

MANUAL

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SPECIFICATIONS

Capacity.....	1/2 Ton
Low Height.....	35"
High Height.....	74.2"
Saddle Tilt.....	43° (forward) / 24° (backward)
Saddle Tilt	+10°,-27° (side to side)
Base Size.....	31.88" x 35"
Saddle Adjustment.....	14.75" x 14.75" to 23.25" x 23.25"
Shipping Weight	171 Lbs

WARNING INFORMATION



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

WARNING

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

BEFORE USING THIS DEVICE, READ THIS MANUAL COMPLETELY AND THOROUGHLY UNDERSTAND ITS OPERATING PROCEDURES, SAFETY WARNINGS AND MAINTENANCE REQUIREMENTS.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Sunex for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

THE NATURE OF HAZARDOUS SITUATIONS

WARNING

The use of portable automotive lifting devices is subject to certain hazards that cannot be prevented by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have owners and personnel involved in the use and operation of the equipment who are careful, competent, trained, and qualified in the safe operation of the equipment and its proper use. Examples of hazards are dropping, tipping or slipping of loads caused primarily by improperly secured loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

METHODS TO AVOID HAZARDOUS SITUATIONS

WARNING



- Read, study, understand and follow all instructions before operating this device.
- Inspect the jack before each use. Do not use jack if damaged, altered, modified, in poor condition, leaking hydraulic fluid, or unstable due to loose or missing components. Make corrections before using.



- Consult the vehicle manufacturer for the transmission's center of balance.
- Secure the transmission to the jack's saddle with the anchorage restraint system provided before raising or lowering the transmission.
- Center load on saddle. Be sure setup is stable before working on vehicle.
- Never use a power tool to activate the saddle tilt screws. Operate by hand or socket wrench.



- Support the engine with a stand before unbolting the transmission from the engine.
- Wear eye protection that meets ANSI Z87.1 and OSHA standards (users and bystanders).
- Do not use jack beyond its rated capacity. Do not shock load.
- Use only on a hard level surface.
- Adequately support the vehicle before starting repairs.
- Use of this product is limited to the removal, installation and transportation in the lowered position, of transmissions, transfer cases and transaxles.
- Do not use any adapters unless approved or supplied by Sunex.
- Always lower the jack slowly and carefully.
- Do not use (or modify) the product for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.
- This product may contain one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands thoroughly after handling.*
- Failure to heed these markings may result in serious or fatal personal injury and/or property damage.

CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

WARNING

Failure to read this manual completely and thoroughly and failure to understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and comply with them, and neglecting the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.

OWNER'S MANUAL

OWNER/USER RESPONSIBILITY

The owner and/or user must have a thorough understanding of the manufacturer's operating instructions and warnings before using the transmission jack. Personnel involved in the use and operation of equipment shall be careful, competent, trained, and qualified in the safe operation of the equipment and its proper use when servicing motor vehicles and their components. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents. Owner and/or user must study and maintain for future reference the manufacturer's instructions and pertinent warning information. Owner and/or user is responsible for keeping all warning labels and instruction manuals legible and intact. Replacement labels and literature are available from the manufacturer.

INSPECTION

Visual inspection should be made before each use of the transmission jack, checking for leaking hydraulic fluid and damaged, loose or missing parts. Each jack must be inspected by a manufacturer's repair facility immediately if accidentally subjected to an abnormal load or shock. Any jack which appears to be damaged in any way, found to be badly worn, or operates abnormally **MUST BE REMOVED FROM SERVICE** until necessary repairs are made by a manufacturer's authorized repair facility. It is recommended that an annual inspection of the jack be made by a manufacturer's authorized repair facility and that any defective parts, decals or warning labels be replaced with manufacturer's specified parts. A list of authorized repair facilities is available from the manufacturer.

SETUP

PLEASE REFER TO THE EXPLODED VIEW DRAWING IN THIS MANUAL IN ORDER TO IDENTIFY PARTS.

1. Place hydraulic unit in an upright position and bolt the (2) index #33 leg assemblies to the index #41 pump base using index #37 hex bolts, index #36 lock washers and index #35 flat washers as shown in the exploded view drawing on page 6.
2. Assemble the (2) index #40 locking caster assemblies and (2) index #34 non-locking casters to the ends of each index #33 leg as shown in the exploded view drawing, using the index #39 spring washers and index #38 nuts provided.
3. Secure the index #S20 bracket of the complete saddle assembly to the top of the index #6 secondary cylinder plunger with the index #S19 bolt.
4. Secure the (4) index #S02 fingers to the top of the index #S03 saddle plate using the index #S01 carriage bolts, index #S04 washers and index #S05 wing nuts as shown in the exploded view drawing on page 7.
5. Secure one end of the index #S28 chain to the index #S03 saddle plate with the index #S29 bolt, index #S27 washers and index #S26 nut as shown in the exploded view drawing.
6. Secure the index #S07 hook seat to the index #S03 saddle plate with the index #S24 washer and index #S25 nut as shown in the exploded view drawing. Feed the threaded end of the index #S06 hook through the hole in the index #S07 hook seat and secure it with the index #S08 wing nut.

IMPORTANT! BEFORE USING...

7. Open reservoir vent screw index #26 that is located on the reservoir and below the product label by turning the screw counterclockwise two (2) full turns. **NOTE: JACK WILL NOT OPERATE PROPERLY UNLESS THE VENT SCREW IS OPENED.** If the jack has been used without first opening the reservoir vent screw or the jack has been handled or shipped in different positions, air may be trapped in the hydraulic system. An air trapped system is identified by insufficient incremental pump strokes and failure to extend the telescopic rams to maximum height.

FOLLOW THESE INSTRUCTIONS TO PURGE AIR FROM THE SYSTEM:

If the jack is not able to raise the load, raises very slowly, or the second stage will not raise, follow these instructions: *(Figure 1 next page)*

1. Turn the #3 reservoir vent screw counterclockwise until it stops.
Turn the #1 release valve knob clockwise until it stops.
Pump the #2 foot pedal until both rams are at maximum extension or as high as they can be pumped.
2. Use a 3mm allen wrench to turn the M6x5 screw counterclockwise 1/2 turn.
3. Pump the #2 foot pedal two or three times until the hydraulic fluid escapes from the M6x5 screw hole and there are no air bubbles in the fluid. On the last pump of the pedal, keep the pedal depressed all the way down and tighten the M6x5 screw.
4. Turn the #1 release valve knob counterclockwise to lower both rams all the way down. Close the release valve knob and pump the jack to maximum ram extension.
5. Repeat steps 1 through 4 if the condition has not been fully corrected.

If the jack's telescopic rams do not raise or lower smoothly, follow these instructions: *(Figure 2 next page)*

1. Turn the #3 reservoir vent screw counterclockwise until it stops.
Turn the #1 release valve knob clockwise until it stops.
Pump the #2 foot pedal until both rams are at maximum extension.
2. Use a 4mm allen wrench to turn the M8x10 screw in the primary cylinder nut counterclockwise 1/2 turn.
3. Pump the #2 foot pedal two or three times until the hydraulic fluid escapes from the M8x10 screw hole and there are no air bubbles in the fluid. Retighten the M8x10 screw.
4. Turn the #1 release valve knob counterclockwise to see if the telescopic rams lower smoothly.
5. Repeat steps 1 through 4 if the condition has not been fully corrected.

Note: If these instructions do not correct the condition, refer to page 4 of this owner's manual on how to check for the correct fluid level in the jack's reservoir.

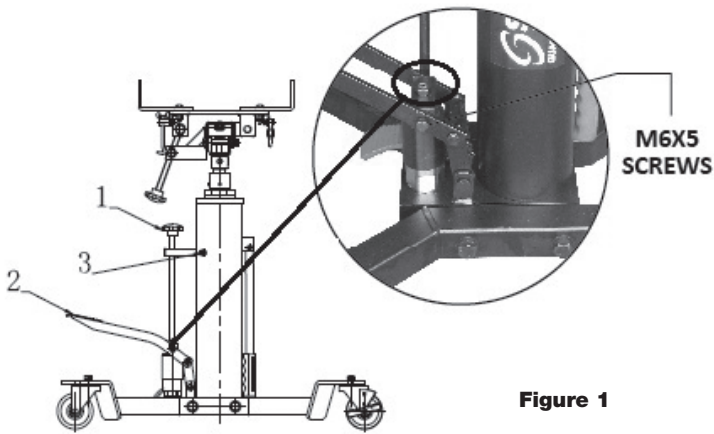


Figure 1

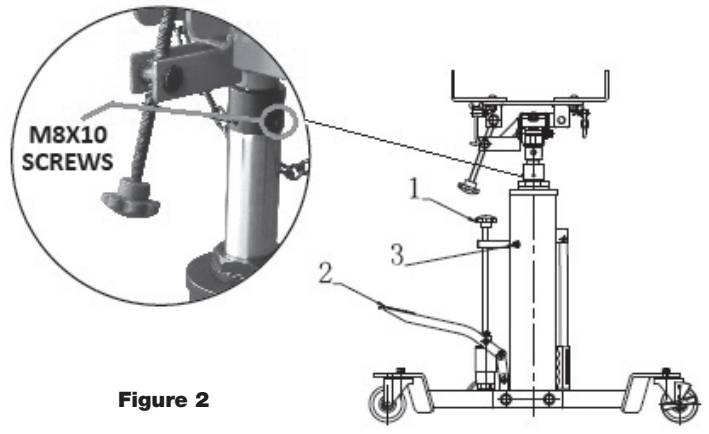


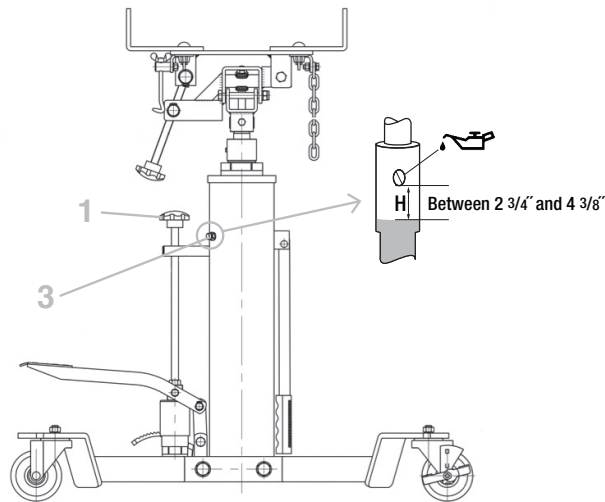
Figure 2

CHECKING THE HYDRAULIC FLUID LEVEL



This is the safety alert symbol used for the CHECKING THE HYDRAULIC FLUID LEVEL section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

1. Turn the #1 release valve knob counterclockwise to lower the telescopic rams all the way down.
2. Use a 14mm wrench to remove the #3 vented fill plug.
3. The fluid level should be $2 \frac{3}{4}$ " below the #3 vented fill plug hole and no more than $4 \frac{3}{8}$ " lower. If the fluid level is higher than $2 \frac{3}{4}$ " from the fill plug hole, remove fluid to arrive at the proper level. If the fluid level is lower than $4 \frac{3}{8}$ " from the fill plug hole, add fluid to arrive at the proper level.



OPERATING INSTRUCTIONS



This is the safety alert symbol used for the OPERATING INSTRUCTIONS section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

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. Depress the large foot pedal up and down in order to raise the saddle to a height very close to the center of balance point of the transmission oil pan but do not touch the transmission.
4. Adjust the #S02 fingers on the saddle so that the bent up section of the fingers will fit in the mounting flange around the perimeter of the transmission oil pan. Once the fingers are properly positioned tighten the wing nuts that secure the fingers to the saddle. Slowly and gently pump the jack so the connection is made and then secure the transmission to the jack's saddle with the safety chain provided. Sometimes it is necessary to turn the fore and aft and side to side tilt knobs so the saddle is in the proper alignment with the transmission pan before securing the load to the saddle.
5. Make sure the safety chain is very tight when securing the transmission to the saddle and before raising or lowering the transmission.
6. Remove the transmission from the engine according to instructions in the vehicle service manual.
7. Once the transmission has been disconnected from the engine, very slowly depress the release pedal to make sure the jack's saddle and transmission do not hang up on any undercar components, wiring, fuel lines, etc. Continue to lower the jack all the way down.
8. When installing a transmission, follow the above instructions but in the applicable order and according to the vehicle manufacturer's installation procedure.

PREVENTATIVE MAINTENANCE



This is the safety alert symbol used for the PREVENTATIVE MAINTENANCE section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

1. Always store the transmission jack in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. The jack must be cleaned of water, snow, sand, grit, oil, grease or other foreign matter before using.
2. Lubricate moving parts, excluding the telescopic rams, monthly with a general purpose grease. Periodic lubrication should be subject to a maintenance schedule based on frequency of use. A weekly lubrication inspection is suggested. Premature wearing of components due to lack of or inadequate lubrication is not eligible for warranty consideration.
3. Inspect the jack before each use. Do not use the jack if any component is cracked, broken, bent, shows sign of damage or leaks hydraulic fluid. Do not use the jack if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the jack again. Premature wearing or damage to components caused by loose or missing hardware is not eligible for warranty consideration.
4. It should not be necessary to refill or top off the reservoir with hydraulic fluid unless there is an external leak. An external leak requires immediate repair which must be performed in a dirt-free environment by qualified hydraulic repair personnel who are familiar with this equipment.

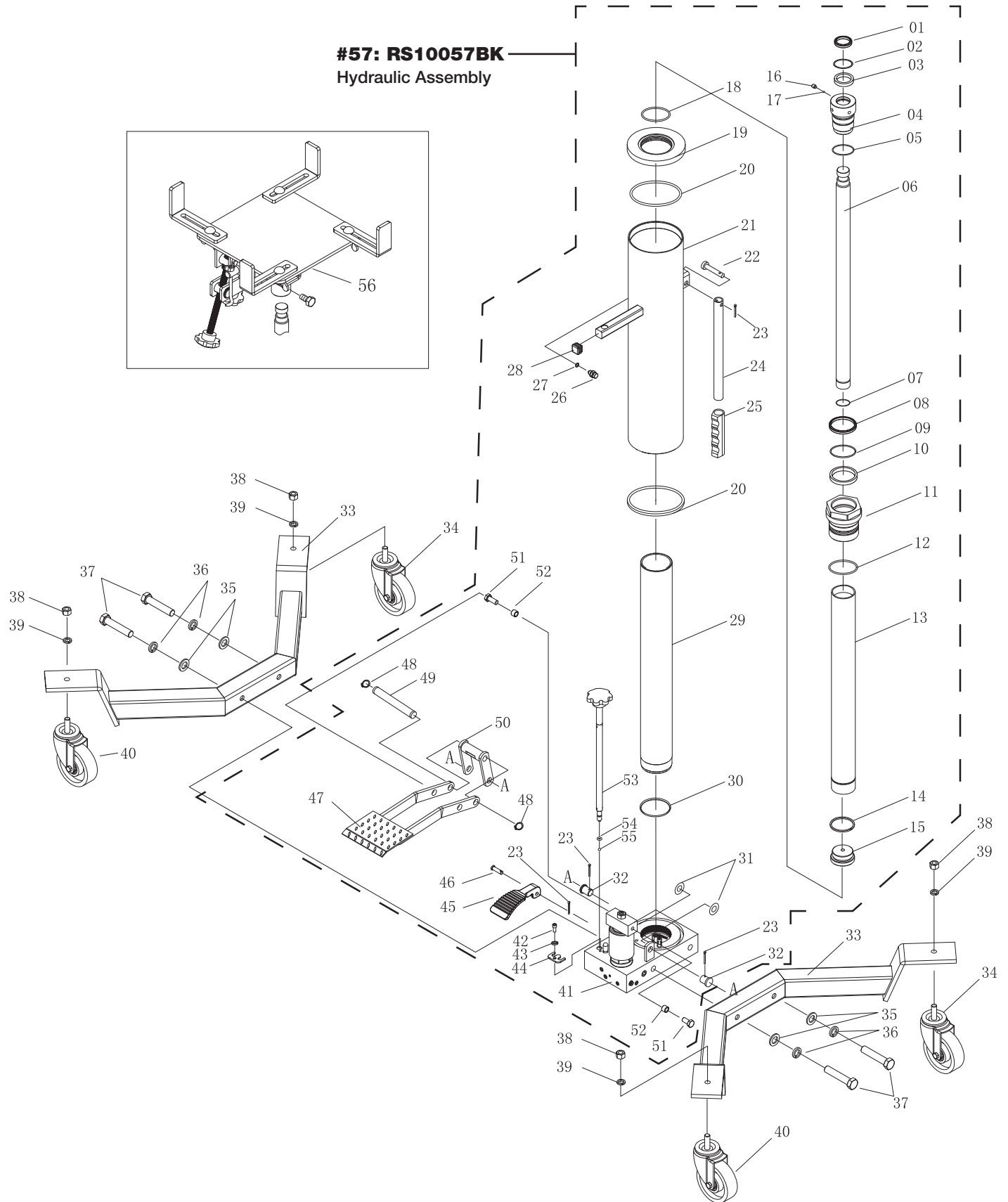
IMPORTANT: In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid or transmission oil in the jack. Use Chevron Hydraulic Oil AW 150 32, Unocal Unax AW150, or hydraulic jack oil. Any jack found to be defective as a result of foreign contaminants in the hydraulic system is not eligible for warranty consideration.

5. Every jack owner is responsible for keeping the jack labels clean and readable. Use a mild soap solution to wash external surfaces of the jack but not any moving hydraulic components. Contact Sunex for a replacement label if your jack's label is not readable.
6. Do not attempt to make any hydraulic repairs unless you are a qualified hydraulic repair person that is familiar with this equipment. Repairs must be performed by an authorized service center.

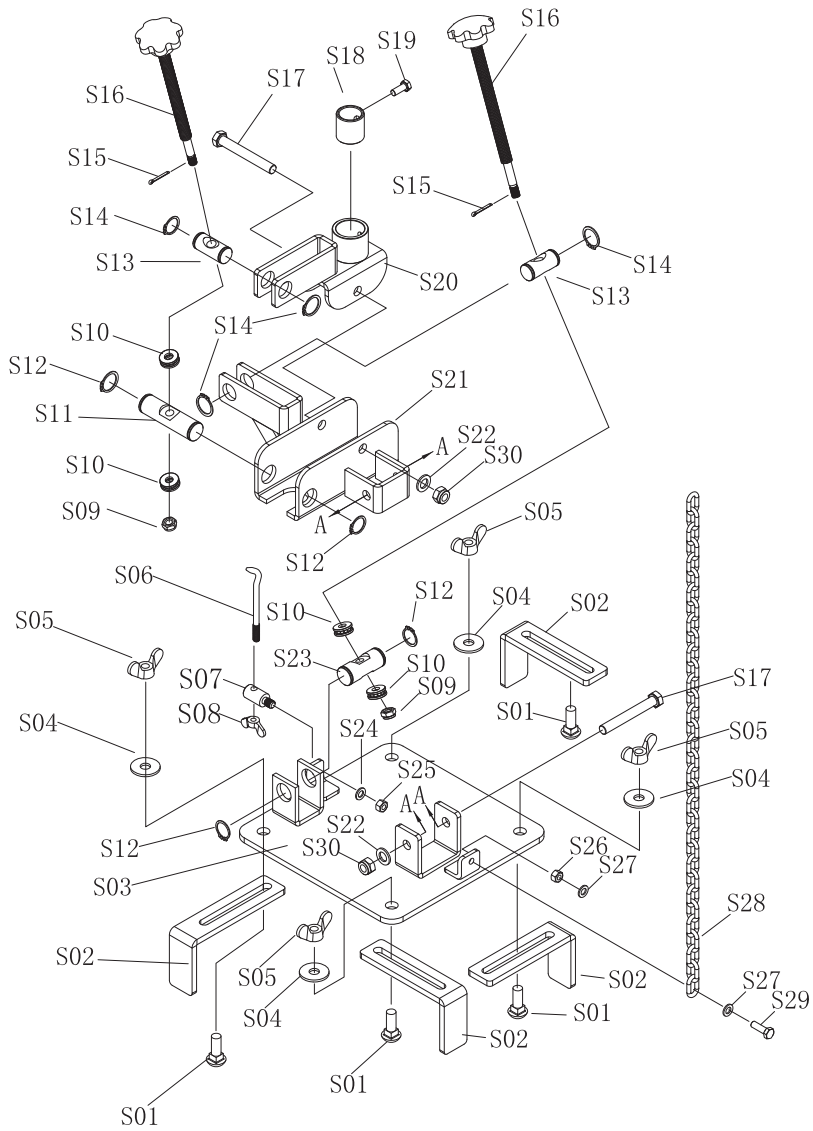
TROUBLESHOOTING

PROBLEM	ACTION
1. Unit will not lift rated load.	Purge air from hydraulic system by following procedure under "Important before using"
2. Unit will not sustain rated load or feels "spongy" under rated load.	Purge air from hydraulic system as above.
3. Unit will not lift to full height.	Purge air from hydraulic system as above.
4. Unit still does not operate.	Contact Sunex authorized hydraulic service center.

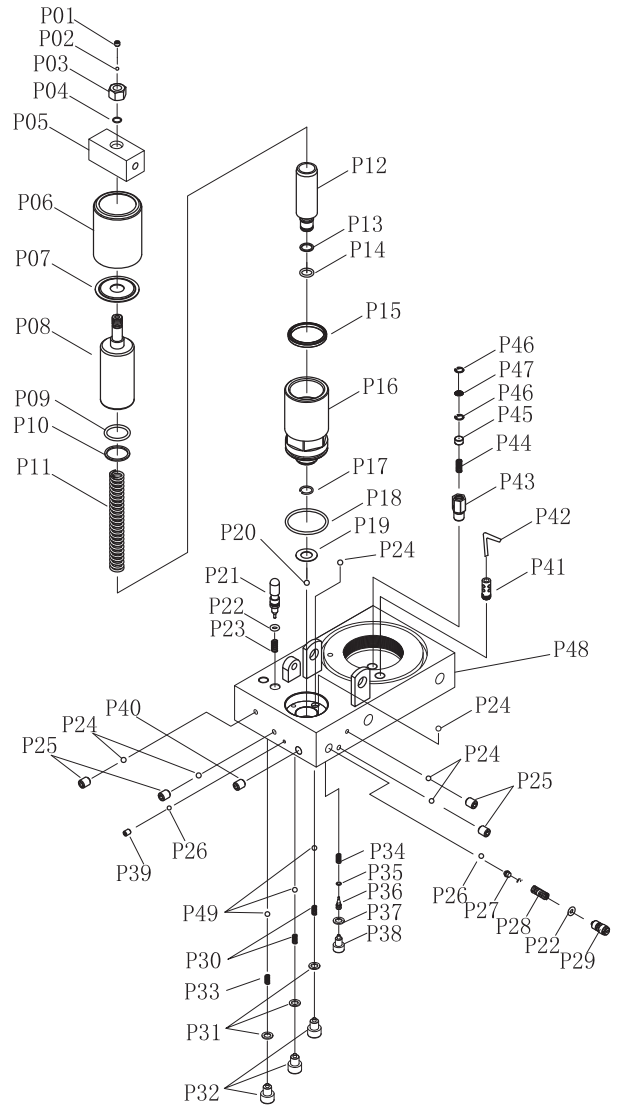
FULL UNIT DRAWING



SADDLE DRAWING



POWER UNIT DRAWING



FULL UNIT PARTS LIST

Index No.	Part No.	Description	Qty.
1	*	Scraper Seal	1
2	*	O-Ring	1
3	*	U-Ring	1
4		Secondary Cylinder Head	1
5	*	O-Ring	1
6		Secondary Cylinder Plunger	1
7		Circlip	1
8	*	Scraper Seal	1
9	*	O-Ring	1
10	*	U-Ring	1
11		Primary Cylinder Head	1
12	*	O-Ring	1
13		Primary Cylinder Plunger	1
14		Circlip	1
15		Cap	1
16		Bolt	1
17		Ball	1
18	*	O-Ring	1
19		Cylinder Head Support	1
20	*	Cylinder Pad	2
21		Cylinder	1
22		Pin	1
23		Clip	4
24		Handle	1
25		Handle Grip	1
26		Bleeding Screw	1
27		Sealing Pad	1
28		Plug	1
29		Ram	1
30	*	Ram Pad	1
31		Washer	2
32		Pin	2
33		Leg Assembly	2
34	RS63505R31BK	Non-Locking Casters	2
35		Washer	4
36		Spring Washer	4
37		Hex Bolt	4
38	RS10038BK	Hex Nut	4
39	RS10039BK	Spring Washer	4
40	RS63505R37BK	Locking Casters	2
41		Pump Base	1
42		Screw	1
43		Spring Washer	1
44		U-Shape Locking Pin	1
45		Release Pedal	1
46		Pin	1
47	RS10047BK	Pumping Pedal	1
48	RS10048	Circlip	2
49	RS10049BK	Pin	1
50	RS10050BK	Connecting Rod	1
51	RS10051BK	Hex Bolt	2
52	RS10052BK	Saddle Bushing	2
53	RS63505R50BK	Release Rod	1
54	*	O-Ring	1
55	*	Ball	1
56	RS63505R51	Saddle Assembly - Red	1
57	RS10057BK	Complete Hydraulic Assembly	1

SADDLE PARTS LIST (CONT.)

Index No.	Part No.	Description	Qty.
S14		Circlip	4
S15		Cotter Pin	2
S16		Adjust Lever	2
S17		Bolt	2
S18		Saddle Bushing	1
S19		Bolt	1
S20		Bracket	1
S21		Bracket	1
S22		Washer	2
S23		Pin 2	1
S24		Washer	1
S25		Nut	1
S26		Nut	1
S27		Washer	2
S28		Chain	1
S29		Bolt	1
S30		Nut	2

POWER UNIT PARTS LIST

P1		Screw	1
P2	*	Ball	1
P3		Nut	1
P4	*	O-Ring	1
P5		Pump Core Pin Sets	1
P6		Dust Cover	1
P7		Dust Cover	1
P8		Big Piston	1
P9	*	O-Ring	1
P10	*	Washer	1
P11		Spring	1
P12		Small Piston	1
P13	*	Washer	1
P14	*	O-Ring	1
P15	*	Washer	1
P16		Base	1
P17	*	Circlip	1
P18	*	O-Ring	1
P19	*	Copper Pad	1
P20	*	Ball	1
P21	RS100P22	Release Valve	1
P22	*	O-Ring	2
P23		Spring	1
P24		Ball	6
P25		Screw	4
P26		Ball	2
P27		Steel Ball Set	1
P28		Spring	1
P29		Screw	1
P30		Spring	2
P31		Washer	3
P32		Screw	3
P33		Spring	1
P34		Spring	1
P35	*	O-Ring	1
P36		Push Rod	1
P37		Copper Washer	1
P38		Screw	1
P39		Screw	1
P40		Screw	1
P41		Connector	1
P42		Filter	1
P43		Valve	1
P44		Spring	1
P45		Valve Core	1
P46		Circlip	2
P47		Filter	1
P48		Hydraulic Pump	1
P49		Ball	3

* Seal Kit also available as RS100SK

Also available: RS7793BEPLK Product/Warning Label Kit

Only index numbers identified by Part Number are available separately.

SADDLE PARTS LIST

S01		Carriage Bolt	4
S02		Finger	4
S03		Saddle Plate	1
S04		Washer	4
S05		Wing Nut	4
S06		Hook	1
S07		Hook Seat	1
S08		Wing Nut	1
S09		Nut	2
S10		Bearing	4
S11		Pin 3	1
S12		Circlip	4
S13		Pin 1	2