



# HAND PALLET TRUCK OPERATORS MANUAL



**2995 CLAY PIKE**

**RILLTON, PA 15678**

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**sales@herwin.biz**

**www.palletsmith.com**





## HAND PALLET TRUCK WARRANTY

**Palletsmith®** by Herwin, Inc. will guarantee this product against material and manufacturing defects provided the pallet truck has been used under normal conditions.

### **STANDARD (3" lowered height)**

### **LOW PROFILE (2" & 1-3/4" lowered height)**

**Palletsmith®** will provide replacement parts for those deemed defective by **Palletsmith®**. The hydraulic pump assembly is covered for 24 months. Chassis and associated components, including handle are covered for 12 months. Wearable parts such as wheels, rollers, bushings, and bearings are covered for 6 months. Warranty begins from date of sale to the ultimate user.

### **HEAVY DUTY, GALVANIZED & STAINLESS STEEL**

All components are covered for 6 months.

Warranty includes parts only and does not cover labor or miscellaneous costs involved in replacement of parts deemed to be defective by **Palletsmith®**.

**Bent, twisted, or misaligned forks are signs of abuse and are not covered under warranty.**

Pallet trucks operating under adverse conditions such as fish, meat, or poultry processing plants, freezer application, or wet environments, including bleach wash downs or salt spray are not covered under warranty. Premature wearing of components because of lack of lubrication is not covered under warranty.

To claim warranty, please call 1-800-868-5438 or email [sales@herwin.biz](mailto:sales@herwin.biz) with model number, serial number, date of purchase and nature of problem.



## SAFETY PROCEDURES

- ✓ Please read and understand the operation and safety manual before operating this pallet truck.
- ✓ Never exceed the rated capacity of this hand pallet truck and always distribute the loads evenly over the width and length of the forks.
- ✓ Never pick up a load with only one fork or try to position the load with only the fork tips.
- ✓ Never put your hands or feet under or between the pallet truck frame assembly. Always wear safety shoes when operating this equipment.
- ✓ Do not allow pallet truck to "shock load" by dropping from one level to another.
- ✓ Make sure length of pallet truck forks match the length of the pallet. It is critical that the rollers drop between the pallet bottom boards.
- ✓ Hand pallet trucks are intended to be operated on hard and flat surfaces.
- ✓ Hand pallet trucks are not to be used by an operator that is not physically capable of safely maneuvering the hand pallet truck with the load.
- ✓ Like any other mechanical equipment, hand pallet trucks should be lubricated and inspected periodically (at least every six months) for loose or missing components. Report an unsafe pallet truck to your supervisor and DO NOT operate unsafe equipment.
- ✓ Medium grade hydraulic oil is recommended except when used below 32 degrees, then use Shell Tellus V32 oil or equivalent.

## TROUBLESHOOTING PROCEDURES

Condition	Cause	Remedy
Pump does not lift load	Air in the hydraulic system	Hold control lever in lowering position and pump handle 6-8 times
Lifting, neutral or lowering not engaging	Adjusting nut out of adjustment	Turn adjusting nut on control rod assembly (Item #6) until truck does not raise or lower in neutral position
Forks raise and lower with each stroke of pump handle	Dirt or debris in pump valving	Shock pump by lifting pallet truck off ground and dropping sharply away from feet. Hold control lever in lowering position and pump handle 6-8 times.
Pump does not lift to complete raised height	Low on oil due to leakage	Add hydraulic oil. Place truck in lowered position, remove plug bolt (Item # 13) Add hydraulic oil to plug bolt level. Reinstall plug bolt
Forks are not lowering completely	Debris in load wheels or linkage is out of adjustment or binding	Remove debris. Inspect linkage and front roller assembly for ease of movement. Adjust pushrod for equal fork movement if necessary. Retighten loose componentry.



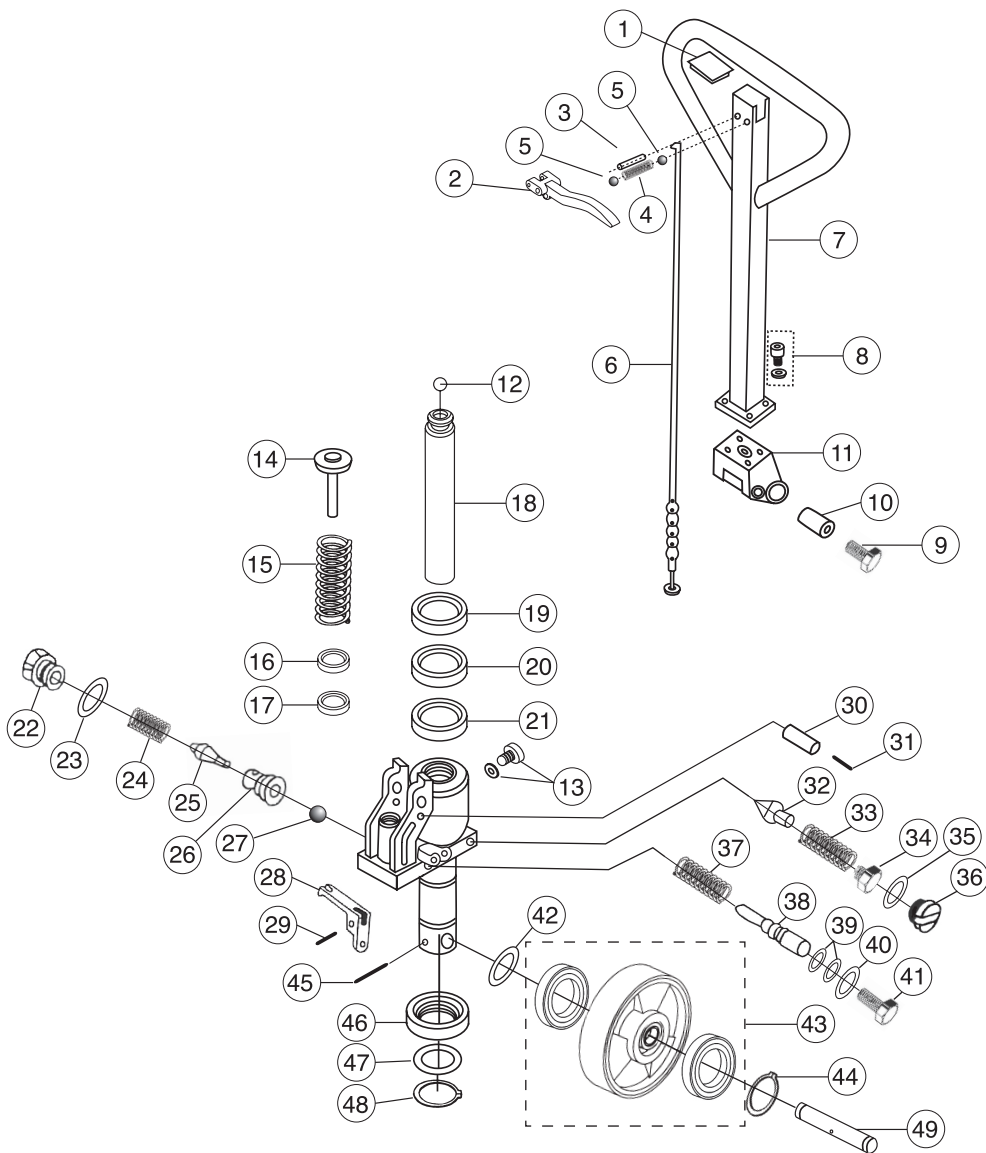
# PS-Series STANDARD 3" LOW. HGT.

## PUMP DIAGRAM

ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Handle Cap	30	Roller
2	Control Lever	31	Split Pin
3	Split Pin	32	Safety Valve Spindle
4	Spring	33	Safety Valve Spring
5	Ball	34	Adjusting Bolt
6	Control Rod Assembly (includes rod, chain, adjustment bolt & adjustment nut)	35	O-Ring
		36	Screw
		37	Spring
		38	Release Pin
7	Complete Handle Assembly	39	O-Ring
		40	O-Ring
8	Handle Bolt (includes washer)	41	Release Pin Nut
		42	Washer
9	Handle Bracket Bolt	43	Steer Wheel with Bearings (available in poly on steel, steel, poly on nylon or white nylon)
10	Handle Bracket Bolt Bushing		
11	H-Bracket		
12	Lift Piston Ball		
13	Plug Bolt (includes washer)	44	Snap Ring
14	Pump Piston	45	Split Pin
15	Handle Return Spring	46	Thrust Bearing
16	Pump Piston Seal	47	Thrust Bearing Washer
17	Pump Piston Wiper Ring	48	Thrust Bearing Retaining Ring
18	Main Lift Piston	49	Steer Wheel Axle
19	Top Seal (Wiper Ring)	50	New Style Pump Assembly (handle not included)
20	Upper Seal (Energized Seal)	51	Seal Kit (includes #16, #17, #19, #20, #21)
21	Main Seal	52	New Style Valve Kit (includes #22, #23, #24, #25, #26, #27, #37, #38, #39, #40, #41)
22	Screw		
23	Seal Washer		
24	Spring		
25	Valve Spindle	53	New Style Safety Valve Kit (includes #32, #33, #34, #35, #36)
26	Cone Valve		
27	Ball		
28	Release Lever		
29	Split Pin		

# PS-Series Pump Diagram

## STANDARD 3" LOW. HGT.



⑤① New Pump Assembly  
(Handle Not Included)

⑤② Seal Kit

⑤③ Valve Kit

⑤④ Safety Valve Kit



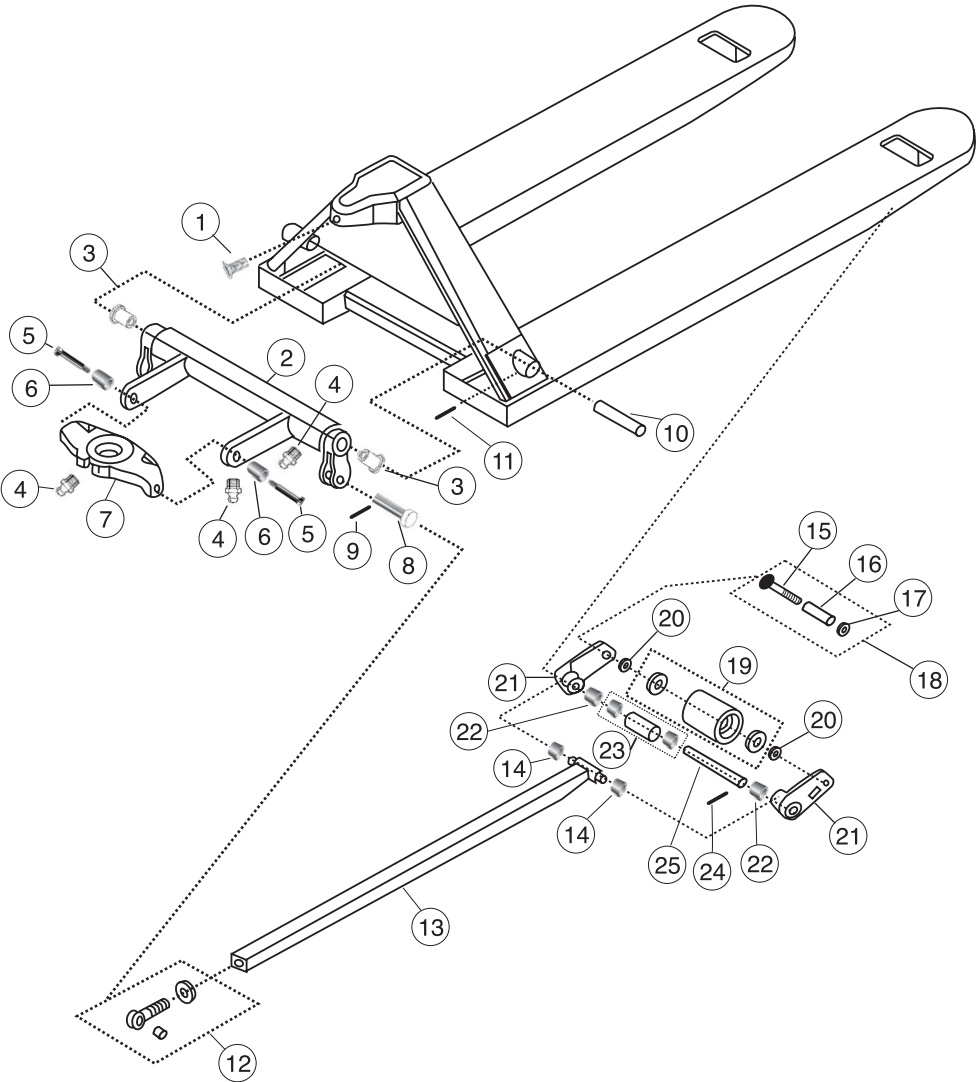
# PS-Series STANDARD 3" LOW. HGT.

## FRAME DIAGRAM

ITEM NO.	DESCRIPTION
1	Screw
2	Torsion Bar with Bushings
3	Torsion Bar Bushing
4	Grease Fitting
5	Thrust Plate Shoulder Bolt
6	Thrust Plate Shoulder Bolt Bushing
7	Thrust Plate
8	Eye Bolt Pin
9	Split Pin
10	Bulkhead Pin
11	Split Pin
12	Eye bolt and nut
13	Pushrod
14	Bushing
15	Axle Bolt
16	Axle Sleeve
17	Axle Nut
18	Load Roller Axle (includes bolt, sleeve & nut)
19	Load Roller with Bearings (available in poly on steel, steel, poly on nylon or white nylon)
20	Washer
21	Lever Arm Assembly with bushings
22	Bushing
23	Exit Roller with Bushings
24	Split Pin
25	Fork Pin

# PS-Series Frame Diagram

## STANDARD 3" LOW. HGT.





# PSM-Series

## LOW PROFILE 2" LOW. HGT.

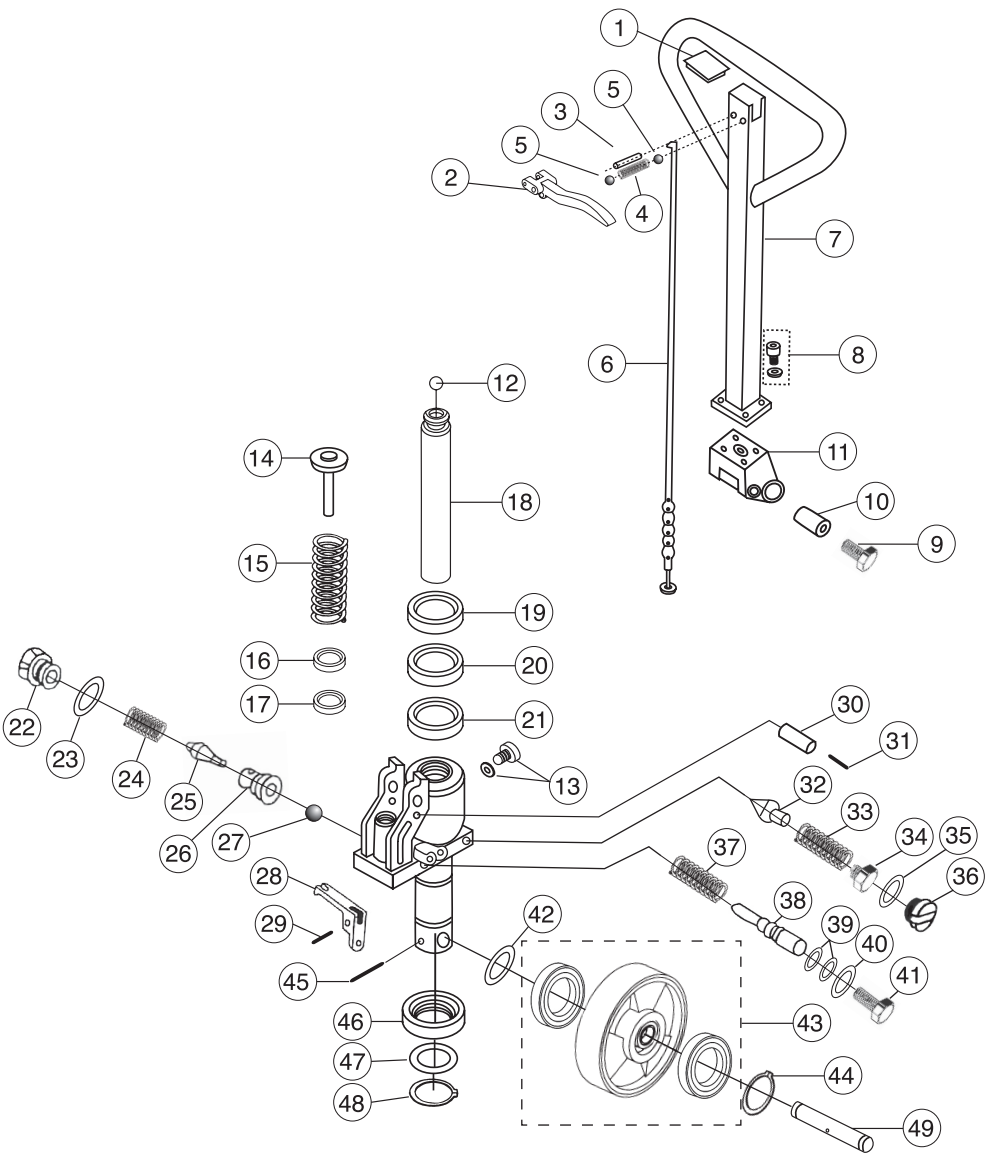
### PUMP DIAGRAM

ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Handle Cap	30	Roller
2	Control Lever	31	Split Pin
3	Split Pin	32	Safety Valve Spindle
4	Spring	33	Safety Valve Spring
5	Ball	34	Adjusting Bolt
6	Control Rod Assembly (includes rod, chain, adjustment bolt & adjustment nut)	35	O-Ring
		36	Screw
		37	Spring
		38	Release Pin
7	Complete Handle Assembly	39	O-Ring
		40	O-Ring
8	Handle Bolt (includes washer)	41	Release Pin Nut
		42	Washer
9	Handle Bracket Bolt	43	Steer Wheel with Bearings (available in poly on steel, steel, poly on nylon or white nylon)
10	Handle Bracket Bolt Bushing		
11	H-Bracket		
12	Lift Piston Ball		
13	Plug Bolt (includes washer)	44	Snap Ring
14	Pump Piston	45	Split Pin
15	Handle Return Spring	46	Thrust Bearing
16	Pump Piston Seal	47	Thrust Bearing Washer
17	Pump Piston Wiper Ring	48	Thrust Bearing Retaining Ring
18	Main Lift Piston	49	Steer Wheel Axle
19	Top Seal (Wiper Ring)	50	New Style Pump Assembly (handle not included)
20	Upper Seal (Energized Seal)	51	Seal Kit (includes #16, #17, #19, #20, #21)
21	Main Seal	52	New Style Valve Kit (includes #22, #23, #24, #25, #26, #27, #37, #38, #39, #40, #41)
22	Screw		
23	Seal Washer		
24	Spring		
25	Valve Spindle	53	New Style Safety Valve Kit (includes #32, #33, #34, #35, #36)
26	Cone Valve		
27	Ball		
28	Release Lever		
29	Split Pin		



# PSM-Series Pump Diagram

## LOW PROFILE 2" LOW. HGT.



- |   |                     |
|---|---------------------|
| 50 New Pump Assembly<br>(Handle Not Included) | 52 Valve Kit        |
| 51 Seal Kit                                   | 53 Safety Valve Kit |



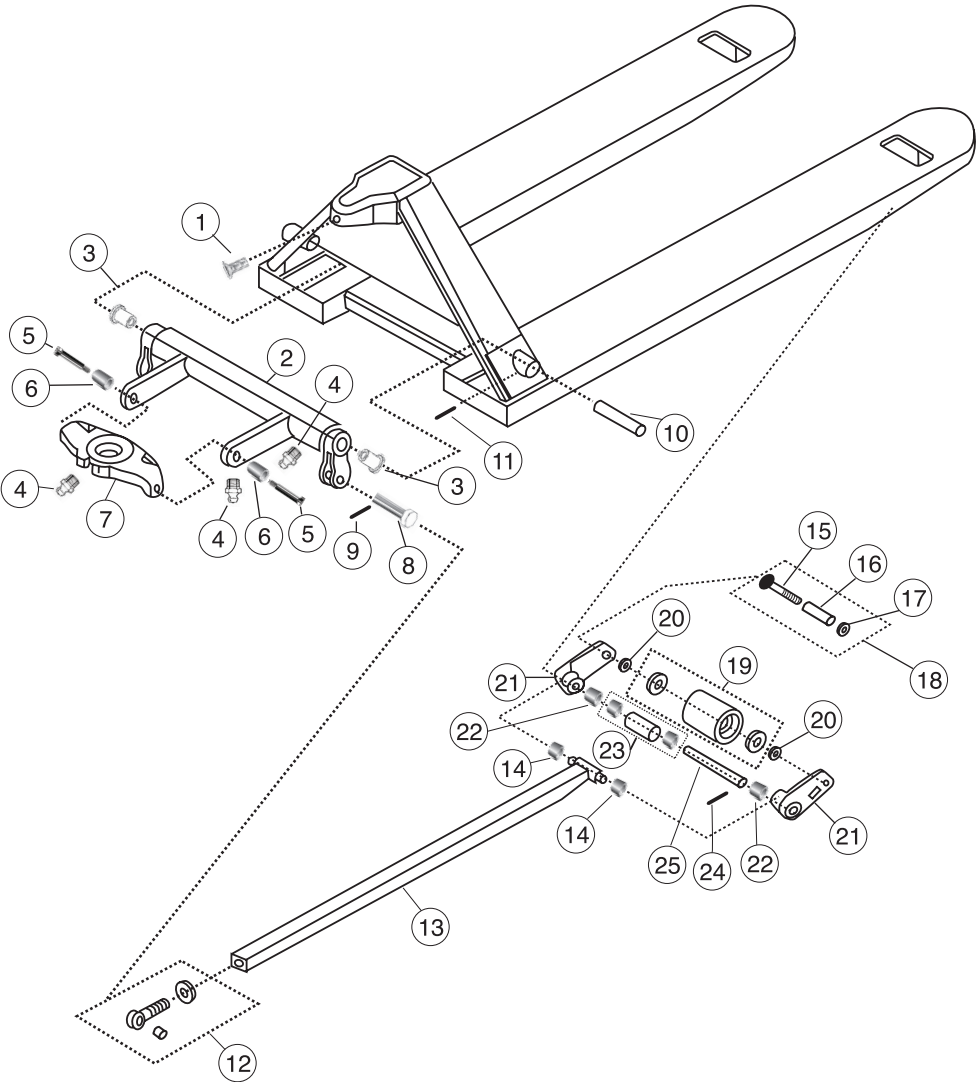
# PSM-Series LOW PROFILE 2" LOW. HGT.

## FRAME DIAGRAM

ITEM NO.	DESCRIPTION
1	Screw
2	Low Profile Torsion Bar with Bushings
3	Torsion Bar Bushing
4	Grease Fitting
5	Thrust Plate Shoulder Pin
6	Thrust Plate Shoulder Bolt Bushing
7	Low Profile Thrust Plate
8	Eye Bolt Pin
9	Split Pin
10	Bulkhead Pin
11	Split Pin
12	Eye bolt and nut
13	Pushrod
14	Bushing
15	Axle Bolt
16	Axle Sleeve
17	Axle Nut
18	Load Roller Axle (includes bolt, sleeve & nut)
19	Load Roller with Bearings (available in steel or poly on steel)
20	Washer
21	Low Profile Lever Arm Assembly with bushings
22	Bushing
23	Exit Roller
24	Split Pin
25	Fork Pin

# PSM-Series Frame Diagram

## LOW PROFILE 2" LOW. HGT.





# PSU-Series

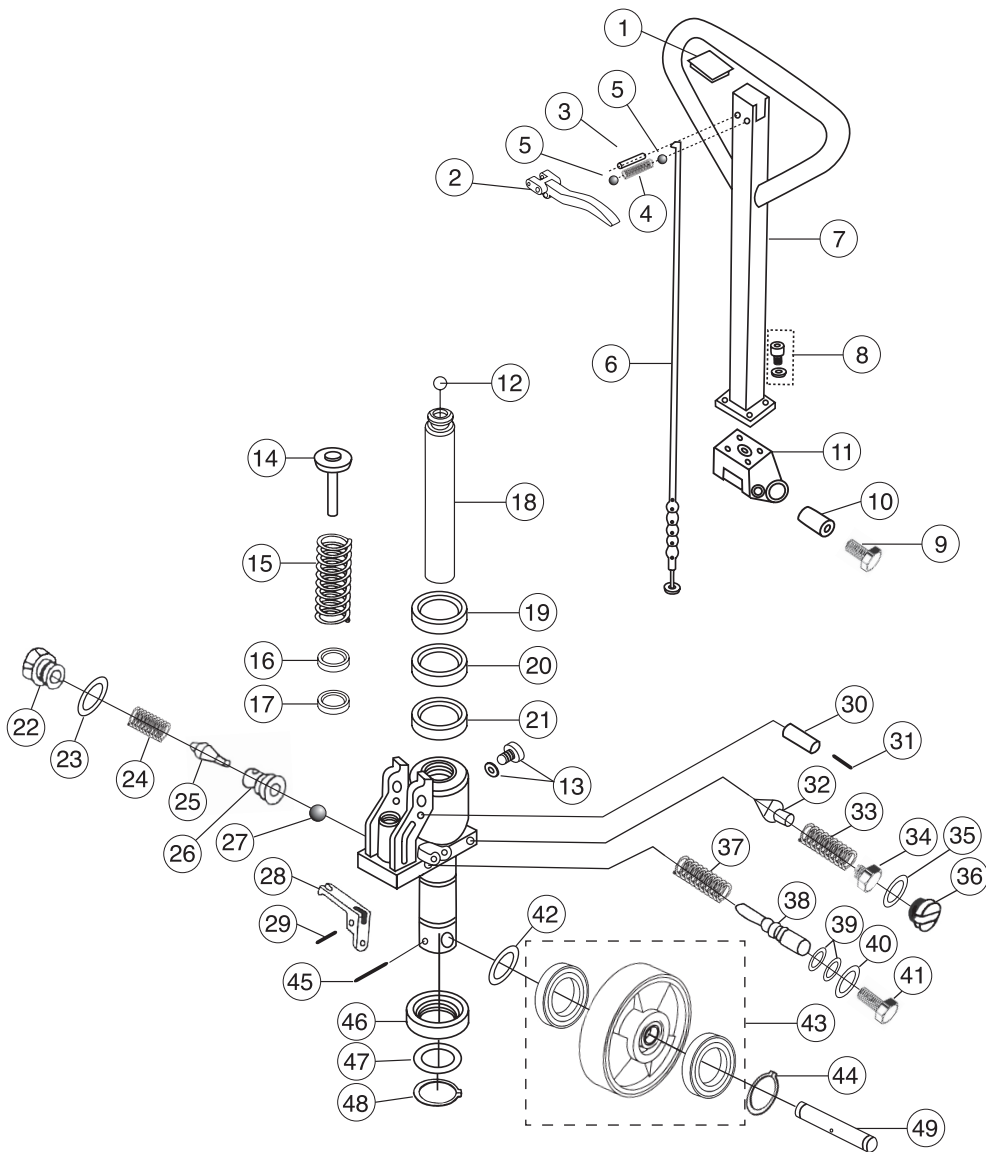
## ULTRA LOW 1-3/4" LOW. HGT.

### PUMP DIAGRAM

ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Handle Cap	30	Roller
2	Control Lever	31	Split Pin
3	Split Pin	32	Safety Valve Spindle
4	Spring	33	Safety Valve Spring
5	Ball	34	Adjusting Bolt
6	Control Rod Assembly (includes rod, chain, adjustment bolt & adjustment nut)	35	O-Ring
		36	Screw
		37	Spring
		38	Release Pin
7	Complete Handle Assembly	39	O-Ring
		40	O-Ring
8	Handle Bolt (includes washer)	41	Release Pin Nut
		42	Washer
9	Handle Bracket Bolt	43	Steer Wheel with Bearings (available in poly on steel, steel, poly on nylon or white nylon)
10	Handle Bracket Bolt Bushing		
11	H-Bracket		
12	Lift Piston Ball	44	Snap Ring
13	Plug Bolt (includes washer)	45	Split Pin
		46	Thrust Bearing
14	Pump Piston	47	Thrust Bearing Washer
15	Handle Return Spring	48	Thrust Bearing Retaining Ring
16	Pump Piston Seal		
17	Pump Piston Wiper Ring	49	Steer Wheel Axle
18	Main Lift Piston	50	New Style Pump Assembly (handle not included)
19	Top Seal (Wiper Ring)		
20	Upper Seal (Energized Seal)	51	Seal Kit (includes #16, #17, #19, #20, #21)
21	Main Seal	52	New Style Valve Kit (includes #22, #23, #24, #25, #26, #27, #37, #38, #39, #40, #41)
22	Screw		
23	Seal Washer		
24	Spring		
25	Valve Spindle	53	New Style Safety Valve Kit (includes #32, #33, #34, #35, #36)
26	Cone Valve		
27	Ball		
28	Release Lever		
29	Split Pin		

# PSU-Series Pump Diagram

## ULTRA LOW 1-3/4" LOW. HGT.



⑤0 New Pump Assembly  
(Handle Not Included)

⑤1 Seal Kit

⑤2 Valve Kit

⑤3 Safety Valve Kit



# PSU-Series

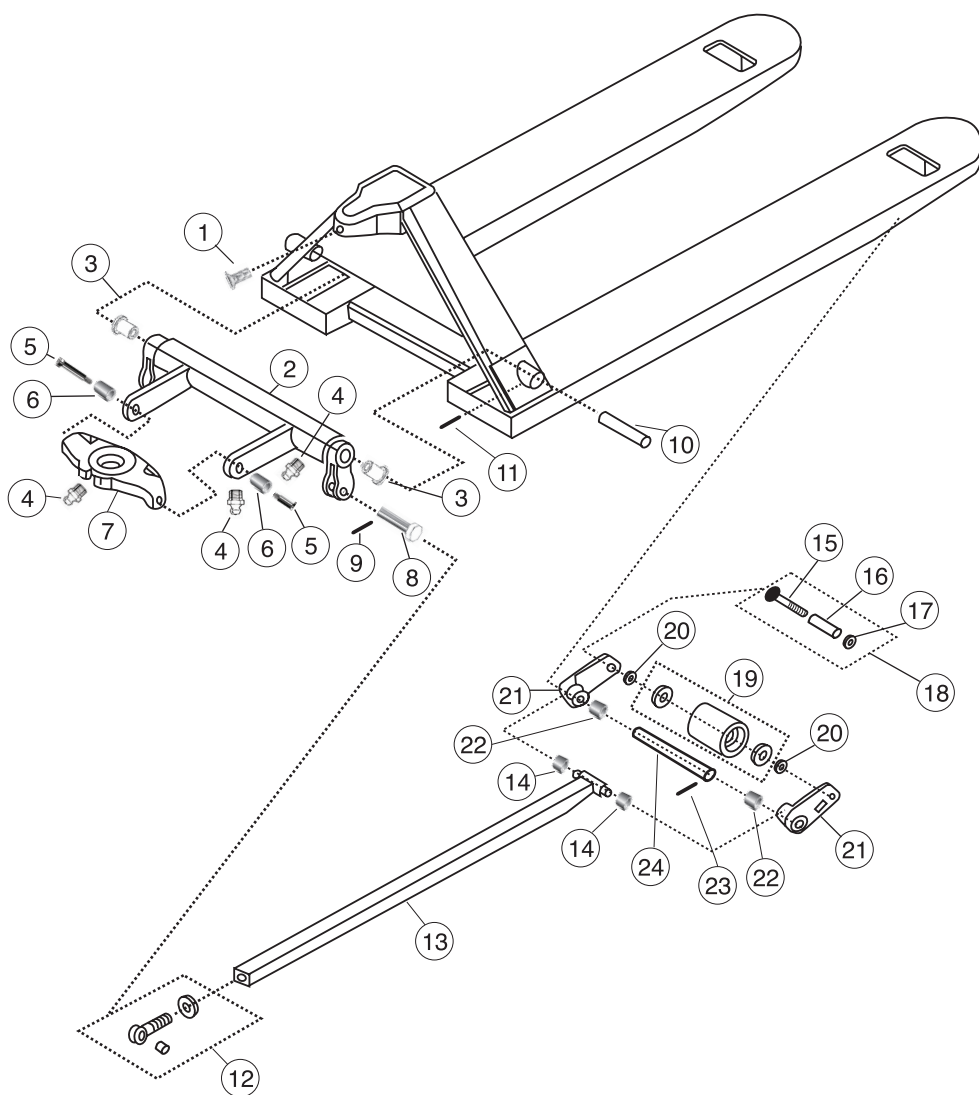
## ULTRA LOW 1-3/4" LOW. HGT.

### FRAME DIAGRAM

ITEM NO.	DESCRIPTION
1	Screw
2	Ultra Low Torsion Bar with Bushings
3	Torsion Bar Bushing
4	Grease Fitting
5	Thrust Plate Shoulder Pin
6	Thrust Plate Shoulder Bolt Bushing
7	Ultra Low Thrust Plate
8	Eye Bolt Pin
9	Split Pin
10	Bulkhead Pin
11	Split Pin
12	Eye bolt and nut
13	Pushrod
14	Bushing
15	Axle Bolt
16	Axle Sleeve
17	Axle Nut
18	Load Roller Axle (includes bolt, sleeve & nut)
19	Steel Roller with Bearings
20	Washer
21	Ultra Low Lever Arm Assembly with bushings
22	Bushing
23	Split Pin
24	Fork Pin

# PSU-Series Frame Diagram

## ULTRA LOW 1-3/4" LOW. HGT.





# PSH Series HEAVY DUTY 3-1/4" LOW HGT.

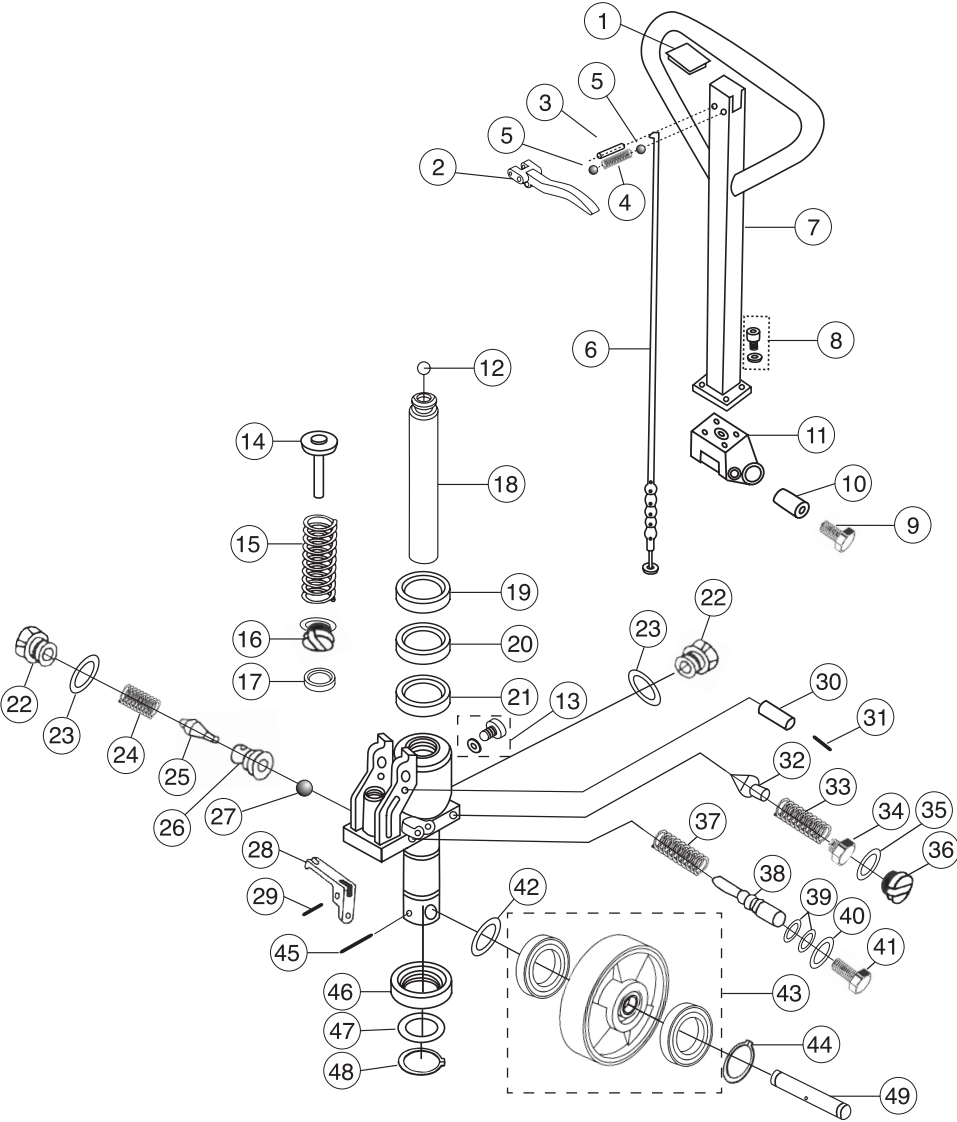
## PUMP DIAGRAM

ITEM NO.	DESCRIPTION	ITEM NO.	DESCRIPTION
1	Handle Cap	30	Roller
2	Control Lever	31	Split Pin
3	Split Pin	32	Safety Valve Spindle
4	Spring	33	Safety Valve Spring
5	Ball	34	Adjusting Bolt
6	Control Rod Assembly (includes rod, chain, adjustment bolt & adjustment nut)	35	O-Ring
		36	Screw
		37	Spring
		38	Release Pin
7	Complete Handle Assembly	39	O-Ring
		40	O-Ring
8	Handle Bolt (includes washer)	41	Release Pin Nut
		42	Washer
9	Handle Bracket Bolt	43	Steel Steer Wheel with Bearings
10	Handle Bracket Bolt Bushing		
11	H-Bracket	44	Snap Ring
12	Lift Piston Ball	45	Split Pin
13	Plug Bolt (includes washer)	46	Thrust Bearing
14	Pump Piston	47	Thrust Bearing Washer
		48	Thrust Bearing Retaining Ring
15	Handle Return Spring	49	Steer Wheel Axle
16	Piston Nut w/ O-Ring	50	New Style Heavy Duty Pump Assembly (handle not included)
17	Seal		
18	Main Lift Piston		
19	Top Seal (Wiper Ring)		
20	Upper Seal (Energized Seal)	51	Heavy Duty Seal Kit (includes #17, #19, #20, #21)
21	Main Seal		
22	Screw		
23	Seal Washer		
24	Spring	52	New Style Heavy Duty Valve Kit (includes #22, #23, #24, #25, #26, #27, #37, #38, #39, #40, #41)
25	Valve Spindle		
26	Cone Valve		
27	Ball		
28	Release Lever		
29	Split Pin		
		53	New Style Heavy Duty Safety Valve Kit (includes #32, #33, #34, #35, #36)



# PSH-Series Pump Diagram

## HEAVY DUTY 3-1/4" LOW. HGT.



- |  |  |
|--|--|
| <p>50 Heavy Duty Pump Assembly (Handle Not Included)</p> <p>51 Heavy Duty Seal Kit</p> | <p>52 Heavy Duty Valve Kit</p> <p>53 Heavy Duty Safety Valve Kit</p> |
|--|--|



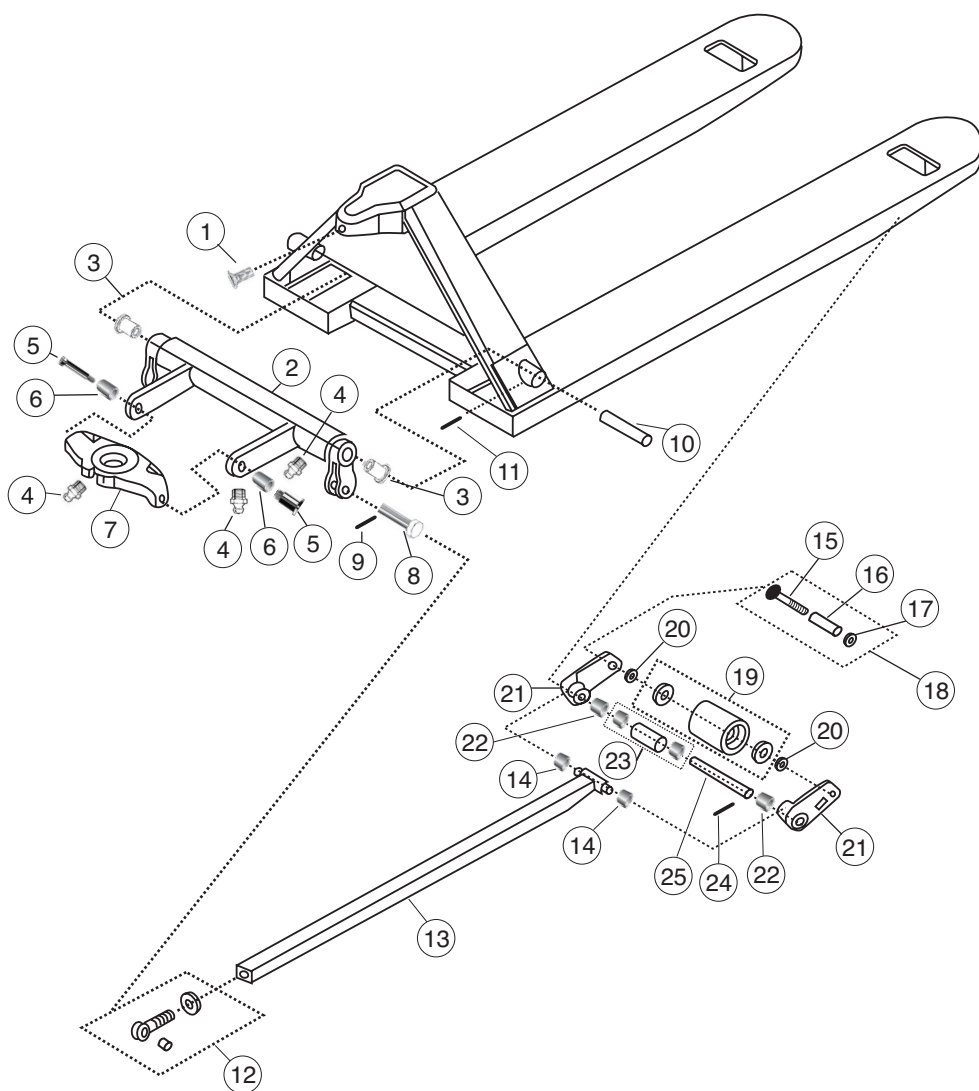
# PSH-Series HEAVY DUTY 3-1/4" LOW HGT.

## FRAME DIAGRAM

ITEM NO.	DESCRIPTION
1	Screw
2	Heavy Duty Torsion Bar with Bushings
3	Torsion Bar Bushing
4	Grease Fitting
5	Thrust Plate Shoulder Bolt
6	Thrust Plate Shoulder Bolt Bushing
7	Thrust Plate
8	Eye Bolt Pin
9	Split Pin
10	Bulkhead Pin
11	Split Pin
12	Eye bolt and nut
13	Heavy Duty Pushrod
14	Bushing
15	Axle Bolt
16	Axle Sleeve
17	Axle Nut
18	Load Roller Axle (includes bolt, sleeve & nut)
19	Steel Roller with Bearings
20	Washer
21	Heavy Duty Lever Arm Assembly with bushings
22	Bushing
23	Exit Roller with Bushings
24	Split Pin
25	Fork Pin

# PSH-Series Frame Diagram

## HEAVY DUTY 3-1/4" LOW. HGT.



# **palletsmith®**



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