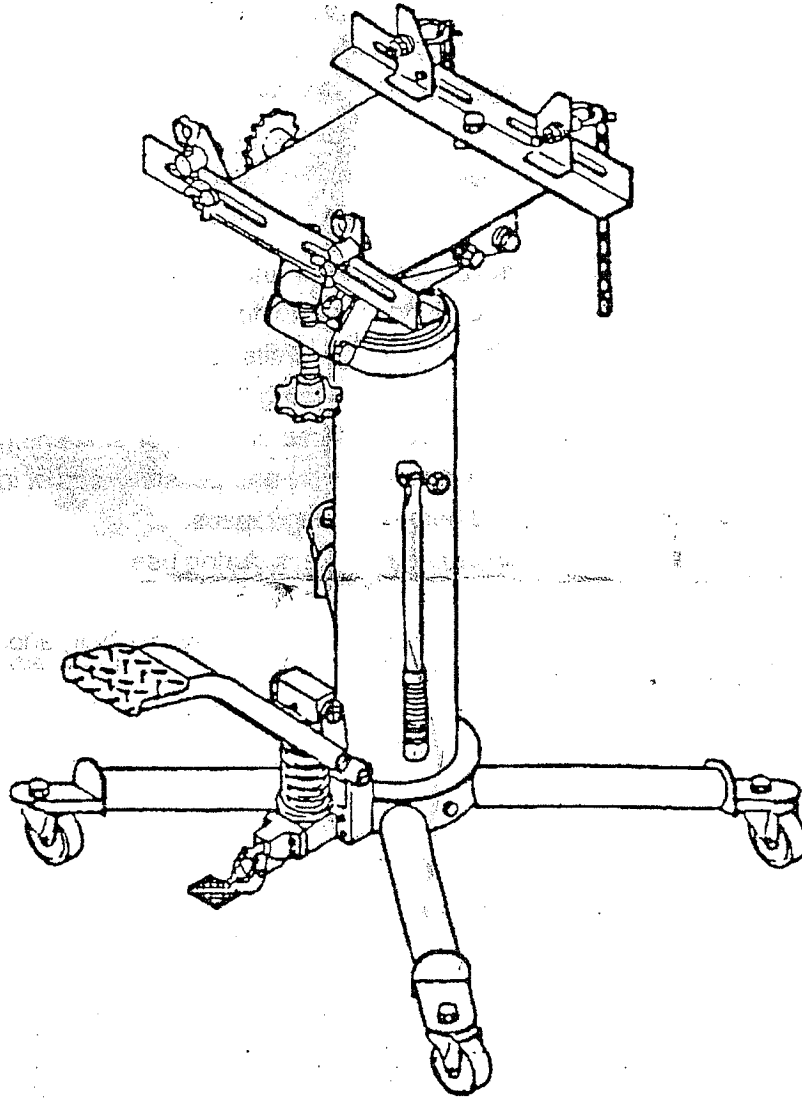


# ASSEMBLY AND OPERATING INSTRUCTIONS



**1100LBS (500KGS)**  
**2-STAGE HYDRAULIC TRANSMISSION JACK**

## SPECIFICATIONS

Saddle Model	Capacity kg		Height mm		Stroke mm	Saddle Tilt			Base Size mm	N.W. kg
	1 <sup>st</sup> stage	2 <sup>nd</sup> stage	Low	High		FWD	BACK	SIDE		
ADT1	1000	500	870	1847	977	20°	10°	---	1000X1000	84
ADT2	1000	500	912	1889	977	28°	22°	50°L & 20°R	1000X1000	86
ADT3	1000	500	978	1955	977	28°	22°	50°L & 20°R	1000X1000	88

## SAVE THIS MANUAL

You will need the manual for the safety warnings and cautions, assembly instructions, operating procedures, maintenance procedures, troubleshooting, parts list, and diagram. Put them in a safe, dry place for future reference.

## WARNING

1. The use of this jack is limited to the removal, installation, and transportation (in the lowest position) of transmissions and manufactured especially for the jack to the handle other components, such as rear axle units and transfer cases. Within the weight limits specified.
2. The jack lift capacity is 1 Ton at 1<sup>st</sup> stage, and 1/2 Ton using 2<sup>nd</sup> stage. Do not exceed this limit.
3. The jack is designed for use only on hard level surfaces capable of sustaining the load. Use on other than hard level surfaces can result in jack instability and possible loss of load.
4. Be sure that the jack is properly supported before starting repairs.
5. Do not place any part of your body within or under the jack during use.
6. Do not transport the jack, with or without a load, with the saddle in the raised position.
7. Failure to follow these warnings may result in loss of load, damage to jack, and/or failure resulting in personal or property damage.

## ASSEMBLY

**According to Parts drawing, install the jack as following.**

*Install the Casters onto the Legs; Attach the legs to the Cylinder; Attach the Optional Round Handle set to the Reservoir; Assemble the bracket set onto the saddle platform; Assemble Hook Pin Assemblies and chains to the bracket set.*

**Purge the air from the Hydraulic Cylinder.**

1. Before using your transmission jack for the first time, remove the Bolt (#105) and Seal (#46) from the side of the Reservoir (#3). Replace these with Air Vent Valve Assembly (#47) with its O-ring seal (#46).
2. Using the Pump Pedal (#53), slowly pump the cylinder. You will observe trapped air escaping from the valve in the Air Vent Valve Assembly. Continue to pump until all air is purged, and hydraulic oil is expelled from the valve.
3. Remove the Air Vent Valve Assembly (#47) with its O-ring seal (#46), and replace it with the Bolt (#105) and Seal (#46).

NOTE: Save the Air Vent Valve Assembly in a safe place for future use when the hydraulic cylinder needs to be bled. If you notice that the Transmission Jack is not performing properly, it may be because air has entered the hydraulic system. To bleed the hydraulic system, re-insert the Air Vent Valve Assembly (#47) and the O-ring seal (#46) as described in step 1 above. Perform actions described in step 2 and 3 above to properly bleed the hydraulic system.

## OPERATION

### *Positioning you transmission jack, and attaching the transmission.*

1. Only work with certified lifts. Never go under a lifted vehicle that is not safe, and does not have manual anti-fall locks in place. With the jack in a lowered position, and when it is safe to do so, roll the jack under the transmission.
2. Using the Round Handle Assembly, adjust the position of the jack to align with the transmission. Position the Saddle tilt Assembly to match the angle of the transmission.
3. Using the Pump Pedal (#53), slowly raise the saddle to contact the transmission.

### *When the jack is properly positioned, attach the retaining chains.*

1. When the jack is properly aligned with the transmission, and before you loosen the mounting bolts, wrap the chains (#201) over the top of the transmission, and attach them using the Hook Pins (#203).
2. Tighten the chains by tightening the Wing Nuts on the Hook Pins.

### *When it is safe to do so, lower the transmission.*

1. When the transmission is detached, and it is safe to do so, lower the transmission by operating the Release Valve Pedal (#39).
2. Roll the transmission on the jack to the repair area.

## MAINTENANCE

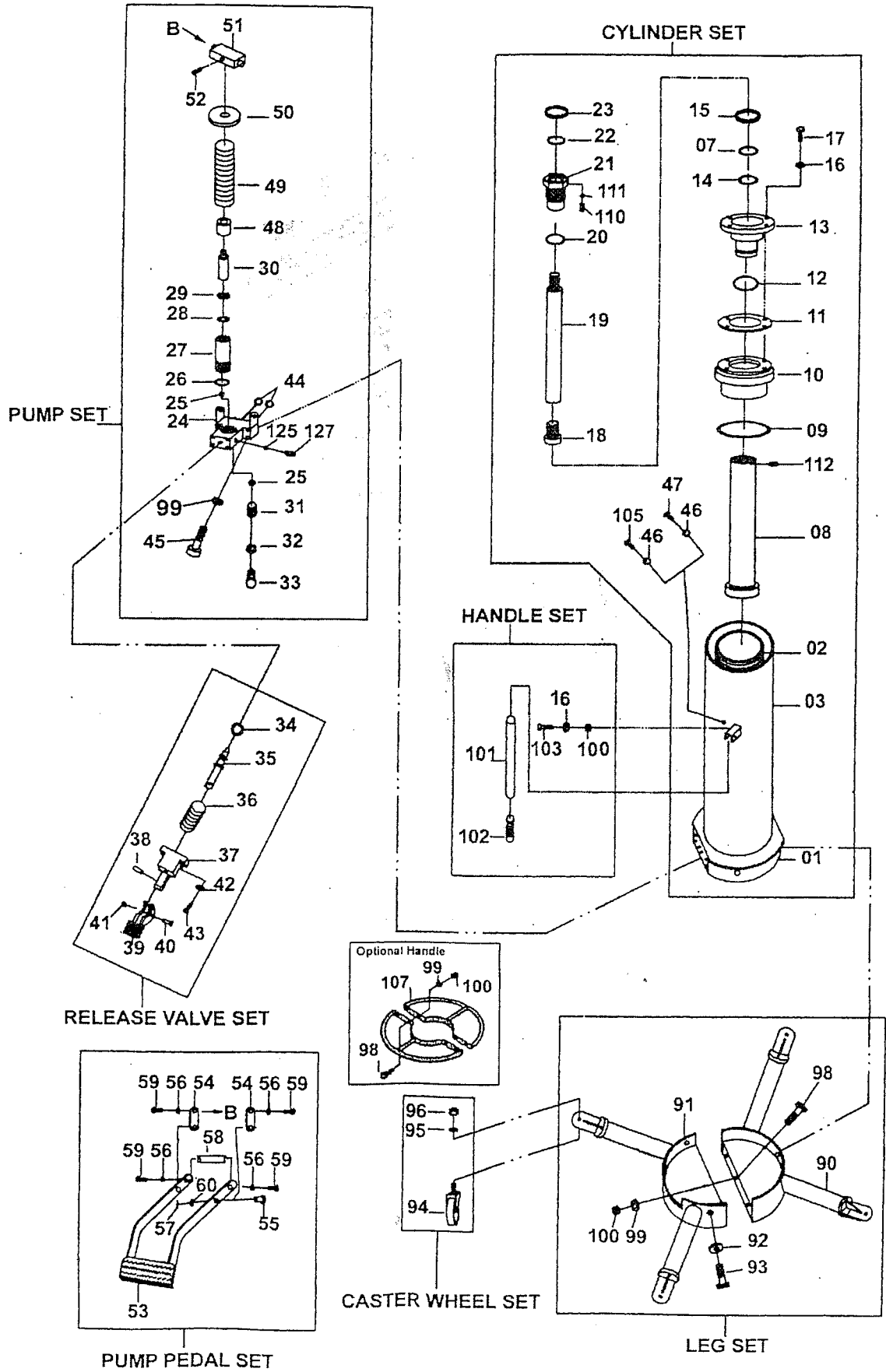
1. The hydraulic system is a closed system, and will normally demand no maintenance.
2. Store it out of the way in a dry location.
3. Store it with the rams lowered, otherwise they may become damaged or corroded.
4. Occasionally lubricate the mechanical parts of the Pedal Assembly.
5. The oil level of the hydraulic fluid must not come up over the fill plug, with the jack in its lowest position. The jack oil capacity is 3 liters.

## TROUBLESHOOTING

**NOTE:** *Although the following may identify a problem, we recommend the problem be resolved by an authorized service agent.*

PROBLEM	CAUSE	SOLUTION
Jack will not lift	No hydraulic oil, or defective suction valve or delivery valve Release valve is open	Contact authorized service agent Close release valve
Jack will only lift halfway	Hydraulic oil low, or excess of hydraulic oil	Contact authorized service agent.
Raised load will not hold	Defective valves, or defective piston packing	Contact authorized service agent.
Poor lifting	Defective plunger packing	Contact authorized service agent.

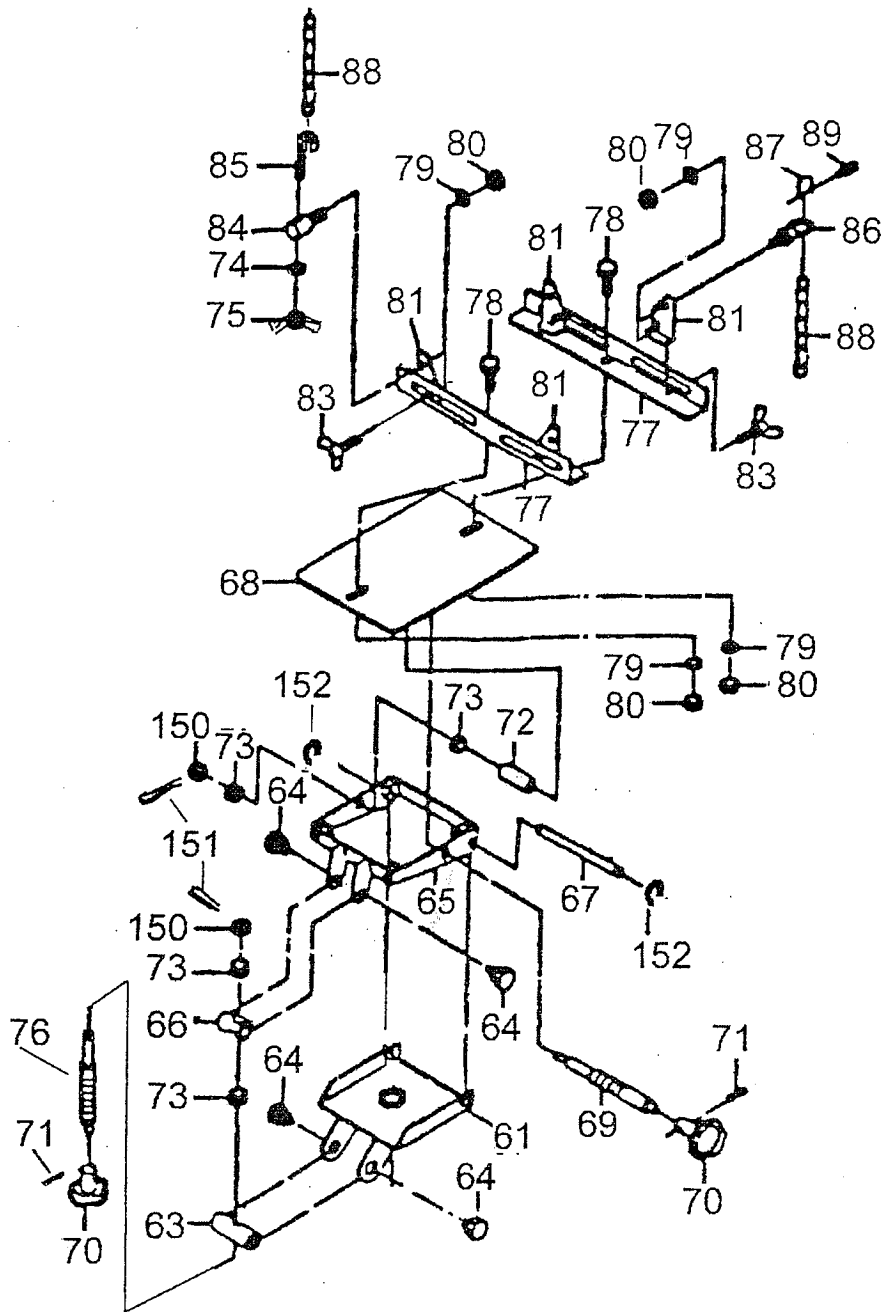
# Assembly Drawing



## Parts List

No.	Description	Qty.	No.	Description	Qty.
1	BASE	1	44	O-RING 11*1.9	2
2	CYLINDER	1	45	SCREW M10*55	4
3	RESERVOIR	1	48	DUST CAP	1
7	O-RING 65*5.7	1	49	SPRING	1
8	RAM	1	50	SPRING RETAINER	1
9	O-RING 140*5.7	1	51	CONNECTING ROD	1
10	TOP NUT	1	52	SCREW M8*10	1
11	PACKING	1	125	STEEL BALL 1/4"	1
12	O-RING 65*3.1	1	127	SCREW M8*10	1
13	FLANGE	1	34	O-RING 12*1.9	1
14	O-RING 60*3.1	1	35	RELEASE VALVE ROD	1
15	DUST SEAL	1	36	SPRING	1
16	WASHER 10	5	37	BASE RELEASE VALVE	1
17	BOLT M10*30	4	38	PIN 6*32	1
18	RETAINER RAM	1	39	PEDAL RELEASE VALVE	1
19	RAM	1	40	PIN	1
20	O-RING 48*3.5	1	41	SNAP RING 6	1
21	TOP NUT	1	42	SPRING WASHER 6	4
22	O-RING 41*3.5	2	43	SCREW M6*25	4
23	DUST SEAL 35	1	53	PEDAL PUMP PISTON	1
46	O-RING 14*2.4	2	54	LINK	2
47	AIR VENT VALVE	1	55	COTTER LINK 14*20	2
105	SCREW	1	56	WASHER 8	4
110	SCREW 6*6	1	57	SNAP PIN 4*20	2
111	STEEL BALL 3/16"	1	58	SHAFT	1
112	SCREW M5*6	1	59	SCREW M8*12	4
101	HANDLE	1	60	WASHER 14	2
102	GRIP	1	90	LEG ASSEMBLY	1
103	BOLT M10*45	1	91	LEG ASSEMBLY	1
24	PUMP BASE	1	92	WASHER 12	3
25	STEEL BALL 8	2	93	BOLT M12*30	3
26	WASHER 39.5*26*1	1	98	BOLT M10*25	7
27	PUMP CYLINDER	1	99	SPRING WASHER 10	11
28	O-RING 36*3.5	1	100	NUT M10	8
29	DUST SEAL	1	94	CASTER ASSEMBLY	4
30	PUMP PISTON	1	95	SPRING WASHER 12	4
31	SPRING	1	96	NUT M12	4
32	WASHER	1	107	HANDLE	2
33	BOLT	1			

## Assembly Drawing and Parts for Saddle (ADT1)



NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY	NO	DESCRIPTION	QTY
61	Bottom Plate Assy	1	72	Spacing Collar	1	83	Wing Bolt	4
63	Stationary Rod	1	73	Bearing	4	84	Hook Pin	2
64	Bolt	4	74	Washer 8	2	85	Hook Screw	2
65	Tilting Saddle Assy	1	75	Wing Nut M8	2	86	Eye Bolt	2
66	Stationary Rod	1	76	Adjustable Screw	1	87	Shackle	2
67	Connecting Rod	1	77	Angle Plate	2	88	Chain	2
68	Saddle Kit	1	78	Bolt M10*30	10	89	Shackle Bolt	2
69	Adjustable Screw	1	79	Washer 10	10	150	Nut	2
70	Grip	2	80	Nut M10	2	151	Split Pin	2
71	Spring Pin	2	81	Stationary Plate	4	152	Snap Ring "C"	2