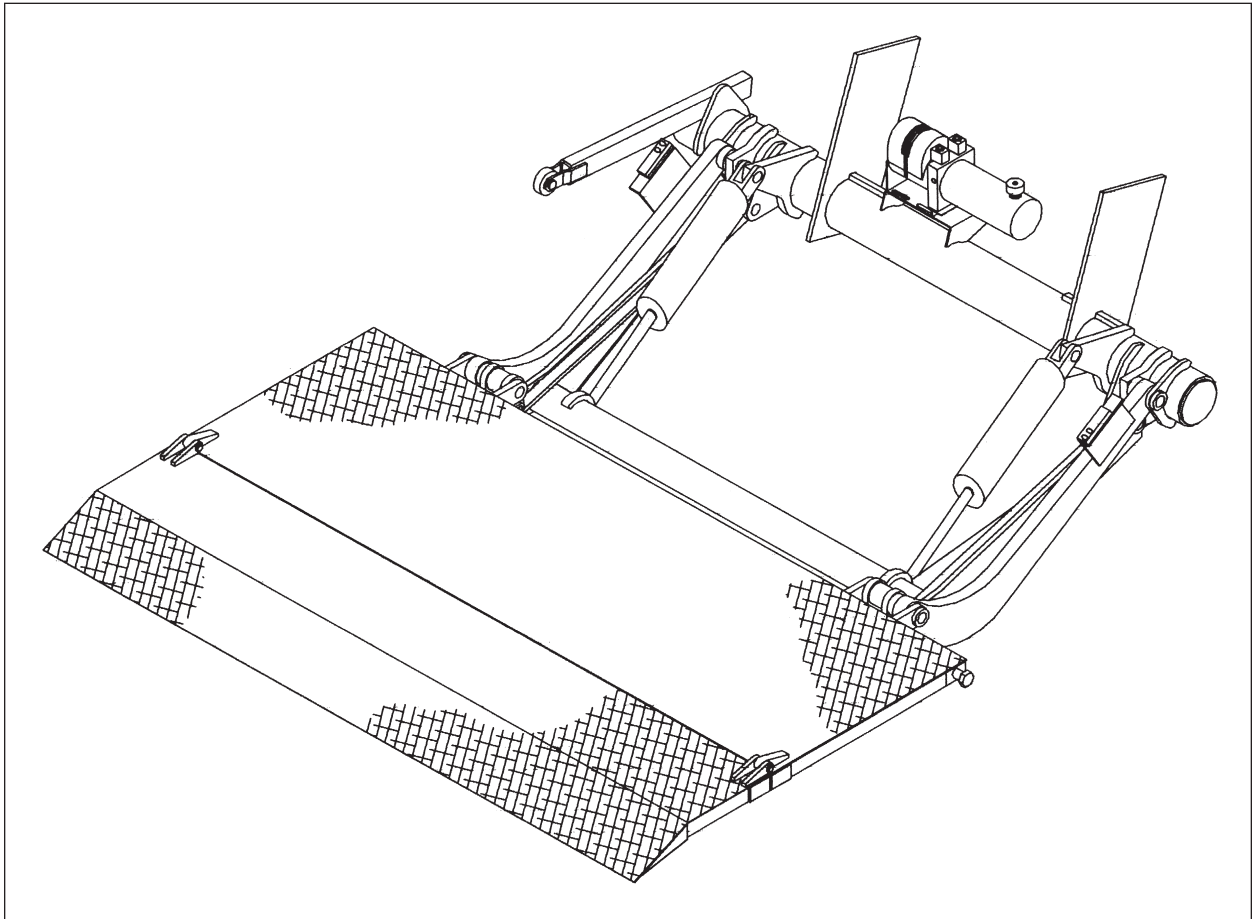


STOWAWAY

Tailgates By **THIEMAN**

Model ST-40

OWNERS MANUAL/PARTS LIST



IMPORTANT! KEEP IN VEHICLE!

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



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FOR YOUR RECORDS

Model No. _____ Date Purchased _____

Serial No. _____

NOTE: WHEN ORDERING PARTS BE SURE TO INCLUDE THIS INFORMATION!

PARTS ORDERING PROCEDURE

When ordering parts, 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 right hand mounting plate.
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.

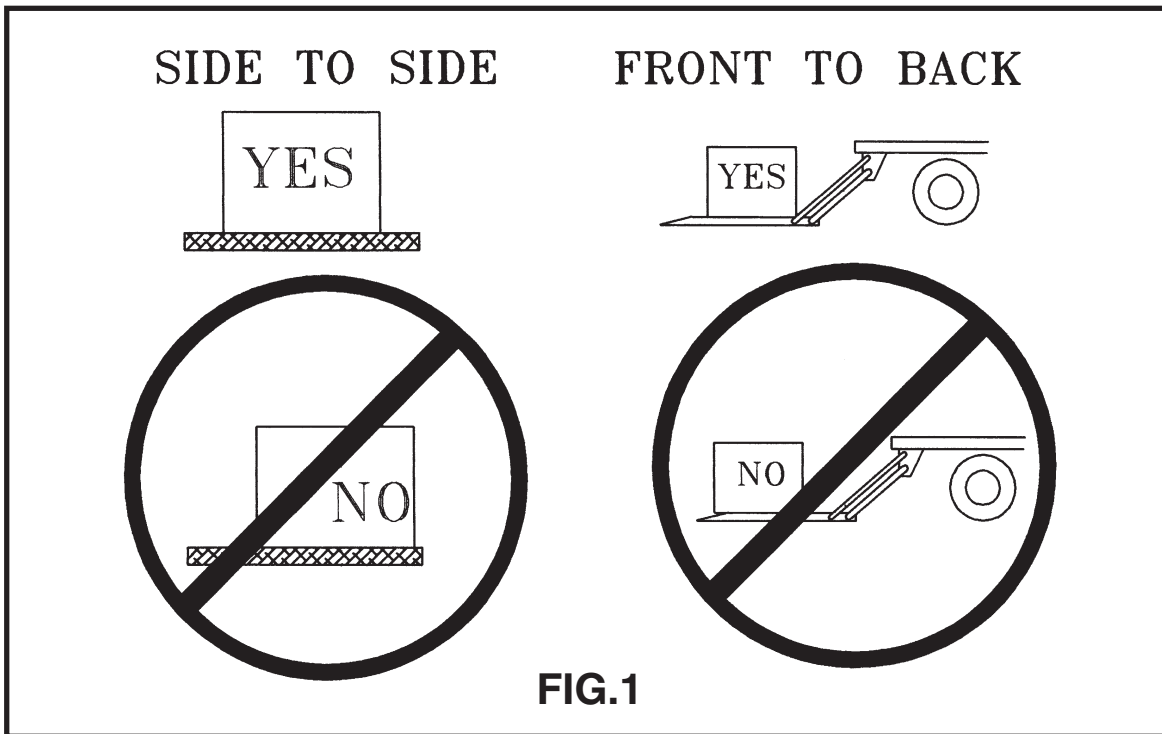


FIG. 1

WARNING!

The following list of warnings are to be read before operating the ST 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 ST40 series liftgate is 4000 lbs.
- +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 latches properly engaged 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 to do so.
- +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 personnel lift.

- +This liftgate is intended for the use of loading and unloading cargo only, and 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.

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 the platform by pushing toggle switch up until stow bolts on platform are off the spacer latches.
2. Move spacer handle to position 1 to disengage spacer latches.
3. While spacer handle is in position 1 lower the platform by pushing toggle switch down until lift arms contact the ground. (Once stow bolts are clear of latches the spacer handle can be released back to position 2.)
4. Grasp platform handle on curb side and rotate outward to horizontal position.

RAISING OF PLATFORM

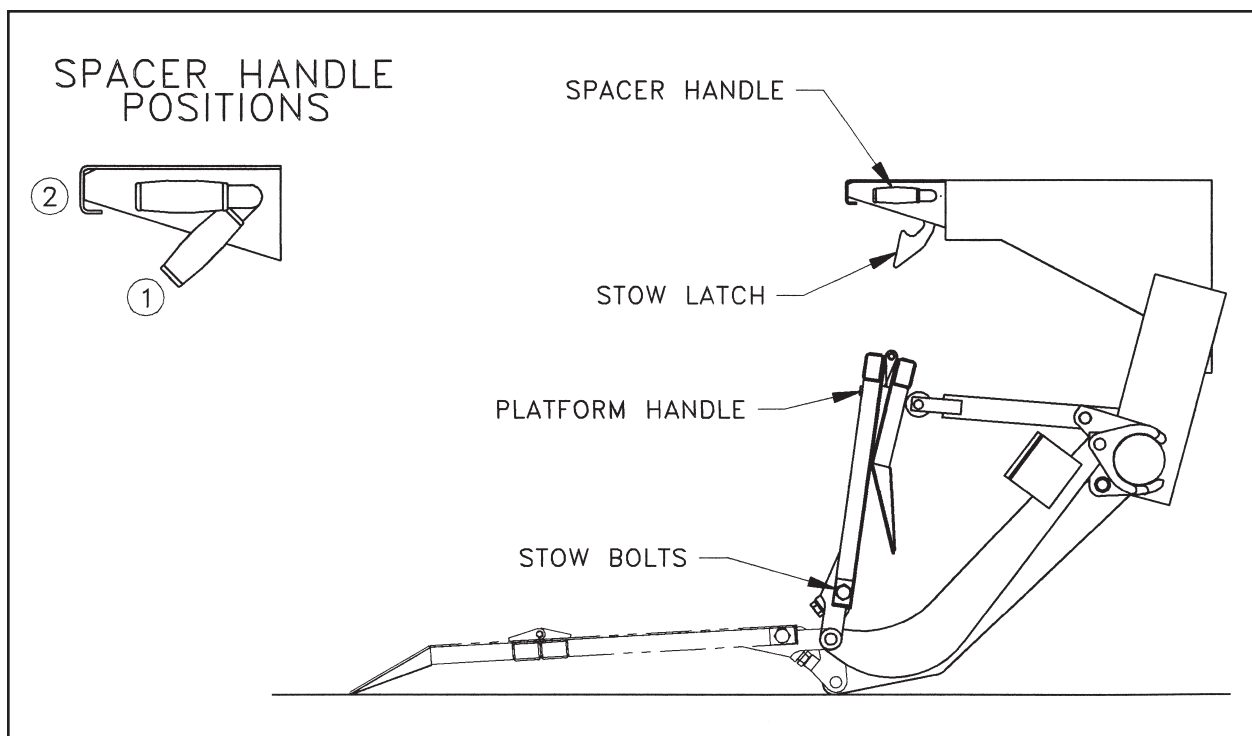
5. Push switch up to raise platform to bed height.

LOWERING OF PLATFORM

6. Push switch down to lower platform to ground.

CLOSING OF PLATFORM

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



MAINTENANCE GUIDE

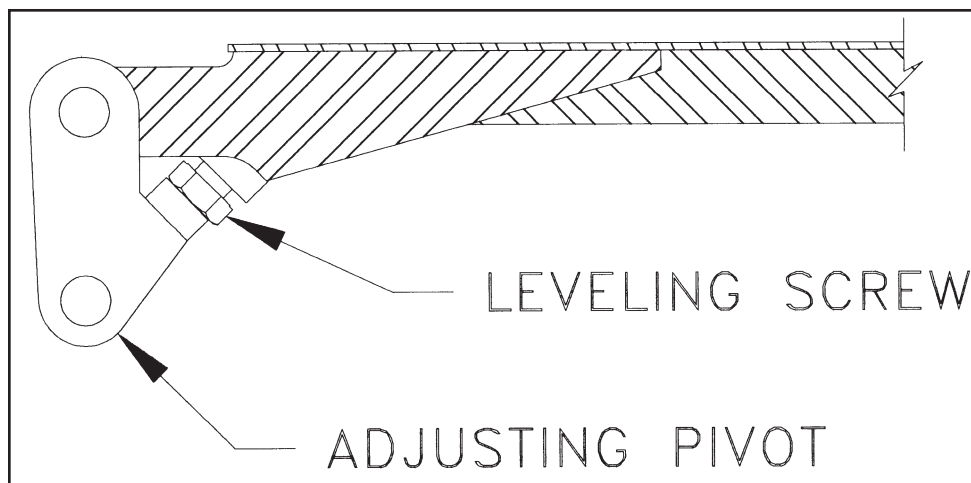
The following inspection and maintenance operations should be performed at the recommended intervals or anytime the liftgate shows signs of abuse, and improper or abnormal operation.

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 that the ramp tip and the pivot strike the ground at the same time. If the ramp tip strikes the ground before the bottom of the adjusting pivot does, adjust the leveling screw out until properly adjusted. See figure 2.
3. Check platform height relative to the spacer. If platform is lower, adjust cylinder with a 13/16 wrench to obtain necessary height.
4. Check for apparent damage to the liftgate such as bent or distorted members, any cracked welds, which may have resulted from overloading or abuse.
5. Check for any excessive wear in the following areas:
 - A. Platform hinge pins and bushings
 - B. All cylinder pins and bolts and bushings
6. Check that the platform pivot pins are in place and retained by their proper retainers.
7. Check that all protective covers and guards are properly in place and secured.
8. 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.

FIG. 2



9. Check the oil level in the hydraulic reservoir. With the liftgate in the stowed position, the oil should be within 1/2 inch from the top of the reservoir. See chart below for oil applications.
10. Check that all wiring and battery cable connections are tight and free of corrosion.
11. Lubrication of the ST 40 series liftgate should be as follows for all user conditions:

<u>Area of Tailgate</u>	<u>Type of Lubrication</u>	<u>Frequency</u>
spacer latches	SAE 10 to SAE 20 oil	50 cycles
pump oil change	see chart below	yearly

*The pivot points of the ST 40 have special bushings which do not require lubrication.

HYDRAULIC FLUID CHART	
Temperature Range	Acceptable Fluids
-75 to 165°F	Exxon Unavis 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 Unavis J-13 MIL H-5606

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

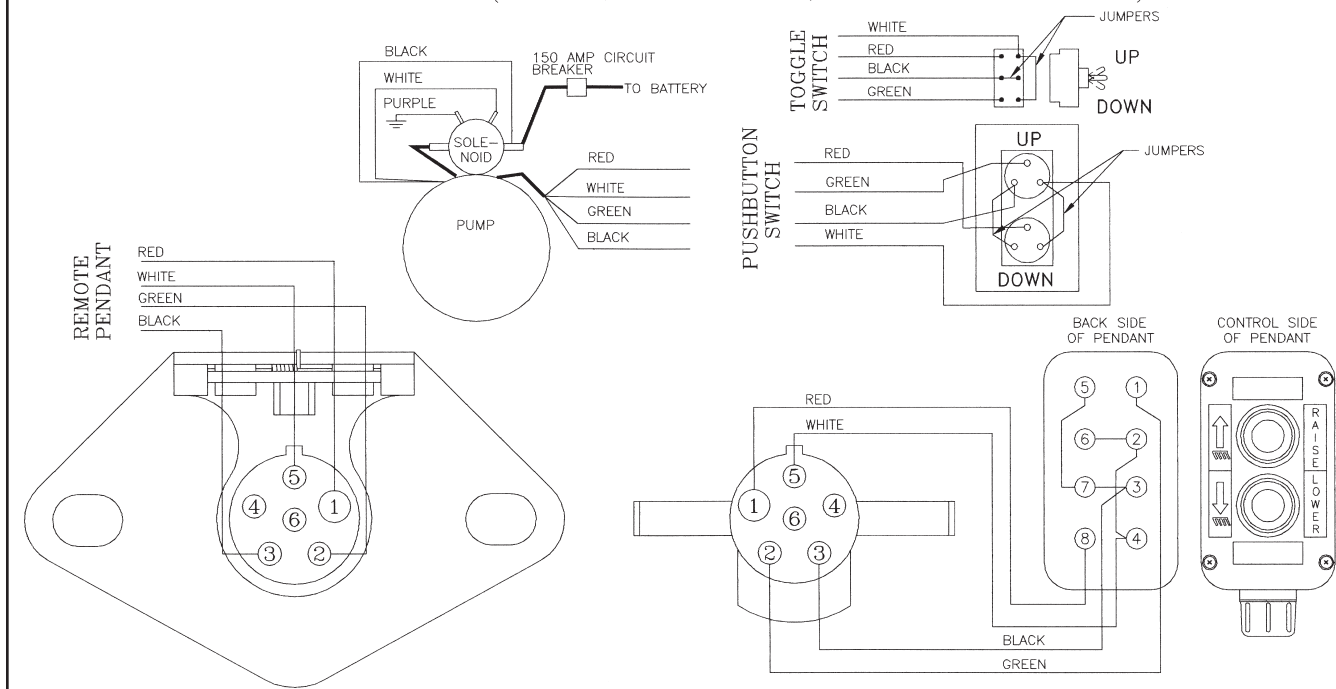
<u>Model</u>	<u>Max Amp Draw</u>	<u>Relief Pressure (psi)</u>
ST40	260	2650

Semi-Annual Inspection

1. Perform the procedures outlined in the "Monthly Inspection and Maintenance."
2. Inspect pump motor by:
 - A. Disconnecting battery cable
 - B. Remove motor end cover
 - C. Examine the armature brushes for wear. (Brushes should be replaced if they are less than 1/8" long.)
 - D. Clean all residue out from inside of the motor housing.
 - E. Apply several drops of light weight machine oil to the armature shaft bearing in the motor end cover and reassemble the motor end cover.
3. If the hydraulic oil in the reservoir is dirty:
 - A. Unfold platform and lower platform to the ground. Raise platform to bed height so cylinders are fully retracted. Support platform in this position with a lift truck or crane.
 - B. Drain the oil from the hydraulic system and flush the entire system.
 - C. Remove reservoir from pump and clean suction line filter. Also, clean out any contaminants inside reservoir. Remount reservoir when completed.
 - D. Replace the oil as outlined in Section 9 under Monthly Maintenance and Inspection.

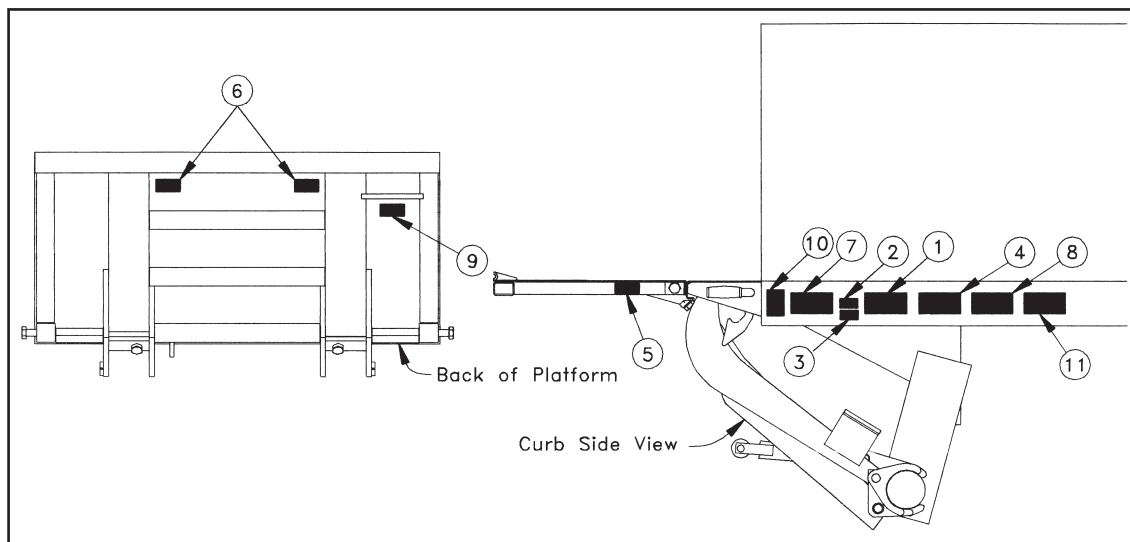
POWER DOWN ELECTRIC CONTROL

(TOGGLE, PUSHBUTTON, OR REMOTE PENDANT)



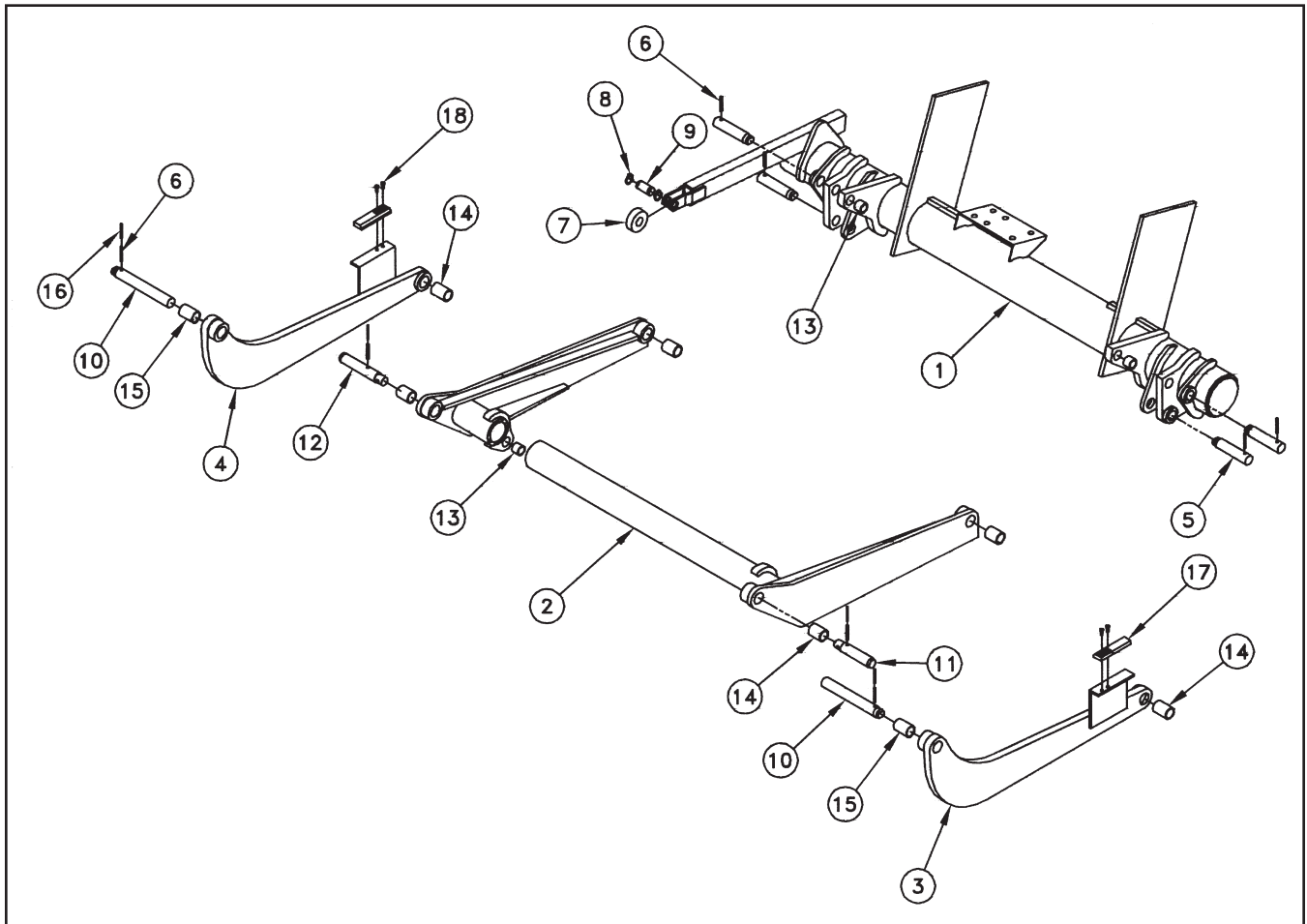
INSPECTION AND LOCATION OF DECALS

Item	Part Name	Part Number
1	Warning Decal	4671050
2	PTO Decal	4650140
2	Fast Idle Decal	4650150
3	No Riding Decal	4609
4	Operating Decal	4606
5	Capacity Decal:4000#	4650130
6	Warning Decal	4604
7	Warning Decal	4650530
8	Caution Decal	4650770
9	Handle Decal	4605
10	Warning Decal-High Pressure	4620
11	Wiring Decal	4614



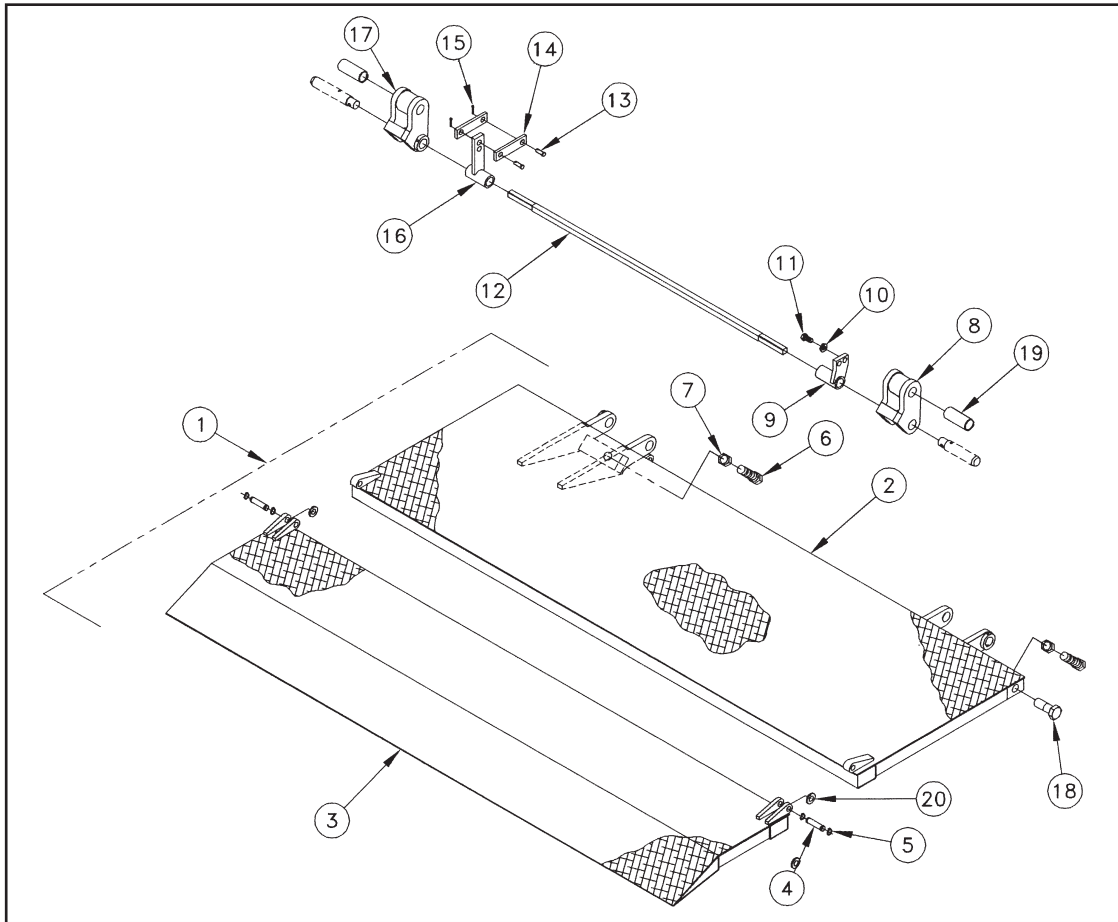
TRUNNION, LIFT ARM, AND IDLER ARM ASSEMBLY

Item	Part Description	Part Number	Qty.
1	Trunnion asm	3166	1
2	Lift arm asm	3175	1
3	Idler arm asm RH	3179-002	1
4	Idler arm asm LH	3179-001	1
5	Pin	5005	4
6	Spring Pin-.25	5708-001	8
7	Roller	5701330	1
8	Retaining ring	5781008	2
9	Pin	5031	1
10	Pin	5004	2
11	Pin	5007	1
12	Pin	5006	1
13	Bushing	5504-001	4
14	Bushing	5504-002	6
15	Bushing	5504-003	2
16	Spring pin	5708-005	4
17	Wear Pad	5702242	2
18	Screw	8449646	4



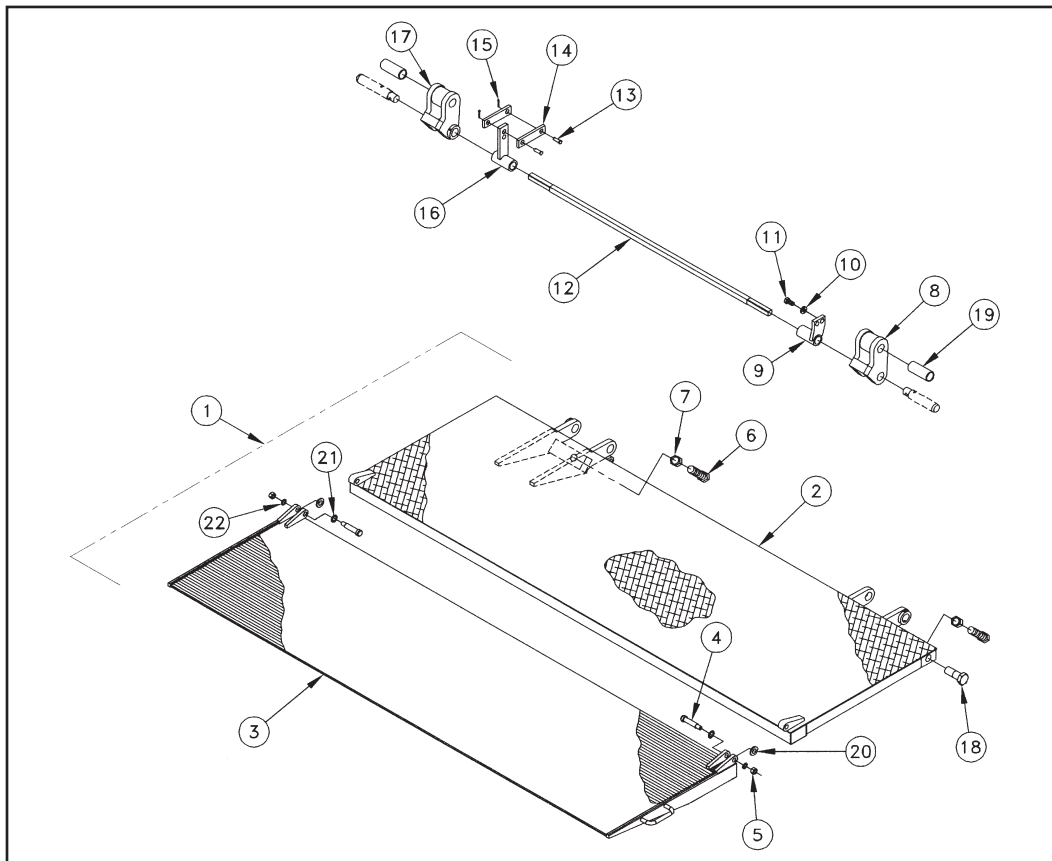
PLATFORM ASSEMBLY - STANDARD 4000#

Item	Part Description	Part Number	Qty.
1	Platform asm 8440+10 Items 2,3,4,5,6,7,18	3413	1
2	Platform main section	31126	1
3	Platform extension	31124-001	1
4	Pin	5001650	2
5	Retaining ring	5781001	4
6	Screw 1.00-8 x 2.25	8271856	2
7	Nut-1.00	8426899	2
8	Hinge weldment RH	3165-002	1
9	Spring lever weldment	31121	1
10	Lockwasher-.50	8120384	1
11	Screw .50-13 x 1.50	8100-014	1
12	Torsion bar	5100-001	1
13	Clevis pin	5794001	2
14	Link	2364	2
15	Cotter pin	8137185	2
16	Spring lever	31120	1
17	Hinge weldment LH	3165-001	1
18	Screw 1.00-8 x 4.00	8114-001	2
19	Bushing	5504-004	2
20	Flatwasher .62	8107-011	2

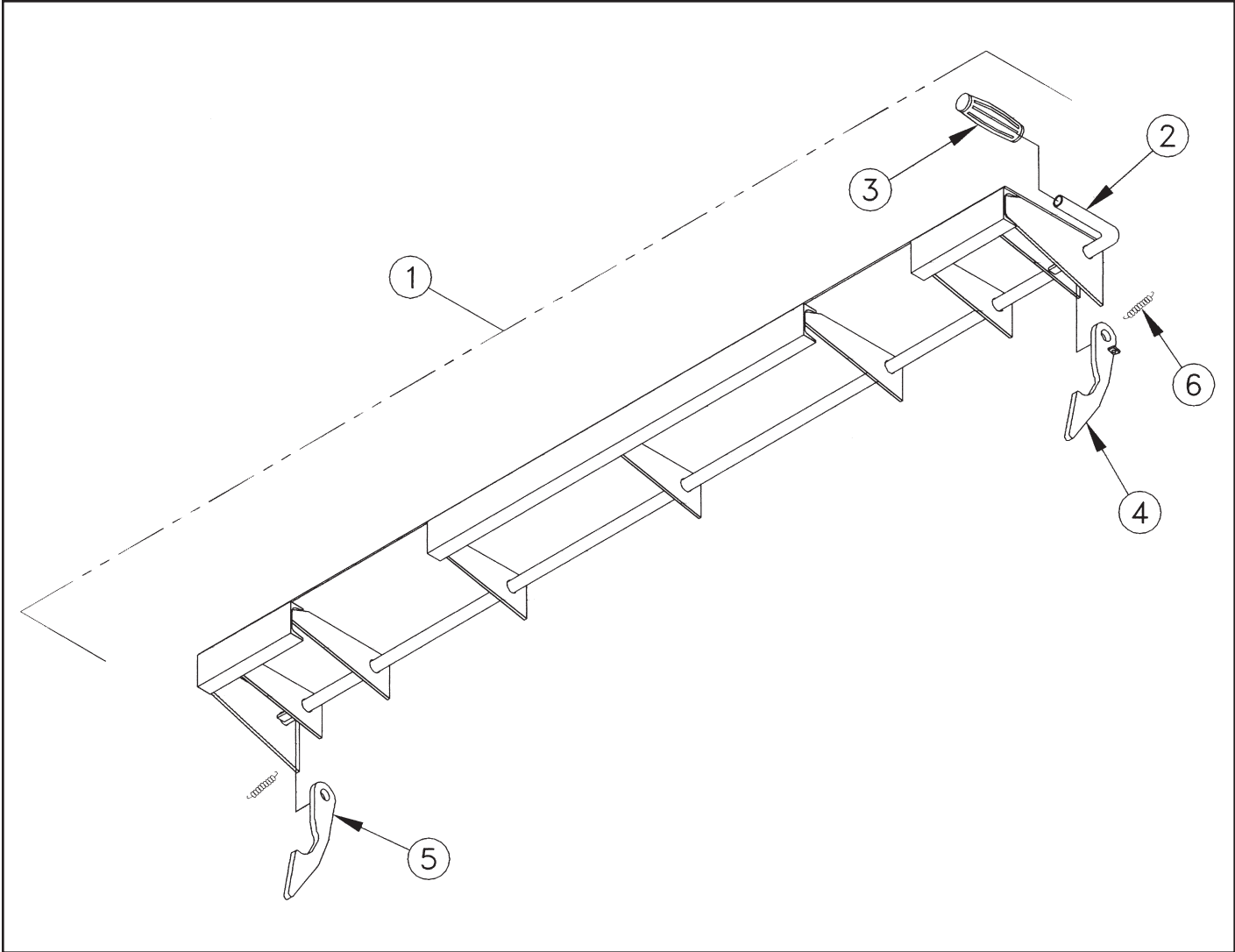


PLATFORM ASSEMBLY - FULL TAPER 3300#

Item	Part Description	Part Number	Qty.
1	Platform asm 8452 Items 2,3,4,5,6,7,18	3414	1
2	Platform main section	31126	1
3	Platform extension	31125	1
4	Shoulder Bolt .62	8118	2
5	Locknut .50	9414074	4
6	Screw 1.00-8 x 2.25	8271856	2
7	Nut-1.00	8426899	2
8	Hinge weldment RH	31039-002	1
9	Spring lever weldment	31121	1
10	Lockwasher-.50	8120384	1
11	Screw .50-13 x 1.50	8100-014	1
12	Torsion bar	5100-001	1
13	Clevis pin	5794001	2
14	Link	2364	2
15	Cotter pin	8137185	2
16	Spring lever	31120	1
17	Hinge weldment LH	31039-001	1
18	Screw 1.00-8 x 4.00	8114-001	2
19	Bushing	5504-004	2
20	Flatwasher .62	8107-011	2
21	Lockwasher .62	8106-009	2
22	Lockwasher .50	8106-008	2



SPACER ASSEMBLY			
Item	Part Description	Part Number	Qty.
1	Spacer Asm. Items 2 to 7	3195	1
2	Control shaft	2404-001	1
3	Handle grip	5701043	1
4	Latch RH	3192-002	1
5	Latch LH	3192-001	1
6	Spring	5101100	2



PUMP ASSEMBLY - TOGGLE AND PUSHBUTTON CONTROL

Item	Part Description	Part Number	Qty.
1	Pump asm Items 2 to 6	4404	1
2	Pump bracket	4421420	1
3	Breather cap	4420409	1
4	Motor heavy duty 8112	4423521	1
5	Solenoid	4447	1
6	Toggle Seal	4301750	1
7	Cover	5765	1
8	Strap	5700100	1
9	.25 swivel elbow	4900000	2
10	Hose 51.00	4965020	3
11	Flow control	4906-004	2
12	.25 male elbow	4900450	2
13	Retaining ring	5781008	8
14	Pin	5009	4
15	Cylinder 3 x 10.38	4200521	2
16	Battery cable 2 GA. x 25'	4300030	1
17	Cable lug	4350	1
18	Cable retainer	5701260	4
19	Bolt .38-16 x 1.50	8180126	5
20	Internal Tooth Lockwasher-.38	8106-010	10
21	Nut-.38	8120377	5
22	Flatwasher-.38	8120388	4
23	Tube	3038	1
24	Toggle switch	4301740	1
25	Hose 63.00	4965021	1
26	Swivel tee	4900080	2
27	Heat shrink	4319-002	1
28	Circuit Breaker-150A	4301770	1
29	Cable asm-2 GA. x 2'	4318-001	1
30	Straight Swivel M-F	4905	2
31	Pushbutton control	4422860	1
32	Cap	31225	1
33	Self Tap Screw .25 x .50	8109-014	2
34	Ground Cable #2 x 2'	4318-002	1
35	Screw .31 x 1	8104-006	1

