or snow.
- E. Be sure all shields are in place before operation.
- F. Use common sense when operating.

EQUIPMENT SAFETY GUIDELINES

Safety of the operator is one of the main concerns in designing and developing a new piece of equipment. Designers and manufactures build in as many safety features as possible. However, every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or for you, follow them.

In order to provide a better view, certain photographs or illustrations in this manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace the shield prior to use.

Replace any CAUTION, WARNING, DANGER or instruction safety decal that is not readable or is missing. Location of such decals are indicated in this manual.

Do not attempt to operate this equipment under the influence of drugs or alcohol.

Review the safety instructions with all users annually.

This equipment is dangerous to children and persons unfamiliar with its operation. The operator should be a responsible adult familiar with farm and industrial machinery and trained in this equipment's operations. Do not allow persons to operate or assemble this until they have read this manual and have developed a thorough understanding of the safety precautions and of how it works.



KEEP ALL SHIELDS IN PLACE

Do not operate mixer without safety shields in place.

Rotating parts can crush or dismember causing personal injury or death.



OPERATE MIXER/FEEDER SAFELY

Rotating parts can entangle or strike people, resulting in personal injury or death.

Never enter a mixer while in operation.

Operate the mixer from a safe distance.



AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury or death.

Avoid the hazard relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.





PRACTICE FIRE PREVENTION

Keep fire extinguishers accessible at all times. Use the extinguisher recommended for the material being processed. It should be rated safe for use on electrical fires.

Never smoke close to combustible material.

Clean the area before welding or other activities which may make sparks.

Keep all components that generate excessive heat clear of oil and other combustible materials.



SAFETY DECAL CARE

Keep safety decals and signs clean and legible at all times.

Replace safety decals and signs that are missing or have become illegible.

Replaced parts that displayed a safety sign should also display the current sign.

Safety decals or signs are available from your dealer or the ROTO-MIX manufacturing plant.

How to Install Safety Decals:

Be sure that the installation area is clean and dry.

Decide on the exact position before you remove the backing paper.

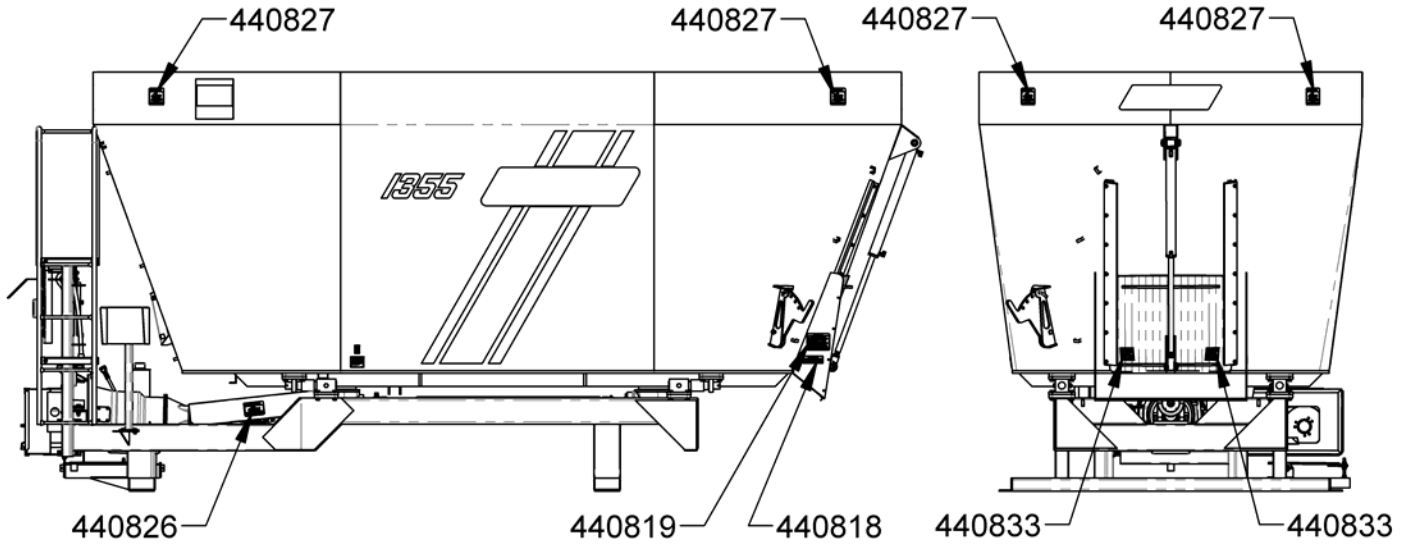
Remove the smallest portion of the split backing paper.

Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.

Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.

Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.

1105-1355-1505 STATIONARY SAFETY DECALS



#440826 - QTY - 2
DECAL, DANGER ROTATING DRIVELINE



#440818 - QTY - 2
DECAL, WARNING-CHUTE



#440833 - QTY - 2
DECAL, DANGER PINCH POINT



#440827 - QTY 4
DECAL, DANGER ROTATING AUGER



#440819 - QTY - 1
DECAL, CAUTION OPERATOR



PERFORMING MAINTENANCE:

Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.

Be certain all moving parts and attachments have come to a complete stop before attempting to perform maintenance.

Always use a safety support and block the machine. Never use a jack to support the machine.

Always use the proper tools or equipment for the job at hand.

Use extreme caution when making adjustments.

Never use your hands to locate hydraulic leaks on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate the skin.

When disconnecting hydraulic lines, shut off hydraulic supply and relieve all hydraulic pressure.

Openings in the skin and minor cuts are susceptible to infection from hydraulic fluid. If injured by escaping hydraulic fluid, see a doctor at once. Gangrene can result. Without immediate treatment, serious infection and reactions can occur.

Replace all shields and guards after servicing and before moving.

After servicing, be sure all tools, parts and service equipment are removed.

Do not allow grease or oil to build up on any step or platform.



Never replace hex bolts with less than grade five (5) bolts unless otherwise specified.

Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. ROTO-MIX will not claim responsibility for use of unapproved parts and/or accessories and other damages as a result of their use.

If equipment has been altered in any way from original design, ROTO-MIX does not accept any liability for injury or warranty.

PRE-OPERATION

PRE OPERATION CHECK LIST

1. Carefully study and understand this manual.
2. Do not wear loose fitting clothing which may catch in moving parts.
3. Always wear protective clothing and substantial shoes.
4. Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.
5. Be sure that there are no tools lying on or in the mixer.
6. Do not use the unit until you are sure that the area is clear, especially of children and animals.
7. Because it is possible that this mixer may be used in dry areas or in the presence of combustibles, special precautions should be taken to prevent fires and fire fighting equipments should be readily available.
8. Don't hurry the learning process or take the unit for granted. Ease into it and become familiar with your new mixer.
9. Practice operation of your mixer and its attachments. Completely familiarize yourself and other operators with its operation before using.

MAINTENANCE

ALWAYS DISCONNECT OR DISENGAGE POWER BEFORE CLEANING, ADJUSTING, LUBRICATION OR SERVICING THIS MACHINE. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

READ THE FOLLOWING BEFORE WELDING ON THIS MIXER/FEEDER

When welding on your mixer, do not allow the current to flow through the bearings or the roller chains. Ground directly to the item being welded.

Always disconnect the scale instrumentation from the weigh bars or load cells and the power source. Be sure the current does not pass through weigh bars or load cells or scale indicator.

LOADING INSTRUCTIONS & PRECAUTIONS

- A. Visually inspect mixer before each load.
- B. Do not overload the mixer. Mixer capacity is determined by weight. An overloaded mixer will not mix correctly, and will pull harder.
- C. Load hay first with machine running.
 1. Low speed, 10 RPM is preferable if you are using very tender, very fine stemmed hay that breaks apart very easily. A slower speed allows maximum staple length.
 2. Increase the speed to 17 RPM if you are using fine stemmed hay. Staple length when using this speed will be longer than 10 RPM, but shorter than 26 RPM.
 3. Increase to 26 RPM if you are using normal good quality hay. This is the most common loading speed, for most conditions.
 4. Full 36 RPM is used with very rough, course hay that needs to be cut shorter to increase palatability.

Adjust restrictor plates (dogs) to fine tune length of cut. Always start with one dog, preferably the one furthest away from the discharge door, engage one hole and increase until length of cut is correct.

NOTE: engaging dogs and excessive amount will cause mix quality to deteriorate and consume more power.



- D. Add balance of grain and/or commodities, keeping more fragile ingredients toward the end of the loading sequence as possible. For best results, add concentrates or other dry ingredients of small quantity as close to the middle of the loading sequence as possible.
- E. Load silage, green chop and/or other high moisture products.
- F. Load molasses, animal fat, and/or other liquid supplements last.
- G. Allow mixer three to four minutes to complete mixing after last ingredient is added. (**NOTE:** this time will vary, and could be longer under certain conditions.)
- H. View mixing operation only from observation platform of mixer. Never allow more than two people on platform at one time.
- I. For best results, off load mixed feed at as high a RPM as possible, and with the door as open as possible. The first half of load may be fed off at a slower RPM, according to conditions, but the last half must be fed off at high RPM, to ensure even feed flow and clean out.

Approximate speed for mixers that have an automatic transmission drive system are:

1st gear - 10 RPM, 2nd gear - 17 RPM, 3 gear - 26 RPM & 4th gear - 36 RPM.

HAY PREPARATION:

SMALL BALES (60 to 150 lbs., 2 or 3 wire), LARGE SQUARE BALES (3' x 4' x 8' or 4' x 4' x 8') and ROUND BALES.

Remove all twine, wire and/or wrapping and load bale in mixer.

AUTOMATIC TRANSMISSION SERVICE & OPERATION

ALLISON 643 & 644 AUTOMATIC TRANSMISSION:

Oil and internal filter should be changed every 1000 hours or 12 months of operation, whichever comes first. External spin on filter should be changed every 500 hours. Fill transmission with approximately 7 gal. of Transmission Fluid.

Recommended oil for ambient temperatures:

60° F to 110° F 30 WT C-4 Spec.

-10° F to 60° F DEXTRON II Transmission Fluid

Check transmission oil level weekly with the machine running at high RPM's.

Cold: Oil level to be 1/4" above ADD.

Warm: (160° To 180°) Oil level to be 1/4" above FULL.

NOTE: Transmission temperature is not to exceed 280° F. Consult dealer or manufacturer if temperature exceeds 280° F.

Never decrease speed lower than 1000 RPM with machine loaded. This will result in rapid heat build up in the drive system.

TRANSMISSION OPERATION:

The ALLISON 643 & 644 is a 4 speed automatic transmission with the reverse blocked. The transmission will start in first gear and up shift as engine speed increases. If engine speed decreases, transmission will down shift accordingly.

Transmission can be locked out of 4th gear with T-Cable Control pulled out. This will prevent erratic down shift and up shift between 3rd and 4th gears for marginal H.P. tractors. This will also help prevent over cutting of hay and mixing of rations.

It is advisable to push the T-Cable in to allow the transmission to shift into 4th gear before discharging to ensure more even discharge flow and clean out.

The ALLISON 643 & 644 is equipped with a torque converter lock up. Lock up will occur in third gear and stay in lock up mode in third and fourth gears. The torque converter lock up prevents slippage in the converter thus eliminating excess heat in the transmission.

The automatic transmission used is a rebuilt ALLISON 643 & 644 with a modified shift point and a rebuilt torque converter. The ALLISON 643 & 644 transmission carries a 2 year standard warranty through Roto-Mix.

LUBRICATION

DISENGAGE PTO & SHUT OFF POWER BEFORE LUBRICATING THE MACHINE.

LOOSE OR FLOPPY CLOTHING SHOULD NOT BE WORN BY THE OPERATOR.

PTO SHAFTS & U-JOINTS: Grease every 10 to 20 hours.

GEARBOXES: After the first 100 hours of operation, drain initial oil, preferably when box is warm. Flush out the gear case with an approved non-flammable, non toxic solvent and refill with oil.

Thereafter oil should be changed every 12 months when the machine is in moderate use. If machine usage is severe or more than 10 loads per day, it is advisable to change the oil every 6 months.

Inspect and wash oil reservoir breather cap as needed. Air dry before reinstalling.

Fill each gearbox with approximately 7-3/4 gallon of **Synthetic Gear Lube 75W-90**. It will take an additional 6-3/4 gallons to fill the circulation systems hoses, cooler & reservoir when the oil is drained completely from the system.

PROCEDURE FOR FILLING GEARBOX: Remove pressure side oil line from circulation pump and attach to oil supply pump. Pressure oil in gear box until oil starts to show in bottom of sight gauge on oil reservoir. Reconnect oil line to circulation pump. Fill reservoir to center of sight gauge, run unit and add oil up to center of sight gauge if needed. Check daily, oil level must always be visible in sight gauge. **Note: Do not fill gearbox through oil reservoir.**

OIL FILTER SERVICE: All filters should be changed the first 24 hours after start up of the system, and there after during normal maintenance every 500 hours of service. 10 micron filter elements are recommended. All reservoirs should be checked daily for proper fluid level. Visually check daily for any fluid leakage.

GEARBOX TEMPERATURES: During normal running conditions, the temperature of the outer casing of the gearbox should not exceed 175°F (80°C).

RECOMMENDATION: It is advisable to check the oil level of gearboxes at least once a month. If more than 10% of the total oil capacity has to be added, check for oil leaks.

HYDROSTAT DRIVE SYSTEM: **It is recommended that the hydrostat reservoir use (CITGO TRANSGARD Tractor Hydraulic Fluid #633310001 or equivalent) HYDRAULIC FLUID ONLY.**

Approximate quantity of oil in the reservoir is 45 gallons. Hydrostat system uses filter elements: part #362442 - SE-10 & part #362440 - Filter Element AE-10.

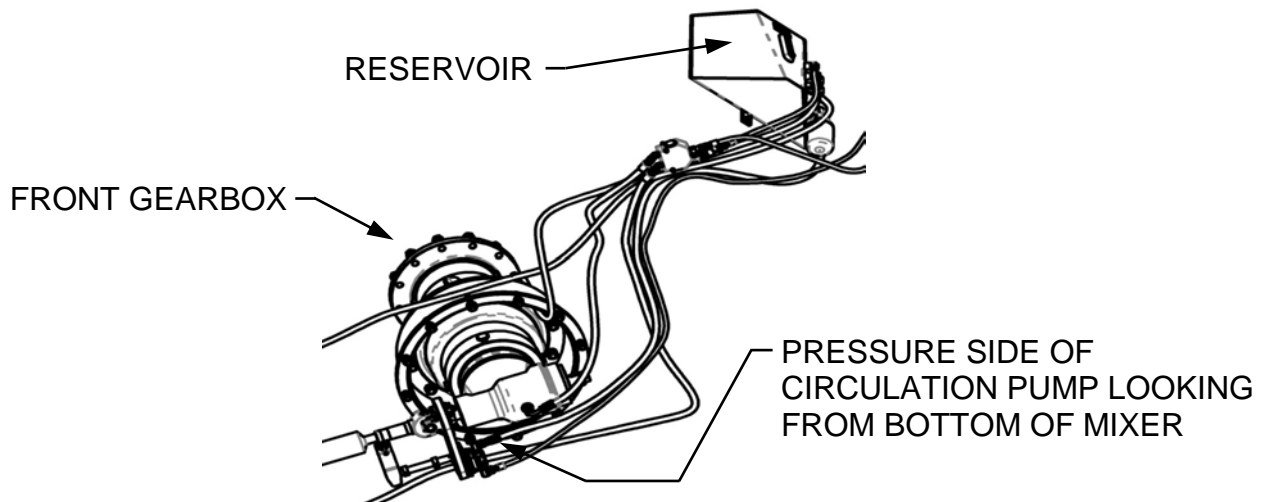
All reservoirs (except the gearbox reservoir) should be changed every 2000 hours or once every year, which ever comes first.

All filters should be changed the first 100 hours then every 500 hours and with every oil change. 10 micron filter elements are recommended. The reservoir should be checked daily for proper oil level. Visually check daily for any oil leakage.

LUBRICATION CHART

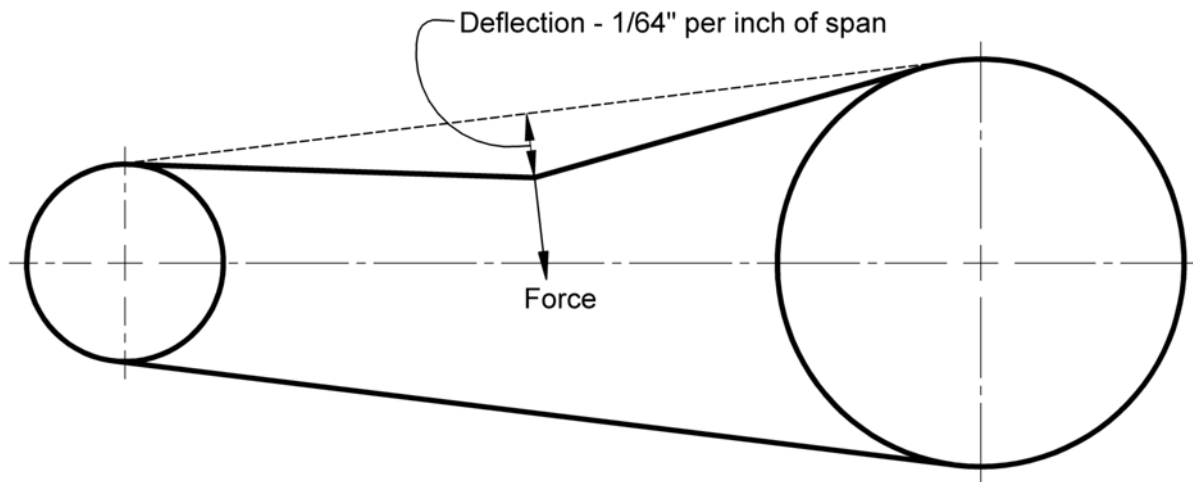
⚠ WARNING ALWAYS DISCONNECT OR DISENGAGE POWER BEFORE ADJUSTING, LUBRICATION OR SERVICING THIS MACHINE. FAILURE TO HEED MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

ITEM	LUBRICATION	INTERVAL
U-Joint	Good Quality Grease	Every 8 hours
Planetary Gearbox	Synthetic Gear Lube 75W-90	After the first 500 hours of operation, then 2000 hours or every 12 months, whichever comes first.
Reservoir Oil Filters	Lube filter gasket when changing filter	24 hours after start up of the system. Thereafter normal maintenance every 3 months.
Automatic Transmission Oil and Internal Filter	Recommended oil for ambient temperatures of: 0° F to 110°F - 30 WT C-4 Spec. -10°F to 60°F - DEXTRON II Transmission Fluid	Every 1000 hours or 12 months of operation, whichever comes first. Approximate capacity is 7 gal.
External Transmission Filter	Lube filter gasket when changing filter	Every 500 hours or 3 months of operation, whichever comes first.
Hydrostat Reservoir	CITGO TRANSGARD Tractor Hydraulic Fluid #633310001 or equivalent hydraulic fluid only	2000 hours or every 12 months , whichever comes first.
Oil Filter (Hydrostat Reservoir)	#362442 - Filer Element SE-10 & #362440 - Filter Element AE-10	The first 100 hours then every 500 hours and with every oil change.
Stationary Overhung Load Adapter Oil	Synthetic Gear Lube 75W90 - Fill to center of shaft (Approx. 1 pint)	1000 hours or every 12 months, whichever comes first.



V-BELT TENSIONING INSTRUCTIONS

V-belt tensioning adjustment can be made using a tension meter or other type spring scale, using the following procedure. After seating the belts in the groove and adjusting center distance so as to take up slack in the belts, further increase the tension until only a slight bow on the slack side is apparent while the drive is operating under load. Stop the drive, and using the meter, measure the force necessary to depress one of the center belts $1/64$ -inch for every inch of belt span (see sketch below). For example, a deflection for a 50-inch belt span is $50/64$ ths, or $25/32$ -inch. The amount of force required to deflect the belt should compare with the deflection forces noted in the chart on the next page. Also notice for V-belts that deflection forces vary from the initial "run-in" values which are greater (reflecting higher run-in tensioning) to the "normal" values for after the run-in period.



Standard V-Belt Tensioning Deflection Force (Single Belt)

Belt Cross-Section	Smaller Pulley Diameter Range (in.)	Deflection Force	
		Run-in (lbs.) (New Belt)	Normal (lbs.) (Used Belt)
A	3.0 - 3.6	3-3/8	2-1/4
	3.8 - 4.8	4-1/4	2-7/8
	5.0 - 7.0	5-1/8	3-3/8
AX	3.0 - 3.6	4-1/8	2-3/4
	3.8 - 4.8	5	3-1/4
	5.0 - 7.0	6	4
B	3.4 - 4.2	4	2-5/8
	4.4 - 5.2	6	4
	5.4 - 9.4	7-1/8	5-1/4
BX	3.4 - 4.2	5-1/4	3-1/2
	4.4 - 5.2	7-1/8	4-3/4
	5.4 - 9.4	9	6
C	7.0 - 9.0	11-1/4	7-1/2
	9.5 - 16.0	15-3/4	10-1/2
CX	7.0 - 9.0	13-1/2	9
	9.5 - 16.0	17-1/2	11-3/4
D	12.0 - 16.0	24-1/2	16-1/2
	18.0 - 22.0	33	22
E	21.6 - 27.0	48	32
3V	3.40 - 4.20	6	4
	4.20 - 10.6	7	5
3VX	2.20 - 3.65	7	5
	4.12 - 10.6	8	6
5V	7.10 - 10.9	16	8 - 12
	11.8 - 16.0	20	10 - 5
5VX	4.40 - 10.9	18	10 - 14
	11.8 - 16.0	22	12 - 18
8V	12.5 - 17.0	36	18 - 27
	18.0 - 22.4	40	20 - 30

Note: The force in the table above is shown per a single rib v-belt, for banded v-belts such as for a 2-rib v-belt you must multiply the force in the table for a single v-belt by 2 and for a 3-rib v-belt you must multiply the force in the table for a single v-belt by 3 and so on.

TROUBLE SHOOTING

⚠ WARNING ALWAYS DISCONNECT OR DISENGAGE POWER TAKE OFF AND REMOVE KEYS FROM TRACTOR BEFORE CLEANING, ADJUSTING, LUBRICATING OR SERVICING THIS MACHINE. FAILURE TO FOLLOW THIS RECOMMENDATION MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

NOTE: THIS CHART DOES NOT COVER ALL PROBLEMS. CONTACT YOUR DEALERSHIP FOR FURTHER ASSISTANCE.

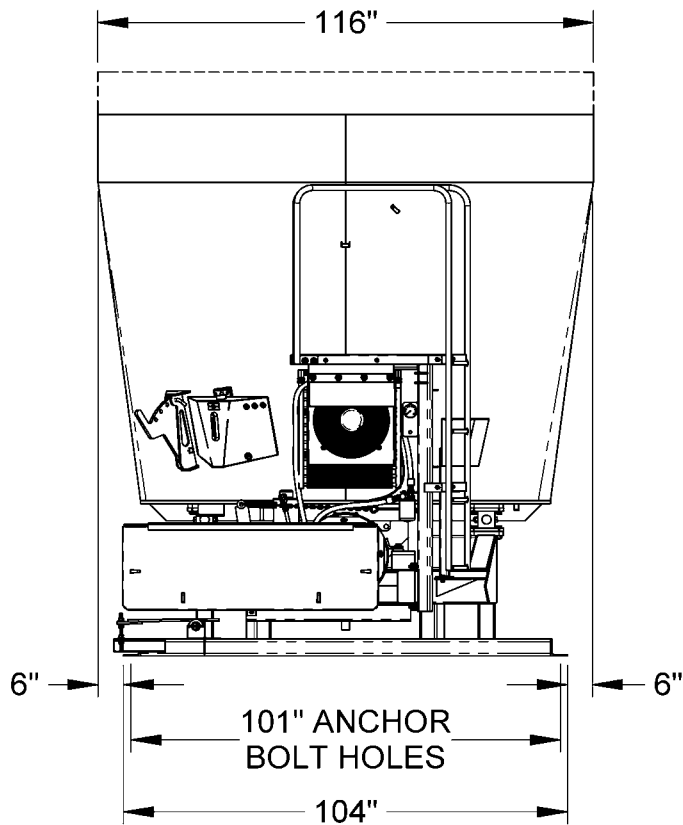
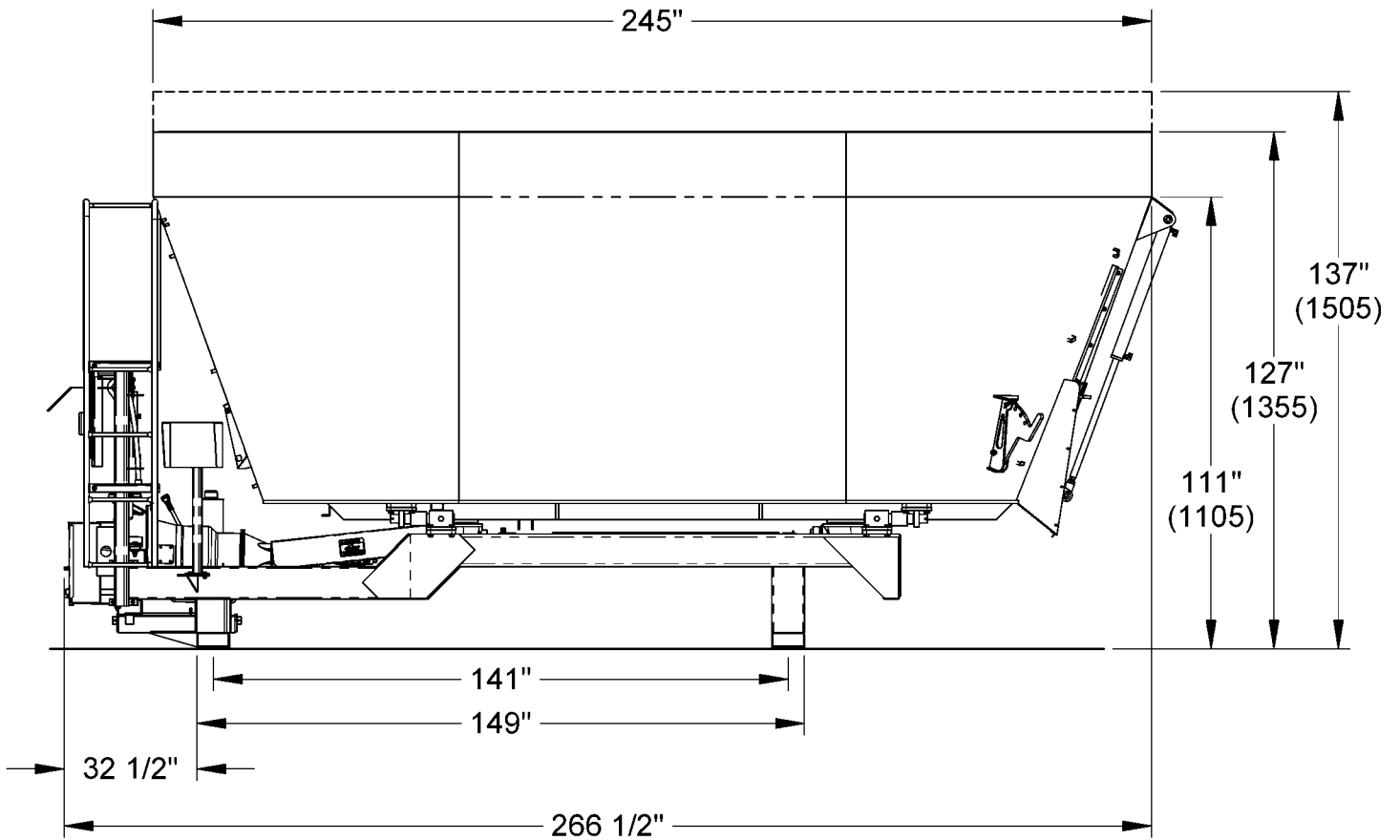
PROBLEM	POSSIBLE CAUSE	POSSIBLE REMEDY
Machine Vibration	Universal Joints Are Out Of Alignment.	Check And Realign.
	Worn Out Bearing.	Replace Bearing.
Excessive Bearing Failure	Improper Lubrication	Refer To Lubrication Chart.
	Contamination	Check Seal
	Excessive Loads.	Refer To General Information About Machine Loading.
Mixing quality poor, not thorough.	Batch has high concentration of light weight ingredients and rotates too fast inside tub for thorough mixing.	Extend restrictor plates (dogs) further into tub as instructed on page 20.
	High concentration of long hay, not being torn apart.	Extend restrictor plates (dogs) further into tub as instructed on page 16.
Hay being added to batch, but not being incorporated into mixture.	Hay not getting shredded by mixing action, batch rotating inside tub too fast.	Extend restrictor plates (dogs) further into tub as instructed on page 16.
Too much power being consumed to mix.	Restrictor plates extend too far into tub and retarding rotation of batch.	Move restrictor plates (dogs) away from tub as instructed on page 16.

1105 - 1355 - 1505 VERTICAL MIXER FEATURES & SPECIFICATIONS

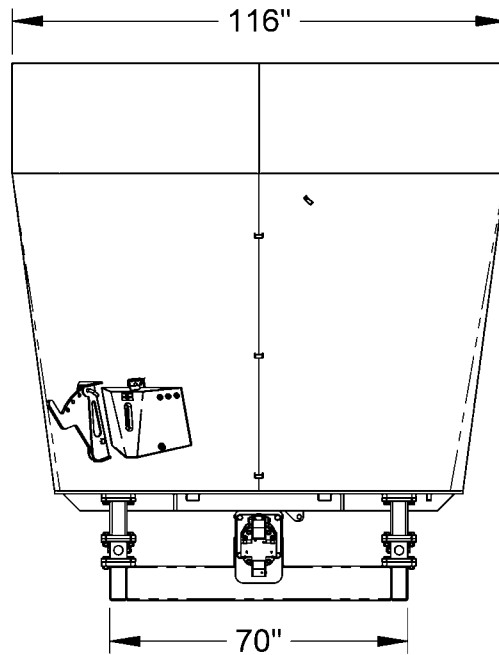
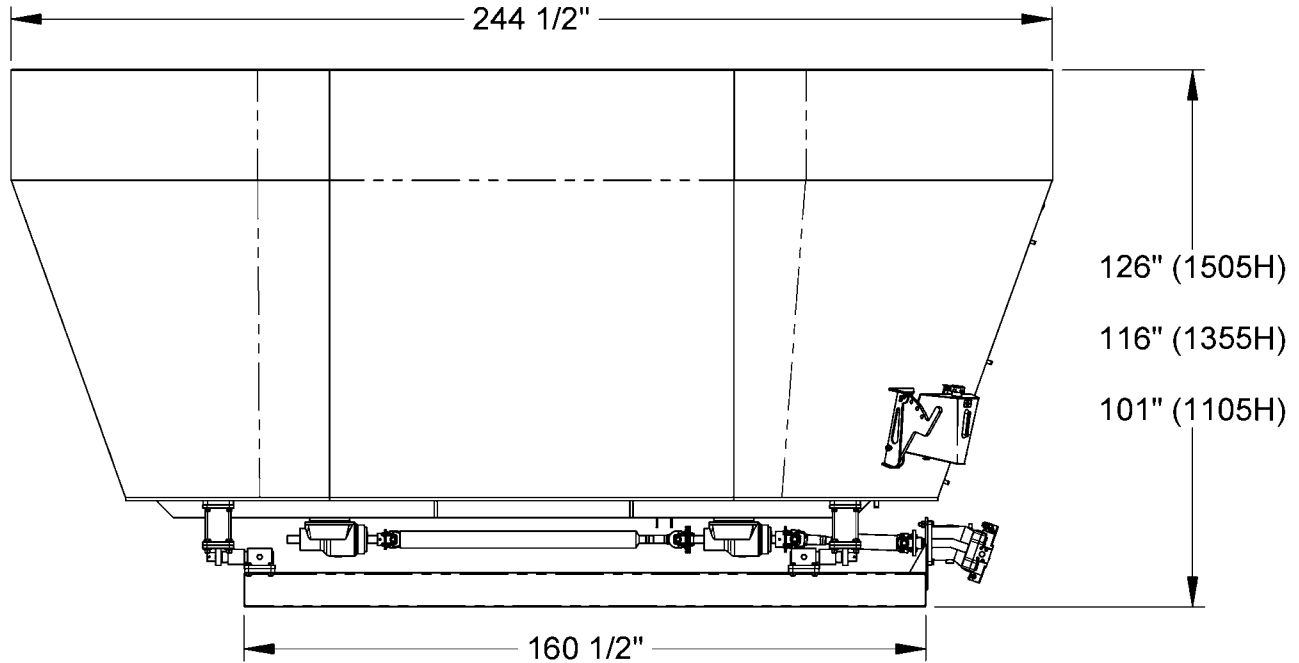
MODEL DESCRIPTION	1105A	1355A	1505A
Maximum Load with Hay Ration	19,800 LB.	24,300 LB.	27,000 LB.
Maximum Load with Heavy Ration	27,500 LB.	33,750 LB.	37,500 LB.
Mixing Capacity cu. ft.	900 CU. FT.	1,150 CU. FT.	1,300 CU. FT.
Screw Speeds	Variable 12-38 RPM @ 1,000 PTO RPM	Variable 12-38 RPM @ 1,000 PTO RPM	Variable 12-38 RPM @ 1,000 PTO RPM
PTO Speed	1,000 RPM	1,000 RPM	1,000 RPM
Transmission Speeds	4	4	4
Transmission Make	Allison	Allison	Allison

All Dimensions & Specifications are Approximate and Subject to Change Without Notice.

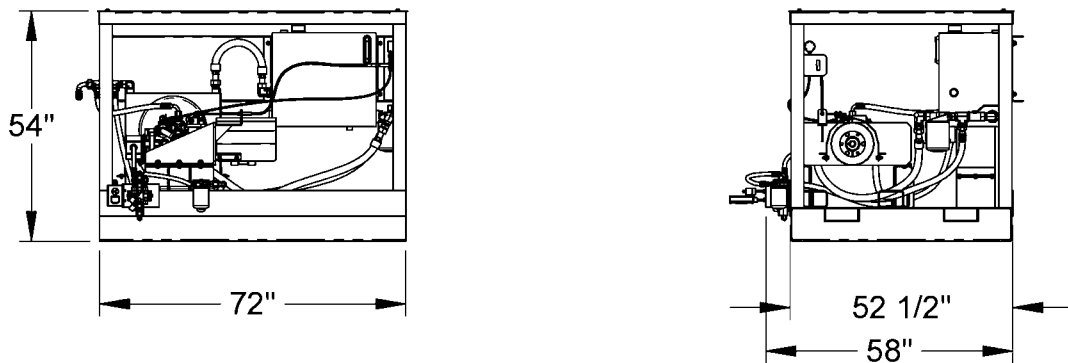
VERTICAL STATIONARY DIMENSIONS (ELECTRIC-AUTOMATIC DRIVE)



VERTICAL STATIONARY DIMENSIONS (HYDRAULIC DRIVE)



HYDRAULIC DRIVE UNIT: FRONT & SIDE VIEWS

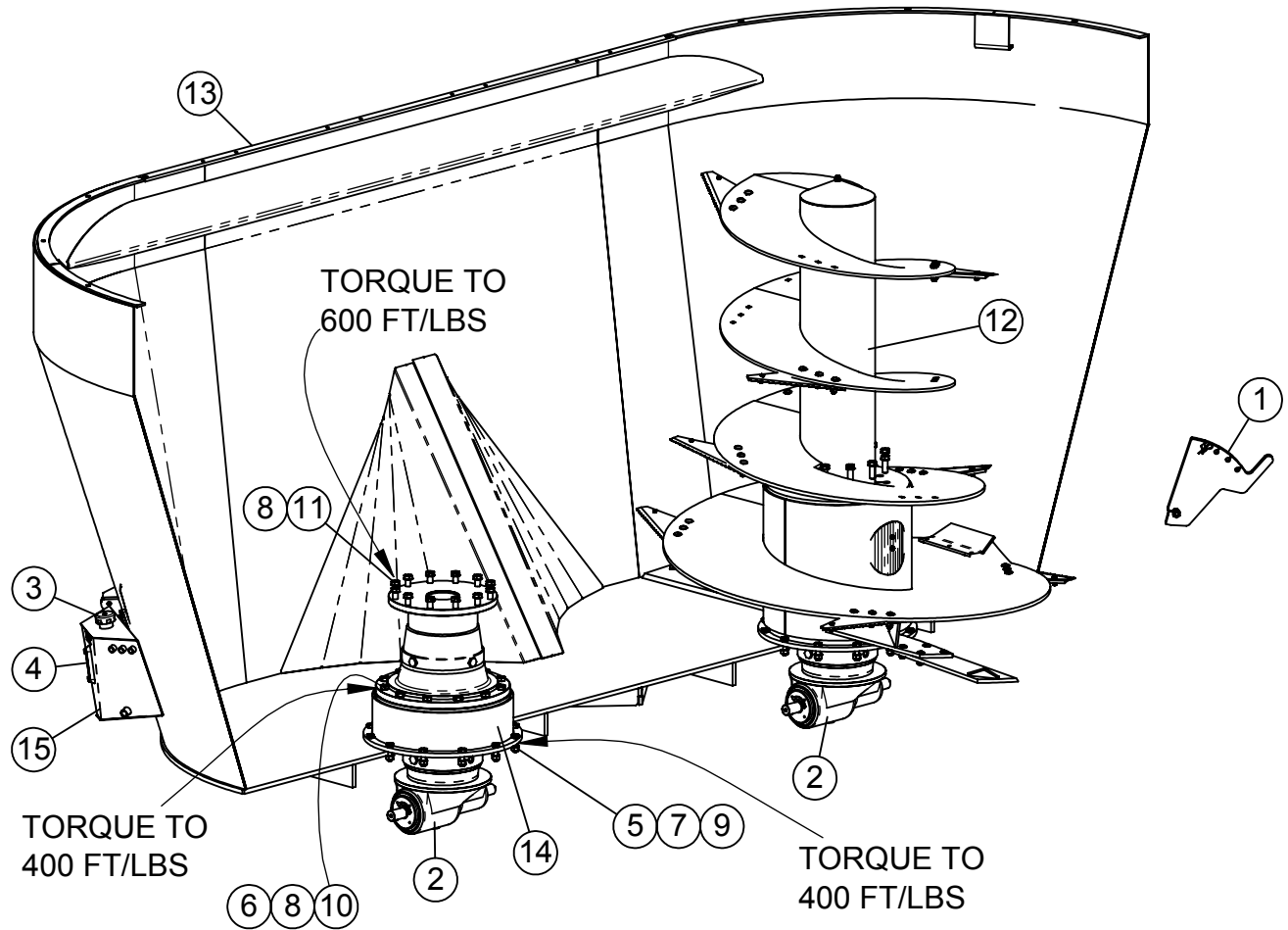


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REPAIR PARTS TABLE OF CONTENTS

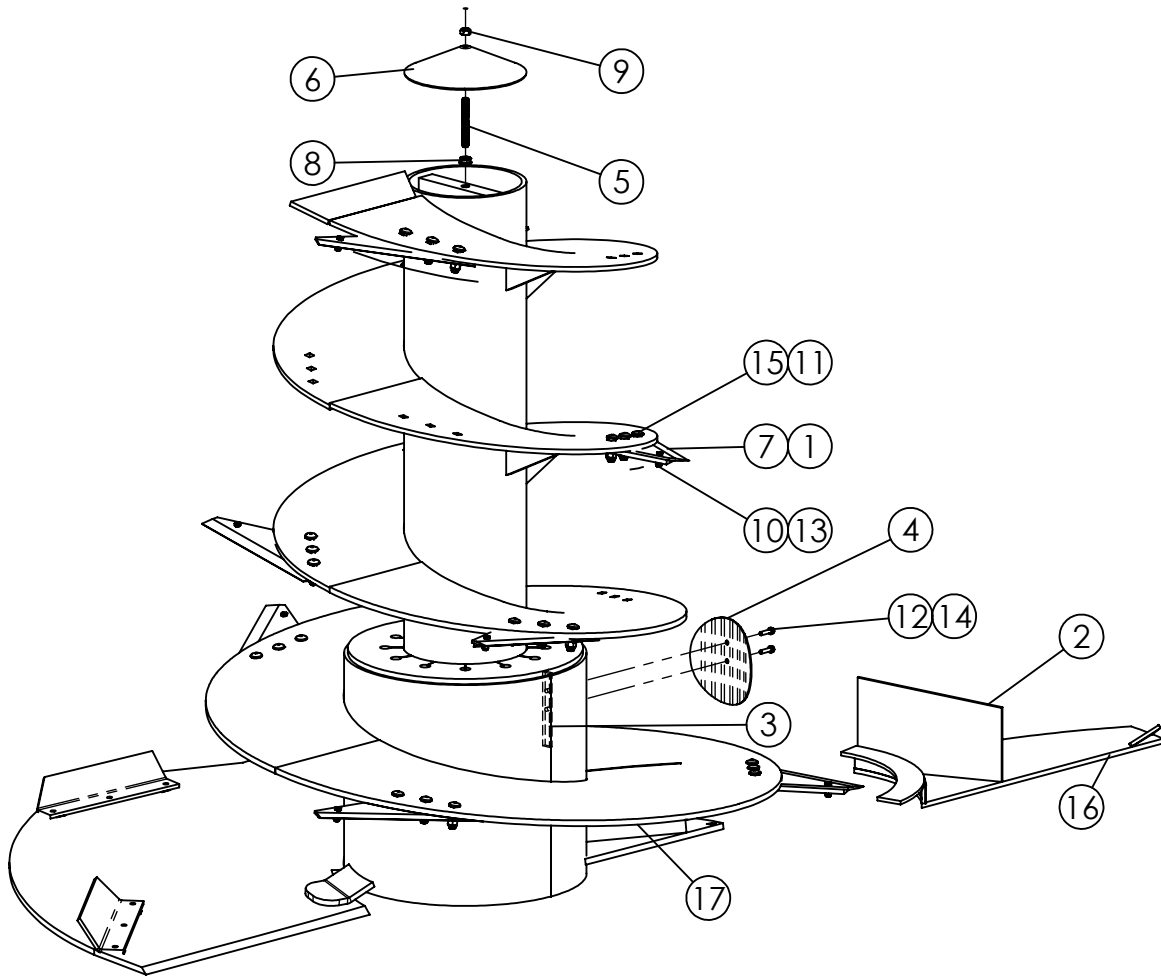
	PAGE NO.
1105-1355-1505 STATIONARY TUB ASSEMBLY	28
1355 & 1505 STATIONARY AUGER ASSEMBLY.....	29
1105 STATIONARY AUGER ASSEMBLY	30
REAR DOOR ASSEMBLY	31
SIDE DOOR ASSEMBLY	32-33
1105A-1355A-1505A DRIVELINE & SCALE PARTS	34-35
1105A-1355A-1505A STATIONARY BASE ASSEMBLY	36-37
1105A-1355A-1505A STATIONARY ELECTRIC DRIVE ASSEMBLY	36
1355A-1505A TRANSMISSION ASSEMBLY.....	40-41
1105A TRANSMISSION ASSEMBLY	42-43
1105A-1355A-1505A TRANSMISSION COOLER ASSEMBLY.....	44-45
1105-1505 PLANATARY GEARBOX CIRCULATION KIT.....	46-47
1355H-1505H DRIVEINE & SCALE PARTS	48-49
STATIONARY HYDROSTAT POWER UNIT	50-53

1105-1355-1505 STATIONARY TUB ASSEMBLY



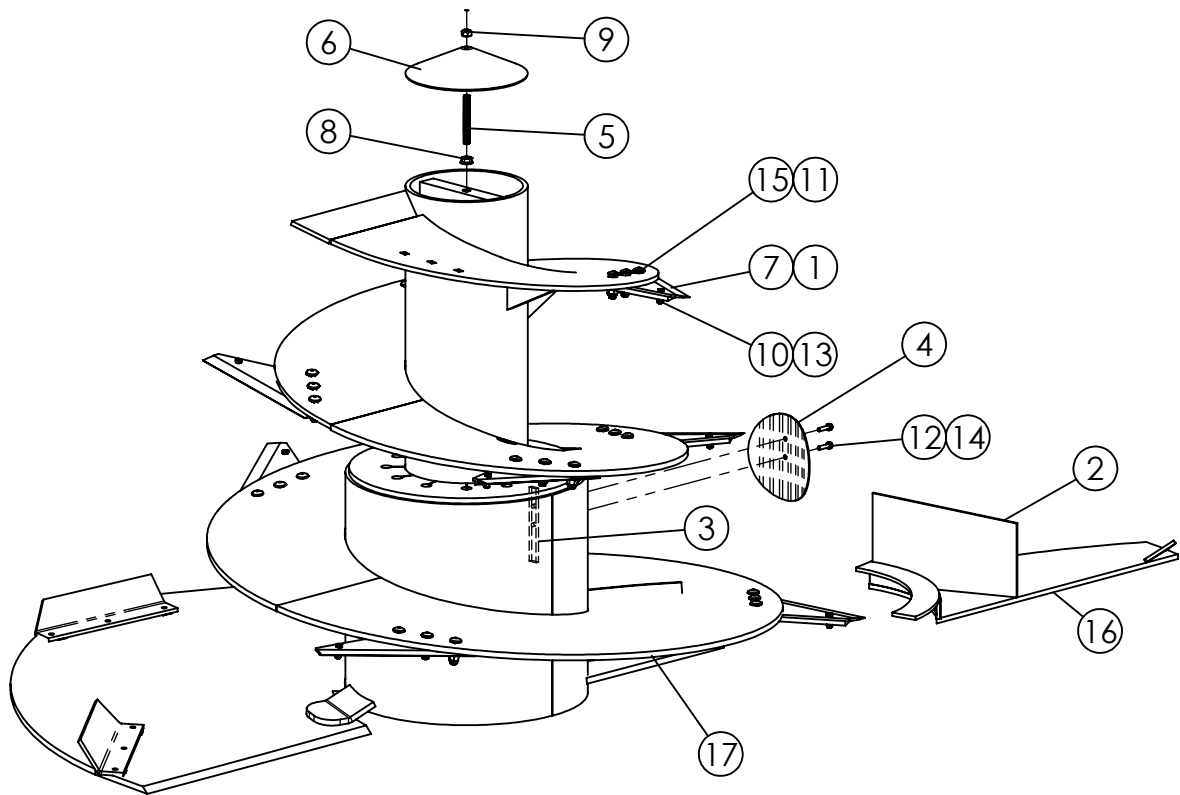
ITEM #	PART #	DESCRIPTION	QTY.
1	160118	VERTICAL KNIFE	1
2	344164	GEARBOX COMER PGA 3003/53.5/	2
3	362549	TANK BREATHER 8" DIP STICK	1
4	362555	SIGHT GAUGE 5"	1
5	400512	HEX NUT 3/4"-16 #8 PLTD	24
6	400514	HEX NUT 7/8"-14 #8	24
7	402112	LOCK WASHER, EXTERNAL STAR 3/4"	24
8	402114	EXTERNAL STAR LW 7/8"	48
9	406781	HHCS 3/4"-16 x 2 1/2" #8 PLTD	24
10	406792	HHCS 7/8"-14 x 3" #8 PLTD	24
11	407823	HHCS M22-1.5 x 60MM GR 10.9	24
12	760627	1355/1505 SINGLE FLIGHT AUGER ASM	2
	760629	1105 SINGLE FLIGHT AUGER ASM (used on 1105 only)	2
13	860321	1355 STA TUB WA NO DOORS	1
	860783	1505 STATIONARY TUB W.A.	1
	860468	1105 STATIONARY TUB W.A.	1
14	860474	COMER GEARBOX ADAPTER WA	2
15	860749	GEARBOX RESERVOIR WA, 5 GAL	1

1355 & 1505 STATIONARY AUGER ASSEMBLY



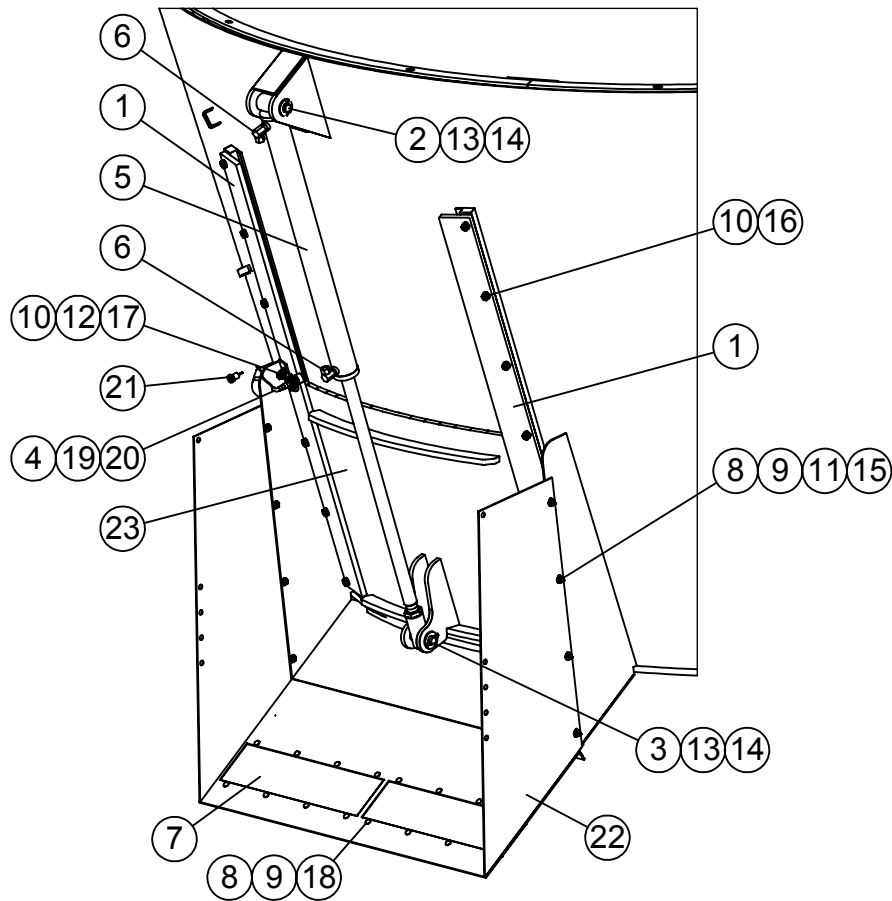
ITEM #	PART #	DESCRIPTION	QTY.
1	160076	KNIFE BACKUP PLATE - LEFT HAND	AN
2	160997	WING GUSSET 9 3/4" x 16"	1
3	161290	AUGER COVER BOLT BAR 3/8 x 1 x 8	1
4	161298	AUGER ACCESS COVER - 7" OD	1
5	162399	ALL THREAD 5/8 x 5-1/4"	1
6	162489	AUGER TUBE CAP 12" PIPE 5/8" HOLE	1
7	385007	KNIFE BLADE 7 1/2" x 17 1/4"	AN
	385008	CARBIDE KNIFE BLADE 7 1/2" x 17 1/4"	AN
8	400115	HEX NUT, 5/8"-11 SERRATED FLANGE #5 PLTD	1
9	400910	HEX CROWN LOCNUT 5/8"-11 #9 PLTD	1
10	401106	HEX NUT, 3/8"-16 NYLOC #5 PLTD	AN
11	401110	HEX NYLOC NUT 5/8"-11 #5 Pltd	AN
12	402006	WASHER SPRING LOCK 3/8" MED PLTD	2
13	405654	HHCS 3/8"-16 x 1-1/4" #5 PLTD	AN
14	405655	HHCS 3/8"-16 x 1 1/2" #5 PLTD	2
15	407122	CHCS 5/8"-11 x 2-1/2" #5 Pltd	AN
16	860303	AUGER WING KICKER W.A.	1
17	860445	1355 AUGER W/A (COMER GEARBOX)	1

1105 STATIONARY AUGER ASSEMBLY



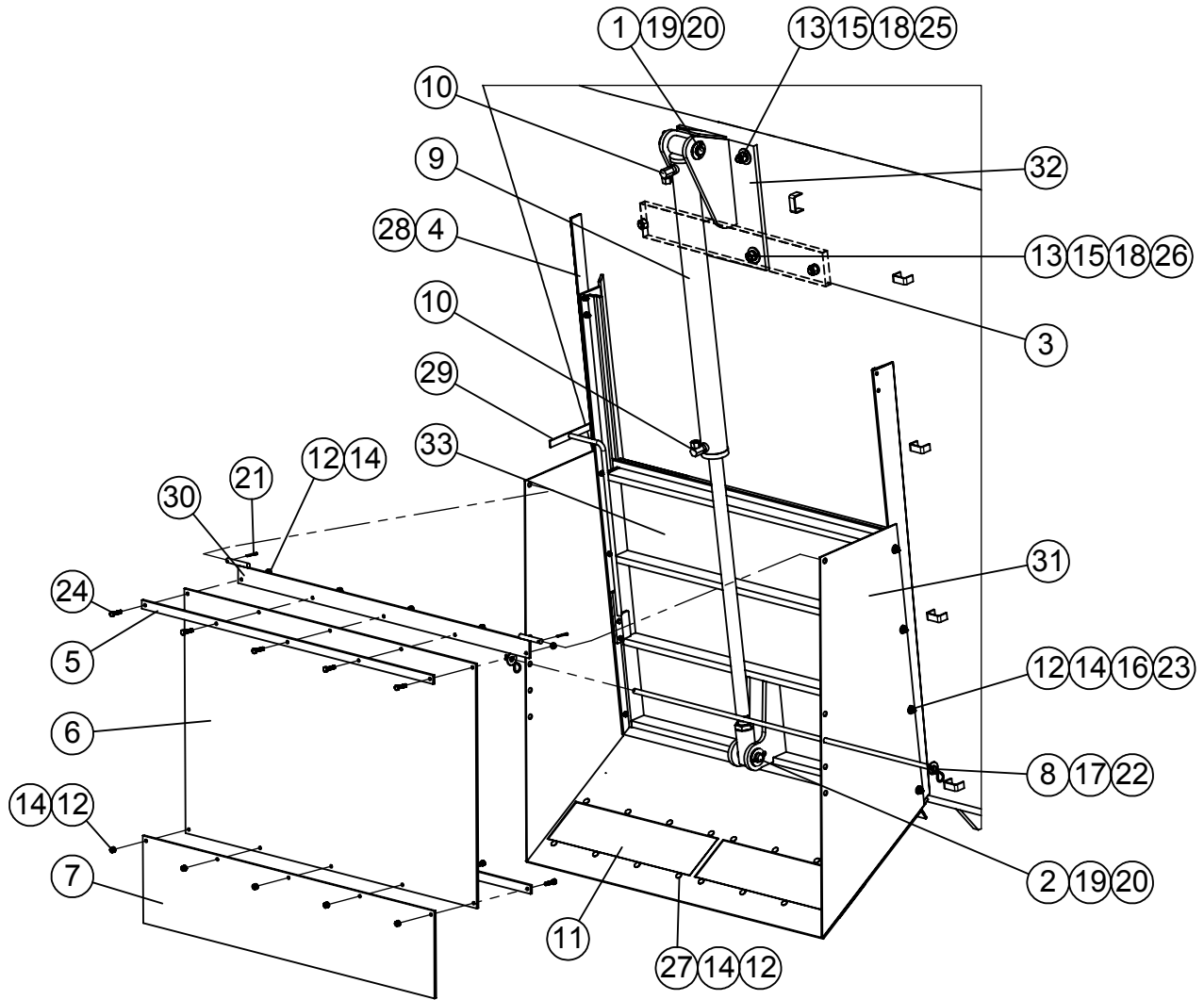
ITEM #	PART #	DESCRIPTION	QTY.
1	160076	KNIFE BACKUP PLATE - LEFT HAND	AN
2	160997	WING GUSSET 9 3/4" x 16"	1
3	161290	AUGER COVER BOLT BAR 3/8 x 1 x 8	1
4	161298	AUGER ACCESS COVER - 7" OD	1
5	162399	ALL THREAD 5/8 x 5-1/4"	1
6	162489	AUGER TUBE CAP 12" PIPE 5/8" HOLE	1
7	385007	KNIFE BLADE 7 1/2" x 17 1/4"	AN
	385008	CARBIDE KNIFE BLADE 7 1/2" x 17 1/4"	AN
8	400115	HEX NUT, 5/8"-11 SERRATED FLANGE #5 PLTD	1
9	400910	HEX CROWN LOCNUT 5/8"-11 #9 PLTD	1
10	401106	HEX NUT, 3/8"-16 NYLOC #5 PLTD	AN
11	401110	HEX NYLOC NUT 5/8"-11 #5 Pltd	AN
12	402006	WASHER SPRING LOCK 3/8" MED PLTD	2
13	405654	HHCS 3/8"-16 x 1-1/4" #5 PLTD	AN
14	405655	HHCS 3/8"-16 x 1 1/2" #5 PLTD	2
15	407122	CHCS 5/8"-11 x 2-1/2" #5 Pltd	AN
16	860303	AUGER WING KICKER W.A.	1
17	860468	1105 AUGER W/A (COMER GEARBOX)	1

1105-1355-1505 REAR DOOR ASSEMBLY



ITEM #	PART #	DESCRIPTION	QTY.
1	160115	DOOR GUIDE BAR	2
2	160619	CYLINDER PIN 5 7/8"	1
3	160620	CYLINDER PIN 1" x 4 1/4"	1
4	161724	BRACKET, SWITCH 1105/1505 REAR DOOR	1
5	364079	CYL. 2-1/2" BORE x 1-1/2" ROD x 30-1/4" STROKE	1
6	368007	HYDRAULIC ADAPTER 3/8"MP x 3/8"FPX 90° .109 orifice	2
7	375005	ACRO PLATE MAGNET AM 2200,	2
8	400205	HEX NUT 5/16"-18 #5 PLTD	29
9	402005	WASHER 5/16", SPRING LOCK, MED PLTD	29
10	402008	SPRING LOCK WASHER 1/2" PLTD	14
11	402405	FLAT WASHER 5/16" MED PLTD	16
12	402508	FLAT WASHER, 1/2" ID x 1" OD	1
13	402516	WASHER FLAT, 1" SAE PLTD	4
14	404000	COTTER PIN 1/4" x 1 1/2"	4
15	405628	HHCS 5/16"-18 x 1" #5 PLTD	13
16	405702	HHCS 1/2"-13 x 1-1/4" #5 PLTD	13
17	405703	HHCS 1/2"-13 x 1-1/2" #5 PLTD	1
18	407021	CHCS 5/16"-18 x 1" #5 PLTD	16
19	452860	SENSOR, PROXIMITY (ALLIED 501-0722)	1
20	452861	SENSOR WIRE ADAPTER, RIGHT ANGLE	1
21	454116	LED LIGHT, RED ALLIED # 70082066	1
22	860294	MAG SKIRT BOTTOM W.A.	1
23	860453	1105 REAR DOOR WA	1

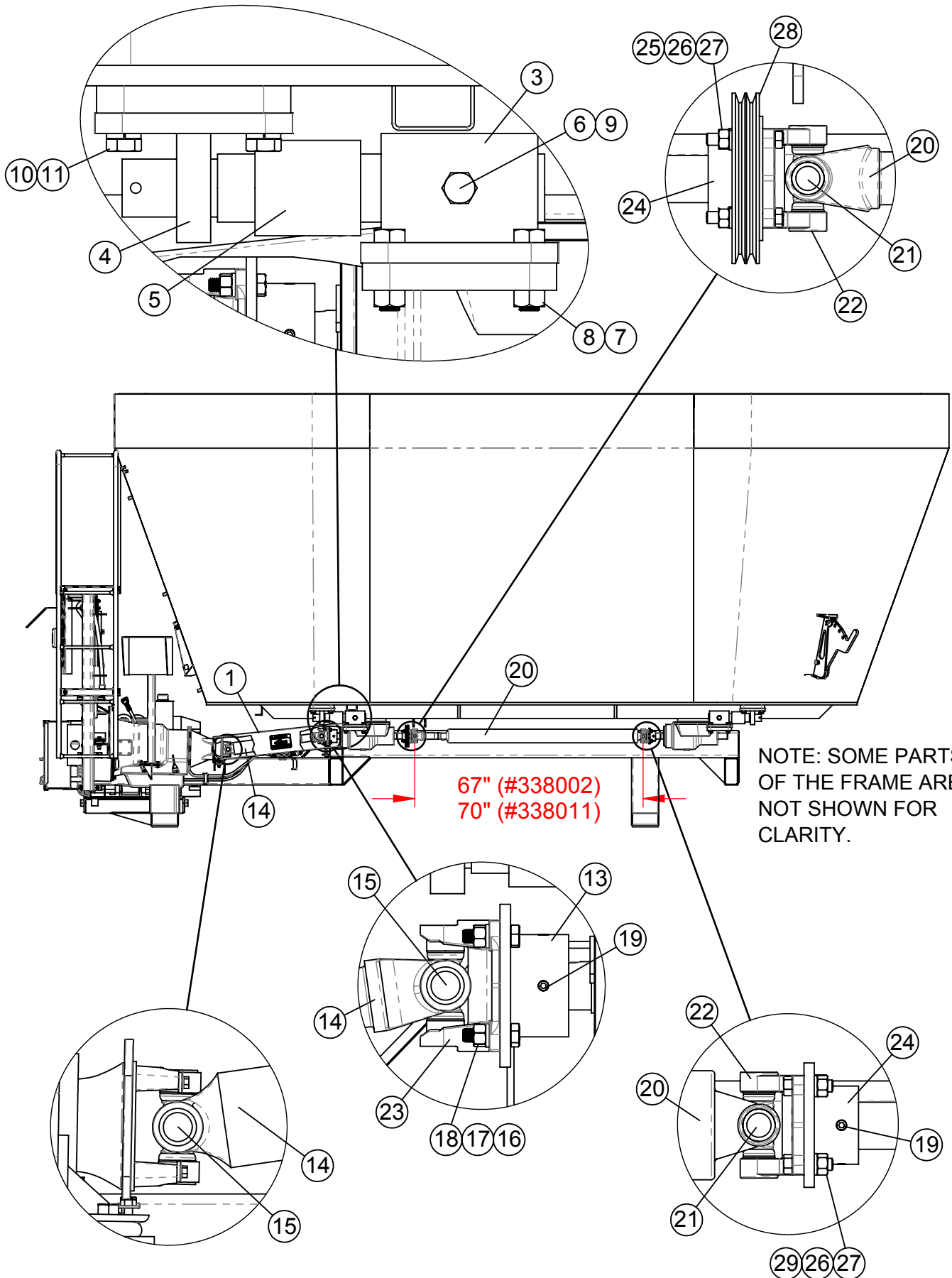
1105-1355-1505 SIDE DOOR ASSEMBLY



1105-1355-1505 SIDE DOOR ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
1	160619	CYLINDER PIN 5 7/8"	1
2	160620	CYLINDER PIN 1" x 4 1/4"	1
3	160710	SUPPORT BAR 29"	1
4	160759	DOOR MARKER PLATE 12"	1
5	160861	BELT HINGE CLAMP 45 1/2"	2
6	160862	BELT SKIRT 28" X 45 1/2"	1
7	160992	BELT DSCH PLT - 10" x 45 1/2"	1
8	161001	SKIRT ROD 1/2" DIA. x 47"	1
9	364079	CYL. 2-1/2" BORE x 1-1/2" ROD x 30-1/4" STROKE	1
10	368007	HYDRAULIC ADAPTER 3/8"MP x 3/8"FPX 90° .109 orifice	2
11	375005	ACRO PLATE MAGNET AM 2200,	2
12	400205	HEX NUT 5/16"-18 #5 PLTD	41
13	400210	HEX NUT 5/8"-11 #5 PLTD	6
14	402005	WASHER 5/16", SPRING LOCK, MED PLTD	41
15	402010	SPRING LOCK WASHER 5/8" PLTD	6
16	402405	FLAT WASHER 5/16" MED PLTD	8
17	402408	FLAT WASHER 1/2" MED PLTD	2
18	402410	FLAT WASHER 5/8" MED PLTD	4
19	402516	WASHER FLAT, 1" SAE PLTD	4
20	404000	COTTER PIN 1/4" x 1 1/2"	4
21	404003	COTTER PIN, 5/32" x 1-1/4" PLTD	2
22	404210	CLIPP PIN 5/32" x 2.94 # 10	2
23	405628	HHCS 5/16"-18 x 1" #5 PLTD	15
24	405629	HHCS 5/16"-18 x 1-1/4" #5 PLTD	10
25	405754	HHCS, 5/8"-11 x 2" #5 PLTD	4
26	405756	HHCS, 5/8"-11 x 2-1/2" #5 PLTD	2
27	407021	CHCS 5/16"-18 x 1" #5 PLTD	16
28	440912	DECAL, DOOR HEIGHT 1-5/16" x 35-1/2"	1
29	860218	DOOR MARKER W.A.	1
30	860258	BELT HINGE W.A.	1
31	860294	MAG SKIRT BOTTOM W.A.	1
32	860823	CYLINDER BRACKET W.A.	1
33	860828	SIDE DISCHARGE DOOR WA	1

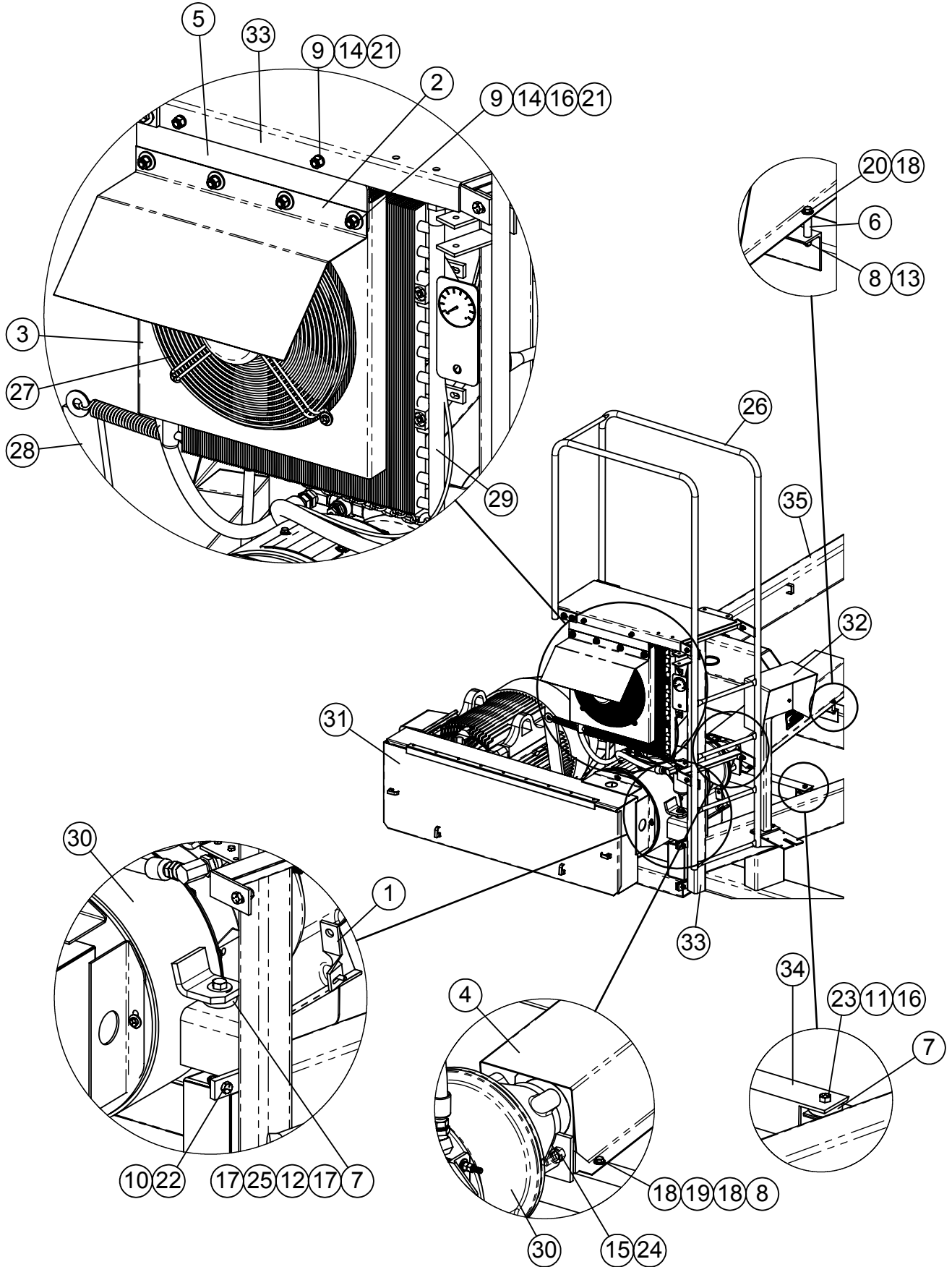
1105A-1355A-1505A DRIVELINE & SCALE PARTS



1105-1355A-1505A DRIVELINE & SCALE PARTS

ITEM #	PART #	DESCRIPTION	QTY.
1	160868	TRANS. DRIVELINE SHIELD	1
2	660025A	2-1/2" WG BAR MNT KIT-VERT	1
3	860055	2-1/2" BAR BLOCK WA	4
4	860054	2 1/2" BAR END BLOCK WA	4
5	450824	WEIGH BAR 2-1/2", 21 FT CORD	4
6	405789	HHCS 3/4"-10 x 5" #5 PLTD	4
7	405781	HHCS 3/4"-10 x 2-1/2" #5 PLTD	16
8	400212	HEX NUT 3/4"-10 #5 PLTD	16
9	401112	HEX NUT, 3/4"-10 NYLOC #5 PLTD	4
10	402012	SPRING LOCK WASHER 3/4" PLTD	32
11	405778	HHCS 3/4"-10 x 1-3/4" #5 PLTD	16
12	660154	TWIN VERT STAT DRIVELINE KIT	1
13	338593	COMPANION FLANGE, 1480 45mm W/KEYWAY	1
14	338009	DRIVELINE, 1480 29-3/4" C-C, (SHAFT ONLY)	1
15	338437	CROSS KIT, SPICER 1480 5-188X	2
16	405704	HHCS 1/2"-13 x 1-3/4" #5 PLTD	4
17	402008	SPRING LOCK WASHER 1/2" PLTD	4
18	400208	HEX NUT 1/2"-13 #5 PLTD	4
19	409200	SHSC 3/8"-16 x 3/8"	6
20	338002	DRIVE LINE 1410, 67" C-C	1
	338011	DRIVE LINE 1350, 70" C-C	1
21	338436	CROSS KIT, SPICER 1350 5-178X	2
22	338429	FLANGE YOKE, SPICER 1350	2
23	338434	FLANGE YOKE, 1480 (2")	1
24	338592	COMPANION FLANGE 1350 45mm W/KW	2
25	405682	HHCS 7/16"-14 x 2 1/2" #5 PLTD	4
26	402007	SPRING LOCK WASHER 7/16" PLTD	8
27	400207	HEX NUT # 5 PLTD 7/16"	8
28	162710	PULLEY, 1350 3V-2 GROOVE DR FLG	1
29	405678	HHCS 7/16"-14 x 1 1/2" #5 PLTD	4

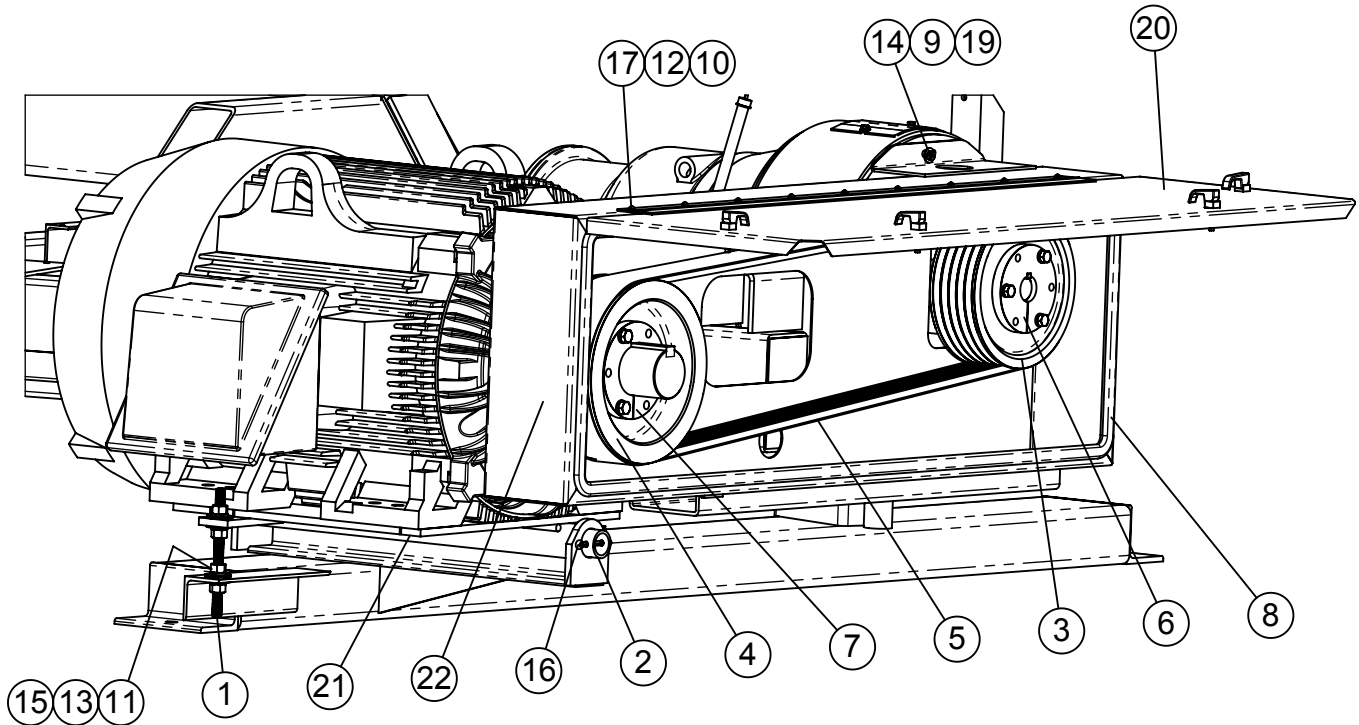
1105A-1355A-1505A STATIONARY BASE ASSEMBLY



1105A-1355A-1505A STATIONARY BASE ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
1	160290	SHIFTER CABLE BRACKET	1
2	160866	FAN SHROUD COVER-15" x 20"	1
3	160867	FAN SHROUD-22" x 24"	1
4	160868	TRANS. DRIVELINE SHIELD	1
5	162401	FAN SHROUD MOUNT PLATE	1
6	162402	SHIELD BOLT SPACER	2
7	351990	TRANS. MOUNT GROMMET 2-2133	4
8	400205	HEX NUT 5/16"-18 #5 PLTD	4
9	400208	HEX NUT 1/2"-13 #5 PLTD	8
10	400909	HEX CROWN LOCKNUT 1/2"-13 #8	4
11	401108	HEX NUT, 1/2"-13 NYLOC #5 PLTD	2
12	401110	HEX NYLOC NUT 5/8"-11 #5 Pltd	2
13	402005	WASHER 5/16", SPRING LOCK, MED PLTD	4
14	402008	SPRING LOCK WASHER 1/2" PLTD	8
15	402010	SPRING LOCK WASHER 5/8" PLTD	2
16	402408	FLAT WASHER 1/2" MED PLTD	8
17	402410	FLAT WASHER 5/8" MED PLTD	4
18	402505	FLAT WASHER 5/16" SAE	8
19	405629	HHCS 5/16"-18 x 1-1/4" #5 PLTD	2
20	405635	HHCS 5/16"-18 X 2-3/4" #5 PLTD	2
21	405702	HHCS 1/2"-13 x 1-1/4" #5 PLTD	8
22	405704	HHCS 1/2"-13 x 1-3/4" #5 PLTD	4
23	405705	HHCS 1/2"-13 x 2" #5 PLTD	2
24	405752	HHCS, 5/8"-11 x 1-1/2" #5 PLTD	2
25	405758	HHCS 5/8"-11 x 3" #5 PLTD	2
26	660130	VERTICAL LADDER BUNDLE	1
27	760063	STATIONARY COOLING FAN ASSY	1
28	760091	1355A STATIONARY HYDRAULIC ASSY	1
29	760104	643 TRANS COOLER ASM - TRL 1105	1
30	760121	644 TRANS ASSY STAT	1
31	760122	1105/1355 STA ELEC DRIVE ASSEMBLY	1
32	860187	CONTROL STAND W.A.	1
33	860280	STAND TUBE W. A.	1
34	860297	643 TAIL SUPPORT WA	1
35	860331	1105/1355 STA SCALE FRAME WA	1

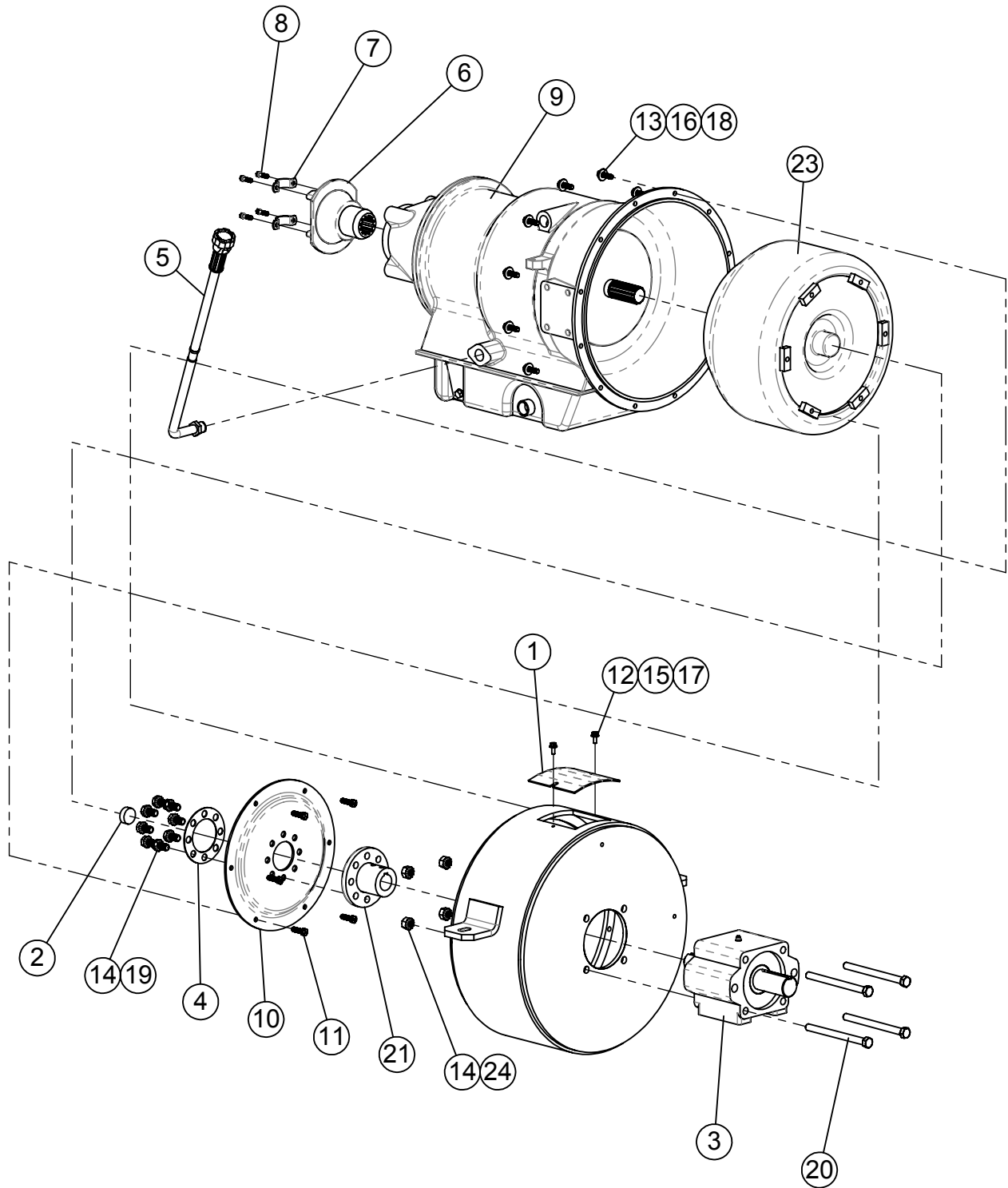
1105A-1355A-1505A STATIONARY ELECTRIC DRIVE ASSEMBLY



ITEM #	PART #	DESCRIPTION	QTY.
1	185106	ALL THREAD ADJUST, 8-3/4"	1
2	185948	620 MOTOR PIVOT TUBE 31-1/2"	1
3	324032	5V-5 GROOVE SHEAVE 10.9" E	1
4	324033	5V-6 GROOVE SHEAVE 12.5" F	1
5	325384	V-BELT POWERBAND 5/5VX-1180	1
6	336138	QD BUSHING, E x 1 3/4"	1
7	336156	QD BUSHING, F x 3 3/8"	1
8	351056	RUBBER BULB SEAL 5/32"	1
9	400107	HEX NUT, 3/8"-16 SERRATED FLANGE #5	3
10	400204	HEX NUT 1/4"-20 #5 PLTD	9
11	400210	HEX NUT 5/8"-11 #5 PLTD	4
12	402004	SPRING LOCK WASHER 1/4" PLTD	9
13	402010	SPRING LOCK WASHER 5/8" PLTD	4
14	402406	FLAT WASHER 3/8" PLTD	2
15	402410	FLAT WASHER 5/8" MED PLTD	4
16	404010	COTTER PIN 5/16" x 3" PLTD	2
17	405000	1/4" x 3/4" BOLT	9
19	405654	HHCS 3/8"-16 x 1-1/4" #5 PLTD	2
20	760066	855 BELT SHIELD DOOR ASSY	1
21	860215	125HP MOTOR PLATE WA	1
22	860216	ELEC BELT SHIELD WA	1

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1105A - 1355A - 1505A STATIONARY TRANSMISSION ASSEMBLY



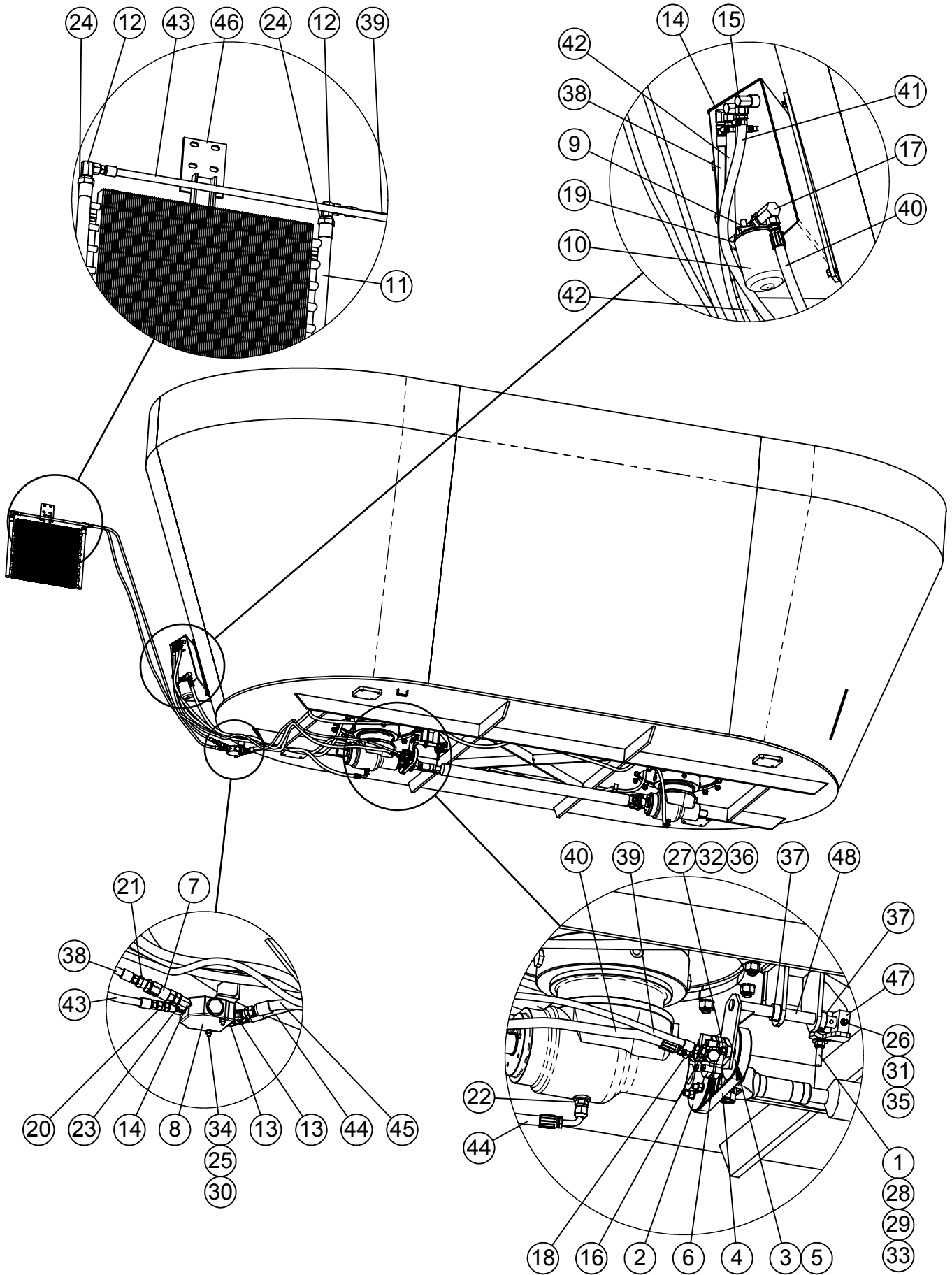
1105A - 1355A - 1505A STATIONARY TRANSMISSION ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
1	160264	HOUSING COVER - 5 1/2" x 5 1/2"	1
2	161053	644 STA CONVERTER SPACER - 1/2"	1
3	344068	OVERHUNG LOAD ADAPTER SAE C MOUNT	1
4	344103	AT 540 SUPPORT RING	1
5	344104	TRANS DIPSTICK	1
6	344113	1480 TRANS. END YOKE STRAP 148	1
7	344114	1480 END YOKE STRAP REBC 148	2
8	344115	1480 STRAP BOLT CS-H5-24-27	4
9	344138	MT644 REBUILT TRANSMISSION	1
10	344139	AT 644 FLEX PLATE	1
11	344140	AT 644 FLEX PLATE BOLT	6
12	402004	WASHER, SPRING LOCK 1/4" PLTD	2
13	402006	WASHER SPRING LOCK 3/8" MED PLTD	12
14	402109	EXTERNAL STAR LOCKWASHER 9/16"	12
15	402404	FLAT WASHER 1/4" PLTD	2
16	402406	FLAT WASHER 3/8" PLTD	12
17	405602	HHCS 1/4" -20 x 3/4" USS #5 PLTD.	2
18	405654	HHCS 3/8"-16 x 1-1/4" #5 PLTD	12
19	405725	HHCS 9/16" x 1" GR 5 PLTD.	8
20	407440	HHCS, 9/16"-12 x 7", #8 Pltd	4
21	860092	CONVERTER PLATE W.A.	1
22	860330	644 STATIONARY HOUSING W/A	1
23	344129	644 TORQUE CONVERTER	1
24	400209	HEX NUT, 9/16"-12, USS #5 Pltd	4

1105A-1355A-1505A TRANSMISSION COOLER ASSEMBLY

ITEM #	PART #	DESCRIPTION	QTY.
%	' %\$, %	6I G< B; ' #("A D'I '%#&"; D	%
&	' * &(\$'	: @PF '<95 8 ' #("Z'N5: ! \$+!&)! \$	%
'	' * &(\$: @PF '9@9A 9BH! '5 9!%\$	%
(' * &)*\$	C @H9A 9F5H F9; 5I ; 9	%
)	' * &)+*	<5 MB 9B '7 C C @F '%&- &	%
*	' *, \$(&	<MB 'GK ∪ 9@' #("A D'I ' #(" : D' - \$,	(
+	' *, \$) +	9@6C K 'GK ∪ 9@%#%#%* "A C F I ' ' #(" : DG' - \$,	%
,	' *, %&+	GF5 ÷ <H5 85 DHC F ' #("A D'I ' #(" : DG	%
-	' *, %&+	GF5 ÷ <H5 85 DHC F '%#%#%* "A C F I ' ' #(" : D	%
%\$	' *, *%*	GF99HH99' #("A D'I ' #(" : D'I ' #(" : D	%
%%	' *, *+\$	6F5 GG'F98I 7 9F '% "A D'I ' #(" : D	&
%&	(\$\$\$*\$	<9L 'BI H' #, '1%*') 'D@B'	(
%	(\$\$\$\$(\$	GDF B; '@ 7?' K 5G< 9F '%#("D@B	&
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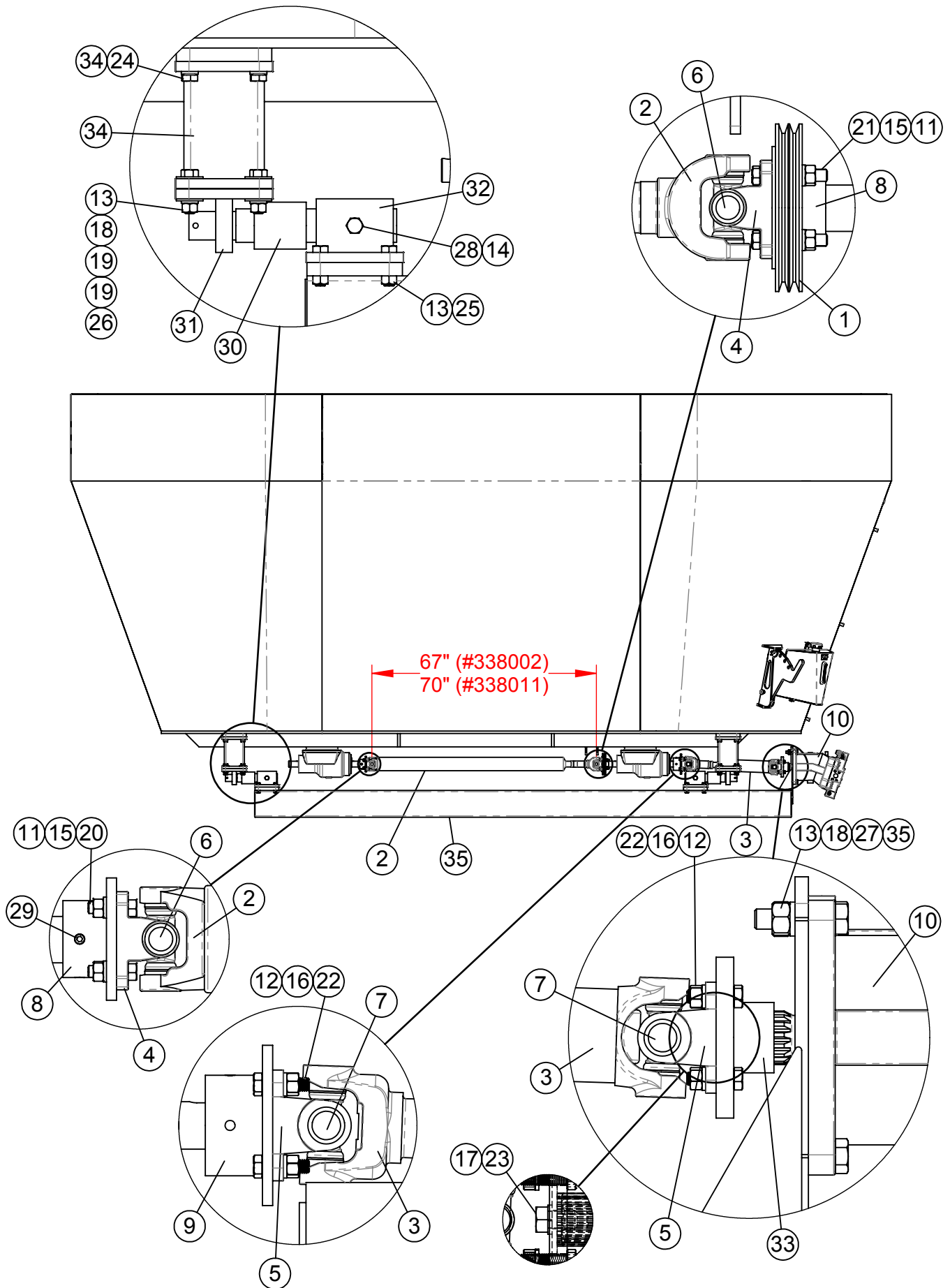
1105 - 1505 CIRCULATION KIT



1105 - 1505 CIRCULATION KIT

ITEM #	PART #	DESCRIPTION	QTY.
1	140689	MOTOR MOUNT TIGHTENER ROD	1
2	162710	PULLEY, 1350 3V-2 GROOVE DR FLG	1
3	324118	SHEAVE , 3V-2GRV X 4.75 SH	1
4	325383	V-BELT POWERBAND, 3VX-355	1
5	336008	BUSHING SH 1/2 QD	1
6	362010	HYDRAULIC PUMP, CCW ,PARKER	1
7	362240	CHECK VALVE, 5 PSI (1/2" FP x 1/2" FP)	1
8	362289	FLOW DIVIDER VALVE, PRINCE HYD	1
9	362403	FILTER HEAD 3/4", ZAF-07-25-0	1
10	362440	FILTER ELEMENT - AE-10	1
11	362578	HAYDEN COOLER 1290 (GB)	1
12	368020	HYD ADAPTER 3/8"MP x 3/8"FPX 90°	2
13	368025	HYD SWIVEL 45° (3/8 MP x 3/8 FPX)	2
14	368028	HYD SWIVEL 90° 1/2"MP x 3/8"FP	2
15	368031	HYD SWIVEL 1/2" MP x 1/2" FP 90°	2
16	368040	HYD SWIVEL 3/4" MOR x 3/8"FP 90°	1
17	368041	HYD SWIVEL 3/4" MP x 1/2" FP - 90°	1
18	368047	HYD SWIVEL 7/8"MOR x 1/2"FP 90°	1
19	368049	HYD ADAPTER, 90° 3/4 MP x 3/4 MP	1
20	368110	HYD ADAPTER, STRAIGHT 3/8MP x 3/8FP SWIVEL	1
21	368116	HYD ADAPTER STR 1/2" x 3/8" FP SWIVEL	1
22	368227	HYD ADAPTER, STRT 1/2 x 3/4JIC (8MJIC-8MBSSP)	4
23	368604	HYD ADAPTER, TEE 3/8" FP x (2)3/8"MP	1
24	368612	HYD BUSHING, STEEL 3/4"MP x 3/8"FP	2
25	400204	HEX NUT 1/4"-20 #5 PLTD	2
26	400205	HEX NUT 5/16"-18 #5 PLTD	1
27	400206	HEX NUT 3/8"-16 #5 PLTD	2
28	400608	HEX JAM NUT 1/2"-13 #5 PLTD	3
29	401108	HEX NUT, 1/2"-13 NYLOC #5 PLTD	1
30	402004	WASHER, SPRING LOCK 1/4" PLTD	2
31	402005	WASHER 5/16", SPRING LOCK, MED PLTD	1
32	402006	WASHER SPRING LOCK 3/8" MED PLTD	2
33	402408	WASHER, FLAT 1/2" MED PLTD	4
34	405610	HHCS 1/4"-20 x 2 1/2" #5 PLTD	2
35	405634	HHCS 5/16"-18 X 2 1/2" #5 PLTD	1
36	407041	CHCS 3/8"-16 x 1-1/4" #5 PLTD	2
37	412416	SET COLLAR 1" PLTD	2
38	781061	HOSE ASM 3/8 x 42, 3/8MP x 3/8MP	1
39	781073	HOSE ASM 3/8 x 144, 3/8MP x 3/8MP	1
40	781352	HOSE ASM 1/2 x 97, 1/2MP	1
41	781386	HOSE ASM, LOLA 1/2 x 184, 1/2MP x 3/4 FJ90	1
42	781387	HOSE ASM, LOLA 1/2 x 97, 1/2 MP x 3/4 FJ90	1
43	781840	HOSE ASM, 3/8 x 109, 3/8MP x 3/8MP	1
44	781890	HOSE ASM 1/2 x 50, 3/8MP x 3/4FJ90	1
45	781891	HOSE ASM, 1/2 x 158, 3/8MP x 3/4FJ90	1
46	860208	COOLER HANGER WA	1
47	860790	CIRCULATION PUMP LEVER ARM WA	1
48	872138	PUMP SWING ARM	1

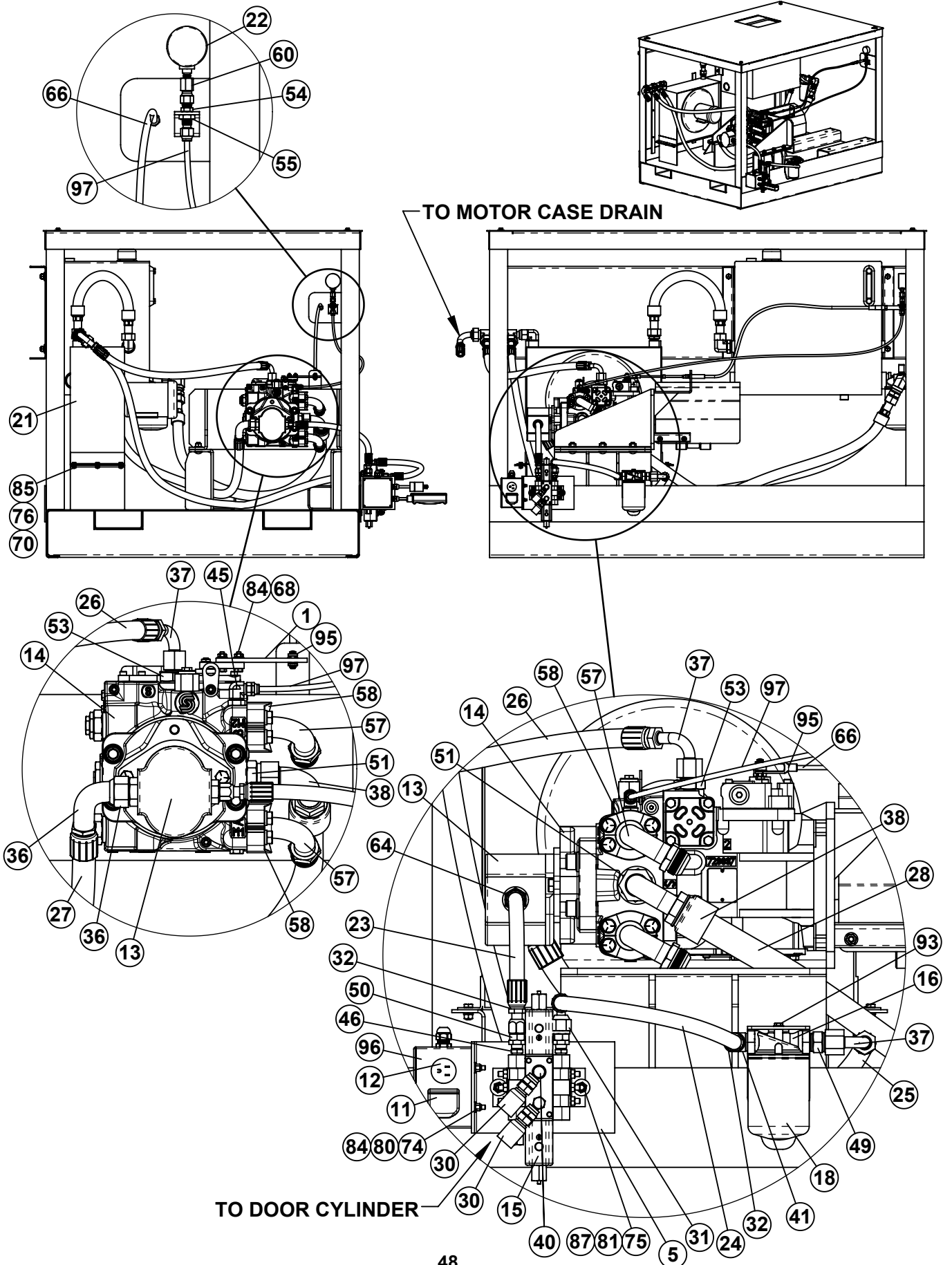
1355H-1505H DRIVELINE & SCALE PARTS



1355H-1505H DRIVELINE & SCALE PARTS

ITEM #	PART #	DESCRIPTION	QTY.
1	162710	PULLEY, 1350 3V-2 GROOVE DR FLG	1
2	338002	DRIVE LINE 1410, 67" C-C	1
	338011	DRIVE LINE 1350, 70" C-C	1
3	338009	DRIVELINE, 1480 29-3/4" C-C, (SHAFT ONLY)	1
4	338429	FLANGE YOKE, SPICER 1350	2
5	338434	FLANGE YOKE, 1480 (2")	2
6	338436	CROSS KIT, SPICER 1350 5-178X	2
7	338437	CROSS KIT, SPICER 1480 5-188X	2
8	338592	COMPANION FLANGE 1350 45mm W/KW	2
9	338593	COMPANION FLANGE, 1480 45mm W/KEYWAY	1
10	360120	BENT AXIS MOTOR 250 VARI DISP	1
11	400207	HEX NUT # 5 PLTD 7/16"	8
12	400208	HEX NUT 1/2"-13 #5 PLTD	8
13	400212	HEX NUT 3/4"-10 #5 PLTD	36
14	401112	HEX NUT, 3/4"-10 NYLOC #5 PLTD	4
15	402007	SPRING LOCK WASHER 7/16" PLTD	8
16	402008	SPRING LOCK WASHER 1/2" PLTD	8
17	402010	SPRING LOCK WASHER 5/8" PLTD	1
18	402012	SPRING LOCK WASHER 3/4" PLTD	52
19	402412	FLAT WASHER 3/4" PLTD	32
20	405678	HHCS 7/16"-14 x 1 1/2" #5 PLTD	4
21	405682	HHCS 7/16"-14 x 2 1/2" #5 PLTD	4
22	405704	HHCS 1/2"-13 x 1-3/4" #5 PLTD	8
23	405752	HHCS, 5/8"-11 x 1-1/2" #5 PLTD	1
24	405779	HHCS 3/4"-10 x 2" #5 PLTD	16
25	405781	HHCS 3/4"-10 x 2-1/2" #5 PLTD	16
26	405782	HHCS 3/4"- 10 x 2-3/4" #5 PLTD	16
27	405783	HHCS 3/4"-10 x 3" #5 PLTD	4
28	405789	HHCS 3/4"-10 x 5" #5 PLTD	4
29	409200	SHSC 3/8"-16 x 3/8"	6
30	450824	WEIGH BAR 2-1/2", 21 FT CORD	4
31	860054	2 1/2" BAR END BLOCK WA	4
32	860055	2-1/2" BAR BLOCK WA	4
33	860277	250 MOTOR 1480 DR HUB W.A.	1
34	860373	RISER BLOCK WA 9-1/2"	4
35	860824	1355H STA FRAME W.A.	1

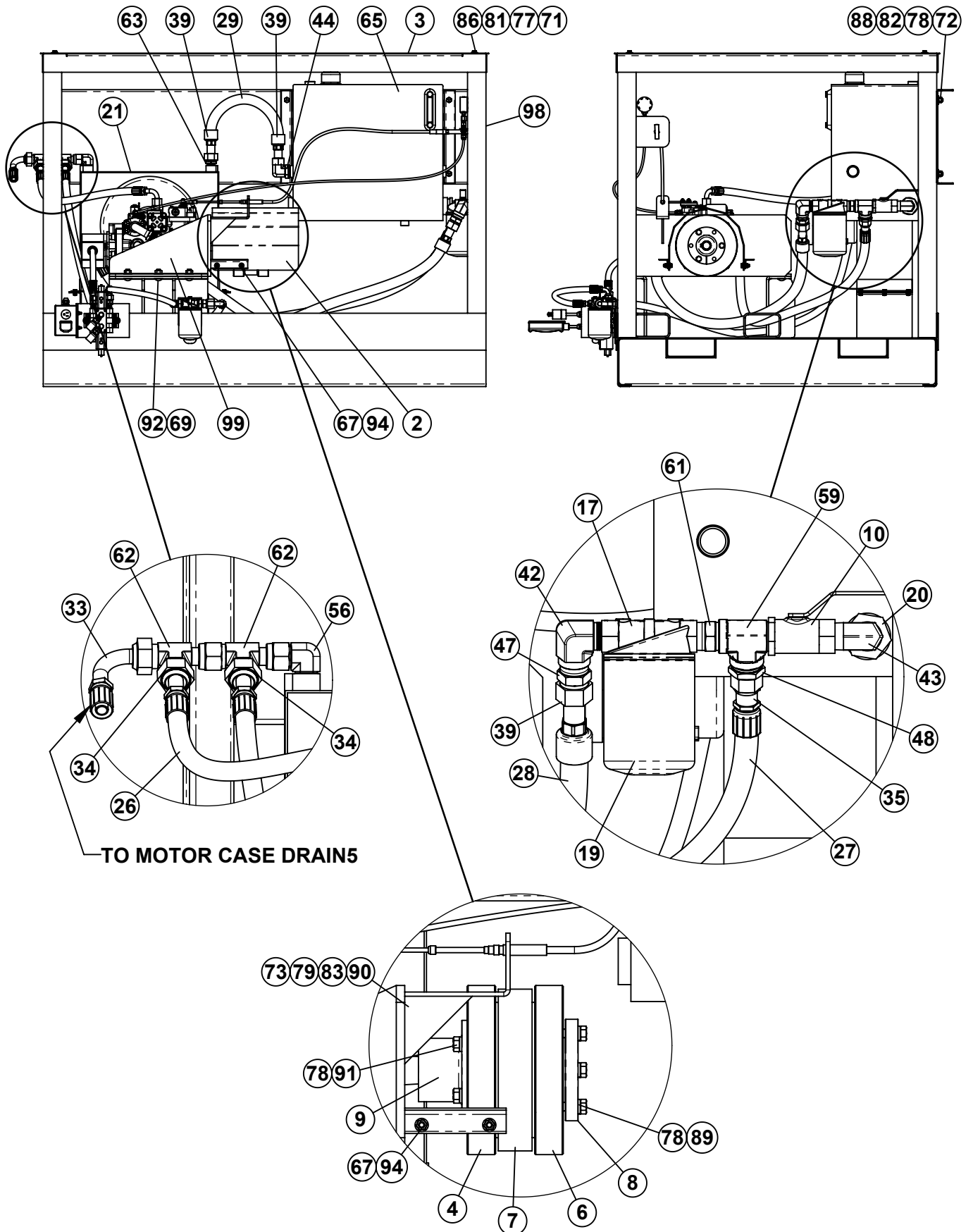
STATIONARY HYDROSTAT POWER UNIT WITH DOOR HYDRAULICS



STATIONARY HYDROSTAT POWER UNIT WITH DOOR HYDRAULICS

ITEM #	PART #	DESCRIPTION	QTY.
1	161308	ARM EXTENSION 3/4 x 5-1/2"	1
5	189250	ELECTRIC SOLENOID BRACKET - 5 1/2" x 14"	1
11	357700	SWITCH - HW 4052 PENDANT	1
12	358410	MALE PLUG - WH 1447 120V	1
13	362008	GEAR PUMP 1.35 IN ³ LH	1
14	362107	PUMP, SAUER, 130 MAN, HYDRO W/FLG	1
15	362205	Hyd Valve 120V Sngl MV5	1
16	362403	FILTER HEAD 3/4", ZAF-07-25-0	1
18	362440	FILTER ELEMENT - AE-10	1
21	362581	HADEN HEAT EXCHANGER	1
22	362806	PSI GAGE, 0-6000 - 1/4 MP STEM	1
23	366008	HOSE ASM, 1/2 x 16, 13/16FFOR x 113/16FFOR	1
24	366008	HOSE ASM, 1/2 x 19, 13/16FFOR x 13/16FFOR90	1
25	366032	HOSE ASM, 3/4 x 69, 1-3/16FFOR90 x 1-7/16FFOR	1
26	366032	HOSE ASM, 3/4 x 34, 1-3/16FFOR90 x 1-7/16FFOR	1
27	366040	HOSE, SUCTION, 1 x 69, 1-7/16FFOR x 1-7/16FFOR90	1
28	366047	HOSE ASM, 1-1/4 x 63, 1-11/16FFOR x 1-11/16FFOR90	1
30	367086	HOSE STEM 3/8"MP x 1/2" MEGACRIMP	4
31	367098	HOSE COUPLING 1/2" x 13/16"FFORX90S	1
32	367100	HOSE COUPLING 1/2" x 13/16"FFORX	3
36	367139	HOSE COUPLING, 1" x 16G-16FFORX90S	1
37	367142	HOSE COUPLING 3/4" x 1-3/16"FFORX90S	3
38	367151	HOSE COUPLER, 1-1/4" x 1-11/16 FFORS90	1
40	368030	HYD SWIVEL 9/16"MOR x 3/8"FPS 90°	2
41	368035	HYDRAULIC ADAPTER 3/4"MP x 13/16ORFS 90°	1
45	368081	ELBOW, 90° 9/16MOR x 9/16MJIC	1
46	368115	STRAIGHT ADAPTER 9/16 MOR x 3/8 FPS	2
49	368144	STRAIGHT ADAPTER, 3/4" MP x 1-3/16" FFOR	1
50	368190	STRAIGHT ADAPTER, 13/16" ORFS x 9/16" MORB	2
51	368192	STRT ADPT, 1-5/8" MOR x 1-11/16" FFOR	1
53	368302	STRT ADPT, 1-5/16 MOR x 1-3/16 FFOR	2
54	368336	ST ADPT, 9/16 JIC BULKHEAD	1
55	368337	BULKHEAD NUT, 9/16" JIC	1
57	368452	FLANGE, 20FLH-20MJ90 O-Ring C62	2
58	368453	FLANGE SET 20 FHH C62 (1-1/4")	4
60	368639	ADAPTER, 1/4 NPT x 9/16 JIC SWIVEL	1
64	368713	STR ADPT, 13/16 FFOR x 1-1/16 MOR	1
66	370305	T-LOCK CABLE, 6' (NO CLEVIS)	1
68	400113	FLANGE HEX NUT, 1/4"-20 SERRATED	2
70	400205	HEX NUT 5/16"-18 #5 PLTD	6
74	401104	HEX NUT, NYLOC 1/4"-20 #5 PLTD	4
75	401106	HEX NUT, 3/8"-16 NYLOC #5 PLTD	2
76	402005	SPRING LOCK WASHER 5/16" MED PLTD	6
80	402404	FLAT WASHER 1/4" PLTD	8
81	402406	FLAT WASHER 3/8" PLTD	12
84	405604	HHCS 1/4"-20 x 1" #5 PLTD	6
85	405627	HHCS 5/16" x 3/4" #5 PLTD	6
87	405654	HHCS 3/8"-16 x 1-1/4" #5 PLTD	2
93	407875	HHCS 1/4" -20 x 1" WHIZ	2
95	411813	CLEVIS ROD END, 1/4"-28	1
96	453717	J-BOX SHELL	1
97	781629	HOSE, 1/4" , 9/16" FJIC ENDS	1

STATIONARY HYDROSTAT POWER UNIT WITH DOOR HYDRAULICS



STATIONARY HYDROSTAT POWER UNIT WITH DOOR HYDRAULICS

ITEM #	PART #	DESCRIPTION	QTY.
2	162843	DRIVELINE SHIELD 14 x 26-11/16	1
3	171630	HYDROSTAT BASE COVER	1
4	171691	QUADRA-FLEX CPLG MACH. FOR COMP FLANGE	1
6	332800	COUPLING FLANGE, QUADRA-FLEX, 12B-E	1
7	332801	QUADRA-FLEX SLEEVE, 12E	1
8	336147	QD BUSHING, E x 3-3/8"	1
9	338412	COMP FLANGE, 1 3/4" TAPERED 1480	1
10	348335	BRASS BALL VALVE, 1-1/4" FP	1
17	362404	FILTER HEAD, 1-1/4" FP	1
19	362442	FILTER ELEMENT 1-1/4"	1
20	362507	SUCTION SCREEN 2" x 1 1/4"	1
21	362581	HADEN HEAT EXCHANGER	1
26	366032	HOSE ASM, 3/4 x 34, 1-3/16FFOR90 x 1-7/16FFOR	1
27	366040	HOSE, SUCTION, 1 x 69, 1-7/16FFOR x 1-7/16FFOR90	1
28	366047	HOSE ASM, 1-1/4 x 63, 1-11/16FFOR x 1-11/16FFOR90	1
29	366047	HOSE ASM, 1-1/4x 24, 1-11/16FFOR x 1-11/16FFOR	1
33	367113	HOSE COUPLING 3/4 x 1-7/16 ORFS90	1
34	367114	HOSE COUPLING 3/4 x 1-7/16 ORFS	2
35	367137	HOSE COUPLING 1" x 16G-16FFORX	1
39	367152	HOSE COUPLING 20G-20FFORX x 1-1/4	3
42	368036	HYDRAULIC ADAPTER 1-1/4"MP x 1-1/4"FP 90°	1
43	368070	ELBOW, 90°, 1-1/4 MP x 1-1/4 MP	1
44	368071	ELBOW 90° 1 1/4" MP x 1 11/16" ORFS	1
47	368137	HYDRAULIC ADAPTER 1-1/4"MP x 1-11/16"FFOR	1
48	368143	STRAIGHT ADAPTER, 1-1/4" MP x 1-7/16" ORFS	1
56	368428	HYD ADAPTER 90°, 1" MP x 1-7/16" FFOR	1
59	368631	STREET TEE, 1-1/4"	1
61	368648	HEX NIPPLE, 1-1/4" MP x 1-1/4" MP	1
62	368676	TEE, RUN 1-7/16" FFORX	2
63	368709	ST ADPT, 1" MP x 1-11/16" FFOR	1
65	370230	HYDRAULIC RESERVOIR BUYERS SMR 30S	1
67	400107	HEX NUT, 3/8"-16 SERRATED FLANGE #5	4
69	400115	HEX NUT, 5/8"-11 SER. FLANGE #5 PLTD	6
71	400206	HEX NUT 3/8"-16 #5 PLTD	4
72	400208	HEX NUT 1/2"-13 #5 PLTD	4
73	400212	HEX NUT 3/4"-10 #5 PLTD	4
77	402006	WASHER SPRING LOCK 3/8" MED PLTD	4
78	402008	SPRING LOCK WASHER 1/2" PLTD	11
79	402012	SPRING LOCK WASHER 3/4" PLTD	4
81	402406	FLAT WASHER 3/8" PLTD	12
82	402408	FLAT WASHER 1/2" MED PLTD	2
83	402512	FLAT WASHER 3/4" SAE	4
86	405653	HHCS 3/8"-16 x 1" #5 PLTD	4
88	405702	HHCS 1/2"-13 x 1-1/4" #5 PLTD	4
89	405708	HHCS, 1/2"-13 x 2-3/4", #5 PLTD	3
90	405780	HHCS 3/4"-10 x 2-1/4" #5 PLTD	4
91	406103	HHCS, 1/2"-20 x 1-1/2", #5 PLTD	4
92	407120	5/8"-11 x 1-1/2" #5 PLTD CARRIAGE BOLT	6
94	407901	HHCS 3/8"-16 X 1" SERRATED #5 PLTD	4
98	875454	STATIONARY HYDROSTAT BASE WA	1
99	875488	PUMP MOUNT WA, 130	1