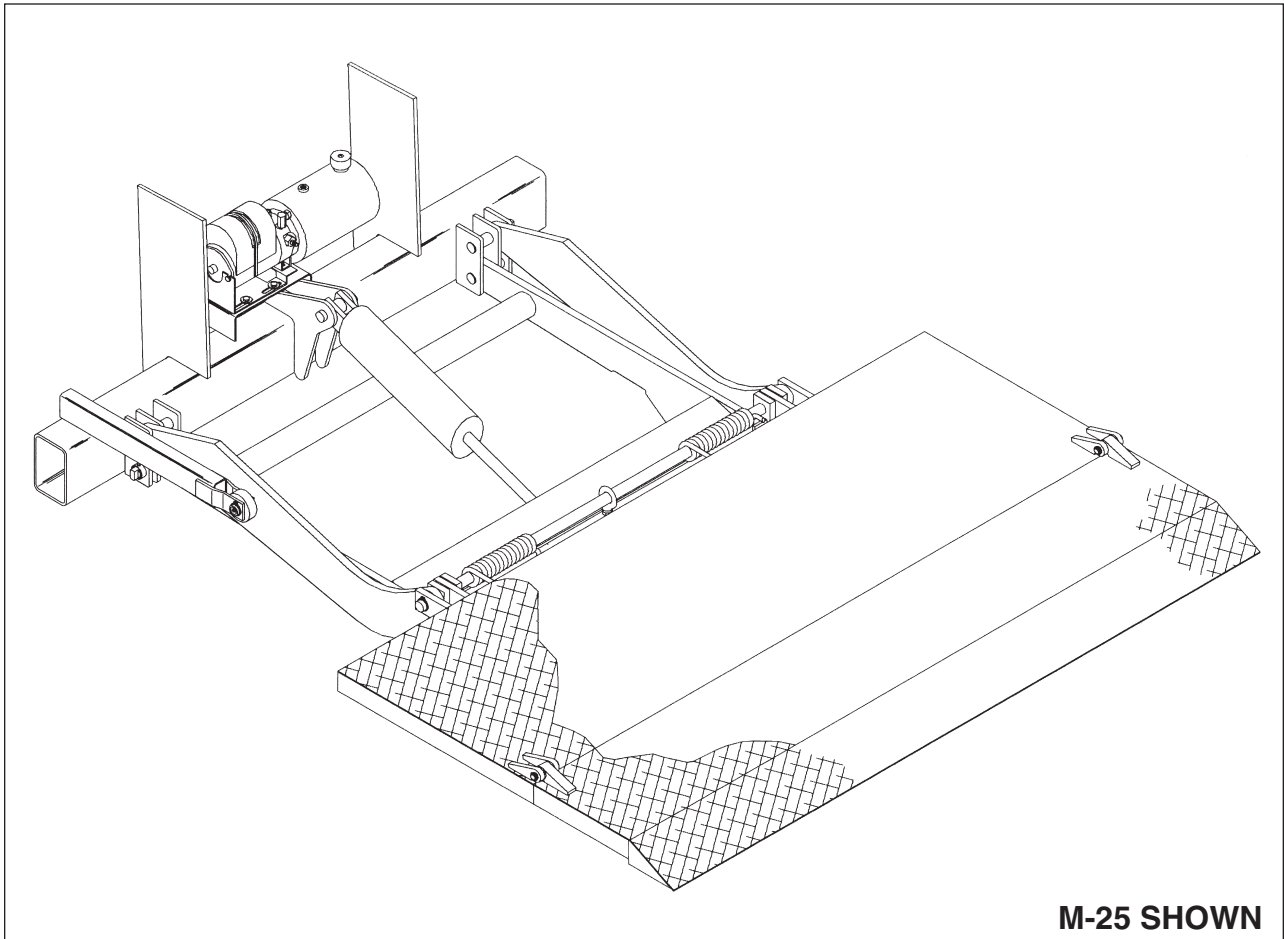


STOWAWAY

Tailgates By THIEMAN

M16, 20, 25, 30 MLB16, 20, 25, 30 OWNERS MANUAL/PARTS LIST



M-25 SHOWN



IMPORTANT! KEEP IN VEHICLE!

**PLEASE READ AND UNDERSTAND THE CONTENTS OF THIS
MANUAL BEFORE OPERATING THE EQUIPMENT.**



THIEMAN
TAILGATES, INC.

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TABLE OF CONTENTS

WARNINGS.....	2
PARTS ORDERING PROCEDURE	3
OPERATING INSTRUCTIONS.....	5
MAINTENANCE GUIDE	5
SEMI-ANNUAL INSPECTION	6
ELECTRICAL PICTORIALS	7
INSPECTION AND LOCATION OF DECALS.....	8
PLATFORM ASM	9 & 10
SPACER ASM.....	11
TRUNNION, LIFT ARM, AND IDLER ARM ASM.....	12 & 13
PUMP ASM ELECTRIC CONTROL POWER DOWN	14 & 15
PUMP ASM ELECTRIC CONTROL GRAVITY DOWN	16 & 17
PTO PUMP ASM	18 & 19

FOR YOUR RECORDS

Model No. _____ Date Purchased _____

Serial No. _____

NOTE: When Ordering Parts Be Sure To Include This Information!

WARNING!

The following list of warnings are to be read before operating the M series liftgate.

- + Read this Owners Manual and all of the decals on the liftgate BEFORE operating the liftgate.
- + All protective covers and guards must be in place before operating the liftgate.
- + DO NOT operate the liftgate if you do not have a thorough knowledge and understanding of the operation of the liftgate.
- + NEVER OVERLOAD THE LIFTGATE. The maximum rated capacity of the M series liftgate differs with each model as follows:

M16 – 1600LBS
M20 – 2000LBS

M25 – 2500LBS
M30 – 3000LBS

- + Never use the liftgate if it makes any unusual noises, has vibrations, or fails to operate freely.

- + Make certain that the area below the platform is clear before and at all times during the operation of the liftgate.
- + Keep hands and feet clear of all pinch points.
- + The platform must be in the closed position and the transit latch engaged properly before transit.
- + Always load as close to the center of the platform and as close to the vehicle as possible. See figure 1.
- + Never operate lift trucks on or over any part of the platform.
- + Load and unload the platform from the rear and not from the side of the platform.
- + Only operate liftgate when vehicle is on level ground and the parking brake is set.
- + Follow the maintenance guide as outlined in this manual.
- + DO NOT attempt any repairs unless you are a qualified and authorized THIEMAN distributor.
- + If any repairs, adjustments, or maintenance not covered in this manual are required, contact your nearest Thieman distributor or the factory.
- + DO NOT ride the liftgate, it is not intended as a personal lift.
- + This liftgate is intended for the use of loading and unloading cargo only, it is not to be used for anything other than this.
- + DO NOT modify this liftgate. Altering this liftgate may cause serious personal injury or damage the liftgate and will void all warranties.

PARTS ORDERING PROCEDURE

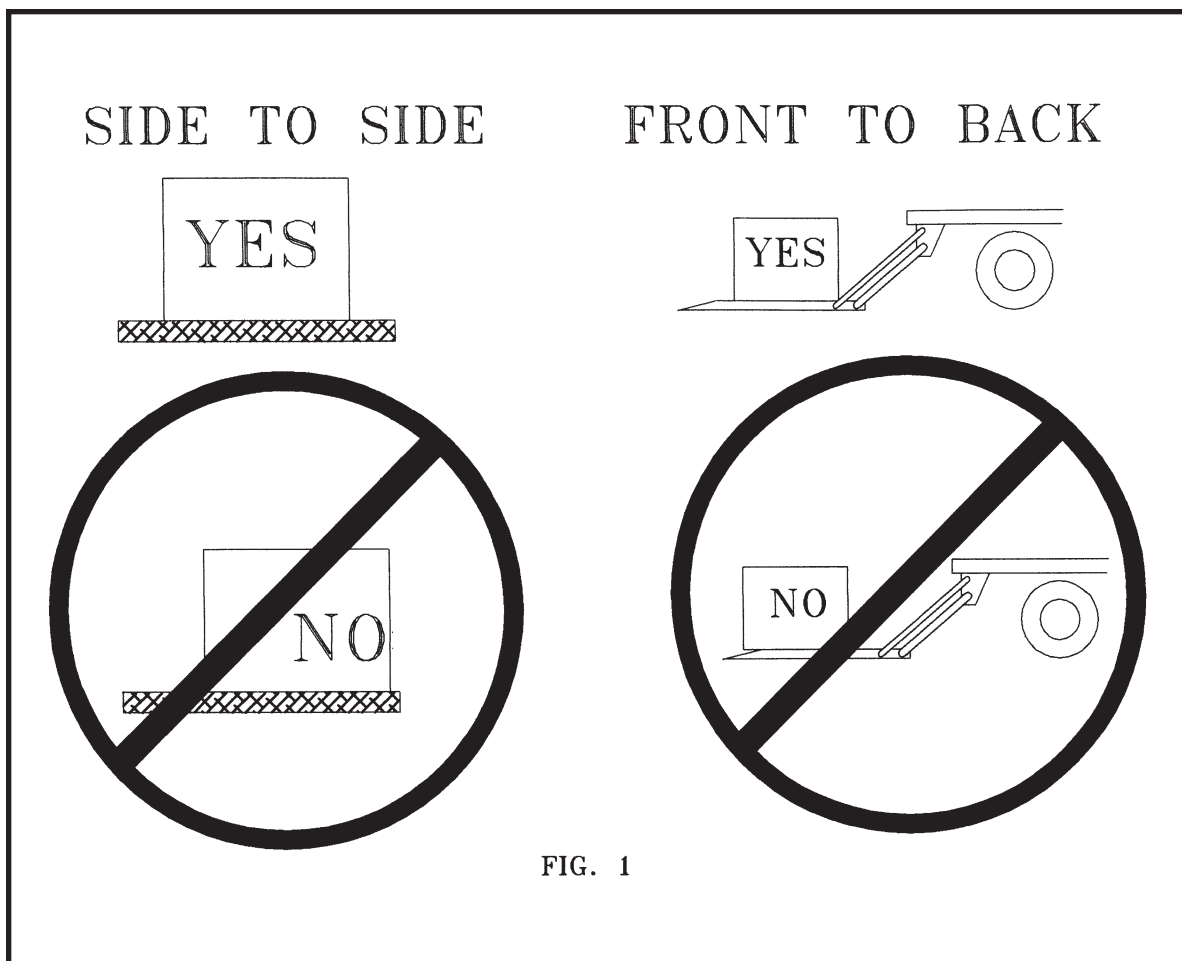
When ordering parts, please include all the information asked for below. If this information is not available, a complete written description or sketch of the required part will help Thieman identify and deliver the needed part to you.

THE FOLLOWING INFORMATION MUST BE INCLUDED:

1. Serial Number – Thieman liftgate serial numbers can be found on the tag located on the front side of the trunnion tube.
2. Model Number and Capacity.
3. Platform size and Material – Steel or Aluminum.
4. Part number.
5. Description.
6. Quantity required.

WATER LEVEL LOADING

When a maximum load is to be raised or lowered, this load must be centered on the load bearing platform, both front to back and side to side.



OPERATING INSTRUCTIONS

Caution

Be sure to operate liftgate at a safe distance and never improperly load platform as this may cause personal injury or damage to the liftgate.

UNFOLDING OF PLATFORM

1. Raise platform by pushing up switch until stow pin on platform is off the spacer latch.
2. Move spacer handle counterclockwise to disengage spacer latch and hold.
3. Lower the platform by pushing the down switch until the lift arms contact the ground.
4. Grasp platform handle on curb side and rotate outward to a horizontal position.

RAISING OF PLATFORM

5. Push up switch to raise platform to bed height.

LOWERING OF PLATFORM

6. Push down switch to lower platform to the ground.

CLOSING OF PLATFORM

7. Lower platform to the ground.
8. Fold over extension and grasp platform handle to raise manually to vertical position.
9. Push up switch to raise completely until stow pin and spacer latch have engaged for stowing.

MAINTENANCE GUIDE

The following inspection and maintenance operations should be performed at the recommended intervals or anytime the liftgate shows signs of abuse, and improper or abnormal operation.

MONTHLY INSPECTION AND MAINTENANCE

Operate the liftgate throughout its entire operational cycle and check the following:

1. Check that there are no unusual noises or vibrations.
2. Check platform height relative to bed height. If platform is lower, adjust cylinder with a 13/16 wrench to obtain the necessary height.
3. Check for apparent damage to the liftgate such as bent or distorted members, any cracked welds which may have resulted from overloading or abuse.
4. Check for excessive wear in the following areas:
 - A. Platform hinge pins and lift arms
 - B. All cylinder pins, bolts, and clevis
 - C. Platform extension pivots
 - D. Linkage pins and clevises
5. Check that the platform pivot pins are in place and retained by their proper retainers.
6. Check that all protective covers and guards are properly in place and secured.
7. Check for oil leaks in these areas:
 - A. Lift cylinder
 - B. Hydraulic hose-replace if it shows signs of wear or cracking.
 - C. Hydraulic fittings-tighten or replace as may be required to stop leakage.
8. Check the oil level in the pump reservoir. With the liftgate in the lowered position and the platform at ground level the oil should be within 1/2" from the top of the reservoir. See chart below for oil applications.
9. Check that all wiring and battery cable connections are tight and free of corrosion.

10. Lubrication of the M series liftgate should be as follows for all user conditions:

<u>Area of Tailgate</u>	<u>Type of Lubrication*</u>	<u>Frequency</u>
Kicker roller asm	Grease	50 cycles
Pump oil change	see chart below	yearly
Control handle pivots	SAE 10 or 20 oil	50 cycles
Platform extension pivots	SAE 10 or 20 oil	50 cycles

The major pivot points of the M series liftgate have special bushings that do not require lubrication.

For -40 to 120 F use #0 Grade grease.

For -20 to 200 F use #1 Grade grease.

HYDRAULIC FLUID CHART	
Temperature Range	Acceptable Fluids
-75 to 165°F	Exxon Unis J-26
-20 to 130°F	Dexron III Exxon Superflo ATF Shell Donax TG
-50 to 80°F	Shell Aero Fluid 4 Mobil Aero HFA Exxon Unis J-13 MIL H-5606

11. Check the pump relief pressure and also the motor amperage at this pressure. These values should be as follows:

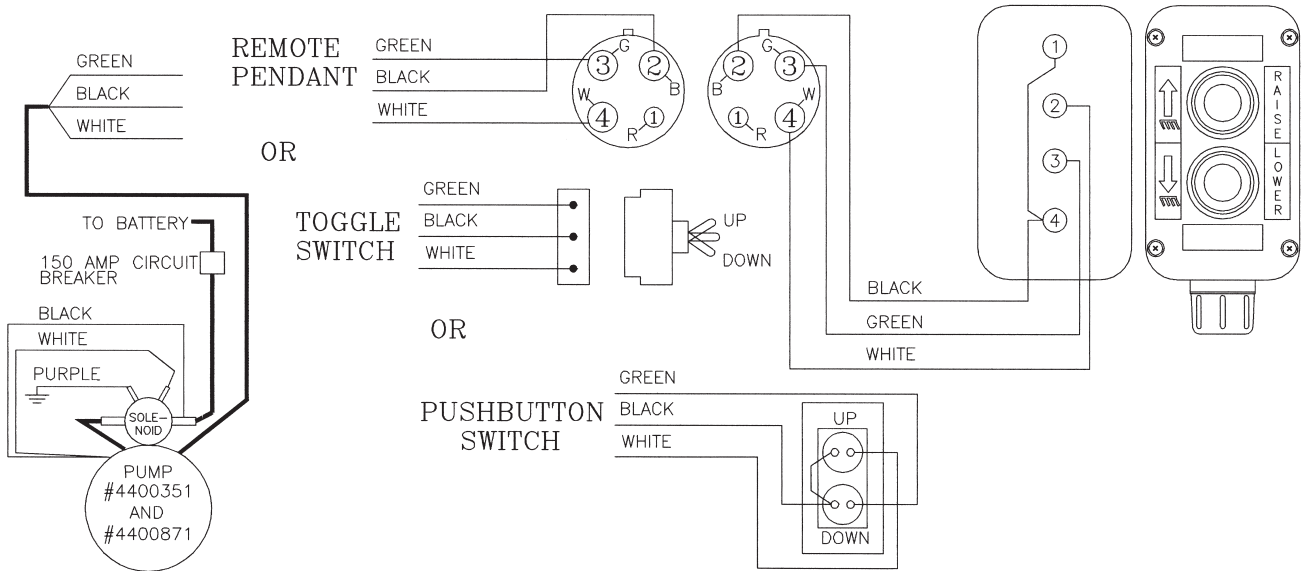
<u>Model</u>	<u>Max. Amp. Draw</u>	<u>Relief Pressure (psi)</u>
M16	175	2000
M20,M16 wedge	190	2525
M25,M20 wedge	175	2000
M25 wedge,M30	190	2525

Semi-Annual Inspection

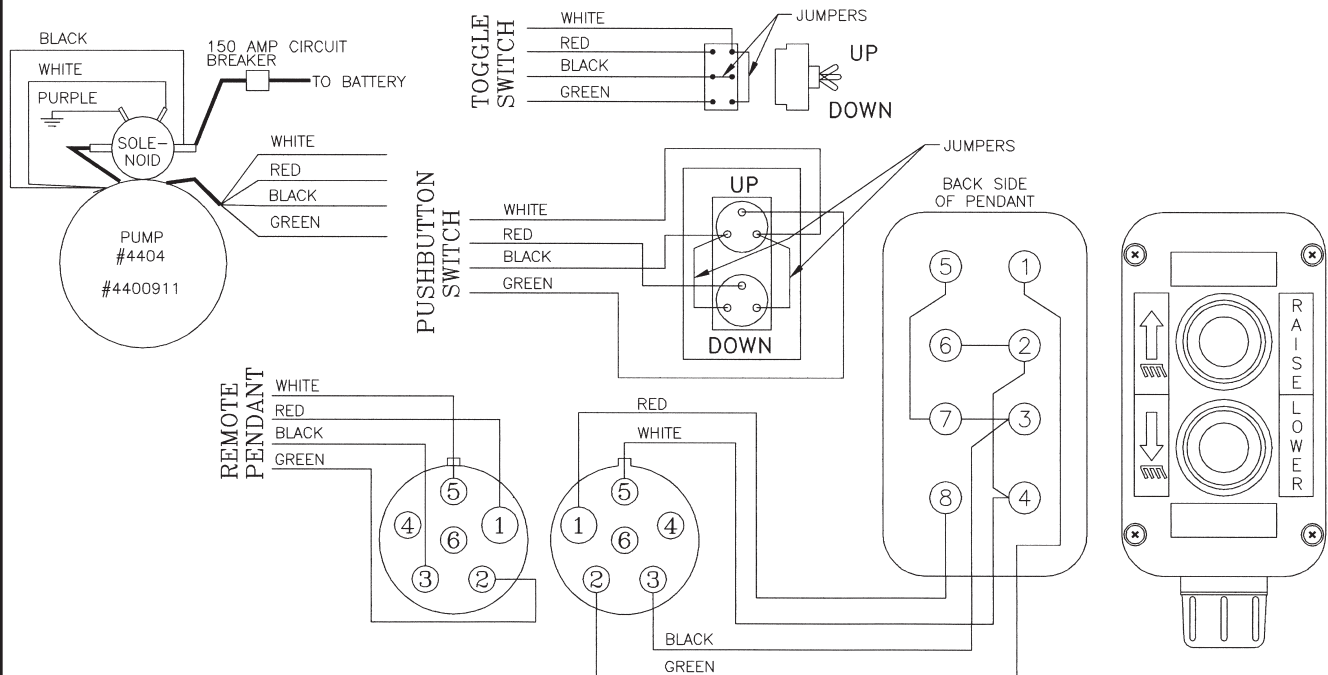
- Perform the procedures outlined in the Monthly Inspection and Maintenance.
- Inspect pump motor by:
 - Disconnecting battery cable
 - Remove motor end cover
 - Examine the armature brushes for wear. (Brushes should be replaced if they are less than 1/8" long).
 - Clean all residue out from inside of the motor housing.
 - Apply several drops of light weight machine oil to the armature shaft bearing in the motor end cover and reassemble the motor end cover.
- If the hydraulic oil in the reservoir is dirty:
 - Unfold platform and lower platform to the ground.
 - Drain the oil from the hydraulic system and flush the entire system.
 - Remove reservoir from pump and clean suction line filter. Also clean out any contaminants inside reservoir. Remount reservoir when completed.
 - Replace the oil as outlined in Section 9 under Monthly Maintenance and Inspection.

ELECTRICAL PICTORIAL

ELECTRIC CONTROL GRAVITY DOWN



POWER DOWN ELECTRIC CONTROL (TOGGLE, PUSHBUTTON, OR REMOTE PENDANT)

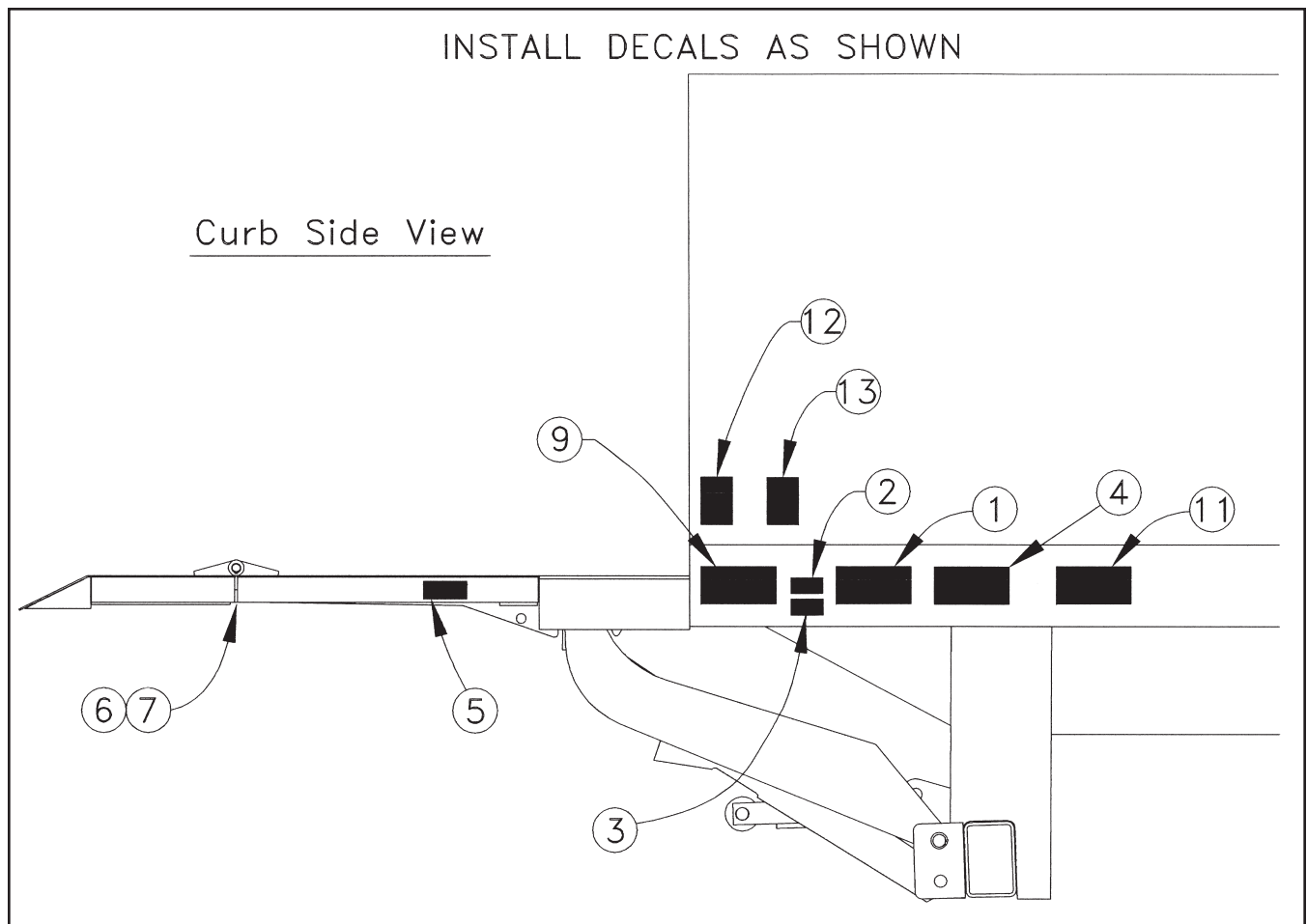


INSPECTION AND LOCATION OF DECALS

Inspect all decals listed below to be certain they are in the proper location and they are legible.

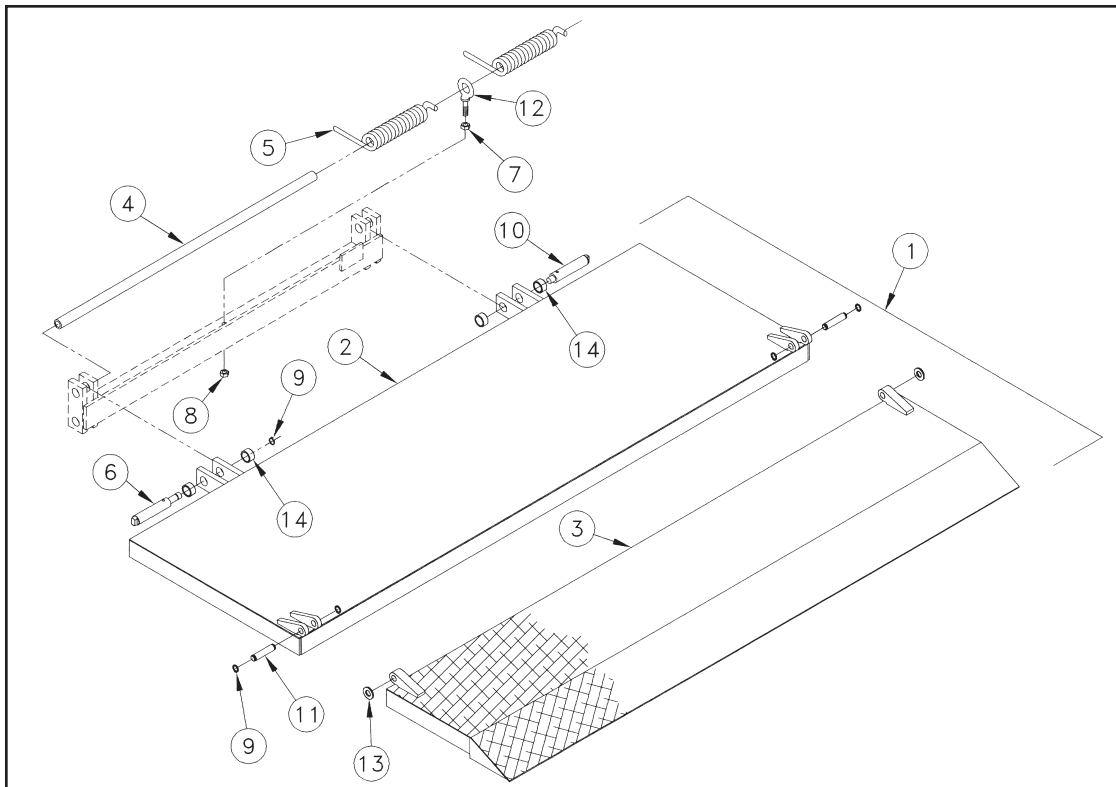
ALL DECALS MUST BE IN PLACE AND LEGIBLE OR ALL WARRANTIES ARE VOID!

Item	Part Name	Part Number
1	Warning Decal-off center	4671050
2	Fast Idle Decal	4650150
2	PTO Decal	4650140
3	Danger Decal-no riding	4609
4	Operating Decal	4650890
5	Capacity Decal-1600#	4650750
5	Capacity Decal-2000#	4650100
5	Capacity Decal-2500#	4650110
5	Capacity Decal-3000#	4650120
6	Warning Decal-pinch point	4604
7	Handle decal	4605
8	Thieman Nameplate	4650800
9	Urgent Warning Decal	4650530
10	Reflector (3)	5705
11	Wiring Decal-Gravity Down	4612
11	Wiring Decal-Power Down	4614
12	Warning Decal	4620
13	Caution Decal	4650770



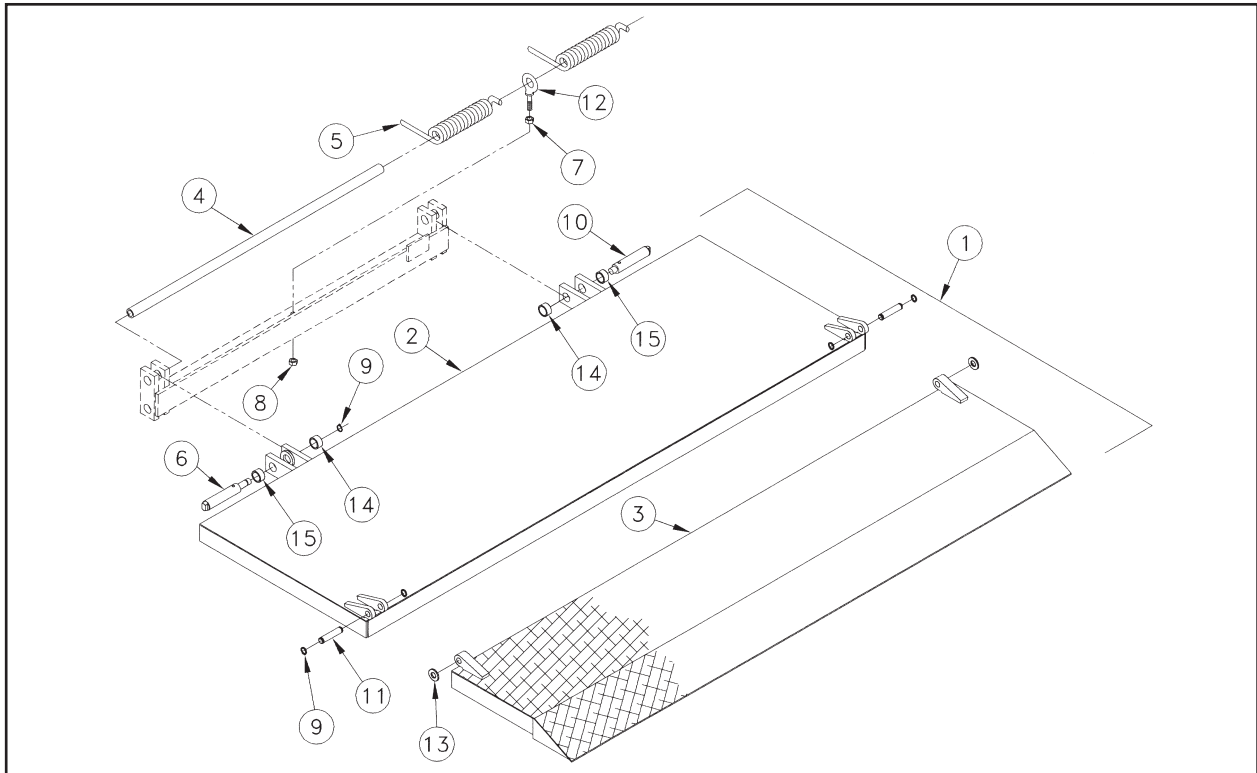
PLATFORM ASSEMBLY - M16/20

Item	Part Number	Description	Qty.
1	3423-001	Platform Asm 7236	1
1	3422-001	Platform Asm 7242	1
1	3423-002	Platform Asm 8436	1
1	3422-002	Platform Asm 8442	1
1	3421-001	Platform Asm 7229	1
1	3421-002	Platform Asm 8429	1
2	31224-001	Main Section Weld 7236, 7242	1
2	31224-002	Main Section Weld 8436, 8442	1
2	31222-001	Main Section Weld 7229	1
2	31222-002	Main Section Weld 8429	1
3	31097-001	Extension Weld 7236	1
3	31155-001	Extension Weld 7242	1
3	31097-002	Extension Weld 8436	1
3	31155-002	Extension Weld 8442	1
3	31223-001	Extension Weld 7229	1
3	31223-002	Extension Weld 8429	1
4	3023-001	Support Tube	1
5	5101260	Spring	2
5	5101260	Spring-MLB	1
6	5050	Pin	1
7	8120378	Nut .50	1
8	9414074	Locknut .50	1
9	5781017	Retaining Ring	5
10	5051	Pin	1
11	5056	Pin	2
12	5711	Shoulder Eye Bolt	1
13	8107-011	Washer .62	2
14	5504-021	Bushing	4



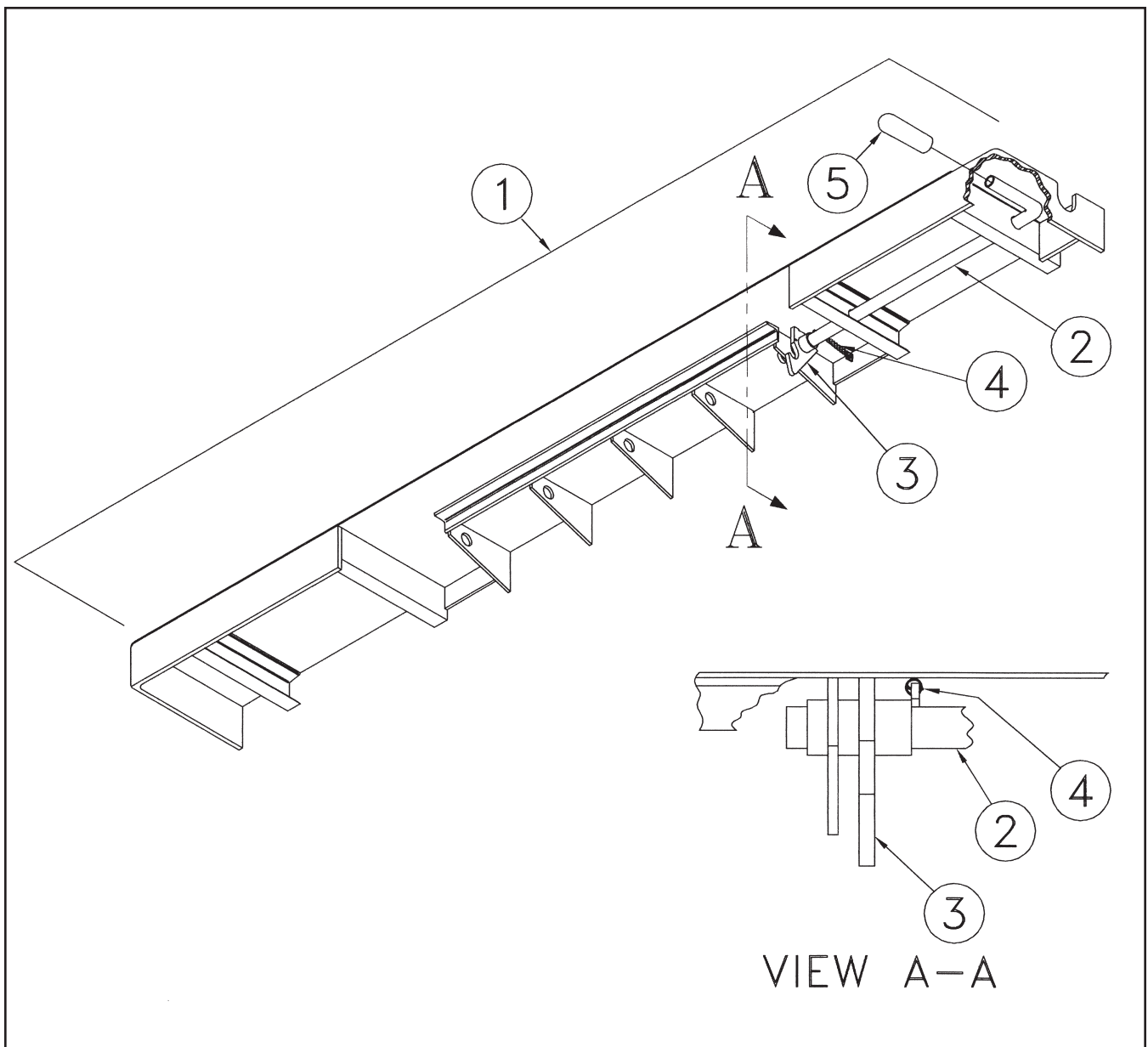
PLATFORM ASSEMBLY - M25/30

Item	Part Number	Description	Qty.
1	31420-001	Platform Asm 7236	1
1	31426-001	Platform Asm 7242	1
1	31420-002	Platform Asm 8436	1
1	31426-002	Platform Asm 8442	1
1	31421-001	Platform Asm 7229	1
1	31421-002	Platform Asm 8429	1
2	31418-001	Main Section Weld 7236, 7242	1
2	31418-002	Main Section Weld 8436, 8442	1
2	31417-001	Main Section Weld 7229	1
2	31417-002	Main Section Weld 8429	1
3	31097-001	Extension Weld 7236	1
3	31155-001	Extension Weld 7242	1
3	31097-002	Extension Weld 8436	1
3	31155-002	Extension Weld 8442	1
3	31223-001	Extension Weld 7229	1
3	31223-002	Extension Weld 8429	1
4	3023-001	Support Tube	1
5	5101260	Spring	2
5	5101260	Spring-MLB	1
6	5050	Pin	1
7	8120378	Nut .50	1
8	9414074	Locknut .50	1
9	5781017	Retaining Ring	5
10	5051	Pin	1
11	5056	Pin	2
12	5711	Shoulder Eye Bolt	1
13	8107-011	Washer .62	2
14	5504-020	Bushing	2
15	5504-021	Bushing	2



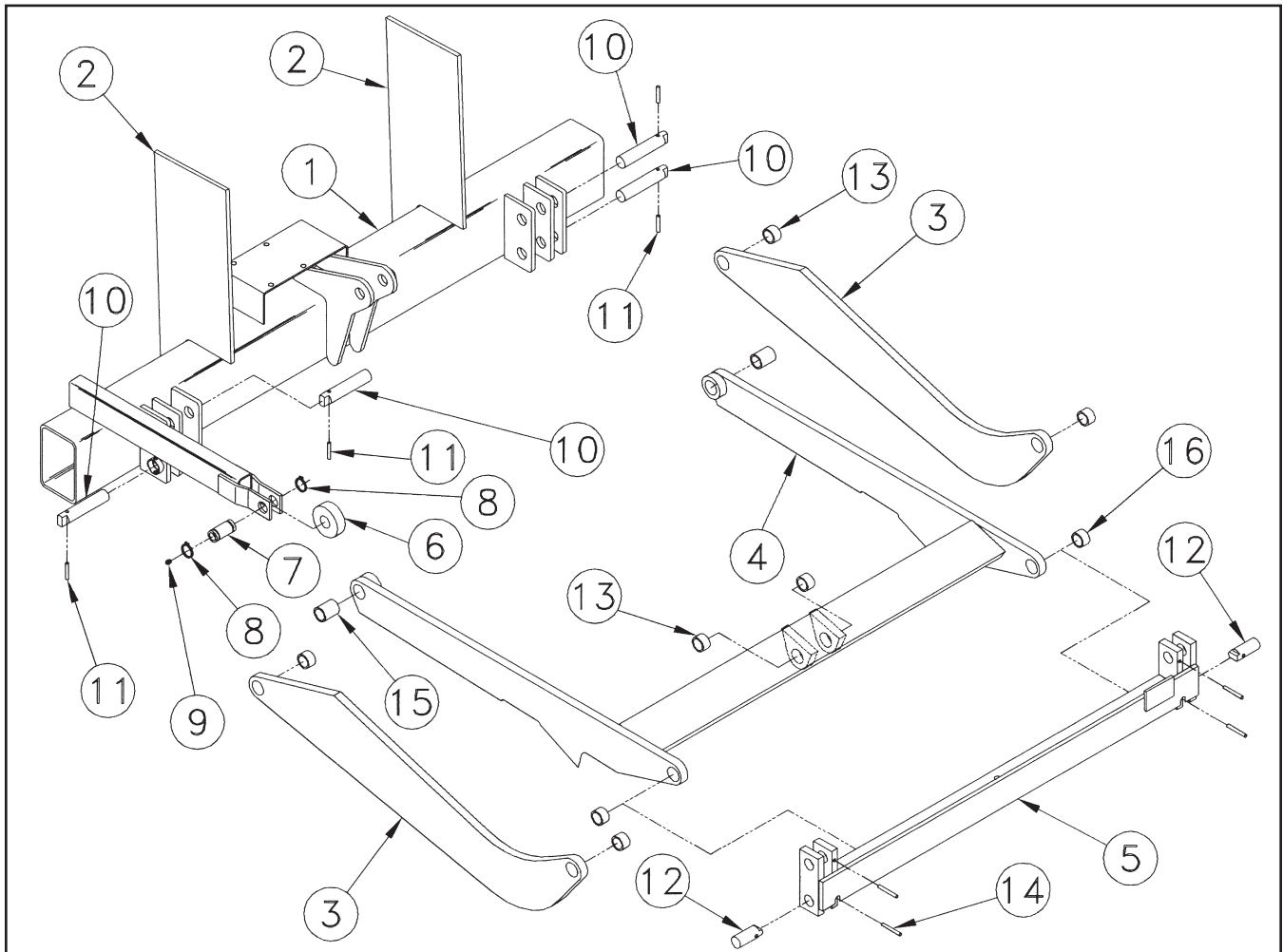
SPACER ASSEMBLY

Item	Part Number	Description	Qty.
1	3500	Spacer Asm	1
2	2404-002	Control Shaft	1
3	3110190	Latch	1
4	5101100	Spring	1
5	5701043	Handle	1



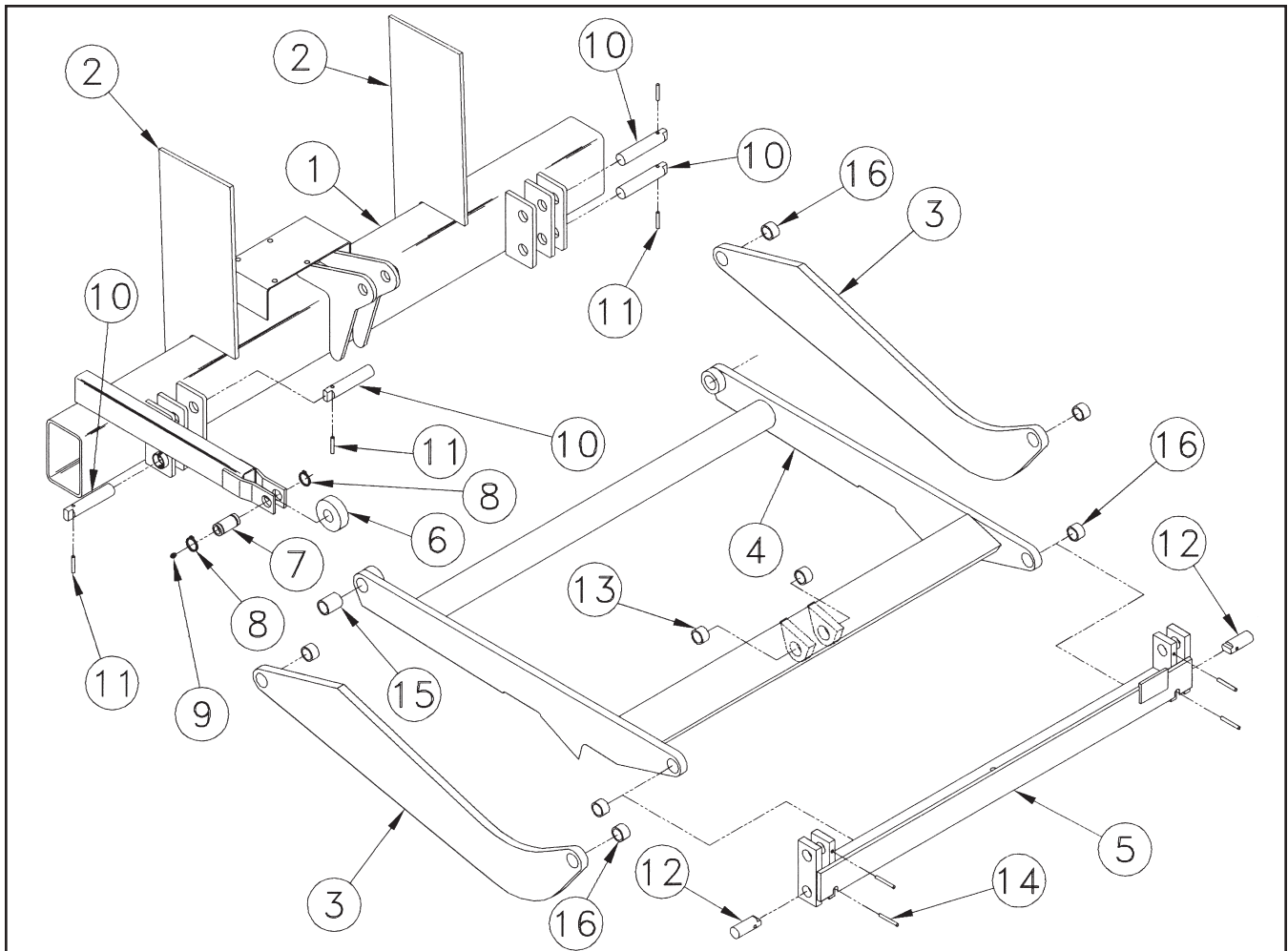
TRUNNION, LIFT ARM, AND IDLER ARMS - M16/20

Item	Part Number	Description	Qty.
1	31422-001	Trunnion Weld-M	1
1	31422-002	Trunnion Weld-MLB	1
1	31422-003	Trunnion Weld-Pintle Bracket	1
2	2141	Mounting Plate	2
3	31234	Idler Arm	2
4	31424	Lift Arm-M16/20	1
4	31429	Lift Arm-M20 Pintle Bracket	1
5	31232	Pivot Bar Weld-Standard M	1
5	31233	Pivot Bar Weld-Wedge & MLB	1
6	5701330	Roller	1
7	5031	Pin	1
8	5781008	Retaining Ring	2
9	8271291	Zerk	1
10	5047	Pin	4
11	5702371	Spring Pin	4
12	5049	Pin	2
13	5504-005	Bushing	6
14	5708-001	Spring Pin	4
15	5504-018	Bushing	2
16	5504-022	Bushing	2



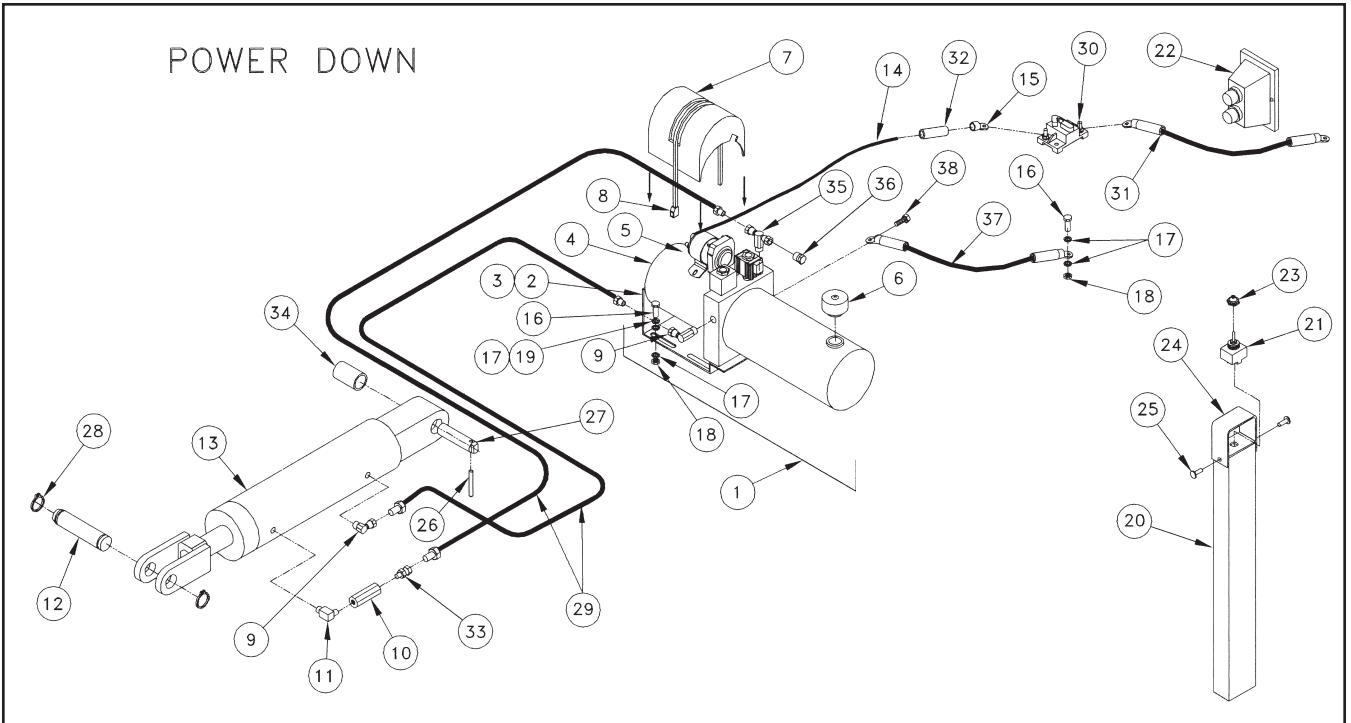
TRUNNION, LIFT ARM, AND IDLER ARMS - M25/30

Item	Part Number	Description	Qty.
1	31412-001	Trunnion Weld-M	1
1	31412-002	Trunnion Weld-MLB	1
1	31412-003	Trunnion Weld-Pintle Bracket	1
2	21009	Mounting Plate	2
3	31413	Idler Arm	2
4	31414	Lift Arm	1
4	31428	Lift Arm-Pintle Bracket	1
5	31416	Pivot Bar Weld-Standard M	1
5	31427	Pivot Bar Weld-Wedge & MLB	1
6	5701330	Roller	1
7	5031	Pin	1
8	5781008	Retaining Ring	2
9	8271291	Zerk	1
10	5047	Pin	4
11	5702371	Spring Pin	4
12	5075	Pin	2
13	5504-005	Bushing	2
14	5708-001	Spring Pin	4
15	5504-017	Bushing	2
16	5504-016	Bushing	6



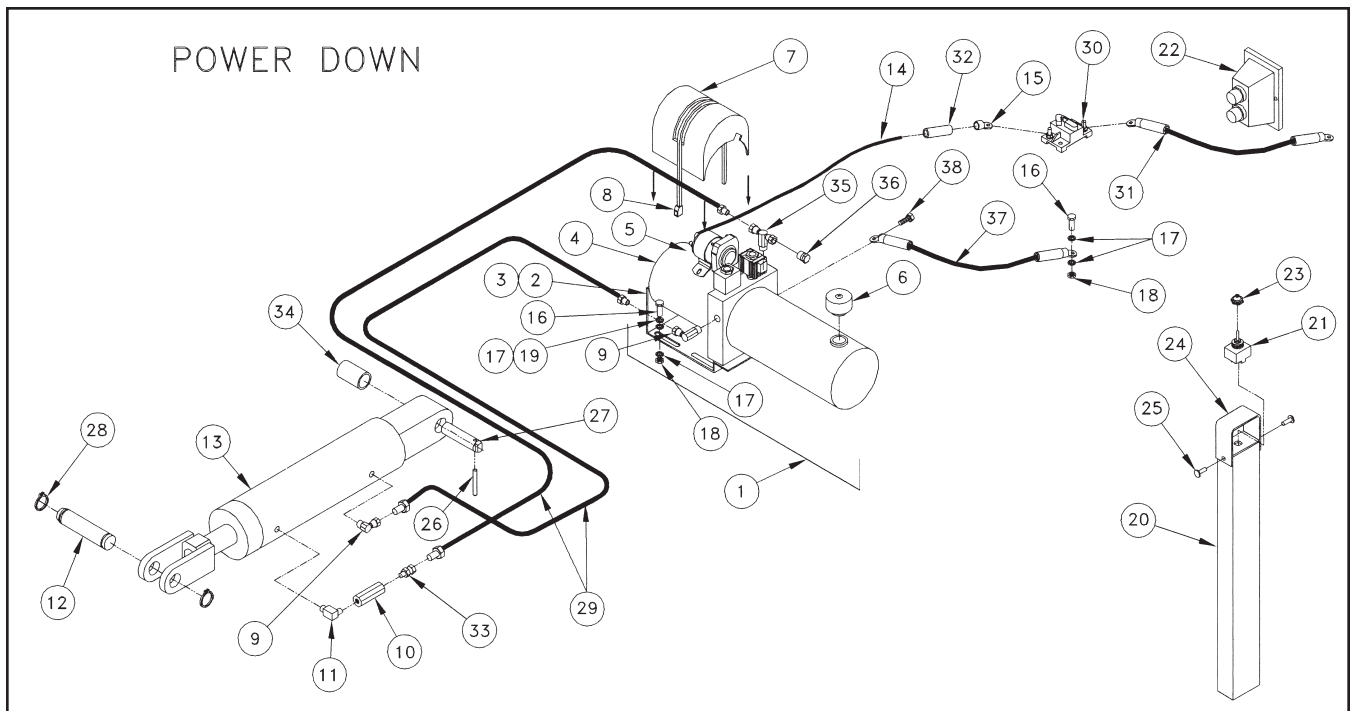
PUMP ASSEMBLY-POWER DOWN - M16/20

Item	Part Number	Description	Qty
1	4404	Pump Asm-Items 2 to 6	1
2	4421420	Pump Bracket	1
3	4421350	Mounting Bracket	1
4	4423520	Motor 8111	1
5	4447	Solenoid Start Switch	1
6	4420409	Breather Cap	1
7	5765	Cover	1
8	5700100	Strap	1
9	4900000	Swivel Elbow .25	2
10	4906-001	Flow Control - 1.5 GPM	1
11	4900450	Elbow .25	1
12	5053	Pin	1
13	31227	Cylinder Asm-M16/20, M16 Wedge	1
13	31226	Cylinder Asm-M20 Wedge	1
14	4300030	Battery Cable #2 X 25'	1
15	4350	Cable Lug	1
16	8180126	Screw .38 x 1.50	5
17	8106-010	Internal Tooth Lockwasher .38	10
18	8120377	Nut .38	5
19	8120388	Flatwasher .38	4
20	3038	Tube	1
21	4301740	Toggle Switch	1
22	4422860	Pushbutton Control-Optional	1
23	4301750	Toggle Seal	1
24	31225	Cap	1
25	8109-014	Self Tapping Screw .25 x .50	2
26	5702371	Spring Pin	1
27	5059	Pin	1
28	5781008	Retaining Ring	2
29	4960000	Hose 48"	2
30	4301770	Circuit Breaker 150 Amp	1
31	4318-001	Battery Cable #2 x 2'	1
32	4319-002	Shrink Wrap	1
33	4905	Swivel Fitting .25	1
34	5504-009	Bushing	1
35	4900080	Swivel Tee	1
36	4929	Plug .25 NPT	1
37	4318-002	Ground Cable #2 x 2'	1
38	8104-006	Screw .31 x 1	1



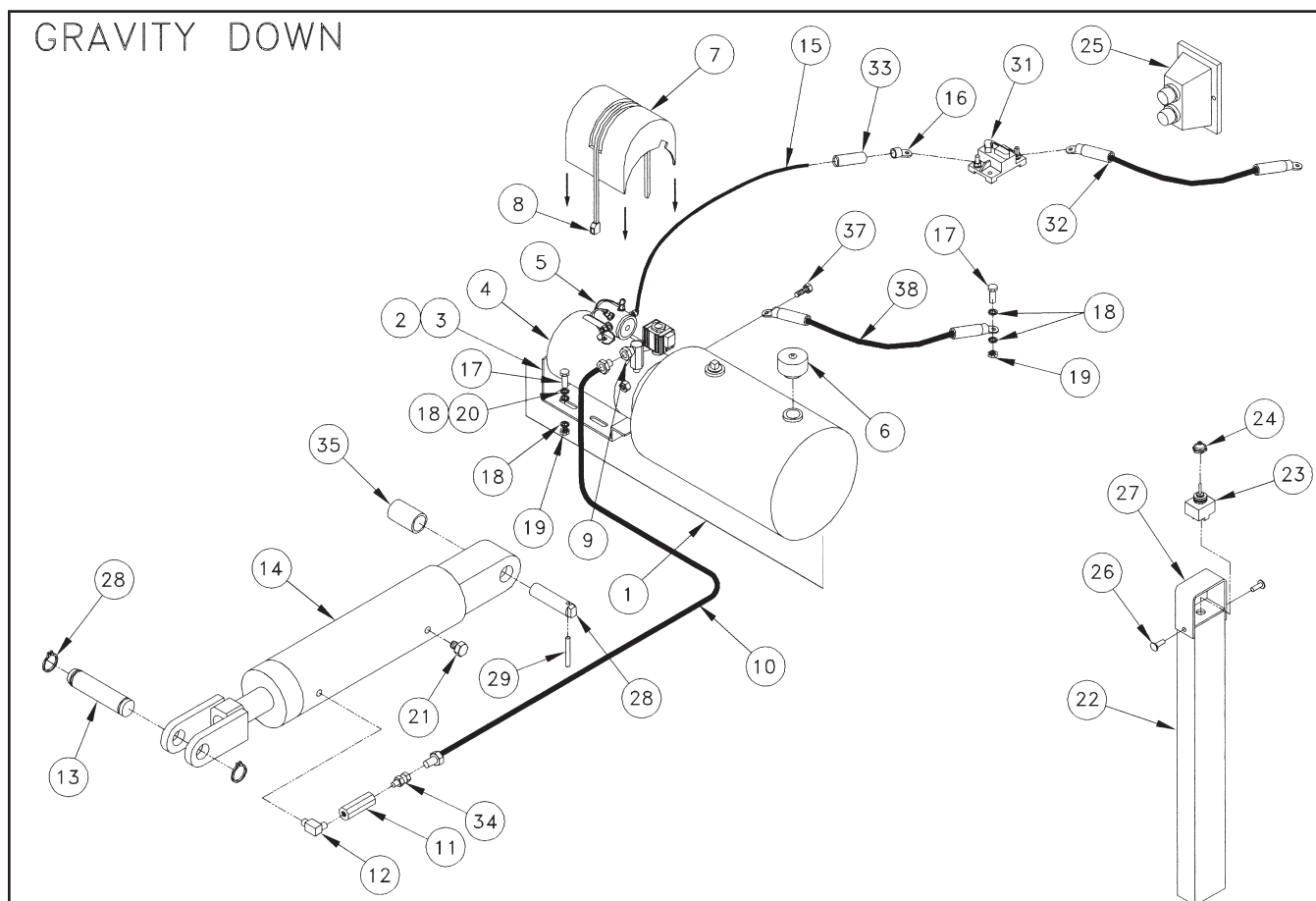
PUMP ASSEMBLY-POWER DOWN - M25/30

Item	Part Number	Description	Qty
1	4404	Pump Asm-Items 2 to 6	1
2	4421420	Pump Bracket	1
3	4421350	Mounting Bracket	1
4	4423520	Motor 8111	1
5	4447	Solenoid Start Switch	1
6	4420409	Breather Cap	1
7	5765	Cover	1
8	5700100	Strap	1
9	4900000	Swivel Elbow .25	2
10	4906-003	Flow Control-3 GPM	1
11	4900450	Elbow .25	1
12	5053	Pin	1
13	31227	Cylinder Asm-M25	1
13	31226	Cylinder Asm-M25 Wedge, M30	1
14	4300030	Battery Cable #2 x 25'	1
15	4350	Cable Lug	1
16	8180126	Screw .38 x 1.50	5
17	8106-010	Internal Tooth Lockwasher .38	10
18	8120377	Nut .38	5
19	8120388	Flatwasher .38	4
20	3038	Tube	1
21	4301740	Toggle Switch	1
22	4422860	Pushbutton Control-Optional	1
23	4301750	Toggle Seal	1
24	31225	Cap	1
25	8109-014	Self Tapping Screw .25 x .50	2
26	5702371	Spring Pin	1
27	5059	Pin	1
28	5781008	Retaining Ring	2
29	4960000	Hose 48"	2
30	4301770	Circuit Breaker 150 Amp	1
31	4318-001	Battery Cable #2 x 2'	1
32	4319-002	Shrink Wrap	1
33	4905	Swivel Fitting .25	1
34	5504-009	Bushing	1
35	4900080	Swivel Tee	1
36	4929	Plug .25 NPT	1
37	4318-002	Ground Cable #2 x 2'	1
38	8104-006	Screw .31 x 1	1



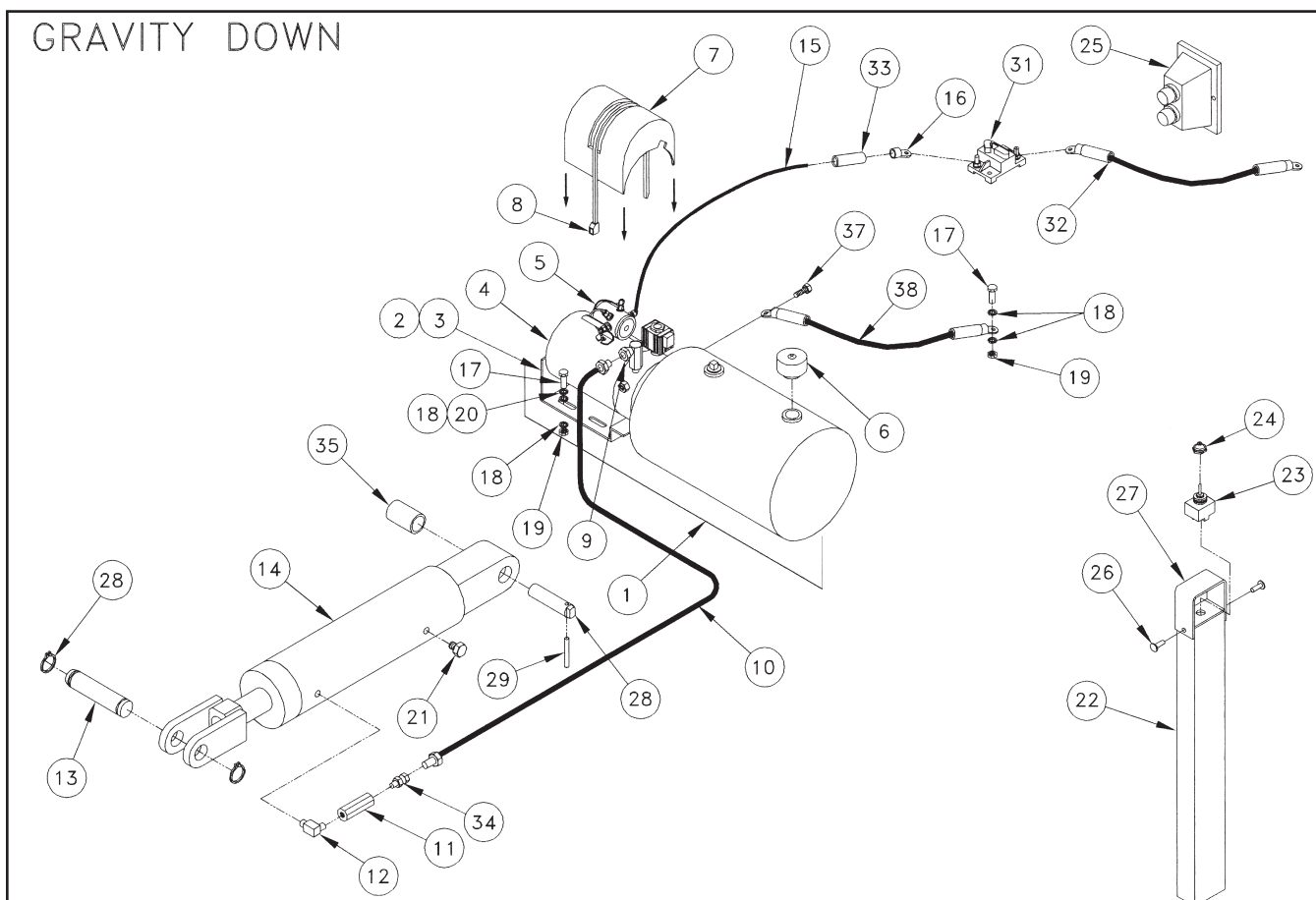
PUMP ASSEMBLY-GRAVITY DOWN - M16/20

Item	Part Number	Description	Qty
1	4400351	Pump Asm-Items 2 to 6	1
2	4421420	Pump Bracket	1
3	4421350	Mounting Bracket	1
4	4423520	Motor 8111	1
5	4421620	Solenoid Start Switch	1
6	4420410	Breather Cap	1
7	5704	Cover	1
8	5700100	Strap	1
9	4900000	Swivel Elbow .25	1
10	4965012	Hose 38"	1
11	4906-001	Flow Control 1.5 GPM	1
12	4900450	Elbow .25	1
13	5053	Pin	1
14	31227	Cylinder Asm-M16/20,M16 Wedge	1
14	31226	Cylinder Asm-M20 Wedge	1
15	4300030	Battery Cable #2 x 25'	1
16	4350	Cable Lug	1
17	8180126	Screw .38 x 1.50	5
18	8106-010	Internal Tooth Lockwasher .38	10
19	8120377	Nut .38	5
20	8120388	Flatwasher .38	4
21	4900480	Breather	1
22	3038	Tube	1
23	4301550	Toggle Switch	1
24	4301750	Toggle Seal	1
25	4422850	Pushbutton Control-Optional	1
26	8109-014	Self Tapping Screw .25	2
27	31225	Cap	1
28	5059	Pin	1
29	5702371	Spring Pin	1
30	5781008	Retaining Ring	1
31	4301770	Circuit Breaker 150 Amp	1
32	4318-001	Battery Cable #2 x 2'	1
33	4319-002	Shrink Wrap	1
34	4905	Swivel Fitting .25	1
35	5504-009	Bushing	1
36	4318-002	Ground Cable #2 x 2'	1
37	8104-006	Screw .31 x 1	1



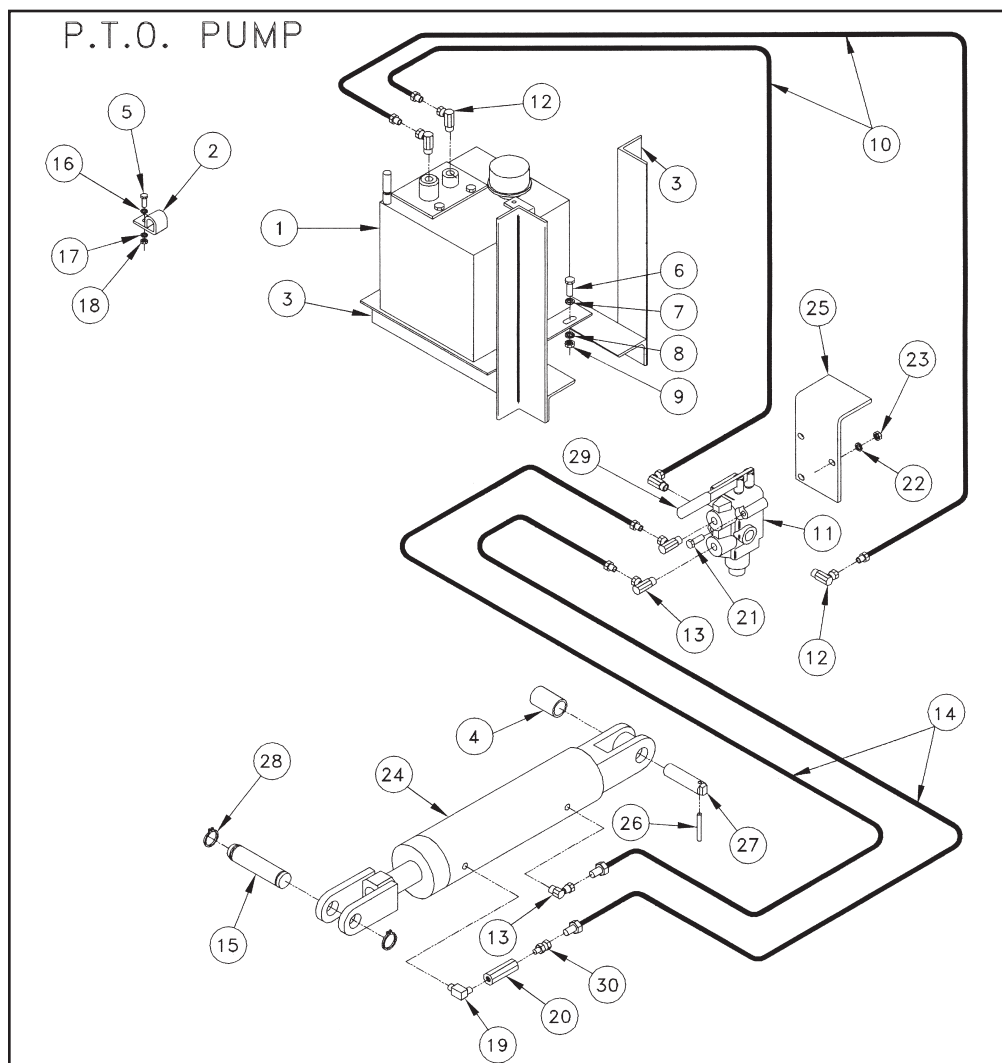
PUMP ASSEMBLY-GRAVITY DOWN - M25/30

Item	Part Number	Description	Qty
1	4400351	Pump Asm-Items 2 to 6	1
2	4421420	Pump Bracket	1
3	4421350	Mounting Bracket	1
4	4423520	Motor 8111	1
5	4421620	Solenoid Start Switch	1
6	4420410	Breather Cap	1
7	5704	Cover	1
8	5700100	Strap	1
9	4900000	Swivel Elbow .25	1
10	4965012	Hose 38"	1
11	4906-003	Flow Control-3 GPM	1
12	4900450	Elbow .25	1
13	5053	Pin	1
14	31227	Cylinder Asm-M25	1
14	31226	Cylinder Asm-M25 Wedge, M30	1
15	4300030	Battery Cable #2 x 25'	1
16	4350	Cable Lug	1
17	8180126	Screw .38 x 1.50	5
18	8106-010	Internal Tooth Lockwasher .38	10
19	8120377	Nut .38	5
20	8120388	Flatwasher .38	4
21	4900480	Breather	1
22	3038	Tube	1
23	4301550	Toggle Switch	1
24	4301750	Toggle Seal	1
25	4422850	Pushbutton Control-Optional	1
26	8109-014	Self Tapping Screw .25	2
27	31225	Cap	1
28	5059	Pin	1
29	5702371	Spring Pin	1
30	5781008	Retaining Ring	1
31	4301770	Circuit Breaker 150 Amp	1
32	4318-001	Battery Cable #2 x 2'	1
33	4319-002	Shrink Wrap	1
34	4905	Swivel Fitting .25	1
35	5504-009	Bushing	1
36	4318-002	Ground Cable	1
37	8104-006	Screw .31 x 1	1



PTO PUMP ASSEMBLY - M16/20

Item	Part Number	Description	Qty
1	4800030	Pump Asm	1
2	5701000	Hose Clamp	8
3	2010070	Angle Bracket	4
4	5504-009	Bushing	1
5	8180022	Screw .25 x 1	4
6	8180126	Screw .38 x 1.50	8
7	8120388	Flatwasher .38	4
8	8120382	Lockwasher .38	4
9	8120377	Nut .38	2
10	4965021	Hose 168"	1
11	5301040	Valve	4
12	4900450	Swivel Elbow .38 x .25	3
13	4900000	Swivel Elbow .25 x .25	2
14	4965021	Hose 63"	1
15	5053	Pin	8
16	8120386	Flatwasher .25	8
17	8120380	Lockwasher .25	8
18	8120367	Nut .25	1
19	4800450	Elbow .25 x .25	1
20	4906-003	Flow Control 3 GPM	3
21	8180091	Screw .31 x 2.50	3
22	8120214	Lockwasher .31	3
23	8120376	Nut .31	1
24	31227	Cylinder Asm M16/20,M16 Wedge	1
24	31226	Cylinder Asm M20 Wedge	1
25	2797-001	Valve Bracket	1
26	5702371	Spring Pin	1
27	5059	Pin	1
28	5781008	Retaining Ring	1
29	5301081	Handle	1
30	4905	Swivel Fitting .25	1



PTO PUMP ASSEMBLY - M25/30

Item	Part Number	Description	Qty
1	4800030	Pump Asm	1
2	5701000	Hose Clamp	8
3	2010070	Angle Bracket	4
4	5504-009	Bushing	1
5	8180022	Screw .25 x 1	4
6	8180126	Screw .38 x 1.50	8
7	8120388	Flatwasher .38	4
8	8120382	Lockwasher .38	4
9	8120377	Nut .38	2
10	4965021	Hose 168"	1
11	5301040	Valve	4
12	4900450	Swivel Elbow .38 x .25	3
13	4900000	Swivel Elbow .25 x .25	2
14	4965021	Hose 63"	1
15	5053	Pin	8
16	8120386	Flatwasher .25	8
17	8120380	Lockwasher .25	8
18	8120367	Nut .25	1
19	4800450	Elbow .25 x .25	1
20	4906-003	Flow Control 3 GPM	3
21	8180091	Screw .31 x 2.50	3
22	8120214	Lockwasher .31	3
23	8120376	Nut .31	1
24	31227	Cylinder Asm-M25	1
24	31226	Cylinder Asm M25 Wedge, M30	1
25	2797-001	Valve Bracket	1
26	5702371	Spring Pin	1
27	5059	Pin	1
28	5781008	Retaining Ring	1
29	5301081	Handle	1
30	4905	Swivel Fitting .25	1

