

	Original Instructions Manual	
	HYDRAULIC HAND PUMP	
	Doc.No : CEJN – OP - 001	



Original Instructions Manual

Thanks for using CEJN products.

For your safety using, please read this manual and keep it.

Our CEJN has authority of all CEJN products.

Our products must not be modified or copied without our permission.

(CTHP-700-07, CTHP-700-10, CTHP-800-10, CTHP-700-20, CTHP-700-27, CTHP-150-27, CTHP-700-53, CTHP-1800, CTHP-2500, CTHP-2800, CTHP-1800L, CTHP-2500L, CTHP-2800L, CTHP-1800-20, CTHP-2500-20, CTHP-2800-20, CTHP-1800-40, CTHP-2500-40, CTHP-2800-40)

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1. INTENDED USE

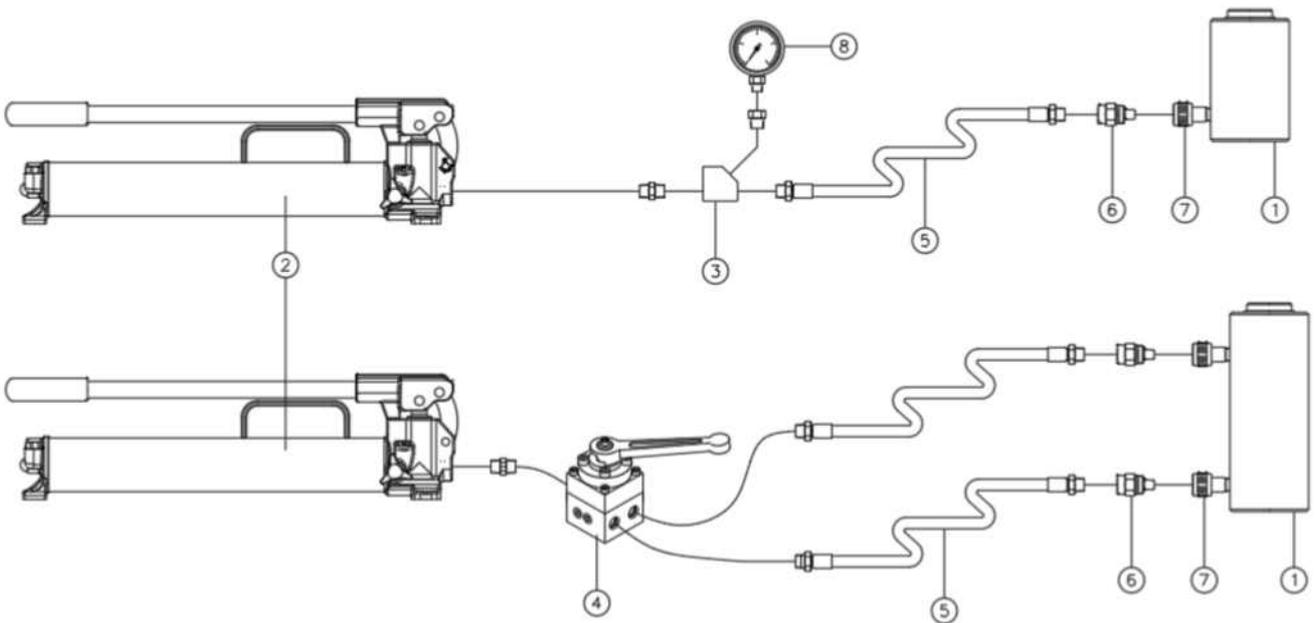
Basic configuration of pump, cylinder and hydraulic control.

- Some examples of possible system configurations using CEJN hydraulic products.
- System configuration such as production process, facility maintenance process and press lifting is possible.
- CEJN hydraulic system could be designed in various system ways according to work and be applied to any applications.
- We will provide you the best products possible.

Hand pump system

- The most basic system configuration is a cylinder drive system using a hand pump.

- 1) Cylinder (single acting / double acting type can be used): Mechanical actuator using power from hydraulic fluid.
- 2) Hand pump: Device for converting fluid energy into mechanical energy.
- 3) Gauge Block : Parts for combining gauge and pump.
- 4) Manual Valve : Valve for controlling double acting cylinder.
- 5) Hose: To transfer fluid
- 6,7) Coupler : Connector hose with cylinder.
- 8) Gauge : Measurement for force and pressure.



2. DESCRIPTION OF PRODUCTS

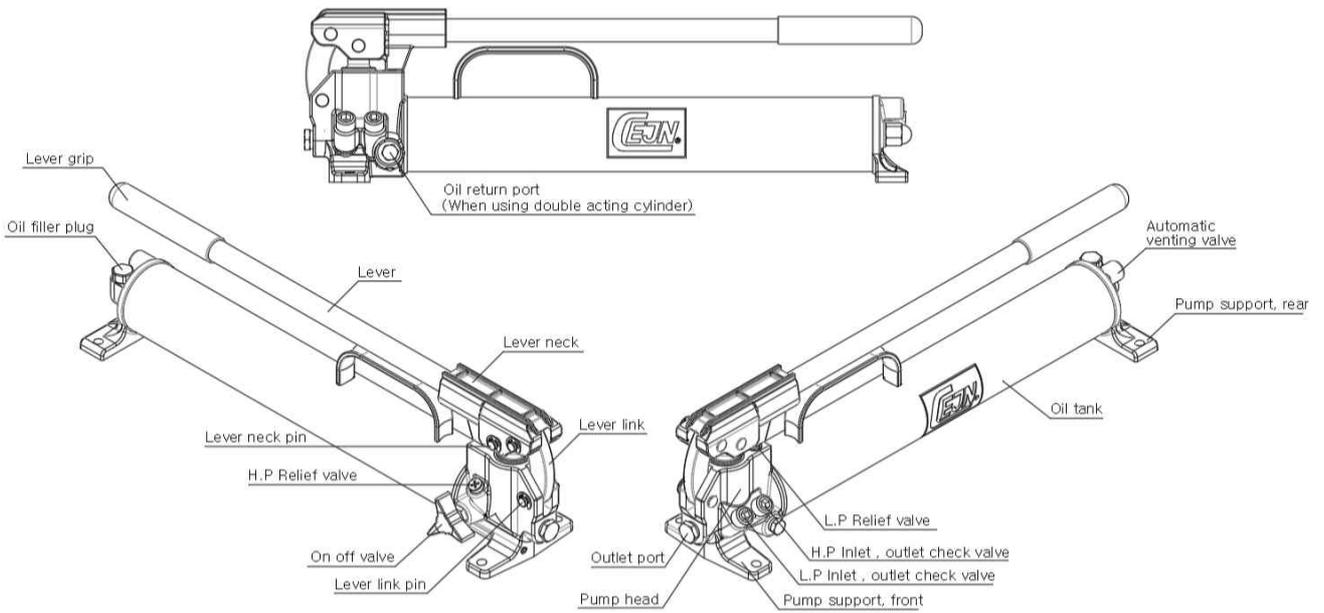
2-1. SPECIFICATION

Model No.	Maximum Pressure (bar)	Volume Per Stroke (cc)		Piston Stroke (mm)	Usable Oil Capacity (cc)	Oil Tank Capacity (cc)	Max. Handle Effort (kg)	Dimensions (mm)	Max. Weight (kg)
		Low Pressure	High Pressure						
CTHP-700-07	700	20.9cc (at20bar)	2.47cc (at700bar)	26	500	700	44	516*120*163	4.6
CTHP-700-10	700	20.9cc (at20bar)	2.47cc (at700bar)	26	800	1,000	35	586*120*163	5.3
CTHP-800-10	800	20.9cc (at20bar)	2.47cc (at800bar)	26	800	1,000	35	586*120*163	5.3
CTHP-700-20	700	32.7cc (at20bar)	2.47cc (at700bar)	26	1,700	2,000	35	632*120*182.5	7.2
CTHP-700-27	700	41cc (at20bar)	2.94cc (at700bar)	26	2,400	2,700	38.5	644*120*200.5	8.6
CTHP-150-27	150	11.7cc (at150bar)		26	2,400	2,700	38.5	644*120*200.5	8.6
CTHP-700-53	700	41cc (at20bar)	2.94cc (at700bar)	26	5,000	5,300	38.5	644*170*200.5	14.5
CTHP-1800	1800	20cc (at20bar)	0.8cc (at1800bar)	26	1,900	2,200	35	670*120*197	8.1
CTHP-2500	2500	20cc (at20bar)	0.8cc (at2500bar)	26	1,900	2,200	45	670*120*197	8.1
CTHP-2800	2800	20cc (at20bar)	0.8cc (at2800bar)	26	1,900	2,200	51.8	670*120*197	8.1
CTHP-1800-20	1800	20cc (at20bar)	0.8cc (at1800bar)	26	1,700	2,000	33.9	670*120*178	7.7
CTHP-2800-20	2800	20cc (at20bar)	0.8cc (at2800bar)	26	1,700	2,000	48.3	670*120*178	7.7
CTHP-1800-40	1800	20cc (at20bar)	0.8cc (at1800bar)	26	3,700	4,000	33.9	670*130*185	11.7
CTHP-2500-40	2500	20cc (at20bar)	0.8cc (at2500bar)	26	3,700	4,000	42.9	670*130*185	11.7
CTHP-2800-40	2800	20cc (at20bar)	0.8cc (at2800bar)	26	3,700	4,000	48.3	670*130*185	11.7

2-2. Change of specification

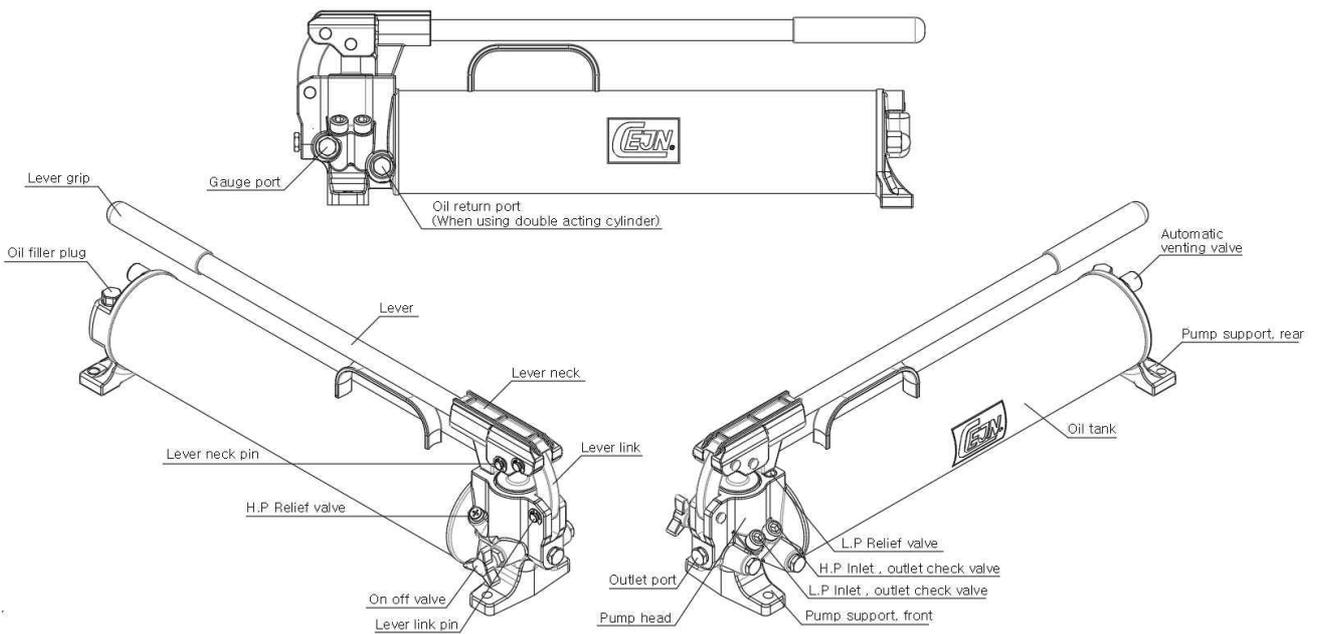
- The technical team of CEJN has been trying to improve the produce. Therefore, all products and specifications are subject to change without notice.

2-3. CONFIGURATION (CTHP-700-07, 700-10, 800-10)



(Figure - 1)

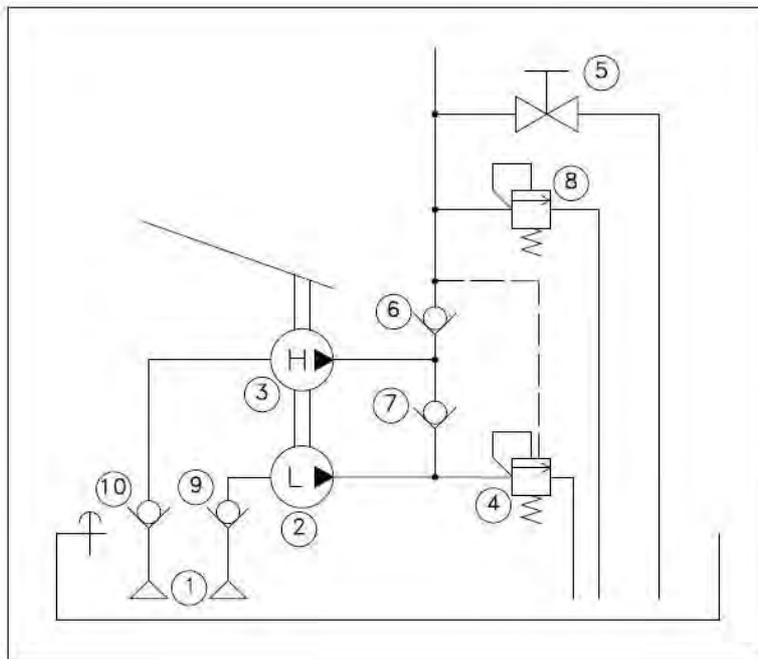
2-4. CONFIGURATION (CTHP-700-20, 700-27, 150-27, 700-53)



(Figure - 2)

2.5. OPERATION DIAGRAM

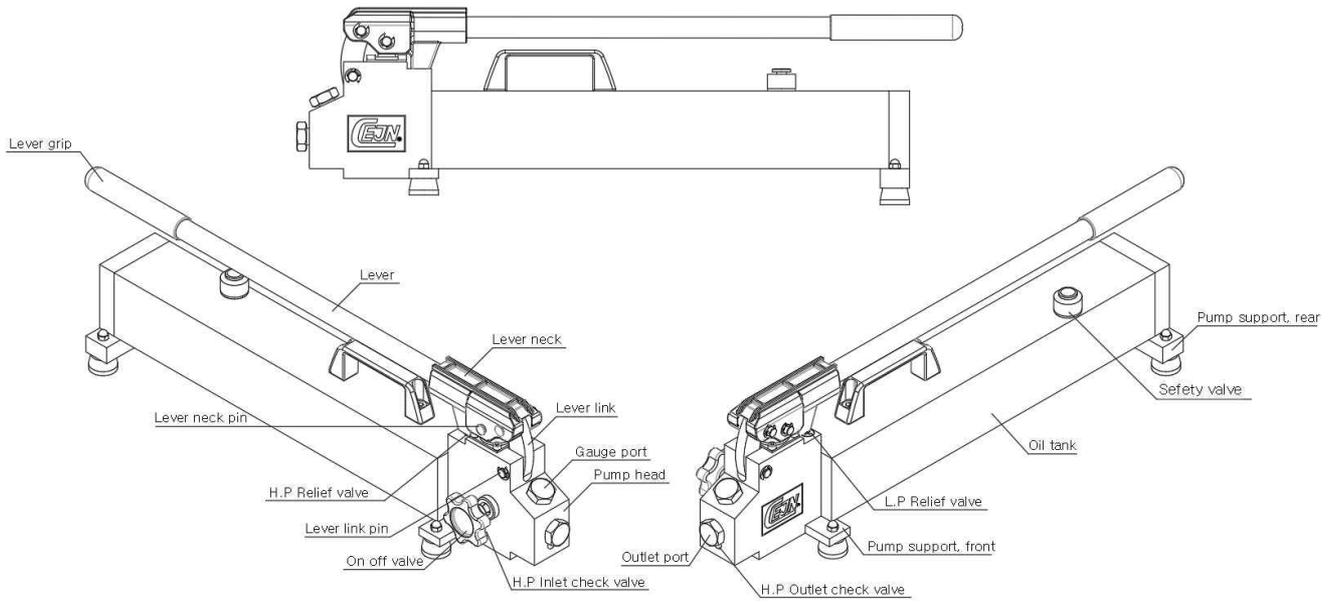
(CTHP-700-07, 700-10, 800-10, 700-20, 700-27, 150-27, 700-53)



- 1 STRAINER
- 2 L.P PUMP
- 3 H.P PUMP
- 4 L.P RELIEF VALVE
- 5 ON/OFF VALVE
- 6 H.P OUTLET CHECK
- 7 L.P OUTLET CHECK
- 8 H.P RELIEF VALVE
- 9 L.P INLET CHECK
- 10 H.P INLET CHECK

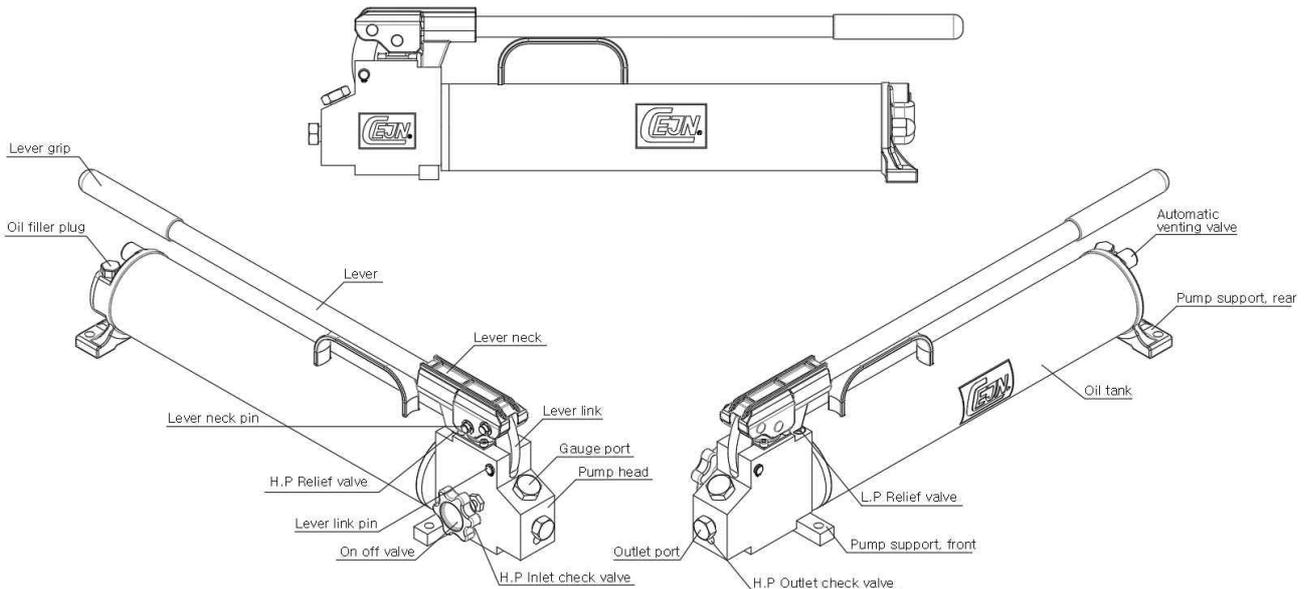
(Figure - 3)

2-6. CONFIGURATION (CTHP-1800, 2500, 2800,)



(Figure - 4)

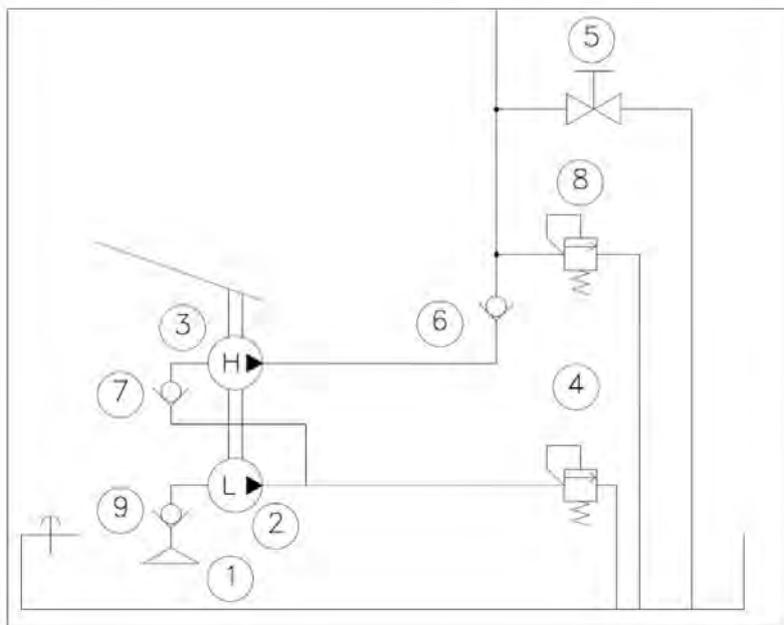
2-7. CONFIGURATION (CTHP-1800-20, 1800-40, 2500-40, 2800-20, 2800-40)



(Figure - 5)

2.8. OPERATION DIAGRAM

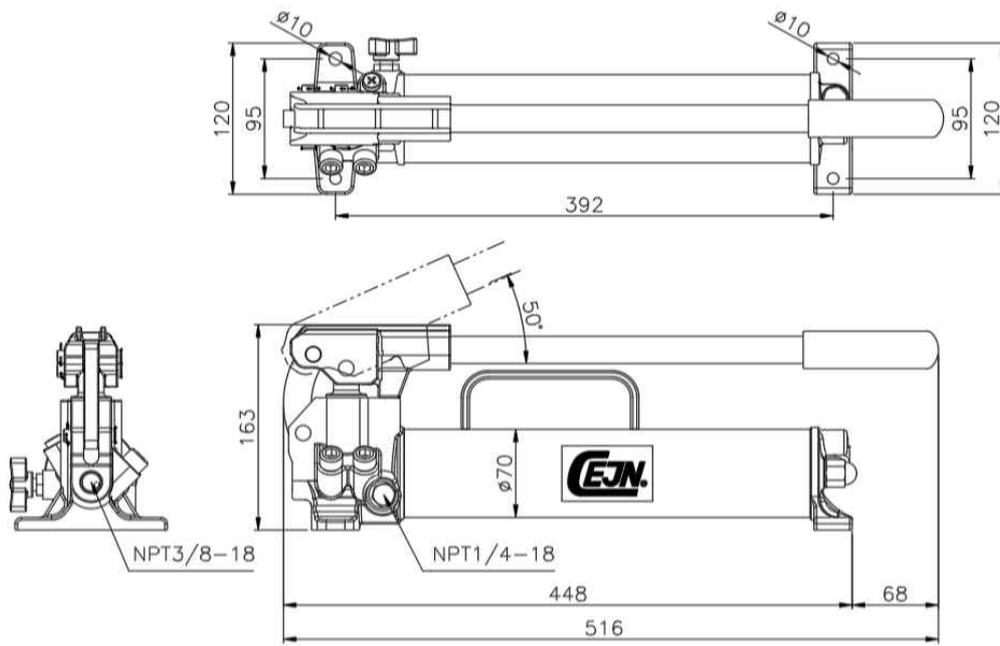
(CTHP-1800,2500,2800,1800-20,1800-40,2500-40,2800-20,2800-40)



- 1 STRAINER
- 2 L.P PUMP
- 3 H.P PUMP
- 4 L.P RELIEF VALVE
- 5 ON/OFF VALVE
- 6 H.P OUTLET CHECK
- 7 H.P INLET CHECK
- 8 H.P RELIEF VALVE
- 9 L.P INLET CHECK

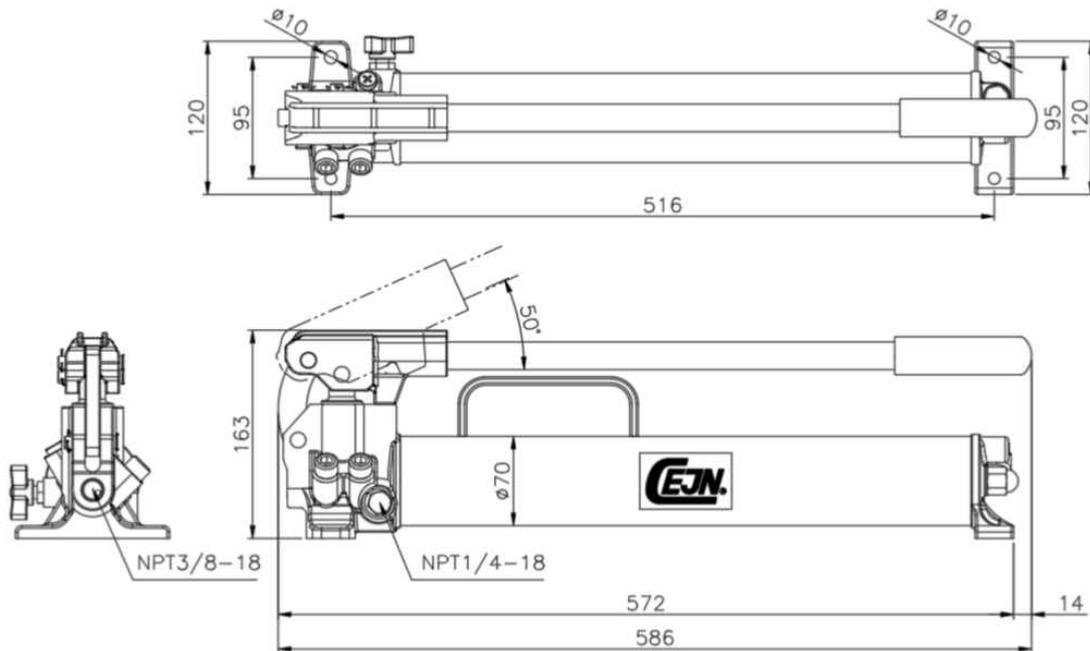
(Figure – 6)

2-9. OUTSIDE VIEW (CTHP-700-07)



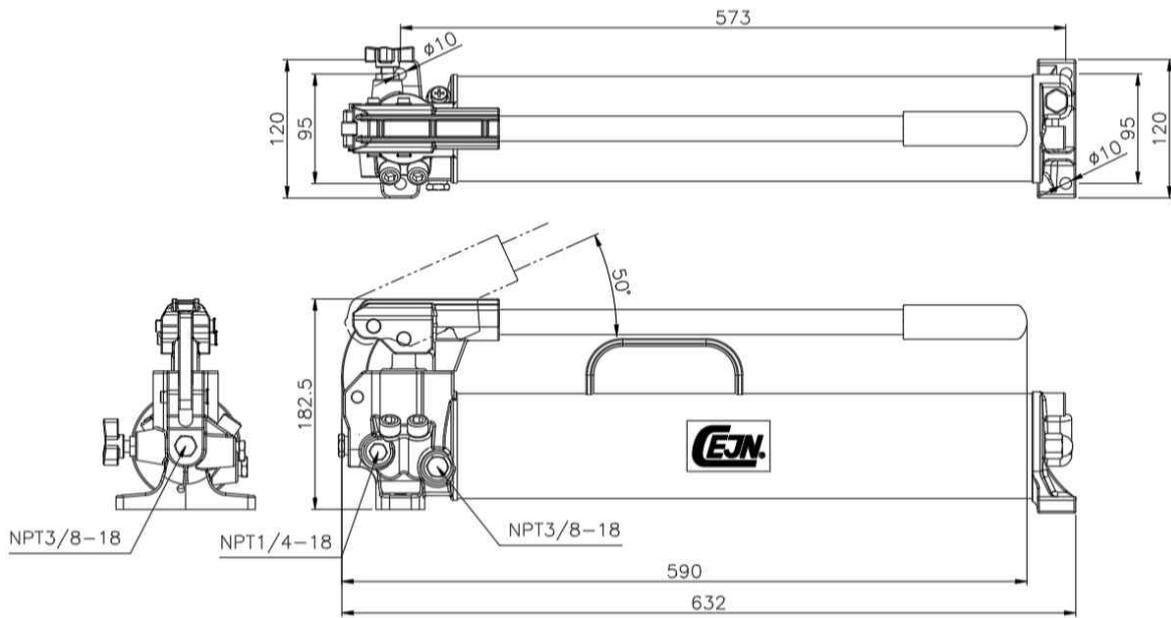
(Figure - 7)

2-10. OUTSIDE VIEW (CTHP-700-10, 800-10)



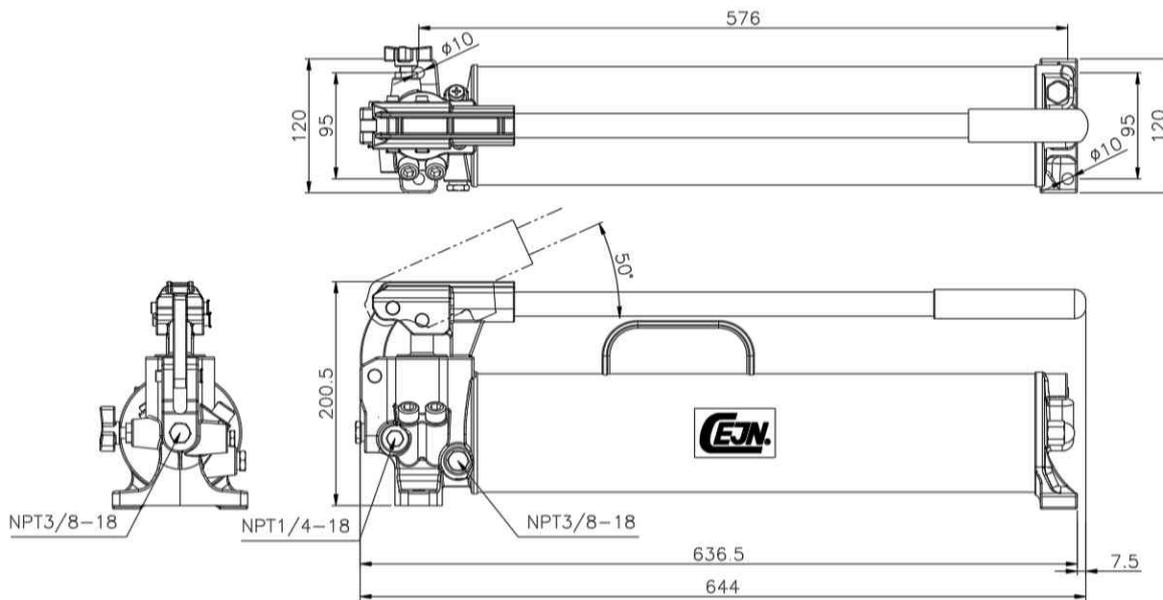
(Figure - 8)

2-11. OUTSIDE VIEW (CTHP-700-20)



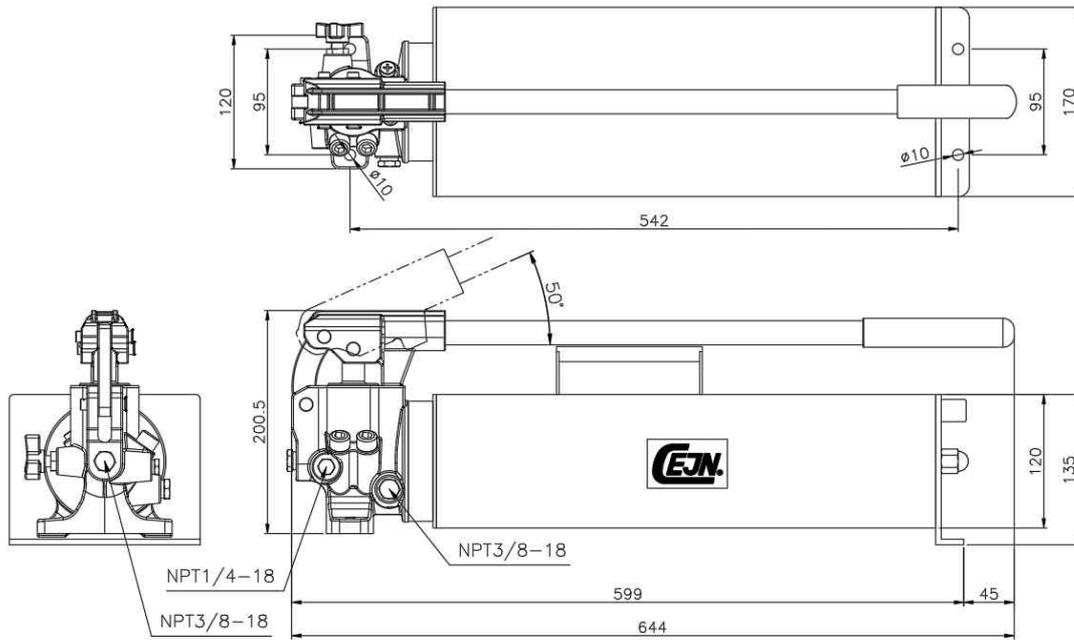
(Figure - 9)

2-12. OUTSIDE VIEW (CTHP-700-27, 150-27)



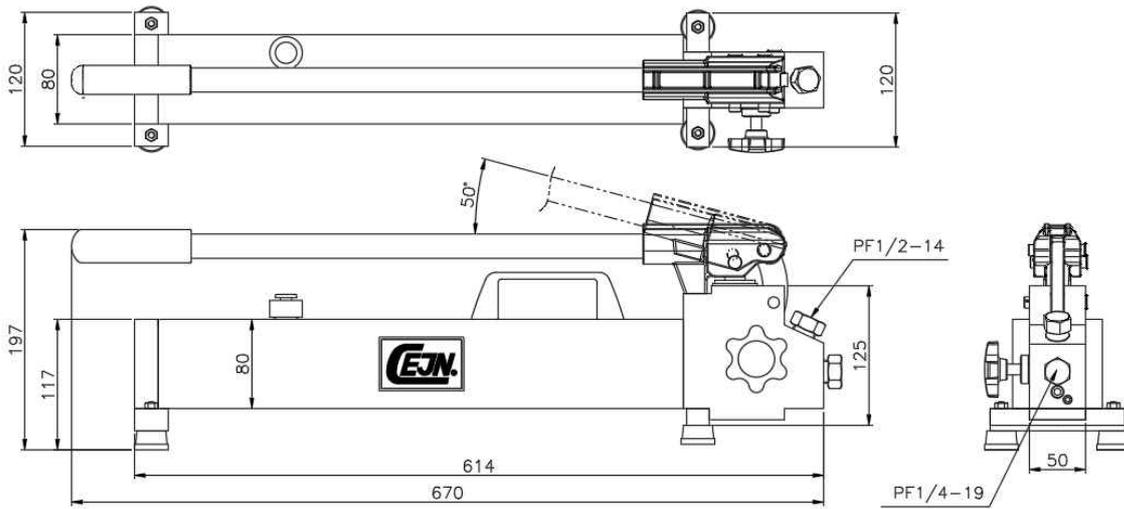
(Figure - 10)

2-13. OUTSIDE VIEW (CTHP-700-53)



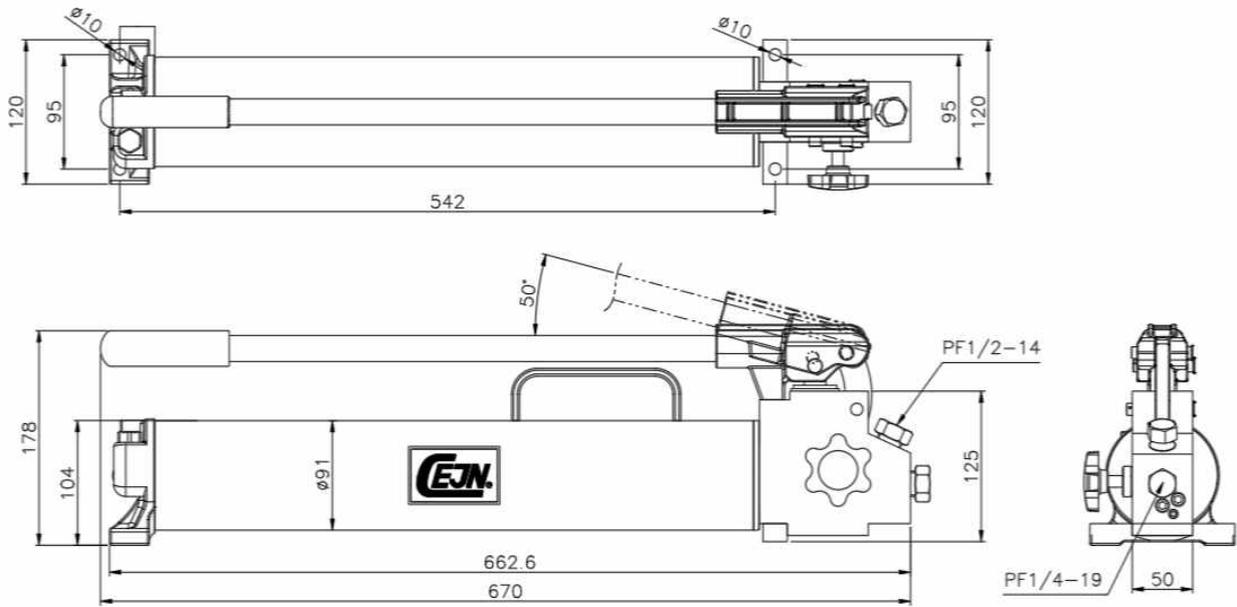
(Figure - 11)

2-14. OUTSIDE VIEW (CTHP-1800, 2500, 2800)



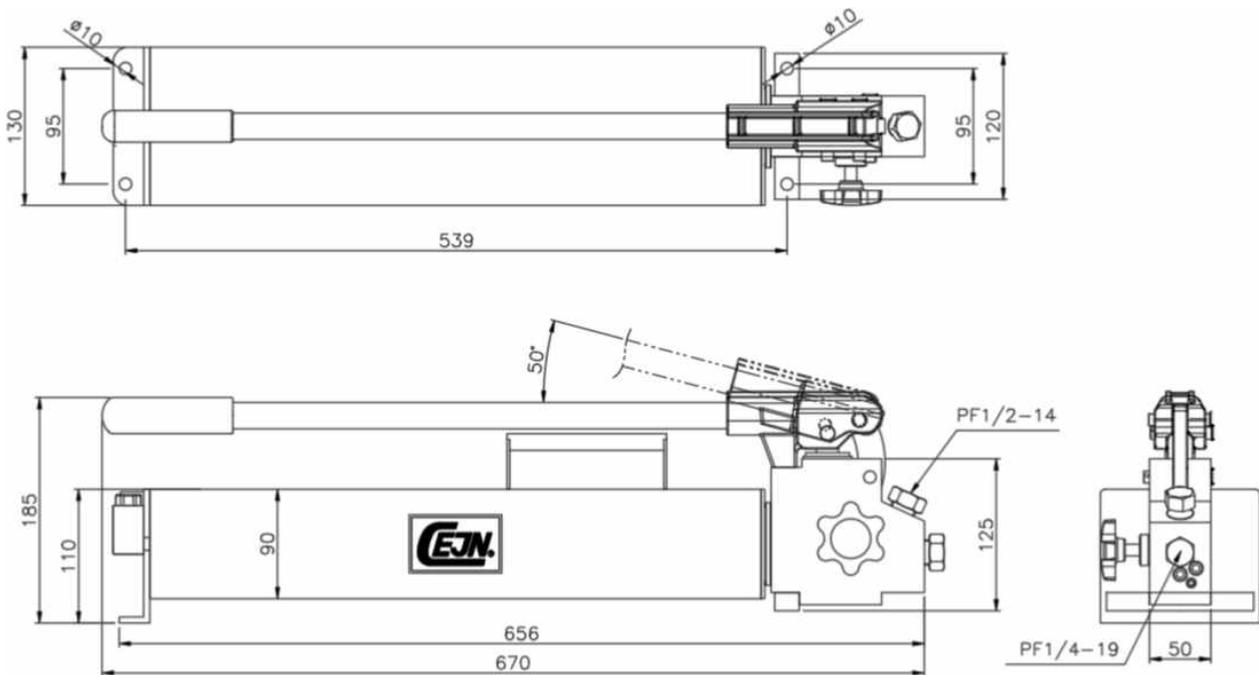
(Figure - 12)

2-15. OUTSIDE VIEW (CTHP-1800-20, 2800-20)



(Figure - 13)

2-16. OUTSIDE VIEW (CTHP-1800-40, 2500-40, 2800-40)



(Figure - 14)

3. INSTALLATION

3-1. CAUTION FOR SAFETY

3-1-1. IMPORTANT RECEIVING INSTRUCTIONS

- Read this manual for your safety using and keep it close to you for reading anytime.
 - Read all instructions, warnings and cautions carefully. Follow all safety precautions to avoid personal injury or property damage during system operation.
- ① Visually inspect all components for shipping damage.
Damage during shipping is not covered by warranty. If damage in shipment is founded notify carrier immediately. The carrier is responsible for all repair and replacement costs resulting from damage during shipping.
 - ② Before using, inspect the products have all components and accessories . If not, notify seller or CEJN at once.
 - ③ If you find problem when using initially , Stop working in order to avoid additional problems and notify seller or CEJN immediately.

3-1-2. INSTRUCTIONS

Follow all safety precautions to avoid personal injury or property damage during system operation. CEJN cannot be responsible for damage or injury resulting from unsafe product use, lack of maintenance or incorrect product and/or system operation. Contact CEJN or seller when in doubt as to the safety precautions and operations.

- ① Wear proper personal protective gear when operating hydraulic pump.



ex) protective glasses, safety shoe, gloves etc.

- ② When replacement for maintenance Use genuine CEJN parts.
- ③ Keep hydraulic pump away from heat.
Inordinate heat will make packing and seal weak ,resulting in oil leaks.
- ④ Do not hit or drop on hydraulic pump with heavy object such as hammer, etc.
- ⑤ Do not touch directly working oil with bare hand.
- ⑥ Use hydraulic equipment in a coupled system. before using Make sure that couplers are connected.
- ⑦ To promote long pump life keep hydraulic equipment clean and Maintain regularly.
- ⑧ Consider working condition.

3-1-3. CAUTION!



Caution indicates a potentially hazardous situations which, if not avoided, may result in minor or moderate injuries, or may cause damage to your hydraulic pump.

3-1-4. CAUTION!



Never set the relief valve to a higher pressure than the maximum rated pressure of the pump.

Higher settings may result in equipment damage and/or personal injury.

Do not remove relief valve.

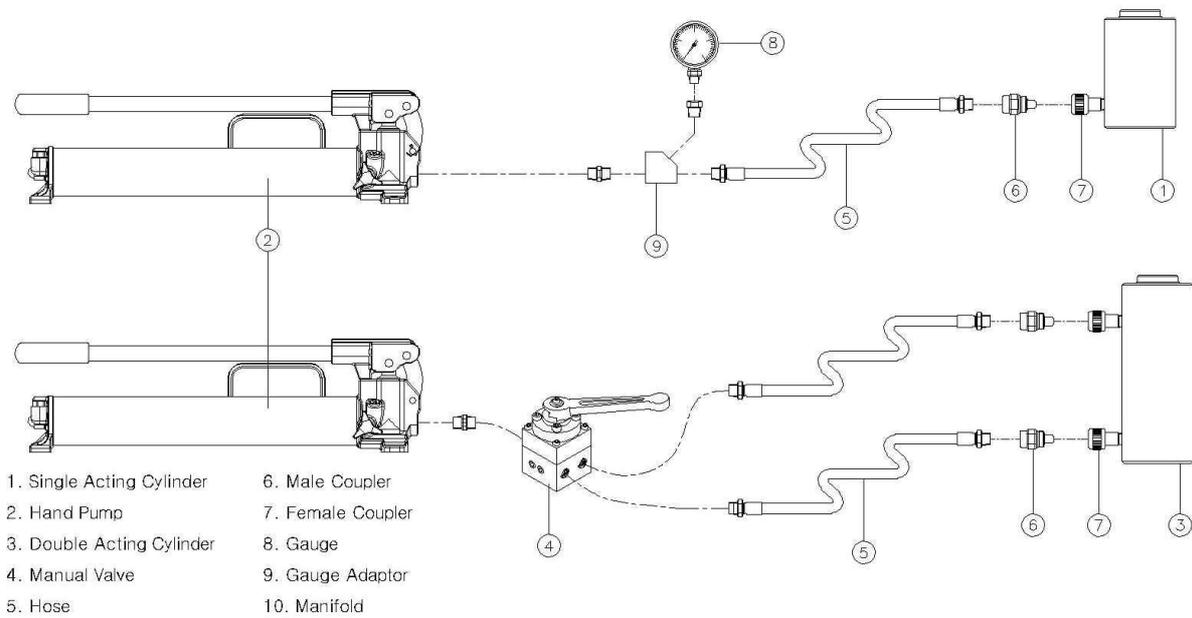
- ① Always be careful.
 - before using hydraulic pump read all instructions, cautions and warnings carefully.
- ② Keep working place and worktable clean and remove all hindrances.
 - Untidy workplace causes personal injury or damage.
- ③ Wear proper working clothes.
 - Put on nonslip shoes outdoor to avoid to slide.
- ④ Always use the handle to carry the pump. Carrying the pump by the hose may damage the hose and/or the pump.
- ⑤ Use property hydraulic pump.
 - Do not use pump for a wrong purpose.
 - Do not exceed hydraulic pump ratings.

The hydraulic pumps are designed for a max. pressure of 700bar [10,000]psi, 2800bar [40,000]psi.
 - Overloading causes pump failure and personal injury.
- ⑥ Only permit authorized person to enter workplace.
 - Hydraulic pumps and hoses must only be serviced by qualified hydraulic technician.
- ⑦ Operate hydraulic pump at a stable position.
- ⑧ Storage hydraulic pump with clean condition.
 - Keep hydraulic pump away from rain water, direct sunlight, moisture, frames and heat.
 - Storage the product at the place of fresh air condition.
 - keep hydraulic pump clean for safe using.
- ⑨ Before operating make sure that equipment has no damage.
- ⑩ For repair, contact the Authorized CEJN service center in your area or CEJN.
 - Do not modify or remodel hydraulic pump by yourself .

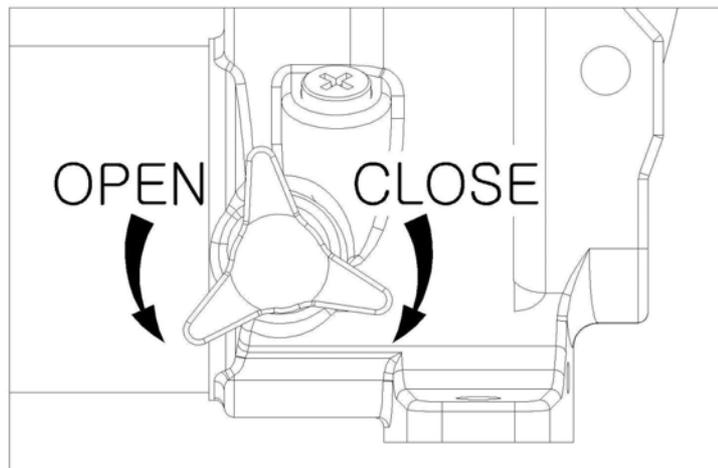
3-2. USING

3-2-1. HYDRAULIC HAND PUMP (150~800bar)

- ① Connect hydraulic hand pump to hydraulic cylinder as shown in figure-15.
No need to open air valve (automatic venting valve system.)
- ② Turn the handle cock clockwise as shown in figure-16, and Operate the pump handle up and down
at a stable position to deliver hydraulic power and extend the cylinder.
- ③ The cylinder could be returned by turning the handle cock counterclockwise as shown in figure-16.
- ④ When it is needed Refill with clean working oil No.15.
- ⑤ Hydraulic hand pump need careful and regular maintenance.



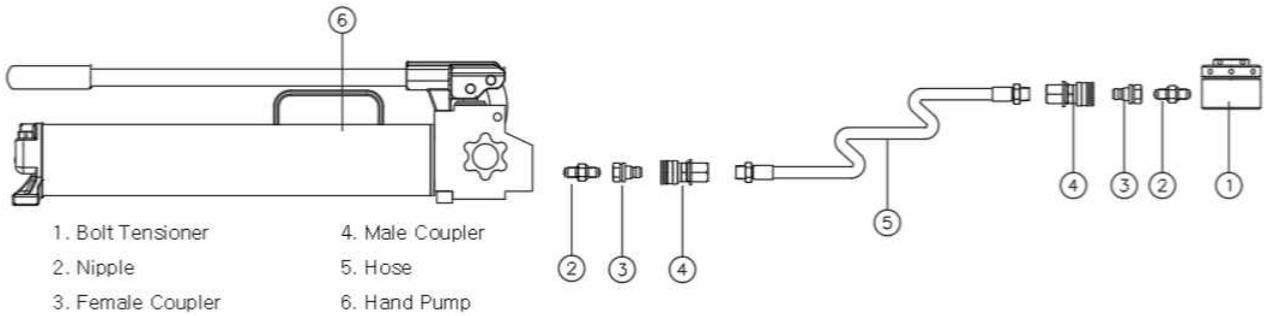
(Figure – 15)



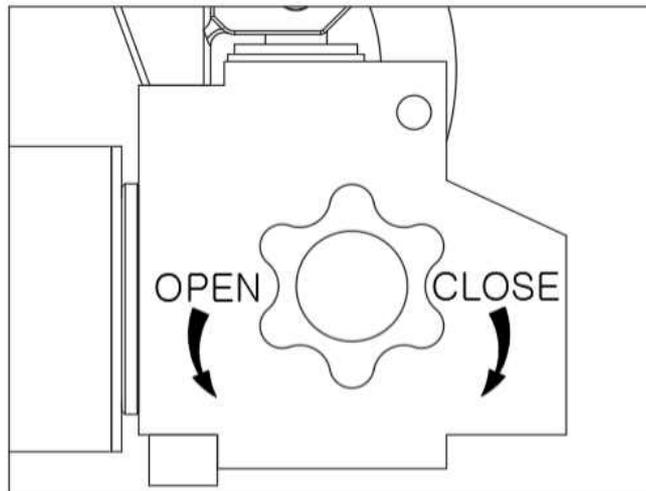
(Figure – 16)

3-2-2. HYDRAULIC HAND PUMP (1800 ~ 2800 bar)

- ① Connect hydraulic hand pump to hydraulic bolt-tensioner as shown in figure-17.
No need to open air valve (automatic venting valve system.)
- ② Turn the handle cock clockwise as shown in figure-18, and Operate the pump handle up and down
at a stable position to deliver hydraulic power and extend the bolt-tensioner.
- ③ The bolt-tensioner could be returned by turning the handle cock counterclockwise
as shown in figure-18.
- ④ When it is needed Refill with clean working oil No.15.
- ⑤ Hydraulic hand pump need careful and regular maintenance.



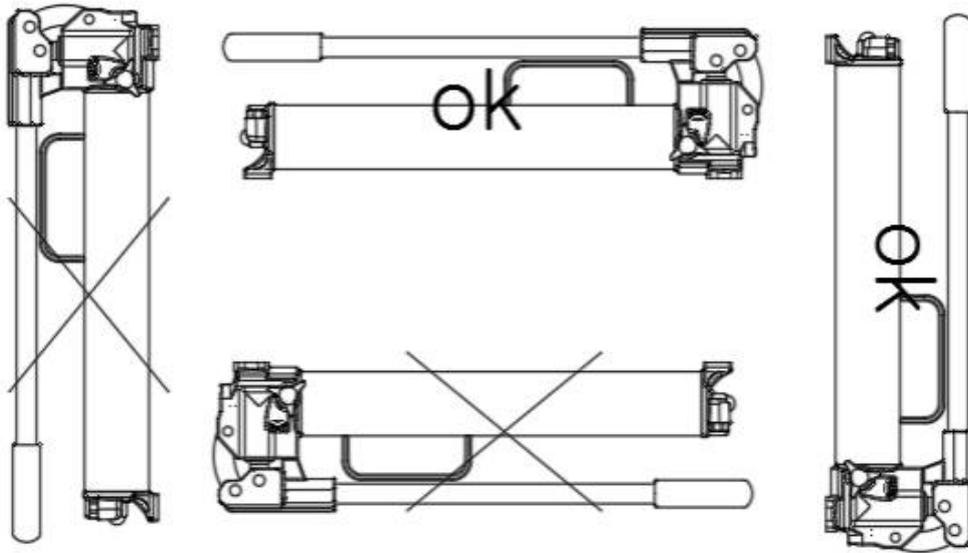
(Figure – 17)



(Figure – 18)

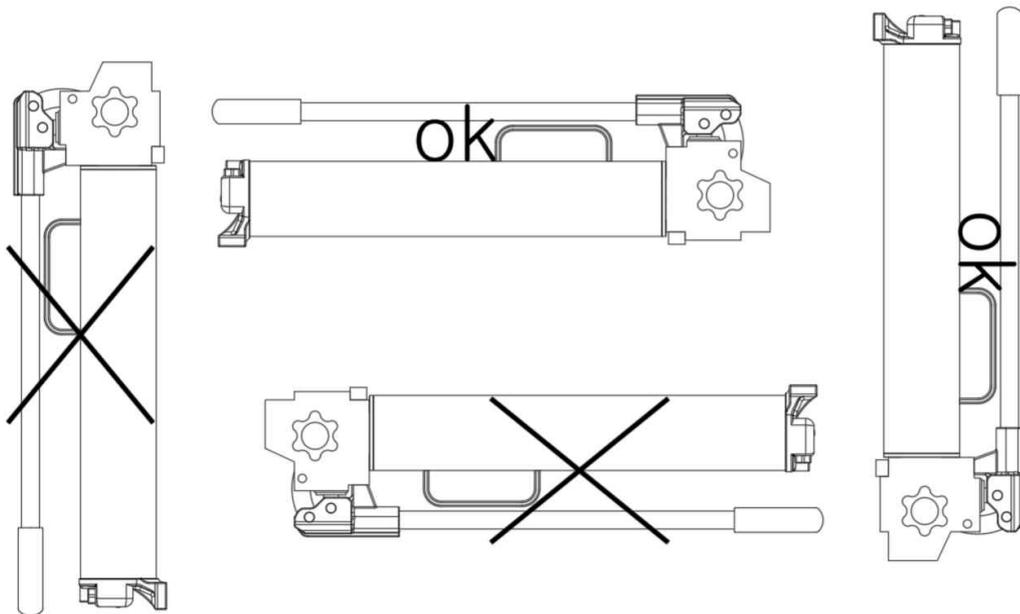
3-2-3. POSITION

- Be sure setup is stable before operating at a right position as shown in figure-19.(150 ~ 800bar)



(Figure – 19)

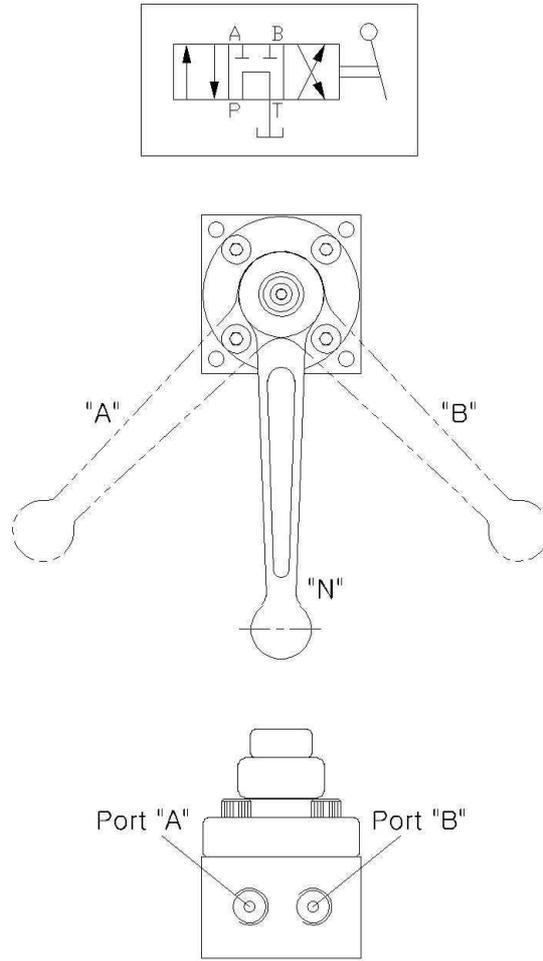
- Be sure setup is stable before operating at a right position as shown in figure-20. (1800 ~ 2800 bar)



(Figure – 20)

3-2-4. MANUAL VALVE DOUBLE-ACTING (150 ~ 800bar)

- See figure – 21 to set manual valve (double-acting) on hydraulic pump.



(Figure – 21)

4. MAINTENANCE

Use only ISO No.15 hydraulic oil with these pumps to promote long pump life and to protect your warranty.

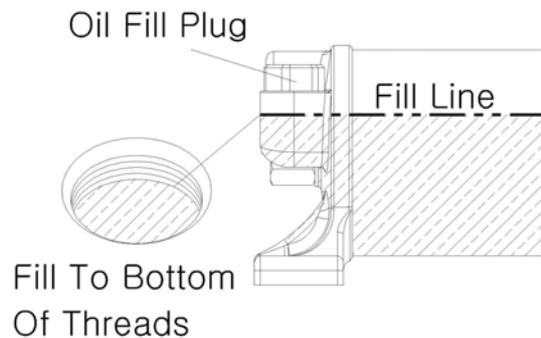
Viton and N.B.R seal kits are available for some hand pumps.

Contact your CEJN representative for more information on these products and their applications.

4-1. CHANGING THE OIL

- Refill with clean working oil No.15 every 12 months. If oil is contaminated change it more often. See below figure-22.

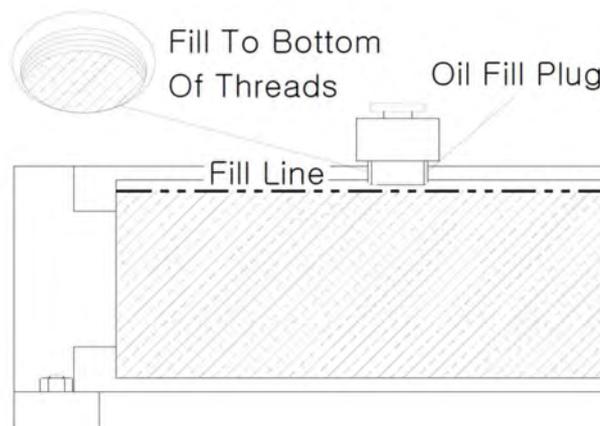
(CTHP-07~53, CTHP-1800-20, 2800-20, 1800-40, 2500-40, 2800-40)



(Figure – 22)

- Refill with clean working oil No.15 every 12 months. If oil is contaminated change it more often. See below figure-23.

(CTHP-1800, 2500, 2800)



(Figure – 23)

4-2. CLEANING PUMP SURFACE

- Hydraulic pump surface could be damaged by oil such as gasoline, petroleum, thinner, etc. Keep the pump away from them. Wipe pump surface with a dry cloth.

4-3. A/S

- When repair or replacement Contact your distribution in your area or our CEJN service center. Do not fix or disassemble hydraulic pump by yourself.

4-4. DISPOSAL CONSIDERATIONS

- This product is a controlled waste. Collect and dispose of waste product at an authorized facility, in conformance with national and local regulations, and in accordance with EEC Directives on the disposal of waste oil.

4-5. WARRANTY

- If the hand pump is operated according to its intended use and the regular maintenance services are observed our warranty is 12 months from the time of delivery.

5. TROUBLESHOOTING GUIDE

The following information is intended as an aid in determining if a problem exists.

For repair service, contact the Authorized CEJN Service Center.

Table 1, Troubleshooting Guide		
Problem	Possible Cause	Solution
Cylinder does not advance, advances slowly, or advances erratically.	<ol style="list-style-type: none"> 1. Low oil level in pump reservoir. 2. Release valve open or not fully closed. 3. Hydraulic coupler not properly connected. 4. Load is too heavy. 5. Air trapped in system. 6. Reservoir is overfilled. 	<ol style="list-style-type: none"> 1. Add oil according to the instructions in figure – 23,24 2. Close the release valve. 3. Check that all couplers are fully tightened. 4. Do not attempt to lift more than rated tonnage. 5. Remove air. 6. Remove excess oil from reservoir.
Cylinder advances, but does not hold pressure.	<ol style="list-style-type: none"> 1. Leaking connection. 2. Leaking seals. 3. Internal leakage in pump. 	<ol style="list-style-type: none"> 1. Check that all connections are tight and leak free. 2. Locate leak(s) and have equipment serviced. 3. Locate leak(s) and have equipment serviced.
Cylinder does not retract, retracts part way, or retracts more slowly than normal.	<ol style="list-style-type: none"> 1. Release valve closed. 2. Hydraulic coupler not properly connected. 3. Hose inside diameter too narrow. 	<ol style="list-style-type: none"> 1. Open the release valve 2. Check that all couplers are fully tightened. 3. Use larger diameter hydraulic hose.

PARTS LIST

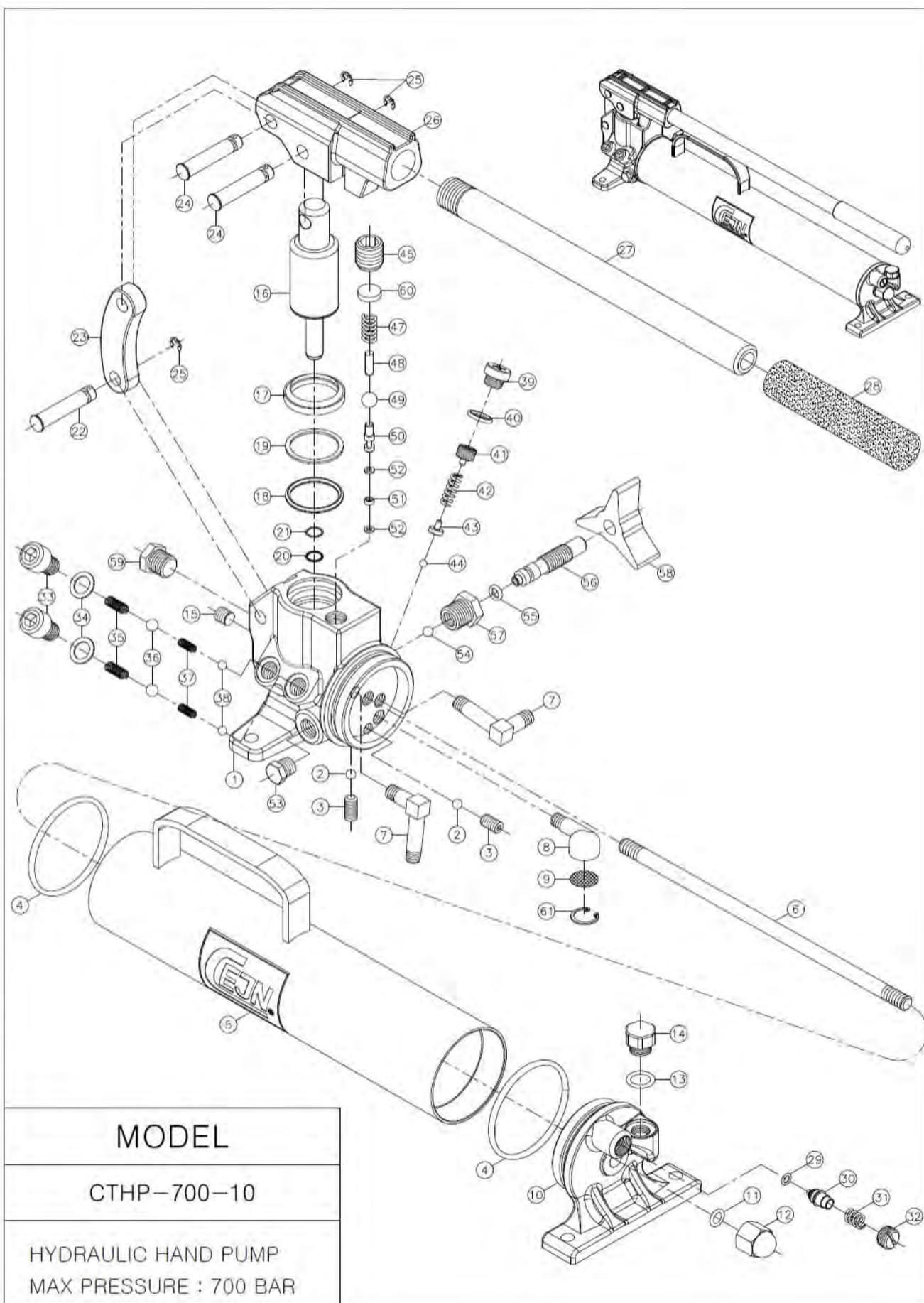
MODEL : CTHP-700-07

ITEM NO.	DESCRIPTION	SPEC	QTY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	3	
3	SET SCREW	M8x10L	3	
4	O-RING	U142	2	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		2	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
10	PUMP SURREORT, REAR		1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
15	PLUG	NPT 1/16	1	
16	PISTON		1	
17	DUST SEAL	SDR-32	1	
18	O-RING	P32	1	
19	BACKUP RING	P32	1	
20	O-RING	P11	1	
21	BACKUP RING	P11	1	
22	LEVER LINK PIN		1	
23	LEVER LINK		1	
24	LEVER NECK PIN		2	
25	E RING	8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	

PARTS LIST

MODEL : CTHP-700-07

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
31	AIR V/V SPRING		1	
32	AUTO DRAIN BOLT		1	
33	CHECK BOLT		2	
34	COPPER WASHER	∅12x1T	2	
35	CHECK SPRING-1		2	
36	STEEL BALL	5/16" (∅7.94)	2	
37	CHECK SPRING-2		2	
38	STEEL BALL	7/32" (∅5.55)	2	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (∅3.175)	1	
45	AUTO DRAIN BOLT		1	
47	DRAIN SPRING	BF10x20	1	
48	AUTO DRAIN PIN		1	
49	STEEL BALL	11/32" (∅8.731)	1	
50	AUTO DRAIN SPOOL		1	
51	O-RING	P3	1	
52	BACKUP RING	P3	2	
53	PLUG	NPT 1/4	1	
54	STEEL BALL	7/32" (∅5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	NPT 3/8	1	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	



PARTS LIST

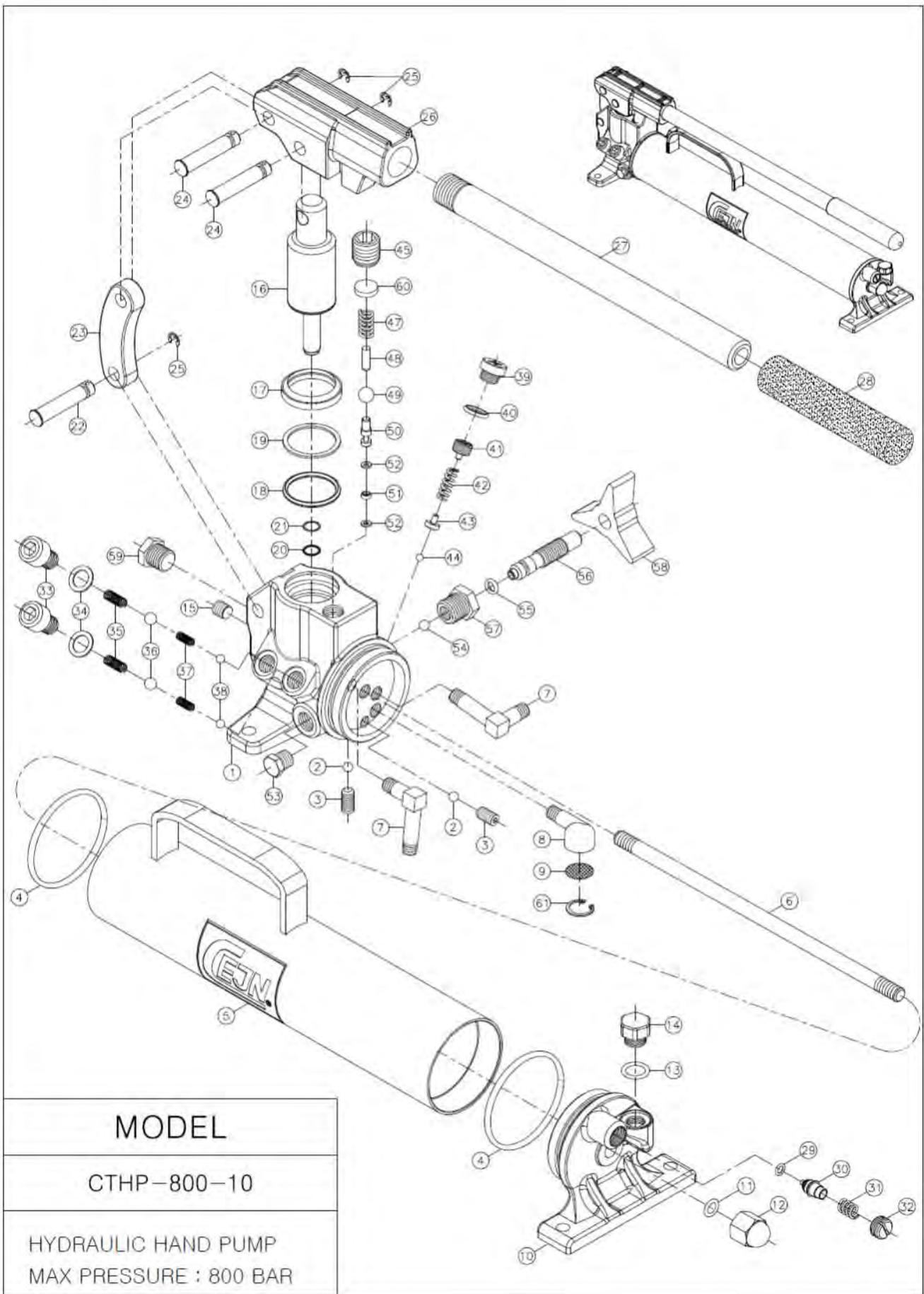
MODEL : CTHP-700-10

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	3	
3	SET SCREW	M8x10L	3	
4	O-RING	U142	2	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		2	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
10	PUMP SUPPORT, REAR		1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
15	PLUG	NPT 1/16	1	
16	PISTON		1	
17	DUST SEAL	SDR-32	1	
18	O-RING	P32	1	
19	BACKUP RING	P32	1	
20	O-RING	P11	1	
21	BACKUP RING	P11	1	
22	LEVER LINK PIN		1	
23	LEVER LINK		1	
24	LEVER NECK PIN		2	
25	E RING	8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	

PARTS LIST

MODEL : CTHP-700-10

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
31	AIR V/V SPRING		1	
32	AUTO DRAIN BOLT		1	
33	CHECK BOLT		2	
34	COPPER WASHER	ø12x1T	2	
35	CHECK SPRING-1		2	
36	STEEL BALL	5/16" (ø7.94)	2	
37	CHECK SPRING-2		2	
38	STEEL BALL	7/32" (ø5.55)	2	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (ø3.175)	1	
45	AUTO DRAIN BOLT		1	
47	DRAIN SPRING	BF10x20	1	
48	AUTO DRAIN PIN		1	
49	STEEL BALL	11/32" (ø8.731)	1	
50	AUTO DRAIN SPOOL		1	
51	O-RING	P3	1	
52	BACKUP RING	P3	2	
53	PLUG	NPT 1/4	1	
54	STEEL BALL	7/32" (ø5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	NPT 3/8	1	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	



PARTS LIST

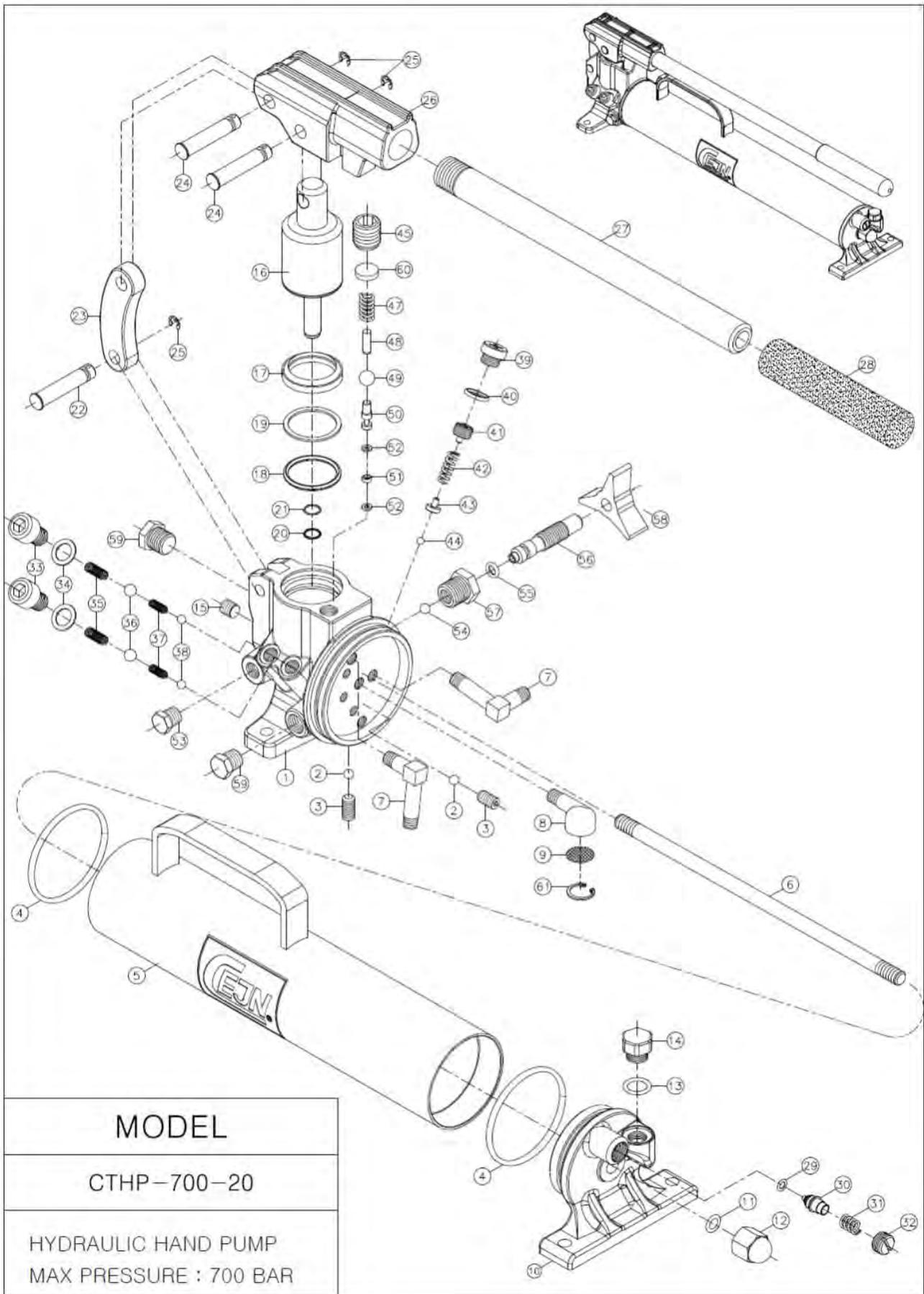
MODEL : CTHP-800-10

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	3	
3	SET SCREW	M8x10L	3	
4	O-RING	U142	2	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		2	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
10	PUMP SUPPORT, REAR		1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
15	PLUG	NPT 1/16	1	
16	PISTON		1	
17	DUST SEAL	SDR-32	1	
18	O-RING	P32	1	
19	BACKUP RING	P32	1	
20	O-RING	P11	1	
21	BACKUP RING	P11	1	
22	LEVER LINK PIN		1	
23	LEVER LINK		1	
24	LEVER NECK PIN		2	
25	E RING	8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	

PARTS LIST

MODEL : CTHP-800-10

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
31	AIR V/V SPRING		1	
32	AUTO DRAIN BOLT		1	
33	CHECK BOLT		2	
34	COPPER WASHER	ø12x1T	2	
35	CHECK SPRING-1		2	
36	STEEL BALL	5/16" (ø7.94)	2	
37	CHECK SPRING-2		2	
38	STEEL BALL	7/32" (ø5.55)	2	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (ø3.175)	1	
45	AUTO DRAIN BOLT		1	
47	DRAIN SPRING	BF10x20	1	
48	AUTO DRAIN PIN		1	
49	STEEL BALL	11/32" (ø8.731)	1	
50	AUTO DRAIN SPOOL		1	
51	O-RING	P3	1	
52	BACKUP RING	P3	2	
53	PLUG	NPT 1/4	1	
54	STEEL BALL	7/32" (ø5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	NPT 3/8	1	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	



PARTS LIST

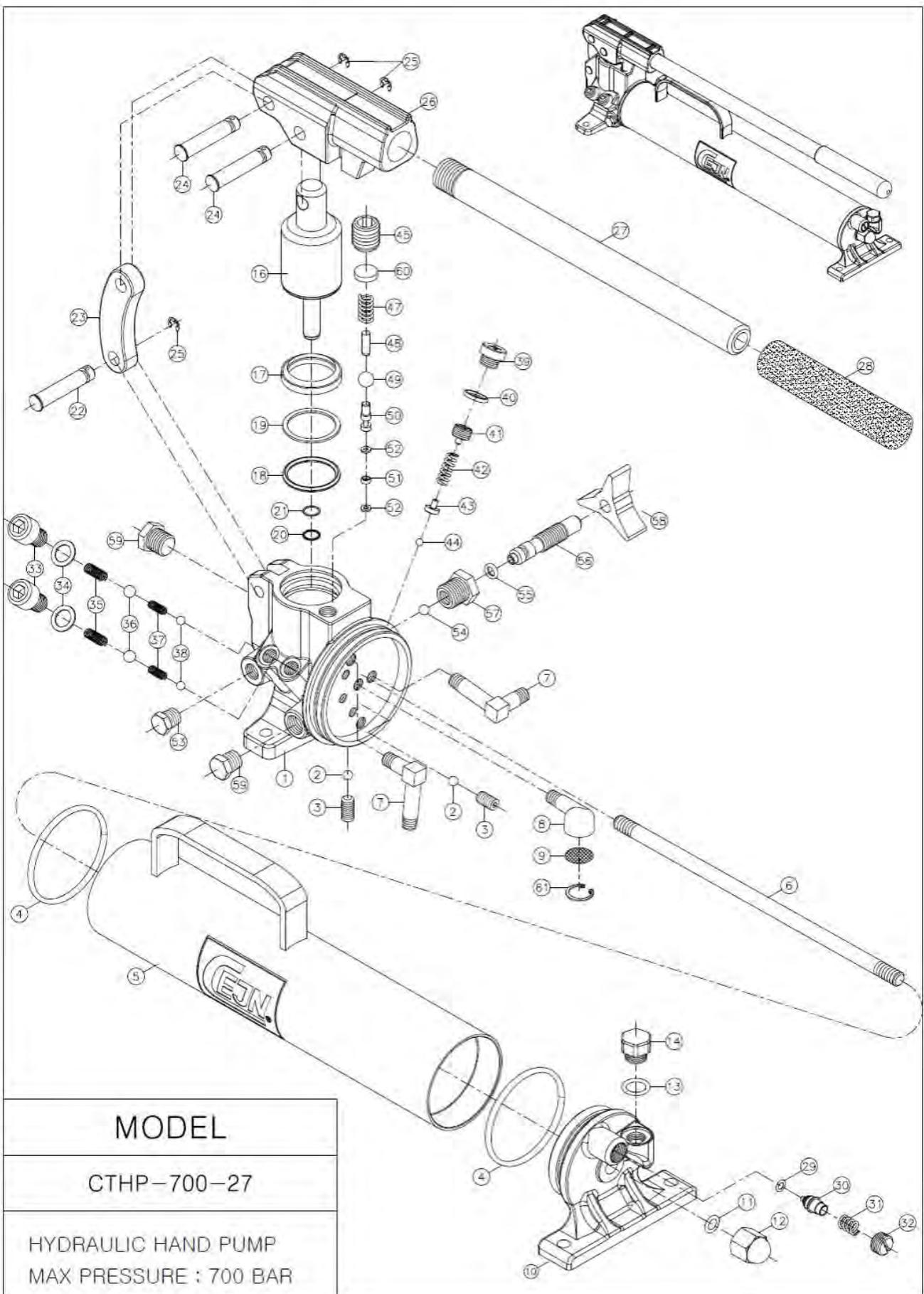
MODEL : CTHP-700-20

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	4	
3	SET SCREW	M8x10L	4	
4	O-RING	U151	2	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		2	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
10	PUMP SUPPORT, REAR		1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
15	PLUG	NPT 1/8	1	
16	PISTON		1	
17	DUST SEAL	SDR-40	1	
18	O-RING	P40	1	
19	BACKUP RING	P40	1	
20	O-RING	P11	1	
21	BACKUP RING	P11	1	
22	LEVER LINK PIN		1	
23	LEVER LINK		1	
24	LEVER NECK PIN		2	
25	E RING	ø8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	

PARTS LIST

MODEL : CTHP-700-20

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
31	AIR V/V SPRING		1	
32	AUTO DRAIN BOLT		1	
33	CHECK BOLT		2	
34	COPPER WASHER	∅12x1T	2	
35	CHECK SPRING-1		2	
36	STEEL BALL	5/16" (∅7.94)	2	
37	CHECK SPRING-2		2	
38	STEEL BALL	7/32" (∅5.55)	2	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (∅3.175)	1	
45	SET SCREW	M14 x 14L	1	
47	DRAIN SPRING	BL10x20	1	
48	AUTO DRAIN PIN		1	
49	STEEL BALL	11/32" (∅8.731)	1	
50	AUTO DRAIN SPOOL		1	
51	O-RING	P3	1	
52	BACKUP RING	P3	2	
53	PLUG	NPT 1/4	1	
54	STEEL BALL	7/32" (∅5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	NPT 3/8	2	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	



PARTS LIST

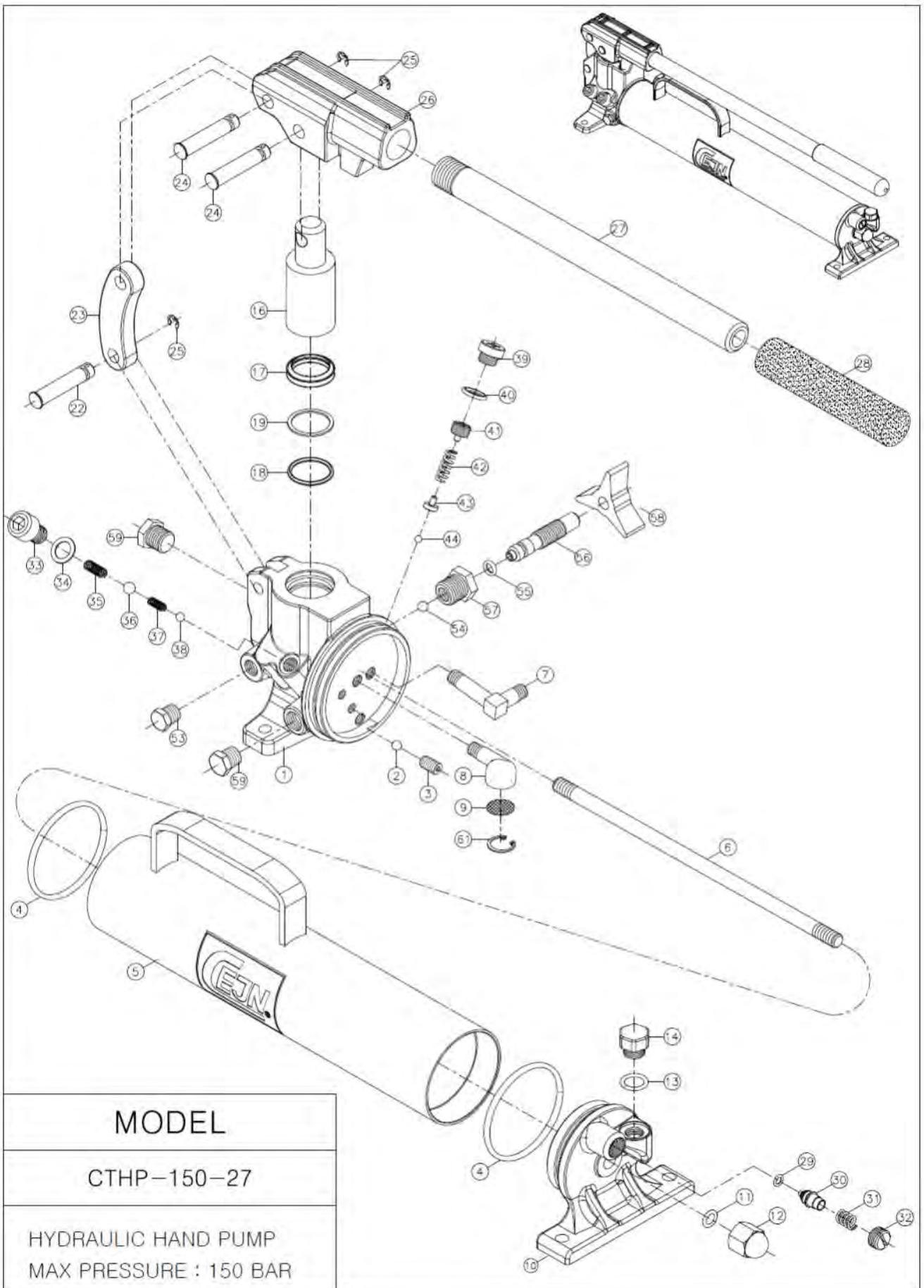
MODEL : CTHP-700-27

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	4	
3	SET SCREW	M8x10L	4	
4	O-RING	U154	2	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		2	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
10	PUMP SUPPORT, REAR		1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
16	PISTON		1	
17	DUST SEAL	SDR-45	1	
18	O-RING	P45	1	
19	BACKUP RING	P45	1	
20	O-RING	P12	1	
21	BACKUP RING	P12	1	
22	LEVER LINK PIN		1	
23	LEVER LINK		1	
24	LEVER NECK PIN		2	
25	E RING	8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	
31	AIR V/V SPRING		1	

PARTS LIST

MODEL : CTHP-700-27

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
32	AUTO DRAIN BOLT		1	
33	CHECK BOLT		2	
34	COPPER WASHER	ø12x1T	2	
35	CHECK SPRING-1		2	
36	STEEL BALL	5/16" (ø7.94)	2	
37	CHECK SPRING-2		2	
38	STEEL BALL	7/32" (ø5.55)	2	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (ø3.175)	1	
45	SET SCREW	M14 x 14L	1	
47	DRAIN SPRING	BM10x20	1	
48	AUTO DRAIN PIN		1	
49	STEEL BALL	11/32" (ø8.731)	1	
50	AUTO DRAIN SPOOL		1	
51	O-RING	P3	1	
52	BACKUP RING	P3	2	
53	PLUG	PT 1/4	1	
54	STEEL BALL	7/32" (ø5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	PT 3/8	2	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	



PARTS LIST

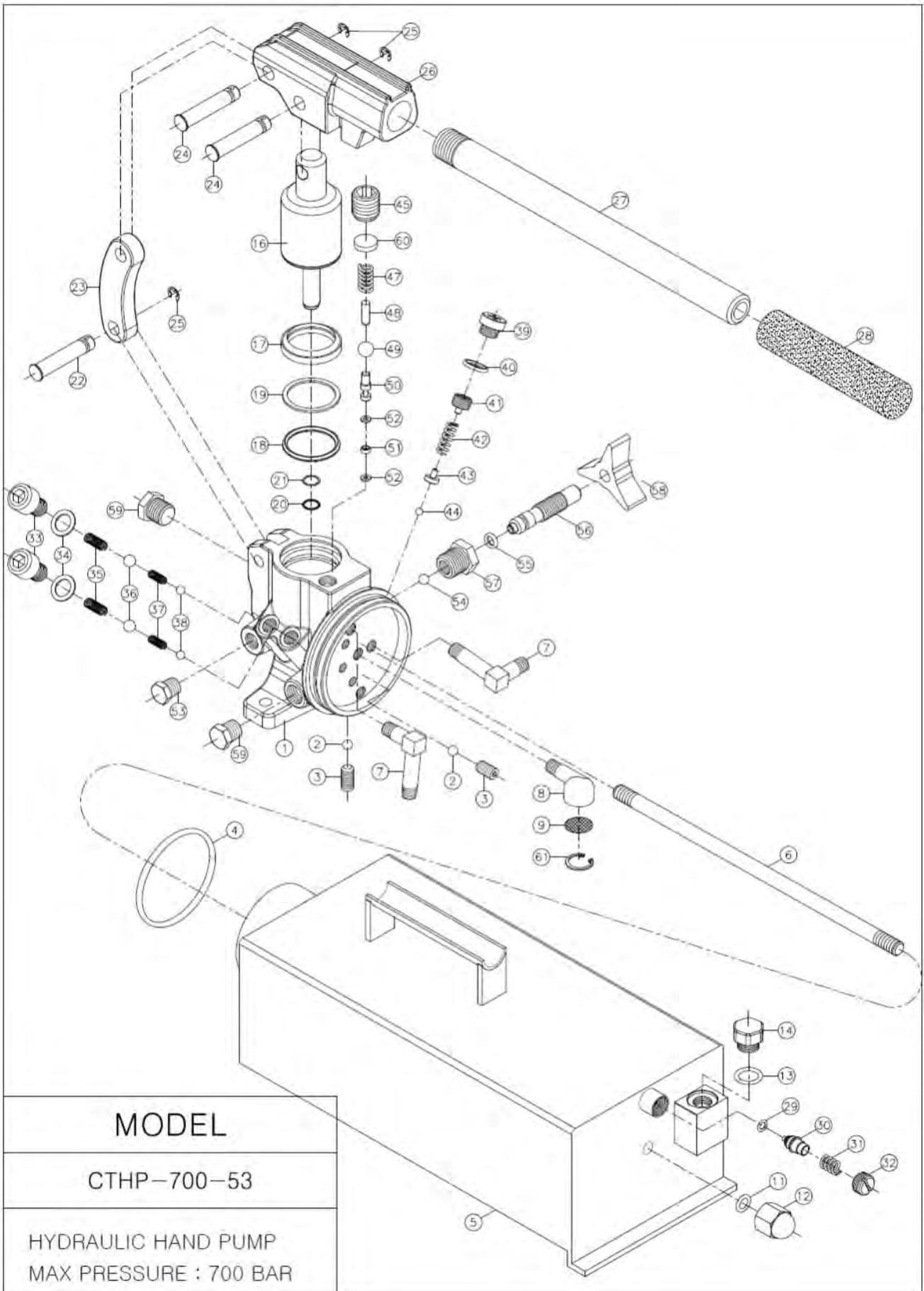
MODEL : CTHP-150-27

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	2	
3	SET SCREW	M8x10L	2	
4	O-RING	U154	2	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		1	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
10	PUMP SUPPORT, REAR		1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
16	PISTON		1	
17	DUST SEAL	SDR-25	1	
18	O-RING	P25	1	
19	BACKUP RING	P25	1	
22	LINK PIN		1	
23	LINK		1	
24	LEVER NECK PIN		2	
25	E RING	8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	
31	AIR V/V SPRING		1	
32	AUTO DRAIN BOLT		1	
33	CHECK BOLT		1	

PARTS LIST

MODEL : CTHP-150-27

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
34	COPPER WASHER	ø12x1T	1	
35	CHECK SPRING-1		1	
36	STEEL BALL	5/16" (ø7.94)	1	
37	CHECK SPRING-2		1	
38	STEEL BALL	7/32" (ø5.55)	1	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (ø3.175)	1	
53	PLUG	PT 1/4	1	
54	STEEL BALL	7/32" (ø5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	PT 3/8	2	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	



PARTS LIST

MODEL : CTHP-700-53

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	STEEL BALL	1/4" (ø6.35)	4	
3	SET SCREW	M8x10L	4	
4	O-RING	U154	1	
5	OIL TANK		1	
6	SPINDLE		1	
7	OVERFLOW PIPE		2	
8	SUCTION PIPE		1	
9	STRAINER	#40	1	
11	O-RING	P12	1	
12	CAP NUT		1	
13	O-RING	P13	1	
14	OIL FILLER PLUG		1	
16	PISTON		1	
17	DUST SEAL	SDR-45	1	
18	O-RING	P45	1	
19	BACKUP RING	P45	1	
20	O-RING	P12	1	
21	BACKUP RING	P12	1	
22	LEVER LINK PIN		1	
23	LEVER LINK		1	
24	LEVER NECK PIN		2	
25	E RING	8	3	
26	LEVER NECK		1	
27	LEVER		1	
28	LEVER GRIP		1	
29	O-RING	P5	1	
30	AIR V/V PIN		1	
31	AIR V/V SPRING		1	
32	AUTO DRAIN BOLT		1	

PARTS LIST

MODEL : CTHP-700-53

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
33	CHECK BOLT		2	
34	COPPER WASHER	∅12x1T	2	
35	CHECK SPRING-1		2	
36	STEEL BALL	5/16" (∅7.94)	2	
37	CHECK SPRING-2		2	
38	STEEL BALL	7/32" (∅5.55)	2	
39	SPRING CAP		1	
40	O-RING	P9	1	
41	SPRING ADJUSTING SCREW		1	
42	HIGH PRESSURE SPRING		1	
43	HIGH BALL DISC		1	
44	STEEL BALL	1/8" (∅3.175)	1	
45	SET SCREW	M14 x 14L	1	
47	DRAIN SPRING	BM10x20	1	
48	AUTO DRAIN PIN		1	
49	STEEL BALL	11/32" (∅8.731)	1	
50	AUTO DRAIN SPOOL		1	
51	O-RING	P3	1	
52	BACKUP RING	P3	2	
53	PLUG	PT 1/4	1	
54	STEEL BALL	7/32" (∅5.55)	1	
55	O-RING	P6	1	
56	ON/OFF VALVE ROD		1	
57	ON/OFF VALVE NUT		1	
58	ON/OFF VALVE COCK		1	
59	PLUG	PT 3/8	2	
60	AUTO DRAIN GUIDE		1	
61	SNAP RING	RTW 17	1	

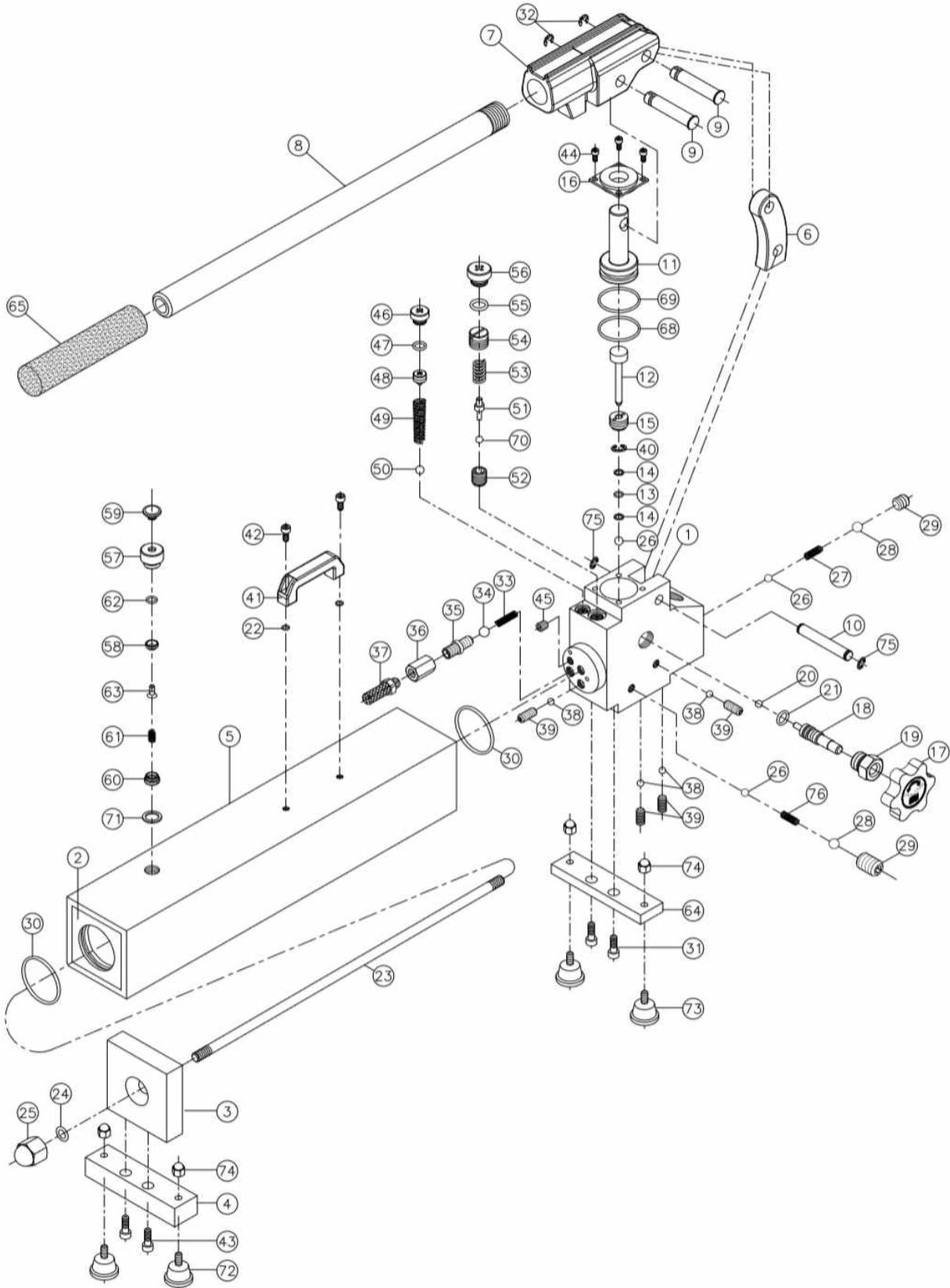
MODEL

19.01.03

HYDRAULIC HAND PUMP

CTHP -1800
CTHP -2500
CTHP -2800

CTHP-1800 : MAX PRESSURE 1800 BAR
CTHP-2500 : MAX PRESSURE 2500 BAR
CTHP-2800 : MAX PRESSURE 2800 BAR



PARTS LIST

MODEL : CTHP-1800, CTHP-2500, CTHP-2800

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	OIL TANK COVER		2	
3	RIGHT LEG		1	
4	PUMP SUPPORT, REAR		1	
5	OIL TANK		1	
6	LEVER LINK		1	
7	LEVER NECK		1	
8	LEVER		1	
9	LEVER NECK PIN		2	
10	LEVER LINK PIN		1	
11	PISTON		1	
12	PISTON ROD		1	
13	O-RING	P6(N.O.K)	1	
14	BACKUP RING		2	
15	COVER NUT		1	
16	PISTON COVER		1	
17	ON/OFF VALVE COCK	B-AK64	1	
18	ON/OFF VALVE ROD		1	
19	ON/OFF VALVE NUT		1	
20	STEEL BALL	5/32" (ø3.946)	1	
21	O-RING	P10	1	
22	O-RING	P6	1	
23	SPINDLE		1	
24	O-RING	P12	1	
25	CAP NUT		1	
26	STELL BALL	3/16"(ø4.763)	2	
27	OUT CHECK SPRING		1	
28	STEEL BALL	9/32"(ø7.144)	2	
29	SET SCREW	M10x15L	2	
30	O-RING	P48	2	

PARTS LIST

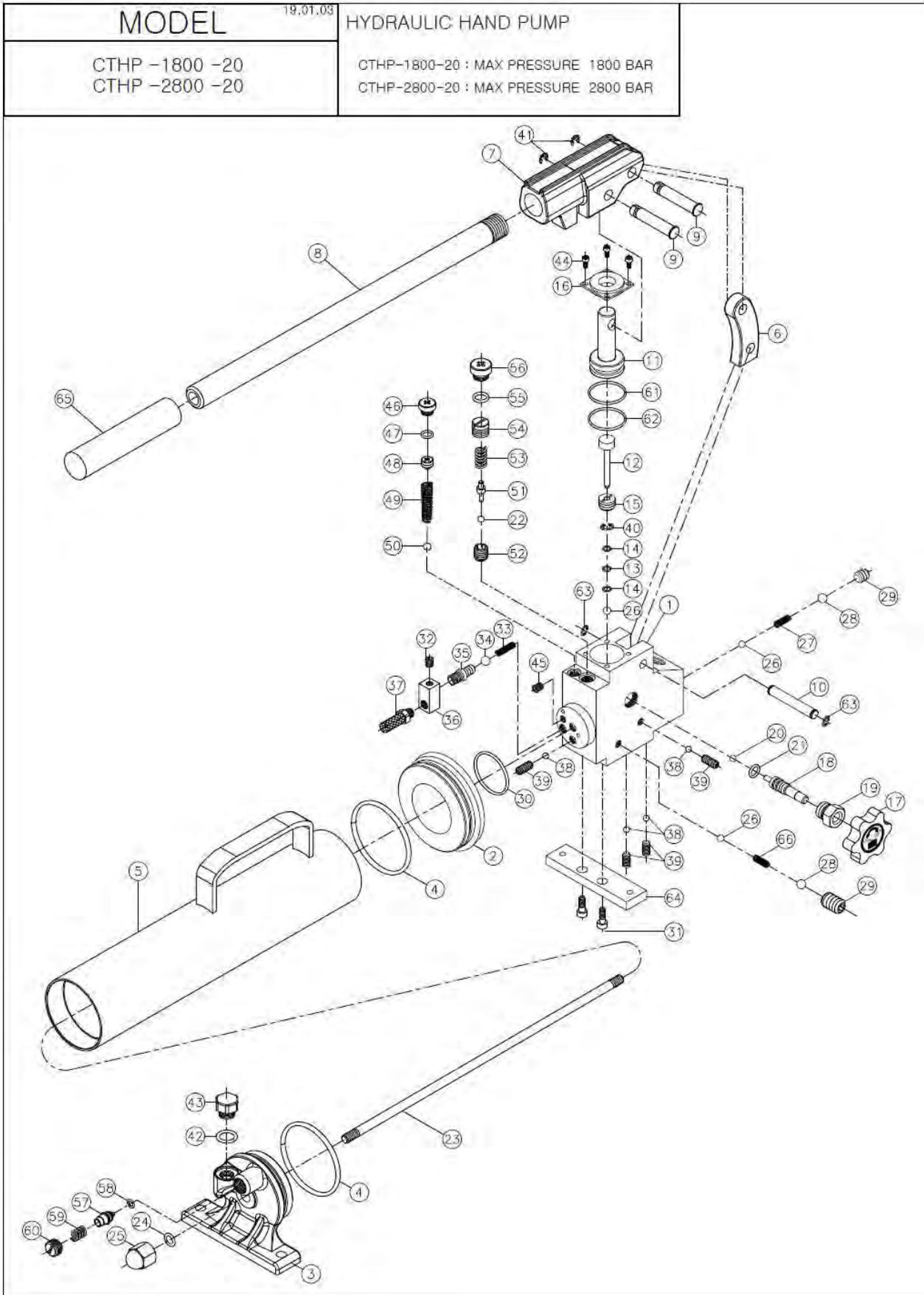
MODEL : CTHP-1800, CTHP-2500, CTHP-2800

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
31	WRENCH BOLT	M6x15L	2	
32	E RING	ø8	2	
33	IN CHECK SPRING		1	
34	STEEL BALL	9/32"(ø7.144)	1	
35	BALL CASING		1	
36	FILTER NIPPLE		1	
37	FILTER		1	
38	STEEL BALL	1/4"(ø6.35)	4	
39	SET SCREW	M8x12L	4	
40	SNAP RING	RTW18	1	
41	HAND GRIP	B-GL134	1	
42	WRENCH BOLT	M8x15L	2	
43	WRENCH BOLT	M6x25L	2	
44	WRENCH BOLT	M5x10L	4	
45	PLUG	NPT 1/16	1	
46	SPRING CAP		1	
47	O-RING	P9	1	
48	SPRING ADJUSTING SCREW		1	
49	LOW PRESSURE SPRING		1	
50	STEEL BALL	1/4"(ø6.35)	1	
51	HIGH PRESSURE BALL DISC		1	
52	HIGH PRESSURE GUIDE		1	
53	HIGH PRESSURE SPRING		1	
54	HIGH PRESSURE PLUG		1	
55	O-RING	P12	1	
56	SPRING CAP		1	
57	AIR BREATHER COVER		1	
58	O-RING COVER		1	
59	AIR BREATHER CAP		1	
60	SPRING GUIDE		1	

PARTS LIST

MODEL : CTHP-1800, CTHP-2500, CTHP-2800

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
61	SPRING		1	
62	O-RING	P8	1	
63	FLAT HEADED BOLT	M4x15L	1	
64	PUMP SUPPORT, FRONT		1	
65	LEVER GRIP		1	
68	O-RING	P30	1	
69	BACKUP RING	P30	1	
70	STEEL BALL	1/8"(ø3.175)	1	
71	BONDED SEAL	PF1/2	1	
72	VIBRATION PROOF RUBBER-1		2	
73	VIBRATION PROOF RUBBER-2		2	
74	CAP NUT	M6	4	
75	SNAP RING	RTW 10	2	
76	CHECK SPRING		1	



PARTS LIST

MODEL : CTHP-1800-20,CTHP-2800-20

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
2	OIL TANK COVER		1	
3	PUMP SUPPORT, REAR		1	
4	O-RING	U151	2	
5	OIL TANK		1	
6	LEVER LINK		1	
7	LEVER NECK		1	
8	LEVER	15A 160# 565L	1	
9	LEVER NECK PIN		2	
10	LEVER LINK PIN		1	
11	PISTON		1	
12	PISTON ROD		1	
13	O-RING	P6(N.O.K)	1	
14	BACKUP RING		2	
15	COVER NUT		1	
16	PISTON COVER		1	
17	ON/OFF VALVE COCK		1	
18	ON/OFF VALVE ROD		1	
19	ON/ORR VALVE NUT		1	
20	STEEL BALL	5/32"(ø3.946)	1	
21	O-RING	P6	1	
22	STEEL BALL	1/8"(ø3.175)	1	
23	SPINDLE		1	
24	O-RING	P12	1	
25	CAP NUT		1	
26	STEEL BALL	3/16"(ø4.763)	2	
27	OUT CHECK SPRING		1	
28	STEEL BALL	9/32"(ø7.144)	2	
29	SET SCREW	M10x15L	2	
30	O-RING	P48	1	

PARTS LIST

MODEL : CTHP-1800-20,CTHP-2800-20

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
31	WRENCH BOLT	M6x15L	2	
32	PLUG	PT1/8	1	
33	IN CHECK SPRING		1	
34	STEEL BALL	9/32"(ø7.144)	1	
35	BALL CASING		1	
36	FILTER NIPPLE		1	
37	FILTER		1	
38	STEEL BALL	1/4"(ø6.35)	4	
39	SET SCREW	M8x12L	4	
40	SNAP RING	RTW18	1	
41	E RING	ø8	2	
42	O-RING		1	
43	OIL FILLER PLUG		1	
44	WRENCH BOLT	M5x10L	4	
45	PLUG	NPT 1/16	1	
46	SPRING CAP		1	
47	O-RING	P9	1	
48	SPRING ADJUSTING SCREW		1	
49	LOW PRESSURE SPRING		1	
50	STEEL BALL	1/4"(ø6.35)	1	
51	HIGH PRESSURE BALL DISC		1	
52	HIGH PRESSURE GUIDE		1	
53	HIGH PRESSURE SPRING		1	
54	HIGH PRESSURE PLUG		1	
55	O-RING	P12	1	
56	SPRING CAP		1	
57	AIR V/V PIN		1	
58	O-RING	P5	1	
59	SPRING		1	
60	AUTO DRAIN BOLT		1	

PARTS LIST

MODEL : CTHP-1800-20,CTHP-2800-20

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
61	O-RING	P30	1	
62	BACKUP RING	P30	1	
63	SNAP RING	RTW10	2	
64	PUMP SUPPORT, FRONT		1	
65	LEVER GRIP		1	
66	CHECK SPRING		1	

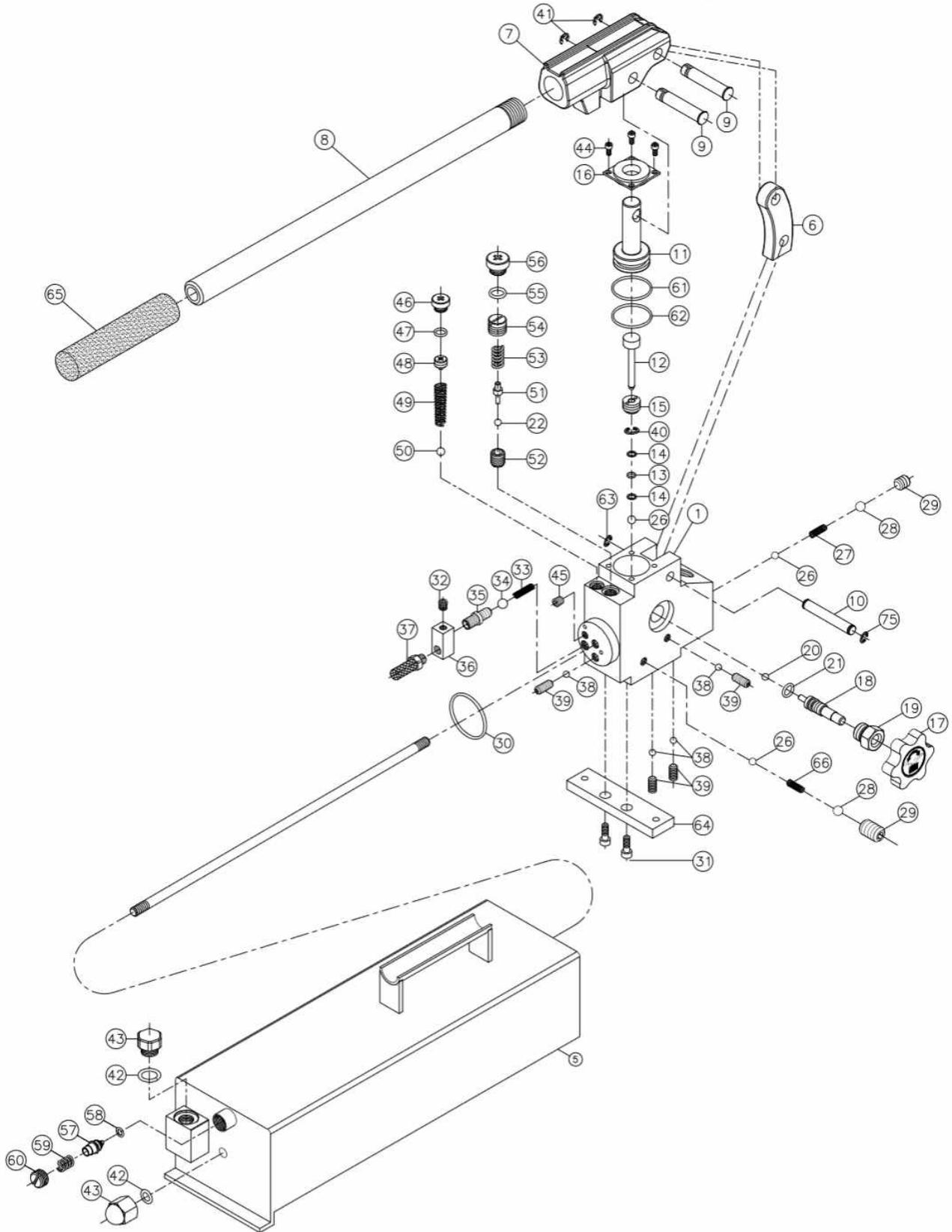
MODEL

19.01.03

HYDRAULIC HAND PUMP

CTHP -1800 -40
CTHP -2500 -40
CTHP -2800 -40

CTHP-1800-40 : MAX PRESSURE 1800 BAR
CTHP-2500-40 : MAX PRESSURE 2500 BAR
CTHP-2800-40 : MAX PRESSURE 2800 BAR



PARTS LIST

MODEL : CTHP-1800-40,CTHP-2500-40,CTHP-2800-40

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
1	PUMP HEAD		1	
5	OIL TANK		1	
6	LEVER LINK		1	
7	LEVER NECK		1	
8	LEVER	15A 160# 565L	1	
9	LEVER NECK PIN		2	
10	LEVER LINK PIN		1	
11	PISTON		1	
12	PISTON ROD		1	
13	O-RING	P6(N.O.K)	1	
14	BACKUP RING		2	
15	COVER NUT		1	
16	PISTON COVER		1	
17	ON/OFF VALVE COCK		1	
18	ON/OFF VALVE ROD		1	
19	ON/OFF VALVE NUT		1	
20	STEEL BALL	5/32"(ø3.946)	1	
21	O-RING	P6	1	
22	STEEL BALL	1/8"(ø3.175)	1	
23	SPINDLE		1	
24	O-RING	P12	1	
25	CAP NUT		1	
26	STEEL BALL	3/16"(ø4.763)	3	
27	OUT CHECK SPRING		2	
28	STEEL BALL	9/32"(ø7.144)	2	
29	SET SCREW	M10x15L	2	
30	O-RING	P48	1	
31	WRENCH BOLT	M6x15L	2	
32	PLUG	PT1/8	1	
33	IN CHECK SPRING		1	

PARTS LIST

MODEL : CTHP-1800-40,CTHP-2500-40,CTHP-2800-40

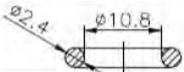
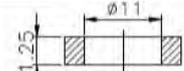
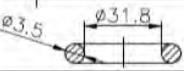
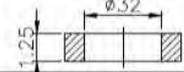
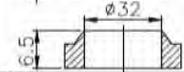
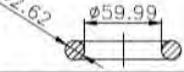
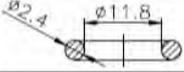
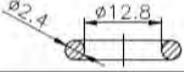
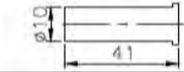
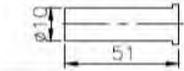
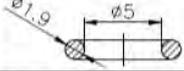
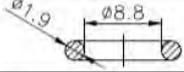
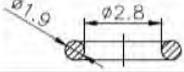
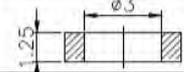
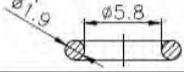
ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
34	STEEL BALL	9/32"(ø7.144)	1	
35	BALL CASING		1	
36	FILTER NIPPLE		1	
37	FILTER		1	
38	STEEL BALL	1/4"(ø6.35)	4	
39	SET SCREW	M8x12L	4	
40	SNAP RING	RTW18	1	
41	E RING	ø8	2	
42	O-RING		1	
43	OIL FILLER PLUG		1	
44	WRENCH BOLT	M5x10L	4	
45	PLUG	NPT 1/16	1	
46	SPRING CAP		1	
47	O-RING	P9	1	
48	SPRING ADJUSTING SCREW		1	
49	LOW PRESSURE SPRING		1	
50	STEEL BALL	1/4"(ø6.35)	1	
51	HIGH PRESSURE BALL DISC		1	
52	HIGH PRESSURE GUIDE		1	
53	HIGH PRESSURE SPRING		1	
54	HIGH PRESSURE PLUG		1	
55	O-RING	P12	1	
56	SPRING CAP		1	
57	AIR V/V PIN		1	
58	O-RING	P5	1	
59	SPRING		1	
60	AUTO DRAIN BOLT		1	
61	O-RING	P30	1	
62	BACKUP RING	P30	1	
63	SNAP RING	RTW10	2	

PARTS LIST

MODEL : CTHP-1800-40,CTHP-2500-40,CTHP-2800-40

ITEM NO.	DESCRIPTION	SPEC	Q'TY	NOTE
64	PUMP SUPPORT, FRONT		1	
65	LEVER GRIP		1	
66	CHECK SPRING		1	

7. SPARE PART LIST

SPARE PART LIST				MODEL		
Item Name		700bar HAND PUMP 800bar HAND PUMP				
ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	20	
2	BACKUP RING		TEFLON	1	21	
3	O-RING		N.B.R	1	18	
4	BACKUP RING		TEFLON	1	19	
5	DUST SEAL		N.B.R	1	17	
6	O-RING		N.B.R	2	4	
7	O-RING		N.B.R	1	11	
8	O-RING		N.B.R	1	13	
9	LEVER LINK PIN		S45C	1	22	
10	LEVER NECK PIN		S45C	2	24	
11	E RING		SK5	3	25	
12	O-RING		N.B.R	1	29	
13	O-RING		N.B.R	1	40	
14	O-RING		N.B.R	1	51	
15	BACKUP RING		TEFLON	2	52	
16	O-RING		N.B.R	1	55	



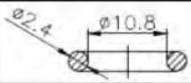
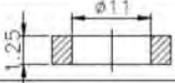
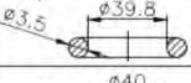
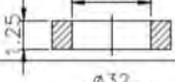
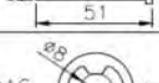
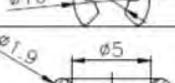
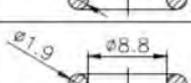
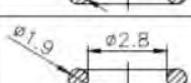
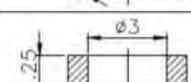
SPARE PART LIST

MODEL

CTHP-700-20

Item Name

700bar HAND PUMP

ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	20	
2	BACKUP RING		TEFLON	1	21	
3	O-RING		N.B.R	1	18	
4	BACKUP RING		TEFLON	1	19	
5	DUST SEAL		N.B.R	1	17	
6	O-RING		N.B.R	2	4	
7	O-RING		N.B.R	1	11	
8	O-RING		N.B.R	1	13	
9	LEVER LINK PIN		S45C	1	22	
10	LEVER NECK PIN		S45C	2	24	
11	E RING		SK5	3	25	
12	O-RING		N.B.R	1	29	
13	O-RING		N.B.R	1	40	
14	O-RING		N.B.R	1	51	
15	BACKUP RING		TEFLON	2	52	
16	O-RING		N.B.R	1	55	



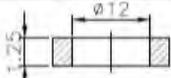
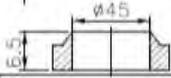
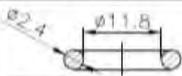
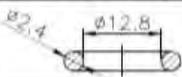
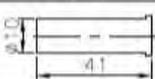
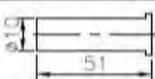
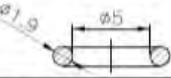
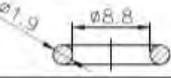
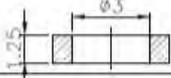
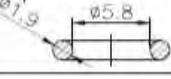
SPARE PART LIST

MODEL

CTHP-700-27

Item Name

700bar HAND PUMP

ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	20	
2	BACKUP RING		TEFLON	1	21	
3	O-RING		N.B.R	1	18	
4	BACKUP RING		TEFLON	1	19	
5	DUST SEAL		N.B.R	1	17	
6	O-RING		N.B.R	2	4	
7	O-RING		N.B.R	1	11	
8	O-RING		N.B.R	1	13	
9	LEVER LINK PIN		S45C	1	22	
10	LEVER NECK PIN		S45C	2	24	
11	E RING		SK5	3	25	
12	O-RING		N.B.R	1	29	
13	O-RING		N.B.R	1	40	
14	O-RING		N.B.R	1	51	
15	BACKUP RING		TEFLON	2	52	
16	O-RING		N.B.R	1	55	



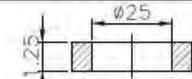
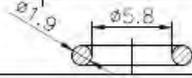
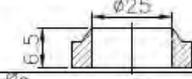
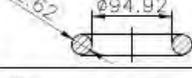
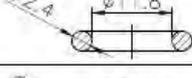
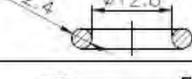
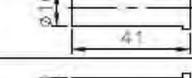
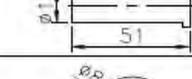
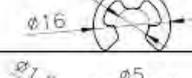
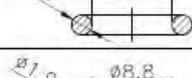
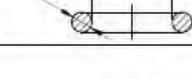
SPARE PART LIST

MODEL

CTHP-150-27

Item Name

150bar HAND PUMP

ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	20	
2	BACKUP RING		TEFLON	1	21	
3	O-RING		N.B.R	1	55	
4	DUST SEAL		N.B.R	1	17	
5	O-RING		N.B.R	2	4	
6	O-RING		N.B.R	1	11	
7	O-RING		N.B.R	1	13	
8	LEVER LINK PIN		S45C	1	22	
9	LEVER NECK PIN		S45C	2	24	
10	E RING		SK5	3	25	
11	O-RING		N.B.R	1	29	
12	O-RING		N.B.R	1	40	



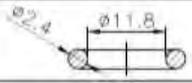
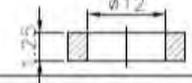
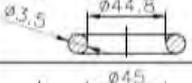
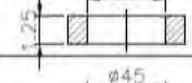
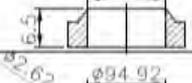
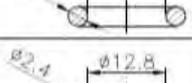
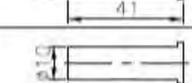
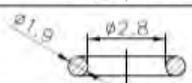
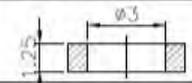
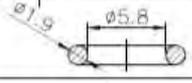
SPARE PART LIST

MODEL

CTHP-700-53

Item Name

700bar HAND PUMP

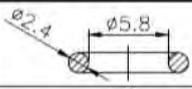
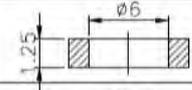
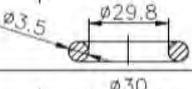
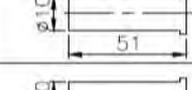
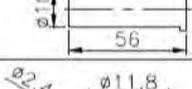
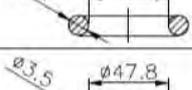
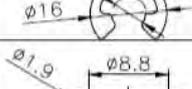
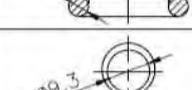
ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	20	
2	BACKUP RING		TEFLON	1	21	
3	O-RING		N.B.R	1	18	
4	BACKUP RING		TEFLON	1	19	
5	DUST SEAL		N.B.R	1	17	
6	O-RING		N.B.R	1	4	
7	O-RING		N.B.R	1	11	
8	O-RING		N.B.R	1	13	
9	LEVER LINK PIN		S45C	1	22	
10	LEVER NECK PIN		S45C	2	24	
11	E RING		SK5	3	25	
12	O-RING		N.B.R	1	29	
13	O-RING		N.B.R	1	40	
14	O-RING		N.B.R	1	51	
15	BACKUP RING		TEFLON	2	52	
16	O-RING		N.B.R	1	55	



SPARE PART LIST

MODEL
 CTHP-1800
 CTHP-2500
 CTHP-2800

Item Name
 1800bar HAND PUMP
 2500bar HAND PUMP
 2800bar HAND PUMP

ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	13	
2	BACKUP RING		BRONZE	2	14	
3	O-RING		N.B.R	1	68	
4	BACKUP RING		TEFLON	1	69	
5	LEVER NECK PIN		S45C	2	9	
6	LEVER LINK PIN		S45C	1	10	
7	O-RING		N.B.R	1	21	
8	O-RING		N.B.R	2	22	
9	O-RING		N.B.R	1	24	
10	O-RING		N.B.R	2	30	
11	E RING		SK5	2	32	
12	O-RING		N.B.R	1	47	
13	O-RING		N.B.R	1	55	
14	O-RING		N.B.R	1	62	
15	SNAP RING		SK5	2	75	



SPARE PART LIST

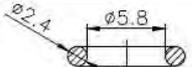
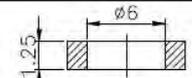
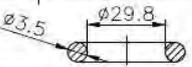
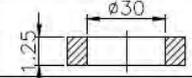
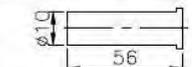
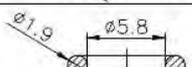
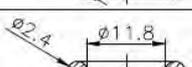
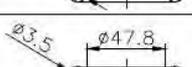
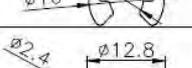
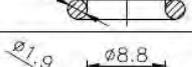
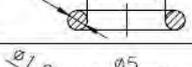
MODEL

CTHP-1800-20
CTHP-2800-20

18.12.14

Item Name

1800bar HAND PUMP
2800bar HAND PUMP

ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	13	
2	BACKUP RING		BRONZE	2	14	
3	O-RING		N.B.R	1	61	
4	BACKUP RING		TEFLON	1	62	
5	LEVER NECK PIN		S45C	2	9	
6	LEVER LINK PIN		S45C	1	10	
7	O-RING		N.B.R	2	4	
8	O-RING		N.B.R	1	21	
9	O-RING		N.B.R	1	24	
10	O-RING		N.B.R	1	30	
11	E RING		SK5	2	41	
12	O-RING		N.B.R	1	42	
13	O-RING		N.B.R	1	47	
14	O-RING		N.B.R	1	55	
15	O-RING		N.B.R	1	58	
16	SNAP RING		SK5	2	63	



SPARE PART LIST

MODEL

CTHP-1800-40

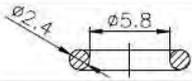
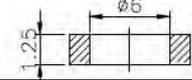
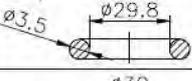
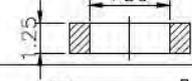
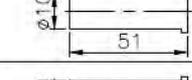
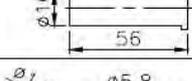
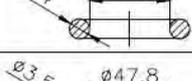
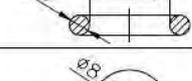
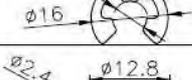
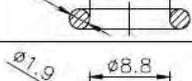
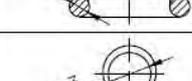
CTHP-2500-40

CTHP-2800-40

18.12.14

Item Name

1800bar HAND PUMP
2500bar HAND PUMP
2800bar HAND PUMP

ITEM	DESCRIPTION	SKETCH	MATERIAL	EA	Drawing. No.	REMARK
1	O-RING		N.B.R	1	13	
2	BACKUP RING		BRONZE	2	14	
3	O-RING		N.B.R	1	61	
4	BACKUP RING		TEFLON	1	62	
5	LEVER NECK PIN		S45C	2	9	
6	LEVER NECK PIN		S45C	1	10	
7	O-RING		N.B.R	1	21	
8	O-RING		N.B.R	1	24	
9	O-RING		N.B.R	1	30	
10	E RING		SK5	2	41	
11	O-RING		N.B.R	1	42	
12	O-RING		N.B.R	1	47	
13	O-RING		N.B.R	1	55	
14	O-RING		N.B.R	1	58	
15	SNAP RING		SK5	2	63	



