



**Parts & Service Manual
for
Tailgate Spreader
MS969**



Monroe Snow & Ice Control
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General Information

- Use only Monroe Truck Equipment O.E.M. replacement parts. Failure to do so will void the warranty.
- Location descriptions are noted in direction of travel (i.e. front, rear, left and right).
- Delivery of replacement parts is subject to our sales delivery terms.
- Replacement parts listed in this manual reflect the most common items for this product. If you do not find the part you require, please call your distributor.
- Monroe Truck Equipment reserves the right to make revisions or alterations to the parts manual at any time.

How to Order Parts

To order or inquire about replacement parts, please contact the distributor or store that the product was purchased through. To speed the information flow, please have the following information available:

- Model Number
- Serial Number
- Part Number and/or Description of the Part
- Quantity Needed

For further information about Monroe Truck Equipment replacement parts, please call 877-834-9049.

Return Policy

Merchandise returned to Monroe Truck Equipment must have a Warranty Service Request (WSR) form filled out completely and signed by authorized personnel.

To get your WSR form for replacement parts, call Warranty at 877-834-9049.

All returned items are subject to a 15% restocking fee and ***must be sent freight pre-paid.***

WARNING

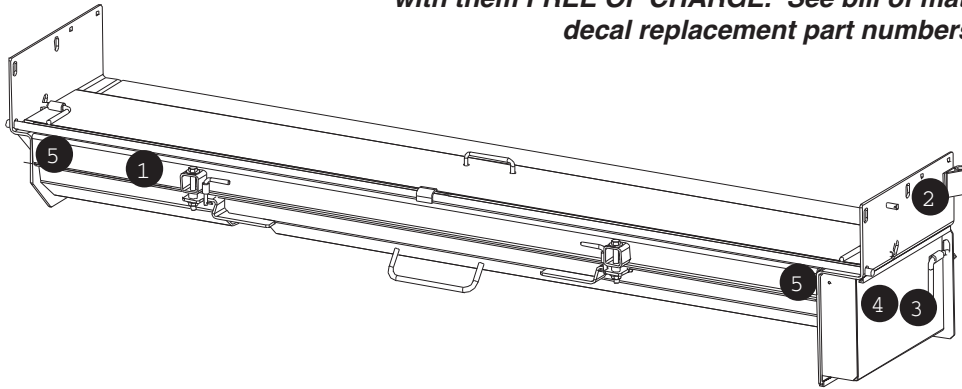
Before working under the vehicle or around the spreader, shut off the truck engine and remove the key from the ignition. Prevent accidental startup and operation of the spreader to avoid personal injury!

Keep body parts away from the auger when it is turning. Never try to clear jammed material with the auger turning. Never try to manually feed material into the turning auger. Hands, feet, hair, and clothing can become entangled in moving parts causing death or severe injury.

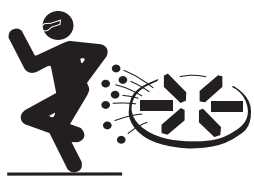
- Locate and read all safety decals on the unit before operating the spreader. Familiarize yourself with all potential hazards in operating this equipment.
- Read all installation, operation, and maintenance instructions before operating the spreader.
- Keep all provided shields, covers, and guards in place during operation of the unit.
- Stay away from moving chains, gears, and augers. Hands, feet, hair, and clothing can become entangled in moving parts, causing death or severe injury.
- Stay away from the spinner when it is rotating. The spinner can throw granular material with great force and can cause severe eye injury or blindness.
- Never enter the dump body unless the vehicle is turned off and the ignition key is removed. Follow lock-out/tag procedures for working on hazardous equipment.
- If the auger jams or the granular material is frozen in the spreader, shut down and lock-out/tag the engine and hydraulic system, then clean out the trough to free up the auger.
- Watch for hydraulic fluid leaks at fittings and hoses. High-pressure fluid leaks can penetrate skin and cause severe injury.
- Do not climb on the spreader at any time.
- If the spreader needs repair or the controls are not functioning properly, repair the unit immediately. Do not continue to operate a malfunctioning unit—further and more serious damage may occur.

Safety Decal Location

Should you ever need replacement decals or parts/maintenance manuals, simply contact MTE and we will supply you with them **FREE OF CHARGE**. See bill of material for safety decal replacement part numbers.



1



! WARNING
 Turning spinners throw material. Stay clear & wear eye protection while spinner is turning. Failure to heed will result in serious injury.
IF DEFACED - ORDER PART NO. 05051402


2

! CAUTION

1. Keep all guards/shields in place.
2. Make certain everyone is clear of machine before starting engine or operation.
3. Keep hands, feet and clothing away from power driven parts.
4. Disengage PTO, shut off hydraulic valve and set parking brake before leaving operator's position. Make sure all movement has stopped before servicing or unclogging machine.
5. Make sure machine is solidly supported when it is being mounted, dismantled or stored.
6. Use flashing lights when operating machine.

IF DEFACED - ORDER PART NO. 05051404

3



! WARNING
 Moving parts can crush and dismember. Do not operate with shield removed. Keep hands clear.
IF DEFACED - ORDER PART NO. 05051403

Used only on the Chain Drive Units

4

! DANGER
 Keep all guards/shields in place. Moving parts can crush and dismember.
IF DEFACED - ORDER PART NO. 05052310

Used only on the Chain Drive Units

5



! DANGER
 Turning augers can crush and dismember. Turn engine off before servicing.
IF DEFACED - ORDER PART NO. 05051401

Safety Decal Signal Words

 **DANGER**

DANGER (*Red*) indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

 **WARNING**

WARNING (*Orange*) indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

 **CAUTION**

CAUTION (*Yellow*) indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

 **CAUTION**

CAUTION (*Yellow*) used without the safety risk alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

Welding Guidelines

- Structural welds may be defined by a Weld Procedure Specification (WPS) document. Where applicable, this document will be included in the installation instructions for Snow & Ice products. Where a WPS is provided, welds are to be performed following the specifications and instructions on the WPS.
- Where a WPS applies, the person performing the welding should be qualified (tested) to the procedure on the WPS. This is to verify that the person can successfully perform the required weld.
- If a WPS is not provided, follow the general guidelines given below.
- For stick (rod) welding (SMAW) use low-hydrogen rods such as AWS A5.1, E7018. Welding rods must be stored in accordance with AWS D1.1, Section 5.3.2.1 to prevent absorption of moisture and other contaminants.
- For wire (gas shield) welding (GMAW) use AWS A5.18, ER70S-6, F6 wire. Wire diameter must be 0.035" or 0.045 as dictated by the size of the weld or as indicated on the applicable WPS.
- All welds must have adequate penetration and fillet size to obtain maximum strength of the weld. Cold lap welds and undercutting are not acceptable. Unacceptable welds must be ground out and re-welded. Typically, 3/8" weld fillets are required, unless a WPS states differently.
- Verify that the welding machine being used is working properly and that the volt/amp gauges are accurate when making settings based on a WPS.
- Components to be welded must be clean and dry at the weld area, with paint, rust, and oil removed.
- Unless otherwise directed on a WPS, all parts to be welded must be at least 50° F before welding is performed.

Welding Guidelines *(Continued)*

- When welding cast parts such as pipe brace balls, the parts must be heated to 150° F for several minutes to drive out any moisture.
- When welding to large parts that will act as a heat sink, pre-heating of the weld area may be required to insure equal penetration on both parts. Refer to the applicable WPS or to AWS guidelines if available. Before heating parts, check for wiring, hoses, and other components that could be damaged by the heat. Remove or move these components before applying heat to the area.
- Disconnect all battery cables (both positive and ground) before welding to help prevent damage to electronic components on the chassis.
- Always be sure the welder has a good ground contact as close to the weld point as possible. Remove dirt, paint, and grease from the area where the ground will be connected. This will help prevent damage to electronic components on the chassis.
- Never “quench” hot welds or otherwise accelerate cooling. Allow all welds to cool in still air.
- Welding on MTE products for any reason other than instructed installation procedures is prohibited and may void the warranty on the product.
- Never cut, weld, or grind directly on a chassis frame. Do not drill additional holes through a chassis frame unless directed to do so in the installation instructions.
- This information applies only to products and installation instructions where welding is instructed and allowed. Use of welding where threaded fasteners are indicated in the installation instructions may void the warranty on the product and/or the OEM chassis components.

WARNING

Before working under the vehicle or around the spreader, shut off the truck engine and remove the key from the ignition. Prevent accidental startup and operation of the spreader to avoid personal injury!

Keep body parts away from the auger when it is turning. Never try to clear jammed material with the auger turning. Never try to manually feed material into the turning auger. Hands, feet, hair, and clothing can become entangled in moving parts causing death or severe injury.

In Season

Threaded Fasteners

- Re-torque all fasteners after the first 8 hours of use.
- Check for loose, damaged, and missing fasteners before each use.
- Inspect and re-torque all fasteners at the beginning of each snow season.

Grease Lubrication

- Lubricate grease fittings every 10 hours during normal use and more often during heavy use (does not apply to sealed bearings).
- Do not over-grease sealed bearings. Grease should not be pushed out past the seals on these bearings. Refer to the greasing chart for sealed bearings.

Hydraulic System

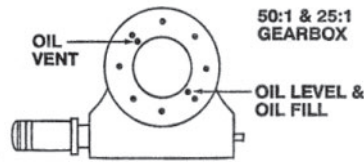
- Tighten all hydraulic fittings after the first 8 hours of use.
- Inspect hydraulic fittings for leaks every week and tighten as required. If a hydraulic fitting continues to leak after being tightened, replace the fitting as soon as possible.
- Maintain the hydraulic oil level at the upper black line on the reservoir sight gauge or two inches below top of tank if there is no sight gauge. Use a high-grade, non-foaming hydraulic oil. Do not mix different types and grades of hydraulic oil.
- Keep dirt and other contaminants out of the reservoir. Pour oil through filter or screen when adding oil. Never operate the system with the filler cap not installed.
- Change the hydraulic oil annually or more often if it appears milky or discolored, or if it smells burned. If the oil needs to be changed frequently, investigate for a source of contamination or system overheating.
- Change the oil filter after the first 50 hours of operation, and then every 6 months or when the pressure differential gauge indicates the filter is plugging.
- When quick-disconnects are separated, cover and cap the ends to prevent the entry of contaminants into the hydraulic system and possible impact damage to the ends.
- Inspect the hydraulic hoses for wear or damage every month, especially hoses attached to moving components.

Spreader Auger & Drive

- If the spreader auger has a chain drive, lubricate the chain lightly with oil either weekly or monthly, depending on frequency of use.
- The slack on a drive chain must be checked after the first 8 continuous hours of operation and then weekly during the in-service period. If the chain is loose, loosen the motor mounting plate and rotate it until chain slack is removed. Position the motor by hand to avoid over-tightening the chain—do not pry on the motor with a bar or other tool.

Maintenance Instructions

- If a drive gearbox has a vent, keep the vent open and unobstructed. A blocked vent can cause seal damage.
- Check the oil level in the gearbox once a month during the in-service period.
- Change gearbox lubricant annually or more often if the oil turns milky, indicating water contamination. Use SAE 80-90 gear oil or the oil specified by the gearbox manufacturer.



WARNING
THE OIL LEVEL MUST BE CHECKED BEFORE PLACING THE UNIT INTO OPERATION! OIL LEVEL SHOULD BE CHECKED PERIODICALLY THEREAFTER.

Ambient Temperature	Lubricant
-20° to 0° F	SAE 10W/30 or 10W/40 Automotive Oil
0° to 40° F	SAE 80 Gear Oil with Anti-Foaming Agent
40° to 100° F	SAE 90 Gear Oil with Anti-Foaming Agent
100° to 150° F	SAE 140 Gear Oil with Anti-Foaming Agent

Routine Care

- Check the operation of the spreader before each use.
- Verify that the auger runs smoothly and the spreader controller can vary the drive speed through its full range. A bent auger must be straightened or replaced.
- Verify that the spinner runs smoothly and the spreader controller can vary the drive speed through its full range.
- Verify that the Blast function at the spreader controller is working properly (if applicable).
- If the controller uses ground speed to control the conveyor speed, verify that this function is working properly.
- Unless the vehicle is stored inside a heated building, empty the body and spreader trough of all granular material before parking the vehicle in freezing conditions. Wet or damp material will freeze solid, making the spreader unusable until it is thawed out.
- At the end of each storm event, remove all material from the box, then pressure-wash the underside of the chassis and the spreader, especially all horizontal surfaces. Removing salt and other chemicals regularly will prolong the life of all components.

Maintenance Schedule

- Due to the harsh operating conditions of a spreader, regular inspection and maintenance is critical to safe operation and durability of the spreader. The owner or end user must create and enforce the use of an inspection and maintenance schedule.

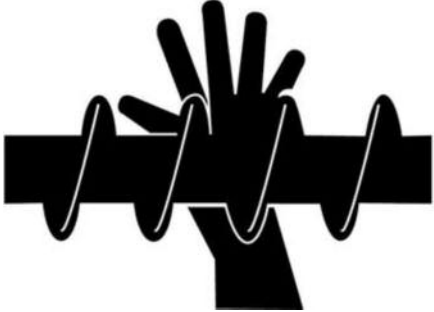

Off Season



- Typically, the spreader is removed from the vehicle and stored for the summer season.
- Remove all granular material from the spreader and pressure-wash it thoroughly to remove all dirt, salt, and other chemicals.
- When removing the spreader, support it with a forklift or overhead hoist. Do not attempt to hold the spreader unit manually when removing it.
- When hydraulic quick-disconnects are separated, cover and cap the ends to prevent the entry of contaminants into the hydraulic system and possible impact damage to the ends.
- Set the spreader on stable blocking to keep it off the ground.
- Keep all installation parts, including the spinner, with the spreader to avoid losing parts during storage.
- Inspect the spreader closely for damage and make any required repairs immediately so that the spreader is ready to be reinstalled and used at the start of the next winter season.
- If possible, store the spreader indoors or under cover to reduce rusting and UV damage to hoses.
- If the spreader body is painted mild steel, repair damaged paint to extend the life of the unit.



SWP-	00245
Task:	Clean out spreader trough
Product:	Under tailgate spreader
Application:	All
Reference:	n/a



Standard Work Procedure

<p>DANGER</p> 		<p>Crushing and dismemberment hazard. Can cause death or serious injury.</p> <p>Stay away from moving auger. Never work on the spreader with the auger turning.</p> <p>Shut off vehicle & disable hydraulic system before accessing the spreader auger.</p> <p>Keep all covers and shields in place when the auger is turning.</p>
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<p>DANGER</p> 		<p>Crushing and dismemberment hazard. Rotating auger can cause death or serious injury.</p> <p>Stay away from moving gears and drive chains. Never work on the spreader with the drive turning.</p> <p>Shut off vehicle & disable hydraulic system before accessing the drive system.</p> <p>Keep all covers and shields in place when the drive is turning.</p>
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<p>DANGER</p> 		<p>Crushing and dismemberment hazard. Rotating auger can cause death or serious injury.</p> <p>Do not climb into the dump bed or climb on the spreader when the auger is turning. Do not try to push granular material into the auger from inside the dump bed.</p> <p>Shut off vehicle & disable hydraulic system before cleaning out the dump bed or spreader.</p>
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SWP-	00245
Task:	Clean out spreader trough
Product:	Under tailgate spreader
Application:	All
Reference:	n/a



Standard Work Procedure

<p style="text-align: center;">WARNING</p> 	 <p>Eye and facial injury hazard. Granular material can cause blindness or serious eye injury.</p> <p>Stay away from the spinner when it is turning. Never work around a turning spinner when there is granular material in the spreader.</p> <p>Wear eye and face protection when working on or around a spinner. As a minimum, wear safety glasses with side shields.</p>
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<p style="text-align: center;">NOTE</p>	 <p>Never leave a vehicle with granular material in the spreader outside in freezing weather. If the material has moisture in it, the material in the spreader (and in the body) may freeze solid.</p> <p>If a spreader vehicle cannot be stored in a heated building, dump the material load and run the spreader until it is empty before parking the vehicle.</p>
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SWP-	00245
Task:	Clean out spreader trough
Product:	Under tailgate spreader
Application:	All
Reference:	n/a



Standard Work Procedure

Look	Action	Task
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		<ol style="list-style-type: none"> 1. Stop the vehicle, shut off the hydraulic system and the engine, then remove the ignition keys so the engine cannot be restarted. 2. If your shop has a formal lockout/tag program for powered equipment, follow all program instructions.
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		<ol style="list-style-type: none"> 3. Disconnect the spreader hydraulic hoses. This will insure that the auger and spinner cannot be started while the spreader is being worked on. 4. If the spreader uses an electric drive motor, disconnect the power wiring for the motor.
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<p>NOTE</p>		<p>Some brands and models of spreaders have mechanical “interlocks” that require the hydraulic hoses or electrical motor wiring to be disconnected before the bottom trough cover can be opened.</p> <p>Refer to the instructions provided with the spreader for information on using the interlocks.</p>
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SWP-	00245
Task:	Clean out spreader trough
Product:	Under tailgate spreader
Application:	All
Reference:	n/a



Standard Work Procedure

Look	Action	Task
		<ol style="list-style-type: none"> 5. Lift the lock pin on one of the bottom trough cover levers and move the lever to the open position. 6. Lift the lock pin on the other bottom trough cover lever. 7. Hold the handle in the middle of the bottom trough cover and move the other lever to the open position.
		<ol style="list-style-type: none"> 8. Lower the bottom trough cover carefully to the fully open position. 9. Use a metal rod, a scraper, or a small shovel to break loose any packed or frozen material in the auger. 10. If the vehicle is inside a shop, a water hose or pressure washer may be used to loosen and remove compacted or frozen material.
		<ol style="list-style-type: none"> 11. If material is frozen solid in the spreader, open the top lid and work from the top to loosen the material. A heated pressure washer is the quickest method of getting frozen material out of the trough. 12. The vehicle can also be left overnight in a heated building to allow the material to thaw.

SWP-	00245
Task:	Clean out spreader trough
Product:	Under tailgate spreader
Application:	All
Reference:	n/a



Standard Work Procedure

Look	Action	Task
		<ol style="list-style-type: none"> 13. When the trough is cleaned out, inspect all parts for damage related to the jammed auger. Make necessary repairs before placing the spreader back in service. 14. Close the top lid (if it was opened). 15. Raise the bottom cover and move the latch levers to the closed position. 16. Make sure that the lock pins drop down to prevent the levers from opening accidentally.
		<ol style="list-style-type: none"> 17. Clean the ends of the hydraulic quick disconnects for the auger and spinner and reconnect them. 18. If the spreader uses an electric motor, reconnect the power wiring. 19. If the spreader uses an interlock device, verify that the hydraulic or electric connections are reestablished when the interlock is engaged.
		<ol style="list-style-type: none"> 20. Start the vehicle engine and the hydraulic system. 21. Run the spreader to verify that the auger and spinner are operating normally.

Product Description & Function

The MTE under tailgate spreader is a removable unit that attaches to the rear of a dump body. Mounting plates attach permanently to the sides of the rear posts. The spreader body pins to the mounting plates with heavy-duty slide-in pins for quick installation and removal. Angled support straps attach to pins in the rear posts with lynch pins and are also easy to remove.

A spinner assembly mounts to the truck frame and the spreader and uses linkage to keep the spinner level as the dump body is raised. The spinner spread pattern is easily adjusted by loosening two bolts. The spinner assembly is retained by lynch pins and can be removed quickly.

The spreader is fed granular material through the body tailgate. The auger in the spreader trough carries the material to an opening at one end or in the middle of the spreader and drops it on to the spinner. MTE under tailgate spreaders are compatible with most granular materials, such as salt, sand, cinders, and stone chips.

A hinged top cover plate allows the tailgate to swing past the spreader when not in use, and a load in the dump bed can be dumped over the spreader. A hinged trough at the bottom of the spreader allows easy clean-out of frozen or jammed granular material.

The hydraulic auger and spinner motors can be driven and controlled by a variety of hydraulic and spreader control systems.

Installation Requirements

The MTE under tailgate spreader kit includes the spreader with hydraulically-driven auger, spinner assembly with hydraulic motor, mounting brackets, support straps, and mounting hardware. The following are required for installation and operation but are not a part of the standard MTE spreader kit.

- Vehicle hydraulic system that can deliver 15 gpm of oil at a maximum pressure of 1,500 psig.
- Hoses, fittings, quick-disconnects, control valves, etc. for connecting vehicle hydraulic system to the auger and spinner.
- Spreader controller (manual or electric).

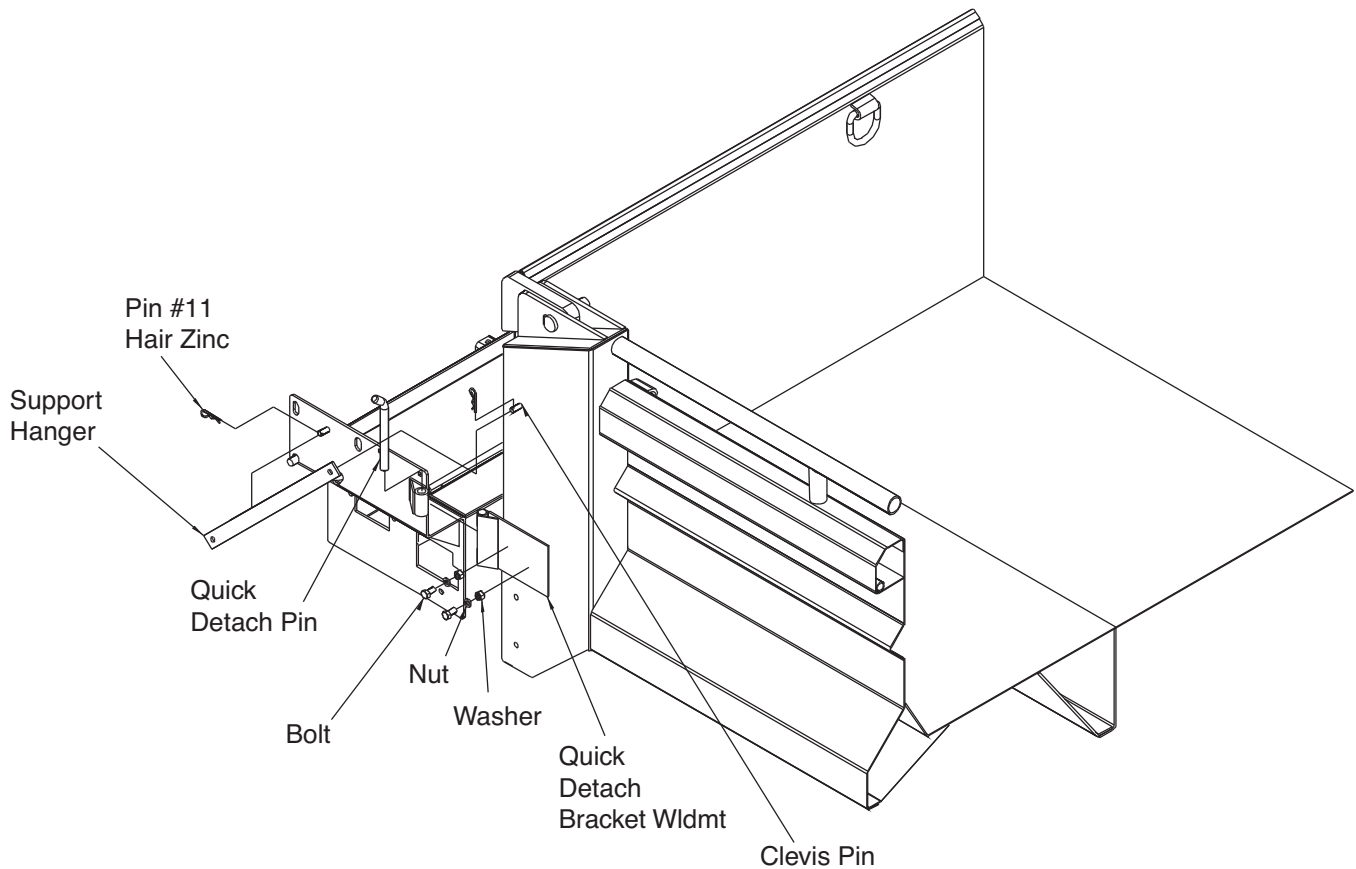
Spreader Installation

1. Unpack the spreader and verify that all required parts have been received. Installation hardware may be inside the spreader.
2. Open the dump body tailgate from the top (rotate on bottom hinges) and position it horizontal with the chains.
3. Mark a line on the back of the dump body (apron) at the level of the underside of the tailgate. Close the tailgate.
4. Mark another line 1" below the line made in step 3. This is the mounting elevation for the spreader and will allow the tailgate to be opened from the top with the spreader installed.



DO NOT INSTALL SPREADER UNLESS SOLIDLY SUPPORTED. USE APPROPRIATE MATERIAL HANDLING EQUIPMENT TO LIFT IN PLACE.

5. Use a forklift or other means to position the spreader at the back of the dump body. The spreader must be as close to the body as possible to prevent granular material leakage past the spreader. If the back of the body is not flat, a strip of 7 ga. steel can be welded or bolted to the spreader trough to fill gaps between the spreader and dump body.
6. Position the top of the spreader at the line marked in step 4. Level the top of the spreader with the floor of the dump body.
7. Verify that the position of the spreader will allow the tailgate to be opened from the top or bottom with the spreader installed.
8. Pin the Quick-Disconnect (QD) mounting brackets to the brackets on the spreader with the supplied bent pins.
9. Hold the mounting brackets against the rear body posts and mark the holes for the mounting fasteners.
10. Swing the brackets away from the posts and drill the marked holes for 1/2" diameter bolts.
11. If the body is painted mild steel, touch up the paint where the holes were drilled to prevent rusting.
12. Bolt the QD brackets to the posts with the supplied 1/2-13 x 1" bolts, flat washers, and top-lock nuts. Tighten all bolts.
13. Attach the hanger bars to the pins on the spreader brackets with hair pin clips.
14. Hold the hanger bars at approximately 45° and mark the position of the top holes on the body posts.
15. Swing the hanger bars away and weld the supplied mounting pins to the posts at the marked locations. If the body is painted mild steel, repair the paint where the pins were welded.
16. Attach the hanger bars to the top pins with hair pin clips.
17. Verify that the trough top cover can be swung open through its full range.
18. Verify that the trough clean-out cover (bottom) can be swung open through its full range.



Spinner Assembly Installation (Self-Leveling)

1. Mount the spinner assembly under the spreader discharge opening. The opening may be at either end of the spreader or in the middle. Spreaders with reversible augers may be supplied with two spinner assemblies.
2. Fasten the spinner frame to the hanger assembly with the supplied bolts, washers, and top-lock nuts. Leave the bolts loose at this time so the spinner can be positioned properly under the discharge opening.
3. Pin the spinner and hanger assembly to the mounting ears under the spreader. Install the supplied lynch pins.
4. Adjust the position of the spinner on the hanger as required, then tighten the mounting fasteners.

Spinner Stabilizer Bar Installation (Parallelogram Linkage)

1. The optional stabilizer bar keeps the spinner level to the ground as the dump body is raised and lowered.
2. Install the spinner assembly as directed in the previous section.
3. Verify that the dump body is all the way down.
4. Position the stabilizer bar on the truck frame so the rod hole is 18" directly below the body hinge pin and as close to being in line with the spinner as possible. If necessary, a spacer block can be installed between the frame and the stabilizer bar to move the bar into alignment with the spinner.



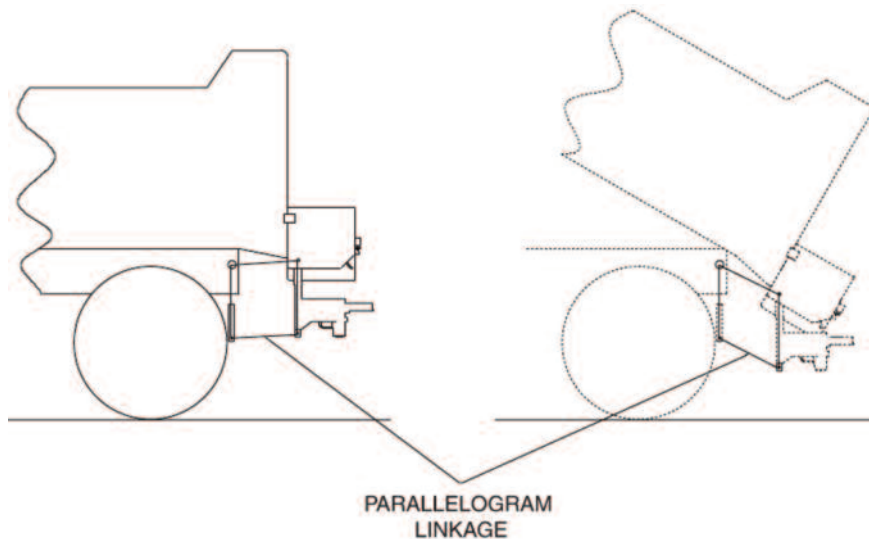
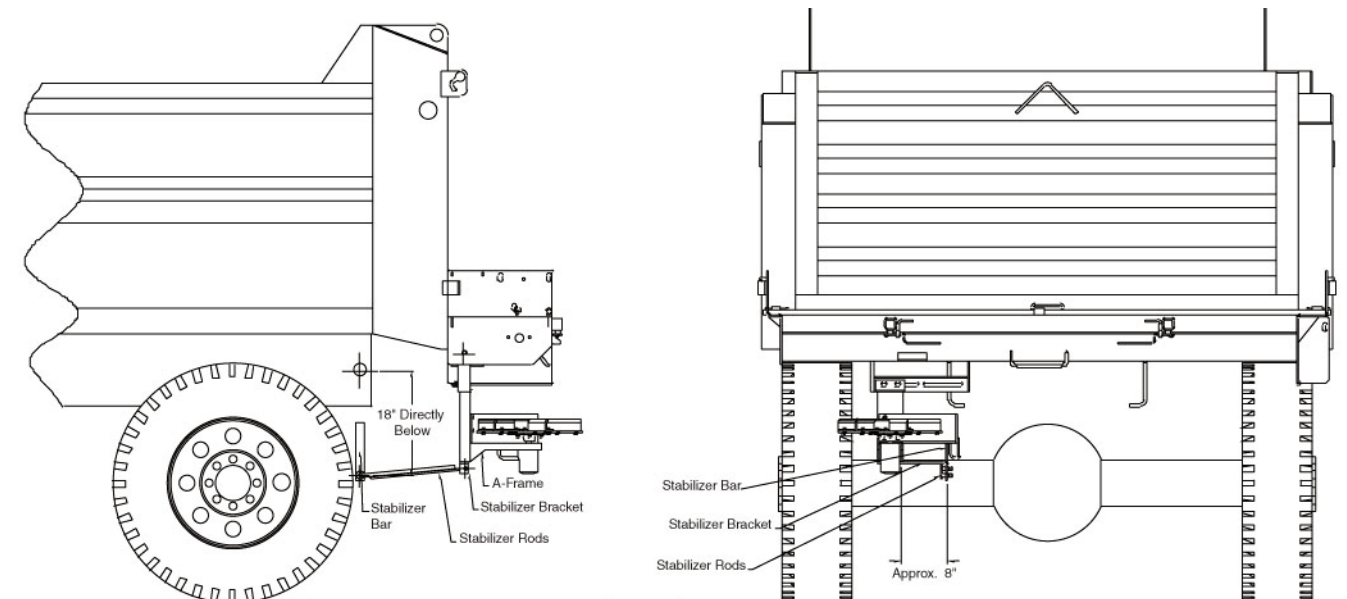
BEFORE HEATING PARTS, CHECK FOR WIRING, HOSES, AND OTHER COMPONENTS THAT COULD BE DAMAGED BY THE HEAT. REMOVE OR MORE THESE COMPONENTS BEFORE APPLYING HEAT TO THE AREA.

5. Tack weld the stabilizer bar in place.
6. Position the stabilizer bracket on the bottom front of the spinner frame so it is in line with the bar on the frame. If necessary, an extension bracket can be fabricated to move the stabilizer bracket into alignment with the frame bar.
7. Tack weld the stabilizer bracket in place.
8. Install one of the stabilizer rods in the bar and one rod in the bracket. Install the hair-pin clip in the ends of the rods.
9. Hold the rods together (side-by-side) and level the spinner with the ground. Tack weld the rods together.
10. Raise and lower the dump body to verify proper operation of the spinner and stabilizer linkage.



ALWAYS USE THE BODY PROP WHEN WORKING UNDER A RAISED BODY.

11. Finish weld the stabilizer bar to the frame and the bracket to the spinner frame.
12. Apply a 2-3" long weld bead to each side of the pair of stabilizer rods.



Tailgate (Material) Shields Installation

1. Tailgate shields may have been provided with the spreader. These shields fill the gap that is created at each end of the tailgate when the tailgate is opened partially for spreading granular material.
2. Position the shields on the inside of the tailgate as shown. The shields must cover as much of the open gap as possible but still allow the tailgate to swing freely to close.
3. Bolt or weld the shields to the tailgate.

Hydraulics & Controls Installation



AVOID HIGH-PRESSURE FLUIDS. ESCAPING FLUID UNDER PRESSURE CAN PENETRATE THE SKIN CAUSING SERIOUS INJURY. AVOID THE HAZARD BY RELIEVING PRESSURE BEFORE DISCONNECTING HYDRAULIC OR OTHER LINES. TIGHTEN ALL CONNECTIONS BEFORE APPLYING PRESSURE. PROTECT HANDS AND BODY FROM HIGH PRESSURE FLUIDS.

1. The spreader requires hydraulic circuits for the auger and spinner. If a new hydraulic system is being installed with the spreader, refer to separate instructions for installation of the hydraulic system components.
2. Quick-disconnect fittings must be installed in the hydraulic hoses at the rear of the chassis to allow the spreader to be removed quickly and easily.
3. To install quick disconnects:
 - Fabricate a mounting plate for bulkhead fittings to match the fitting diameters on the auger and spinner motors. A common return circuit can be used for the return hoses from the auger and spinner motors.
 - Mount the plate to the rear of the chassis where it is accessible but not in the way of other components. Do not mount where the fittings could be broken off when the body is raised. The mounting plate can be welded or bolted to the frame.
 - Install bulkhead fittings that match the auger and spinner hose fittings and the quick disconnects being used.
 - Connect the pressure and return circuit hoses to the front of the bulkhead fittings.
 - Install the quick disconnect fittings on the back of the bulkhead fittings. For each motor, install one set 180° opposite of the other (male vs. female) to avoid accidentally connecting the hoses backwards.
 - Measure for hoses to run from the quick disconnects to the motors. When measuring for the hydraulic hoses, remember that the spreader will move with the body as it is raised and lowered. Allow enough slack in the hoses for the spreader to move without stretching or kinking the hoses.
 - Fabricate hoses with a quick disconnect fitting on one end and a fitting for the motor on the other end.
 - Install the hoses on the motors and connect the quick-disconnects. Cover the hoses with protective wrap and tie with wire ties as required to protect from rubbing.

4. When the hydraulic system is operating, test run the spreader to verify that the auger and spinner motors are turning in the correct direction.
5. When the hydraulic oil is warm, inspect all fittings and hoses for oil leaks.
6. Verify that the spreader controller operates the auger and spinner properly.

Optional Centerline Chute Installation

1. Disconnect the spinner hydraulic hoses.
2. Remove the spinner from the hanger bracket.
3. Install the chute on the hanger bracket.
4. Position the cross bar in the desired location on the chute and mark for the fastener holes. The chute may be trimmed to length as required.
5. Drill holes for the supplied fasteners, then install the cross bar with the fasteners.
6. Bolt the end of the chain on the cross bar to the lift slot on the spreader end plate.

WARNING

Keep body parts away from the auger when it is turning. Never try to clear jammed material with the auger turning. Never try to manually feed material into the turning auger. Hands, feet, hair, and clothing can become entangled in moving parts causing death or severe injury.

Stay clear of the spinner when it is turning. The spinner can throw granular material with great force and can cause severe eye injury.

Initial Startup

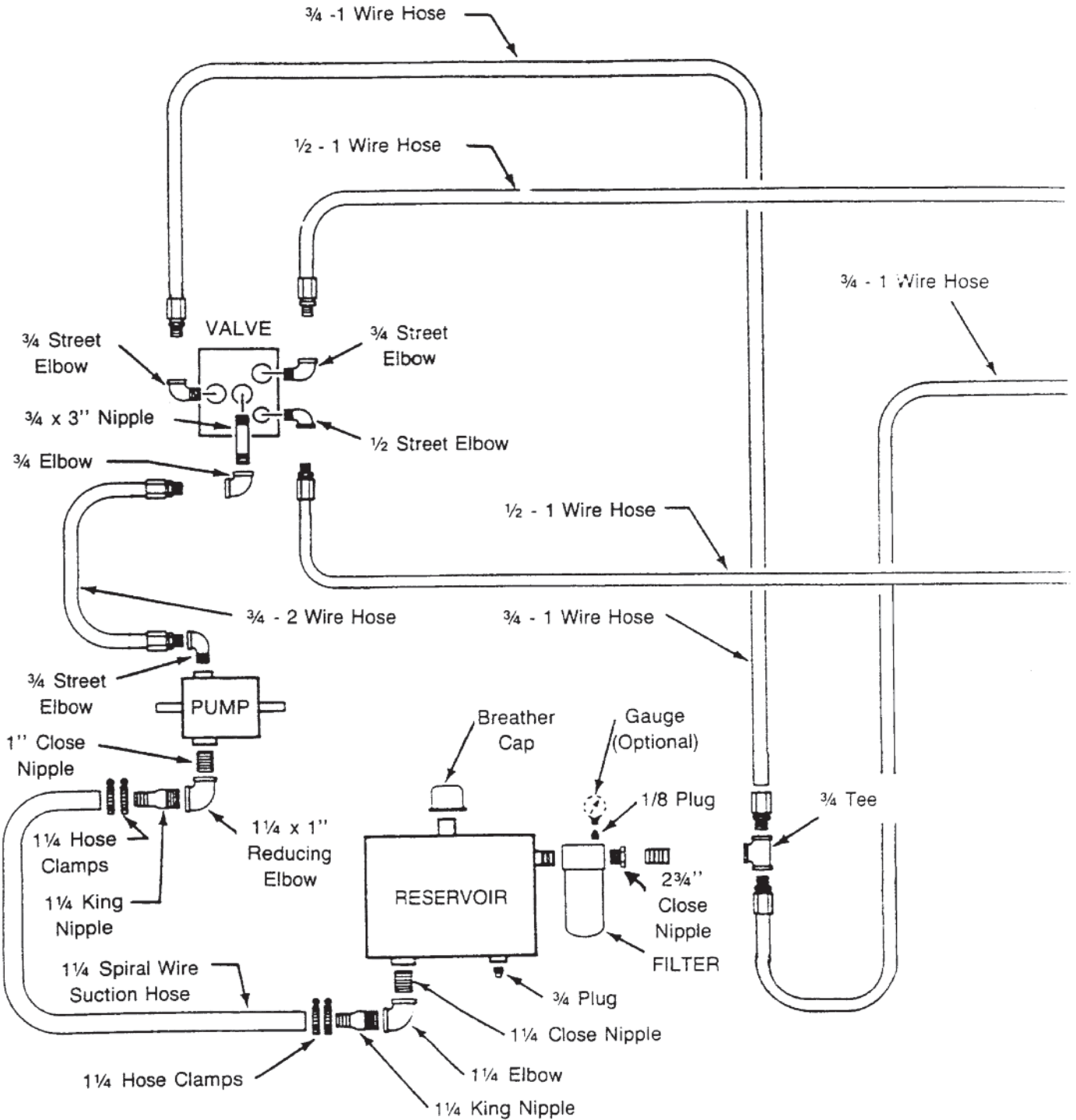
1. Following initial installation, run the spreader without granular material to verify proper operation.
2. Check the level in the hydraulic oil tank and add oil if necessary.
3. Start with the spreader controller Off.
4. Start the truck and the hydraulic system. Verify that the hydraulic system is operating properly and there are no oil leaks.
5. Turn the spreader controller On and verify that the individual controls for the auger and spinner operate properly.
6. Verify that the auger and spinner are turning in the correct direction.
7. Check for oil leaks at all hydraulic fittings.

Normal Operation

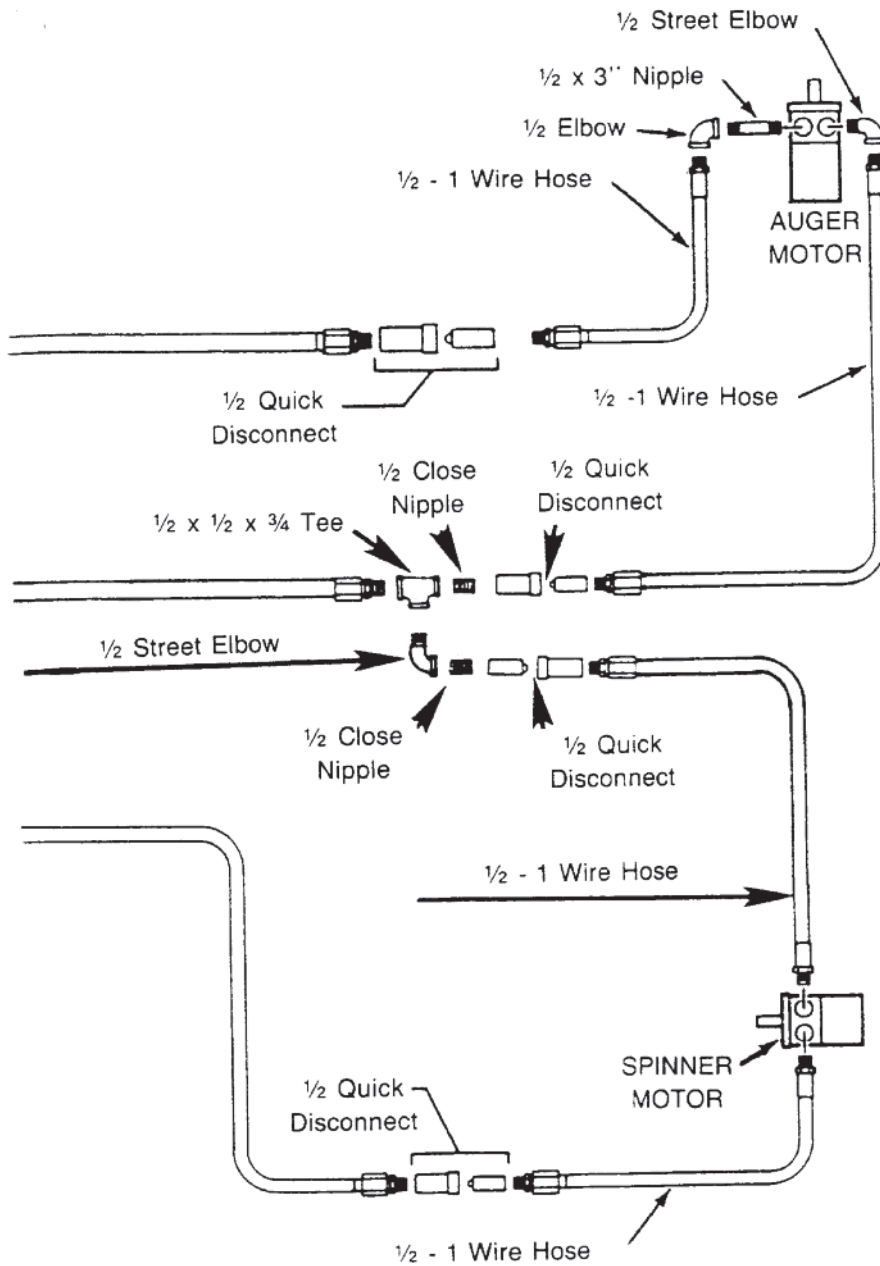
1. Load the body with the required granular material.
2. Raise the spreader cover to the operating position (vertical) and latch it in place.
3. Set the tailgate chains for the desired tailgate opening.
4. Start the vehicle engine and warm up the hydraulic system if necessary.
5. For initial use, perform a “drop” test if required to calibrate the spreader controller.
6. To spread, raise the dump body high enough to allow the granular material to slide back and “charge” the spreader trough.
7. Lower the body to the minimum height required to keep material moving back while driving. Do not drive with the front of the body raised more than 12 inches.
8. Set the auger control for the area to be treated and for the speed of the vehicle. If the controller is operated with a “ground speed” function, the feed rate will be adjusted automatically by the controller.
9. Set the spinner control for the desired spread pattern. For “berming”, the spinner should turn very slowly so the material just falls off in a narrow band. For broadcast spreading, the general direction of spreading can be controlled by moving the spinner frame on the hanger to change where the material from the auger lands on the spinner.
10. Unless the vehicle is stored inside a heated garage, the body and spreader should be emptied of granular material at the end of the day. Wet or damp material can freeze solid and require extensive downtime to remove it.
11. When spreading salt, pressure-wash the body, chassis, and spreader frequently to remove accumulated salt and reduce corrosion.

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Hydraulic Schematics



- This diagram is Monroe Truck Equipment Company's complete recommended hydraulic system.
- Standard pump, valve, tank and hose kits make up the complete system.
- This diagram may be used to install an entire system, or part of a system, depending upon kits supplied, and existing components on truck.
- Alternate proven methods and components are acceptable to suit various truck model requirements.



INSTALLATION NOTES

1. Hydraulic components should be kept as clean as possible during assembly operations.
2. Galvanized pipe and pipe fittings must not be used because flaking of galvanizing material can cause damage to major hydraulic components.
3. A pipe joint sealant compatible with hydraulic oil must be applied to all NPT fittings. (Teflon tape is not recommended.)
4. Sufficient hose should be allowed for raising dump body without kinking or stretching hose.
5. Hose should be protected where severe wear may be caused by vibration or sliding movement.
6. Long runs of hose should be supported by tie wiring or clamping.
7. Pressure and return hoses, connected to spinner or auger motors, may be reversed for proper motor rotation.
8. Three hose lines to rear of truck may be installed inside truck frame, under dump body floor, and secured in place.
9. Use hose manufacturer's recommendations for fitting reusable hose ends.
10. To eliminate hose twisting, allow hose end clamp to remain loose until hose end fitting is screwed tightly in place.

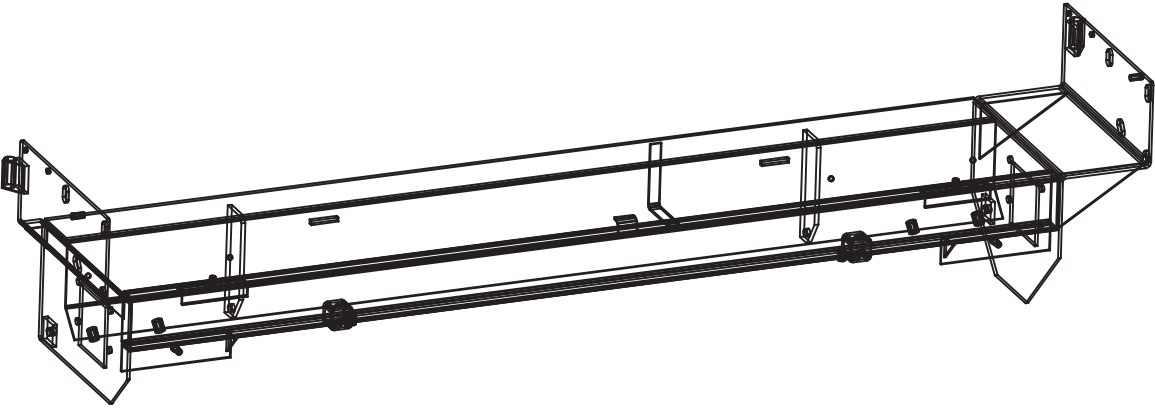
Dual Discharge, Direct Drive Spreader

SPREADER,UT,MS969-DD-DD			
Item	Qty.	Part Number	Description
1	1	00093825-A	TROUGH WLDMT,MS969-DD-DD/GB,MS <i>See Page 26</i>
1	1	00093825-B	TROUGH WLDMT,MS969-DD-DD/GB,304SST
1	1	00093825-C	TROUGH WLDMT,MS969-DD-DD/GB,AUSST
2	1	00093827-A	LID WLDMT,MS969,NOTCHED,MS <i>See Page 27</i>
2	1	00093827-B	LID WLDMT,MS969,NOTCHED,304SST
2	1	00093827-C	LID WLDMT,MS969,NOTCHED,AUSST
3	1	00108148-A	TROUGH BOT WLDMT,MS969-DD/OW-SL,MS <i>See Page 28</i>
3	1	00108148-B	TROUGH BOT WLDMT,MS969-DD/OW-SL,304
3	1	00108148-C	TROUGH BOT WLDMT,MS969-DD/OW-SL,AUS
4	1	00021627	AUGER WLDMT,UT,MS969-DD-DD <i>See Page 29</i>
	1	00037978	AUGER WLDMT,UT,MS969-DD-DD, 4" PITCH
5	1	00022767-A	ANTI-FLOW PL WLDMT,MS969,MS <i>See Page 30</i>
5	1	00022767-B	ANTI-FLOW PL WLDMT,MS969,304SS
5	1	00022767-C	ANTI-FLOW PL WLDMT,MS969,AUSST
6	1	00094560-A	END CAP WLDMT,TROUGH BOT,MS <i>See Page 30</i>
6	1	00094560-B	END CAP WLDMT,TROUGH BOT,304SST
6	1	00094560-C	END CAP WLDMT,TROUGH BOT,AUSST
7	2	05022035	PIN #11 HAIR ZC
8	1	00022783-A	BEARING KIT,4-HOLE,1.500,MS <i>See Page 31</i>
8	1	00022783-B	BEARING KIT,4-HOLE,1.500,304SS
8	1	00022783-C	BEARING KIT,4-HOLE,1.500,AUSST
9	1	00084128-A	DRIVE KIT,MS969,DIRECT, MS <i>See Page 32</i>
	1	00084128-B	DRIVE KIT,MS969,DIRECT,304SST
	1	00084128-C	DRIVE KIT,MS969,DIRECT,AUSST
	1	00084129-A	DRIVE KIT,MS969,DIRECT, SP SNR, MS <i>See Page 33</i>
	1	00084129-B	DRIVE KIT,MS969,DIRECT, SP SNR, 304SST
	1	00084129-C	DRIVE KIT,MS969,DIRECT, SP SNR, AUSST
10	1	00092648-A	MOUNTING KIT,UT, MS <i>See Page 45</i>
10	1	00092648-B	MOUNTING KIT,UT, 304SST
10	1	00092648-C	MOUNTING KIT,UT,AUSST
11	1	00058134	DECAL KIT,TGT SPREADER,GB/DD <i>See Page 47</i>
12	1	05050095	TAG,SERIAL NUMBER,1.25"x3.5"SS
13	1	05090088	MANUAL,MS969,Z-HANDLE
14	1	00097647-A	LATCH KIT,UT,Z-HANDLE,MS <i>See Page 48</i>
14	1	00097647-B	LATCH KIT,UT,Z-HANDLE,304SST
14	1	00097647-C	LATCH KIT,UT,Z-HANDLE,AUSST

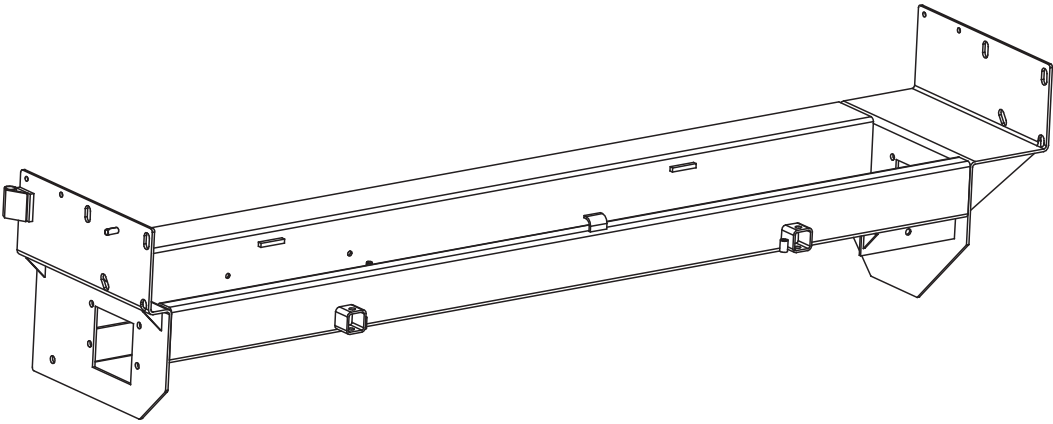
Reverse Flight, Direct Drive Spreader

SPREADER, UT, MS969-RF-DD			
Item	Qty.	Part Number	Description
1	1	00101514-A	TROUGH WLDMT,MS969-RF-DD/GB,MS
1	1	00101514-B	TROUGH WLDMT,MS969-RF-DD/GB,304SST
2	1	00093827-A	LID WLDMT,MS969,NOTCHED,MS
2	1	00093827-B	LID WLDMT,MS969,NOTCHED,304SST
3	1	00108143-A	TROUGH BOT WLDMT,MS969-RF-SL,MS
3	1	00108143-B	TROUGH BOT WLDMT,MS969-RF-SL,304SST
4	1	00021649	AUGER WLDMT,UT,MS969-RF-DD
5	1	00022767-A	ANTI-FLOW PL WLDMT,MS969,MS <i>See Page 30</i>
5	1	00022767-B	ANTI-FLOW PL WLDMT,MS969,304SST
6	2	05022035	PIN #11 HAIR ZC
7	1	00022783-A	BEARING KIT,4-HOLE,1.500,MS <i>See Page 31</i>
7	1	00022783-B	BEARING KIT,4-HOLE,1.500,304SST
8	1	00084128-A	DRIVE KIT,MS969,DIRECT, MS <i>See Page 32</i>
	1	00084128-B	DRIVE KIT,MS969,DIRECT,304SST
	1	00084129-A	DRIVE KIT,MS969,DIRECT, SP SNR, MS <i>See Page 33</i>
	1	00084129-B	DRIVE KIT,MS969,DIRECT, SP SNR, 304SST
9	1	00092648-A	MOUNTING KIT,UT,MS <i>See Page 45</i>
9	1	00092648-B	MOUNTING KIT,UT,304SST
10	1	00058134	DECAL KIT,TGT SPREADER,GB/DD <i>See Page 47</i>
11	1	05050095	TAG,SERIAL NUMBER,1.25"x3.5"SS
12	1	05090088	MANUAL,MS969,Z-HANDLE
13	1	00097647-A	LATCH KIT,UT,Z-HANDLE,MS <i>See Page 48</i>
13	1	00097647-B	LATCH KIT,UT,Z-HANDLE,304SST
14	1	00094560-A	END CAP WLDMT,TROUGH BOT,MS969,MS <i>See Page 30</i>
14	1	00094560-B	END CAP WLDMT,TROUGH BOT,MS969,304SS

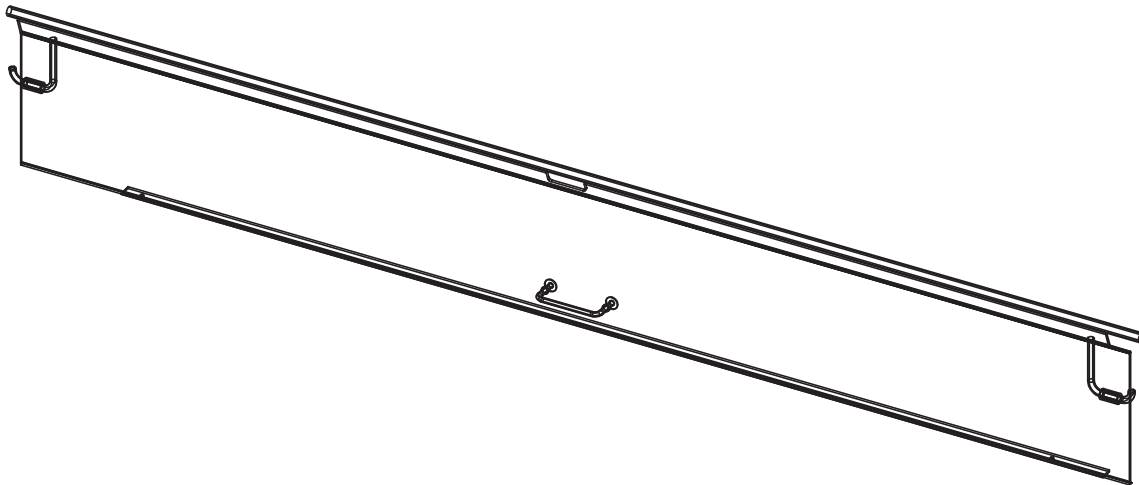
**DUAL DISCHARGE - DIRECT DRIVE
00093825 TROUGH WELDMENT, MS969-DD-DD**



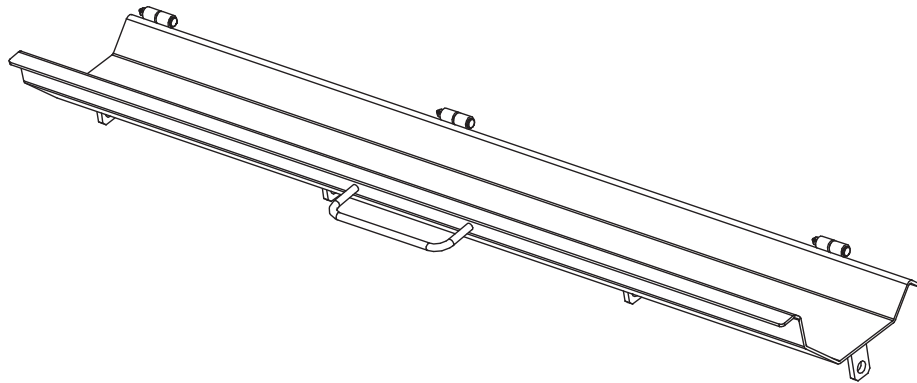
**REVERSE FLIGHT - DIRECT DRIVE
00101514 TROUGH WELDMENT, MS969-RF-DD**



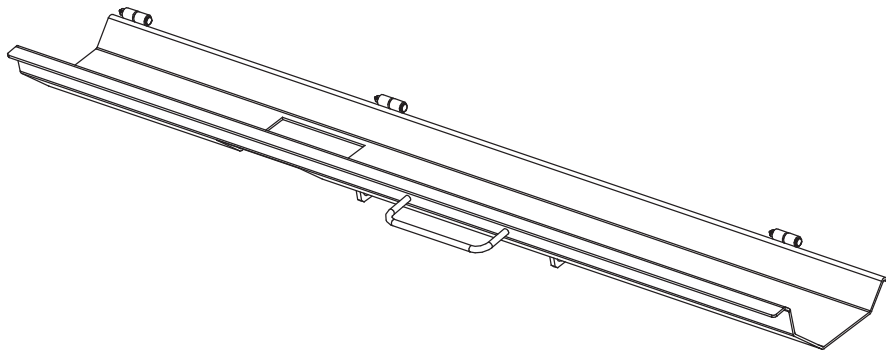
**DUAL DISCHARGE & REVERSE FLIGHT:
00093827 LID WELDMENT, MS969**



DUAL DISCHARGE - DIRECT DRIVE
00108148 TROUGH BOTTOM WELDMENT, MS969-DD-DD

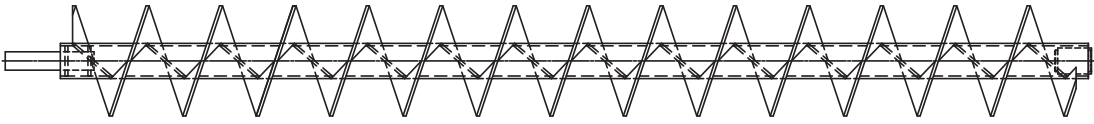


REVERSE FLIGHT - DIRECT DRIVE
00108143 TROUGH BOTTOM WELDMENT, MS969-RF-DD

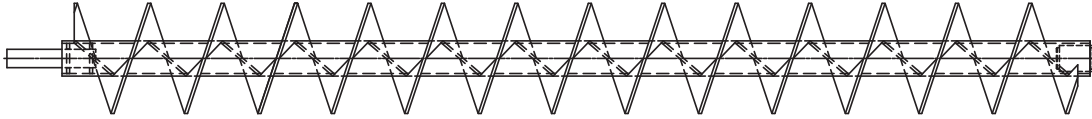


DUAL DISCHARGE - DIRECT DRIVE

00021627 AUGER WELDMENT, MS969-DD, DIRECT DRIVE

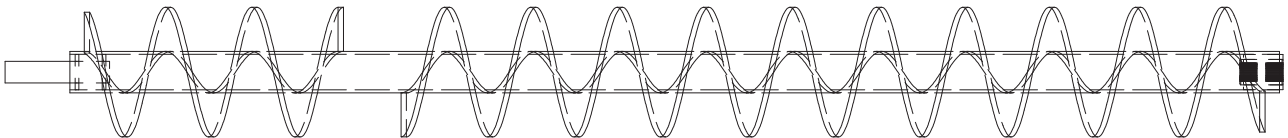


00037978 AUGER WELDMENT, MS, 969-DD, DIRECT DRIVE, 4" PITCH

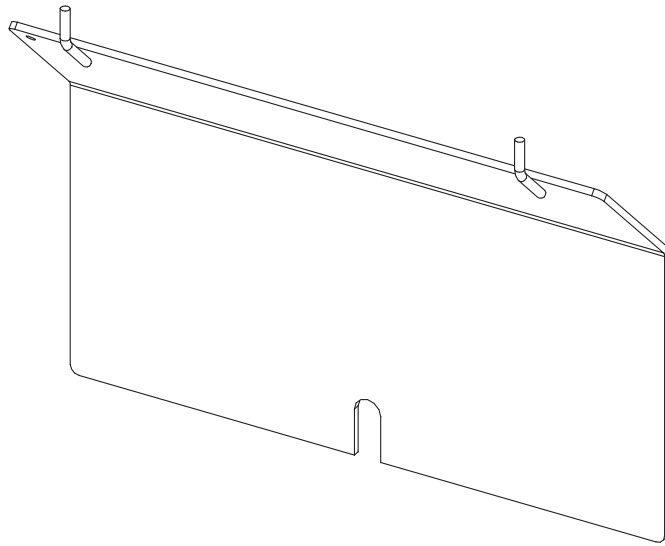


REVERSE FLIGHT - DIRECT DRIVE

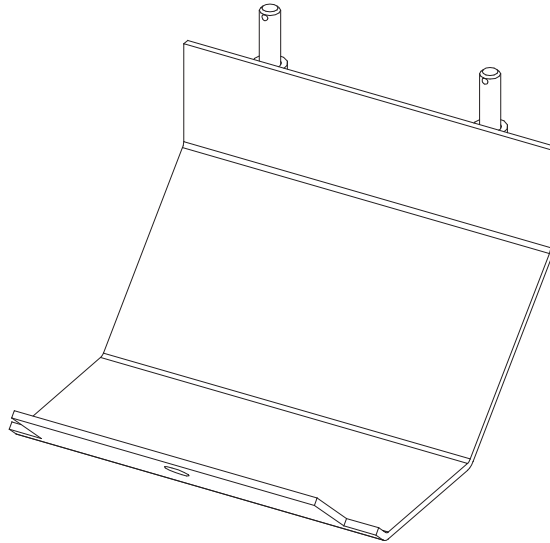
00021649 AUGER WELDMENT, MS969-RF, DIRECT DRIVE

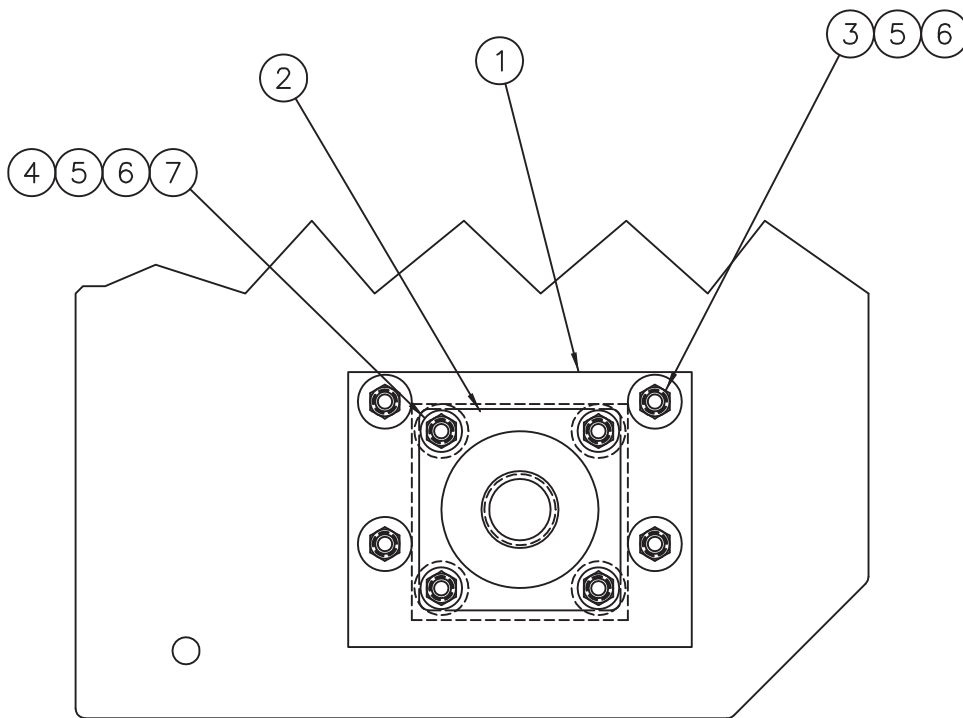


**DUAL DISCHARGE & REVERSE FLIGHT:
00022767 ANTI-FLOW PLATE WELDMENT, MS969**



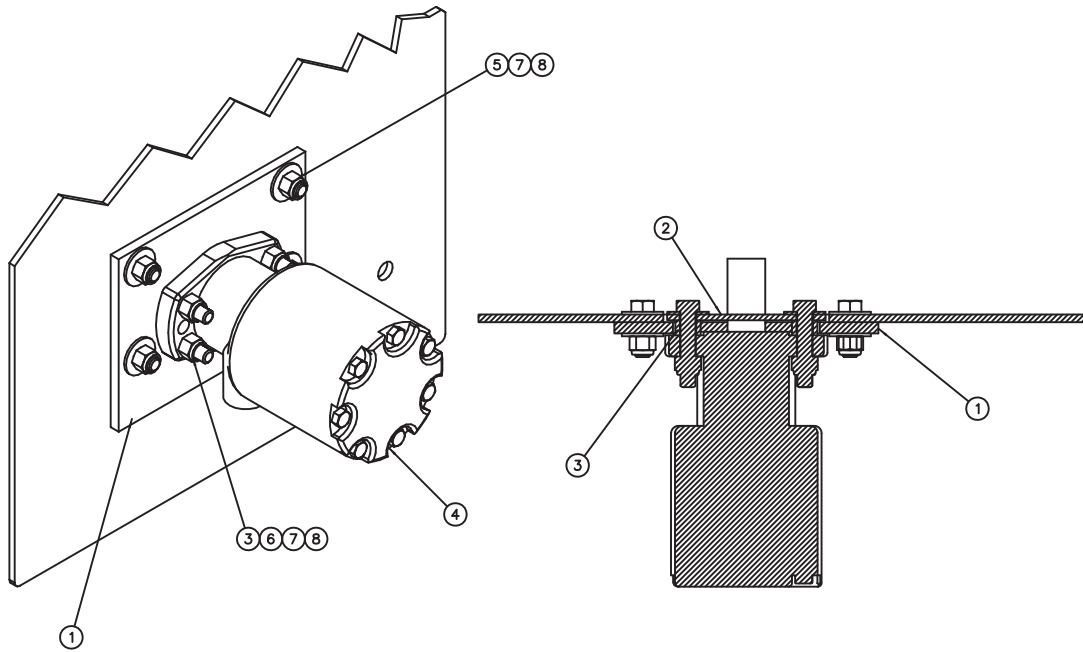
**DUAL DISCHARGE & REVERSE FLIGHT:
00094560 END CAP WELDMENT, TROUGH BOTTOM**



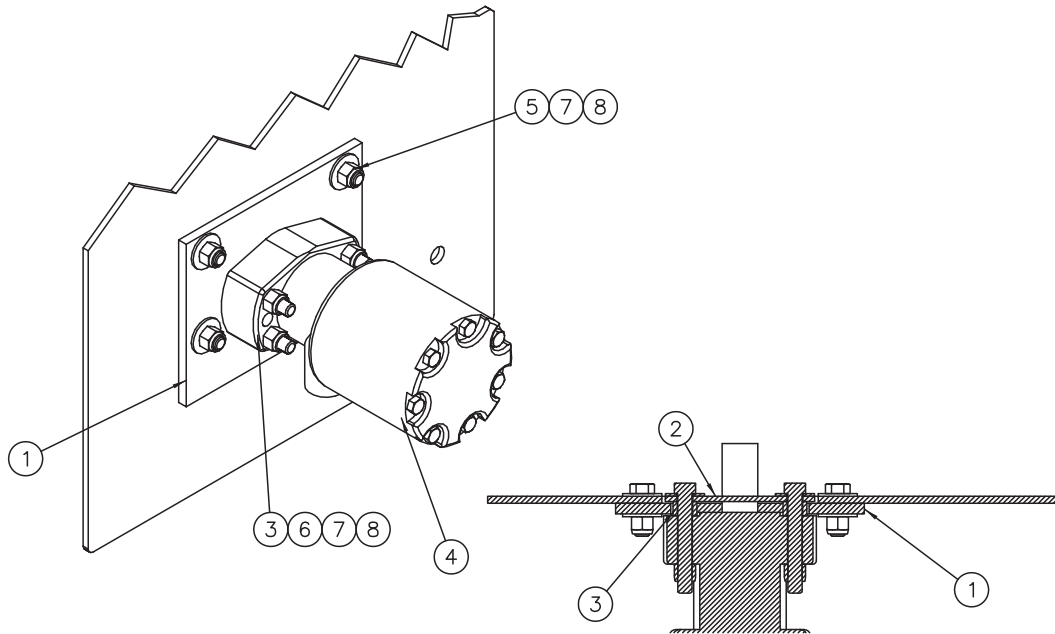


00022783 BEARING KIT, 4-HOLE, 1.5, MS

Item	Qty.	Part Number	Description
1	1	00041098-A	ADAPTER PL,IDLER,MS969-DD,MS
1	1	00041098-B	ADAPTER PL,IDLER,MS969-DD,304S
1	1	00041098-C	ADAPTER PL,IDLER,MS969-DD,AUSST
2	1	05030007	BEARING,1.5"ID,4-BOLT FLANGE
3	4	05017107	BOLT .500-13 x 1.375 HHCS SST
3	4	05017108	BOLT .500-13 x 1.375 G8 HHCS ZC
4	4	05010692	BOLT .500-13 x 1.750 G8 HHCS ZC
4	4	05016204	BOLT .500-13 x 1.750 HHCS SST
5	8	05020847	NUT .500-13 GC TOPLOCK C&W
5	8	05020908	NUT .500-13 NYLON LOCK 316 SST
6	12	05021309	WASHER .500 FLAT ZC
6	12	05021391	WASHER .500 FLAT SST
7	4	05021005	WASHER .500 FLAT MIL-CARB SAE ZC
7	4	05021450	WASHER .500 FLAT SAE SS 18-8
8	.25	05051390	RUST PROOFER HEAVY DUTY

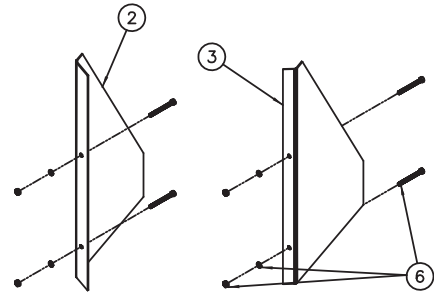
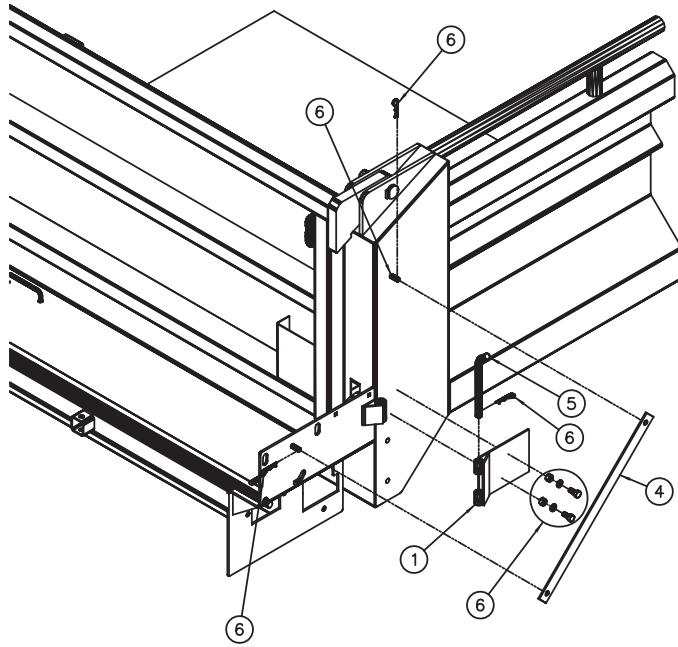


00084128 DRIVE KIT, MS969, DIRECT, AUSST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	00084126-A	ADAPTER PL,AUGER,MS969-DD,MS
1	1	00084126-B	ADAPTER PL,AUGER,MS969-DD,304S
2	1	00084127-A	SPACER PL,AUGER,MS969-DD,MS
2	1	00084127-B	SPACER PL,AUGER,MS969-DD,304SS
2	1	00084127-C	SPACER PL,AUGER,MS969-DD,AUSST
3	4	00049931-B	PIPE .500 SCHED 80 x .500 SS
4	1	05006484	MOTOR,HYD WHT 45CI 6B,7/8ORB, <i>See Page 54</i>
5	4	05010691	BOLT .500-13 x 1.500 G8 HHCS ZC
5	4	05016096	BOLT .500-13 x 1.500 HHCS SST
6	4	05010695	BOLT .500-13 x 2.500 G8 HHCS ZC
6	4	05016207	BOLT .500-13 x 2.500 HHCS SST
7	8	05020847	NUT .500-13 GC TOPLOCK C&W
7	8	05020908	NUT .500-13 NYLON LOCK 316 SST
8	12	05021309	WASHER .500 FLAT ZC
8	12	05021391	WASHER .500 FLAT SST
9	0.25	05051390	RUST PROOFER HEAVY DUTY



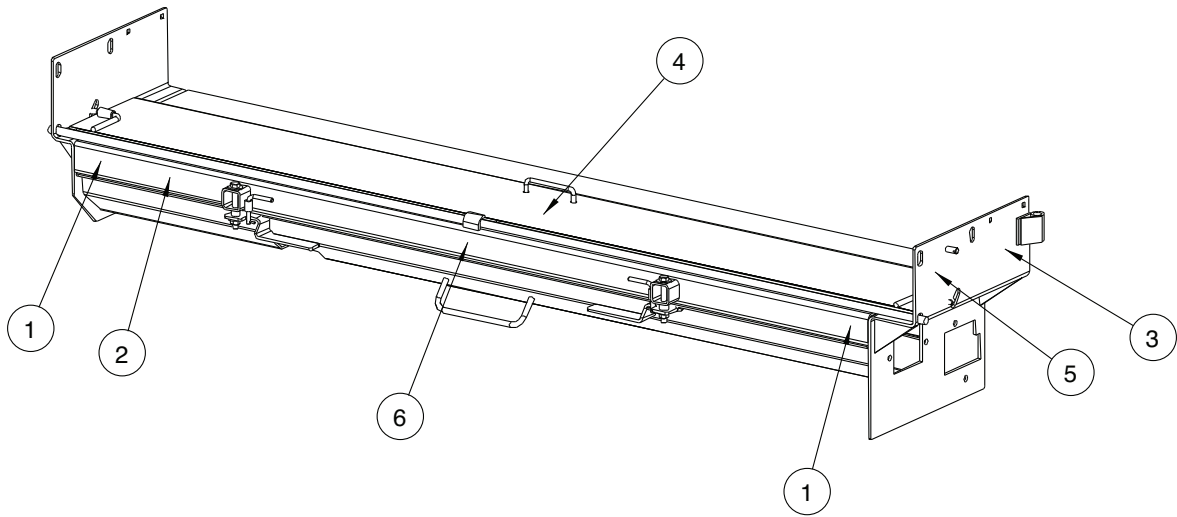
00084129 DRIVE KIT, MS969, DIRECT, SP SNSR

Item	Qty.	Part Number	Description
1	1	00084126-A	ADAPTER PL,AUGER,MS969-DD,MS
1	1	00084126-B	ADAPTER PL,AUGER,MS969-DD,304S
2	1	00084127-A	SPACER PL,AUGER,MS969-DD,MS
2	1	00084127-B	SPACER PL,AUGER,MS969-DD,304SS
2	1	00084127-C	SPACER PL,AUGER,MS969-DD,AUSST
3	4	00049931-B	PIPE .500 SCHED 80 x .500 304S
4	1	05006672	MOTOR,HYD,WHITE,45CI,6B,W/100
5	4	05010691	BOLT .500-13 x 1.500 G8 HHCS ZC <i>See Page 56</i>
5	4	05016096	BOLT .500-13 x 1.500 HHCS SST
6	4	05010699	BOLT .500-13 x 3.500 G8 HHCS ZC
6	4	05017040	BOLT .500-13 x 3.500 HHCS SST
7	8	05020847	NUT .500-13 GC TOPLOCK C&W
7	8	05020908	NUT .500-13 NYLON LOCK 316 SST
8	12	05021309	WASHER .500 FLAT ZC
8	12	05021391	WASHER .500 FLAT SST
9	.25	05051390	RUST PROOFER HEAVY DUTY



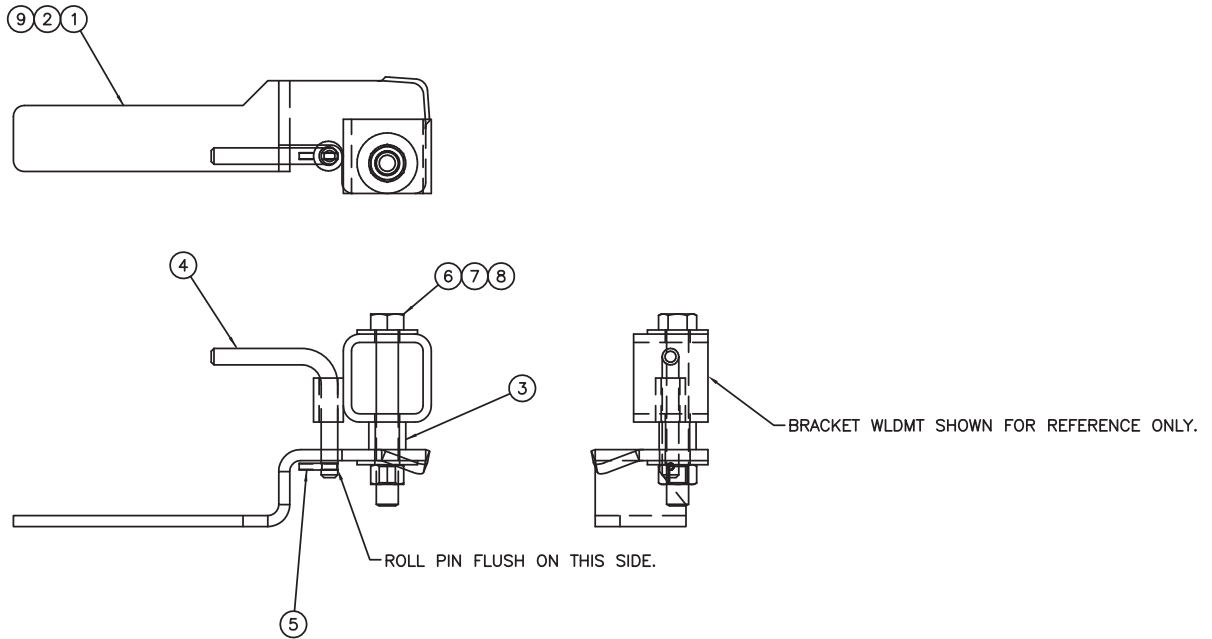
00092648 MOUNTING KIT, UT, SELF LEVEL

Item	Qty.	Part Number	Description
1	2	00097668-A	BRACKET WLDMT,QUICK DETACH,UT,MS
1	2	00097668-B	BRACKET WLDMT,BDY,QUICK DETACH,UT,304
1	2	00097668-C	BRACKET WLDMT,BDY,QUICK DETACH,UT,AUSST
1	2	00097668-D	BRACKET WLDMT,BDY,QUICK DETACH,UT,304L
2	1	00021207-A	SHIELD,TAILGATE,RH,MS-UT,MS
2	1	00021207-B	SHIELD,TAILGATE,RH,MS-UT,304SS
2	1	00021207-D	SHIELD,TAILGATE,RH,MS-UT,AUSST
3	1	00021208-A	SHIELD,TAILGATE,LH,MS-UT,MS
3	1	00021208-B	SHIELD,TAILGATE,LH,MS-UT,304SS
3	1	00021208-D	SHIELD,TAILGATE,LH,MS-UT,AUSST
4	2	00041118-A	HANGER,SUPPORT,MS-UT, MS
4	2	00041118-B	HANGER,SUPPORT,MS-UT, 304SST
5	2	00041074-A	PIN,QUICK DETACH,MS-UT, HRR
5	2	00041074-B	PIN,QUICK DETACH,MS-UT, SSR
6	1	05016907-A	BOLT KIT,MTG,UT SPREADER,MS
6	1	05016907-B	BOLT KIT,MTG,UT SPREADER,304



00058134 DECAL KIT,TGT SPREADER,GB/DD

Item	Qty.	Part Number	Description
1	2	05051401	DECAL,DANGER:TURNING AUGERS...
2	1	05051402	DECAL,DANGER:TURNING SPINNERS.
3	1	05051404	DECAL,CAUTION #1-#6
4	1	05051625	DECAL,MONROE SNOW & ICE CONTROL
5	1	05052311	DECAL,QUALITY CHECK
6	1	05051405	DECAL,21.0x2.5,MONROE SPREADER

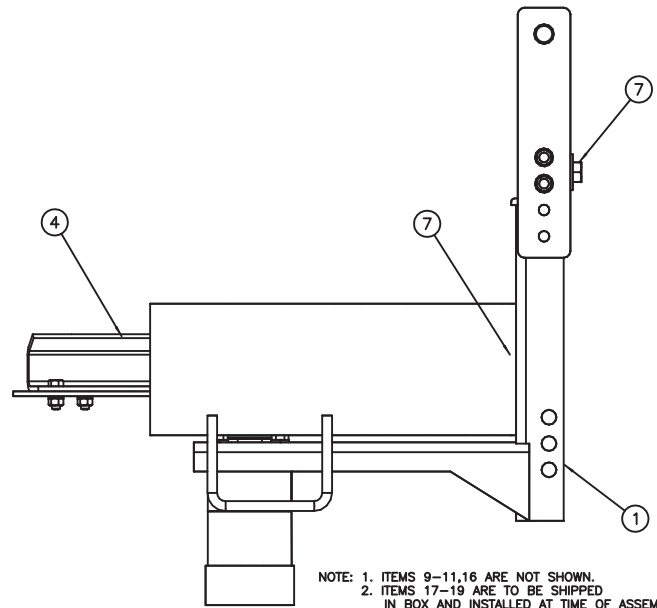
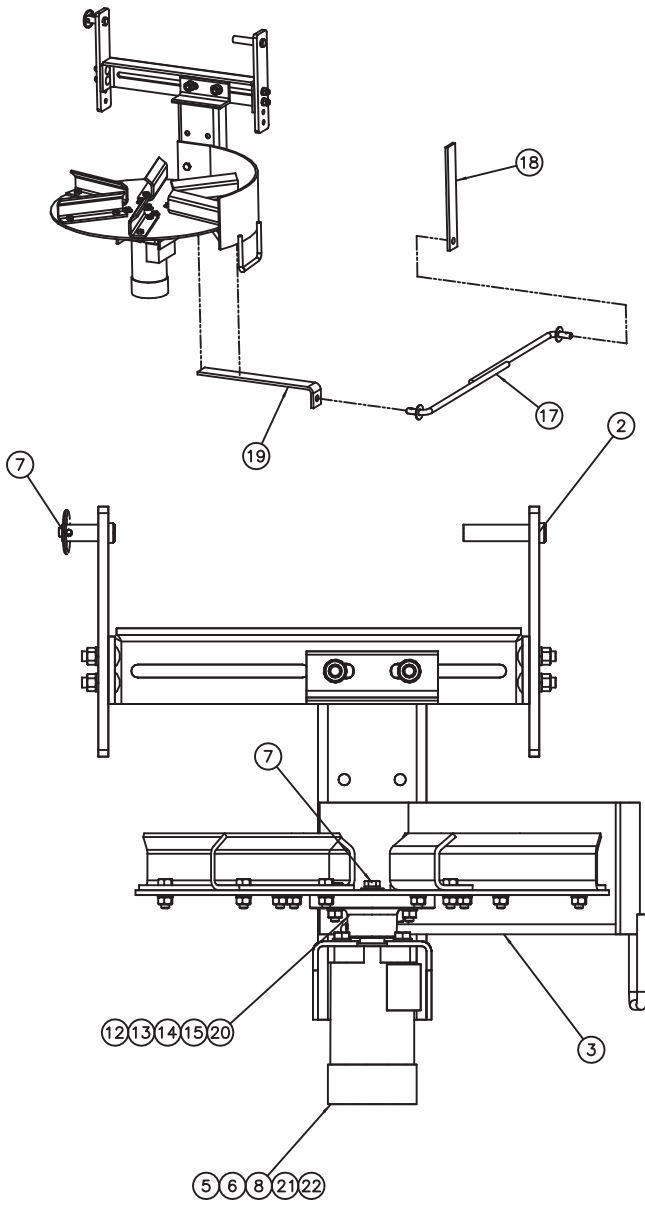


00097647 LATCH KIT, UT, Z-HANDLE

Item	Qty.	Part Number	Description
1	1	00097645-A	HANDLE,LATCH,TROUGH BOT,RH,MS
1	1	00097645-B	HANDLE,LATCH,TROUGH BOT,RH,304
1	1	00097645-C	HANDLE,LATCH,TROUGH BOT,RH,AUSST
2	1	00097646-A	HANDLE,LATCH,TROUGH BOT,LH,MS
2	1	00097646-B	HANDLE,LATCH,TROUGH BOT,LH,304
2	1	00097646-C	HANDLE,LATCH,TROUGH BOT,LH,AUSST
3	2	00097675-B	PIPE .500 SCHED 80 x .625 304
4	2	00098579	PIN .375DIAx3.375 OAL,2.672GL,
5	2	05022072	PIN .156 x .875 ROLL ZC
6	2	05010701	BOLT .500-13 x 4.00 G8 HHCS ZC
6	2	05017053	BOLT .500-13 x 4.00 18-8 HHCS
7	2	05020847	NUT .500-13 GC TOPLOCK C&W
7	2	05020908	NUT .500-13 NYLON LOCK 316 SS
8	4	05021309	WASHER .500 FLAT ZC
8	6	05021391	WASHER .500 FLAT SS
9	2	05052759	HANDLE,GRIP,RECTANGULAR,

Spinner Assemblies - MS969

Spinner w/ Poly Disc - LH (Mildsteel)	PN: 00026544-F
Spinner w/ Poly Disc - LH (Stainless Steel)	PN: 00026544-K
Spinner w/ Poly Disc - RH (Mildsteel)	PN: 00026549-F
Spinner w/ Poly Disc - RH (Stainless Steel)	PN: 00026549-K
Twin Spinner w/ Poly Disc (Mildsteel)	
(1) 00048624-F (1) 00048625-F	PN: 00072732-D
Twin Spinner w/ Poly Disc (Stainless Steel)	PN: 00072732-F
(1) 00048624-H (1) 00048625-H	
Self-Leveling Spinner Assembly	
w/o Stabilizer Rods - LH (Mildsteel)	PN: 00022064-F
Self-Leveling Spinner Assembly	
w/o Stabilizer Rods - LH (Stainless Steel)	PN: 00022064-H
Self Leveling Spinner Assembly	
w/o Stabilizer Rods - RH (Mildsteel)	PN: 00081047-D
Self Leveling Spinner Assembly	
w/o Stabilizer Rods - RH (Stainless Steel)	PN: 00081047-F



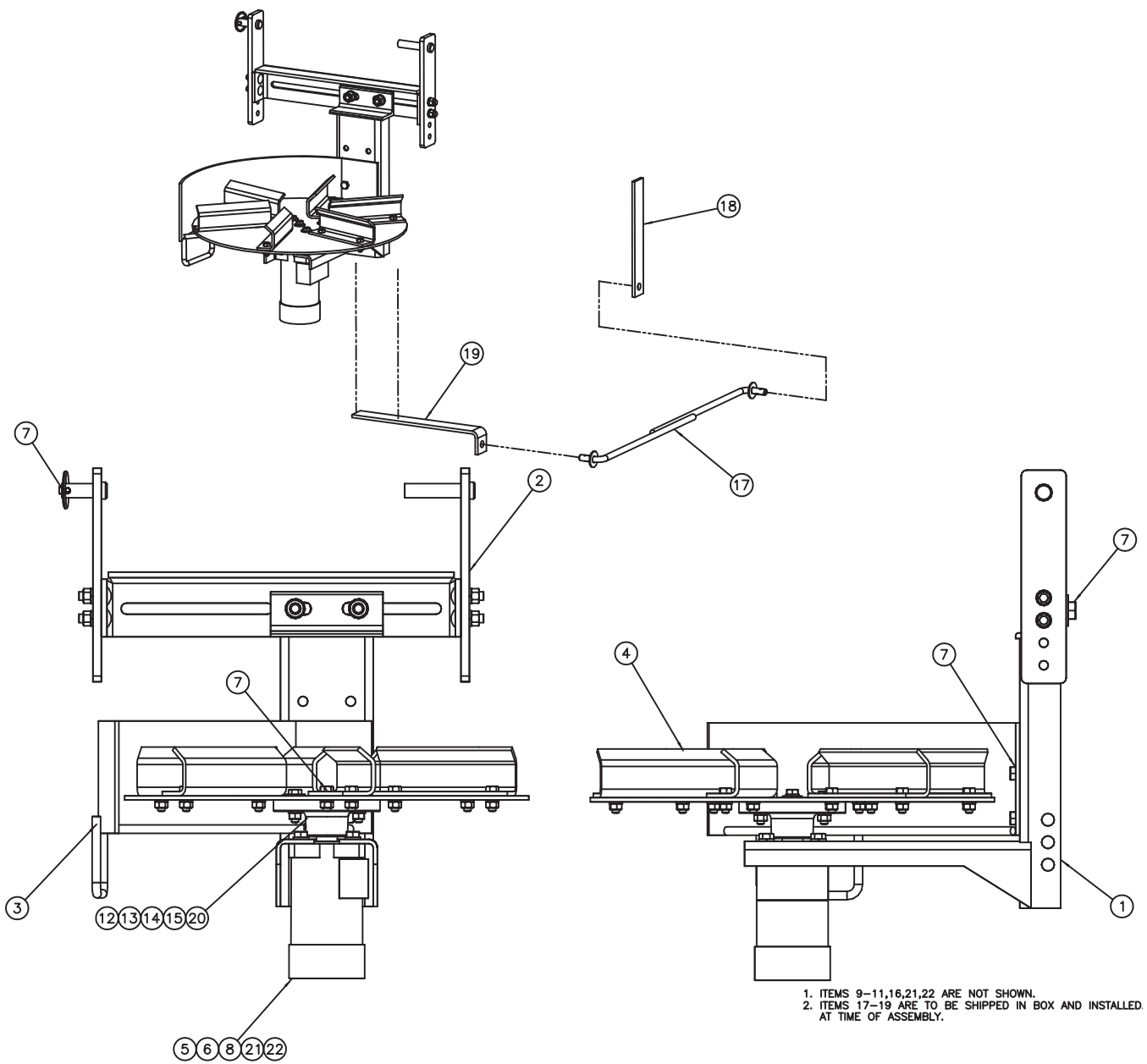
NOTE: 1. ITEMS 9-11,16 ARE NOT SHOWN.
 2. ITEMS 17-19 ARE TO BE SHIPPED
 IN BOX AND INSTALLED AT TIME OF ASSEMBLY.

00026544-F SPINNER ASSEMBLY, LH, TGT, MS, POLY DISC

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	00026543-A	FRAME WLDMT,SPINNER,TGT
2	1	00103663-A	HANGER ASSEMBLY,SPINNER,TGT
3	1	00105117-A	SHIELD WLDMT,LH,SPINNER,TGT
4	1	05050071-B	DISC,SPINNER,18 CCW,POLY,RED
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
7	1	05016906-A	BOLT KIT,SPINNER MT UNDER,
8	4	05021365	WASHER .375 LOCK ZC
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT
13	4	05010619	BOLT .313-18 x 1.25 G8 HHCS ZC
14	4	05020265	NUT .313-18 G8 HEX ZC
15	4	05021364	WASHER .313 LOCK ZC
16	1	05052485	TRASH LINER,CLEAR 40 X 46,
17	2	00041156-A	STABILIZER ROD WLDMT,MS-UT,MS
18	1	00041121-A	STABILIZER,SPINNER,MS-UT,MS
19	1	00041124-A	BRACKET,STABILIZER,MS-UT,MS
20	4	05021306	WASHER .313 FLAT ZC
21	1	00122073	SEAL SAVER, MOTOR, SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK,.250-28 STRAIGHT

00026544-K SPINNER ASSEMBLY, LH, TGT, AUSST, POLY DISC

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	00026543-C	FRAME WLDMT,SPINNER,TGT,AUS
2	1	00103663-B	HANGER ASSEMBLY,SPINNER,TGT
3	1	00105117-C	SHIELD WLDMT,LH,SPINNER,TGT
4	1	05050071-B	DISC,SPINNER,18 CCW,POLY,RED
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05016162	BOLT .375-16 x 1.50 HHCS SST
7	1	05016906-B	BOLT KIT,SPINNER MT UNDER,
8	4	05021392	WASHER .375 LOCK SST
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT
13	4	05016139	BOLT .313-18 x 1.25 HHCS SST
14	4	05020855	NUT .313-18 HEX SST
15	4	05021407	WASHER .313 LOCK SST
16	1	05052485	TRASH LINER,CLEAR 40 X 46,
17	2	00041156-B	STABILIZER ROD WLDMT,MS-UT,304
18	1	00041121-B	STABILIZER,SPINNER,MS-UT,304
19	1	00041124-B	BRACKET,STABILIZER,MS-UT,304
20	4	05021404	WASHER .313 FLAT SST
21	1	00122073	SEAL SAVER, MOTOR, SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK,.250-28 STRAIGHT

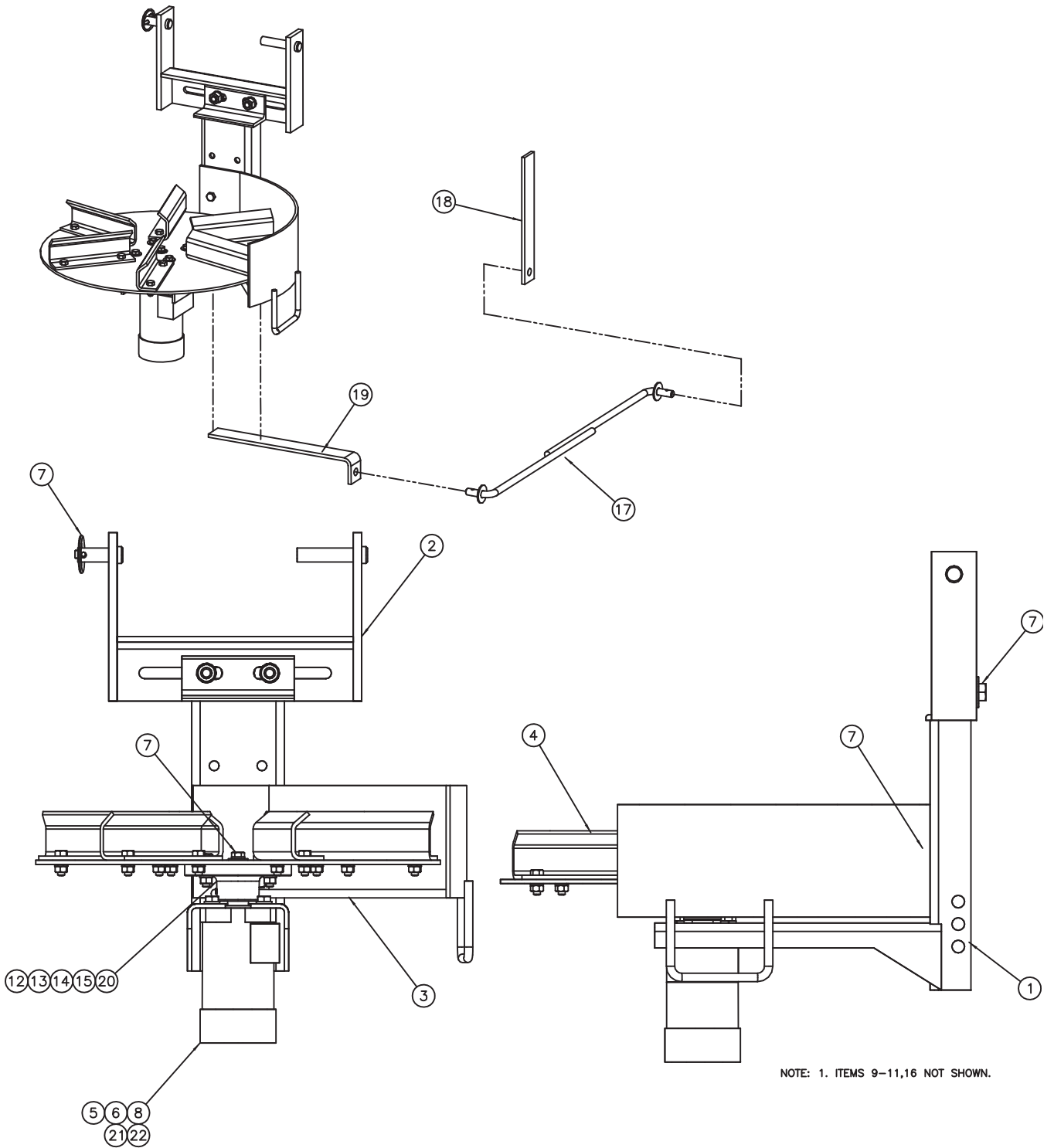


00026549-F SPINNER ASSEMBLY, RH, TGT, MS, POLY DISC

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	00026543-A	FRAME WLDMT,SPINNER,TGT
2	1	00103663-A	HANGER ASSEMBLY,SPINNER,TGT
3	1	00105118-A	SHIELD WLDMT,RH,SPINNER TGT
4	1	05051054	DISC,SPINNER,18 CW,POLY,RED
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
7	1	05016906-A	BOLT KIT,SPINNER MT UNDER,
8	4	05021365	WASHER .375 LOCK ZC
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT
13	4	05010619	BOLT .313-18 x 1.25 G8 HHCS ZC
14	4	05020265	NUT .313-18 G8 HEX ZC
15	4	05021364	WASHER .313 LOCK ZC
16	1	05052485	TRASH LINER,CLEAR 40 X 46,
17	2	00041156-A	STABILIZER ROD WLDMT,MS-UT,MS
18	1	00041121-A	STABILIZER,SPINNER,MS-UT,MS
19	1	00041124-A	BRACKET,STABILIZER,MS-UT,MS
20	4	05021306	WASHER .313 FLAT ZC
21	1	00122073	SEAL SAVER, MOTOR, SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK,.250-28 STRAIGHT

00026549-K SPINNER ASSEMBLY, RH, TGT, 304SS, POLY DISC

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	00026543-A	FRAME WLDMT,SPINNER,TGT
2	1	00103663-A	HANGER ASSEMBLY,SPINNER,TGT
3	1	00105118-A	SHIELD WLDMT,RH,SPINNER TGT
4	1	05051054	DISC,SPINNER,18 CW,POLY,RED
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
7	1	05016906-A	BOLT KIT,SPINNER MT UNDER,
8	4	05021365	WASHER .375 LOCK ZC
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT
13	4	05010619	BOLT .313-18 x 1.25 G8 HHCS ZC
14	4	05020265	NUT .313-18 G8 HEX ZC
15	4	05021364	WASHER .313 LOCK ZC
16	1	05052485	TRASH LINER,CLEAR 40 X 46,
17	2	00041156-A	STABILIZER ROD WLDMT,MS-UT,MS
18	1	00041121-A	STABILIZER,SPINNER,MS-UT,MS
19	1	00041124-A	BRACKET,STABILIZER,MS-UT,MS
20	4	05021306	WASHER .313 FLAT ZC
21	1	00122073	SEAL SAVER, MOTOR, SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK,.250-28 STRAIGHT

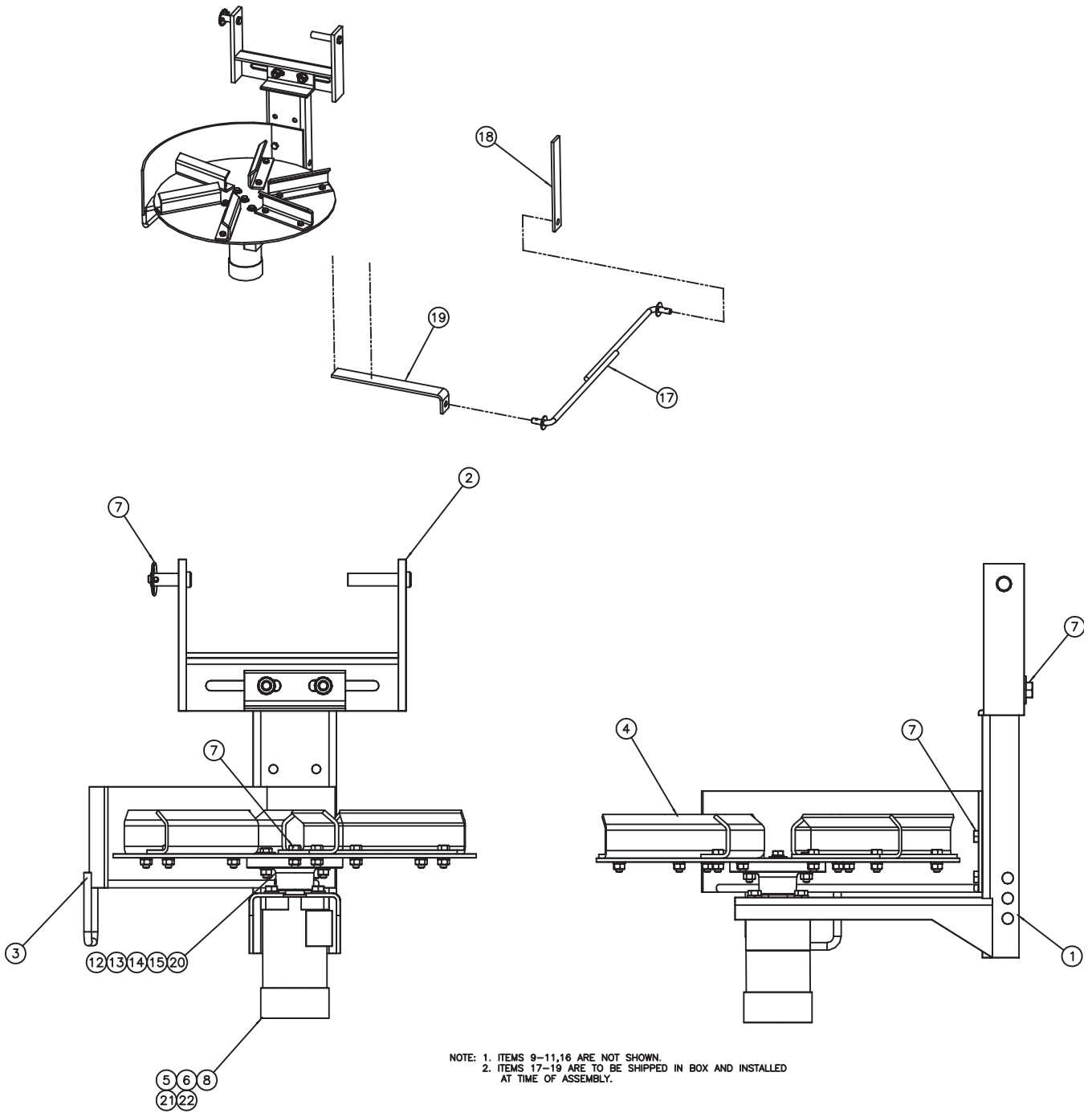


00048624-F SPINNER ASSY,LH,TWIN,MS,POLY DISC

Item	Qty.	Part Number	Description
1	1	00026543-A	FRAME WLDMT,SPINNER,TGT,MS
2	1	01162912-A	BRACKET,SPINNER HANGER,TWIN,MS
3	1	00105117-A	SHIELD WLDMT,LH,SPINNER,TGT,MS
4	1	05050071-B	DISC,SPINNER,18"CCW,POLY
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
7	1	05016906-A	BOLT KIT,SPINNER,MS,MT UNDER
8	4	05021365	WASHER .375 LOCK ZC
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5"
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREW
13	4	05010620	BOLT .313-18 x 1.50 G8 HHCS ZC
14	4	05020265	NUT .313-18 G8 HEX ZC
15	4	05021364	WASHER .313 LOCK ZC
16	1	05052485	TRASH LINER,CLEAR 40 x 46
17	2	00041156-A	STABILIZER ROD WLDMT,MS-UT
18	1	00041121-A	STABILIZER,SPINNER,MS-UT
19	1	00041124-A	BRACKET,STABILIZER,MS-UT,MS
20	4	05021306	WASHER .313 FLAT ZC
21	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK.250-28 STRAIGHT

00048624-H SPINNER ASSY,LH,TWIN,304SS,POLY DISC

Item	Qty.	Part Number	Description
1	1	00026543-B	FRAME WLDMT,SPINNER,TGT,304SS
2	1	01162912-B	BRACKET,SPINNER HANGER,TWIN,304SS
3	1	00105117-B	SHIELD WLDMT,LH,SPINNER,TGT,304SS
4	1	05050071-B	DISC,SPINNER,18"CCW,POLY
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05016162	BOLT .375-16 x 1.50 HHCS SS
7	1	05016906-B	BOLT KIT,SPINNER,MS,MT UNDER
8	4	05021392	WASHER .375 LOCK SS
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5"
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREW
13	4	05016140	BOLT .313-18 x 1.50 HHCS SS
14	4	05020855	NUT .313-18 HEX SS
15	4	05021407	WASHER .313 LOCK SS
16	1	05052485	TRASH LINER,CLEAR 40 x 46
17	2	00041156-B	STABILIZER ROD WLDMT,MS-UT
18	1	00041121-B	STABILIZER,SPINNER,MS-UT
19	1	00041124-B	BRACKET,STABILIZER,MS-UT,MS
20	4	05021404	WASHER .313 FLAT SS
21	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK.250-28 STRAIGHT

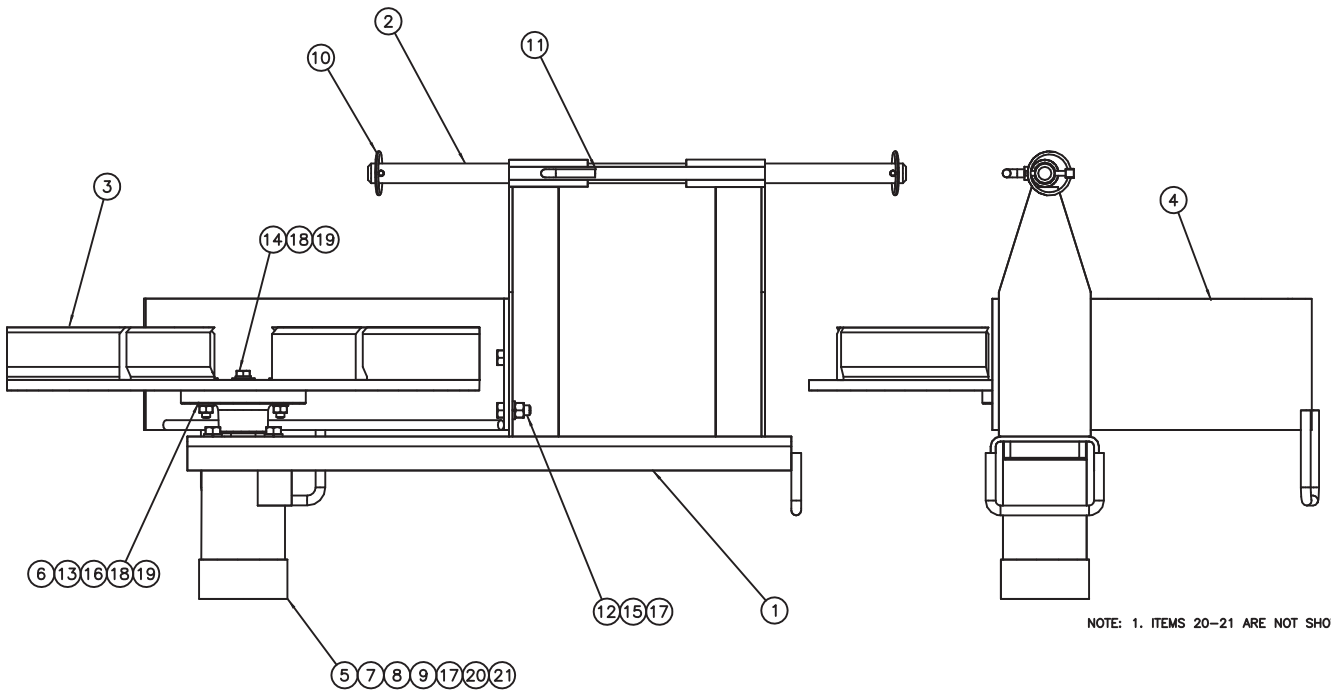


00048625-F SPINNER ASSY,RH,TWIN,MS,POLY DISC

Item	Qty.	Part Number	Description
1	1	00026543-A	FRAME WLDMT,SPINNER,TGT,MS
2	1	01162912-A	BRACKET,SPINNER HANGER,TWIN,MS
3	1	00105118-A	SHIELD WLDMT,RH,SPINNER,TGT,MS
4	1	05051054	DISC,SPINNER,18"CW,POLY,RED
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
7	1	05016906-A	BOLT KIT,SPINNER,MS,MT UNDER
8	4	05021365	WASHER .375 LOCK ZC
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5"
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREW
13	4	05010620	BOLT .313-18 x 1.50 G8 HHCS ZC
14	4	05020265	NUT .313-18 G8 HEX ZC
15	4	05021364	WASHER .313 LOCK ZC
16	1	05052485	TRASH LINER,CLEAR 40 x 46
17	2	00041156-A	STABILIZER ROD WLDMT,MS-UT,MS
18	1	00041121-A	STABILIZER,SPINNER,MS-UT,MS
19	1	00041124-A	BRACKET,STABILIZER,MS-UT,MS
20	4	05021306	WASHER .313 FLAT ZC
21	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK,.250-28 STRAIGHT

00048625-H SPINNER ASSY,RH,TWIN,304SS,POLY DISC

Item	Qty.	Part Number	Description
1	1	00026543-B	FRAME WLDMT,SPINNER,TGT,304SS
2	1	01162912-B	BRACKET,SPINNER HANGER,TWIN,304SS
3	1	00105118-B	SHIELD WLDMT,RH,SPINNER,TGT,304SS
4	1	05051054	DISC,SPINNER,18"CW,POLY,RED
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	4	05016162	BOLT .375-16 x 1.50 HHCS SS
7	1	05016906-B	BOLT KIT,SPINNER,MS,MT UNDER
8	4	05021392	WASHER .375 LOCK SS
9	1	05051436	CARDBOARD,LINER,33.5"x18.5"
10	1	05051437	CARDBOARD,PAD,18.5"x18.5"
11	1	05051435	CARDBOARD,BOX,18.5"x18.5"x10.5"
12	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREW
13	4	05016140	BOLT .313-18 x 1.50 HHCS SS
14	4	05020855	NUT .313-18 HEX SS
15	4	05021407	WASHER .313 LOCK SS
16	1	05052485	TRASH LINER,CLEAR 40 x 46
17	2	00041156-B	STABILIZER ROD WLDMT,MS-UT,304
18	1	00041121-B	STABILIZER,SPINNER,MS-UT,304
19	1	00041124-B	BRACKET,STABILIZER,MS-UT,304
20	4	05021404	WASHER .313 FLAT SS
21	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
22	1	05050288	GREASE ZERK,.250-28 STRAIGHT

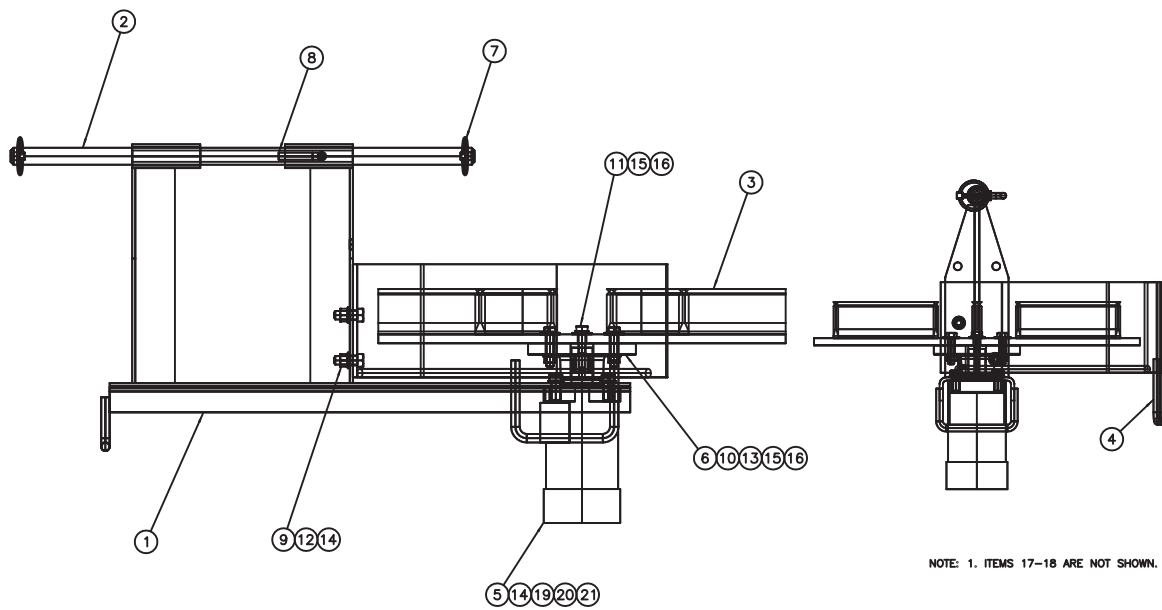


00022064-F SPINNER ASSY,LH,SELF LVL,MS,POLY DISC

Item	Qty.	Part Number	Description
1	1	00022057-A	FRAME WLDMT,SPNNR,SELF-LVL,MS
2	1	00022039	PIVOT ROD,SPINNER,SELF-LVL,TGT
3	1	05050071-B	SPINNER DISC,18"CCW,POLY
4	1	00105118-A	SHIELD WLDMT,RH,SPINNER,TGT,MS
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREWS
7	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
8	1	05050288	GREASE ZERK,.250-28 STRAIGHT
9	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
10	2	05022106	PIN .188 LYNCH
11	1	05016098	BOLT .313-18 x 1.75 L-SHAPE
12	2	05010642	BOLT .375-16 x .875 G8 HHCS ZC
13	4	05010619	BOLT .313-18 x 1.25 G8 HHCS ZC
14	1	05010618	BOLT .313-18 x 1.000 G8 HHCS ZC
15	2	05020266	NUT .375-16 G8 HEX ZC
16	4	05020265	NUT .313-18 G8 HEX ZC
17	6	05021365	WASHER .375 LOCK ZC
18	5	05021306	WASHER .313 FLAT ZC
19	5	05021364	WASHER .313 LOCK ZC
20	1	05050236	CARDBOARD,BOX,24" x 12" 20"
21	1	05052485	TRASH LINER

00022064-H SPINNER ASSY,LH,SELF LVL,304,POLY DISC

Item	Qty.	Part Number	Description
1	1	00022057-B	FRAME WLDMT,SPNNR,SELF-LVL,304
2	1	00022039	PIVOT ROD,SPINNER,SELF-LVL,TGT
3	1	05050071-B	SPINNER DISC,18"CCW,POLY
4	1	00105118-B	SHIELD WLDMT,RH,SPINNER,TGT,304
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREWS
7	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
8	1	05050288	GREASE ZERK,.250-28 STRAIGHT
9	4	05016162	BOLT .375-16 x 1.50 HHCS SS
10	2	05022106	PIN .188 LYNCH
11	1	05016098	BOLT .313-18 x 1.75 L-SHAPE
12	2	05016050	BOLT .375-16 x .875 HHCS SST
13	4	05016139	BOLT .313-18 x 1.250 HHCS SST
14	1	05016138	BOLT .313-18 x 1.000 HHCS SST
15	2	05020842	NUT .375-16 HEX SST
16	4	05020855	NUT .313-18 HEX SST
17	6	05021392	WASHER .375 LOCK SST
18	5	05021404	WASHER .313 FLAT SST
19	5	05021407	WASHER .313 LOCK SST
20	1	05050236	CARDBOARD,BOX,24" x 12" 20"
21	1	05052485	TRASH LINER



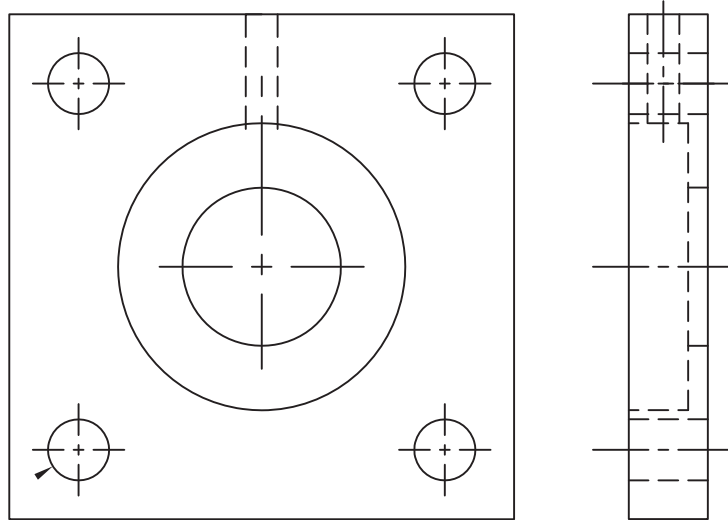
00081047-D SPINNER ASSY,TGT,RH,SELF LVL,MS,POLY DISC

Item	Qty.	Part Number	Description
1	1	00022057-A	FRAME WLDMT,SPNNR,SELF-LVL,MS
2	1	00022039	PIVOT ROD,SPINNER,SELF-LVL,TGT
3	1	05051054	SPINNER DISC,18"CW,POLY,RED
4	1	00105117-A	SHIELD WLDMT,LH,SPINNER,TGT,MS
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREWS
7	2	05022106	PIN .188 LYNCH
8	1	05016098	BOLT .313-18 x 1.75 L-SHAPE
9	2	05010642	BOLT .375-16 x .875 G8 HHCS ZC
10	4	05010619	BOLT .313-18 x 1.25 G8 HHCS ZC
11	1	05010618	BOLT .313-18 x 1.000 G8 HHCS ZC
12	2	05020266	NUT .375-16 G8 HEX ZC
13	4	05020265	NUT .313-18 G8 HEX ZC
14	6	05021365	WASHER .375 LOCK ZC
15	5	05021306	WASHER .313 FLAT ZC
16	5	05021364	WASHER .313 LOCK ZC
17	1	05050236	CARDBOARD,BOX,24" x 12" 20"
18	1	05052485	TRASH LINER
19	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
20	1	05050288	GREASE FITTING, .250-28 UNF ST
21	4	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC

00081047-F SPINNER ASSY,TGT,RH,SELF LVL,304,POLYDISC

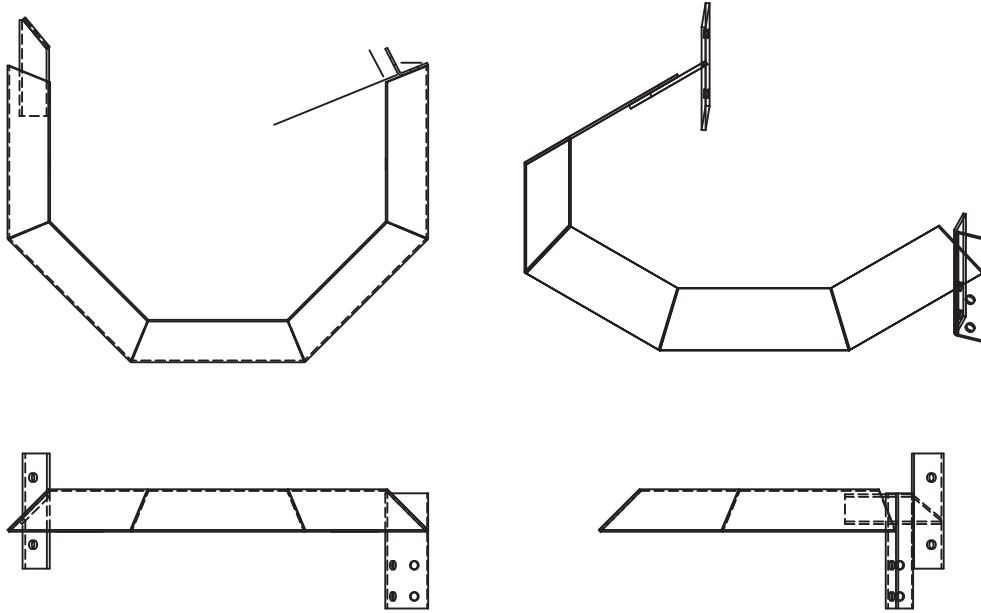
Item	Qty.	Part Number	Description
1	1	00022057-B	FRAME WLDMT,SPNNR,SELF-LVL,304
2	1	00022039	PIVOT ROD,SPINNER,SELF-LVL,TGT
3	1	05051054	SPINNER DISC,18"CW,POLY,RED
4	1	00105117-B	SHIELD WLDMT,LH,SPINNER,TGT,304SS
5	1	05006673	MOTOR,HYD,WHITE,3.2CI,4B,1"EXT <i>See Page 73</i>
6	1	05051380	HUB,SPINNER ASSY,STD,SHORT,W/SET SCREWS
7	2	05022106	PIN .188 LYNCH
8	1	05016098	BOLT .313-18 x 1.75 L-SHAPE
9	2	05016050	BOLT .375-16 x .875 HHCS SST
10	4	05016139	BOLT .313-18 x 1.250 HHCS SST
11	1	05016138	BOLT .313-18 x 1.000 HHCS SST
12	2	05020842	NUT .375-16 HEX SST
13	4	05020855	NUT .313-18 HEX SST
14	6	05021392	WASHER .375 LOCK SST
15	5	05021404	WASHER .313 FLAT SST
16	5	05021407	WASHER .313 LOCK SST
17	1	05050236	CARDBOARD,BOX,24" x 12" 20"
18	1	05052485	TRASH LINER
19	1	00122073	SEAL SAVER,MOTOR,SPINNER <i>See Page 65</i>
20	1	05050288	GREASE FITTING, .250-28 UNF ST
21	4	05016162	BOLT .375-16 x 1.50 HHCS SST

00122073 SEAL SAVER, MOTOR, SPINNER

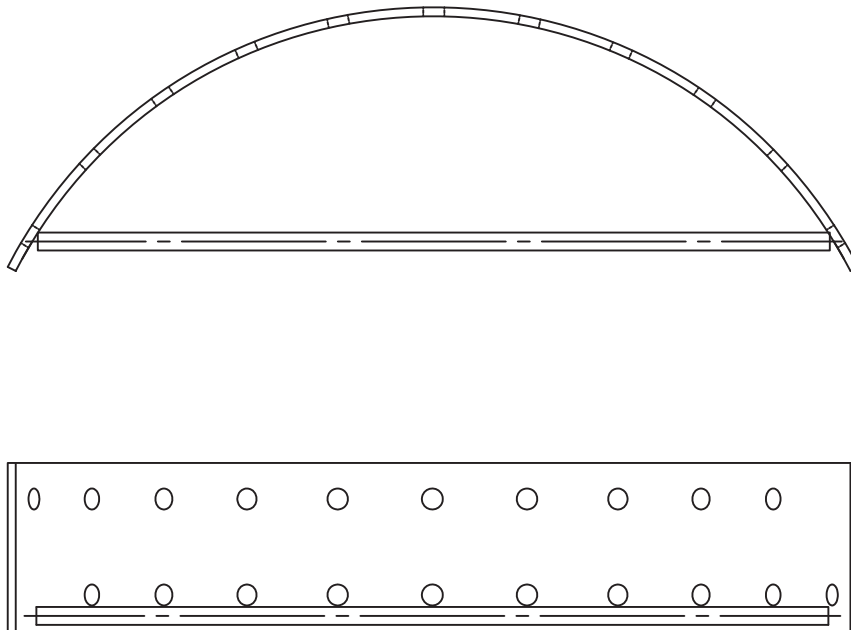


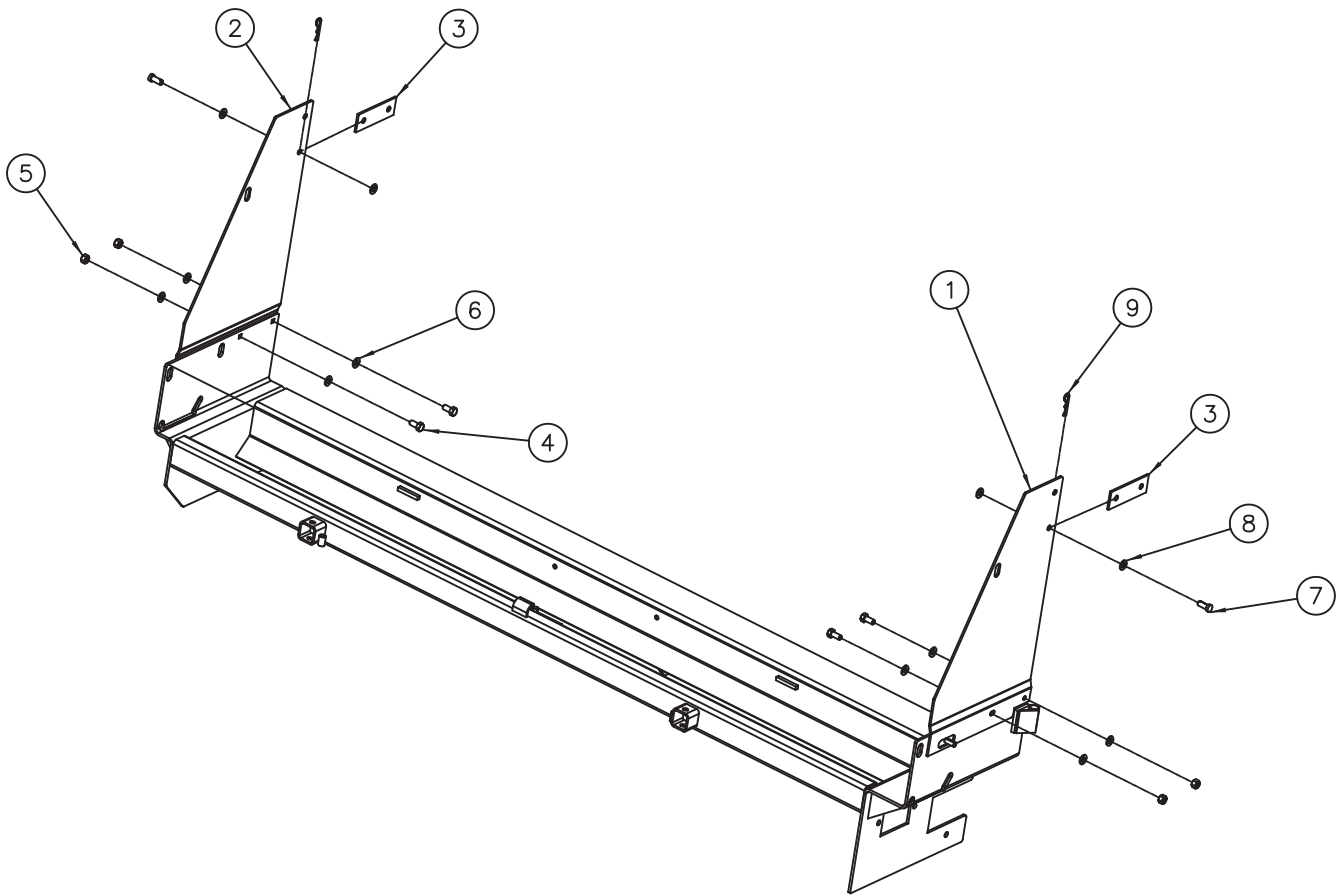
MATERIAL: SHEET, PLASTIC, .500, WHITE, HDPE

00031913 SPINNER GUARD WELDMENT, LH
00031915 SPINNER GUARD WELDMENT, RH



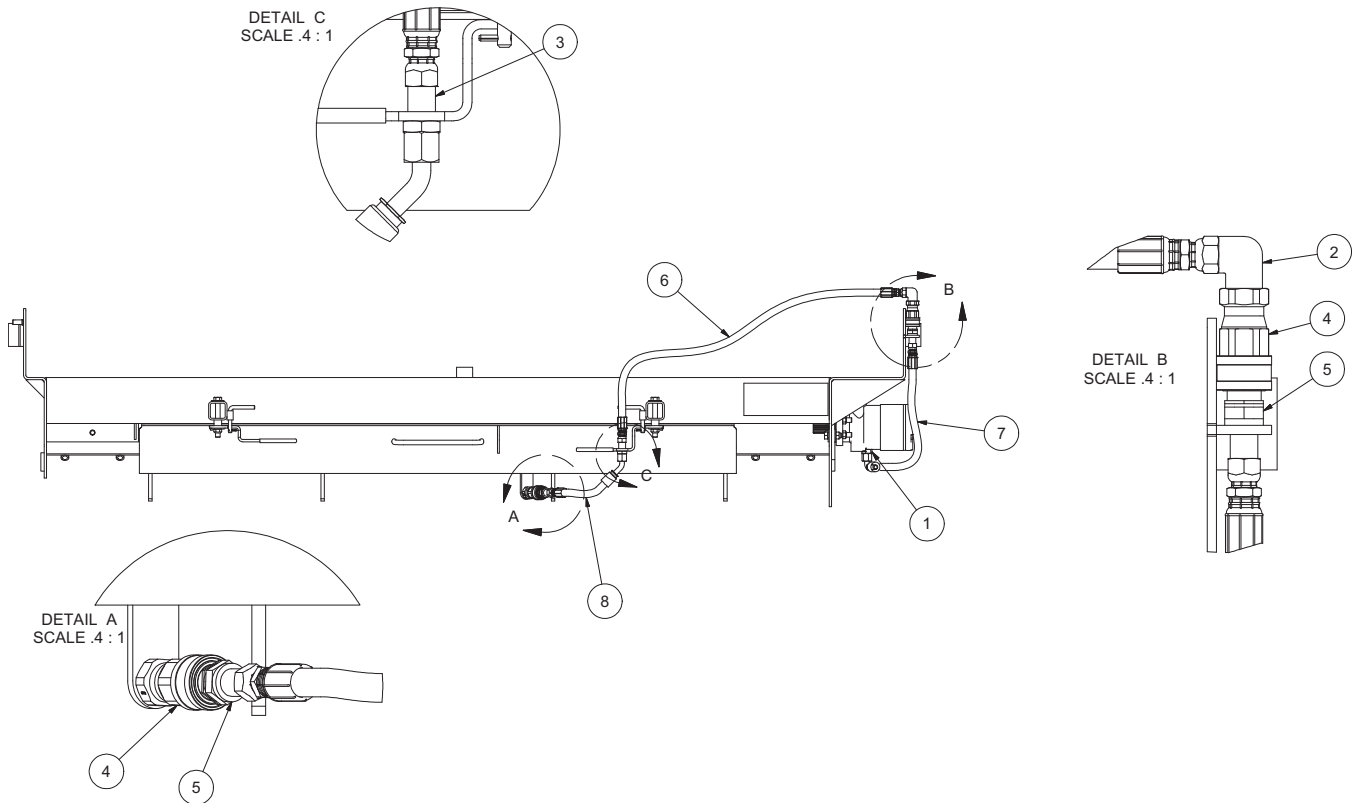
00033672 ADJUSTABLE SPINNER SHIELD WELDMENT





00112445 END PLATE EXTENSION KIT, UT

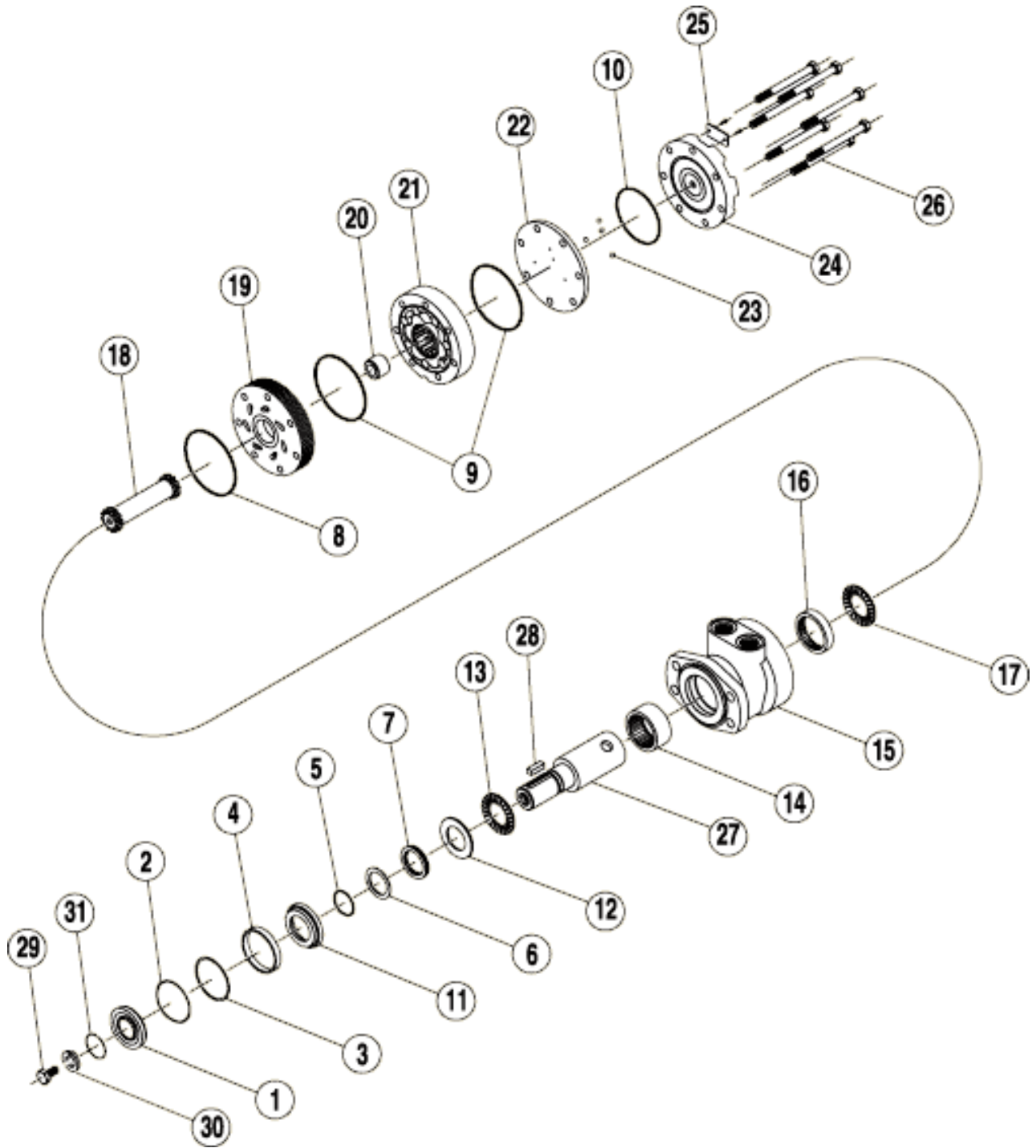
Item	Qty.	Part Number	Description
1	1	00112443-A	END PL EXTENSION,UT,RH,MS
1	1	00112443-B	END PL EXTENSION,UT,RH,304
1	1	00112443-C	END PL EXTENSION,UT,RH,AUSST
2	1	00112444-A	END PL EXTENSION,UT,LH,MS
2	1	00112444-B	END PL EXTENSION,UT,LH,304
2	1	00112444-C	END PL EXTENSION,UT,LH,AUSST
3	2	00081093	MOUNT,EXTENDED END PL,304
3	2	00103626	MOUNT,EXTENDED END PL,MS
4	4	05010643	BOLT .375-16 x 1.00 G8 HHCS ZC
4	4	05016034	BOLT .375-16 x 1.00 HHCS SS
5	4	05020891	NUT .375-16 NYLON LOCK 316 SS
5	4	05020898	NUT .375-16 GC TOPLOCK C&W
6	8	05021307	WASHER .375 FLAT ZC
6	8	05021418	WASHER .375 FLAT SS
7	2	05022096	PIN .50 x 1.00 ZC W/HEAD
7	2	05022157	PIN .50 x 1.00 SS W/HEAD
8	4	05021309	WASHER .500 FLAT ZC
8	4	05021391	WASHER .500 FLAT SS
9	2	05022035	PIN #11 HAIR ZC



00140955 HYDRAULIC INTERLOCK KIT, MS969

Item	Qty.	Part Number	Description
1	1	6400-8-10	HYD FITTING, 3/4 JIC X 7/8 ORB
2	1	2501-8-8	HYD FITTING, MALE, ELBOW
3	1	2700-LN-8	HYD FITTING, BULKHEAD, 3/4"
4	2	NV-12-NPT-F	HYD FITTING, COUPLER, 1/2 QUICK
5	2	CNV08-14-12SAE-M	HYD FITTING, 1/2 MALE COUPLER
6	1	00140936	HOSE ASSEMBLY, .5 ID, M3K, 38 OAL
7	1	00140941	HOSE ASSEMBLY, .5 ID, M3K, 22 OAL
8	1	00140940	HOSE ASSEMBLY, .5 ID, M3K, 13.25OAL
9	1	05053113	DECAL, WARNING, ROTATING AUGER

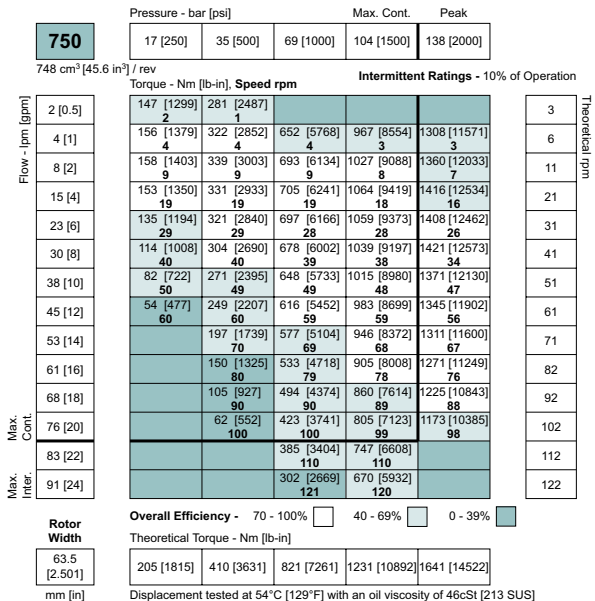
05006484 MOTOR, HYD, 45 CI, 6 BOLT, 14 TOOTH, 7/8" ORB



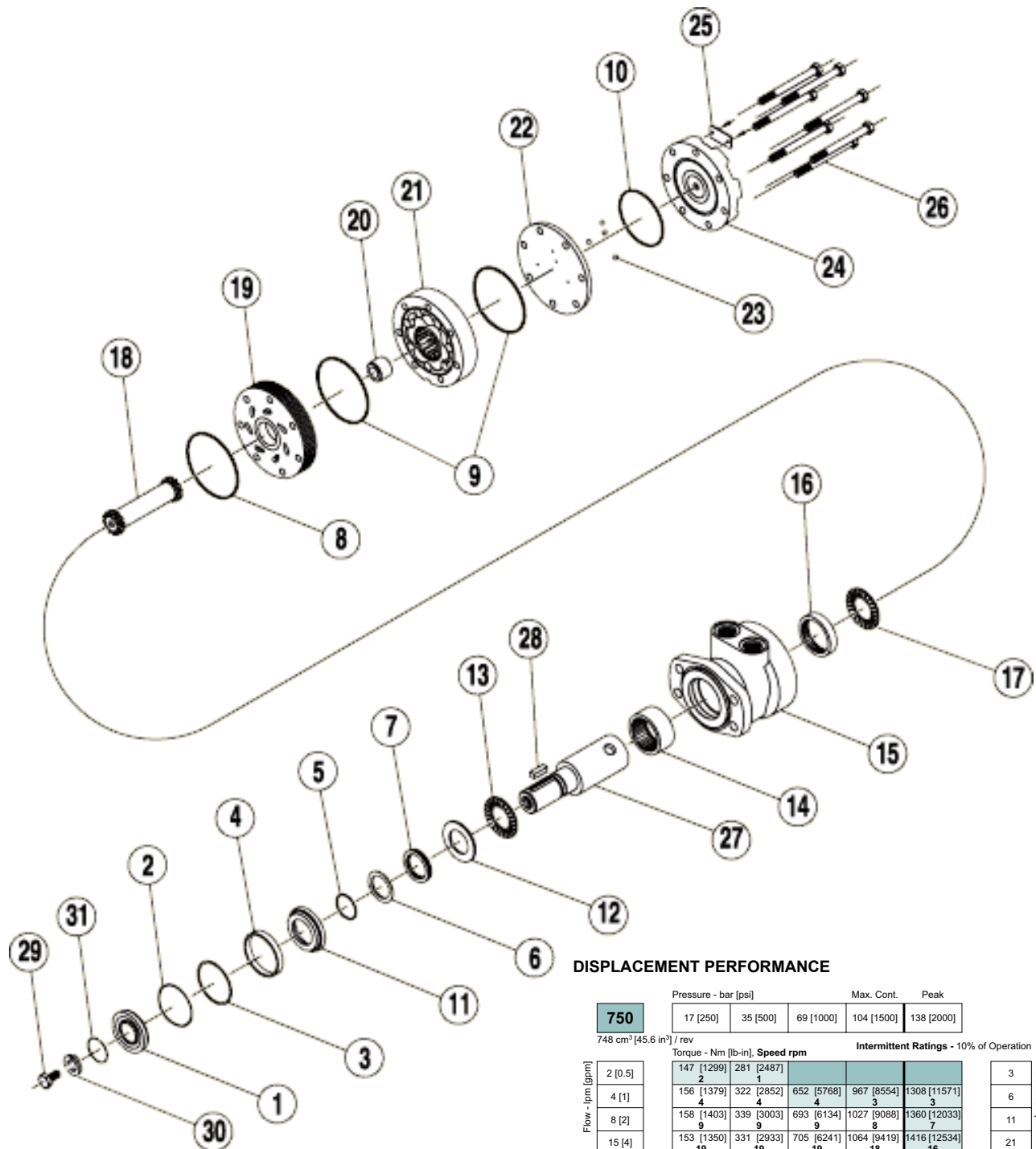
MOTOR ASSEMBLY PARTS LIST

Item	Part Number	Description
1	Seal Kit 05050309	Dust Seal
2		Split Wire Ring
3		Metal Backup Shim
4		High Pressure Seal
5		Metal Backup Shim
6		Teflon Backup Shim
7		Shaft Seal
8		Body Seals (3)
9		Seal Carrier
10		Thrust Washer
11	Seal Kit	Thrust Bearing
12	05006253	Drive Link Kit
13	05006502	Front Thrust Bearing
14	---	Front Housing Bearing
15	05006504	Housing Kits
16	05006255	Rear Housing Bearing
17	05006254	Rear Thrust Bearing
18	05006578	Drive Link Kit
19	05006258	Forward Manifold
20	05006579	Drive Link Spacer Kit
21	05006577	Standard Rotor Kit
22	05006261	Balance Plate
23	05006505	Steel Balls
24	05006503	End Cover
25	---	Serial Number Plate
26	05006580	Bolt Set Kit
27	05006581	Shaft Kit
28	05006571	Key Kit
31	05006582	Wire Ring Kit

DISPLACEMENT PERFORMANCE



05006672 MOTOR, HYD, WHITE, 45CI, 6B, W/ 100PULSE SNSR,
BH, .875" ORB, 14SPLINE



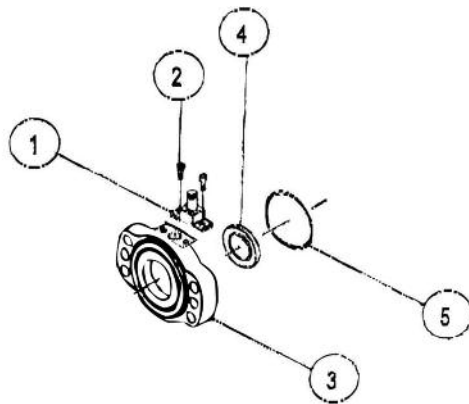
DISPLACEMENT PERFORMANCE

Flow - lpm [gpm]	Pressure - bar [psi]					Max. Cont.	Peak	Theoretical rpm
	17 [250]	35 [500]	69 [1000]	104 [1500]	138 [2000]			
	750							
	748 cm ³ [45.6 in ³] / rev							
	Torque - Nm [lb-in], Speed rpm					Intermittent Ratings - 10% of Operation		
2 [0.5]	147 [1299]	281 [2487]						3
4 [1]	156 [1379]	322 [2852]	652 [5768]	967 [8554]	1308 [11571]			6
8 [2]	158 [1403]	339 [3003]	693 [6134]	1027 [9088]	1360 [12033]			11
15 [4]	153 [1350]	331 [2933]	705 [6241]	1064 [9419]	1416 [12534]			21
23 [6]	135 [1194]	321 [2840]	697 [6166]	1059 [9373]	1408 [12462]			31
30 [8]	114 [1008]	304 [2690]	678 [6002]	1039 [9197]	1421 [12573]			41
38 [10]	82 [722]	271 [2395]	648 [5733]	1015 [8980]	1371 [12130]			51
45 [12]	54 [477]	249 [2207]	616 [5452]	983 [8699]	1345 [11902]			61
53 [14]		197 [1739]	577 [5104]	946 [8372]	1311 [11600]			71
61 [16]		150 [1325]	533 [4718]	905 [8008]	1271 [11249]			82
68 [18]		105 [927]	494 [4374]	860 [7614]	1225 [10843]			92
76 [20]		62 [552]	423 [3741]	805 [7123]	1173 [10385]			102
83 [22]			385 [3404]	747 [6608]				112
91 [24]			302 [2669]	670 [5932]				122
			121	120				
	Overall Efficiency - 70 - 100% <input type="checkbox"/> 40 - 69% <input type="checkbox"/> 0 - 39% <input type="checkbox"/>							
	Theoretical Torque - Nm [lb-in]							
	63.5 [2.501]	205 [1815]	410 [3631]	821 [7261]	1231 [10892]	1641 [14522]		
	mm [in]							

Displacement tested at 54°C [129°F] with an oil viscosity of 46cSt [213 SUS]

MOTOR ASSEMBLY PARTS LIST

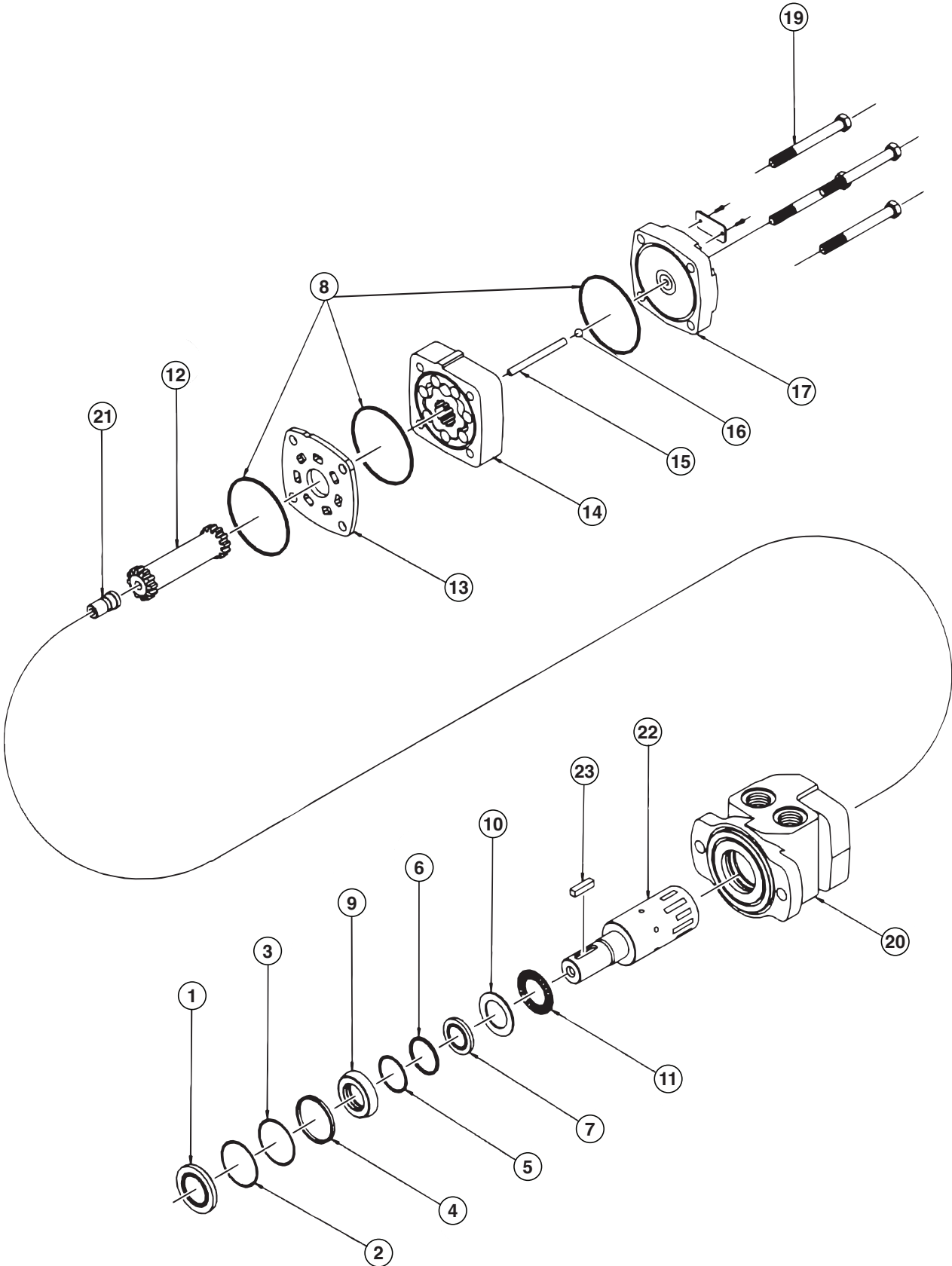
Item	Part Number	Description
1	Seal Kit 05050309	Dust Seal
2		Split Wire Ring
3		Metal Backup Shim
4		High Pressure Seal
5		Metal Backup Shim
6		Teflon Backup Shim
7		Shaft Seal
8		Body Seals (3)
9		Seal Carrier
10		Thrust Washer
11	Seal Kit 05006253	Thrust Bearing
12		Drive Link Kit
13	05006502	Front Thrust Bearing
14	05006572	Front Housing Bearing
15	05006504	Housing Kits
16	05006255	Rear Housing Bearing
17	05006254	Rear Thrust Bearing
18	05006578	Drive Link Kit
19	---	Forward Manifold
20	05006579	Drive Link Spacer Kit
21	05006577	Standard Rotor Kit
22	---	Balance Plate
23	05006505	Steel Balls
24	05006503	End Cover
25	---	Serial Number Plate
26	05006580	Bolt Set Kit
27	05006581	Shaft Kit
28	05006571	Key Kit
31	05006582	Wire Ring Kit



SPEED SENSOR KIT

Item	Qty	Part Number	Description
1	1	05006629	Standard 4-Pin Speed Sensor, 100 Pulse
2	2	05006561	Sensor Attachment Screws
3	1	05006612	6-Hole Sensor Flange
4	1	05006418	Sensor Magnet
5	1	05006601	Sensor Flange Seal

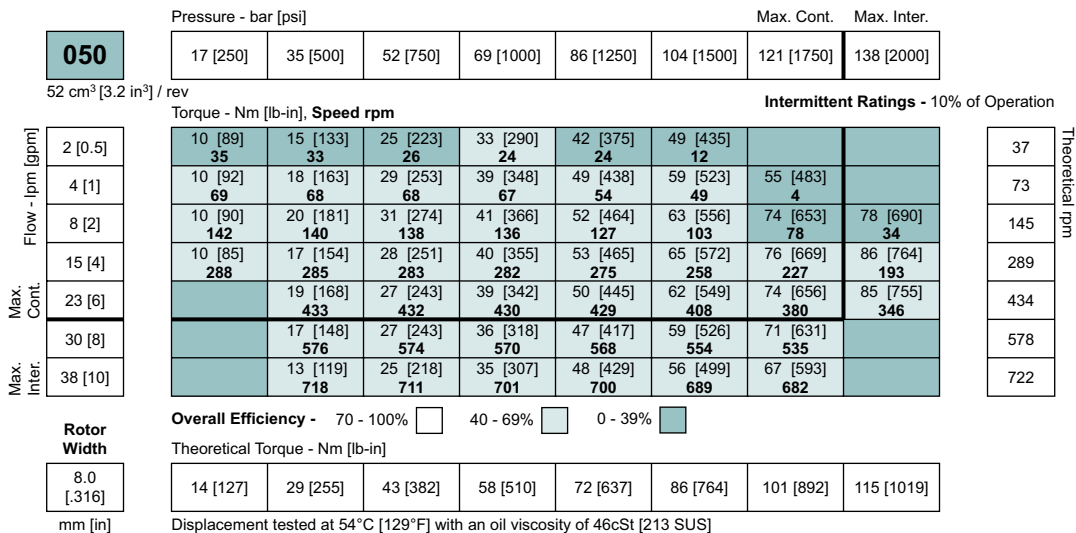
05006673 MOTOR, HYD, WHITE, 3.2CI, 4B, 1" EXT SHAFT, .875" ORB/SEAL SAVER



MOTOR ASSEMBLY PARTS LIST

Item	Part Number	Description
1	Seal Kit 05006679	Dust Seal
2		Split Wire Ring
3		Metal Backup Shim
4		High Pressure Seal
5		Metal Backup Shim
6		Teflon Backup Shim
7		Shaft Seal
8		Body Seals (3)
9		Seal Carrier
10		Thrust Washer
11	---	Thrust Bearing
12	---	Drive Link Kit
13	---	Wear Plate
14	---	Rotor Kit
15	---	Drive Link Pin Kit
16	---	Included in item #15 Drive Link Pin Kit
17	---	End Cover
18	---	Serial Number Plate
19	---	Bolt Set Kit
20	05006564	Housing Kit, 4-Hole, w/ 7/8" O-Ring
21	---	Cooling Plug
22	05006410	Shaft Kit 1" Straight Speed Sensor
23	---	Key Kit, 1" Straight

DISPLACEMENT PERFORMANCE



MONROE TRUCK EQUIPMENT, INC. WARRANTY SNOW & ICE CONTROL PRODUCTS

Monroe Truck Equipment, Inc. warrants to the original purchaser, that if any part of the product proves to be defective in workmanship or material within **ONE YEAR** of the original installation, and is returned to us within 30 days of the discovered defect, we will (at our option) repair or replace the defective part. This warranty does not apply to damage resulting from misuse, neglect, accident, improper installation, normal wear items or lack of maintenance. This warranty is exclusive and supersedes all other warranties, whether expressed or implied. **Monroe Truck Equipment, Inc.** neither assumes, nor authorizes anyone to assume for it, any other obligation or liability in connection with this warranty and will not be liable for consequential damages.

All engines, pumps, motors, cylinders and valves are warranted by their manufacturer and not by **Monroe Truck Equipment, Inc.**. The manufacturer's warranty will apply to these parts. Electrical and hydraulic components are not to be disassembled without the express written permission of Monroe Truck Equipment. Use of replacement parts other than original equipment voids this warranty.

All defective parts returned must be accompanied by the model number, serial number, date installed, date of defect, description of defect, and the name of the distributor from whom it was purchased. All warranty claims must have prior written approval from **Monroe Truck Equipment, Inc.**

Please return the warranty registration card that accompanies this manual to confirm receipt of this parts catalog and acknowledge the information contained within. Failure to return the attached card may result in a voided warranty.



**1051 West 7th Street
 Monroe, WI 53566
 608-328-8127 ~ Fax: 608-328-4278**

Warranty Policy Uninstalled Parts and Equipment Provided by Monroe Truck Equipment

Monroe Truck Equipment will provide the following limited warranty for a period of one year to the original purchaser of all uninstalled goods provided by Monroe Truck Equipment:

LIMITED WARRANTY: All goods provided by Monroe Truck Equipment (MTE) will be free from defects in material and workmanship for a period of one year from the date of purchase by the original purchaser. This limited warranty shall be the sole and exclusive remedy for any such product found to be defective. This limited warranty supercedes all previous warranties and is exclusive and in lieu of all other warranties, whether expressed or implied.

This limited warranty applies only to parts or accessories manufactured by MTE and/or provided by same. Except with respect to title, this limited warranty does not pertain to parts or accessories not manufactured and/or provided by MTE, regardless of whether such parts or accessories were selected and/or recommended by MTE. MTE will, as a service to the buyer, pass on any warranties received from the original manufacturer of MTE provided parts and/or accessories.

MTE will not under any circumstances be liable for any incidental or consequential damages whether in tort, contract, or otherwise, for any bodily injury, death, property damage, loss of use, or loss of income resulting from or in any way arising out of any goods provided by MTE, or their sale, use, or manufacture.

Any warranty claim deemed to be arising from the result of misuse, abuse, neglect, accident, improper installation, lack of maintenance, act of war (whether declared or otherwise), or act of God will be denied. Any repair or modification by the buyer or any third party, without the prior written consent of MTE, will void any possible warranty compensation. Any damage deemed to be the result of abnormal operation will not be compensated by this warranty.

Normal or special maintenance items such as fuels, fluids, tires, belts, hoses, filters, air cleaners, light bulbs, and any other items subject to normal wear and tear that are supplied in connection with goods provided by MTE are not allowed under this warranty.

All engines, pumps, cylinders, valves, and motors are warranted by their manufacturer and not by Monroe Truck Equipment. The manufacturer's warranty will apply to these parts. Electrical and hydraulic components are not to be disassembled without the express written consent of MTE. Any disassembly of MTE provided components without prior authorization will void the applicable warranty.

Monroe Truck Equipment shall be the sole and final determining authority as it applies to the administration of this warranty policy. Purchaser acknowledges receipt of Monroe Truck Equipment Warranty Policy and agrees to be bound by same.



GLOBAL SOLUTIONS
 ARMORED VEHICLES ~ SPORT TRUCK CONVERSIONS
 MUNICIPAL SNOW & ICE CONTROL ~ FIRE APPARATUS
 PICKUP TRUCK ACCESSORIES ~ TRUCK EQUIPMENT/MODIFICATIONS





**1051 West 7th Street
Monroe, WI 53566
608-328-8127 ~ Fax: 608-328-4278**

Any and all warranty claims must be forwarded to MTE within 10 days of defect discovery. A copy of the original Monroe Truck Equipment invoice as well as the manufacturer's model number, serial number, and date of installation must accompany all correspondence regarding said claims. MTE will, at their option, choose whether to repair or replace the defective part unless otherwise specified by the original manufacturer of said part.

Procedures for Warranty Claims Notification

For submission of any warranty claim please contact Monroe Truck Equipment – Warranty Department at 800-356-8134

The following documentation will be needed when you call for initial warranty authorization:

1. A copy of the original MTE invoice.
2. Make, Model, and VIN or Serial Number of the equipment involved.
3. Part number and serial number of the part in question.
4. A complete description of the problem.

The following must accompany any claims submitted to Monroe Truck Equipment:

1. Documented photographs of any physical damage.
2. Inspection notes by MTE personnel or MTE authorized 3rd party.
3. Authorization number issued by Monroe Truck Equipment – Warranty Department.

Defective parts must be returned to Monroe Truck Equipment (freight prepaid) within 30 days of issuance of Authorization Number.

Monroe Truck Equipment reserves the right to void any warranty for failure to comply with Monroe Truck Equipment Warranty Policy.

This policy is effective October 11, 2012