

FFDS SPREADER

Service and Parts Manual



Monroe Snow & Ice Control

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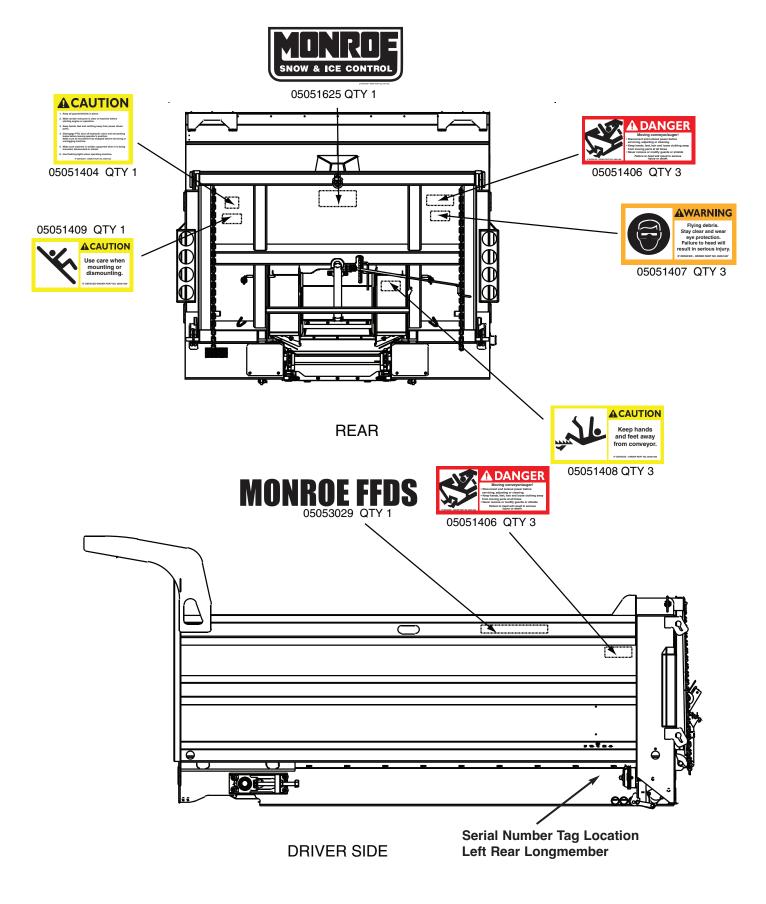
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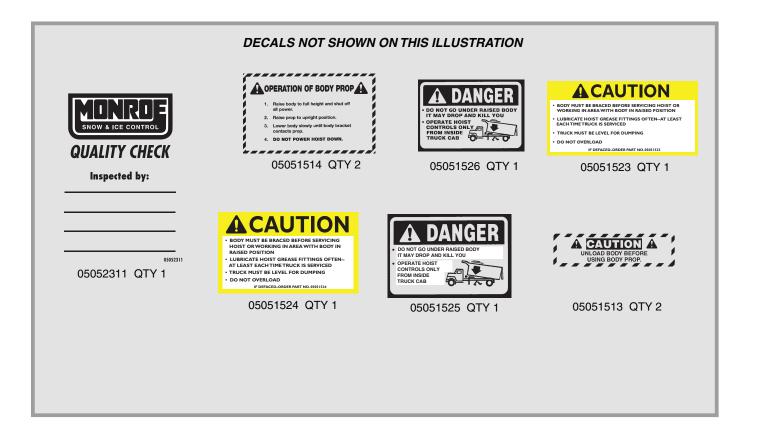


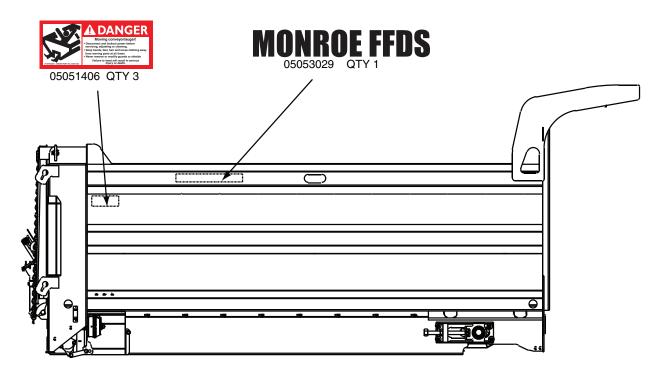
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FFDS SAFETY DECAL LOCATION







PASSENGER SIDE

SAFETY INSTRUCTIONS

The signal word designates the degree or level of hazard seriousness.

A DANGER

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



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

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



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

- Read all installation, safety and maintenance instructions completely before operating this equipment.
- Keep all personnel clear of moving parts while equipment is being operated.
- Do not operate equipment in need of maintenance! Repair immediately!
- While operating this equipment, use common sense, use caution, be alert and be safety-conscious.
- Always carefully block up the body, using the body prop, before working under equipment. The body props are designed to support an empty truck body.
- Do not race the engine while unloading.
- Do not load the hoist beyond its capacity.



MAINTENANCE INSTRUCTIONS

Air Tailgate Latch Linkage Adjustment

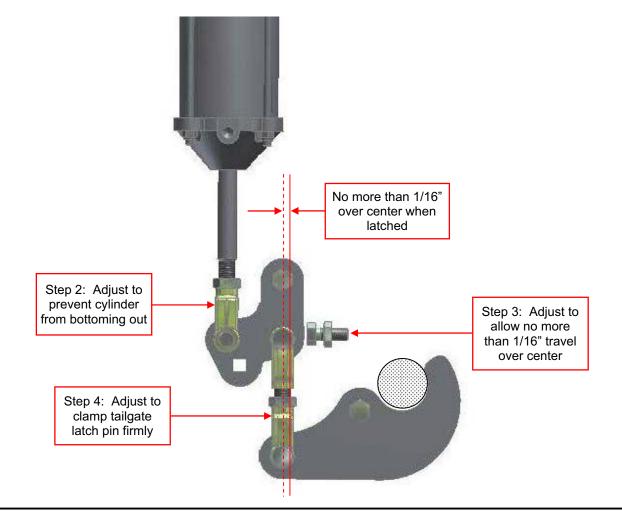


Crushing/pinching hazard.

Movement of the tailgate latch linkage can severely injure fingers and hands.

Keep hands away from the linkage when it is being operated. Disable the air tailgate controls while working on the linkage.

- 1. Verify that the tailgate is closing fully against the body. Remove any dirt, sand, salt, or other material that is preventing the tailgate from closing against the body.
- 2. Verify that the air cylinder is not reaching the end of its travel before the latch is fully engaged. Adjust the clevis on the air cylinder rod as required to prevent over-travel. The latch link should be able to travel 1/4 to 1/2" over center with the link adjuster bolt temporarily turned all the way in.
- 3. Adjust the latch-link travel adjuster bolt to allow no more than 1/16" of travel past center when the air cylinder is extended. Check this with a straight edge on the upper pivot bolt in the link and on the pivot bolt in the latch hook. It may be necessary to disconnect one end of the hook linkage to allow movement of the latch link.
- 4. Adjust the hook linkage to achieve firm clamping force on the tailgate latch pin when the tailgate is closed fully against the body.
- 5. Cycle the air latches several times to verify that they are latching consistently.



MAINTENANCE INSTRUCTIONS

CAUTION: Always replace shields and covers when maintenance is complete.

- Allow hydraulic system to warm up before using.
- Maintain a $\frac{3}{4}$ full reservoir using high grade non-foaming oil.
- · Avoid getting contaminants in reservoir when filling.
- Replace filter cartridge with new cartridge at least twice a year and more often if necessary.
- Clean quick disconnects before taking apart or connecting.
- Lubricate all fittings at regular intervals, at least every 150 cycles, or every two months. The grease fittings are located as follows:
- Protect quick disconnects while in use and after taking apart with oily rag or other suitable protection.
- All bearings require periodic greasing and more frequent greasing during periods of greater use.
- Greasing pump shaft u-joints and slip end of slip u-joints is recommended with each truck lubricating.
- Drive chains and drag chains should be checked for slack after initial start up and frequently thereafter. If the distance between the center line of rear sprocket and the point where chain contacts lower flange on longitudinal is less than 30" tighten as necessary.
- Oiling or greasing spinner hinge rod (if on spreader) is suggested.
- Gearboxes should be checked, periodically for proper lubrication level, and SAE 90 gear type lubricant added if necessary.
- Hosing down and cleaning spreader after each use, and repainting or oiling after each season, will greatly prolong spreader life.
- Spreader trough or hopper should be kept empty to prevent materials from freezing around conveyor (or roll) in severe cold weather.
- Gearbox vents, when supplied, should be kept open at all times, or damage may result to seals.
- A coating of grease on spreader drag chain take-up bolt is recommended for easier chain adjustment.
- Cross conveyor belting should be checked periodically and taken up if loose or if slipping occurs. If the belting tracks off center adjusting the tighteners can move the belting as desired.

BELT TRACKING AND TENSION

To tension belt after installation:

- 1. Make sure conveyor is not running.
- 2. Reach up under belt midway between drive roll and snub roll and bump belting with the heel of your hand. The belt should not deflect more than ½".
- 3. After conveyor has been run, the belt will stretch and loosen. Belt should be kept tight enough that it does not slip.

To track belt:

- 1. Do not adjust bearing adjuster on the drive end. This is preset at the factory, and is used to properly align drive roll. Tracking adjustments should be made on the idler end as follows. (If satisfactory results can not be obtained some adjustments can be made on the drive end.)
- 2. Run conveyor in the direction it is to be used the most, paying attention to how the belt is tracking. Tighten the adjuster on the opposite side you want the belt to move in the direction of. Only tighten ½ turn at a time and allow belt to react to the adjustment before making further adjustments.

Size	GRADE 2 GRADE 5		GRADE 8
1⁄4-20	50 IN - LBS	75 IN - LBS	9 FT - LBS
¾-16	15 FT - LBS	23 FT - LBS	35 FT - LBS
1⁄2-13	35 FT - LBS	55 FT - LBS	80 FT - LBS
%-11	75 FT - LBS	110 FT - LBS	170 FT - LBS
³ ⁄4 -10	130 FT - LBS	200 FT - LBS	280 FT - LBS
1-8	190 FT - LBS	480 FT - LBS	680 FT - LBS
1¼-7	380 FT - LBS	840 FT -LBS	1360 FT - LBS

TORQUE CHART

The Monroe FFDS is a heavy duty, frame-mounted, dump-style spreader body. It is designed for single or tandem axle trucks. Lengths from 10' to 16' are available as standard with both rear discharge or front and rear discharge. The following instructions are for standard installations only.

Single and Tandem Axle Trucks

The hoist frame assembly and the rear hinge must be located relative to each other as shown in Figure 1 on page 9 or Figure 2 on page 10. These illustrations show the mounting distance, "A", with the actual number found in the corresponding tables. The mounting distance is measured from the center of the rear hinge pin to the front of the FFDS Body longsill.

Standard mounting distances are found in the tables on pages 9 and 10. For non-standard mounting distances, use the chart on page 11 for reference. **Note: Body overhang must never exceed 12".** Mounting the hoist with more overhang than this will cause damage to the rear hinge, the cylinder, the rear spinner, and/or the body, and will void the warranty.

- Determine the proper placement of the rear hinge and body on truck frame before doing any cutting or drilling.
- Place the rear hinge on top of the frame and determine its proper location. (Reference page 9 for rear hinge installation.) The rear hinge must be located as close as possible behind the rear spring hanger. For single axle trucks, this will be approximately 33" behind the center of the rear axle, but not greater than 38". For tandem axle trucks, this will be approximately 45" behind the center of the tandem, but not greater than 50".

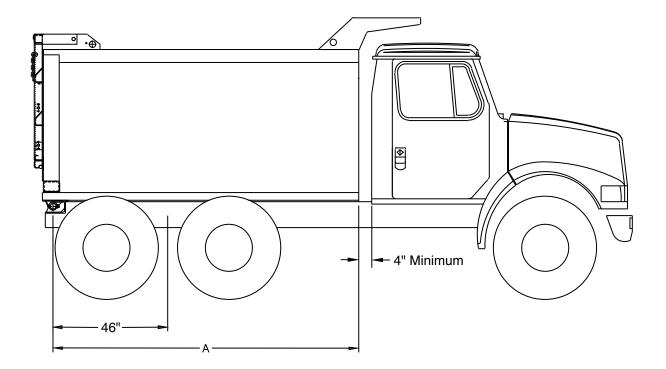
Place the FFDS body on the truck frame with at least 4" clearance from the cab of the truck, as shown in Figure 1 or Figure 2. Note: If the truck chassis has a vertical exhaust

exhaust

stack, the body must be moved further rearward. You must allow a minimum of 1" clearance between the vertical exhaust stack and the FFDS body. The cabshield may have to be notched for clearance around the vertical exhaust stack.

Using the proper mounting distance given for your FFDS model number, measure the mounting distance on your truck and locate the rear hinge as discussed above.
 If you have a standard type installation this distance should be similar to the distance given in the chart on page 6 or 7. For non-standard installations, use the chart on page 8 for reference only. Note: Body overhang must never exceed 12".





FFDS MODEL #	BODY LENGTH	CT/CA DIM.	OVERHANG	DUMP ANGLE	"A" DIM.
FFDS-156-86-46	13'	108" CT	6"	53°	150"
FFDS-120-86-34	10'	84" CA	6"	47 °	114"

Rear Hinge Installation

- Make sure the rear hinge is correctly located, centered and square with the frame, then mark the frame for notching. If the body longsill is notched for the hoist frame angle, the top of the hinge should be flush with the top of the truck frame flange. If the longsill is not notched for the hoist frame, refer to Figure 3 below for the correct height for your model.
- Notch the truck frame as shown in Figure 3, leaving enough of the bottom flange of the truck frame to be bent up to box in the truck frame. If the frame is not long enough, square cut and cap the end. This is necessary for strength.
- Place the rear hinge in the notch, making sure it is properly located, squared, centered and the correct height above the frame, then weld securely into place.
- Bend the bottom flange up and weld all around to box in the rear of the truck frame.
- Place gussets in the corners formed by the truck frame rail and the rear hinge frame angle. Raise the front end of the gusset until it touches the top frame rail. Be careful so that the gusset will not interfere with the rear hinge operation.
- Securely weld the gussets to the rear hinge, the truck frame rail and the top flange of the truck frame.

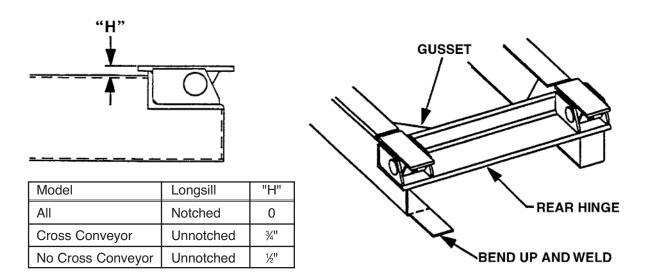


FIGURE 3.

Body Mount Instructions

- ** It is recommended that the body be painted before it is mounted on the truck.
- Place the body on the truck, leaving a minimum 4" of cab clearance or a minimum of 1" stack clearance.
- Make sure the body is straight and parallel to the truck frame.
- Securely weld the longsills to the rear hinge.

Model	Reservoir Size	Initial Fill
80	30 gallon	24 gallon
110	30 gallon	24 gallon
130	40 gallon	30 gallon
150	40 gallon	30 gallon

Adding Hydraulic Oil

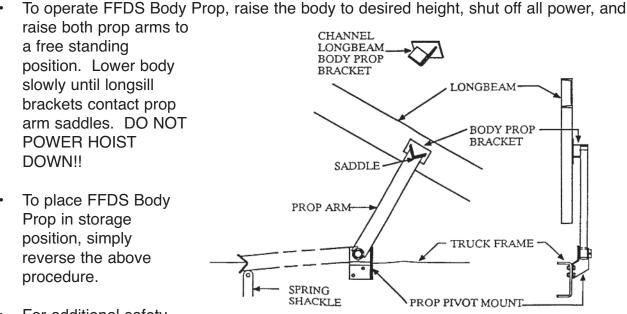
- Use a quality hydraulic fluid of 150 SSU @ 100° F, which contains corrosion and oxidation inhibitors and a foam depressant. This is approximately the equivalent of SAE 10W or lighter weight oil, or use Type A automatic transmission oil for improved performance in cold weather. Initially, fill the reservoir with the quantities given below. After 2 or 3 cycles, refill the reservoir to the sight glass level with the body down. DO NOT OVERFILL THE RESERVOIR!
- With normal use and working conditions the hydraulic filter should be cleaned or changed every time the hydraulic oil is changed. With heavy use or very dusty working conditions, the hydraulic filter should be changed or cleaned more often.

KEEP OIL CLEAN! USE CLEAN CONTAINERS, FUNNELS AND OTHER EQUIPMENT!

Body Prop Installation

The Monroe Flat Floor Dump Spreader (FFDS) Body Prop is designed and intended for use to support an *empty* truck body in the raised position to permit service work to be performed safely beneath a raised body. Two props should be used, one on each side. FFDS Body Props come in pairs, right hand and left hand.

- Raise body to desired height and brace it securely with a large block of solid, hard wood before beginning installation.
- Assemble prop arm to prop pivot mount with ⁵/₁₆" x 3" roll pin. Position prop pivot mount against outside of truck frame, approximately 50" to 60" ahead of rear dump body hinge. (This dimension is measured from center of hinge pin to center of prop pivot mount tube.) This measurement may vary depending on chassis make and/or desired body propped height. Allow saddle end of prop arm to rest on top of front spring shackle as shown. Using prop pivot mount as a guide, mark location of holes on truck frame and drill (2) ¹/₂₂" holes per side. Fasten prop pivot mount to truck frame with ¹/₂" x 1³/₄" bolts and lock nuts.
- Raise prop arm to free standing position by allowing prop arm to rest against rear flange of prop pivot mount. Place longsill bracket in prop arm saddle. Position longsill bracket against the upper outside of body longsill in order to allow room for clearance when body is in the lowered position. Weld longsill bracket securely in place.



 For additional safety when servicing always block body with a solid block of hard wood. This along with the body

props should ensure support of body when servicing.

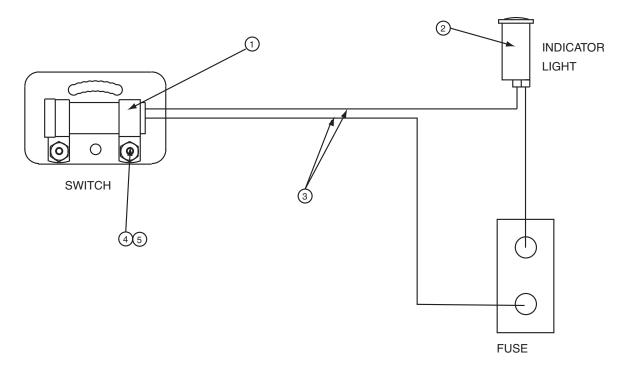
Installation instructions for body-up switch

The switch supplied is a mercury type switch to be mounted in the rear corner post of the dump body. The kit contains:

1 switch 1 indicator light 35' of wire 2- #10 pan head machine bolts and nuts

- 1) Raise the dump body up and place a spacer block under the longmembers in the very front to space the body up 1½ " to 2".
- 2) Drill mounting holes in the rear corner post for mounting the switch, inside out of the elements. Mount the switch but leave loose.
- 3) Install the indicator light in the truck cab.
- 4) Run the wire supplied from the switch to the cab and secure properly.
- 5) With the switch installed and wired, adjust the switch by rotating on the lower mounting bolt until the indicator light just comes on. Tighten the mounting bolts.
- 6) Raise the body and remove the spacer blocks.
- Lower the body and watch the indicator light. It should go out when the dump body is within that 1¹/₂" to 2" range.
- 8) The switch can be further adjusted to get the desired results. If the switch is set too close, the light will come on with the body down while in service because of the flex of the truck frame.

NOTE: All electrical hook-ups should be fused.



Installation of Swing Under Rear Spinner Assembly

Refer to Figure 4 for clearances needed when preparing truck frame for installation.

- When mounting on single axle chassis, the amount of frame that extends beyond the rear axle should be enough to allow room for the spinner to swing forward into a stored position.
- When mounting on tandem axle chassis, the FFDS body may be mounted rearward to make enough room for the spinner to swing forward into a stored position.
- Position the spinner assembly and clamp to the truck frame or extensions.
- Drill four, ¹/₂" holes through the spinner side plates and frame, two on each side.
- Bolt together using four, ½" x 2", grade 8 bolts, flat washers and lock nuts.
- Plumb spinner motor and grease all fittings before use.

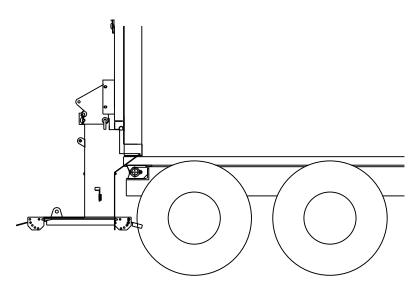
FIGURE 4.

Installation of Tailgate Mounted Rear Spinner Assembly

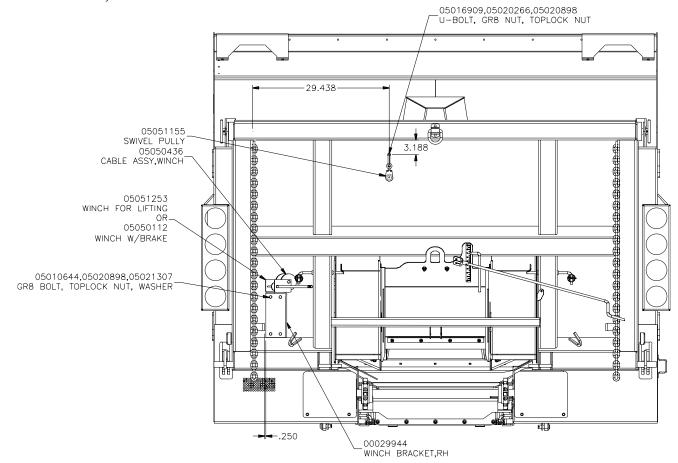
Refer to Figure 5 for a diagram of spinner placement on FFDS body.

- Spinner mounts should be shipped loose with spinner assembly. Fit spinner to tailgate after body is installed onto truck.
- Using a hoist or jack of some type, raise spinner into position and bolt to spinner mounting plates using %" x 2" bolts supplied.
- If optional winch is to be used with the spinner chute, install the winch (see page 15 for winch kit assembly) on the lower left corner of the tailgate using %" x 1¼" bolts.
- Drill holes for U-bolt above the spinner chute, toward the top of the tailgate. When the spinner chute is tipped up, the left lug should be in line with the U-bolt.
- Install swivel pulley on the U-bolt and fasten to the door using the holes previously drilled.
- Hook the snap hook on the end of the cable through the lift lug on the spinner.
- Feed the cable through the swivel block and down to the winch mounted on the lower left corner of the tailgate.
- Attach the cable to the winch using the winch manufacturer's instructions.
- Plumb the spinner motor with quick disconnects, so that the spinner can be tipped up freely.





Winch Installation, Left Side

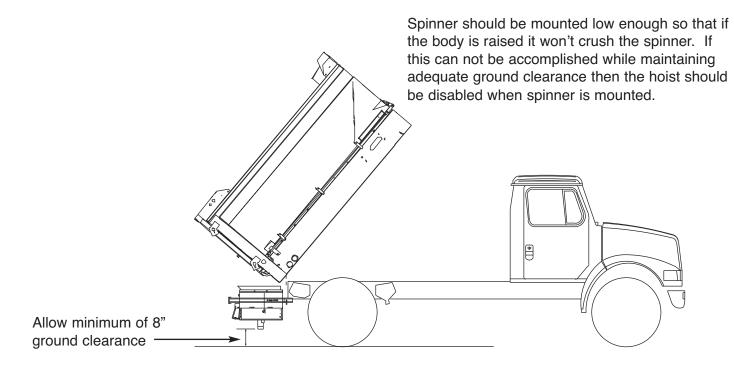


TAILGATE CONVERSION KIT

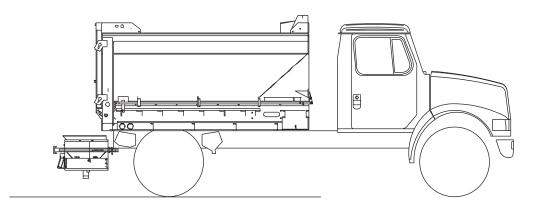
- Remove the rear door insert weldment by rotating lock bar up to the release position.
- Install disrupter above and rotate the lock bar down to the lock position.
- Install floor cover above by chain cover retaining bolts on each side of the body. Slide chain cover up. Slide floor cover under chain cover and retighten.

Important! This floor cover must be installed to seal the floor to the tailgate when the tailgate insert is removed and the disrupter plate is installed. This should not be installed when the tailgate insert with the metering gate is being used. This conversion should be done when the unit is going to be used with the tailgate folded down. It does not need to be done for normal operation for use with sanding or dumping.

RECEIVER TUBE SPINNER INSTALLATION INSTRUCTIONS

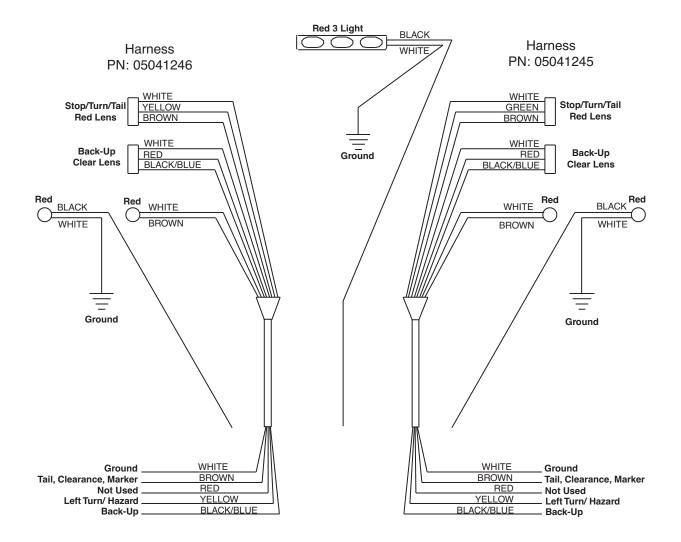


Spinner should be installed far enough forward that material will fall on spinner disc. Some times it may be necessary to set the pintle plate forward from end of truck frame to get spinner far enough forward.

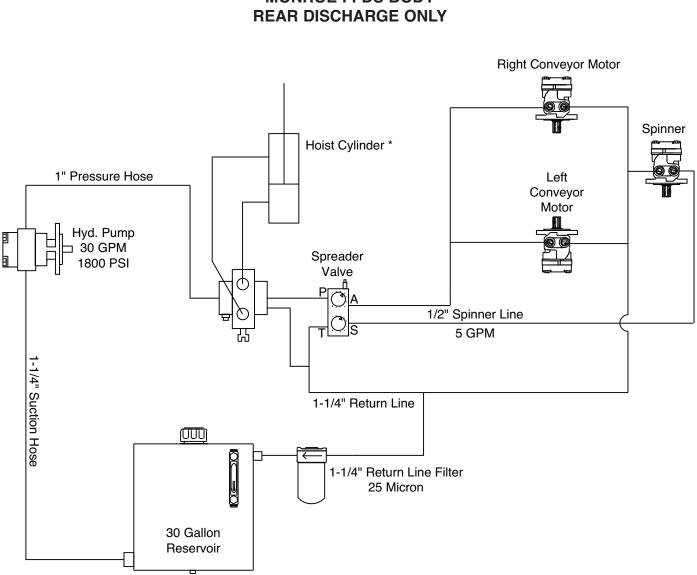


WIRING SCHEMATIC

05041257 Light Kit, RDS Body, Stop/Turn/Tail/Marker/Back-up w/ Harnesses Install the lights and connect the wiring using the diagram below.



HYDRAULIC SCHEMATICS



MONROE FFDS BODY

HYDRAULIC SYSTEM ANALYSIS

Pump Parker PAVC 65 Parker PAVC 100	Displacement 4.0 in3 per rev. 6.1 in3 per rev.	. 11.2 gpm	Flow @ 1,000 rpm 17.3 gpm 26.4 gpm	Flow @ 1,800 rpm 31 gpm 47 gpm
Motor Application Spinner motor (direct drive) Main conveyor motor (6:1 gearbox)	Displacement 3.2 in ³ per rev. 15.5 in ³ per rev.	Flow @ motor rpm 0.69 gpm@50rpm 2.01gpm@30rpm	Flow @ motor rpm 2.77gpm@200rpm 4.03gpm@60rpm	Flow @ motor rpm 5.44gpm@400rpm 8.05gpm@120rpm
Cross conveyor motor (direct drive) Metro conveyor motor (25:1 gearbox)	17.9 in ³ per rev. 6.3 in ³ per rev.	0.77gpm@10rpm 3.41gpm@125rpm (5rpm@conveyor)	2.32gpm@30rpm 6.82 gpm@250rpm (10rpm@conveyor)	3.87gpm@50rpm 13.64gpm@500rpm (20rpm@conveyor)
Plow cylinder flow @ 0.167 ft/sec (2	"/sec) velocity (V	7)		
2" cylinder"	3.14 in3 area	1.63 gpm @ V		
3" cylinder"	7.065 in3 area	51		
4" cylinder"	12.56 in3 area	6.54 gpm @ V		

Hoist cylinder flow @ 0.167 ft/sec (2"/sec) velocity (V) 5" cylinder" 19.63 in3 area 10.23 gpm @ V 6" cylinder" 28.26 in3 area 14.71 gpm @ V 7" cylinder" 38.47 in3 area 20.02 gpm @ V

Comparison of pumps at theoretical spreader settings and plow raise event

	Single Motor RDS	Dual Motor RDS	RDS Metro
Spinner gpm	2.77	2.77	2.77
Main Conveyor gpm	4.03	8.06	6.8
Cross Conveyor gpm	2.32	2.32	n/a
Plow (3" cyl.) gpm @ V	3.68	3.68	3.68
Totals	12.8	16.83	13.25
Net flow @ idle (650 rpm)			
PAVC 65	-1.6	-5.63	-2.05
PAVC 100	4.1	0.07	3.65
Net flow @ 1,000 rpm			
PAVC 65	4.5	0.47	4.05
PAVC 100	13.6	9.57	13.15

CONDITION 1 Pump cavitation recognized by excessive noise.	CONDITION 2 Erratic operation of conveyor and/or spinner.
 CAUSE Air entering system through suction lines. Suction line kinked, twisted or too long. Inadequate size suction line. Oil too heavy. Excessive pump speed. Normal pump speed 1200 to 1500 RPM. 	 CAUSE Low oil. Worn or defective motor. Dirty, worn or defective flow control valve. Plugged filter. Relief valve setting too low. Pump cavitation. Air vent on reservoir tank is blocked.
 CORRECTION Check line from reservoir for possible leaks. Install suction line as short and straight as possible. Increase suction line size. Drain and replace with a low viscosity non-detergent oil. Pump capacity is 16 GPM at 1000 RPM. Decrease PTO speed accordingly. 	 CORRECTION Fill reservoir to a ¾ full level. Repair or replace motor.* Clean, repair or replace flow control.* Replace filter element and clean filter. Adjust relief valve for 1500 PSI. Refer to pump section. Clean or replace vent cap to admit atmospheric pressure to inside of the tank.
 CONDITION 3 Slow operation of conveyor and/or spinner. CAUSE Worn or defective pump. Worn or defective motor. Pump cavitation. Insufficient pump speed. 	 CONDITION 4 Conveyor and/or spinner will not operate. CAUSE Quick disconnects are dirty, damaged, or improperly connected. Hose connections wrong. Foreign material in valve compensator.
 CORRECTION Repair or replace pump.* Repair or replace motor.* Refer to pump section. Pump capacity is 16 GPM at 1000 RPM. Increase PTO accordingly. 	 CORRECTION Clean or replace and properly connect. Refer to illustration. Remove compensator and clean.

OPERATING INSTRUCTIONS

CAUTION:

- When starting up new equipment, be sure everyone is standing clear, watch for anything that may require shutting system down.
- Be sure lever on valve is moved completely to OFF position before working in or around spreading equipment.
- Be sure the engine is off and the key is removed and the parking brake is set. Prop the body up if working underneath.

INITIAL START UP:

- 1. Fill reservoir about ³/₄ full with high-grade non-foaming hydraulic oil. KEEP OIL CLEAN!
- 2. Move valve on-off lever to OFF position.
- 3. Open conveyor and spinner knobs on valve.
- 4. Engage PTO and allow hydraulic oil to circulate several minutes to warm up.
- 5. Move valve on-off lever to ON position.
- 6. Check entire hydraulic system for leaks. Use a piece of cardboard, not your hands.
- 7. Examine conveyor and spinner to see if they are running in right direction. Direction can be reversed by switching hoses at motor ports.
- 8. Fill reservoir to ¾ full.
- 9. Hydraulic system is ready for use.

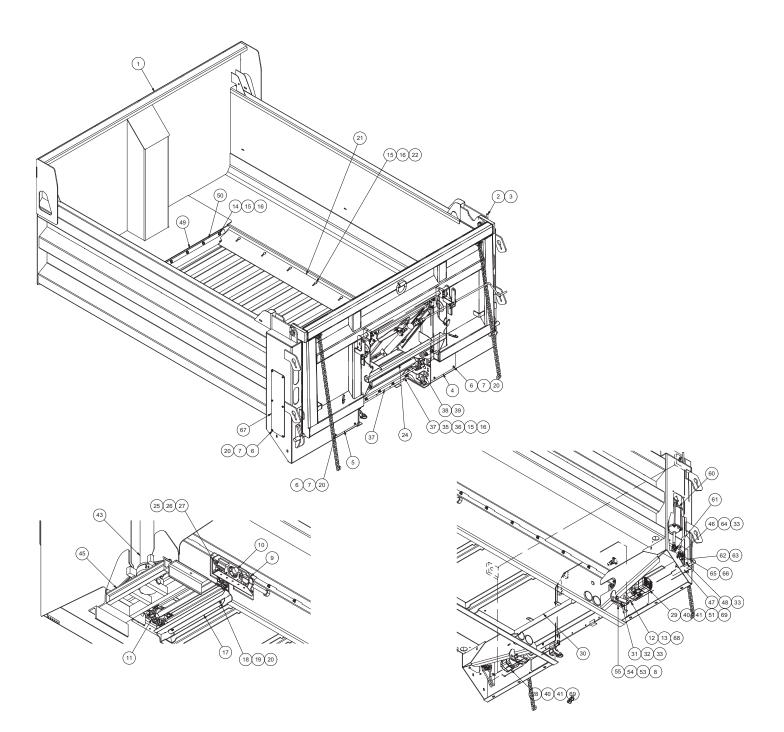
SPREADER OPERATION:

- 1. Start truck engine and allow hydraulic system to warm up by shutting off spinner and conveyor knobs and moving on-off lever to ON position.
- 2. Turning the knob marked "spinner" counter-clockwise will increase the spinner speed and width of spread.
- 3. Turning the knob marked "conveyor" counter-clockwise will increase the conveyor speed and thus the amount of material spread.
- 4. The gate on the rear or front of the box will also allow more material to pass to the spinner when opened wider.
- 5. The directional chute over the spinner will control the direction of the spread pattern. If the baffles are located to drop the material on the left side of the spinner disc, then the pattern will be behind and to the right side of the truck. If the baffles direct the material to the right side of the disc, then the pattern will be behind and to the left of the truck. A little experimenting with the different positions of the baffles and the spinner speed control will show the patterns spread exactly as desired for direction and width.
- 6. The control valve may be turned on and off or adjusted while truck is in motion.
- 7. Spinner and conveyor may be stopped at the same time without changing their valve settings by moving the on-off lever to OFF position.

GENERAL INFORMATION

- 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.
- Use only **Monroe Truck Equipment** O.E.M. replacement parts. Failure to do so will void warranty.
- Replacement parts listed in this manual reflect our most common items. 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 this parts manual without notice.

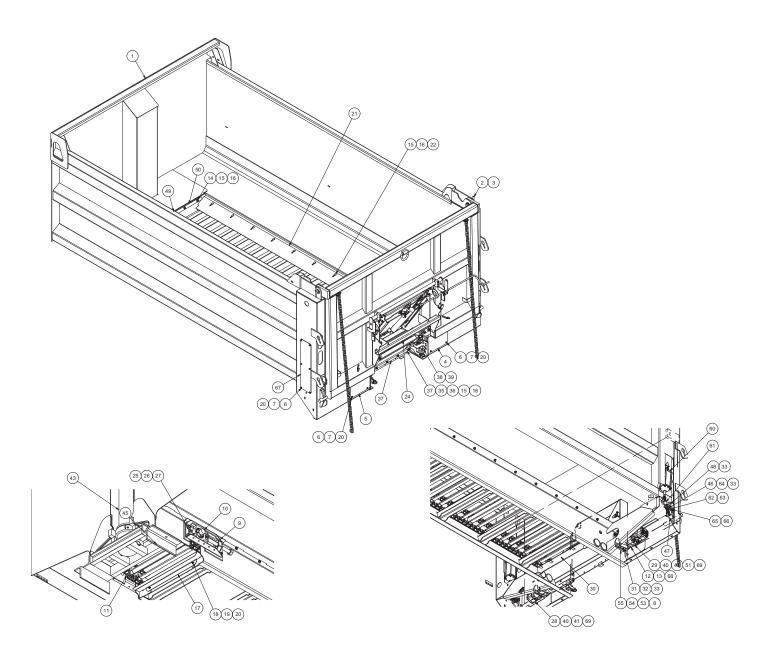
NOTES



			86-34, 2-HOLE, 4.5SPC SPD	, 2.5 AR400 BED
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	00146027-A	BODY WLDMT,FFDS,10',MS	
1	1	00146027-B	BODY WLDMT,FFDS,10',304	
1	1	00146027-C	BODY WLDMT,FFDS,10',AUSST	
2	2	00109637	PIN WLDMT,T-HANDLE,	
3	2	05022190	PIN .250 LYNCH	
4	1	00134858-A	PANEL,COVER,FFDS,CNVR,RH,MS	
4	1	00134858-B	PANEL,COVER,FFDS,CNVR,RH,304	
4	1	00134858-C	PANEL,COVER,FFDS,CNVR,RH,AUSST	
5	1	00134859-A	PANEL,COVER,FFDS,CNVR,LH,MS	
5	1	00134859-B	PANEL,COVER,FFDS,CNVR,LH,304	
5	1	00134859-C	PANEL,COVER,FFDS,CNVR,LH,AUSST	
6	16	05020893	NUTSERT .250-20 x.580" BEFORE	
7	16	05010591	BOLT .250-20 x .750 G8 HHCS ZC	
7	16	05016113	BOLT .250-20 x .750 HHCS SST	
8	2	05030006	BEARING,2",4B FLANGE,MSV-MV	
9	2	00032786		See Page 34
10	1	00020774	SHAFT,IDLER,2.0x43.50,DM,ZC	
11	4	05033028	SPROCKET,8T,667XH CH,2"BORE	
12	1	00020775	SHAFT,OUTPUT,2.0x49.75,DM,ZC	
13	2	05051148		See Page 60
			GEARBOX,6:1,2"SFT DIA,3.56"L	
14	5	05010646	BOLT .375-16 x 1.75 G8 HHCS ZC	
14	5	05016163	BOLT .375-16 x 1.75 HHCS SST	
15	26	05020898	NUT .375-16 GC TOPLOCK C&W	
16	36	05021307	WASHER .375 FLAT ZC	
16	36	05021390	WASHER .375 FLAT SST	
16 17	36	05021390 00132719-A	WASHER .375 FLAT SST RETAINER,FFDS,FLOOR PAN,MS	
17	1	00132719-A	RETAINER, FFDS, FLOOR PAN, 304	
17	1	00132719-B	RETAINER, FFDS, FLOOR PAN, 304	
18	2	05017058	BOLT .250-20 x 1.00 CRG ZC G5	
18	2	05016986	BOLT .250-20 x 1.00 CRG SST	
18	2	05016986	BOLT .250-20 x 1.00 CRG SST	
19	2	05020899	NUT .250-20 GC TOPLOCK C&W	
19	2	05020906	NUT .250-20 NYLON LOCK 316 SST	
20	18	05021363	WASHER .250 LOCK ZC	
20	18	05021393	WASHER .250 LOCK SST	
21	2	00137408-A 00137408-B	CHAIN COVER,FFDS,10',MS CHAIN COVER,FFDS,10',304	
21	2	00137408-B	CHAIN COVER, FFDS, 10', AUSST	
22	16	05013987	BOLT .375-16 x 1.25 G5 CRG ZC	
22	16	05016746	BOLT .375-16 x 1.25 CRG SST	
23	1	00145458-A	TGT ASSY,FFDS,34" SIDES,MS	See Page 38
23	1	00145458-B	TGT ASSY,FFDS,34" SIDES,304	

ITEM	00135 : QTY	369 FFDS-120- PART NUMBER	-86-34, 2-HOLE, 4.5SPC SPD, 2.5 AR400 BED DESCRIPTION
		00145458-C	
23 24	1	00145440-A	TGT ASSY,FFDS,34" SIDES,AUSST INSERT ASSY,FFDS,TGT,MS See Page 40
24	1		
		00145440-B	INSERT ASSY,FFDS,TGT,304
24	1	00145440-C	INSERT ASSY, FFDS, TGT, AUSST
25	8	05020837	NUT .625-11 GC TOPLOCK C&W
25		05020903	NUT .625-11 NYLON LOCK 316 SST WASHER .625 FLAT ZC
26	8		
26 27	8	05021406 05014094	WASHER .625 FLAT SST BOLT .625-11 x 2.00 G5 CRG ZC
27	8	05017222	BOLT .625-11 × 2.00 CRG SS MOTOR HYD WHITE 17 9CI 2B DISP See Page 56-57
28	1	05006596	MOTOR,HYD,WHITE,17.9CI,2B,DISP See Page 56-57 MOTOR,HYD,WHITE,17.9CI,2BOLT See Page 58-59
29	1	05006548	
30	1	00134847-A	FLOOR PAN, FFDS, 10', 16GA, MS
30	1	00134847-B	FLOOR PAN,FFDS,10',16GA,304
31	2	00096811	TORQUE ARM WLDMT,RDS
32	4	05022107	PIN .750 x 2.313 CLEVIS
33	14	05022021	PIN .125 x 1.000 COTTER
34	1	00132714	WIPER,CONVEYOR,33.5
35	1	00132681-A	BRACE, DOOR, REAR GATE, MS
35	1	00132681-B	BRACE, DOOR, REAR GATE, 304
36	5	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
36	5	05016162	BOLT .375-16 x 1.50 HHCS SST
37	1	00132721-A	WIPER ASSY, FFDS, REAR, MS See Page 41
37	1	00132721-B	WIPER ASSY, FFDS, REAR, 304
37	1	00132721-C	WIPER ASSY, FFDS, REAR, AUSST
38	2	00132729	PIN .500 x 4.50 4"GRIP BENT SS
39	2	05022144	PIN,LYNCH .375 x 1.500
40	4	05021367	WASHER .500 LOCK ZC
41	2	05010691	BOLT .500-13 x 1.50 G8 HHCS ZC
42	1	05036297	CHAIN,PNTL,667XH-89-455, CYLINDER,TELEC,4.5x3x90, <i>See Page 62</i>
43	1	05002814	
44	1	00084913	
45	1	00136628	CRADLE ASSY, DUMP, 4.5 HOIST See Page 43
46	4	05050240	CLEVIS,ADJ END,.625"NF THREAD,
47	2	00139561-A	HOOK,LATCH,TGT,RDS,MS
47	2	00139561-B	
48	4	05022215	PIN .500 x 2.000 CLEVIS
48	4	05022207	PIN .500 x 2.000 CLEVIS SS
49	1	00137448	WIPER,CONVEYOR,33.5
50	1	00132924-A	SUPPORT, WIPER, FFDS, MS
50	1	00132924-B	SUPPORT, WIPER, FFDS, 304
51	2	05010694	
52	1	05002902	VELVAC, SOLENOID, 4-WAY AIR, F/ (NOT SHOWN)
53	8	05014044	BOLT .500-13 x 2.00 G5 CRG ZC
54	8	05021309	WASHER .500 FLAT ZC

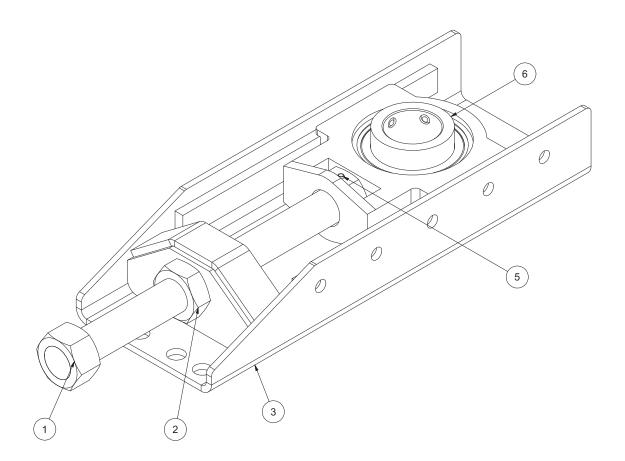
	00135369 FFDS-120-86-34, 2-HOLE, 4.5SPC SPD, 2.5 AR400 BED				
ITEM	QTY	PART NUMBER	DESCRIPTION		
59	1	00012214	BODY PROP KIT,RDS (NOT SHOWN) See Page 44		
59	1	00120493	BODY PROP KIT,RDS,304 ANGLE (NOT SHOWN) See Page 45		
60	2	00136634	CYLINDER KIT,AIR,3.5x6 ELECCTL See Page 63		
61	2	00139562-A	LINK,LATCH,TGT,RDS,MS		
61	2	00139562-B	LINK,LATCH,TGT,RDS,304		
62	2	00139573	THD RD,SS,.625-18 UNFx2.000		
63	2	05002798	NUT .625-18 JAM ZC,VELVAC		
64	4	05022098	PIN .50 x 1.750 CLEVIS ZC		
65	2	05010690	BOLT .500-13 x 1.25 G8 HHCS ZC		
66	2	05020120	NUT .500-13 G2 JAM ZC		
67	2	00140800-A	PANEL,COVER,CORNER POST,MS		
67	2	00140800-B	PANEL,COVER,CORNER POST,304,2B		
67	2	00140800-C	PANEL,COVER,CORNER POST,AUSST		
68	2	OJVL	AIR FITNG,ELBOW .375 x .375 ST		
69	2	05006356	O-RING,SQ,.118"THK,3.484"OD		
70	1	05090538	MANUAL,FFDS		



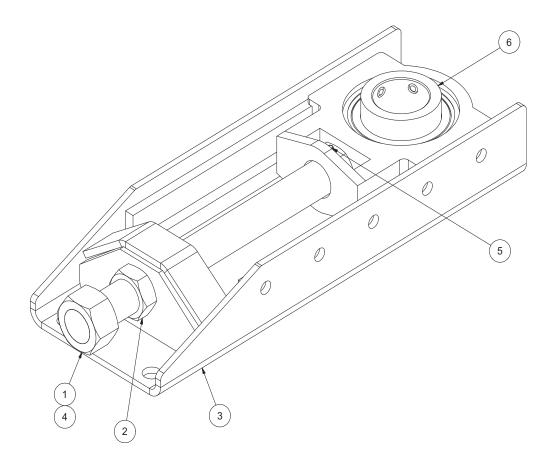
ITEM	QTY	00147025 F	FDS-156-86-46, 304, 2 HOL DESCRIPTION	E, 4.5
1	1	00147015-A	BODY WLDMT, FFDS, 13-46, MS	
1	1	00147015-B	BODY WLDMT, FFDS, 13-46, 304	
1	1	00147015-C	BODY WLDMT, FFDS, 13-46, AUSST	
2	2	00109637	PIN WLDMT,T-HANDLE,	
3	2	05022190	PIN .250 LYNCH	
4	1	00134858-A	PANEL,COVER,FFDS,CNVR,RH,MS	
4	1	00134858-B	PANEL,COVER,FFDS,CNVR,RH,304	
4	1	00134858-C	PANEL,COVER,FFDS,CNVR,RH,AUSST	
5	1	00134859-A	PANEL,COVER,FFDS,CNVR,LH,MS	
5	1	00134859-B	PANEL,COVER,FFDS,CNVR,LH,304	
5	1	00134859-C	PANEL,COVER,FFDS,CNVR,LH,AUSST	
6	16	05020893	NUTSERT .250-20 x.580" BEFORE	
7	16	05010591	BOLT .250-20 x .750 G8 HHCS ZC	
8	2	05030006	BEARING,2",4B FLANGE,MSV-MV	
9	2	00032786	BEARING ADJ ASSY,V-BOX	See Page 34
10	1	00020774	SHAFT,IDLER,2.0x43.50,DM,ZC	
11	4	05033028	SPROCKET,8T,667XH CH,2"BORE	
12	1	00020775	SHAFT,OUTPUT,2.0x49.75,DM,ZC	
13	2	05051148	GEARBOX,6:1,2"SFT DIA,3.56"L	See Page 60
14	5	05010646	BOLT .375-16 x 1.75 G8 HHCS ZC	
14	5	05016163	BOLT .375-16 x 1.75 HHCS SST	
15	32	05020898	NUT .375-16 GC TOPLOCK C&W	
15	32	05020891	NUT .375-16 NYLON LOCK 316 SST	
16	42	05021307	WASHER .375 FLAT ZC	
16	42	05021390	WASHER .375 FLAT SST	
17	1	00132719-A	RETAINER,FFDS,FLOOR PAN,MS	
17	1	00132719-B	RETAINER,FFDS,FLOOR PAN,304	
18	2	05017058	BOLT .250-20 x 1.00 CRG ZC G5	
18	2	05016986	BOLT .250-20 x 1.00 CRG SST	
19	2	05020899	NUT .250-20 GC TOPLOCK C&W	
19	2	05020906	NUT .250-20 NYLON LOCK 316 SST	
20	18	05021363	WASHER .250 LOCK ZC	
21	2	00140781-A	CHAIN COVER, 13', MS	
21	2	00140781-B	CHAIN COVER,13',304.2B	
21	2	00140781-C	CHAIN COVER,13',AUSST,2B	
22	22	05013987	BOLT .375-16 x 1.25 G5 CRG ZC	
22	22	05016746	BOLT .375-16 x 1.25 CRG SST	
23	1	00147026-A	TGT ASSY,FFDS,46" SIDES,MS	See Page 39
23	1	00147026-B	TGT ASSY,FFDS,46" SIDES,304	
23	1	00147026-C	TGT ASSY,FFDS,46" SIDES,AUSST	

ITEM	QTY	00147025 F	FDS-156-86-46, 304, 2 HOLE, 4.5 DESCRIPTION
24	1	00145440-A	INSERT ASSY,FFDS,TGT,MS See Page 40
24	1	00145440-B	INSERT ASSY,FFDS,TGT,304
24	1	00145440-C	INSERT ASSY, IFDS, TGT, AUSST
25	8	05020837	NUT .625-11 GC TOPLOCK C&W
25	8	05020903	NUT .625-11 NYLON LOCK 316 SST
26	8	05021311	WASHER .625 FLAT ZC
26	8	05021406	WASHER .625 FLAT SST
27	8	05014094	BOLT .625-11 x 2.00 G5 CRG ZC
27	8	05017222	BOLT .625-11 × 2.00 CRG SS
28	1	05006596	MOTOR,HYD,WHITE,17.9CI,2B,DISP See Page 56-57
29	1	05006548	MOTOR,HYD,WHITE,17.9CI,2BOLT See Page 58-59
30	1	00132690-A	PANEL,FLOOR PAN,13',MS
30	1	00132690-B	PANEL,FLOOR PAN,13',304
31	2	00096811	TORQUE ARM WLDMT,RDS
32	4	05022107	PIN .750 x 2.313 CLEVIS
33	14	05022021	PIN .125 x 1.000 COTTER
34	1	00132714	WIPER,CONVEYOR,33.5
35	1	00132681-A	BRACE,DOOR,REAR GATE,MS
35	1	00132681-B	BRACE,DOOR,REAR GATE,304
36	5	05010645	BOLT .375-16 x 1.50 G8 HHCS ZC
36	5	05016162	BOLT .375-16 x 1.50 HHCS SST
37	1	00132721-A	WIPER ASSY, FFDS, REAR, MS See Page 41
37	1	00132721-B	WIPER ASSY,FFDS,REAR,304
37	1	00132721-C	WIPER ASSY,FFDS,REAR,AUSST
38	2	00132729	PIN .500 x 4.50 4"GRIP BENT SS
39	2	05022144	PIN,LYNCH .375 x 1.500
40	4	05021367	WASHER .500 LOCK ZC
41	2	05010691	BOLT .500-13 x 1.50 G8 HHCS ZC
42	1	05036102	CHAIN,PNTL,667XH-120-605, CYLINDER.TELEC.5.5x3x130 See Page 61
43	1	05002323	
44	1	00084913	HINGE BODY ASSY, DUMP BODY (NOT SHOWN) See Page 42 CRADLE ASSY, DUMP, INDOT See Page 43
45	1	00134206	CRADLE ASSY, DUMP, INDOT See Page 43 CLEVIS, ADJ END, .625"NF THREAD,
46 47	4	05050240 00139561-A	HOOK,LATCH,TGT,RDS,MS
47	2	00139561-A	HOOK,LATCH,TGT,RDS,304
47	4	05022215	PIN .500 x 2.000 CLEVIS
48	4	05022215	PIN .500 x 2.000 CLEVIS PIN .500 x 2.000 CLEVIS SS
40	1	00137448	WIPER,CONVEYOR,33.5
50	1	00132924-A	SUPPORT,WIPER,FFDS,MS
50	1	00132924-B	SUPPORT,WIPER,FFDS,304
51	2	05010694	BOLT .500-13 x 2.25 G8 HHCS ZC
52	1	05002902	VELVAC, SOLENOID, 4-WAY AIR, F/ (NOT SHOWN)
53	8	05014044	BOLT .500-13 × 2.00 G5 CRG ZC
54	8	05021309	WASHER .500 FLAT ZC
55	8	05020847	NUT .500-13 GC TOPLOCK C&W
56	2	00051898	SPACER, SPROCKET, RDS/DUZ/MOR, RR (NOT SHOWN)

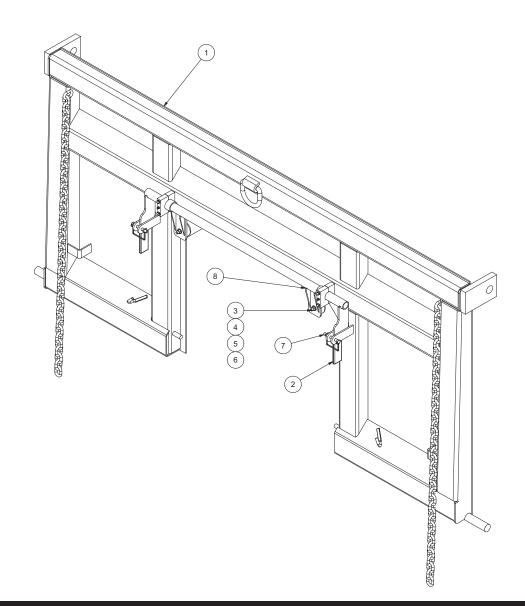
00147025 FFDS-156-86-46, 304, 2 HOLE, 4.5					
ITEM	QTY	PART NUMBER	DESCRIPTION		
59	1	00012214	BODY PROP KIT, RDS (NOT SHOWN) See Page 44		
59	1	00120493	BODY PROP KIT, RDS, 304 ANGLE (NOT SHOWN) See Page 45		
60	2	00136634	CYLINDER KIT,AIR,3.5x6 ELECCTL		
61	2	00139562-A	LINK,LATCH,TGT,RDS,MS		
61	2	00139562-B	LINK,LATCH,TGT,RDS,304		
62	2	00139573	THD RD,SS,.625-18 UNFx2.000		
63	2	05002798	NUT .625-18 JAM ZC,VELVAC		
64	4	05022098	PIN .50 x 1.750 CLEVIS ZC		
65	2	05010690	BOLT .500-13 x 1.25 G8 HHCS ZC		
66	2	05020120	NUT .500-13 G2 JAM ZC		
67	2	00140800-A	PANEL,COVER,CORNER POST,MS		
67	2	00140800-B	PANEL,COVER,CORNER POST,304,2B		
67	2	00140800-C	PANEL,COVER,CORNER POST,AUSST		
68	2	0JVL	AIR FITNG,ELBOW .375 x .375 ST		
69	2	05006356	O-RING,SQ,.118"THK,3.484"OD		
70	1	05090538	MANUAL,FFDS		



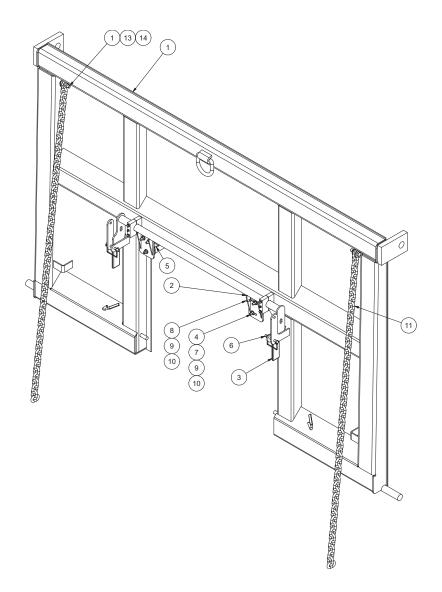
00032786 BEARING ADJUSTER ASSEMBLY				
Item	Qty	Part Number	Description	
1	1	00032963	THREAD ROD WELDMENT	
2	1	05020127	NUT, 1.25-7, G2, JAM, ZINC	
3	1	00031321	ADJUSTER WELDMENT, RDS	
4	1	05020897	NUT, 1.25-7, SQUARE ZINC	
5	1	05022026	PIN, .250 X 2 OA, ROLL	
6	1	05030050	BEARING, 2" TAKE-UP MOUNT, RDS	



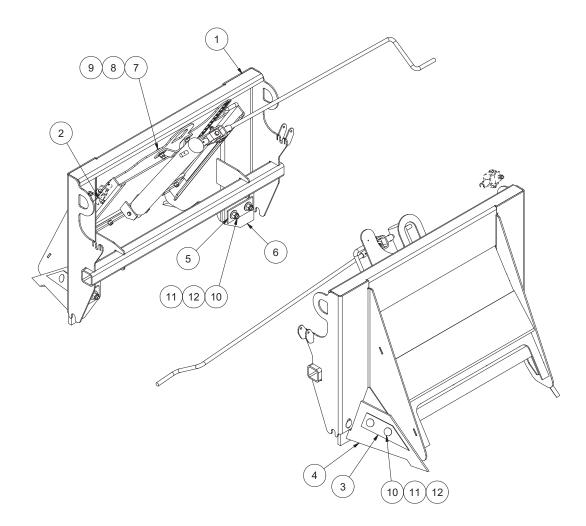
	00101305 BEARING ADJ ASSEMBLY, 304					
ITEM	QTY	PART NUMBER	DESCRIPTION			
1	1	00014207	THD ROD WLDMT,RDS,SST			
2	1	05021070	NUT 1.25-7 JAM SS			
3	1	00101304	ADJUSTER WLDMT,RDS,304			
4	1	05021069	NUT 1.25-7 HEX SST			
5	1	05022026	PIN .250 x 2.000 OA,ROLL			
6	1	05030050	BEARING,2" TAKE-UP MOUNT,RDS			



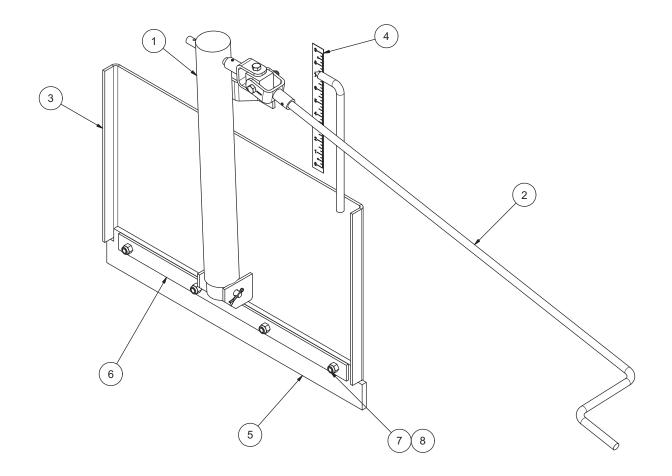
	00145458 TGT ASSEMBLY, FFDS, 34" SIDES				
Item	Qty.	Part Number	Description		
1	1	00145435-A 00145435-B 00145435-C	TGT WELDMENT, FFDS, 34" SIDES, MS TGT WELDMENT, FFDS, 34" SIDES, 304 SST TGT WELDMENT, FFDS, 34" SIDES, AUSST		
2	2	05052759	HANDLE, GRIP, RECTANGULAR, .25X		
3	2	00110441	BUMPER, RUBBER, MINOR		
4	2		BOLT, .375-16 X 1.50, G8, HHCS, ZINC FOLT, .375-16 X 1.50, HHCS, SST		
5	2		NUT, .375-16, GC, TOP LOCK, C&W NUT, .375-16, NYLON LOCK, 316 SST		
6	4	05021013 05021390	WASHER, .375, FLAT, MIL-CARB, SAE WASHER, .375, FLAT, SST		
7	2	05022228	PIN, .375 X 2.250, DOUBLE WIRE		
8	1	00146427-A 00146427-B 00146427-C	LATCH WELDMENT, TGT, FFDS, MS LATCH WELDMENT, TGT, FFDS, 304 LATCH WELDMENT, TGT, FFDS, AUSST		



	00147026 TGT ASSEMBLY, FFDS, 46" SIDES				
Item	Qty.	Part Number	Description		
1	1	00147024-B	TGT WELDMENT, FFDS, 46" SIDES, MS TGT WELDMENT, FFDS, 46" SIDES, 304 SST TGT WELDMENT, FFDS, 46" SIDES, AUSST		
2	2	05052759	HANDLE, GRIP, RECTANGULAR, .25X		
3	2	00110441	BUMPER, RUBBER, MINOR		
4	2	05010645 05016162	BOLT, .375-16 X 1.50, G8, HHCS, ZINC FOLT, .375-16 X 1.50, HHCS, SST		
5	2	05020898 05020891	NUT, .375-16, GC, TOP LOCK, C&W NUT, .375-16, NYLON LOCK, 316 SST		
6	4	05021013 05021390	WASHER, .375, FLAT, MIL-CARB, SAE WASHER, .375, FLAT, SST		
7	2	05022228	PIN, .375 X 2.250, DOUBLE WIRE		
8	1	00146427-A 00146427-B 00146427-C	LATCH WELDMENT, TGT, FFDS, MS LATCH WELDMENT, TGT, FFDS, 304 LATCH WELDMENT, TGT, FFDS, AUSST		

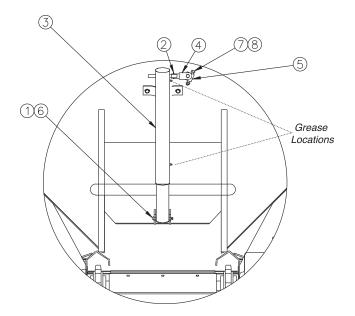


	00145440 INSERT ASSEMBLY, FFDS, TGT					
ITEM	QTY	PART NUMBER	DESCRIPTION			
1	1	00145441-B	FEED GATE WLDMT,FFDS,TGT,304			
1	1	00145441-C	FEED GATE WLDMT, FFDS, TGT, AUSST			
1	1	00145441-A	FEED GATE WLDMT, FFDS, TGT, MS			
2	1	00134229-B	DOOR KIT,FFDS,REAR DISCH,304 See Page 39			
2	1	00134229-C	DOOR KIT, FFDS, REAR DISCH, AUSST			
2	1	00134229-A	DOOR KIT,FFDS,REAR DISCH,MS			
3	2	00137441-B	CAP PL,WIPER,FFDS,304			
3	2	00137441-C	CAP PL,WIPER,FFDS,AUSST			
3	2	00137441-A	CAP PL,WIPER,FFDS,MS			
4	2	00137442	WIPER,SIDE,FEED GATE			
5	2	00137443-B	CAP PL,WIPER,FFDS,304			
5	2	00137443-C	CAP PL,WIPER,FFDS,AUSST			
5	2	00137443-A	CAP PL,WIPER,FFDS,MS			
6	2	00137444	WIPER,SIDE,FEED GATE			
7	2	05016049	BOLT .375-16 x 1.25 HHCS SST			
8	2	05020891	NUT .375-16 NYLON LOCK 316 SST			
9	4	05021390	WASHER .375 FLAT SST			
10	8	05016804	BOLT .500-13 x 1.75 CRG SST			
11	8	05020908	NUT .500-13 NYLON LOCK 316 SST			
12	8	05021391	WASHER .500 FLAT SST			

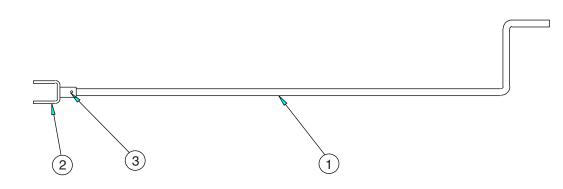


	00134229 DOOR KIT, FFDS, REAR DISCHARGE				
Item	Qty.	Part Number	Description		
1	1	00134248	DOOR JACK ASSEMBLY, REAR SPREADER See Page 40		
2	1	00052283	CRANK ASSEMBLY, JACK 39 MS See Page 40		
3	1	00028458-A	DOOR WELDMENT, RDS, REAR, MS		
4	1	05050426	RULER, ALUMINUM 9" GATE DOOR		
5	1	00134230	WIPER DOOR FFDS		
6	1	00028455-A	SUPPORT, DOOR, MS		
7	4	05014677	BOLT, .375-16 X 1.25, FSHCS, ZINC		
8	4	05020898	NUT, .375-16, GC, TOP LOCK, C&W		

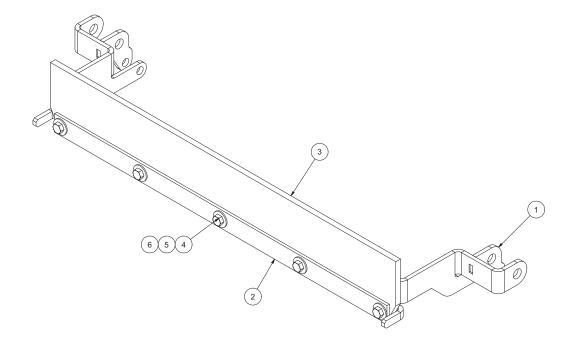
00134248 DOOR JACK ASSEMBLY, REAR SPREADER



Item	Qty.	Part Number	Description
1	1	05022134	PIN, .375 X 3.000 CLEVIS
2	1	05022072	PIN, .1562 X .875 OA ROLL
3	1	00083703	DOOR JACK WELDMENT
4	1	05050258	CLEVIS DOOR JACK
5	1	05051455	UNIVERSAL JOINT UHMW, 1.25 SQ
6	1	05022021	PIN, .125 X 1, COTTER
7	2	05016143	BOLT, .313-18 X 2.250, HHCS, SST
8	2	05020907	NUT,.313-18, NYLOCK, 316 SST

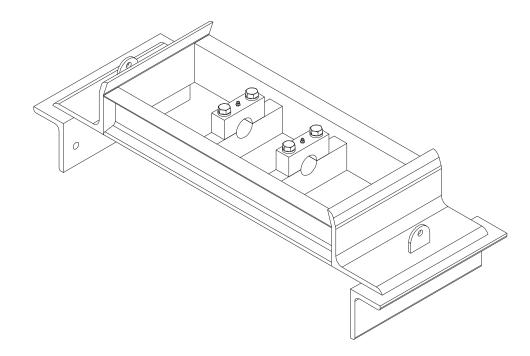


	00052283 CRANK ASSEMBLY, JACK, MS				
Item	Qty	Part Number	Description		
1	1	00052290	Crank, Jack, 39" MS		
2	1	05050258	Clevis, Door Jack		
3	1	05022072	Roll Pin		

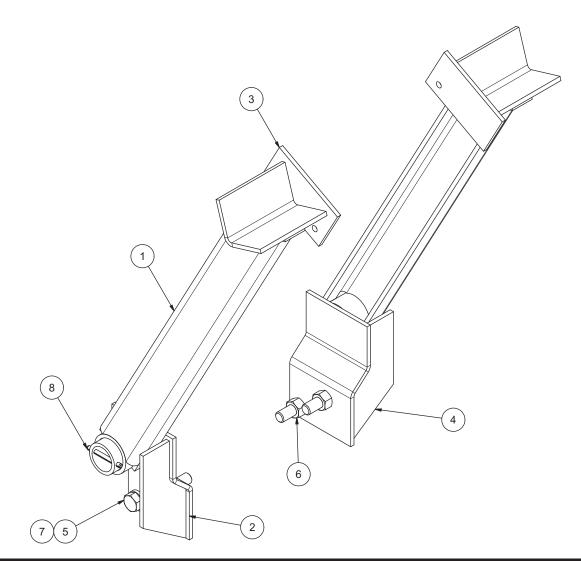


	00132721 WIPER ASSEMBLY, FFDS, REAR, AUSST				
Item	Qty	Part Number	Description		
1	1	00132728-A 00132728-B 00132728-C	WIPER WELDMENT, FFDS, MS WIPER WELDMENT, FFDS, 304 WIPER WELDMENT, FFDS, AUSST		
2	1	00132722-A 00132722-B	BOLT PLATE, WIPER, FFDS, MS BOLT PLATE, WIPER, FFDS, 304		
3	1	00132714	WIPER, CONVEYOR, 33.5		
4	5	05016162 05010645	BOLT, .375-16 X 1.50, G8, HHCS, ZINC BOLT, .375-16 X 1.50, HHCS, SST		
5	10	05021390 05021307	WASHER, .375, FLAT, ZINC WASHER, .375, FLAT, SST		
6	5	05020891 05020898	NUT, .375-16, GC, TOP LOCK, C&W NUT, .375-16, NYLON LOCK, 316 SST		

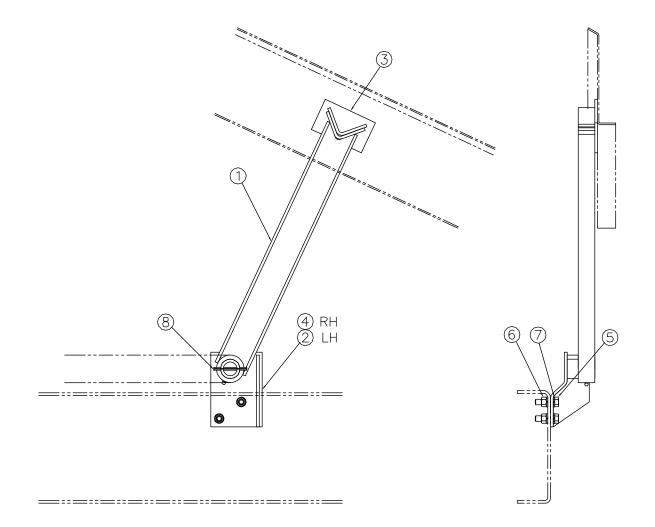
	00084913 HINGE BODY ASSEMBLY					
ltem	Qty	Part Number	Description			
1	1	00084912	Hinge Body Weldment			
2	2	00084909	Pin, Dump Body			
3	2	00084908	Hinge, Dump Body			
4	2	05010651	Bolt, %-16 x 3, G8, HHCS, Zinc			
5	2	05020898	Nut, %-16, GC, Top Lock, C&W			



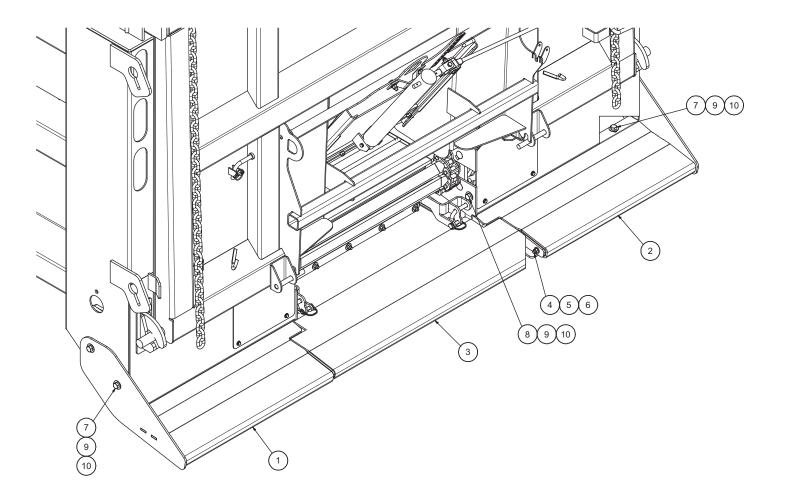
	00136628 CRADLE ASSEMBLY, DUMP, 4.5 HOIST				
Item	Qty.	Part Number	Description		
1	2	00111880	ANGLE MOUNT, CRADLE FRAME		
2	1	00134876	CRADLE WELDMENT, 4.5 HOIST		



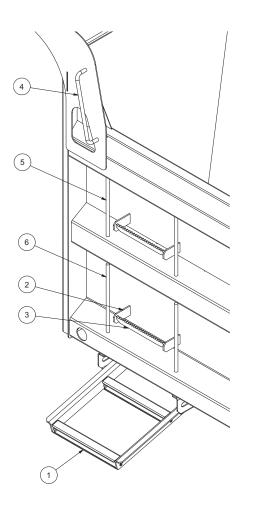
	00012214 BODY PROP KIT			
Item	Qty.	Part Number	Description	
1	2	00032336	ARM ASSEMBLY, RDS, BODY PROP	
2	1	00032931	BRACKET WELDMENT, LH	
3	2	00032928	BRACKET WELDMENT, RDS, BODY PROP	
4	1	00032932	BRACKET WELDMENT, RH	
5	4	05010739	BOLT, .625-11 X 2, G8, HHCS, ZINC	
6	4	05020270	NUT, .625-11, G8, HEX, ZINC	
7	4	05021383	WASHER, .625, LOCK, HEAVY ZINC	
8	2	05022188	PIN, .250 X 2.5, ROLL, ZINC	
9	1	00049493	DECAL KIT, RDS	
10	1	05050775	CARDBOARD BOX	



	00120493 BODY PROP KIT, RDS, 304 ANGLE			
Item	Qty.	Part Number	Description	
1	2	00032336	BODY PROP KIT, RDS, 304 ANGLE	
2	1	00032931	ARM ASSEMBLY, RDS, BODY PROP	
3	2	00053417	BRACKET WELDMENT, RDS, LH	
4	1	00032932	ANGLE WELDMENT, 304	
5	4	05010739	BRACKET WELDMENT, RDS, RH, BODY PROP	
6	4	05020270	BOLT, .625-11 X 2, G8, HHCS, ZINC	
7	4	05021383	WASHER, .625, LOCK, HEAVY ZINC	
8	2	05022188	PIN, .250 X 2.5, ROLL, ZINC	
9	1	00049493	DECAL KIT, CAUTION, RDS	
10	1	05050775	CARDBOARD BOX	

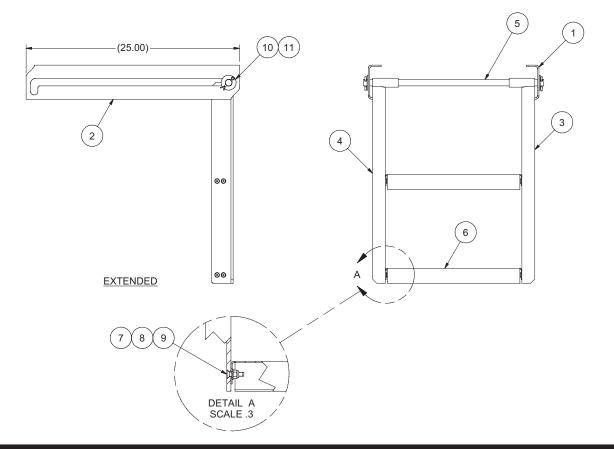


	00100763 SPILL SHIELD KIT, REAR, MS, FFDS			
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	00134930	SPILL SHIELD WLDMT,RS,MS	
2	1	00134926	SPILL SHIELD WLDMT,CS,MS	
3	1	00133291-A	SPILL GUARD WLDMT,RDS,MIDDLE,	
4	2	05016162	BOLT .375-16 x 1.50 HHCS SST	
5	4	05021418	WASHER .375 FLAT SST	
6	2	05020891	NUT .375-16 NYLON LOCK 316 SST	
7	10	05016096	BOLT .500-13 x 1.50 HHCS SST	
8	2	05016204	BOLT .500-13 x 1.75 HHCS SST	
9	24	05021391	WASHER .500 FLAT SST	
10	12	05020908	NUT .500-13 NYLON LOCK 316 SST	

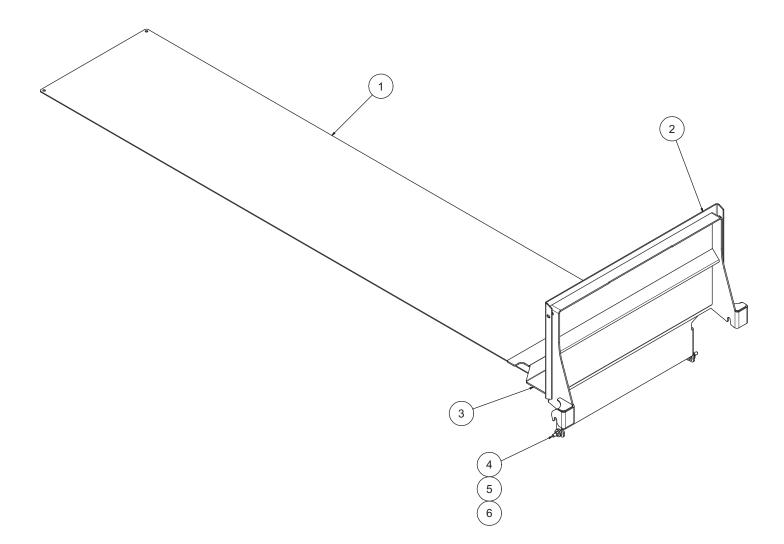


SPECIAL NOTES:
1. ITEM #7 IS USED AS A SPACER BETWEEN THE LADDER RAIL AND THE FFDS FLOOR.

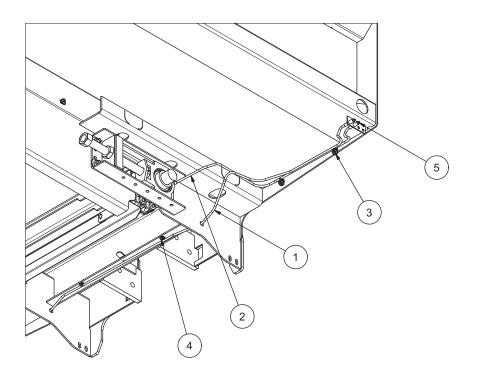
	00132911 LADDER ASSEMBLY			
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	00133928-A	LADDER ASSY,FOLDING,ND,MS	
1	1	00133928-B	LADDER ASSY,FOLDING,ND,304	
1	1	00133928-C	LADDER ASSY,FOLDING,ND,AUSST	
2	4	00134140-A	BRACKET,STEP,INSIDE,MS	
2	4	00134140-B	BRACKET,STEP,INSIDE,304	
2	4	00134140-C	BRACKET,STEP,INSIDE,AUSST	
3	2	00132869-A	TREAD,LADDER,12.25,MS	
3	2	00132869-B	TREAD,LADDER,12.25,304	
4	1	00134174-A	HANDLE,BULKHEAD,DUMP,MS	
4	1	00134174-B	HANDLE,BULKHEAD,DUMP,304	
5	2	00136629	RND,MS,.625 DIAx13.000	
5	2	00134208	RND,SS,.625 DIAx13.000	
6	2	00136630	RND,MS,.625 DIAx14.750	
6	2	00134234	RND,SS,.625 DIAx14.750	
7	2	00094264	BAR,MS,.188x2.000x16.000	
7	2	00103243	BAR,SS,.188x2.000x16.000	



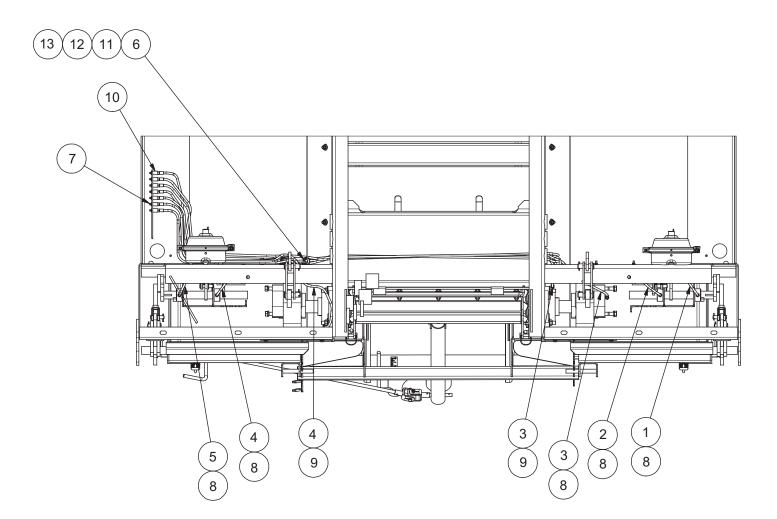
	00133928 LADDER ASSEMBLY, FOLDING, SST				
ltem	Qty	Part Number	Description		
1	1	00133929	BRACKET, MTG, LADDER, SST, RH		
2	1	00133930	BRACKET, MTG, LADDER, SST, LH		
3	1	00133931	LADDER WELDMENT, SST, RH		
4	1	00133932	LADDER WELDMENT, SST, LH		
5	1	00133935	PIVOT ROD, LADDER, SST		
6	2	00131698-B	RUNG, LADDER, RDS, 304		
7	8	05017143	BOLT, .250-20 X 1, FSHCS 18-8		
8	8	05020906	NUT, .250-20, NYLON LOCK, 316 SST		
9	8	05021403	WASHER, .250, FLAT, SST		
10	2	05021302	WASHER, .750, FLAT, SST		
11	2	05022100	PIN, .188 X 1.5, COTTER		



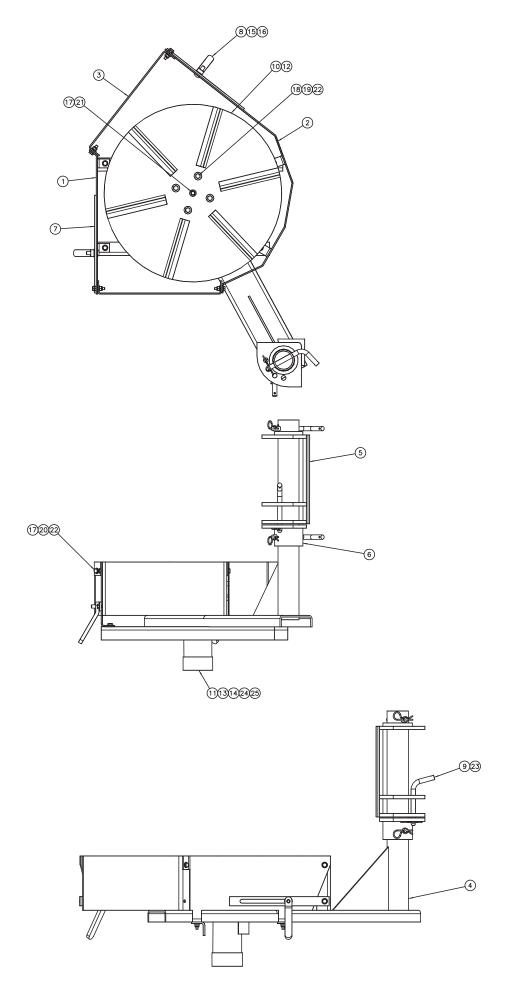
		00100765-A F	LOOR COVER KIT, FFDS, 13', RR
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	00134935-A	COVER PL,CONVEYOR,13',EX-TEN
2	1	00134937-A	COVER WLDMT, SUMMER DOOR, MS
3	1	00134936-A	PLUG WLDMT,FLOOR,FFDS,MS
4	2	05010693	BOLT .500-13 x 2.00 G8 HHCS ZC
5	2	05020847	NUT .500-13 GC TOPLOCK C&W
6	6	05021309	WASHER .500 FLAT ZC



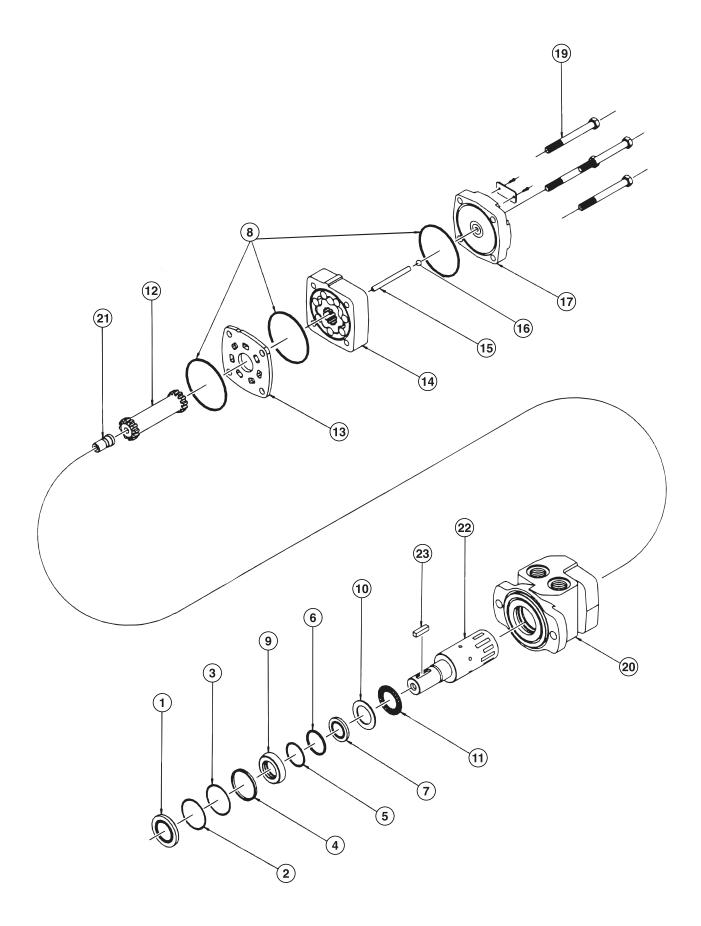
	00100766 GREASE LINE KIT, FFDS, FR, MS, HARDWARE			
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	00041439	HOSE ASSY,86,GREASE LINE,SCPR	
2	1	00086276	HOSE ASSY,45,GREASE LINE,SCPR	
3	4	05050417	CLAMP,.75",CUSHIONED SST,#12	
4	4	05052475	CLAMP,.375",CUSHIONED METAL,#6	
5	2	05050003	GREASE ZERK, 125 NPT STR	
6	4	05017119	BOLT #10-24x1 18-8 BUTTON SHCS	
7	4	05020964	NUT #10-24 NYLON LOCK 316 SST	
8	8	05021413	WASHER #10 FLAT 18-8 SS	



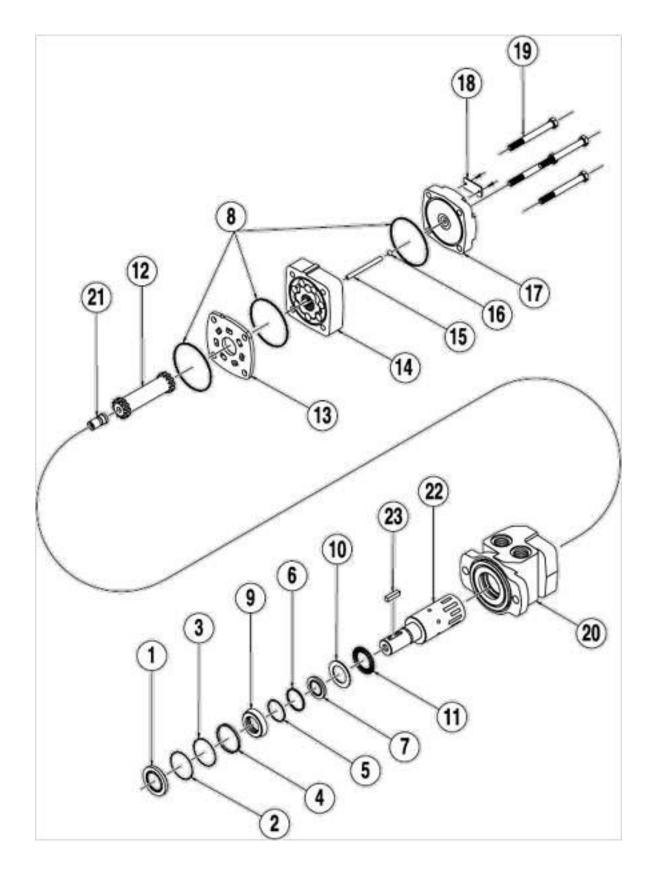
	00100767 GREASE LINE KIT, FFDS, RR, MS, HARDWARE			
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	00088010	HOSE ASSY,DM,118.0	
2	1	00129656	HOSE ASSY,.125 ID,112 OAL	
3	2	00079815	HOSE ASSY, RDS, 95, GREASE LINE	
4	2	00059376	HOSE ASSY, RDS, 54, RIGHT UPPER	
5	1	00088006	HOSE ASSY,DM,63.0	
6	8	05052473	CLAMP,1",CUSHIONED METAL,#16	
7	7	05050003	GREASE ZERK, 125 NPT STR	
8	5	05051481	FITTING, GREASE LINE, STRAIGHT	
9	2	05038236	FITTING, GREASE LINE, 25-28	
10	7	05037660	FITTING,COUPLING,.125"FNPT	
11	8	05017119	BOLT #10-24x1 18-8 BUTTON SHCS	
12	8	05020964	NUT #10-24 NYLON LOCK 316 SST	
13	16	05021413	WASHER #10 FLAT 18-8 SS	



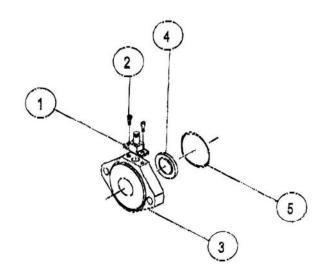
		00133874 SP	VINNER ASSEMBLY, RDS/FFDS, 30	04/POLY
ltem	Qty.	Part Number	Description	
1	1	00133879	REAR PANEL, SPINNER, RDS	
2	1	00133880	FRONT PANEL, SPINNER, RDS	
3	2	00133881	DEFLECTOR,SPINNER,RDS	
4	1	00133887	BASE WLDMT, SPINNER, RDS	
5	1	00133890	MOUNT WLDMT, SPINNER, RDS	
6	1	00133892	BUSHING WLDMT, SPINNER, RDS	
7	2	00133893	ADJUSTMENT BAR, SPINNER, RDS	
8	2	00133894	HANDLE NUT, SPINNER, .375-16, 304	
9	3	00015942	PIN .500 x 4.50 4"GRIP BENT SS	
10	1	05050794	DISC,SPINNER,20 CCW,POLY,RED	
11	1	05006673	MOTOR, HYD, WHITE, 3.2CI, 4BOLT, 1"EXT	See pgs 54-55
12	1	05051380	HUB,SPINNER ASSY,STD, SHORT	
13	4	05016162	BOLT .375-16 x 1.50 HHCS SST	
14	4	05021392	WASHER .375 LOCK SST	
15	2	05021418	WASHER .375 FLAT SST	
16	2	05016746	BOLT .375-16 x 1.25 CRG SST	
17	11	05016138	BOLT .313-18 x 1.00 HHCS SST	
18	4	05016140	BOLT .313-18 x 1.50 HHCS SST	
19	5	05020855	NUT .313-18 HEX SST	
20	10	05020907	NUT .313-18 NYLON LOCK 316 SST	
21	5	05021407	WASHER .313 LOCK SST	
22	24	05021404	WASHER .313 FLAT SST	
23	3	05022223	PIN #11 HAIR SST	
24	1	00122073	SEAL SAVER, MOTOR, SPINNER	
25	1	05050288	GREASE ZERK,.250-28 STRAIGHT	



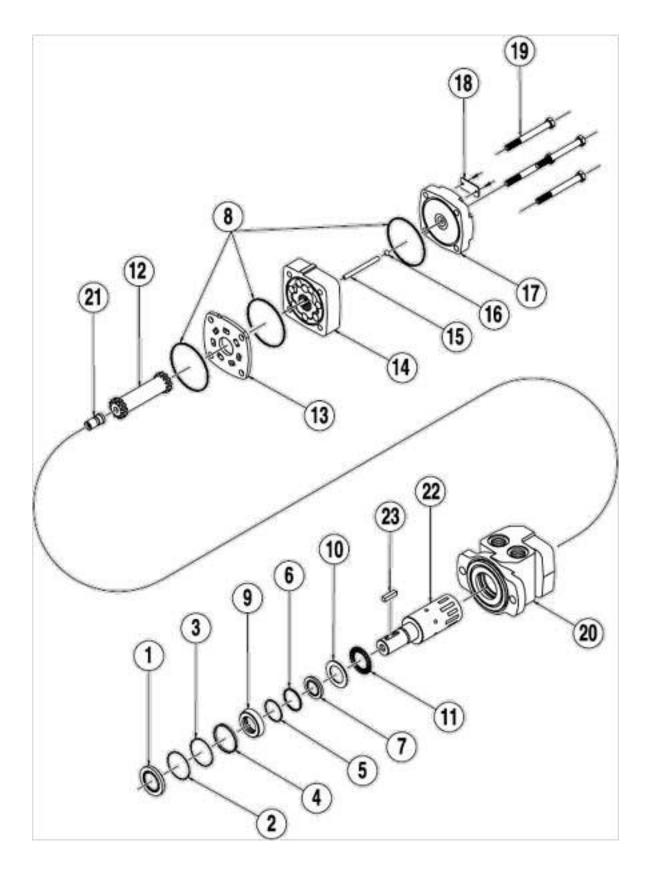
	MOTOR ASSEMBLY PARTS LIST				
Item	Part Number	Description			
1		Dust Seal			
2		Split Wire Ring			
3		Metal Backup Shim			
4		High Pressure Seal			
5	Seal Kit	Metal Backup Shim			
6	05006679	Teflon Backup Shim			
7		Shaft Seal			
8		Body Seals (3)			
9		Seal Carrier			
10		Thrust Washer			
11		Thrust 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			



	MOTOR ASSEMBLY PARTS LIST				
Item	Part Number	Description			
1		Dust Seal			
2		Split Wire Ring			
3		Metal Backup Shim			
4		High Pressure Seal			
5	Seal Kit	Metal Backup Shim			
6	05006061	Teflon Backup Shim			
7		Shaft Seal			
8		Body Seals (3)			
9		Seal Carrier			
10		Thrust Washer			
11	05006357	Thrust Bearing			
12	05006366	Drive Link Kit			
13	05006359	Wear Plate			
14	05006376	Rotor Kit			
15	05006377	Drive Link Pin Kit			
16		Included in item #15 Drive Link Pin Kit			
17	05006360	End Cover			
18		Serial Number Plate			
19	05006378	Bolt Set Kit			
20	05006565	Housing Kit, 2-Hole, w/ 7/8" O-Ring			
21	05006358	Cooling Plug			
22	05006410	Shaft Kit, 1" Straight Speed Sensor			
23	05006371	Key Kit, 1" Straight Speed Sensor			

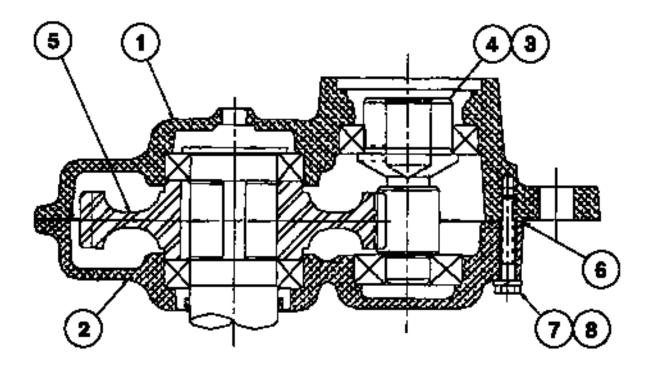


	SPEED SENSOR KIT					
ltem	Qty	Part Number	Description			
1	1	05006629	Standard 4-Pin Speed Sensor			
2	2	05006561	Sensor Attachment Screws			
3	1	05006600	2-Hole Sensor Flange			
4	1	05006418	Sensor Magnet for 21 Shaft 50 Pole Pairs			
5	1	05006601	2-Hole Sensor Flange Seal			



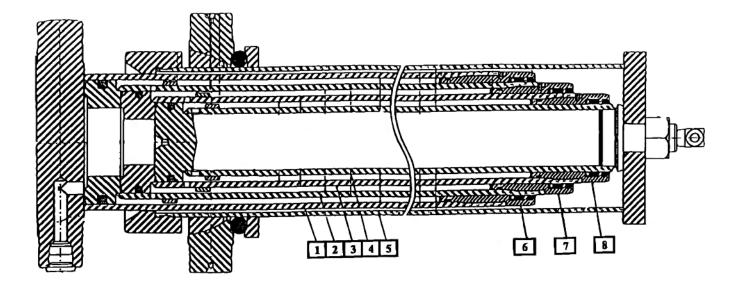
	MOTOR ASSEMBLY PARTS LIST				
Item	Part Number	Description			
1		Dust Seal			
2		Split Wire Ring			
3		Metal Backup Shim			
4		High Pressure Seal			
5	Seal Kit	Metal Backup Shim			
6	05006061	Teflon Backup Shim			
7		Shaft Seal			
8		Body Seals (3)			
9		Seal Carrier			
10		Thrust Washer			
11	05006357	Thrust Bearing			
12	05006366	Drive Link Kit			
13	05006359	Wear Plate			
14	05006376	Rotor Kit			
15	05006377	Drive Link Pin Kit			
16		Included in item #15 Drive Link Pin Kit			
17	05006360	End Cover			
18		Serial Number Plate			
19	05006378	Bolt Set Kit			
20	05006565	Housing Kit, 2-Hole, w/ 7/8" O-Ring			
21	05006358	Cooling Plug			
22	05006370	Shaft Kit, 1" Straight			
23	05006371	Key Kit, 1" Straight			

05051148 -- GEARBOX ASSEMBLY, 6:1



GEARBOX ASSEMBLY PARTS LIST

ITEM	QTY	PART #	DESCRIPTION	
1	1	05007221	Casting Assembly, Outboard, RCS	
2	1	05007222	Casting Assembly, Inboard	
3	1	05007138	Plug, Delrin	
4	1	05007223	Gear, Pinion	
5	1	05007139	Gear, Driven	
6	1	05007224	Gasket, Standard	
7	9	05007149	Washer, Lock	
8	9	05007220	Screw, Cap	
	1	05053217	O-Ring	

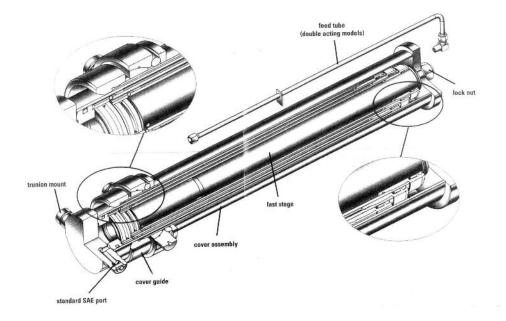


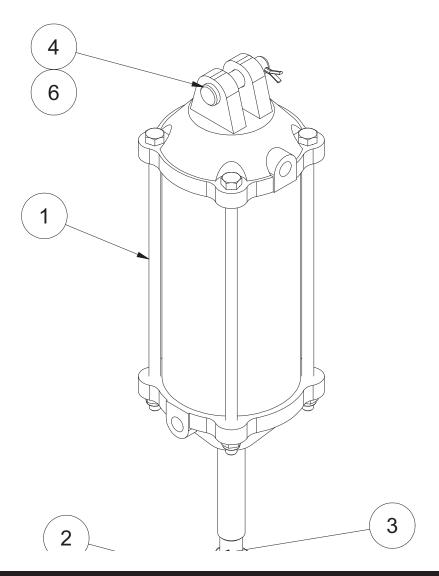
05002323 CYLINDER, TELESCOPIC, 5.5 X 3 X 130, TOP STAGE DA

ITEM	QTY	PART #	DESCRIPTION	
1	1	05002842	Base Tube	
2	1	05002843	05002843 Section Tube, 5"	
3	1	05002844	344 Section Tube, 4"	
4	1	05002845	Section Tube, 3"	
5	1	05002846	Cover Tube Assembly	
6	1	05002847	Gland Nut	
7	1	05002848	Gland Nut	
8	1	05002849	Gland Nut	
9	1	05002850	Seal Kit	

05002814 CYLINDER, TELESCOPIC, 4.5 X 3 X 90

QTY	PART #	DESCRIPTION
1	05003024	COVER
1	05052281	HYDRAULIC TUBE
1	05003020	BASE TUBE
1	05002848	GLAD NUT, 4.5"
1	05003027	SEAL KIT
1	05003021	FIRST STAGE
1	05003025	GLAND NUT, 3.5"
1	05003022	SECOND STAGE
1	05003026	GLAND NUT, 2.5"





		0013663	4 CYLINDER KIT, AIR, 3.5 X 6 ELECCTL
Item	Qty.	Part Number	Description
1	1	05002901	CYLINDER, AIR, 3.5 X 6
2	1	05002797	CLEVIS, .5 DIA X 1.875 LONG
3	1	05002798	NUT, .625-18, JAM, ZINC, VELVAC
4	1	05022215	PIN, .5 X 2 CLEVIS
5	1	05022098	PIN, .5 X 1.750, CLEVIS, ZINC
6	2	05022021	PIN, .125 X 1, COTTER







Service Bulletin

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Subject: Installing grease in White hydraulic motor sensor blocks

Description:

The sensor motor blocks that are installed between White hydraulic motors and gearboxes have an internal cavity that houses the pulse rotor on the motor shaft. This cavity is isolated from the motor and the gearbox, and the sensor components do not require any lubrication.

During the life of the motor and sensor block assembly, some moisture will work into the cavity and cause corrosion that can damage the sensor. Units disassembled in the field have been found to be severely corroded inside.

White provides a grease fitting on the sensor block to allow installation of grease for corrosion protection. The blocks must be filled with grease during initial installation and checked annually during operation. This Service Bulletin describes the proper method of installing grease in a sensor block.

Required Grease

Sensor blocks must be filled <u>only</u> with dielectric (non-conductive) grease. The use of grease containing electrically-conductive materials (graphite, etc.) will cause errors in the sensor pickup signal to the cab controller.

Proper Method of Grease Installation

The sensor pickup must be removed before grease is pumped into the sensor block. This allows the grease to flow in without pressurizing the sensor cavity. Pumping grease in the fitting without removing the pickup will build pressure in the cavity and may damage the shaft seals or the block isolation O-rings.

Frequency of Grease Installation

The block cavity must be filled during initial assembly and installation of the motor. No more than annually, the pickup should be removed and additional grease pumped into the block to insure it is filled. End users must be informed and reminded that this is not a lubrication point and must not be included in lubrication schedules for bearings and other frequently-lubricated components.

Bulletin #: SB-00306 Release Date: 04/02/14	Revision Date:	
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Service Bulletin

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Bulletin #: SB-00306Release Date: 04/02/14Revision Date:
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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 follow information ready:

- Model Number
- Serial Number
- Part Number and/or description as per the parts manual
- Quantity needed

For further information about **Monroe Truck Equipment** replacement parts, please call 800-880-0109 and ask for **Snow & Ice Parts Sales**.

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, call 800-880-0109. For whole goods, ask for **Snow & Ice Sales**. For replacement parts, ask for **Snow & Ice Parts Sales**. All returned items are subject to a 15% restocking fee and must be sent <u>freight prepaid</u>!

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 claim 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