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Form No. 527900

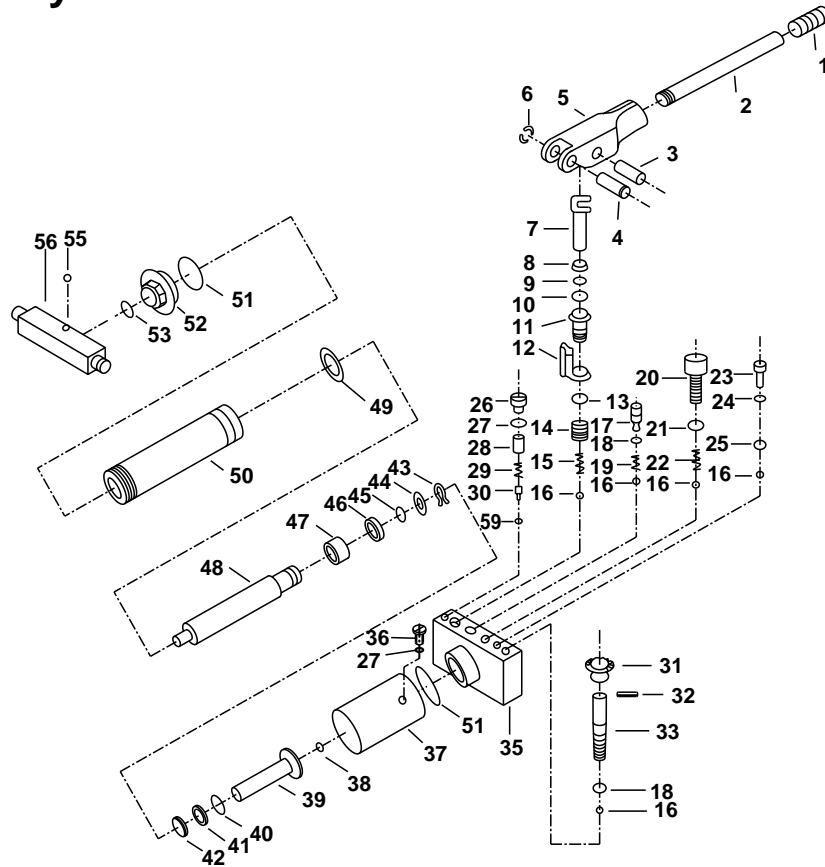
Parts List &  
 Operating Instructions  
 for:

1521A

# Low Lift Transmission Jack

Max. Capacity: 1,000 lbs. (500 kg)

## Hydraulic Unit Hardware and Handle



## Parts List

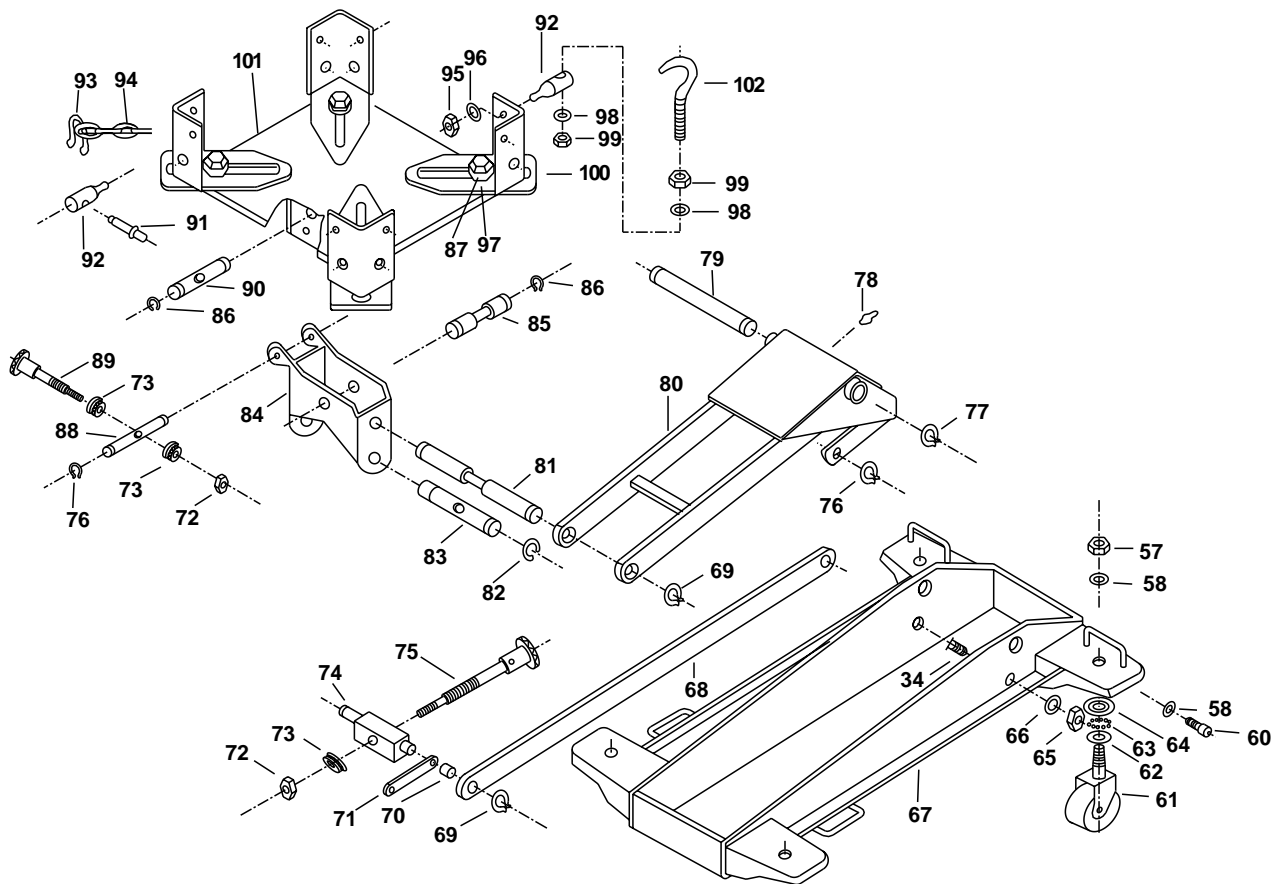
Item No.	No. Reqd.	Description	Item No.	No. Reqd.	Description	Item No.	No. Reqd.	Description
1	1	Handle Grip	19	1	Spring	37	1	Reservoir
2	1	Handle	20	1	Screw	38	1	O-ring
3	1	Rivet	21	1	Seal Ring	39	1	Ram
4	1	Rivet	22	1	Spring	40	1	Retaining Ring
5	1	Socket	23	1	Screw	41	1	O-ring
6	1	Snap Ring	24	1	Seal Ring	42	1	Y-ring
7	1	Plunger	25	1	Ball	43	1	Retaining Ring
8	1	Wiper	26	1	Screw	44	1	Washer
9	1	Back-up Ring	27	1	O-ring	45	1	O-ring
10	1	O-ring	28	1	Screw	46	1	Retaining O-ring
11	1	Pump	29	1	Spring	47	1	Bushing
12	1	Pump Seat	30	1	Ball Seat	48	1	Piston Rod
13	1	Seal Ring	31	1	Knob	49	1	O-ring
14	1	Screw	32	1	Pin			
15	1	Spring	33	1	Release Rod			
16	5	Ball	34	2	Bolt			
17	1	Screw	35	1	Valve Block			
18	2	O-ring	36	1	Oil Fill Plug			

Continued

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### Hydraulic Unit Base



### Parts List contd.

Item No.	Part No.	No. Reqd.	Description	Item No.	Part No.	No. Reqd.	Description
50		1	Cylinder	77		2	Snap Ring
51		2	Seal Ring	78		1	Grease Fitting
52		1	Cylinder Nut	79		1	Shaft Arm
53		1	O-ring	80		1	Lifting Arm Assembly
55		1	Pin	81		1	Axle
56		1	Link Rod	82		2	Retaining Ring
57		4	Nut	83		1	Axle
58		6	Lock Washer	84		1	Saddle Base
59		1	Ball	85		1	Axle
60		2	Screw	86		4	Snap Ring
61		4	Caster Assembly	87		4	Screw
62		4	Lower Plate	88		1	Axle
63		80	Ball	89		1	Screw
64		4	Upper Plate	90		1	Axle
65		2	Nut	91		2	Chain Screw
66		2	Lock Washer	92		4	Hook Guide
67		1	Side Plate	93		2	Chain Connector
68		2	Long Link Rod	94		2	Chain
69		4	Snap Ring	95		4	Nut
70		2	Spacer	96		4	Washer
71		2	Short Link Rod	97		4	Washer
72		2	Nut	98		4	Washer
73		3	Thrust Bearing	99		4	Nut
74		1	Guide Axle	100		4	Containing Angle
75		1	Screw	101		1	Saddle
76		4	Snap Ring	102		1	Chain Hook

# Repair Kits

Item No.	Qty.	Description	Item No.	Qty.	Description	Item No.	Qty.	Description	Item No.	Qty.	Description
<b>Caster Kit</b>			<b>Hydraulic Unit Kit</b>			<b>Pivot Screw (Long) Kit</b>			<b>Reservoir Kit</b>		
<b>No. 527901 includes:</b>			<b>No. 527911 includes:</b>			<b>No. 527906 includes:</b>			<b>No. 527915 includes:</b>		
57	1	Nut	7	1	Plunger	70	2	Spacer	37	1	Reservoir
58	1	Lock Washer	8	1	Wiper	71	2	Short Link Rod	51	2	Seal Ring
61	1	Caster Assembly	9	1	Back-up Ring	72	1	Nut	52	1	Cylinder Nut
62	1	Lower Plate	10	1	O-ring	73	1	Thrust Bearing	53	1	O-ring
63	20	Ball	11	1	Pump	74	1	Guide Axle	<b>Saddle</b>		
64	1	Upper Plate	12	1	Pump Seat	75	1	Screw	<b>No. 527902 includes:</b>		
<b>Chain Kit</b>			13	1	Seal Ring	82	2	Retaining Ring	101	1	Saddle
<b>No. 527904 includes:</b>			14	1	Screw	83	1	Axle	<b>Saddle Angle Kit</b>		
91	2	Chain Screw	15	1	Spring	<b>Pivot Screw (Short) Kit</b>			<b>No. 527905 includes:</b>		
92	4	Hook Guide	16	5	Ball	<b>No. 527907 includes:</b>			87	1	Screw
93	2	Chain Connector	17	1	Screw	72	2	Nut	97	1	Washer
94	2	Chain	18	2	O-ring	73	3	Thrust Bearing	100	1	Containing Angle
95	4	Nut	19	1	Spring	76	4	Snap Ring	<b>Saddle Level Arms Kit</b>		
96	4	Washer	20	1	Screw	86	4	Snap Ring	<b>No. 527909 includes:</b>		
98	4	Washer	21	1	Seal Ring	88	1	Axle	34	2	Bolt
99	4	Nut	22	1	Spring	89	1	Screw	65	2	Nut
102	1	Chain Hook	23	1	Screw	90	1	Axle	66	2	Lock Washer
<b>Grease Fitting</b>			24	1	Seal Ring	<b>Pump Station Kit</b>			68	2	Long Link Rod
<b>No. 527910 includes:</b>			25	1	Ball	<b>No. 527913 includes:</b>			69	2	Snap Ring
78	1	Grease Fitting	26	1	Screw	7	1	Plunger	<b>Saddle Pivot Base Kit</b>		
<b>Handle Kit</b>			27	2	O-ring	8	1	Wiper	<b>No. 527908 includes:</b>		
<b>No. 527903 includes:</b>			28	1	Screw	9	1	Back-up Ring	69	2	Snap Ring
1	1	Handle Grip	29	1	Spring	10	1	O-ring	81	1	Axle
2	1	Handle	30	1	Ball Seat	11	1	Pump	84	1	Saddle Base
<b>Handle Pivot Kit</b>			31	1	Knob	12	1	Pump Seat	85	1	Axle
<b>No. 527917 includes:</b>			32	1	Pin	13	1	Seal Ring	86	2	Snap Ring
3	1	Rivet	33	1	Release Rod	14	1	Screw	<b>Seal Kit</b>		
4	1	Rivet	35	1	Valve Block	15	1	Spring	<b>No. 527912 includes:</b>		
5	1	Socket	36	1	Oil Fill Plug	16	1	Ball	8	1	Wiper
6	1	Snap Ring	37	1	Reservoir	<b>Ram Kit</b>			9	1	Back-up Ring
<b>Hydraulic Unit Hardware Kit</b>			38	1	O-ring	<b>No. 527916 includes:</b>			10	1	O-ring
<b>No. 527918 includes:</b>			39	1	Ram	38	1	O-ring	13	1	Seal Ring
16	3	Ball	40	1	Retaining Ring	39	1	Ram	18	2	O-ring
17	1	Screw	41	1	O-ring	40	1	Retaining Ring	21	1	Seal Ring
18	1	O-ring	42	1	Y-ring	41	1	O-ring	24	1	Seal Ring
19	1	Spring	43	1	Retaining Ring	42	1	Y-ring	27	2	O-ring
20	1	Screw	44	1	Washer	43	1	Retaining Ring	36	1	Oil Fill Plug
21	1	Seal Ring	45	1	O-ring	44	1	Washer	38	1	O-ring
22	1	Spring	46	1	O-ring Retaining	45	1	O-ring	40	1	Retaining Ring
23	1	Screw	47	1	Bush	46	1	O-ring Retaining	41	1	O-ring
24	1	Seal Ring	48	1	Piston Rod	47	1	Bush	42	1	Y-ring
25	1	Ball	49	1	O-ring	48	1	Piston Rod	43	1	Retaining Ring
26	1	Screw	50	1	Cylinder	49	1	O-ring	44	1	Washer
27	1	O-ring	51	2	Seal Ring	50	1	Cylinder	45	1	O-ring
28	1	Screw	52	1	Cylinder Nut	51	2	Seal Ring	46	1	O-ring Retaining
29	1	Spring	53	1	O-ring	53	1	O-ring	49	1	O-ring
30	1	Ball Seat	59	1	Ball	<b>Release Valve Kit</b>			51	2	Seal Ring
59	1	Ball	<b>Load Block Kit</b>			<b>No. 527914 includes:</b>			53	1	O-ring
<b>Main Pivot Pin Kit</b>			<b>No. 528673 includes:</b>			16	1	Ball	<b>Sheet No. 2 of 3</b>		
<b>No. 528674 includes:</b>			55	1	Pin	18	1	O-ring	<b>Issue Date: December 14, 2004 Rev. B</b>		
77	2	Snap Ring	56	1	Link Rod	31	1	Knob			
79	1	Shaft Arm	76	2	Snap Ring	32	1	Pin			

## Safety Precautions



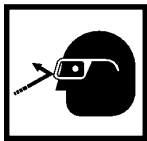
**WARNING:** To prevent personal injury and/or property damage,



- Study, understand, and follow all instructions before operating this device. If the operator cannot read or understand these operating instructions and safety precautions, they must be read and discussed in the operator's native language.



- Wear eye protection that meets ANSI Z87.1 and OSHA standards.



- Use only on hard, level surfaces.

- Inspect the jack before each use; do not use the jack if it is damaged, altered, or in poor condition.



- No alterations shall be made to this product unless approved by OTC. If a modification is needed, contact OTC Technical Services.

- Use of this product is limited to the removal, installation, and transportation in the lowered position of only automotive or truck transmissions.

- Do not exceed the rated capacity of 1,000 lbs. (500 kg).

- Adequately support the vehicle before starting repairs.

- Stay out from underneath the load at all times.

- Secure the load to the jack.

- Lower the jack slowly and carefully while watching the position of the load.

- **SLOWLY AND CAREFULLY** move the jack around corners.

- Use only approved hydraulic fluid (Chevron AW Hydraulic Oil MV or equivalent). The use of alcohol or hydraulic brake fluid could damage seals and result in jack failure.

## Operating Instructions

1. Position the jack under the transmission.
2. Close the control valve.
3. Operate the pump handle to raise the boom and align the mounting plate with the transmission.
4. Remove the transmission according to the instructions in the vehicle service manual.
5. Position the transmission on the mounting plate, resting against the angle plates.
  - The mounting plate may be tilted forward and backward by turning the tilt knob.
  - The mounting plate may be tilted side-to-side by adjusting the two vertical hex head cap screws.
6. Secure the transmission to the mounting plate.
7. Lower the load by slowly opening the control valve. The control valve regulates how fast the boom is lowered.

**Preventive Maintenance**

**IMPORTANT: Dirt is the greatest single cause of failure in hydraulic units. Keep the jack clean and well lubricated to prevent foreign matter from entering the system. If the jack has been exposed to rain, snow, sand, or grit, it must be cleaned before it is used.**

1. Store the jack in a well-protected area where it will not be exposed to corrosive vapors, abrasive dust, or any other harmful element.
2. Regularly lubricate the moving parts.
3. Replace the oil in the reservoir at least once per year. To check the oil level, place the jack on level ground and lower the lift arm completely. Remove the filler plug. The oil level should be within 3/8" of the filler plug hole. If necessary, add approved anti-wear hydraulic jack oil, and install the filler plug again. **IMPORTANT: Use only approved hydraulic fluid (Chevron AW Hydraulic Oil MV or equivalent). The use of alcohol or hydraulic brake fluid could damage seals and result in jack failure.**
4. Inspect the jack before each use. Take corrective action if any of the following problems are found:
 

a. Cracked or damaged housing	e. Malfunctioning swivel heads or adjusting screws
b. Excessive wear, bending, or other damage	f. Loose hardware
c. Leaking hydraulic fluid	g. Modified or altered equipment
d. Scored or damaged piston rod	

**Troubleshooting Guide**

Repair procedures must be performed in a dirt-free environment by qualified personnel who are familiar with this equipment.

Trouble	Cause	Solution
<b>Jack does not lift</b>	1. Release valve is open 2. Low/no oil in reservoir 3. Air-locked system 4. Load is above capacity of jack 5. Delivery valve and/or bypass valve not working correctly 6. Packing worn out or defective	1. Close release valve. 2. Fill with oil and bleed system. 3. Bleed system. 4. Use correct equipment. 5. Clean to remove dirt or foreign matter. Replace oil. 6. Replace power unit.
<b>Jack lifts only partially</b>	1. Too much or not enough oil	1. Check oil level.
<b>Jack advances slowly</b>	1. Pump not working correctly 2. Leaking seals	1. Replace power unit. 2. Replace power unit.
<b>Jack lifts load, but doesn't hold</b>	1. Cylinder packing is leaking 2. Valve not working correctly (suction, delivery, release, or bypass) 3. Air-locked system	1. Replace power unit. 2. Inspect valves. Clean and repair seat surfaces. 3. Bleed system.
<b>Jack leaks oil</b>	1. Worn or damaged seals	1. Replace power unit.
<b>Jack will not retract</b>	1. Release valve is closed	1. Open or clean release valve.
<b>Jack retracts slowly</b>	1. Cylinder damaged internally 2. Link section is binding	1. Send jack to OTC authorized service center for repair. 2. Lubricate link section.