Broad heading No.：GH3101－TuC

GH3101.00
HHF-1000 Drilling pump

Parts list

宏华

Sichuan Honghua Petroleum Equipment Co., Ltd

July, 2007

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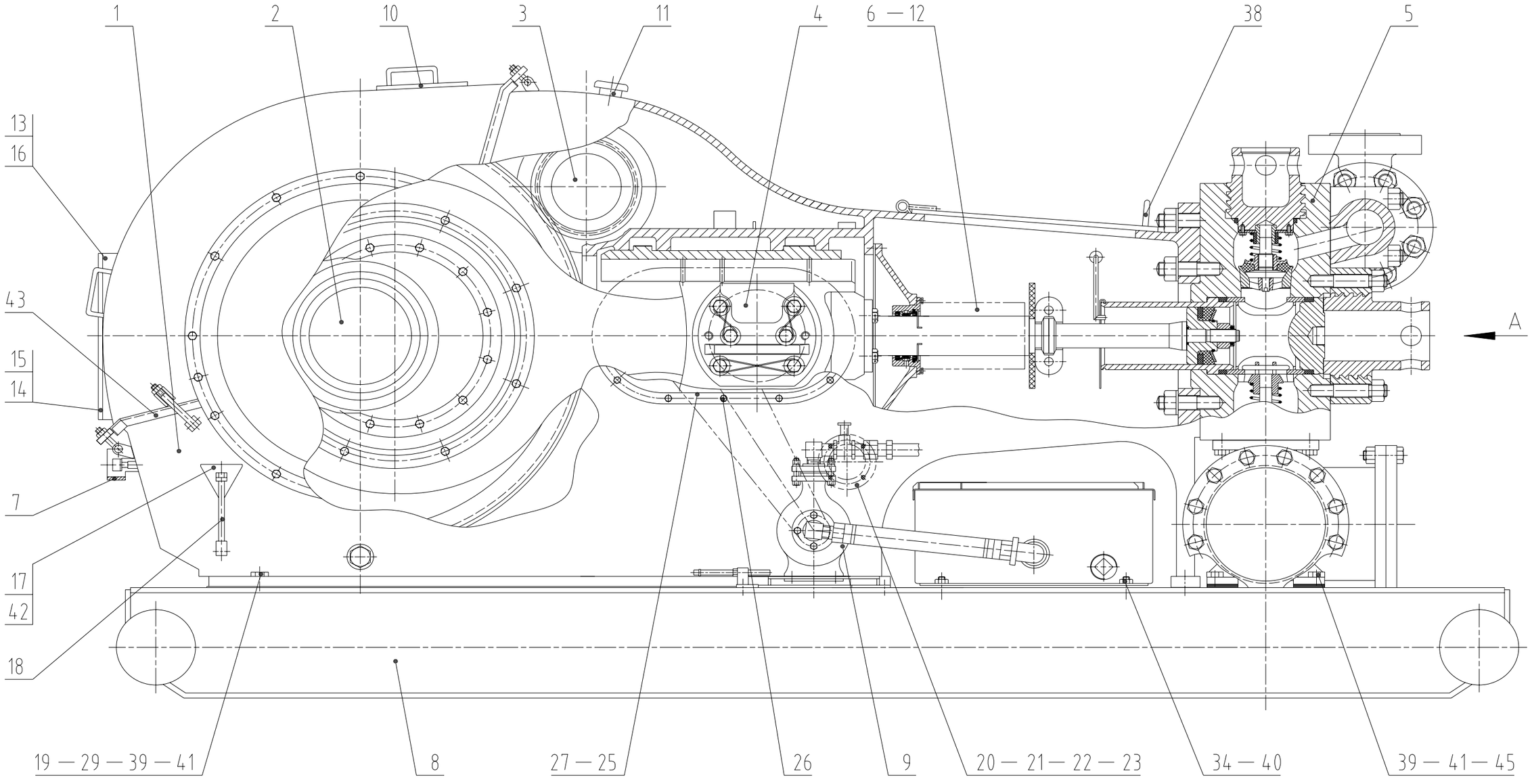
12 GH3101-27.00 KB-75Surge damper 29

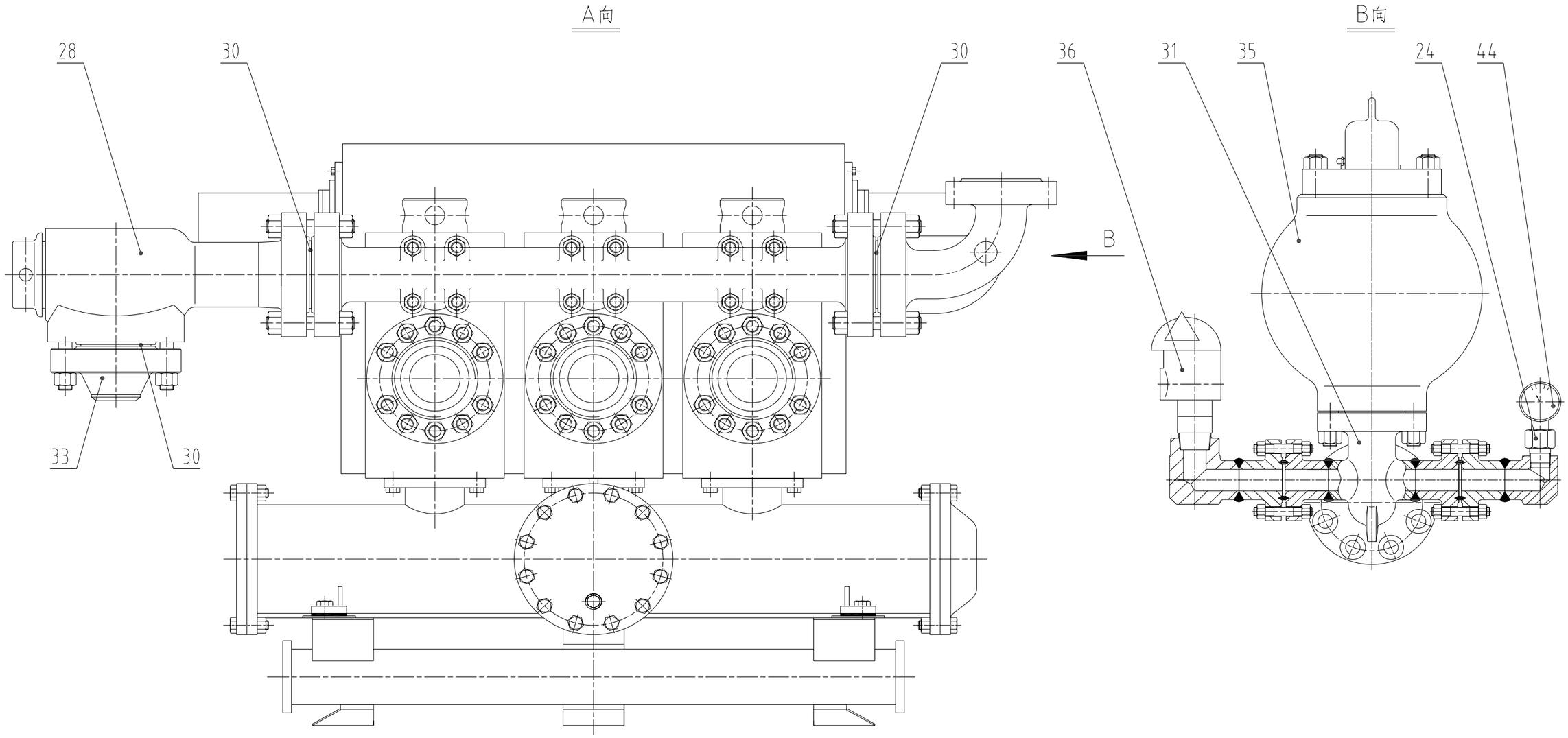
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I GH3101-00　HHF-1000 General drawing of drilling pump

GH3101-00　HHF-1000 drilling pump



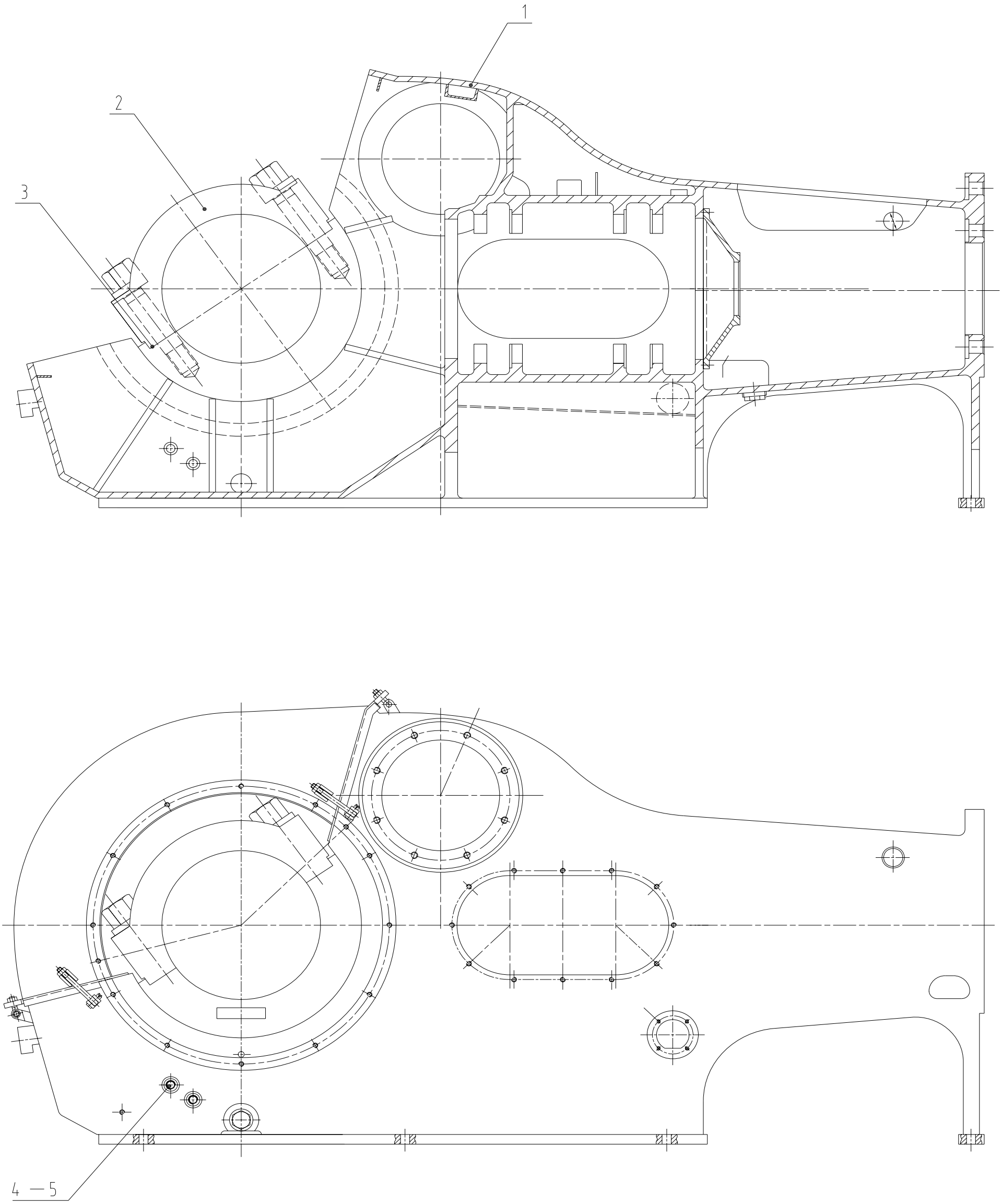

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No.	Drawing No.	Name	Qty.
1	GH3101-01.00	Frame assembly	1
2	GH3101-02.00	Crankshaft assembly	1
3	GH3101-03.00	Pinion shaft assembly	1
4	GH3101-04.00	Crosshead assembly	3
5	GH3101-05.00	Fluid end assembly	1
6	American standard (item 6)	Screw : 8 (0.164) -32UNC-2A×10	8
7	GH3101-06.00	Power end lube assembly	1
8	GH3101-07.00	substructure	1
9	GH3101-08.00	spraying pump assembly	1
10	GH3101-09	Seal gasket	2
11	GH3101-10.00	Breather cap	1
12	GH3101-11A	Nameplate	2
13	GH3101-12.00	Cover plate assembly	1
14	American standard (item 14)	Bolt: 1/2-13UNC-2A×35	14
15	GB/T97.1-1985	Washer : 14	14
16	GH3101-13	Seal pad	1
17	GH3101-14	Indication plate	2
18	GH3101-15.00	Oil level gauge	2
19	GH3101-16	Adjusting gasket	8
20	GH3101-17.00	Clean out cover	2
21	GB/T97.1-1985	Washer : 16	24
22	American standard (item 14)	Bolt: 1/2-13UNC-2A×35	8
23	GH3101-18	Seal gasket	2
24	GH3101-19	Screw plug: R1 1/2	1
25	GH3101-20	Cover, crosshead hole	2
26	American standard (item 26)	Bolt: 5/8-11UNC-2A×45	24
27	GH3101-21	Seal pad	2
28	GH3101-22.00	Draining filter assembly	1
29	American standard (item 29)	Bolt: 1-8UNC-2A×90	8
30	GH3101-23	Ring gasket R44	3
31	GH3161-22.00B	Elbow assembly	1
32	GH3101-25.00	Special tools	1

33	GH3101-26	Flange：5 1/8×35	1
34	American standard （item 26）	Bolt：5/8-11UNC-2A×45	4
35	GH3101-27.00	KB-75Surge damper	1
36	GH3101-28.00A	JA-3Relieve valve	1
37	GH3101-29.00	Spare parts delivered with	1
38	GH3101-30.00	Cover plates assembly	1
39	GH3101-31	Nut：1-8UNC-2B（SPL）	12
40	GH3101-32	Nut：5/8-8UNC-2B（SPL）	4
41	GB/T93-1987	Washer ：27	12
42	GB/T827-1986	rivet：3×10	6
43		Rubber：30×10×4880	1
44	YK-150	Pressure gauge： 0～40MPa（0～5800psi）	1
45	American standard （item 45）	Bolt：1-8UNC-2A×70	4

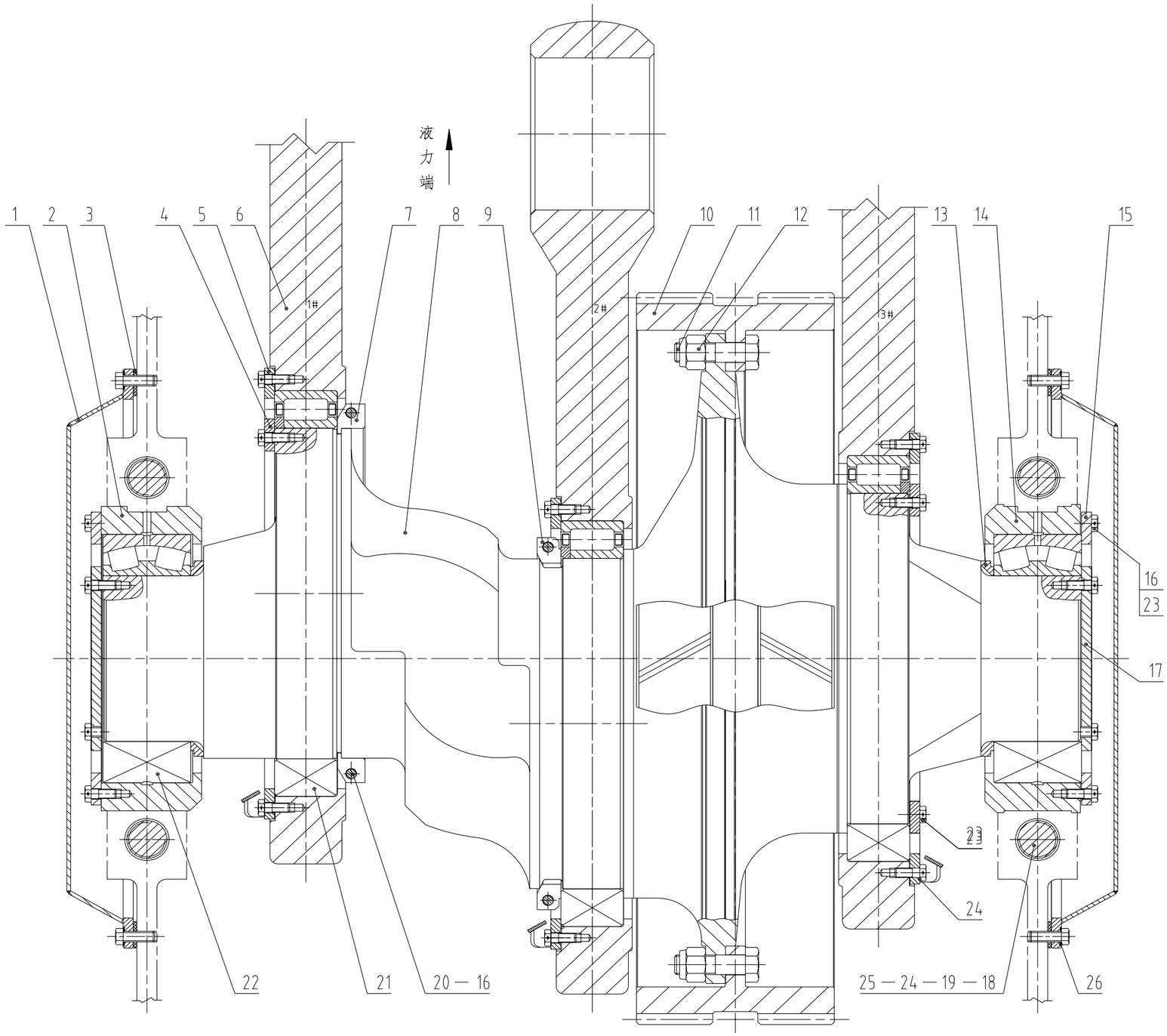
II Parts drawings of drilling pump

1 GH3101-01.00Frame assembly



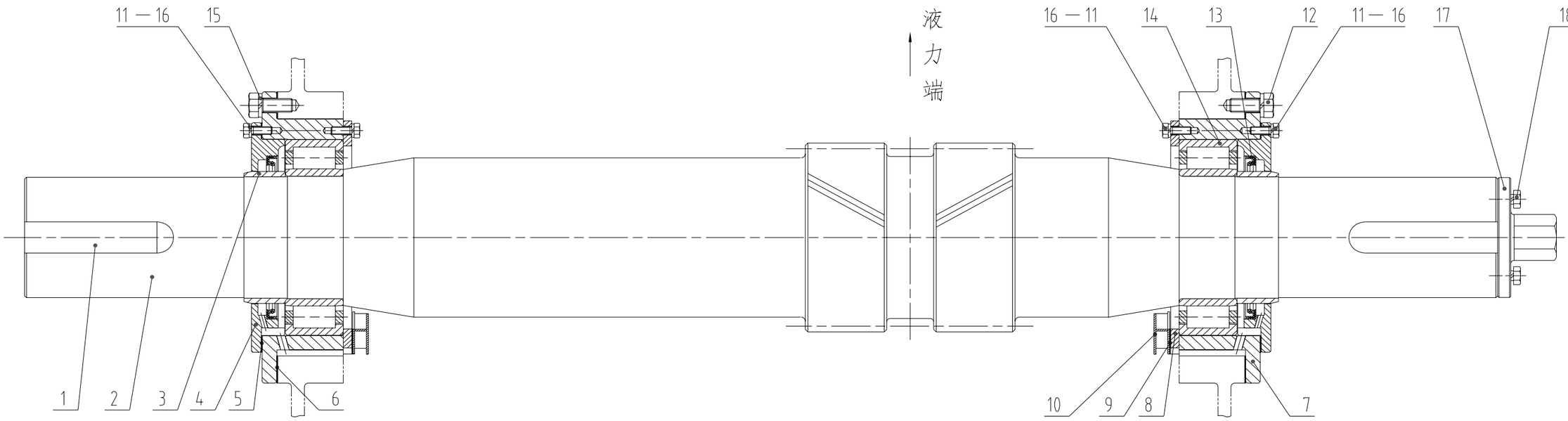
No.	Drawing No.	Name	Qty.
1	GH3101-01.01.00	frame	1
2	GH3101-01.02	Main bearing cover	2
3	GH3101-01.03	Shim set	4
4	GH3101-01.04	Connector : NPT3/4-NPT3/4	4
5	GH3101-01.05	Screw plug: NPT3/4	4

2 GH3101-02.00 Crankshaft assembly


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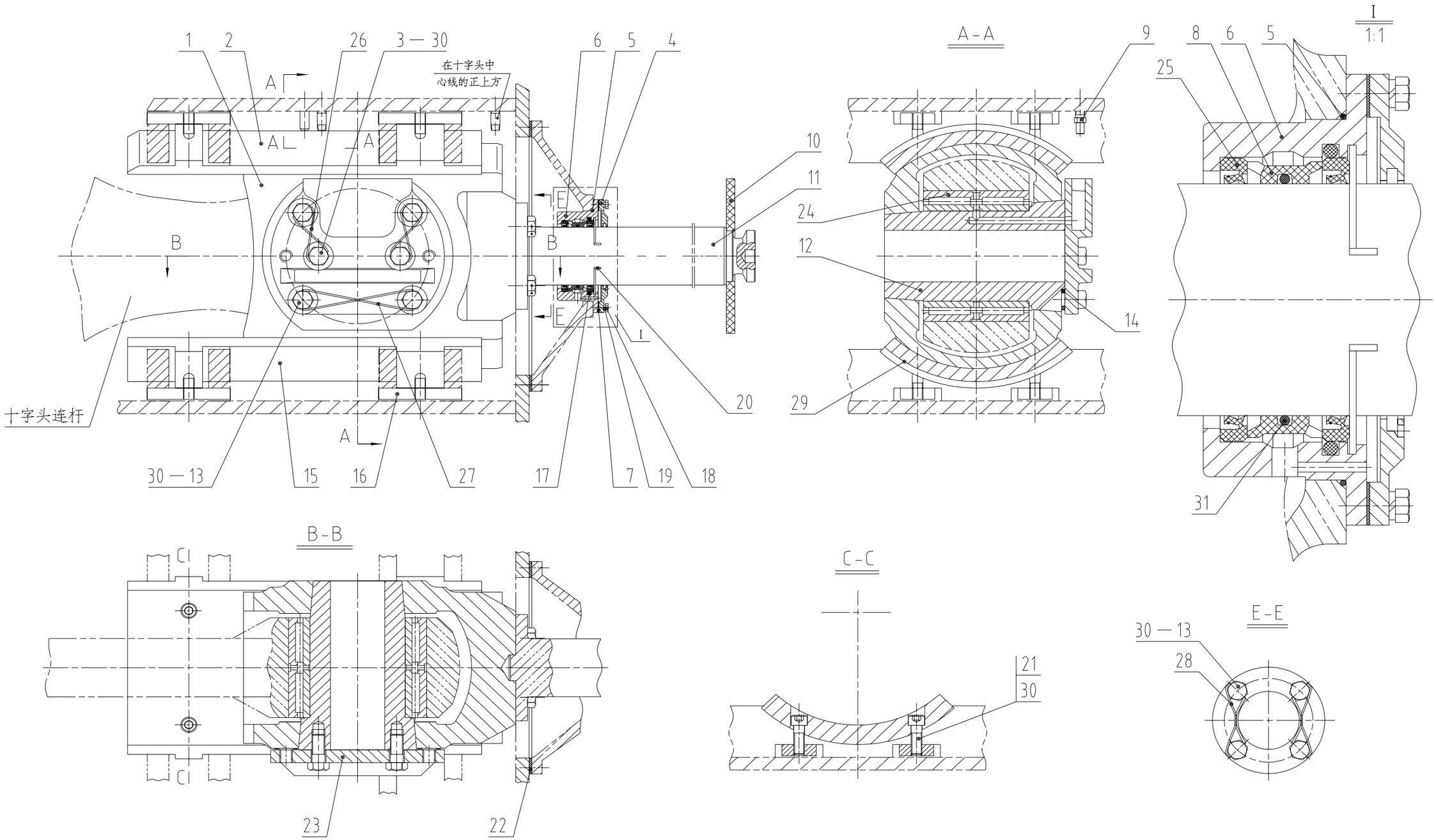
No.	Drawing No.	Name	Qty.
1	GH3101-02.01.00	Cover, main bearing	2
2	GH3101-02.02	Sleeve, main bearing (right)	1
3	GH3101-02.03	Seal gasket	2
4	GH3101-02.04	Insider retainer	2
5	GH3101-02.05.00	Outside retainer	3
6	GH3101-02.06	Connecting rod	3
7	GH3101-02.07	Locating ring（Ⅰ）	1
8	GH3101-02.08.00	Crankshaft	1
9	GH3101-02.09	Locating ring（Ⅱ）	1
10	GH3101-02.10B	Bull gear (widened)	1
11	GH3101-02.11	Bolt：1 1/4-8UN-2A×108	12
12	GH3101-02.12.00	Nut：1 1/4-8UN-2B	12
13	GH3101-02.13	retainer ring	2
14	GH3101-02.14	Sleeve, main bearing (left)	1
15	GH3101-02.15	Plug	2
16	GH3101-02.16	Bolt：5/8-11UNC-2A×45	100
17	GH3101-02.17	Baffle	2
18	GH3101-02.18	Bolt, main bearing：2 1/2-8UN-3A	4
19	GH3101-02.19.00	Shim set	4
20	GH3101-02.20	Screw ：5/8-11UNC-2A×100	4
21	GH3101-02.21	Eccentric wheel Bearing：929/558.8QU	3
22	GH3101-02.22	Main bearing：3G4053156H	2
23	GB/T343-1994	Locking wire：SZ-1.50	1
24	GB/T343-1994	Locking wire：SZ-3.00	1
25	242	Threaded Sealant	0
26	GB/T848-1985	Washer ：16	28

3 GH3101-03.00 Pinion shaft assembly



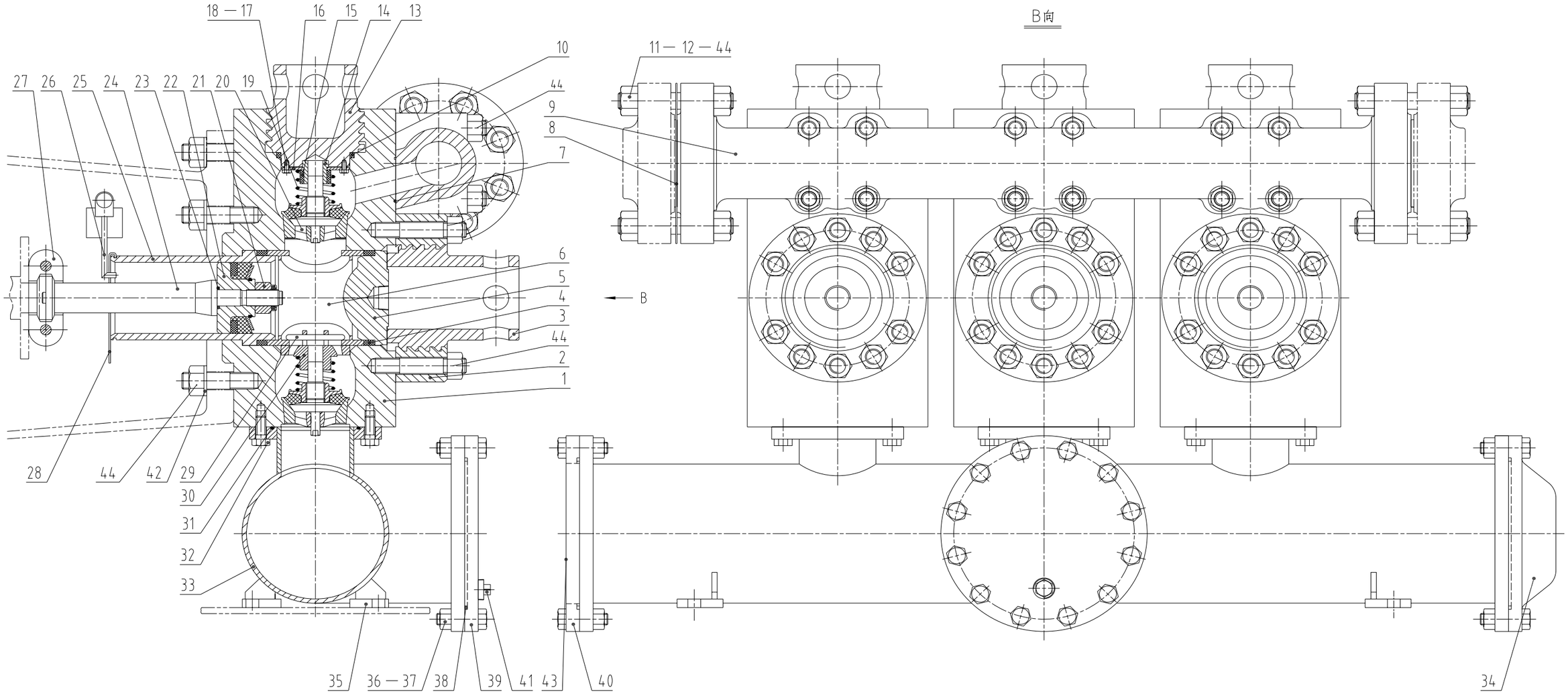
No.	Drawing No.	Name	Qty.
1	GH3101-03.01	key：2″×2″×203	1
2	GH3101-03.02B	Pinion Shaft (widened)	1
3	GH3101-03.03	Sleeve	2
4	GH3101-03.04	End cover	2
5	GH3101-03.05	Seal gasket	2
6	GH3101-03.06	Seal gasket	2
7	GH3101-03.07	Bearing Housing	2
8	GH3101-03.08	Retainer ring	2
9	GH3101-03.09	Seal gasket	2
10	GH3101-03.10.00	Oil trough	2
11	American standard（item 11）	Bolt：1/2-13UNC-2A×35	24
12	American standard（item 12）	Bolt：7/8-9UNC-2A×52	16
13	GH3101-03.11	Oil seal：8.5″×10.5″×0.625″	2
14	GH3101-03.12	Bearing：4G32840H	2
15	GB/T93-1987	Washer ： 22	16
16	GB/T93-1987	Washer ： 14	24
17	GH3101-03.13	Flange	1
18	American standard（item 18）	Bolt：5/8-11UNC-2A×50	3
19	GB/T93-1987	Washer ： 16	3

4 GH3101-04.00 Crosshead assembly



No.	Drawing No.	Name	Qty.
1	GH3101.04.01	Crosshead	1
2	GH3101.04.02	Slide, Upper	1
3	American standard (item 3)	Bolt: 1-8UNC-2A×55	2
4	GH3101-04.03	End cover	1
5	GB/T3452.1-1992	O ring: 175×3.55G	1
6	GH3101-04.04	Stuffing box	1
7	GH3101-04.05	Seal gasket	1
8	GH3101-04.06	Oil Seal	1
9	GH3101-04.07	Pipe joint: NPT3/8×50.8	2
10	GH3101-04.08	Mudguard	1
11	GH3101-04.09	intermediate extension rod	1
12	GH3101-04.10	Crosshead Pin	1
13	American standard (item 13)	Bolt: 1-8UNC-2A×65	8
14	GH3101-04.11	Adjusting gasket	2
15	GH3101-04.12	Slide, Lower	1
16	GH3101-04.13	Fixing plate	8
17	GB/T3452.1-1992	O ring: 140×7.0G	1
18	American standard (item 18)	Bolt: 3/8-16UNC-2A×35	4
19	GB/T93-1987	Washer : 10	4
20	GH3101-04.14	Locking Spring	1
21	American standard (item 21)	Screw : 3/4-10UNC-2A×55	8
22	GH3101-04.15	Seal pad	1
23	GH3101-04.16	Crosshead Pin Cap	1
24	GH3101-04.17	Crosshead Bearing: 5G254936Q	1
25	GH3101-04.18	Oil Seal: 4.5″×5.5″×0.5″	2
26	GB/T4240-1993	Stainless steel Wire : Φ 1.60 (L=300)	2
27	GB/T4240-1993	Stainless steel Wire : Φ 1.60 (L=500)	1
28	GB/T4240-1993	Stainless steel Wire : Φ 1.60 (L=400)	2
29	GH3101-04.19.00	Shim set	8
30	242	Seal glue	1
31	GB/T3452.1-1992	O ring: 115×5.30G	1

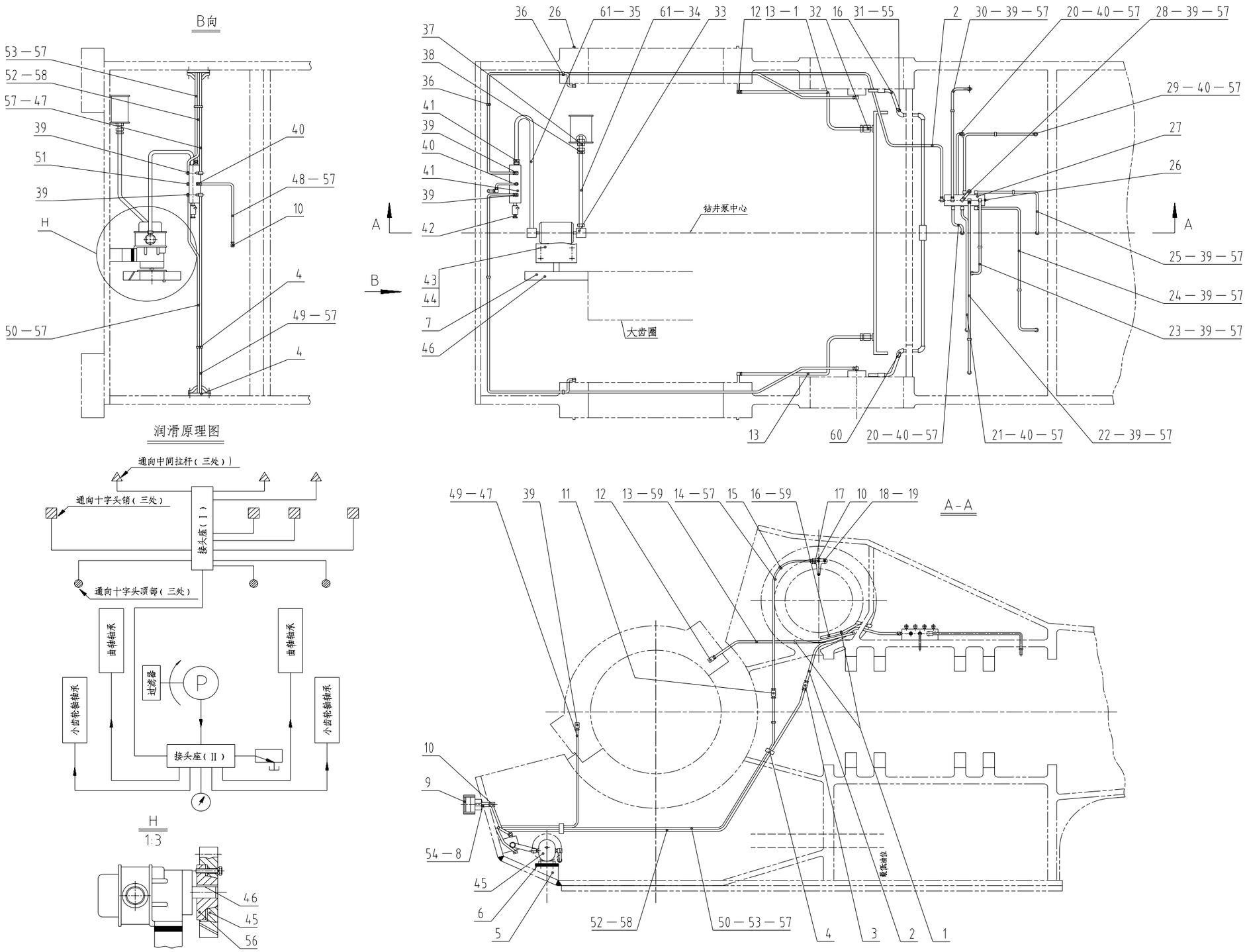
5 GH3101-05.00 Fluid end assembly



No.	Drawing No.	Name	Qty.
1	GH3101-05.01.00	Cylinder assembly	3
2	GH3101-05.02	Stick, liner cover flange	3
3	GH3101-05.03	Stick, liner cover	3
4	GH3101-05.04	Liner locking Ring	6
5	GH3101-05.05	Cylinder cover plug	3
6	GH3101-05.06	Puller & pusher	3
7	GB/T3452.1-1992	O ring: 97.5×3.55G	3
8	GH3101-05.07	Closure plate, discharge let: 5 1/8″	1
9	GH3101-05.08	Discharge manifold	1
10	GH3101-05.09	Seal ring for valve cover	3
11	GH3101-05.10	bolt: 1 1/2-8UN-2A×262	16
12	GH3101-05.01.03	Nut: 1 1/2-8UN-2B (SPL)	32
13	GH3101-05.11	Valve cover	3
14	GH3101-05.12	Valve rod guide device	3
15	GH3101-05.13.00	Spring guide	3
16	GH3101-05.14	Baffle	3
17	GH3101-05.15	Bolt: 3/8-16UNC-2A×20	12
18	GB/T4240-1993	Stainless steel Wire : Φ 1.60 (L=1830)	1
19	GH3101-05.16	Short connector	6
20	GH3101-05.17.00	Valve assembly (API 6#)	6
21	GH3101-05.18.00	Piston nut	3
22	GH3101-05.19.00A	Piston	3
23	GH3101-05.20	Seal ring, piston	3
24	GH3101-05.21	Piston rod	3
25	GH3101-05.22A GH3101-05.22	Ordinary liner Double metal liner	3
26	GH3101-05.23.00	Spraying pipe assembly	1
27	GH3101-05.24.00	Clamp assembly	3
28	GH3101-05.25	Liner end cover	3
29	GH3101-05.26	Fixing clamp	3
30	GH3101-05.27.00	Valve rod guide	3
31	GB/T3452.1-1992	O ring: 190×7.0G	3
32	American standard (item 32)	Bolt: 7/8-9UNC-2A×55	18
33	GH3101-05.28.00	Suction manifold	1

34	GH3101-05.29.00	Suction damper	1
35	GH3101-05.30.00	Shim set	4
36	American standard (item 36)	Bolt: 1 1/16-8UN-2A×90	36
37	American standard (item 37)	Nut: 1 1/16-8UN-2B (SPL)	36
38	GB/T3452.1-1992	O ring: 345×7.0G	3
39	GH3101-05.31	Suction flange (Ⅰ)	1
40	GH3101-05.32	Suction flange (Ⅱ)	1
41	GN3101-05.33	Screw plug: NPT1 1/2	1
42	GH3101-05.34	Washer : 39	24
43	GH3101-05.35	Plug, suction let: 12″	1
44	277	Sealant	1

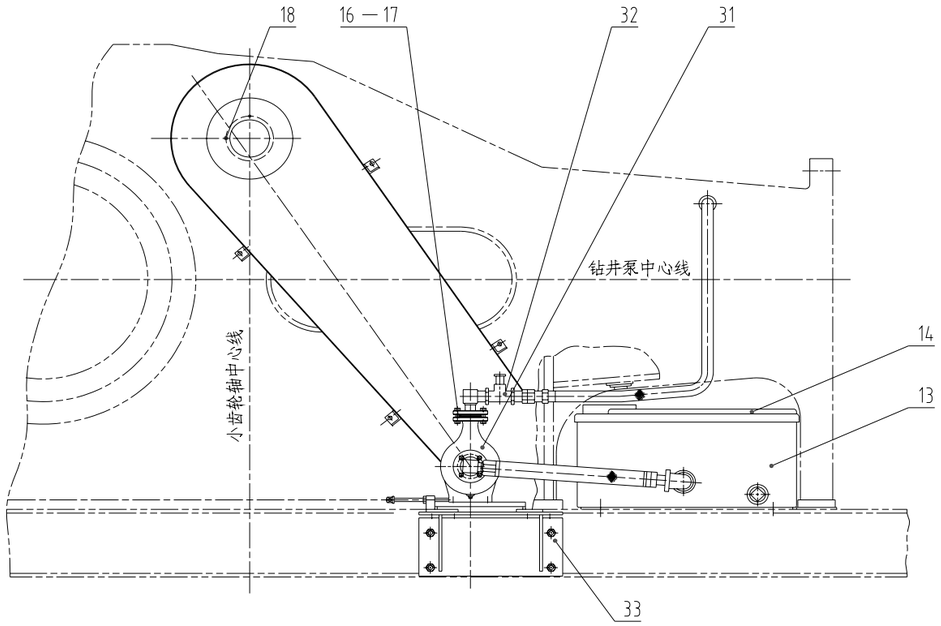
6 GH3101-06.00 End cover

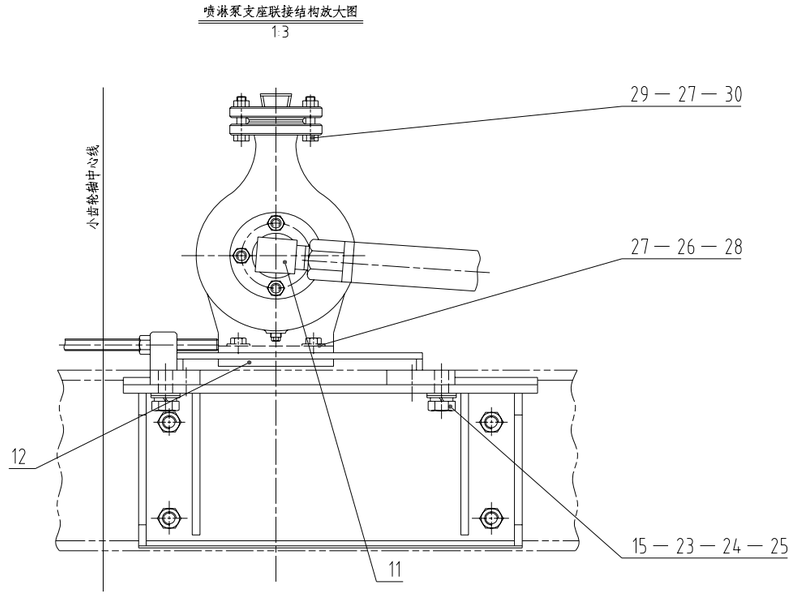


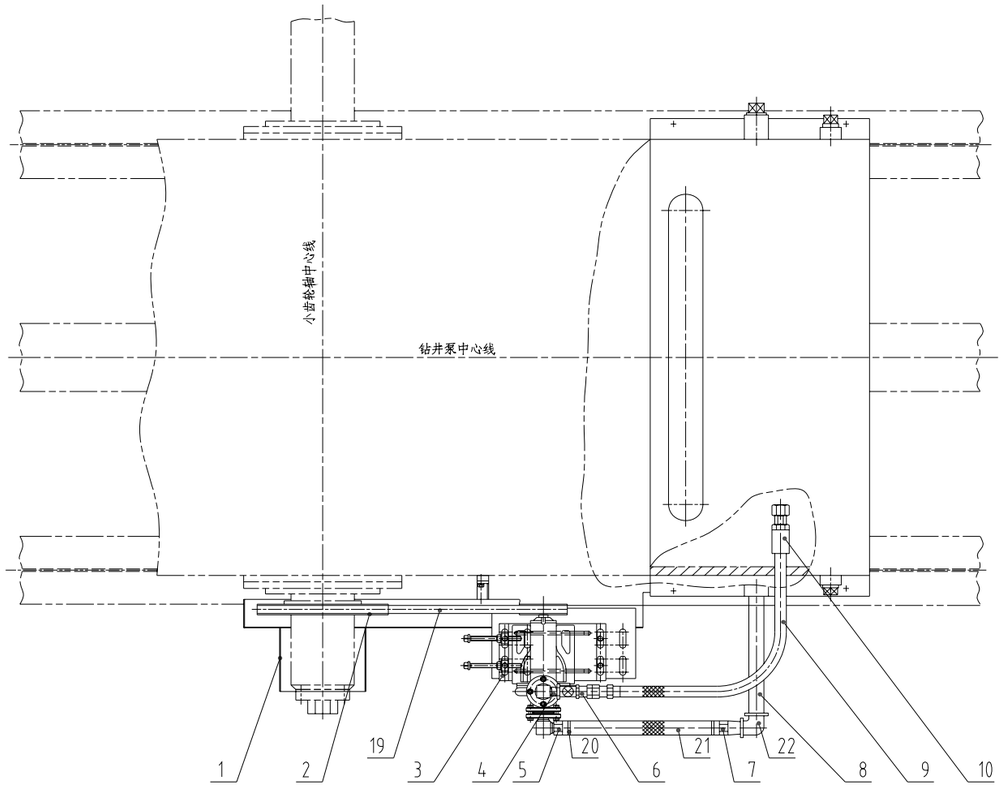
No.	Drawing No.	Name	Qty.
1	GH3101-06.01.00	clamp: Φ12	4
2	GB/T1527-1997	Copper tube: Φ10×1270	1
3	GH3101-06.02	Pipe joint	1
4	GH3101-06.03.00	Dual pipe clamp: Φ8	3
5	GH3101-06.04.00	Support seat	1
6	GH3101-06.05.00	Shim set	1
7	GH3101-06.06.00	Gear oil pump	1
8	GH3101-06.07	Pipe joint: NPT1/4-9/16-16UN-2B	1
9	Y60-Z	Pressure, gauge : (9/16-16UN-2B) 0～1.6MPa (0～230psi)	1
10	GH3101-06.08	90° pipe joint: 1/2-20UNF-2A-NPT1/4	3
11	GH3101-06.09	Pipe joint: 1/2-20UNF-2A	2
12	GH3101-06.10	90° Pipe joint : 11/16-16UN-2A-NPT1/4	2
13	GB/T1527-1997	Copper tube: Φ12×610	2
14	GB/T1527-1997	Copper tube: Φ8×966	2
15	GH3101-06.11.00	clamp: Φ8	10
16	GB/T1527-1997	Copper tube: Φ12×230	2
17	GH3101-06.12	Nozzle	2
18	American standard (item 18)	Bolt: 1/4-20UNC-2A×20	4
19	GB/T93-1987	Washer : 6 (d1min=6.4)	4
20	GB/T1527-1997	Copper tube: Φ8×305	2
21	GB/T1527-1997	Copper tube: Φ8×838	1
22	GB/T1527-1997	Copper tube: Φ8×584	1
23	GB/T1527-1997	Copper tube: Φ8×940	1
24	GB/T1527-1997	Copper tube: Φ8×1016	1
25	GB/T1527-1997	Copper tube: Φ8×584	1
26	GH3101-06.13	Screw plug: NPT1/4	5
27	GH3101-06.14	Joint seat (Ⅰ)	1
28	GB/T1527-1997	Copper tube: Φ8×153	1
29	GB/T1527-1997	Copper tube: Φ8×737	1
30	GB/T1527-1997	Copper tube: Φ8×661	1
31	GH3101-06.15	45° Pipe joint	2
32	GH3101-06.16	90° Pipe joint : 11/16-16UN-2A-NPT3/8	2
33	GH3101-06.17	90° Pipe joint :	2

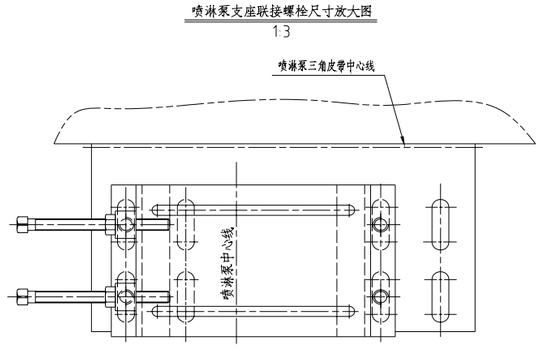
		15/16-16UN-2A-NPT1/2	
34	GB/T1527-1997	Copper tube: Φ16×331	1
35	GB/T1527-1997	Copper tube: Φ16×686	1
36	GH3101-06.18.00	clamp（Ⅰ）	2
37	GH3101-06.19.00	Oil filter	1
38	GH3101-06.20	Straight joint : 15/16-16UN-2A-NPT1/2	2
39	GH3101-06.08	90° Pipe joint: 1/2-20UNF-2A-NPT1/4	12
40	GH3101-06.21	Straight joint: 1/2-20UNF-2A-NPT1/4	5
41	GH3101-06.22	Joint seat （Ⅱ）	1
42	YYFJ-L20	Relief valve	1
43	American standard （item 43）	Screw : 5/16-18UNC-2A×40	4
44	GB/T93-1987	Washer : 8	4
45		2S Gear oil pump	1
46	GH3101-06.23	Key : 3/16×3/16×25.4	1
47	GB/T1527-1997	Copper tube: Φ8×1016	1
48	GB/T1527-1997	Copper tube: Φ8×267	1
49	GB/T1527-1997	Copper tube: Φ8×1372	1
50	GB/T1527-1997	Copper tube: Φ8×2007	1
51	GH3101-06.24	90° Pipe joint: 5/8-16UN-2A-NPT1/4	2
52	GB/T1527-1997	Copper tube: Φ10×1651	1
53	GB/T1527-1997	Copper tube: Φ8×1651	1
54	GH3101-06.25	Seal gasket	1
55	GH3101-06.26	Gasket	2
56	609 or 680	Sealant	0
57	GH3101-06.27	Nut: 1/2-20UNF-2B	24
58	GH3101-06.28	Nut: 5/8-16UN-2B	4
59	GH3101-06.29	Nut: 11/16-16UN-2B	6
60	GH3101-06.30	Bolt, hollow	2
61	GH3101-06.31	Nut: 15/16-16UN-2B	4

7 GH3101-08.00Liner spraying assembly





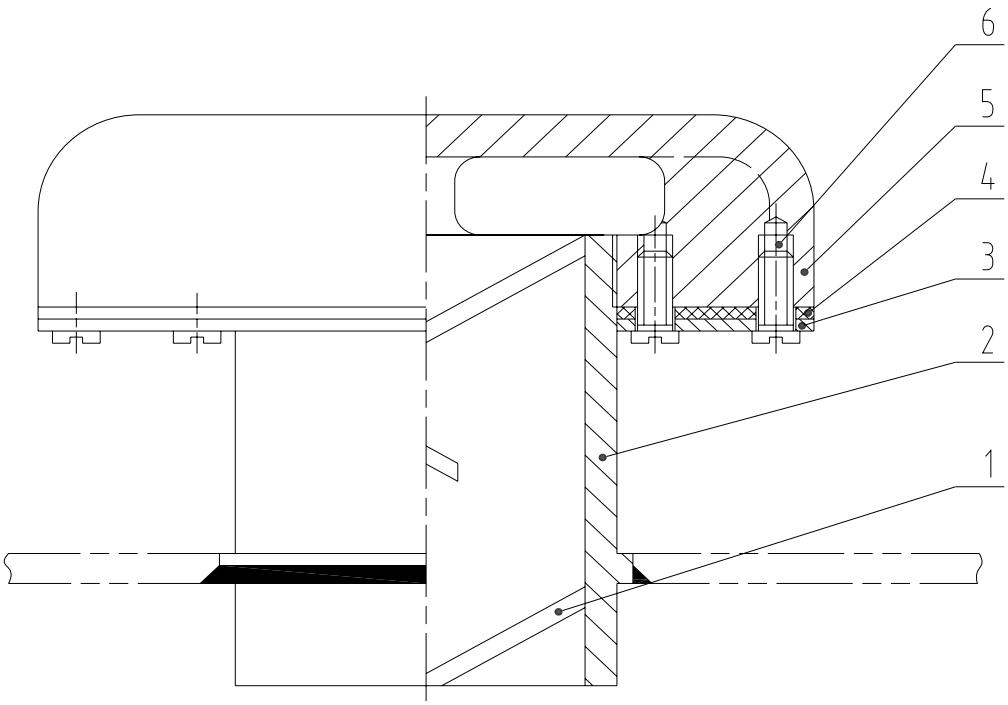




No.	Drawing No.	Name	Qty.
1	GH3101-08.01.00A GH3101-08.01.00	shield	1
2	GH3101-08.02	Belt pulley	1
3	GH3101-08.03.00	Seat assembly	1
4	GH3101-08.04	Short connector: NPT1-1-11 1/2NPSC	1
5	GH3101-08.05	Connector : NPT1	1
6	GH3101-08.06	Connector : 1-11 1/2NPSC (1 1/4-12UNF-2A)	1
7	GH3101-08.07	Connector : NPT2 1/2	1
8	GH3101-08.08	Short connector: NPT2 1/2	1
9		Hose: L=1500	1
10	GH3101-08.09.00	Hose joint: Φ22×Φ37	2
11	GH3101-08.10	90° elbow NPT1	2
12	GH3101-08.11	Connection plate	2
13	GH3101-08.12.00	Water case	1
14	GH3101-08.13.00	Case cover	1
15	GH3101-08.03.04	Nut: 5/8-11UNC-2B (SPL)	4
16	GH3101-08.14	Shim set	2
17	GH3101-08.15	Flange NPT1	2
18	American standard (item 18)	Holding Screw : 5/16-18UNC-2A×25	2
19	GB117-74	V belt: A3150	2
20		clamp: No: 3	2
21		Hose: L=480	1
22		90° elbow: NPT2 1/2	1
23	American standard (item 23)	Bolt: 5/8-11UNC-2A×50	4
24	GB/T93-1987	Washer : 16	4
25	GB/T848-1985	Flat Washer : 16	4
26	American standard (item 26)	Bolt: 1/2-13UNC-2A×40	4
27	GB/T93-1987	Washer : 14	12
28	GB/T96-1985	Flat Washer : 14	4
29	American standard (item 29)	Bolt: 1/2-13UNC-2A×60	8
30	American standard (item 30)	Nut: 1/2-13UNC-2B	8
31	32PL	Spraying pump	1

32	Q11F-16	Internal thread ball valve： 1-11 1/2NPSC	1
33	GH3101-08.16.00	Support	1

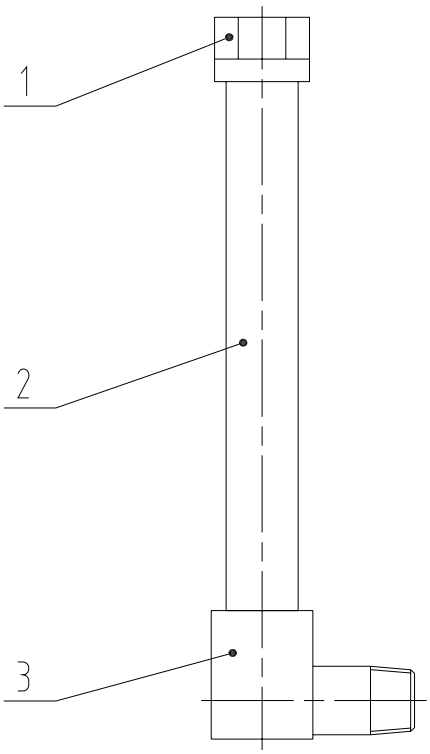
8 GH3101-10.00 Breather cap



No.	Drawing No.	Name	Qty.
1	GH3101-10.01	Baffle	3
2	GH3101-10.02	Connector	1
3	GH3101-10.03	Press plate for filter screen	1
4	GH3101-10.04	Brass wire screen	1
5	GH3101-10.05	Upper cover	1

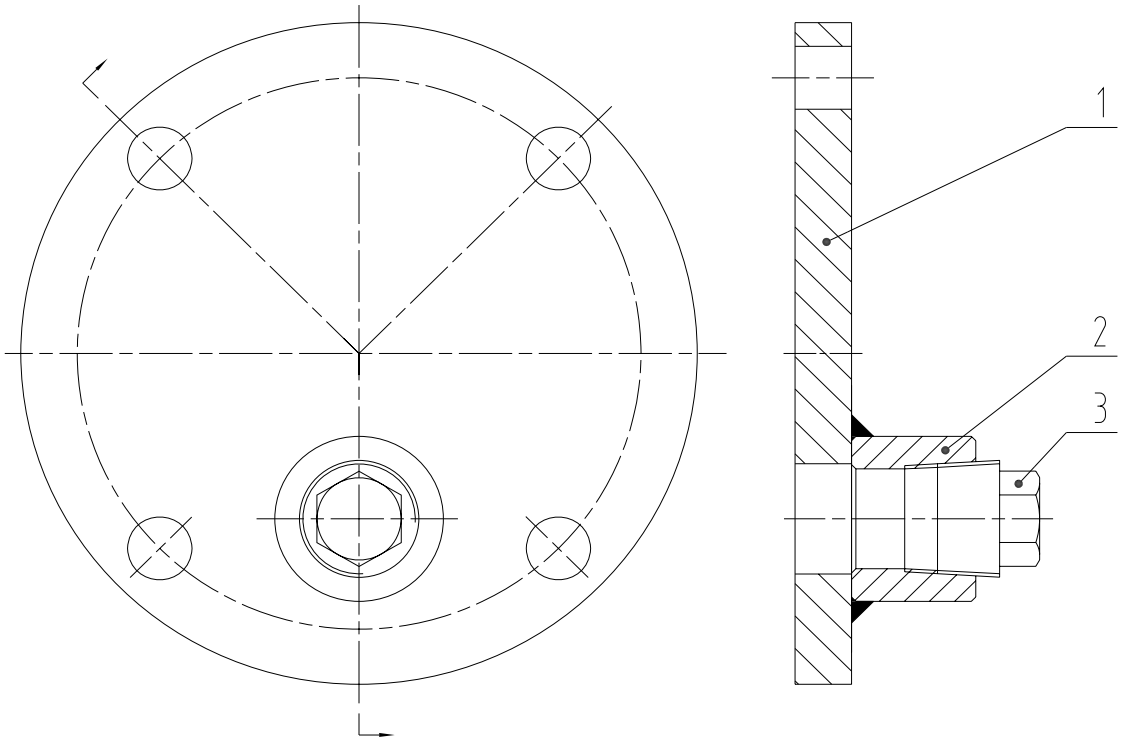
6	American standard	Screw ： 10（0.190）-24UNC-2A×10	8

9 GH3101-15.00Oil level gauge



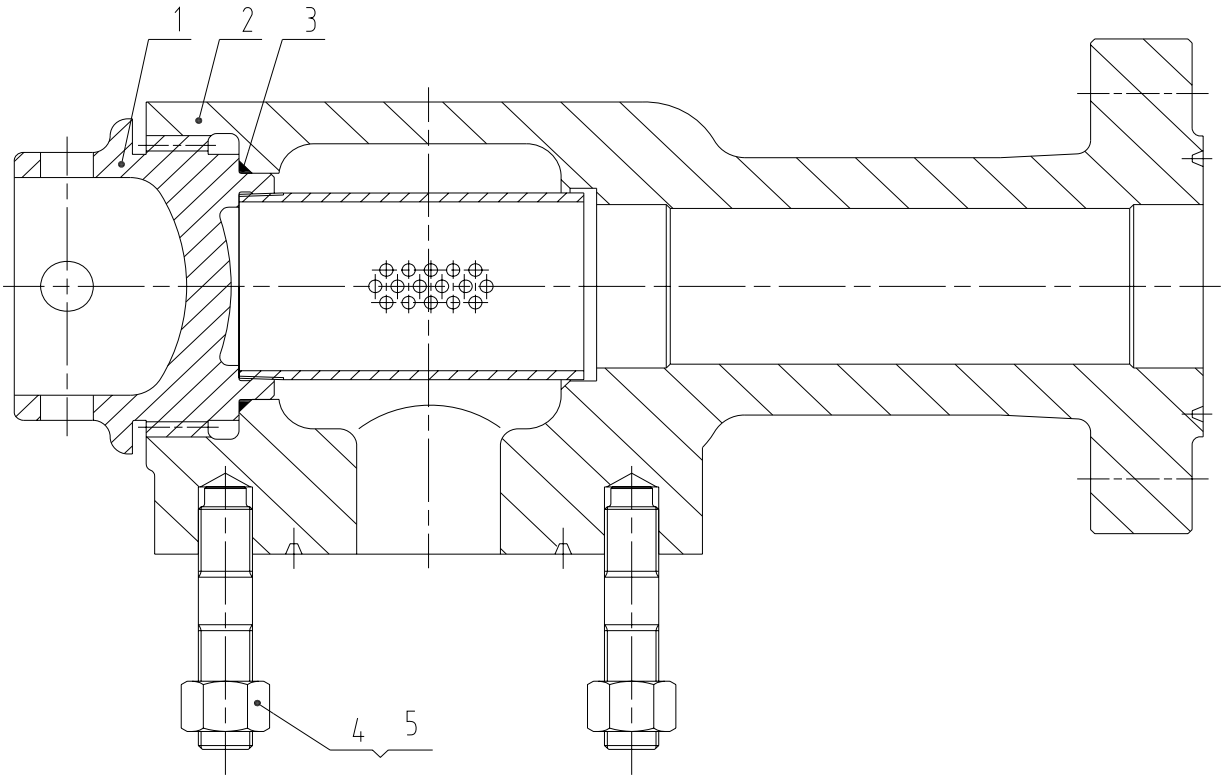
No.	Drawing No.	Name	Qty.
1	GH3101-15.01.00	dipstick	1
2	GH3101-15.02	Short connector：NPT 1/2	1
3	GH3101-15.03	elbow：NPT 1/2	1

10 GH3101-17.00Clean out cover



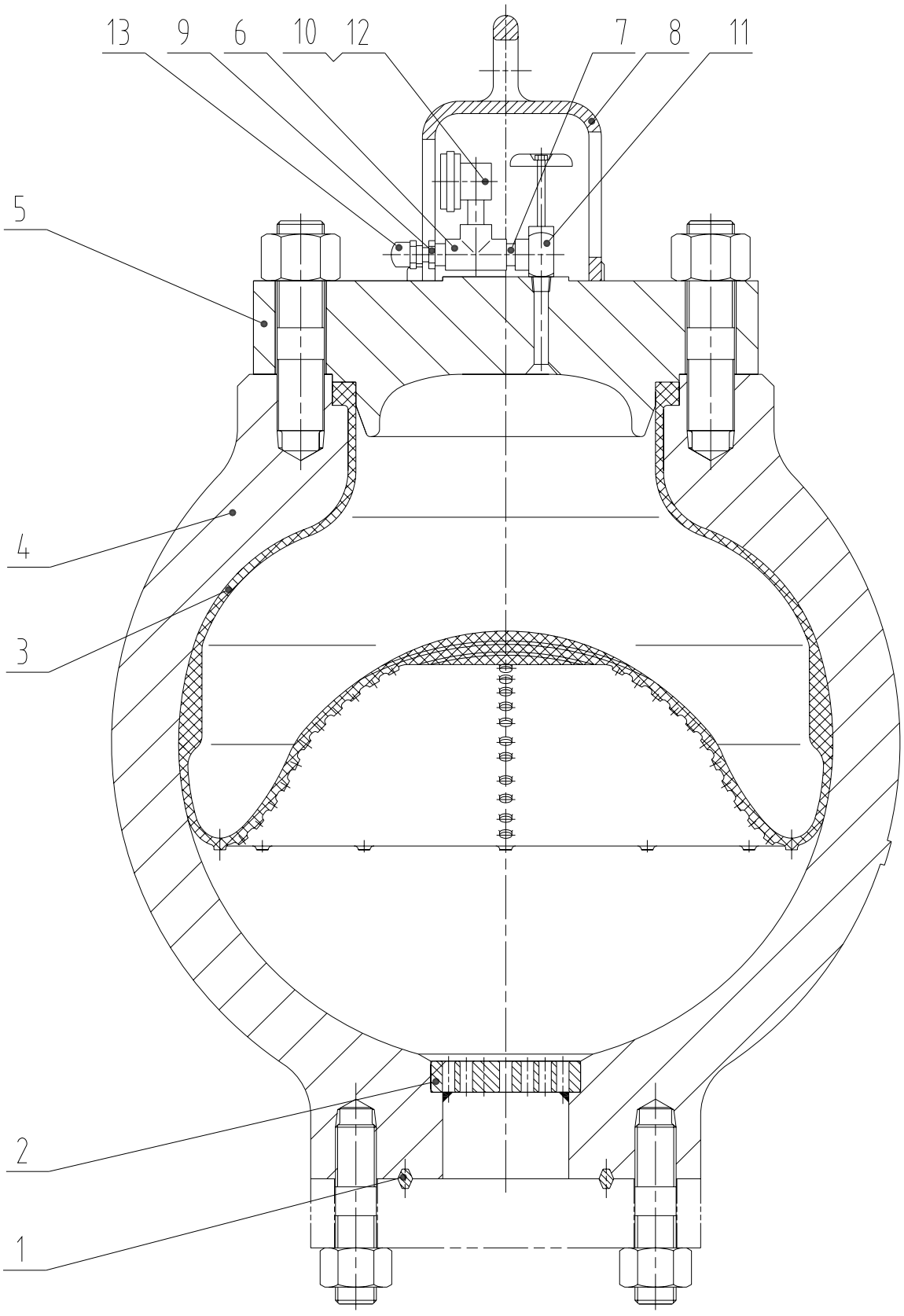
No.	Drawing No.	Name	Qty.
1		Cover plate assembly: Φ152.4×12.7	1
2	GH3101-17.01	Connector : NPT3/4	1
3	GH3101-17.02	Screw plug: NPT3/4	1

11 GH3101-22.00Draining filter assembly



No.	Drawing No.	Name	Qty.
1	GH3101-22.01.00	Filter screen assembly	1
2	GH3101-22.02	shell	1
3	GB/T3452.1-1992	O ring：165×7G	1
4	GH3101-22.03	bolt：1 1/2-8UN （12UNF）-2A×128	8
5	GH3101-22.04	Nut：1 1/2-8UN-2B（SPL）	8

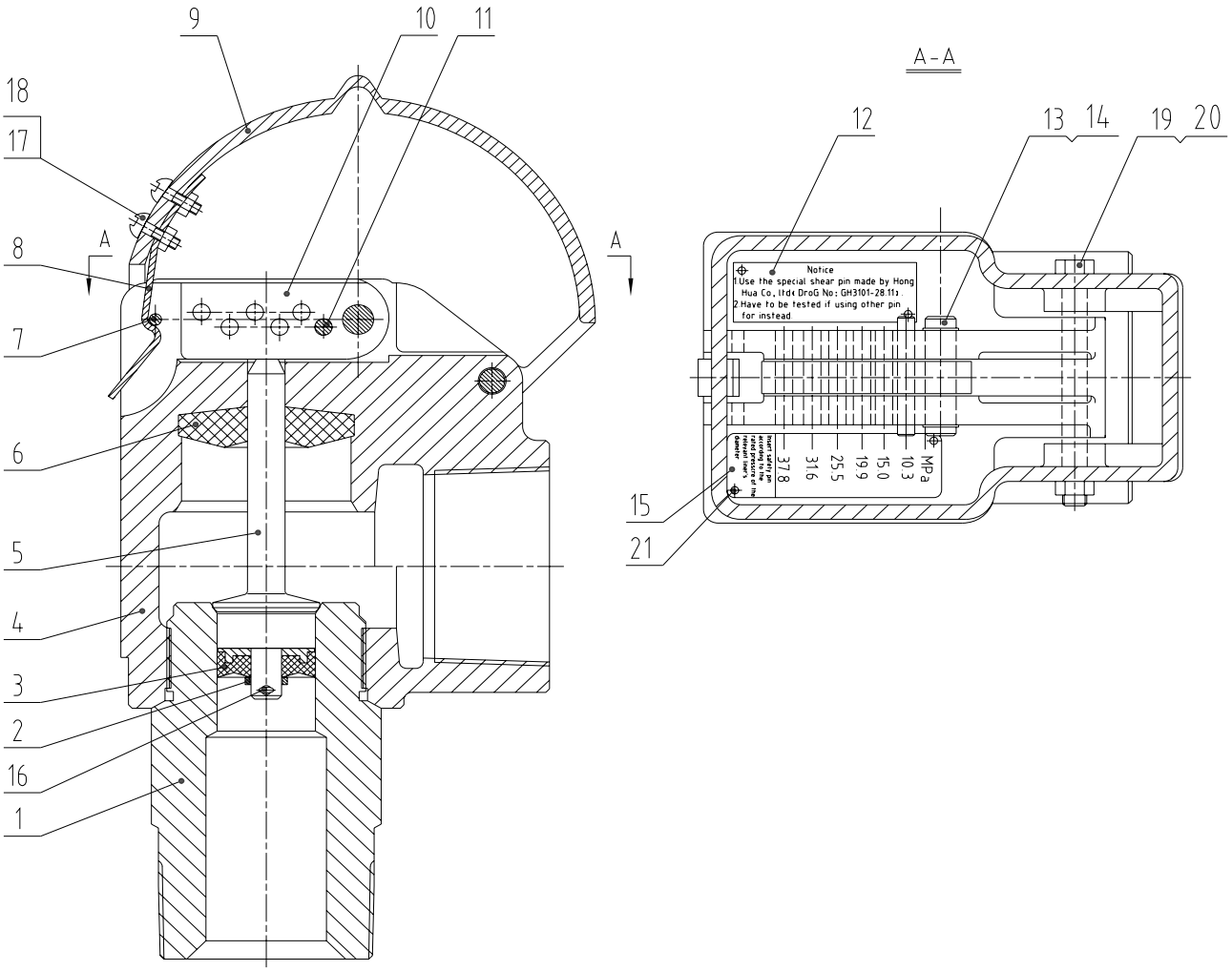
12 GH3101-27.00 KB-75Surge damper



No.	Drawing No.	Name	Qty.
1	GH3101-27.01	Ring gasket: R39	1

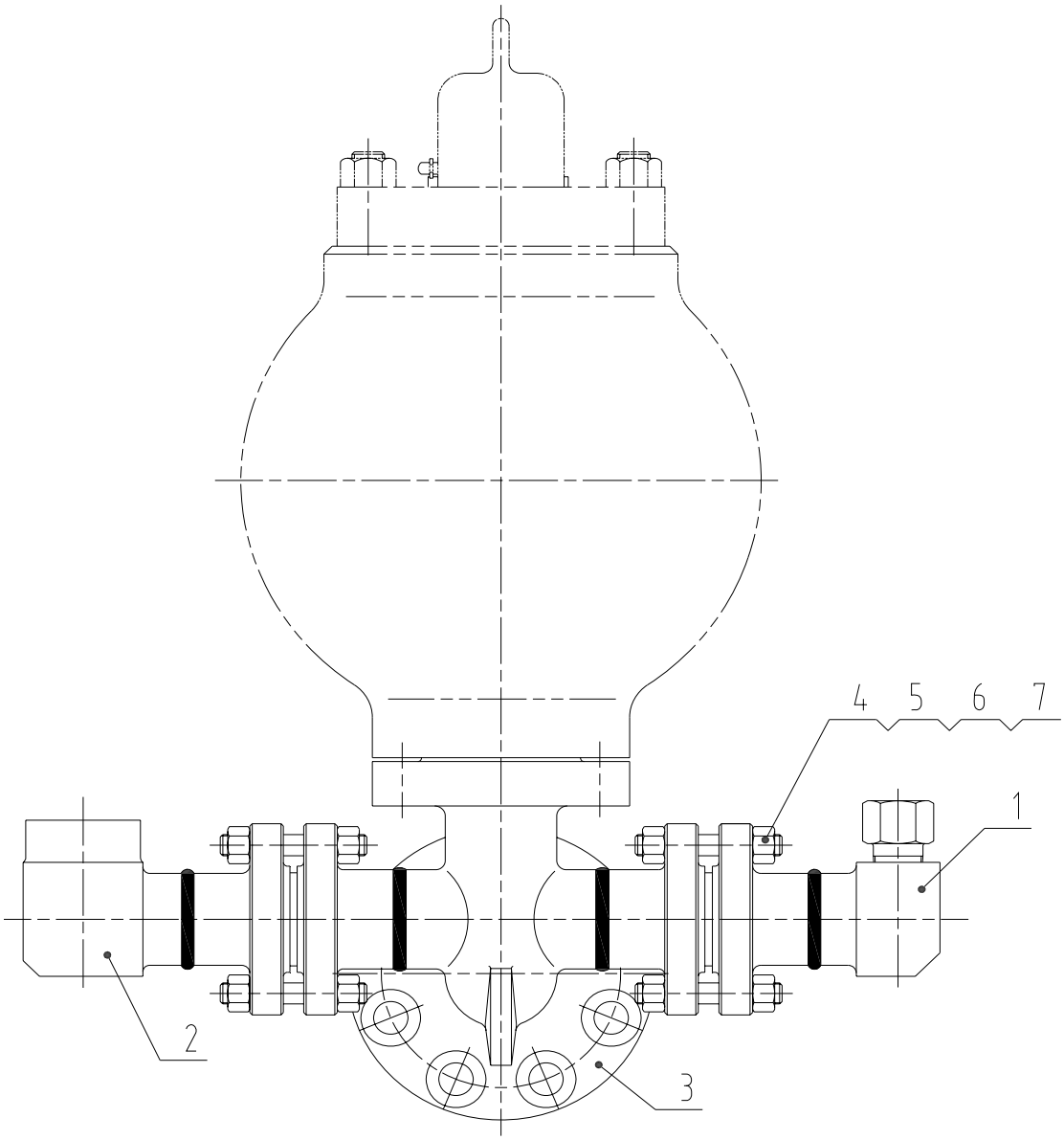
2	GH3101-27.02	Base plug	1
3	GH3101-27.03.00	Air bag	1
4	GH3101-27.04.00	Shell assembly	1
5	GH3101-27.05	Cover	1
6	GH3101-27.06	T-joint：NPT1/4	1
7	GH3101-27.07	Connector ：NPT1/4	1
8	GH3101-27.08.00	Guard, pressure gauge	1
9	GH3101-27.09.00	Bleeder valve	1
10	Y-60	Pressure gauge： 0～25MPa（0～3630psi）	1
11	JZR3-L8	Check valve	1
12	GH3101-27.10	Washer	1
13	GH3101-27.11.00	Charging Hose of Damper	1

13 GH3101-28.00A JA-3 Relieve valve


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A
A-A
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15
21
Notice
1 Use the special shear pin made by Hong Hua Co., ltd(DroG No: GH3101-28.11)
2 Have to be tested if using other pin for instead
37.8
31.6
25.5
19.9
15.0
10.3
MPa

No.	Drawing No.	Name	Qty.
1	GH3101-28.01	Connector	1
2	GH3101-28.02	Retainer ring	1
3	GH3101-28.03.00	Piston assembly	1
4	GH3101-28.04	Valve Body	1
5	GH3101-28.05	Piston rod	1
6	GH3101-28.06	Buffer pad	1
7	GH3101-28.07	Elastic straight pin	1
8	GH3101-28.08	Lock spring	1
9	GH3101-28.09	Safety guard	1
10	GH3101-28.10	Plate, shear pin	1
11	GH3101-28.11	Shear pin	1
12	GH3101-28.12A	Warning plate	1
13	GH3101-28.13	Pin	1
14	GH3101-28.14	Spacer ring	2
15	GH3101-28.15A	Nameplate	1
16	GB/T91-1986	pin：4×26	1
17	American standard (item 17)	Screw ： 8 (0.164) -32UNC-2A×16	2
18	American standard (item 18)	Nut：8 (0.164) -32UNC-2B	2
19	American standard (item 19)	Bolt：3/8-16UNC-2A×110	1
20	American standard (item 20)	Nut：3/8-16UNC-2B (SPL)	1
21	American standard (item 21)	Screw ： 5 (0.125) -40UNC-2A×8	4

14 GH3161-22.00BElbow assembly



No.	Drawing No.	Name	Qty.
1	GH3161-22.01.00A	Seat, pressure gauge	1
2	GH3161-22.02.00B	Safety valve seat	1
3	GH3161-22.03.00A	Discharging cross	1
4	GH3161-22.04	bolt：1 1/16-8UN-2A×170	16
5	GH3161-22.05	Nut：1 1/16-8UN-2B（SPL）	32
6	GH3161-22.06	Ring gasket：R27	2
7	277	Sealant：277	1