
SAFE OPERATION & MAINTENANCE INSTRUCTIONS

Hydraulic Hand Pump
HP-700A

502.091

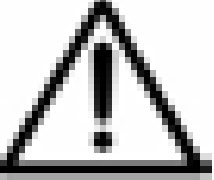
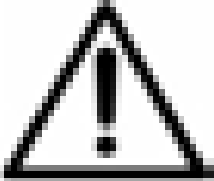


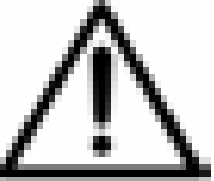
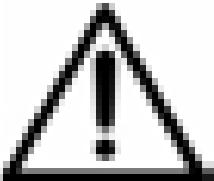
ATTENTION!

SAFE OPERATION & MAINTENANCE INSTRUCTIONS MUST BE FOLLOWED

Safety Warnings

Carefully read ALL warnings before operating this machine

WARNING:	
	DO NOT attempt to disassemble or repair this product. Doing so will violate the terms of the warranty
	DO NOT exceed equipment ratings by adjusting the relief valve to over 700 bar (10,000 psi) pressure

WARNING:	
	Release the hydraulic pressure from the system before cleaning or servicing the pump or tool head.
	Use protective equipment when working near power lines, including insulated hydraulic hoses and gloves


 ATTENTION:
<ul style="list-style-type: none"> • The hydraulic hose is not insulated and not suitable for hot-line work • If you notice a leak on the pump, hose or tool, do not use your hands to look for the leak.

Table of Contents

Safety Warnings	2
Table of Contents	3
Product Description	4
Safety Instructions	5
Operating Instructions	6
Oil-changing Instructions	7
Hydraulic Pressure Inspection	8
Maintenance.....	9
Trouble-Shooting	10
Diagram of Components	12
Table of Components.....	13
Limited Lifetime Warranty.....	14
Manufacture & Quality Certificate	

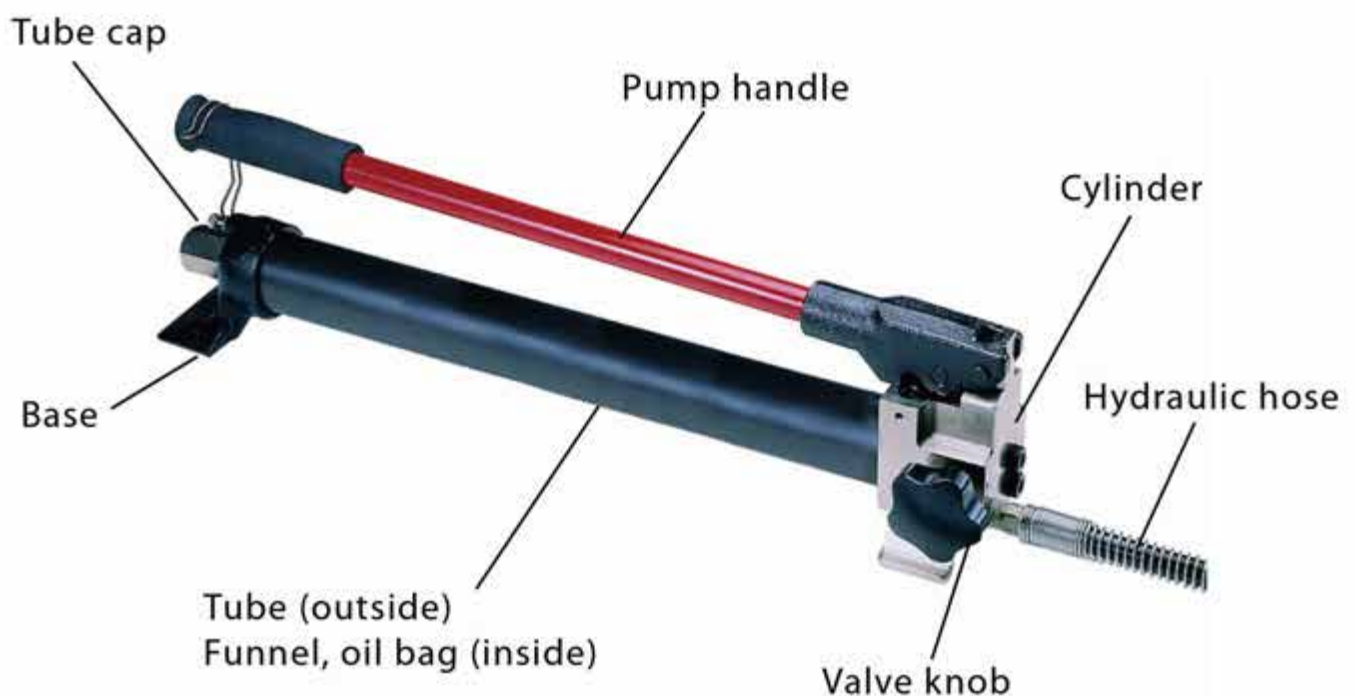
Thank you for using our products. This manual must be read carefully prior to operating this product. Special attention should be paid to the section 'Safety Instructions'.

Damages and injuries caused by improper use of this product are NOT included in our warranty. We would like to remind you to work safely and to keep this manual on hand.

Product Description

- SPECIFICATIONS:**
- Length: 590mm
 - Weight: 10kgs
 - Oil Required: 720cc
 - Max. Pressure: 700 bar / 10,000psi
 - Oil Delivery:
 - *12.26cc/min. at low pressure
 - *2.26cc/min. at high pressure
 - Accessories: 2M hydraulic hose attached
 - Packaging: No brand plastic case

- FEATURES:**
- Dual-speed pump piston for rapid advance
 - 2-stage pumping action
 - External adjustable pressure setting up to 700 bar
 - Internal bladder-type oil reservoir allows operation in any position
 - Replaceable drop-out bypass valve cartridge for easy repair



Safety Instructions

Follow ALL instructions to ensure safety

WORK AREA SAFETY

1. Keep the area around the equipment clean and free of obstructions
2. Bystanders should stay clear of the work area to ensure safety

PERSONAL SAFETY

1. Stay alert while using this hydraulic equipment to prevent serious injury. Do not use under the influence of drugs, alcohol or medicine.
2. Do not wear loose hair or clothes that may get caught while the equipment is in operation.
3. To reduce the risk of injury, wear nonconductive gloves and non-skid safety-shoes. Always wear protective eyewear.
4. Work safely. Maintain your balance and do not reach while operating hydraulic tools.

TOOL USE AND CARE

1. Do not use the pump if there are any abnormalities or damage to any of its components.
2. Keep out of the reach of children. All users should be familiar with its use before operating.
3. Inspect the pump before and after every use. Do not use this pump if it is damaged in any way.
4. Personal injury can be caused by operating damaged or poorly maintained tools. Check for loose parts before use.
5. Use only we recommended accessories with this pump.
6. Do not use this pump in wet conditions. Store this pump in a dry place.

SERVICE

1. This pump must be repaired by qualified technicians. Do not attempt to disassemble or repair this pump yourself.
2. When having the tool serviced, always use identical replacement parts.

Operating Instructions

1. Refer to the pump pressure capacity and select the correct tool for your application.
2. Attach the pump hose coupler to the tool head coupler.

NOTE: Make sure the couplers are attached securely to prevent oil leakage, low pressure, or insufficient oil flow.

3. The release valve knob (#35) should be CLOSED. The pump is ready to operate.
4. Pump the handle until the rated pressure of 700 bar is reached and the operation is completed.
5. OPEN the release valve knob (turn counter-clockwise) to retract the tool head, and allow the oil to return to the pump.
6. With the pump pressure back down to zero, CLOSE the release valve (turn clockwise).
7. Repeat the operation by following steps 4-6.
8. To dismount the couplers, release the pump pressure, CLOSE the release valve, and detach the hydraulic hose from the tool head. Replace all coupler dust covers.

NOTE: If the couplers cannot be dismounted, release the internal pressure from the pump.



Make sure the couplers are securely attached



To build pressure:
CLOSE the release valve



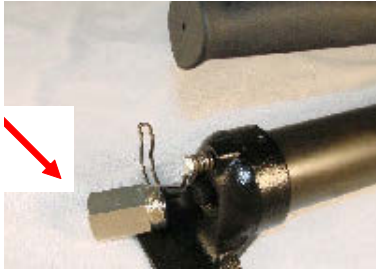
Pump the handle to advance the piston



To release pressure:
OPEN the release valve

Oil changing Instructions

Follow this procedure to complete a pressure test:



1. Make sure the pressure in the pump is released completely. Detach the hydraulic hose.

2. Loosen the valve knob (#35) and hexagon bolt (#13).



3. Loosen the set screw (#56) and remove the base (#10). Remove the filler cap and magnetic bar (#57, 58) and pour out the hydraulic oil. Wipe clean the magnetic bar to remove any metal particles.

4. Pump the handle repeatedly to force out the remaining hydraulic oil completely.



5. Pour in 700cc of new hydraulic oil. Keep the pump vertical and let the oil settle for 5 minutes to allow any air to escape. Reassemble the magnetic bar, filler cap, base, set screw and hexagon bolt.

6. Place the pump horizontally. Pump the handle repeatedly to force the oil into the oil reservoir, expel air inside, and build up pressure. Fasten the valve knob.



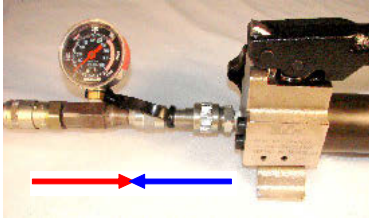
7. While tightening the valve knob, continue to pump the handle to further expel any air trapped inside.

ATTENTION:

- Use only new SHELL T37/T46 hydraulic fluid or equivalent.
- Do not top up the reservoir with used oil, or mix different oils together.
- Using the incorrect type of oil will damage the seals in the pump and cause the pump to malfunction.

Hydraulic Pressure Inspection

Follow this procedure to complete a pressure test:



1. Connect the pump to the pressure gauge and tighten the couplers to avoid any oil leakage.
2. Turn the release valve knob clockwise until it is fully closed. Proceed with the pressure test.
3. Push the pump handle down and hold for 5 seconds to make sure the pressure is constant. If the pressure drops continuously, it means there is an oil leakage.
4. Once the oil pressure reaches the rated pressure of 700 bar, the pressure will release and send the hydraulic oil back to the oil reservoir, with 50-100 bar pressure remaining.
5. If the pressure does not release automatically, turn the release valve knob counter-clockwise to open the valve and release the pressure back down to zero.
6. If the pressure is under or over 700 bar the pump should be adjusted.

ATTENTION:

- The operating pressure for pumps are set to 700 bar. DO NOT adjust the pressure unnecessarily.
- The hydraulic fluid pressure should only be adjusted by our service representatives.

Maintenance

Follow these tips to ensure long product life:

- Routine renewal of pump oil is required. Particles mixed in the pump oil is the most common cause of product failure.
- Replace the pump oil after the first three months of use, thereafter, once every year. If the pump is used continuously, change the pump oil every 6 months.
- Keep the pump free of dirt and metal chips. Use some lubricant to clean the tool when necessary.
- Do NOT keep this pump in places with high temperatures, high humidity, or direct sunlight.
- Suggested working temperatures are -10°C to 40°C. Check hydraulic fluid specifications.
- Hydraulic fluid temperatures over 65°C might soften seals and cause fluid leaks.
- Inform our authorized distributors in case of any abnormalities or malfunctions of the product.
- DO NOT DISASSEMBLE OR ATTEMPT TO REPAIR THIS TOOL.

 **ATTENTION:**

- Please contact your or our service representatives if the pump leaks oil, loses pressure, or the handle jams causing the pump to work improperly.
- Check and adjust the pressure relief valve every 6 months. Always keep the correct pressure value.

Trouble-shooting

There is insufficient operating pressure - >700bar/ 10,000psi:

- A. Check that the couplers are secured properly to prevent restricted oil flow.
- B. Inspect the pump output for possible pressure losses. Do not use your fingers when looking for fluid leaks.
- C. Test the pump to ensure it reaches 700 bar pressure. Never adjust the relief valve over 700 bar.

Hydraulic pressure in the system will not build:

- A. Dirt is blocking the solid filter and restricting oil flow. Clean the filter and change the hydraulic fluid regularly
- B. There is not enough hydraulic fluid in the system. See instructions for refilling (p.7).
- C. The Pump Assembly is damaged and must be serviced.

Tool head advances and retracts slowly:

- A. Hydraulic fluid is contaminated. See instructions for replacement (p.7).
- B. Hydraulic fluid is too hot from continuous pump operation. Allow the pump and hydraulic fluid to cool down.
- C. There is air in the hydraulic system. See instructions for removing trapped air (p.7).

Pump handle can be pushed down slowly without building pressure:

- A. Hydraulic fluid is leaking past the piston O-Ring. Contact your local representatives.
- B. Cylinder piston assembly is damaged or the piston seals are leaking.

Pump handle action is spongy:

- A. Air bubbles are trapped in the system. Follow instructions on page 7 to expel air from the system.
- B. There is too much hydraulic fluid in the reservoir. Follow instructions on page 7 to remove oil from the reservoir.

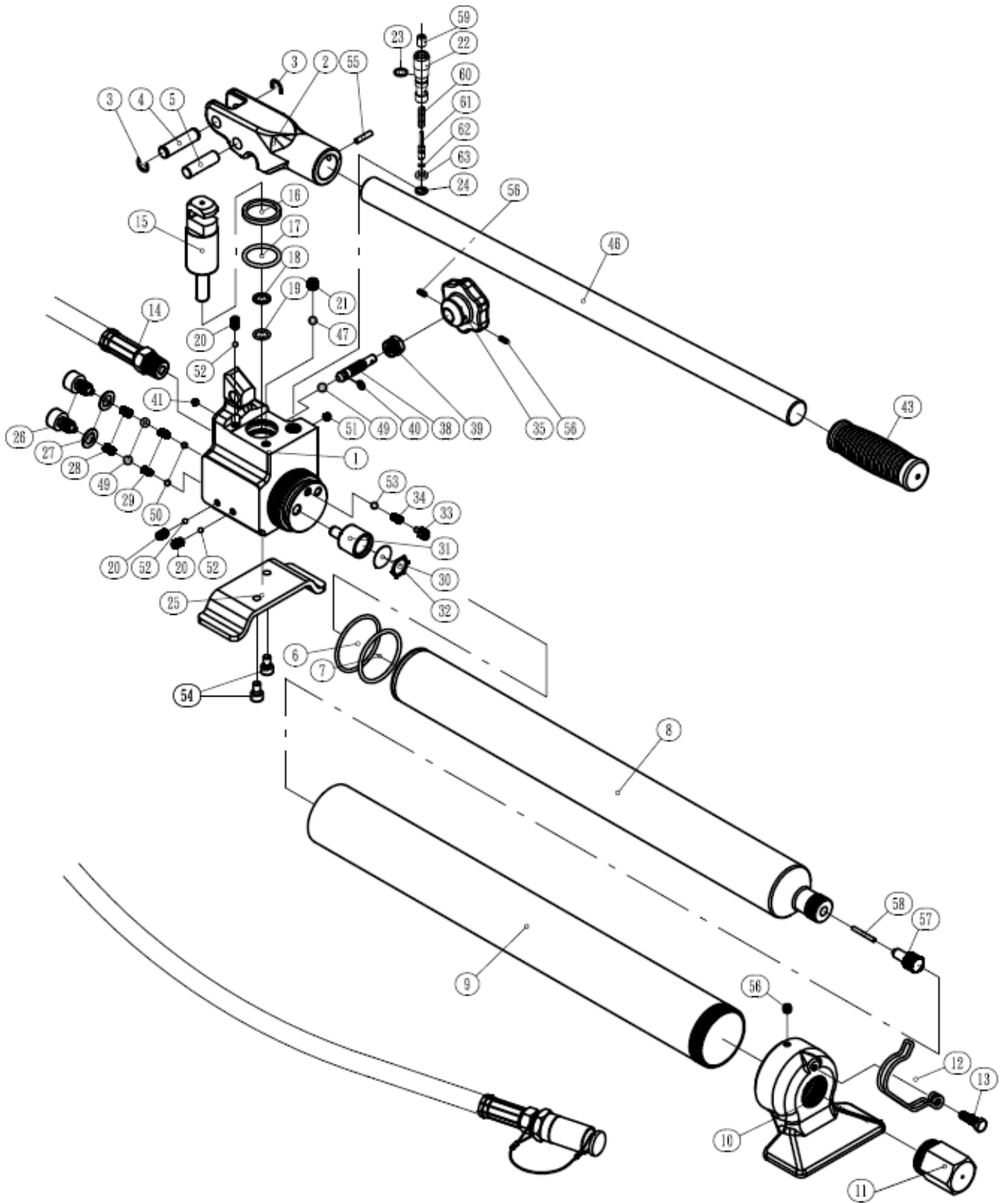
Pump handle resistance drops after pressure is built up:

- A. This is normal for two-stage hydraulic pumps.

 **ATTENTION:**

- Our hydraulic tools must be serviced by a qualified technician. Contact your local representative for more information
- Replace any worn or damaged parts immediately. Do not use any parts not supplied by
- Contact local service representatives to request parts or for problems not shown here

Parts Guide



No.	Part	Q'ty	No.	Part	Q'ty
1	Cylinder Body	1	33	Valve Screw	1
2	Cap	1	34	Compression Spring	1
3	Crescent	2	35	Valve Knob	1
4	Hinge Pin	1	36	---	---
5	Hinge Pin	1	37	---	---
6	O-Ring	1	38	Release Lever	1
7	O-Ring	1	39	Locating Screw	1
8	Oil Reservoir	1	40	O-Ring	1
9	Tube	1	41	Set Screw	1
10	Base	1	42	---	---
11	Cap	1	43	Rubber Handle Tube	1
12	Hook Spring	1	44	---	---
13	Hexagon Bolt	1	45	---	---
14	---	---	46	Steel Tube	1
15	Pumping Piston	1	47	Ball	1
16	Dust Seal	1	48	---	---
17	O-Ring	1	49	Ball	3
18	Back Up Ring	1	50	Ball	2
19	O-Ring	1	51	Set Screw	1
20	Set Screw	3	52	Ball	3
21	Set Screw	1	53	Ball	1
22	Relief Valve Set	1	54	Screw	2
23	O-Ring	1	55	Spring Pin	1
24	O-Ring	1	56	Set Screw	3
25	Rack	1	57	Filler Cap	1
26	Valve Screw	2	58	Magnetic Bar	1
27	Copper Washer	2	59	Release Valve Set	1
28	Compression Spring	2	60		
29	Compression Spring	2	61		
30	Solid Filter	1	62		
31	Funnel	1	63		
32	Push-In Fastener	1	64	---	---