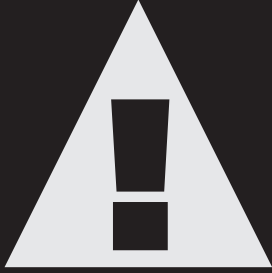


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**SPECIFICATIONS**

Rated Capacity	2,000 LBS
Stroke 1st Stage	19"
Stroke 2nd Stage	20"
Low Height	37"
High Height	76"
Front Tilt	28°
Rear Tilt	49°
Base Width	28x32"
Operation	Manual Hydraulic
Weight	174 LBS



### **WARNING:**

Read all instructions and safety warnings before operating this equipment. Failure to follow the instructions and safety warnings may result in personal injury or property damage.

### **WARNING**

The use of portable automotive lifting devices is subject to certain hazards that cannot be prevented by mechanical means, but only by the use of care and common sense. It is essential to have qualified personnel involved in the use and operation of this lifting equipment that have been trained and qualified in its safe operation and proper use. Examples of hazards are dropping, tipping, or slipping of loads caused primarily by improperly securing loads, overloading, off-centered loads, use on poor surfaces, and/or using the equipment for a purpose for which it was not designed.

It is the responsibility of the owner and operator to study and understand this product and follow the safety instructions prior to operating this equipment. If the operator is not fluent in English the product and safety instructions shall be read and discussed in the operator's native language by the purchaser, owner, or his designee.

A copy of these instruction/warnings should be kept intact and located in a convenient location for future reference. If the manual is lost or not readable contact American Forge & Foundry for a digital copy.

### **Methods to Avoid Hazardous Situations**

- Read, understand, and follow all instructions before operating this device.
- Do not use jack beyond its rated capacity of 2,000 lbs.
- Do not use as a vehicle lifting device or as a vehicle support.
- Do not modify this product for any other purpose than that for which it was designed.
- Do not use any adapters unless approved or supplied by SureWerx USA.
- Wear eye protection that meets ANSI Z87.1.
- Inspect the jack before each use. Do not use if damaged, altered, modified, in poor condition, leaking hydraulic fluid, or unstable due to loose or missing components. Make corrections before using.
- Support the engine with a stand before unbolting the transmission from the engine.
- Consult the vehicle manufacturer for the transmission center of balance. Center load on saddle.
- Do not use a power tool to adjust the saddle tilt screws. Operate by hand or with a wrench.
- Use only on a hard level surface.
- Use of the product is limited to the removal, installation, and transportation in the lowered position of transmissions, transfer cases, and transaxles.
- If any part of the equipment needs repaired or replaced please contact an AFF authorized repair center.
- Failure to heed these warnings may result in serious or fatal personal injury and/or property damage.

## ASSEMBLY

1. Refer to the parts diagrams and parts listing in the manual for identification, location, and position of parts.
2. Take out all parts from the box and lay on a flat surface.
3. Secure caster with foot brake (53) and regular caster (6) onto the leg base (48) by using nut (50,) lock washer (51,) and washer (52.) Secure the other 2 casters on the opposite leg base using the same hardware.
4. Place the hydraulic pump (36) in an upright position. Secure the legs (48) to the pump by using washer (54,) lock washer (55,) and bolt (56.)
5. Attach the adjusted support rod (24) to support ring (19) by using bolt (21,) lock washer (22,) and nut (23) and make the upper end of support ring (19) close to the lower end of nut (25.) (see Figure 1.)
6. Adjust the length of round nut base (17) and bolt (26) to make the hole of bolt (26) align to the hole of the leg (see Figure 2.)
7. Fix the adjusted support rod (24) to the leg (48) by using lock washer (22,) nut (23,) and bolt (49) and tighten the round nut base (17.) Finally tighten bolt (20) to oil tank (27) cross support ring (19.)
8. To assemble the saddle (57) first loosen and remove bolt (S19) and place saddle on the second piston rod (7.) Tighten bolt (S19) to secure.

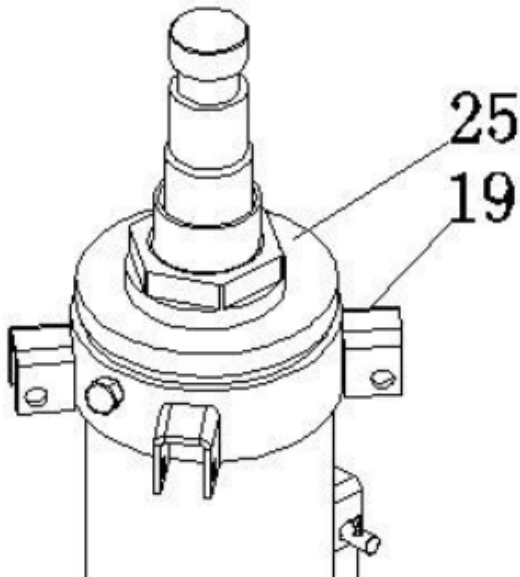


Figure 1

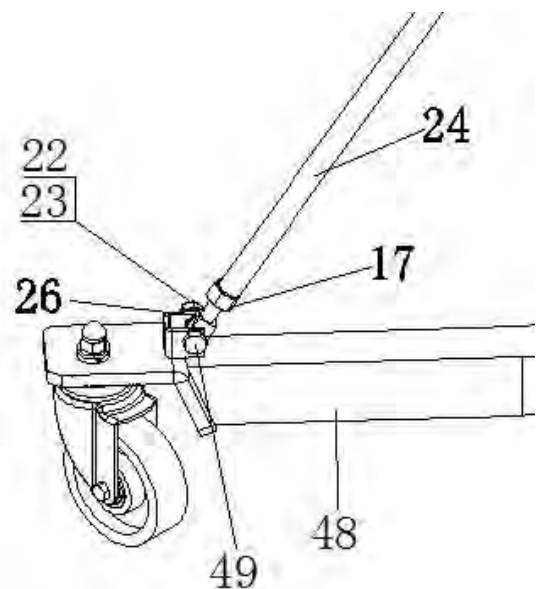
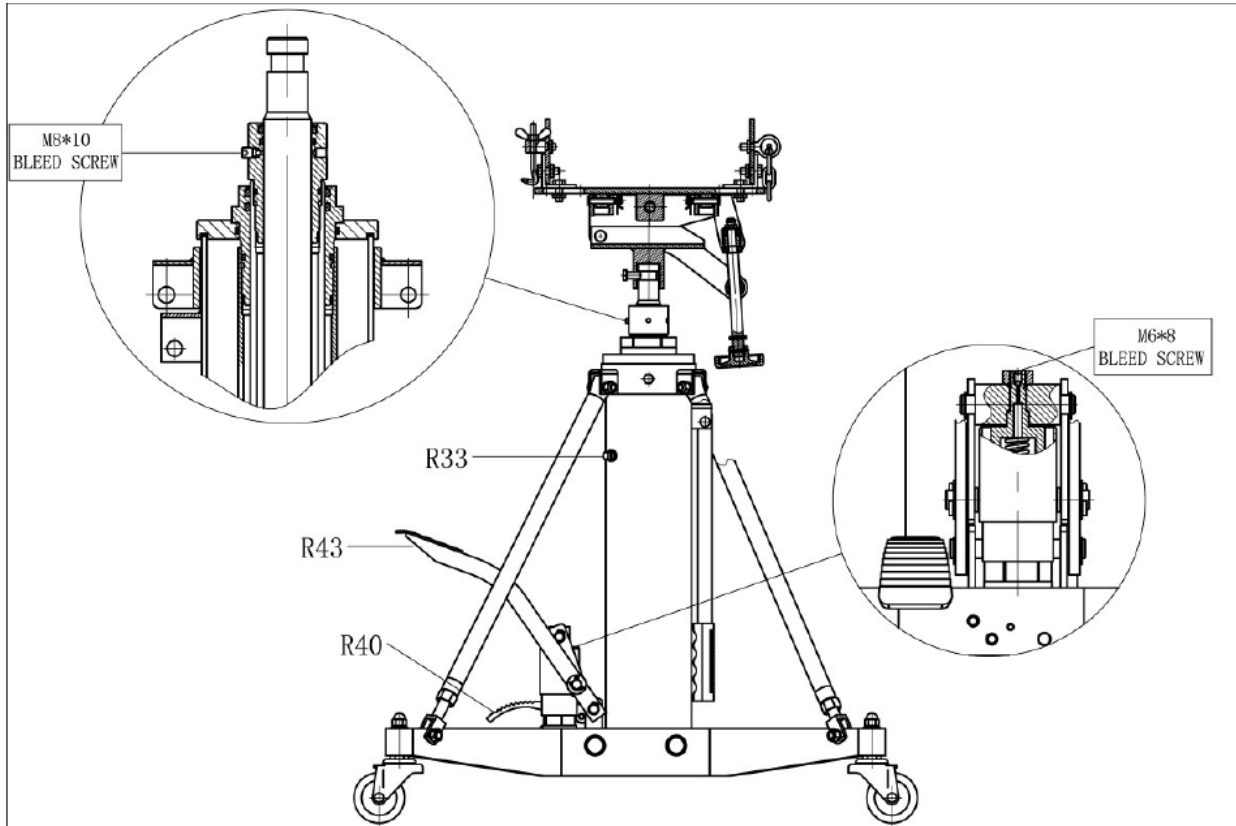


Figure 2

## Air Purging Instructions



If the jack does not raise the load or raises very slowly after activating the pump pedal (R43) there may be air trapped in the primary ram and/or pump core.

1. Loosen screw (R33.)
2. Press the release pedal (R40) when the 2 pistons (1st stage and 2nd stage) are in the lowest position.
3. Use a 3mm wrench to loosen the M6x8 bleed screw a half turn in the counterclockwise direction. Do not remove screw.
4. Operate the pump pedal (R43) very slowly until hydraulic oil without bubbles is escaping from the hole of the bleeder screw (usually 2 to 3 pumps are sufficient.)
5. Continue to hold pressure on the pump pedal (R43) and simultaneously tighten the bleed screw.
6. Release Pedal (R40) and operate Pedal (R42) to check condition. Repeat the above steps if condition has not improved.

Please follow these instructions to eliminate air in the ram if the unit is not descending properly:

1. Loosen screw (R33.)
2. Operate Pump Pedal (R43) to extend rams to its highest position.
3. Use a 4mm wrench to loosen M8x10 bleed screw but do not remove.
4. Operate the Pump Pedal (R43) 2 or 3 times until there is hydraulic oil (without bubbles) escaping from the hole of the bleed screw.
5. Continue to hold pressure on the pump while tightening bleed screw.
6. Press Release Pedal (R40) to retract the rams. Repeat above steps if condition persists.



## **OPERATING INSTRUCTIONS**

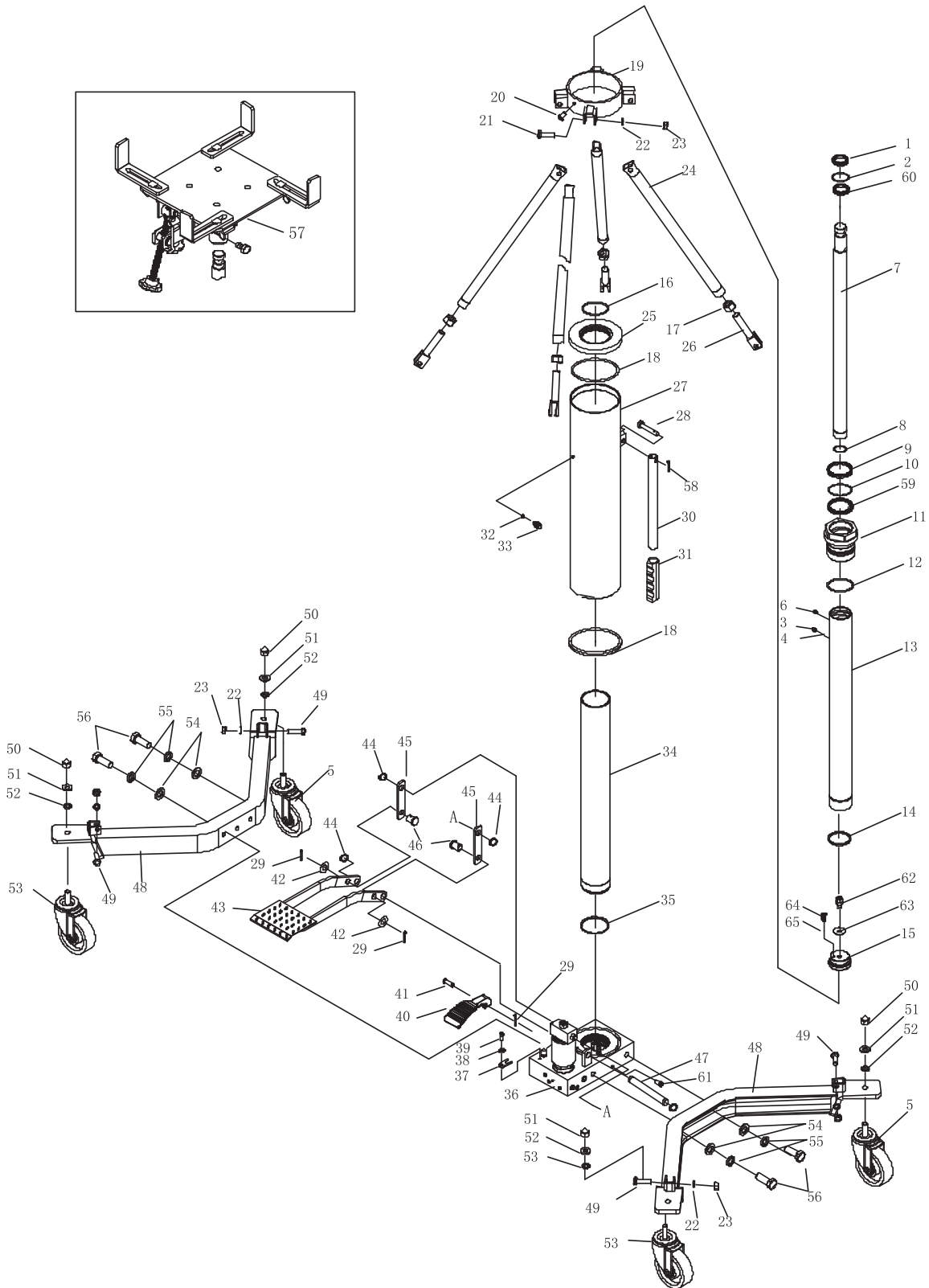
1. Lift the vehicle to the desired work height and support the vehicle in accordance with the lift manufacturer's recommended support procedure and all the instructions and warnings in this manual.
2. Use an under hoist stand rated greater than the weight of the engine to support the engine before unbolting the transmission from the engine or bolting the transmission to the engine.
3. Position the transmission jack directly under the transmission. The transmission jack's saddle can be raised to a desired height by pumping the foot pedal (R43.)
4. Pump the jack's saddle to a height very close to the center of balance of the transmission but do not come in contact with the transmission. The saddle has 4 arms that are in an "L" shape. The arms can be used on the short or long portions of the "L." Loosen the bolts to telescope the arms out as far as needed to cradle the transmission. Once adjusted tighten the bolts using the wing nuts provided. Using the foot pump pedal slowly pump the pedal until the saddle supports the transmission. Sometimes it is necessary to turn the fore and aft adjustment handle and/or the side to side adjustment handle so the saddle is in proper alignment with the transmission.
5. Make sure the safety chain is very tight when securing the transmission to the saddle and before removing the under hoist stand that has been supporting the engine.
6. **IMPORTANT:** There are two methods for lowering the jack's saddle. The foot release should only be depressed to lower the saddle quickly without any weight on the saddle. Fine and slow control of lowering the load should be done with turning the release valve handle in a counterclockwise rotation. The more the handle is rotated in a counterclockwise rotation the faster the loaded saddle will descend.
7. Once the transmission has been removed from the engine very slowly turn the release handle in a counterclockwise rotation.
8. When installing a transmission follow the above instructions but in the applicable order and according to the manufacturer's installation procedures.

## **PREVENTATIVE MAINTENANCE**

1. When not in use store the jack in a dry location with the saddle in the lowest position.
2. Always store the jack in a well protected area where it will not be exposed to inclement weather, corrosive vapors, or any other harmful elements. The jack must be cleaned of water, snow, sand, grit, oil, grease, or other foreign matter before using.
3. Lubricate moving parts excluding the telescopic rams monthly with a general purpose grease.
4. To keep the labels clean and readable use a mild soap solution.
5. To ensure best performance and longer equipment life it is recommended to replace the hydraulic oil once per year. With jack in the lowest position remove the air vent screw (R33) and lay the jack on its side. Drain the oil into a suitable container making sure no dirt or debris gets into the system. Set the jack in its upright position and fill with approved hydraulic jack oil. Replace the air vent screw (R33) and purge away air from hydraulic system as described in the ASSEMBLY section.
6. Do not attempt to make any hydraulic repairs unless you are a qualified hydraulic repair technician that is familiar with this equipment. Repairs must be done by an authorized repair center.
7. **IMPORTANT:** To prevent seal damage and jack failure never use alcohol, hydraulic brake fluid, or transmission oil in the jack. Use hydraulic oil only.



# JACK DIAGRAM



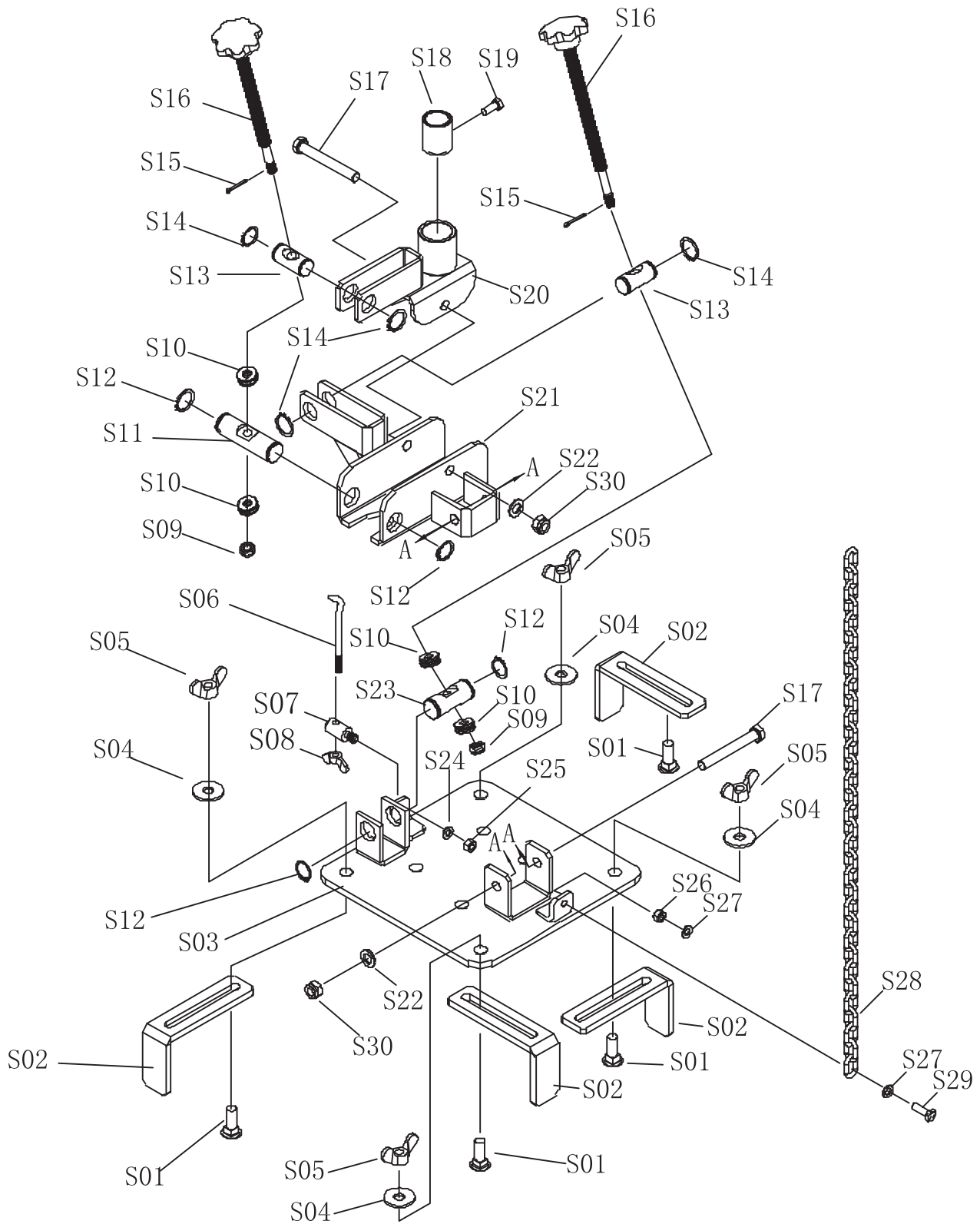


## JACK PARTS LIST

Part No.	Description	Qty	Part No.	Description	Qty
1	Dust ring	1	34	Ram	1
2	O-ring	1	35	Washer	1
3	Screw	1	36	Pump	1
4	Steel Ball	1	37	U-limited	1
5	Castor	2	38	Lock washer	1
6	Oil cup	1	39	Screw	1
7	Second piston rod	1	40	Release pedal	1
8	Retainer ring	1	41	Pin	1
9	Dust ring	1	42	Washer	2
10	O-ring	1	43	Foot pedal	1
11	Round nut	1	44	Retainer ring	4
12	O-ring	1	45	Connect rod	2
13	First piston rod	1	46	Pin	2
14	Limited ring	1	47	Pin	1
15	Plunger	1	48	Legs	2
16	O-ring	1	49	Bolt	4
17	Round nut base	1	50	Nut	4
18	Waher	2	51	Lock washer	4
19	Support ring	1	52	Washer	4
20	Bolt	1	53	Caster with Brake	2
21	Bolt	4	54	Washer	4
22	Lock washer	8	55	Lock washer	4
23	Nut	8	56	Bolt	4
24	Adjusted support rod	4	57	Saddle	1
25	Nut	4	58	Cotter pin	1
26	Bolt	4	59	U-ring	1
27	Oil tank	1	60	U-ring	1
28	Pin	1	61	Screw	2
29	Cotter pin	3	62	First Limited Valve	1
30	Handle	1	63	Pump	1
31	Handle cover	1	64	Steel Ball	1
32	Seal ring	1	65	Spring	1
33	Screw	1			



## SADDLE DIAGRAM





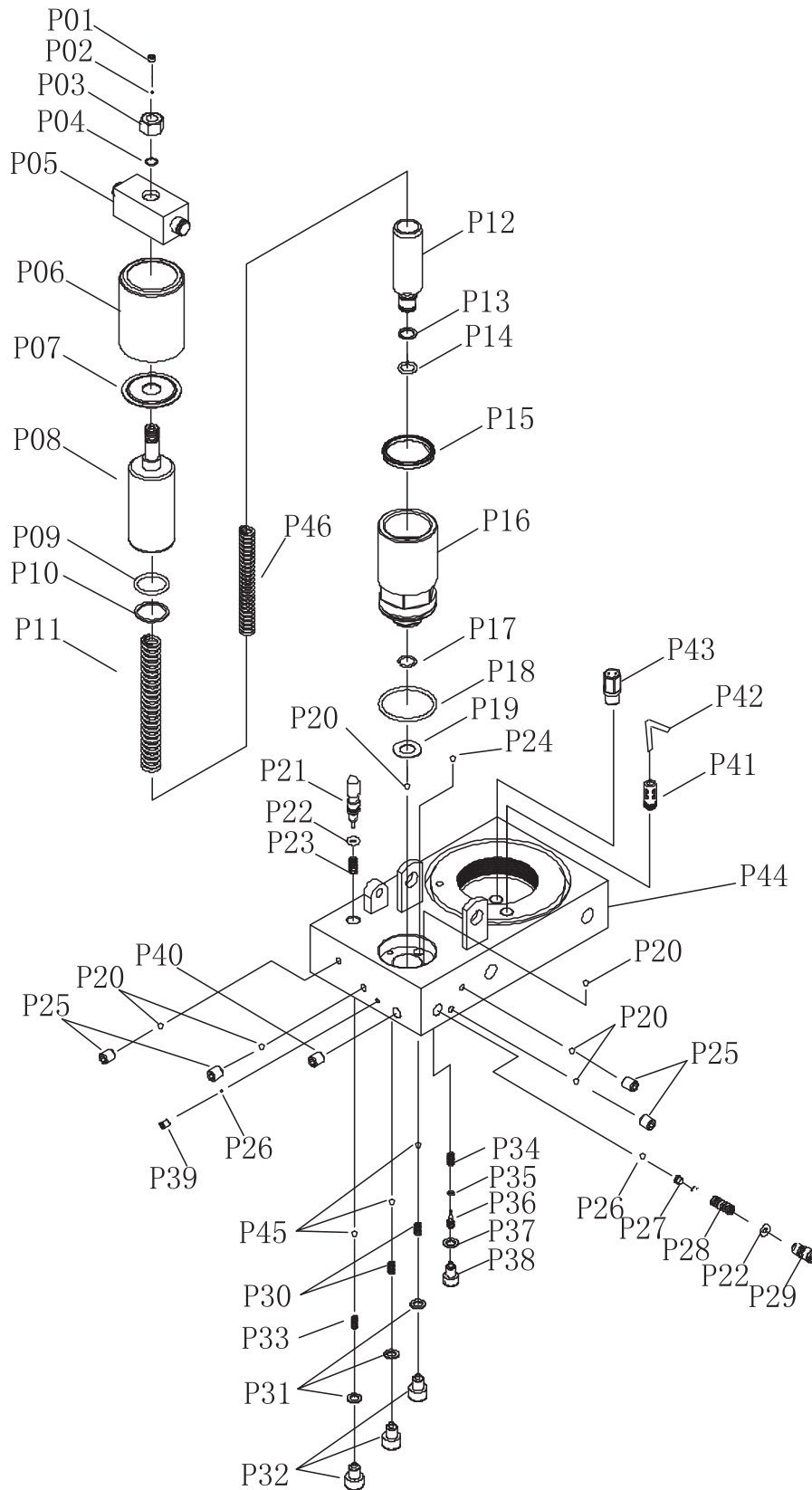


## SADDLE PARTS LIST

Parts No.	Description	Qty	Parts No.	Description	Qty
S01	Bolt	4	S16	Adjusted Handle	2
S02	Block	4	S17	Bolt	2
S03	Plate	1	S18	Cover	1
S04	Washer	4	S19	Bolt	1
S05	Nut	4	S20	Saddle Base	1
S06	Chain Hook	1	S21	Plate Carrier	1
S07	Hook Base	1	S22	Washer	2
S08	Nut	1	S23	Pin2	1
S09	Nut	2	S24	Washer	1
S10	Bear	4	S25	Nut	1
S11	Pin	1	S26	Nut	1
S12	Retainer Ring	4	S27	Washer	2
S13	Pin1	2	S28	Chain	1
S14	Retainer Ring	4	S29	Bolt	1
S15	Cotter Pin	2	S30	Nut	2



## PUMP DIAGRAM





## PUMP PARTS LIST

PARTS No.	DESC	QTY	PARTS No.	DESC	QTY
P1	Screw	1	P24	Steel Ball	1
P2	Steel Ball	1	P25	Screw	4
P3	Nut	1	P26	Steel Ball	2
P4	O-Ring	1	P27	Steel Ball Base	1
P5	Pin Cover	1	P28	Spring	1
P6	Dust Cover	1	P29	Screw	1
P7	Dust Plunger	1	P30	Spring	2
P8	Big Pump Core	1	P31	Washer	3
P9	O-Ring	1	P32	Screw	3
P10	Washer	1	P33	Spring	1
P11	Spring	1	P34	Spring	1
P12	Small Pump Core	1	P35	O-Ring	1
P13	Washer	1	P36	Push Rod	1
P14	O-Ring	1	P37	Copper Washer	1
P15	U-Ring	1	P38	Screw	1
P16	Pump Core Base	1	P39	Screw	1
P17	Retainer Ring	1	P40	Screw	1
P18	O-Ring	1	P41	Connector	1
P19	Small Copper Washer	1	P42	Filter	1
P20	Steel Ball	6	P43	First Limited Valve	1
P21	Release Valve Core	1	P44	Pump	1
P22	O-Ring	2	P45	Steel Ball	3
P23	Spring	1	P46	Spring	1



## TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
<ul style="list-style-type: none"> <li>Unit will not lift rated load</li> </ul>	<ul style="list-style-type: none"> <li>Air in the hydraulic system</li> <li>Inner leaking</li> <li>Not enough oil</li> </ul>	<ul style="list-style-type: none"> <li>Purge air from hydraulic system by following procedure under SETUP</li> <li>Contact repair depot</li> <li>Refer to the maintenance section and fill to correct fluid level</li> </ul>
<ul style="list-style-type: none"> <li>Unit will not sustain rated load or feels "spongy" when activating foot pedal</li> </ul>	<ul style="list-style-type: none"> <li>Air in the hydraulic system</li> <li>Inner leaking</li> </ul>	<ul style="list-style-type: none"> <li>Purge air from hydraulic system by following procedure under SETUP</li> <li>Contact repair depot</li> </ul>
<ul style="list-style-type: none"> <li>Lift or descent is not smooth</li> </ul>	<ul style="list-style-type: none"> <li>The piston rod needs lubricating</li> <li>Air in the ram</li> </ul>	<ul style="list-style-type: none"> <li>Add lubricating oil on the piston rod and raise and lower one cycle</li> <li>Purge air from hydraulic sytem by following procedure under SETUP</li> </ul>
<ul style="list-style-type: none"> <li>Unit will not raise to full height</li> </ul>	<ul style="list-style-type: none"> <li>Air in the hyrdraulic system</li> </ul>	<ul style="list-style-type: none"> <li>Purge air from hydraulic system by following procedure under SETUP</li> </ul>
<ul style="list-style-type: none"> <li>Unit fails to keep pressure</li> </ul>	<ul style="list-style-type: none"> <li>The release pedal is working improperly</li> <li>Inner leaking</li> </ul>	<ul style="list-style-type: none"> <li>Check the release pedal for anything abnormal</li> <li>Contact an AFF authorized repair depot</li> </ul>
<ul style="list-style-type: none"> <li>Unit still does not operate</li> </ul>		<ul style="list-style-type: none"> <li>Contact an AFF authorized repair depot</li> </ul>



# Heavy Duty Transmission Jacks

*Loaded with Power...Built with Precision*

## 3102A

### 2,000 lbs Telescoping Air Assist

#### Key Features and Benefits:

- Two stage telescopic ram designed for medium duty truck transmissions, transfer cases, and differentials
- Double pump hydraulic system for quick lift operation
- Powder coat finish provides resistance to corrosion, chemicals, and scratches
- Chrome plated pump core and piston rod reduces friction and provides long service life
- Adjustable saddle with corner bracket and safety chain
- Optional Fuel Tank Adapter (Model 3198) available. Includes safety straps and grounding cables.
- Adheres to ASME 2014



**3102A**

Model	Operation	Capacity Lbs.	Ram Stages	Low Height	High Height	Front Tilt	Rear Tilt	Base Width	Weight Lbs.
3052	Manual	1,100	2	37"	78"	28°	49°	28"X 32"	161
3052A	Air Assist	1,100	2	37"	78"	28°	49°	28"X 32"	170
3102	Manual	2,000	2	37"	76"	28°	49°	28"X 32"	174
3102A	Air Assist	2,000	2	37"	76"	28°	49°	28"X 32"	183

Rely on premium car jacks made by AFF if you're looking for quality and efficiency.