



Parts Manual
Vickers by Danfoss
HYDOKRAFT TVW-130 ... 750 closed loop



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1 Spare parts

Repairs during the warranty period must be made by Danfoss or authorized service stations only, otherwise warranty claims will not be accepted.

Only genuine Danfoss spare parts must be used.

The spare parts list shows the availability of spare part kits.

Sub-assemblies are not available as single parts.

To ensure a fast response to inquiries and that the correct spare parts are supplied, always provide the model code, the part no. and the serial no. as shown on the name plate.

Typenschild

Vickers Hydrokraft
Piston **Made in Germany**

V

TYPE

Part No. Date

Vg max cm³ n_{max} min⁻¹

V cm³ P_N bar

✓ mm³/s P_{max} bar

Serial no.

Part no.

Manufacture date

Vor dem Start mit Öl füllen. (Anschluss=L) Leckölleitung so verlegen, daß Gehäuse gefüllt bleibt. Gehäusedruck max. 0,5 bar.

Fill with oil before start up. (connection=L) Mount drain line in such a manner that housing remains filled with oil. Internal pressure 0,5 bar max.

Monter la conduite de récupération des fuites de telle manière que le carter reste rempli d'huile. Pression intérieure: 0,5 bar max.

Prima della messa in marcia riempire il corpo della pompa con il fluido in circuito. (Foro=L) Fare il drenaggio in modo da mantenere il corpo sempre pieno. Pressione mass. nel corpo 0,5 bar.

2. Basic pump
2.1 Drawing 130 - 360

ITEM NO.

QTY.

DESCRIPTION

1

4

Screw

2

4

Sealing Ring

3

1

Cover

4

1

Shaft Seal

5

1

Distance Ring

6

1

O-Ring

7

1

Housing

8

1

Plate for rotation direction

9

6

Rivet

10

2

Plug

11

5

Plug

12

1

Plug

13

4

Tie-Rod

14

1

Plug

15

1

Name Plate

16

1

Plug

17

1

O-Ring

18

1

Cover

19

1

Circlip

20

1

O-Ring

21

1

Plug

22

1

Shaft

23

1

Key

24

1

Circlip

25

1

Bearing Assy Shaft (Front)

26

2

Cradle Bearing

27

2

Screw

28

1

Yoke

29

1

Pin

30

4

Screw

31

1

Lever

32

1

Ring

33

1

Pivot

34

9

S.A. Piston & Shoe

35

1

Retaining Ring

36

4

Distance Piece

37

2

Hold Down Strap

38

8

Screw

39

1

Cylinder Barrel

40

1

Ring

41

1

Compression Spring

42

1

Ring

43

1

Circlip

44

1

Valve Plate

45

1

Sealing (O-Ring or Gasket)

46

1

Bearing Assy Shaft (Rear)

47

2

Screw

48

1

Spacer

49

2

Pin

50

2

Pin

51

2

O-Ring

52

1

Plug

53

5

Plug

54

2

Pin

55

1

Cap Screw

56

1

Port Plate

57

4

O-Ring

58

4

Nut

REF. PART NO. HC206166062111
REF. MODEL: BASIC PUMP TVWS-130

DATE: 2010-11-26
DRAWN: Gensert

DATE: 2010-11-26
APPROVED: Gensert

ASSEMBLY EXPLODED VIEW

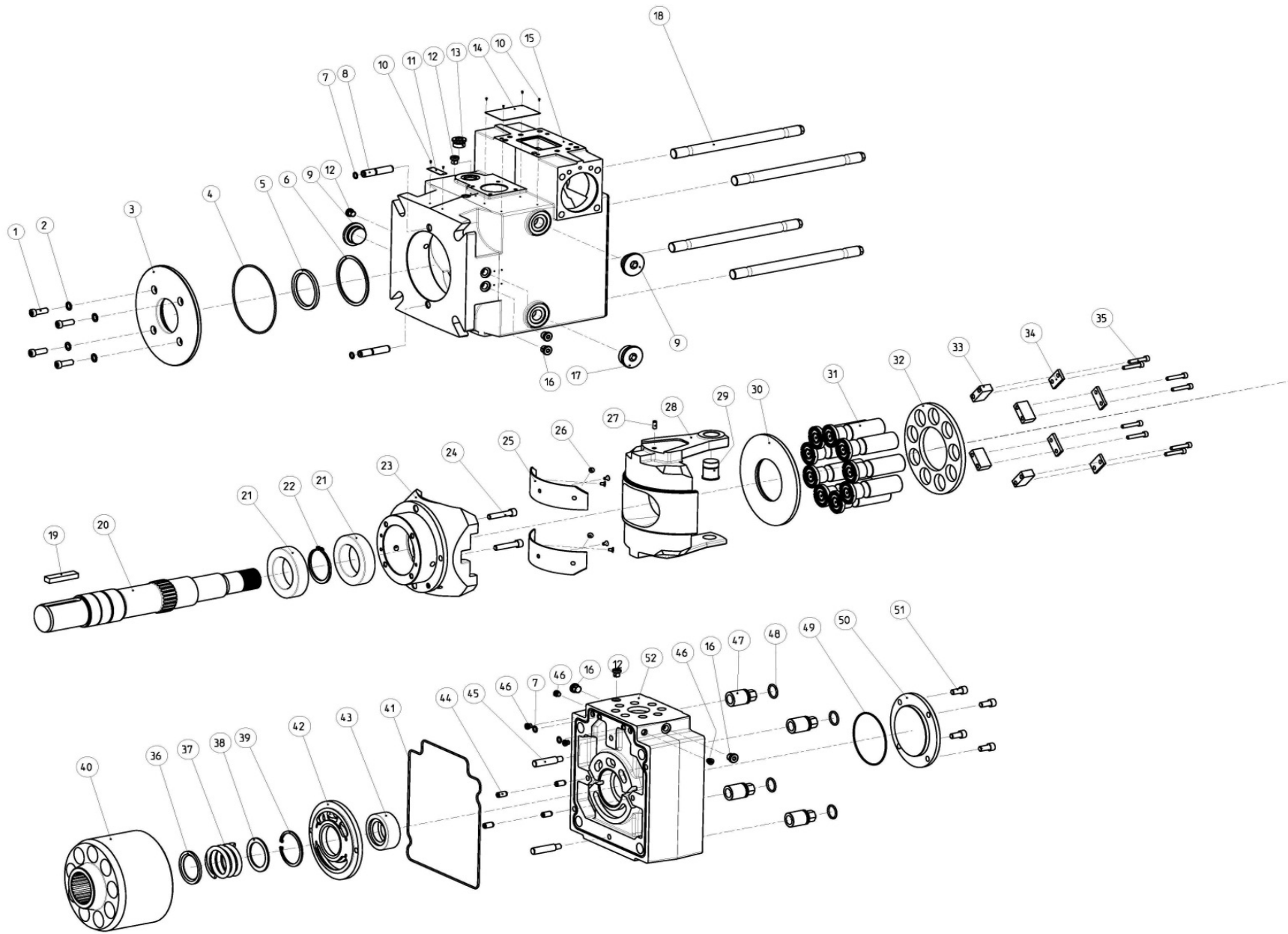
SCALE: A0
D-HC036166062111

REVISION: A

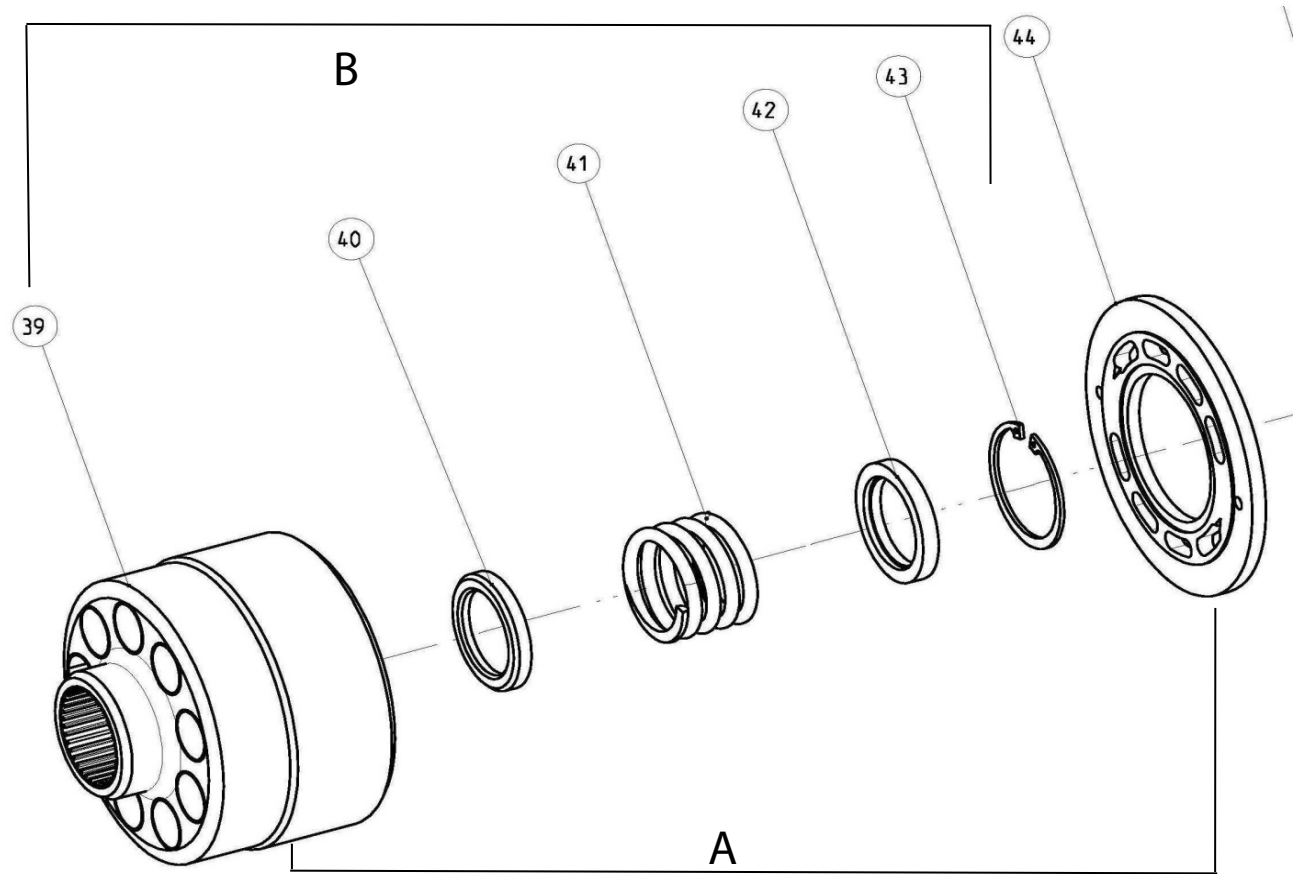
1 OF 1

2. Basic pump
2.2 Drawing 500 - 750

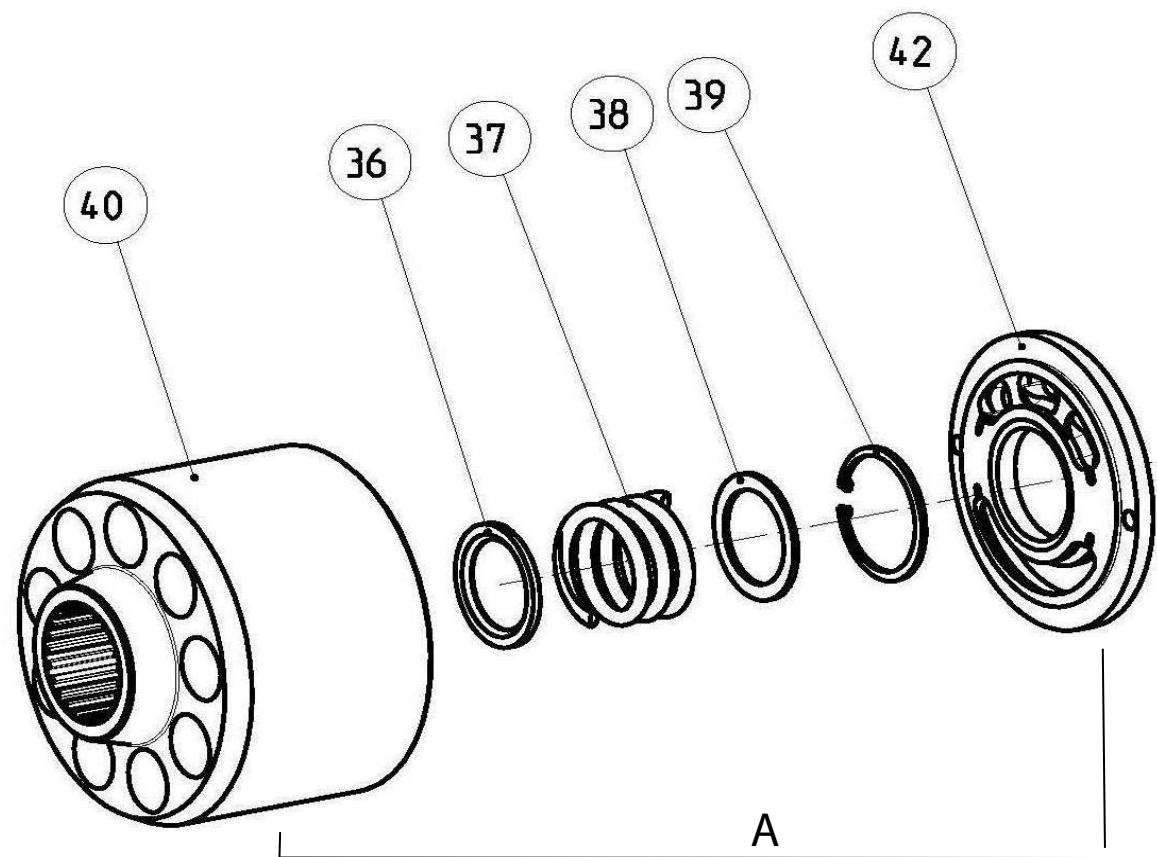
ITEM NO.	QTY.	DESCRIPTION
1	4	Screw
2	4	Washer
3	1	Cover
4	1	O-Ring
5	1	Shaft Seal
6	1	Shim
7	4	O-Ring
8	2	Pin
9	2	Plug
10	6	Rivet
11	1	Plate For Rotation Direction
12	1	Plug
13	1	Plug
14	1	Name Plate
15	1	Housing
16	4	Plug
17	1	Plug
18	4	Tie Rod
19	1	Key
20	1	Shaft
21	2	Bearing Assy Shaft (Front)
22	1	Circlip
23	1	Bearing Block
24	2	Screw
25	2	Cradle Bearing
26	6	Screw
27	1	Pin
28	1	Swash Plate
29	1	Pivot
30	1	Wear Plate
31	9	S.A. Piston & Shoe
32	1	Retaining Ring
33	4	Distance Piece
34	4	Hold Down Strap
35	8	Screw
36	1	Ring
37	1	Compression Spring
38	1	Ring
39	1	Circlip
40	1	Cylinder Barrel
41	1	Sealing (O-Ring or Gasket)
42	1	Valve Plate
43	1	Bearing Assy Shaft (Rear)
44	4	Pin
45	2	Pin
46	4	Plug
47	4	Tie-Rod Nut
48	4	O-Ring
49	1	O-Ring
50	1	Cover
51	4	Screw
52	1	Port Plate



2. Basic Pump
2.3 Rotating Group 1



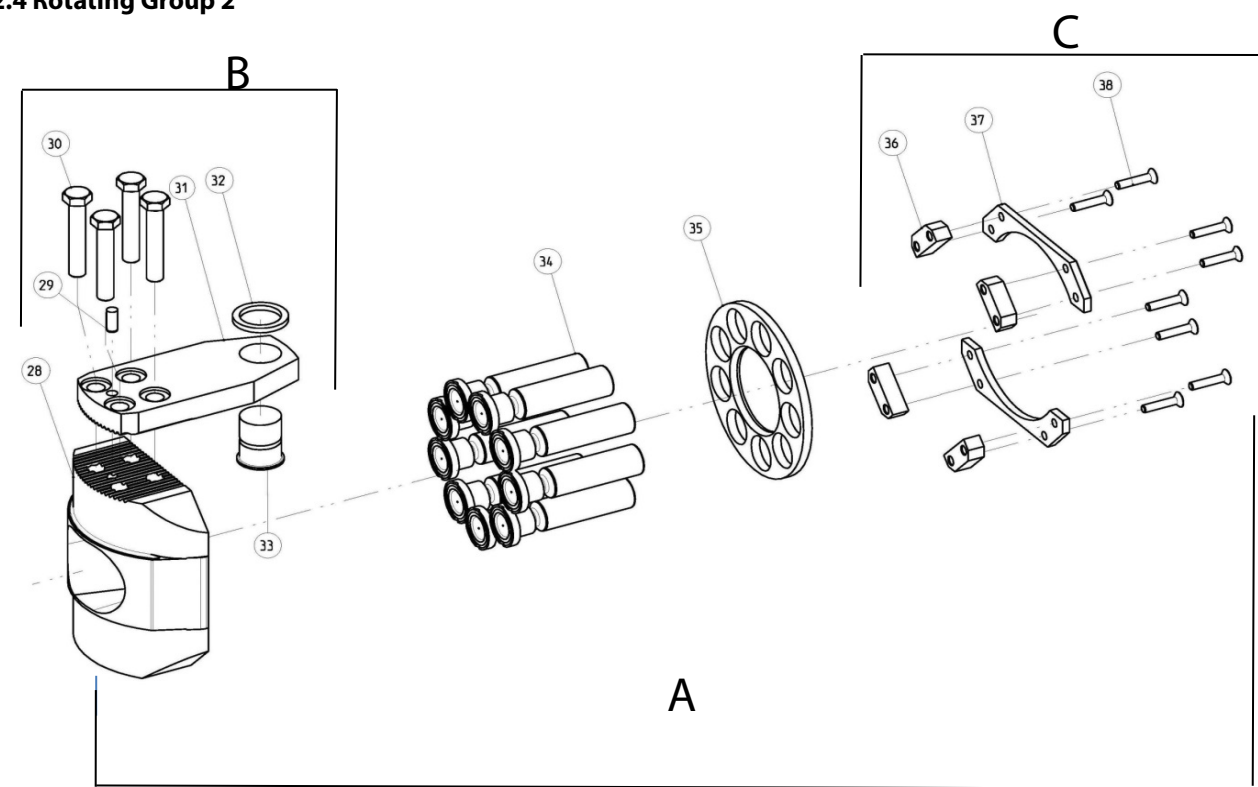
Pump size 130 ... 360



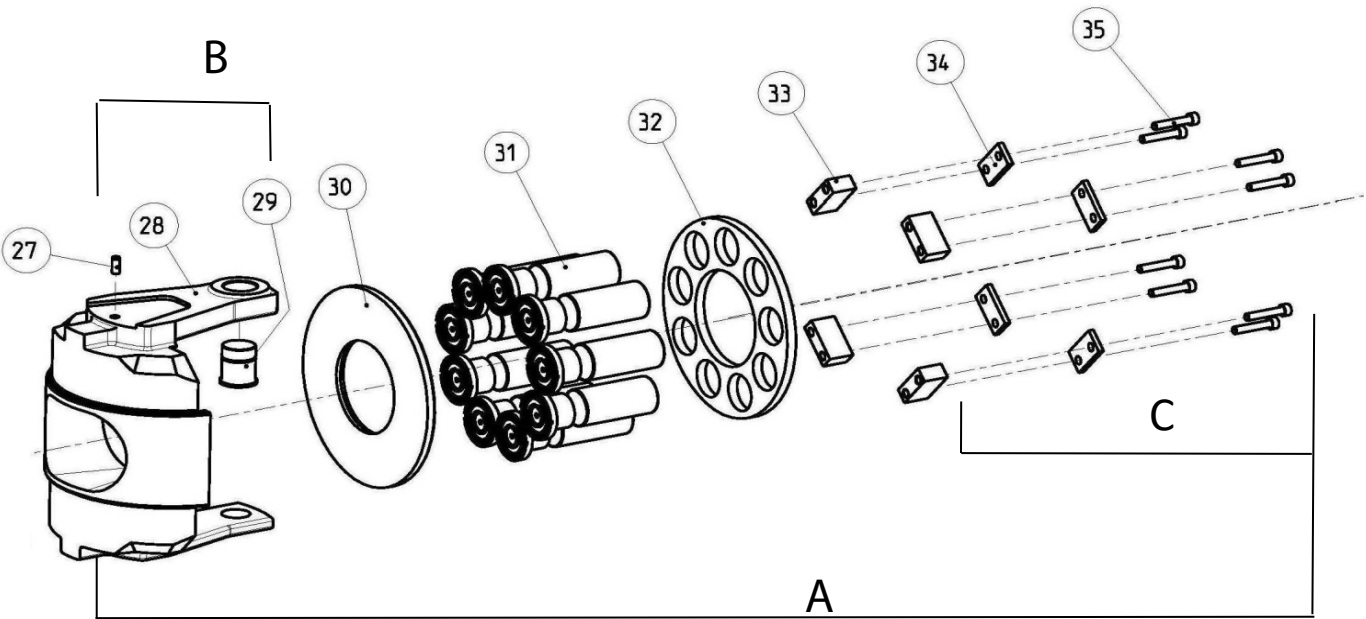
Pump size 500 - 750

		Pump size							
Pos.	Description	130	180	250	360	Pos.	Description	500	750
A	Kit piston block and wafer plate CW	HC966056091650	HC966066091650	HC966075091650	HC966075091652	A	Kit piston block and wafer plate CW	HC206086091600	HC106186091600
A	Kit piston block and wafer plate CCW	HC966056091651	HC966066091651	HC966075091651	HC966075091654		Kit piston block and wafer plate CCW	HC206086091601	HC106186091601
B	Kit piston block	HC106061080001	HC106061080000	HC106071080051	HC106071080053	B	Kit piston block	- / -	- / -
39	Piston block	- / -	- / -	- / -	- / -	40	Piston block	- / -	- / -
40	Ring	- / -	- / -	- / -	- / -	36	Ring	- / -	- / -
41	Spring	- / -	- / -	- / -	- / -	37	Spring	- / -	- / -
42	Ring	- / -	- / -	- / -	- / -	38	Ring	- / -	- / -
43	Lock washer	- / -	- / -	- / -	- / -	39	Lock washer	- / -	- / -
44	Wafer plate CW	HC166066100405	HC166066100440	HC166076100453	HC166076100453	42	Wafer plate CW	- / -	- / -
44	Wafer plate CCW	HC166066100406	HC166066100441	HC166076100454	HC166076100454	42	Wafer plate CCW	- / -	- / -

2. Basic Pump
2.4 Rotating Group 2



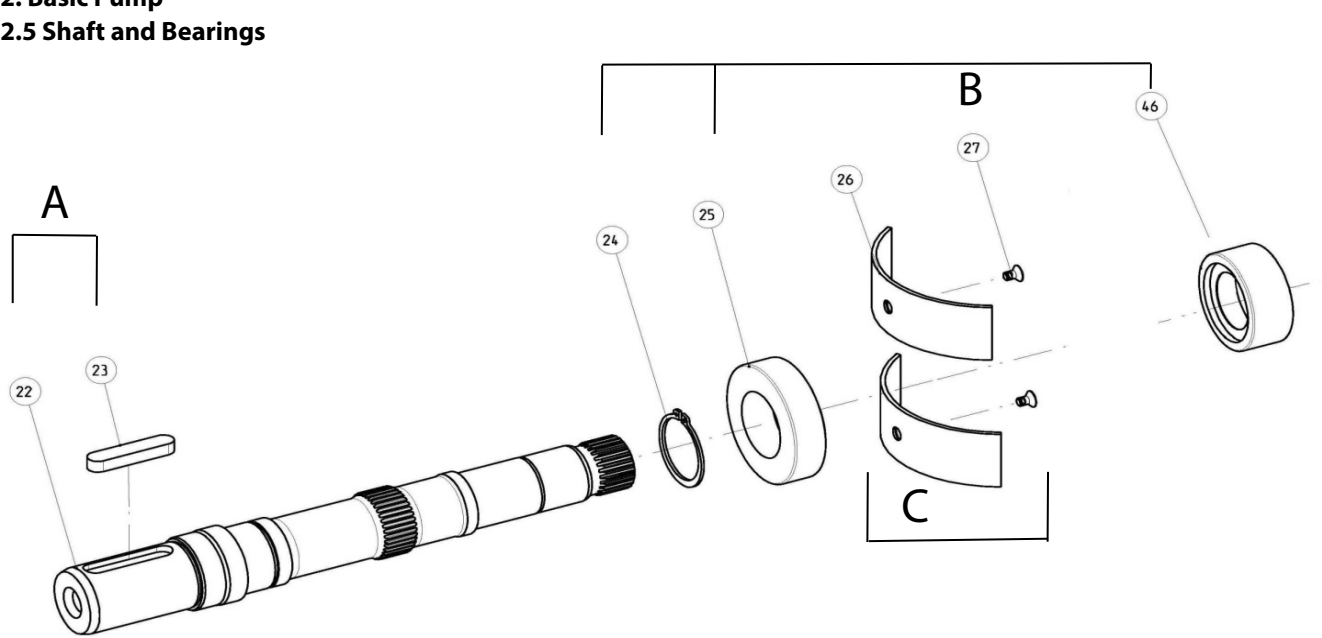
Pump size 130 ... 360



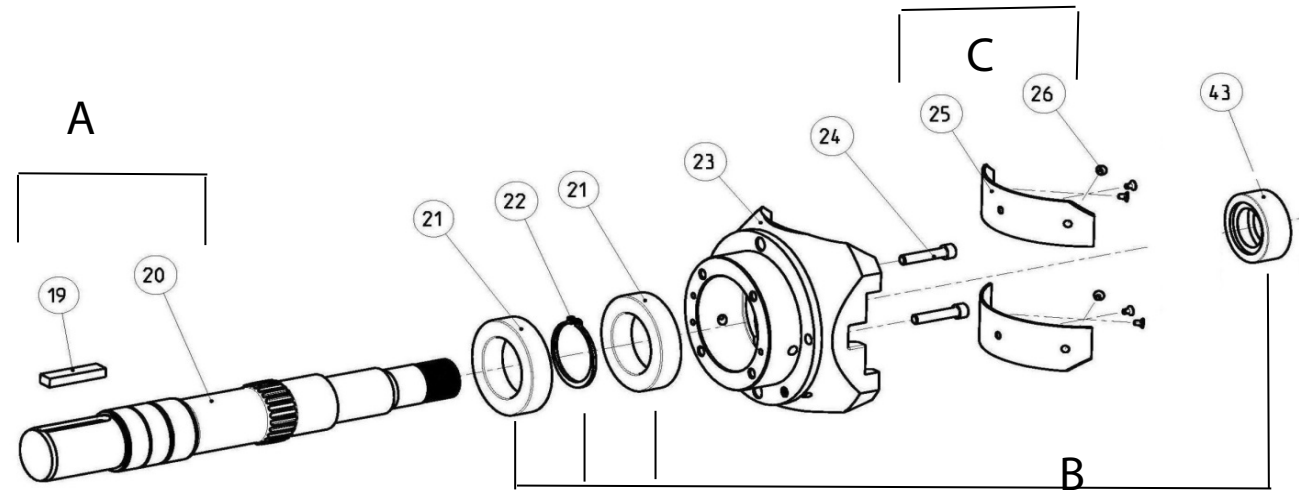
Pump size 500 - 750

		Pump size							
Pos.	Description	130	180	250	360	Pos.	Description	500	750
A	Kit yoke and piston pre-assembled	HC106162020000	HC106162020001	HC106072020058	HC106072020060	A	Kit yoke and piston pre-assembled	HC106082020000	HC106082020041
B	Yoke pre-assembled	HC106162071000	HC106162071000	HC106072071053	HC106072071053	B	Yoke pre-assembled	HC106082070501	HC206082093140
C	Kit hold down system	HC206062091850	HC206062091850	HC206072091850	HC206072091850	C	Kit hold down system	HC206082091800	HC206082091800
29	Pin	- / -	- / -	- / -	- / -	27	Pin	- / -	- / -
30	Screw	- / -	- / -	- / -	- / -	28	Yoke	- / -	- / -
31	Yoke lever	- / -	- / -	- / -	- / -	29	Pivot	HC506082101202	HC506082101202
32	Ring	- / -	- / -	- / -	- / -	30	Sliding disc	HC106081100400	HC106081100440
33	Pivot	HC506062105250	HC506062105250	HC506082101202	HC506082101202	31	Set of piston (9pcs.)	HC206082091700	HC966083091700
34	Set of piston (9pcs.)	HC206062091701	HC206062091740	HC206072091750	HC206072091751	32	Hole plate	HC106081100500	HC106081100540
35	Hole plate	HC106061100502	HC106061100502	HC106071100504	HC106071100504	33	Distance piece	- / -	- / -
36	Distance piece	- / -	- / -	- / -	- / -	34	Hold down strap	- / -	- / -
37	Hold down strap	- / -	- / -	- / -	- / -	35	Screw	- / -	- / -
38	Screw	- / -	- / -	- / -	- / -				

2. Basic Pump
2.5 Shaft and Bearings



Pump size 130 ... 360



Pump size 500 - 750

		Pump size							
Pos.	Description	130	180	250	360	Pos.	Description	500	750
A	Kit shaft and key	HC966062011050	HC966062011050	HC966076011051	HC966076011050	A*	Kit shaft and key	HC966086011050	- / -
A	Shaft spline	HC106065100730	HC106065100730	HC106075100752	HC106075100753	A*	Shaft spline	HC106086100704	HC106086100742
B*	Bearing kit	HC966061091200	HC966061091200	HC966075091200	HC966075091202	B	Bearing kit	HC966082091200	HC966083091200
C	Kit cradle bearings	HC206062091241	HC206062091241	HC206072091252	HC206072091252	C	Kit cradle bearings	HC206082091203	HC206082091203
22	Shaft	- / -	- / -	- / -	- / -	19	Key	- / -	- / -
23	Key	- / -	- / -	- / -	- / -	20	Shaft	- / -	- / -
24	Lock washer	- / -	- / -	- / -	- / -	21	Bearing shaft	- / -	- / -
25	Bearing shaft	- / -	- / -	- / -	- / -	22	Lock washer	- / -	- / -
26	Cradle bearing	- / -	- / -	- / -	- / -	23	Bearing block	- / -	- / -
27	Screw	- / -	- / -	- / -	- / -	24	Screw	- / -	- / -
46	Bearing port plate	- / -	- / -	- / -	- / -	25	Cradle bearing	- / -	- / -
						26	Screw	- / -	- / -
						43	Bearing port plate	- / -	- / -
							Ring for shaft seal size 750	- / -	HC000000105452

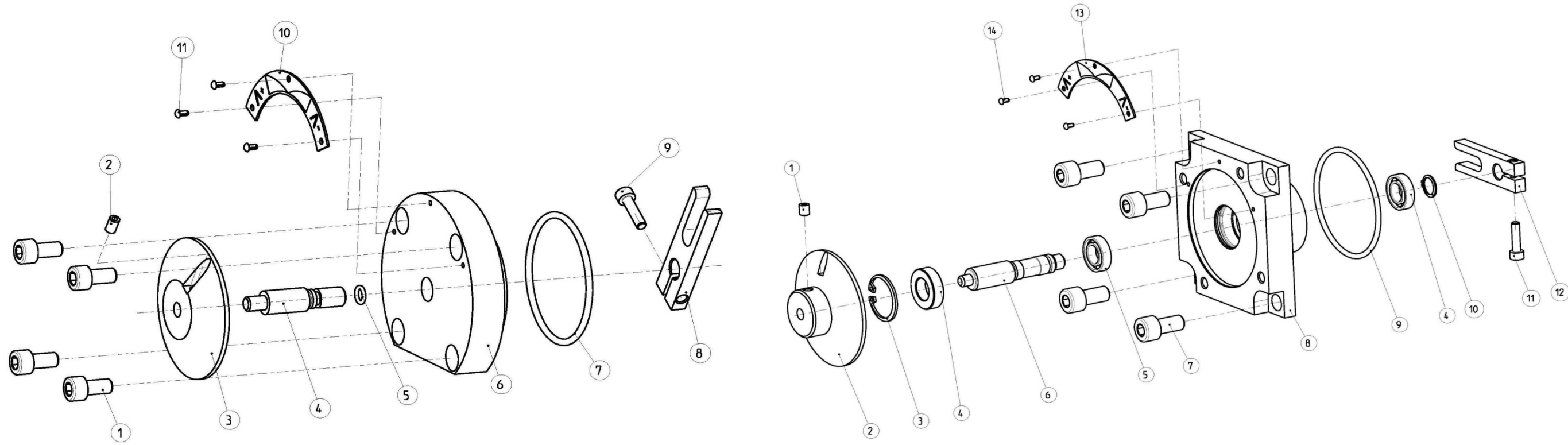
B* size 360 bearing kit spherical roller

A* size 750 only spline shaft

2. Basic Pump
2.6 Accessories

		Pump size							
Pos.	Description	130	180	250	360	Pos.	Description	500	750
A	Seal kit (VITON) included shaft seal	HC206062063350	HC206062063350	HC206072063350	HC206072063350	A	Seal kit (VITON) included shaft seal	HC206082063300	HC206082063340
4	Shaft seal	HC000000013533	HC000000013533	HC000000013534	HC000000013534	5	Shaft seal	HC0000000132018	HC0000000105449
B	Fixing parts basic pump	HC206062093050	HC206062093050	HC206072093051	HC206072093051	B	Fixing parts basic pump	HC206082093000	HC206082093040
C	Kit tie rod	HC206062050050	HC206062050050	HC206072093150	HC206072093151	C	Kit tie rod	HC206082093100	HC206082093140

3. Position indicator
3.1 Position indicator optical

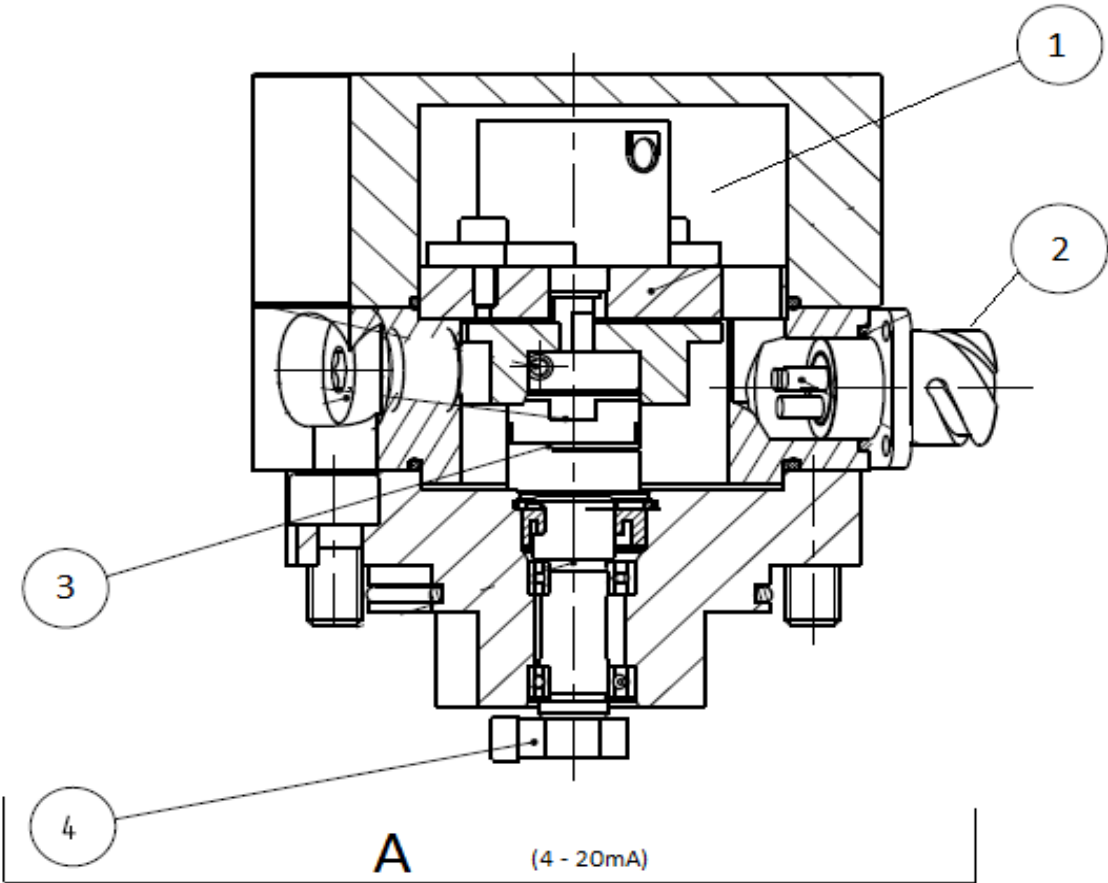
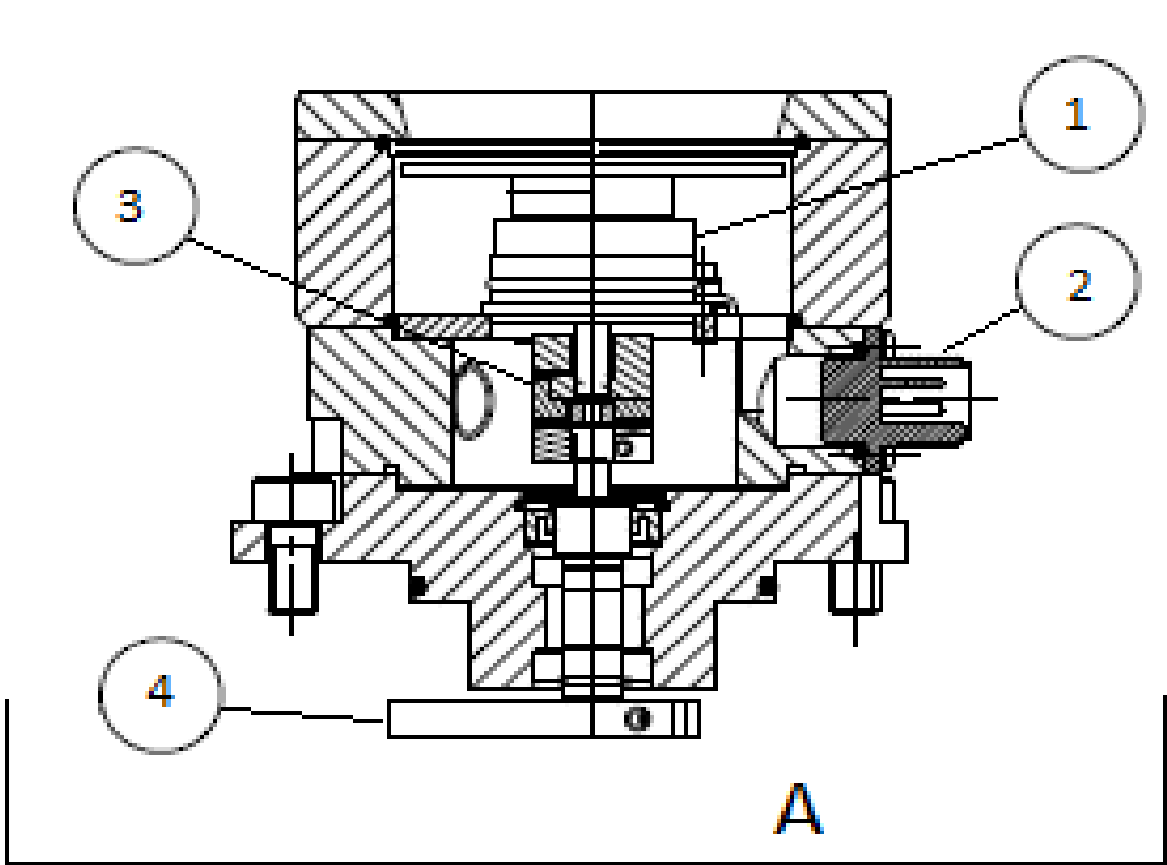


Pump size 130 ... 360

Pump size 500 - 750

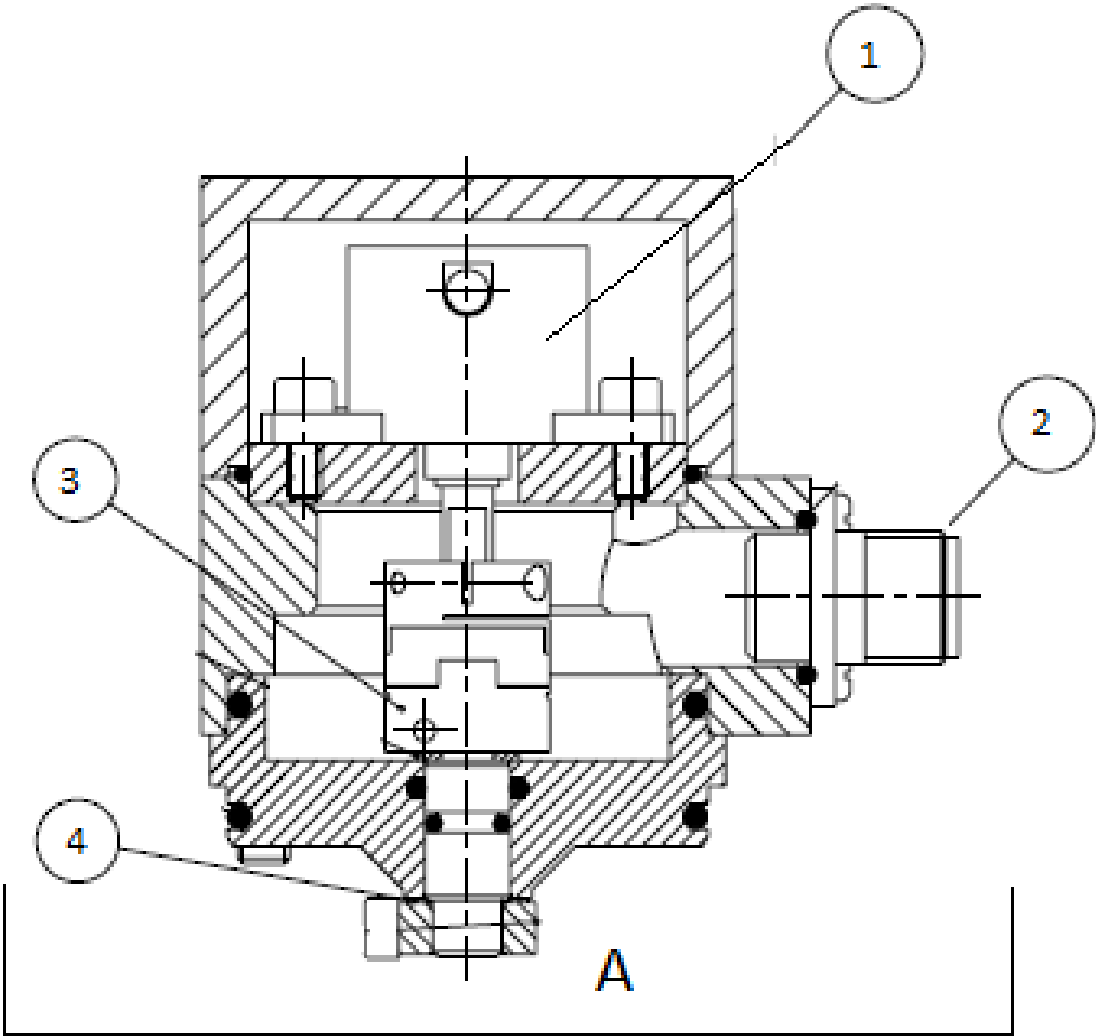
		Pump size							
Pos.	Description	130	180	250	360	Pos.	Description	500	750
A	Kit position indicator complete	HC496072021652	HC496072021652	HC496072021652	HC496072021653	A	Stellungsanzeige komplett	HC496982021600	HC496082021600
1	Screw	- / -	- / -	- / -	- / -	1	Headless pin	- / -	- / -
2	Headless pin	- / -	- / -	- / -	- / -	2	Washer	- / -	- / -
3	Washer	- / -	- / -	- / -	- / -	3	Look washer	- / -	- / -
4	Shaft	- / -	- / -	- / -	- / -	4	Shaft seal	- / -	- / -
5	O-Ring	- / -	- / -	- / -	- / -	5	Bearing	- / -	- / -
6	Flange	- / -	- / -	- / -	- / -	6	Shft	- / -	- / -
7	O-Ring	- / -	- / -	- / -	- / -	7	Screw	- / -	- / -
8	Lever (Pos. 8, 9)	HC496082071000	HC496082071000	HC496082071000	HC496082071000	8	Flange	- / -	- / -
9	Screw	- / -	- / -	- / -	- / -	9	O-Ring	- / -	- / -
10	Scale	- / -	- / -	- / -	- / -	10	Look washer	- / -	- / -
11	Rivet	- / -	- / -	- / -	- / -	11	Screw	- / -	- / -
						12	Lever (Pos. 11, 12)	HC496082071000	HC496082071000
						13	Scale	- / -	- / -
						14	Rivet	- / -	- / -

3. Position indicator
3.2 Position indicator electrical / optical



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Kit position indicator complete 5KOhm	HC496072021656	HC496072021656	HC496072021656	HC496072021657	HC496082021602	HC496082021603
A	Kit position indicator complete 4 - 20mA	HC496072021664	HC496072021664	HC496072021664	HC496072021664	HC496082021610	on request
1	Potentiometer 5kOhm	HC000000317060	HC000000317060	HC000000317060	HC000000317060	HC000000317060	HC000000317060
1	Potentiometer 4-20mA	HC000000317174	HC000000317174	HC000000317174	HC000000317174	HC000000317174	HC000000317174
2	Connector complete	HC000000132081	HC000000132081	HC000000132081	HC000000132081	HC000000132081	HC000000132081
3	Fork Coupling	HC000000317087	HC000000317087	HC000000317087	HC000000317087	HC000000317087	HC000000317087
4	Lever	HC496082071000	HC496082071000	HC496082071000	HC496082071000	HC496082071000	HC496082071000

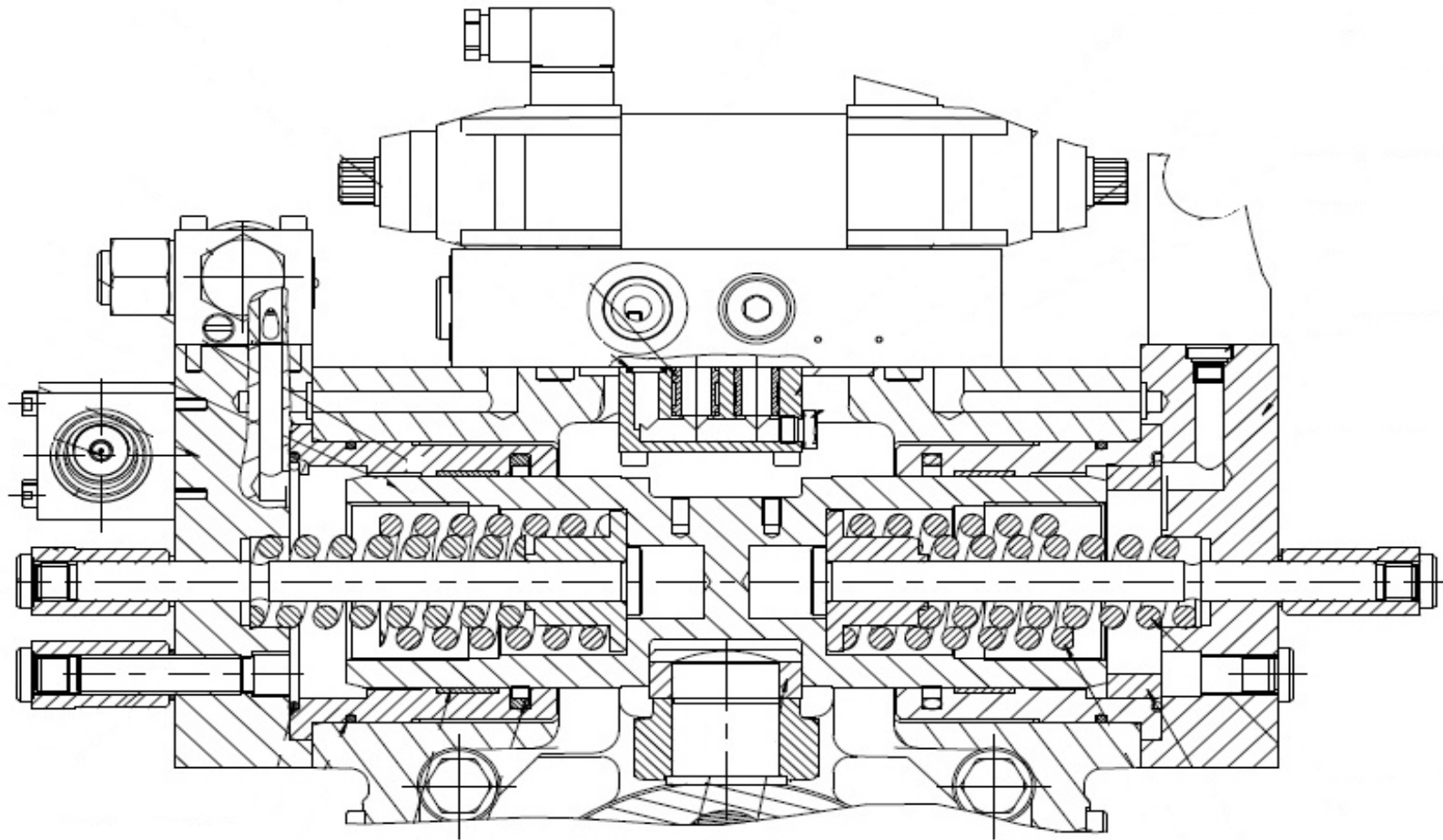
3. Position indicator
3.3 Position indicator electrical



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Kit position indicator complete 5KOhm	HC496072021655	HC496072021655	HC496072021655	HC496072021655	HC496082021601	HC496082021601
A	Kit position indicator complete 4 - 20mA	HC496072021661	HC496072021661	HC496072021661	HC496072021661	HC496082021608	on request
1	Potentiometer 5kOhm	HC000000133733	HC000000133733	HC000000133733	HC000000133733	HC000000133733	HC000000133733
1	Potentiometer 4-20mA	HC000000317174	HC000000317174	HC000000317174	HC000000317174	HC000000317174	HC000000317174
2	Connector complete	HC000000132081	HC000000132081	HC000000132081	HC000000132081	HC000000132081	HC000000132081
3	Fork Coupling	HC000000317087	HC000000317087	HC000000317087	HC000000317087	HC000000317087	HC000000317087
4	Lever	HC496082071000	HC496082071000	HC496082071000	HC496082071000	HC496082071000	HC496082071000

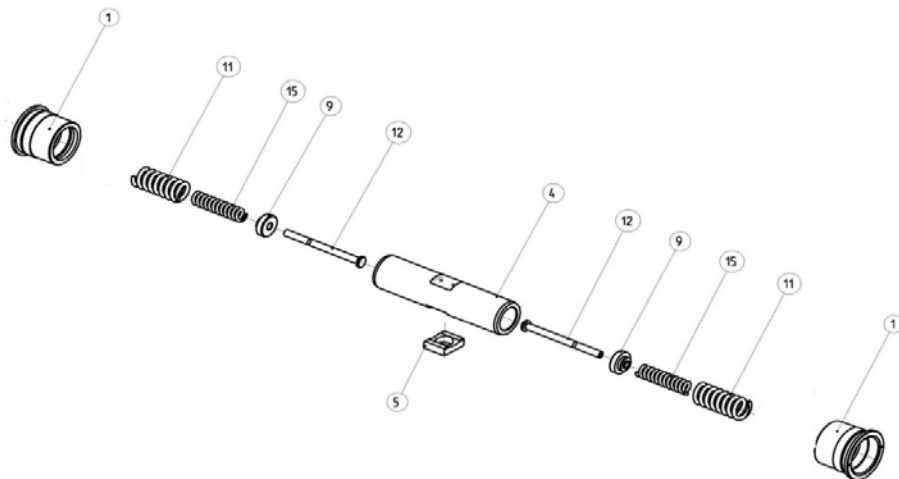
4. SP control

4.1 SP control overview



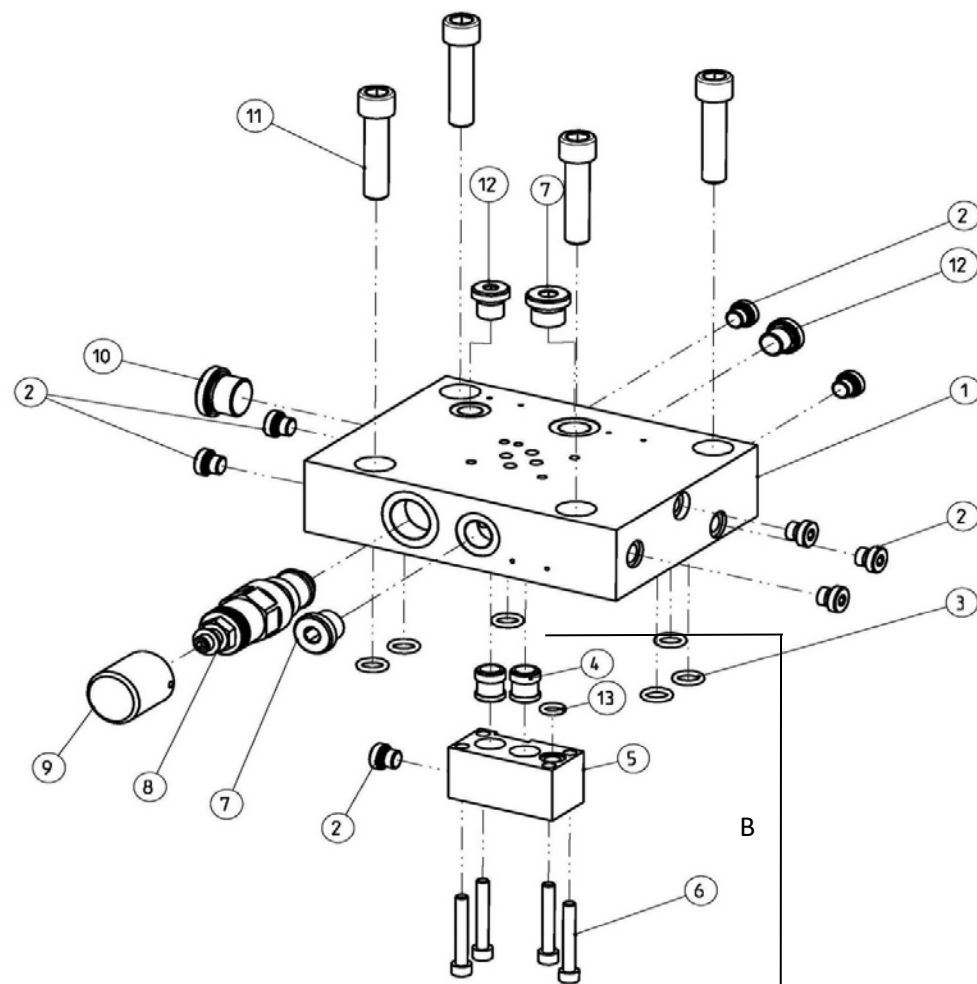
4. SP control

4.2 spring centering and control piston



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Kit control piston (Pos. 1,4)	HC966062090051	HC966062090051	HC966072090051	HC966072090051	HC966082090051	HC966086090051
B	Kit Spring centering (Pos. 9, 11, 15)	HC966062090151	HC966062090151	HC966072090151	HC966076090151	HC966082090151	HC966086090151
1	Sleeve	-/-	-/-	-/-	-/-	-/-	-/-
4	Control piston	-/-	-/-	-/-	-/-	-/-	-/-
5	Sliding block	HC506062105150	HC506062105150	HC506082101102	HC506082101102	HC506082101102	HC506082101102
9	Spring plate	-/-	-/-	-/-	-/-	-/-	-/-
12	Adjustment screw	-/-	-/-	-/-	-/-	-/-	-/-
11	Spring	-/-	-/-	-/-	-/-	-/-	-/-
15	Spring	-/-	-/-	-/-	-/-	-/-	-/-

4. SP control
4.3 SP plate NG 6



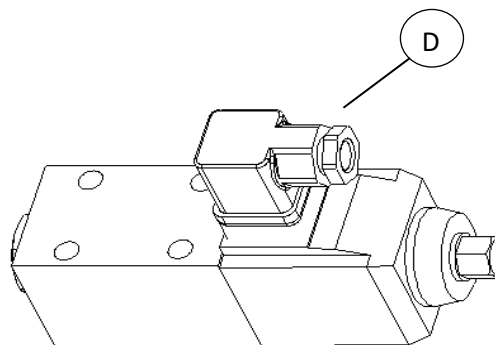
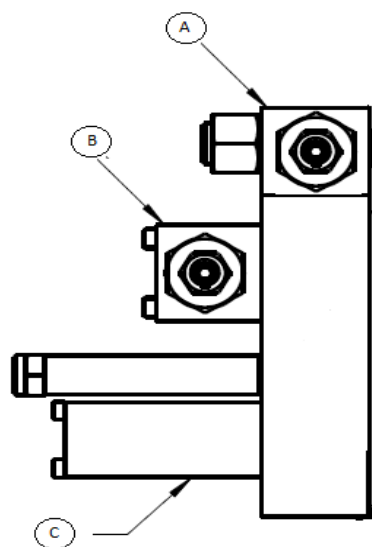
4. SP control

4.3.1 SP Platte NG 6

Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Adaptor plate complete	on request	on request	HC966182021100	HC966182021100	HC966182021100	HC966182021100
1	Adaptor plate	-/-	-/-	-/-	-/-	-/-	-/-
2	Plug	-/-	-/-	-/-	-/-	-/-	-/-
3	O-Ring	-/-	-/-	-/-	-/-	-/-	-/-
4	Check valve	HC000000316921	HC000000316921	HC000000316921	HC000000316921	HC000000316921	HC000000316921
B	Kit check valve and block	HC966072021150	HC966072021150	HC966072021150	HC966072021150	HC966072021150	HC966072021150
5	Block	-/-	-/-	-/-	-/-	-/-	-/-
6	Screw	-/-	-/-	-/-	-/-	-/-	-/-
7	Plug	-/-	-/-	-/-	-/-	-/-	-/-
8	Pilot oil relief valve	HC000000316927	HC000000316927	HC000000316927	HC000000316927	HC000000316927	HC000000316927
9	Cap	HC536052112902	HC536052112902	HC536052112902	HC536052112902	HC536052112902	HC536052112902
10	Plug	-/-	-/-	-/-	-/-	-/-	-/-
11	Screw	-/-	-/-	-/-	-/-	-/-	-/-
12	Plug	-/-	-/-	-/-	-/-	-/-	-/-
13	O-Ring	-/-	-/-	-/-	-/-	-/-	-/-

4. SP control

4.4 Options



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Pressure limiter main stage	HC606056061015	HC606056061015	HC606056061016	HC606056061016	HC606056061000	HC606056061000
B	Pressure limiter pilot stage	HC536062060612	HC536062060612	HC536062060612	HC536062060612	HC536062060612	HC536062060612
C	Power control valve	HC536082062900	HC536082062900	HC536082062900	HC536082062902	HC536082062900	HC536082062902
D	Prop.-valve KCG3-350DZMUH110	HC002014595900	HC002014595900	HC002014595900	HC002014595900	HC002014595900	HC002014595900

4. SP control

4.5 Accessories

Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Seal kit SP/DP control	HC966066063350	HC966066063350	HC966076063350	HC966076063350	HC966086063350	HC966086063350
B*	Kit electronic card ER9.3-10	HC876086021001	HC876086021001	HC876086021001	HC876086021001	HC876086021001	HC876086021001
C*	Electronic card ER9.3-10	HC000000315303	HC000000315303	HC000000315303	HC000000315303	HC000000315303	HC000000315303
D	Prop.-valveKDG4V-3-2C20NMUH760	HC002014767500	HC002014767500	HC002014767500	HC002014767500	HC002014767500	HC002014767500
E	Prop.-valve KBSDG4V-3-96L-40-M1- PE7-H7-11	HC059964130001	HC059964130001	HC059964130001	HC059964130001	HC059964130001	HC059964130001
F	Filter element pilot oil	HC000000132364	HC000000132364	HC000000132364	HC000000132364	HC000000132364	HC000000132364
G	contamination indicator (opt.)	HC000000317012	HC000000317012	HC000000317012	HC000000317012	HC000000317012	HC000000317012
H	contamination indicator (elect.)	HC000000316920	HC000000316920	HC000000316920	HC000000316920	HC000000316920	HC000000316920
I	Electronic card EEA-PAM-513-A-32	HC002032601600	HC002032601600	HC002032601600	HC002032601600	HC002032601600	HC002032601600
J	Card holder F48	HC002010480800	HC002010480800	HC002010480800	HC002010480800	HC002010480800	HC002010480800

6. SP control

6.5.1 Accessories PPQ control

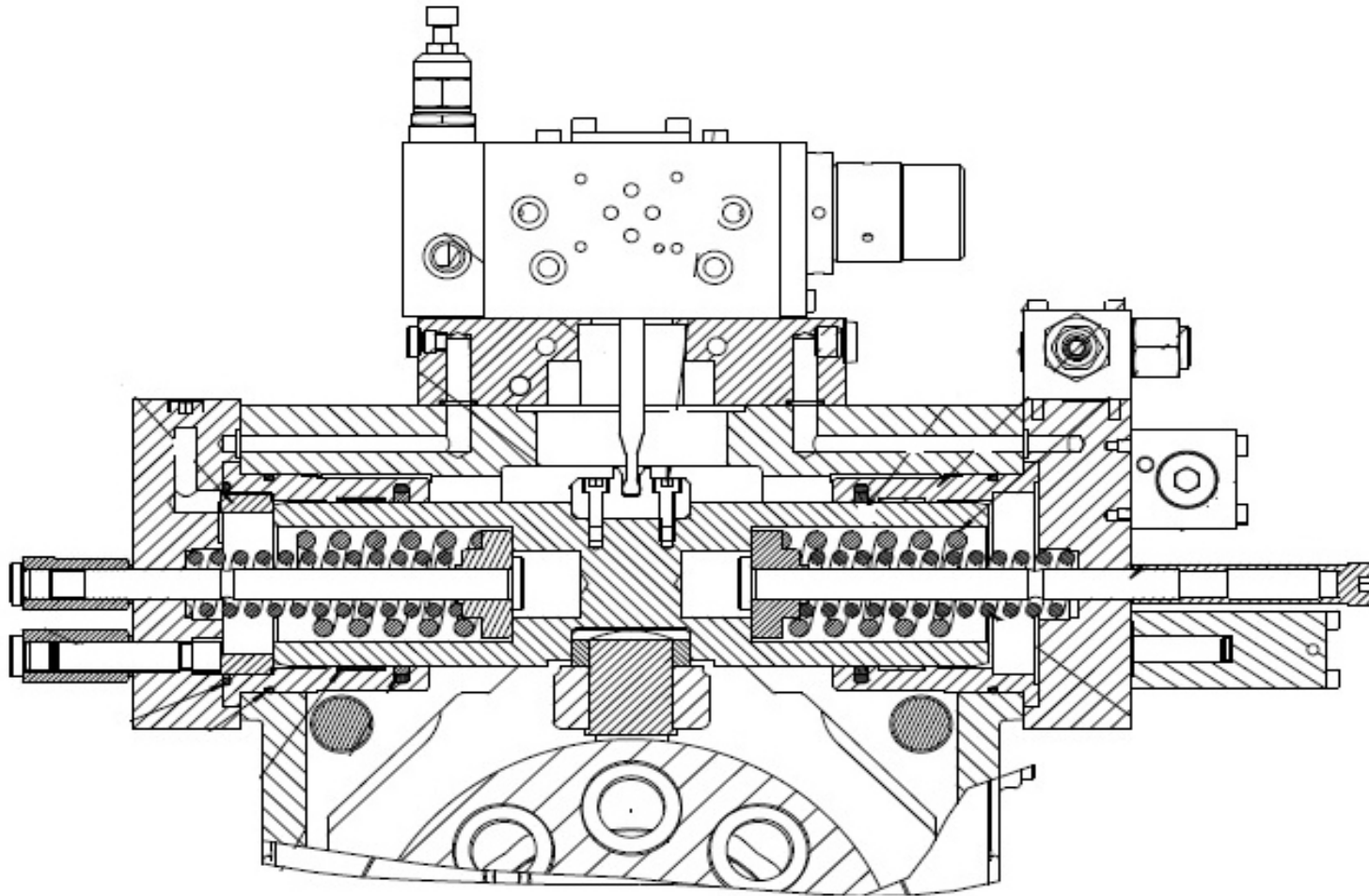
A	Pressure sensor A10	HC000000317286	HC000000317286	HC000000317286	HC000000317286	HC000000317286	HC000000317286
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B* Kit electronic card ER9.3-10 consist of
C* Electronic card ER9.3-10 only

electronic card ER9.3-10, card holder and documentation (CD)

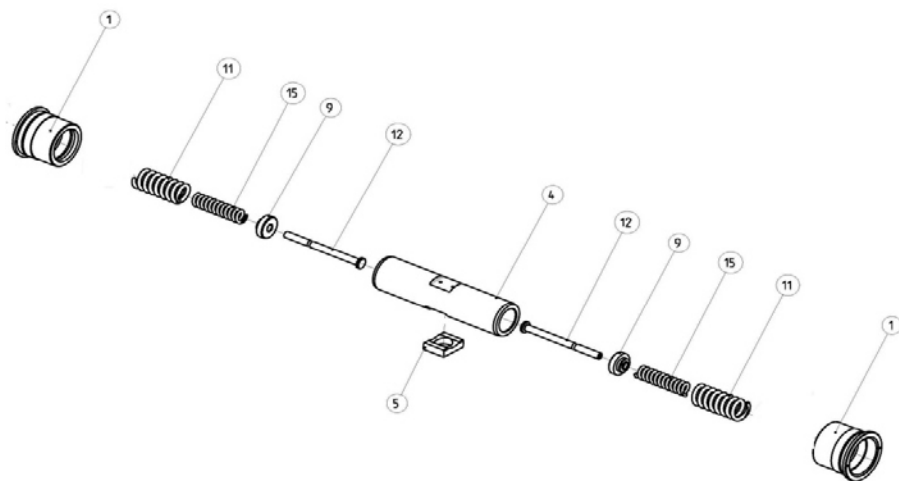
5. DP control

5.1 DP control overview



5.DP control

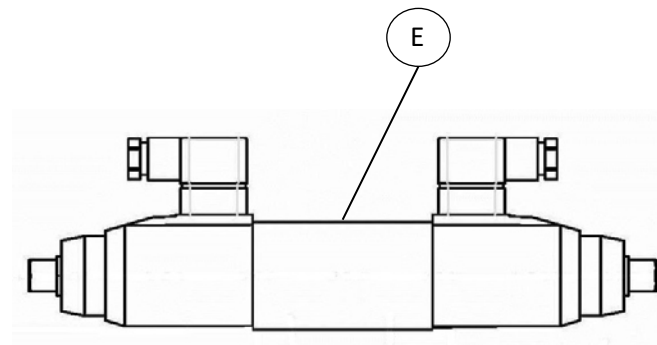
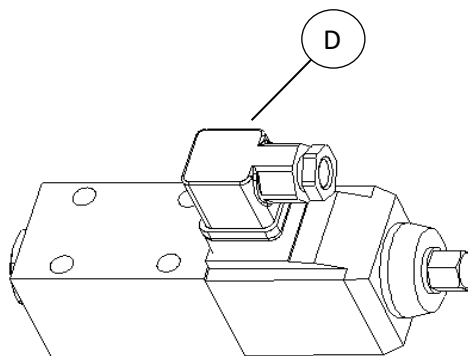
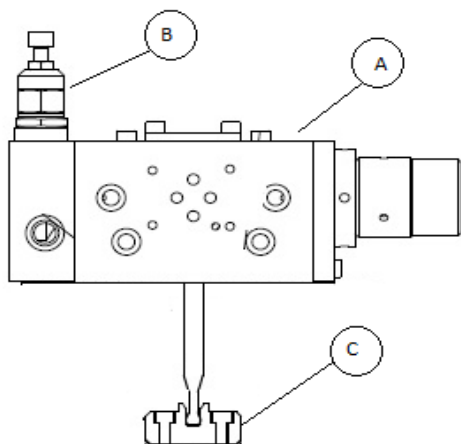
5.2 spring centering and control piston



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Kit control piston (Pos. 1,4) included guide block	HC966062090052	HC966062090052	HC966072090052	HC966076090052	HC966082090052	HC966086090052
B	Kit Spring centering (Pos. 9, 11, 15)	HC966062090151	HC966062090151	HC966072090151	HC966076090151	HC966082090151	HC966086090151
1	Sleeve	-/-	-/-	-/-	-/-	-/-	-/-
4	Control piston	-/-	-/-	-/-	-/-	-/-	-/-
5	Sliding block	HC506062105150	HC506062105150	HC506082101102	HC506082101102	HC506082101102	HC506082101102
9	Spring plate	-/-	-/-	-/-	-/-	-/-	-/-
12	Adjment screw	-/-	-/-	-/-	-/-	-/-	-/-
11	Spring	-/-	-/-	-/-	-/-	-/-	-/-
15	Spring	-/-	-/-	-/-	-/-	-/-	-/-

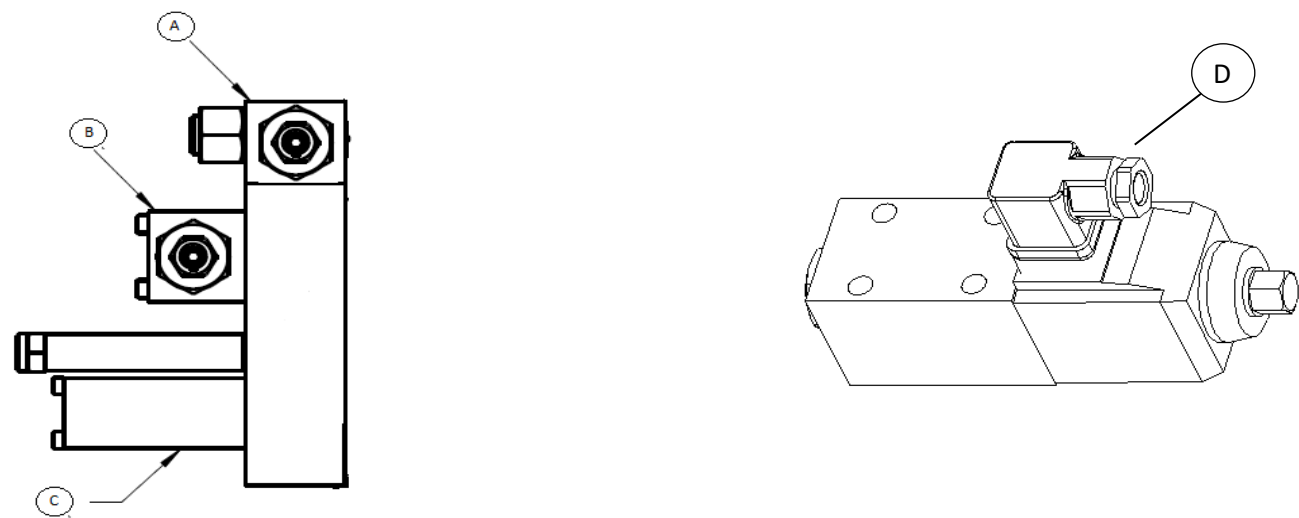
5. DP control

5.3 Control valve



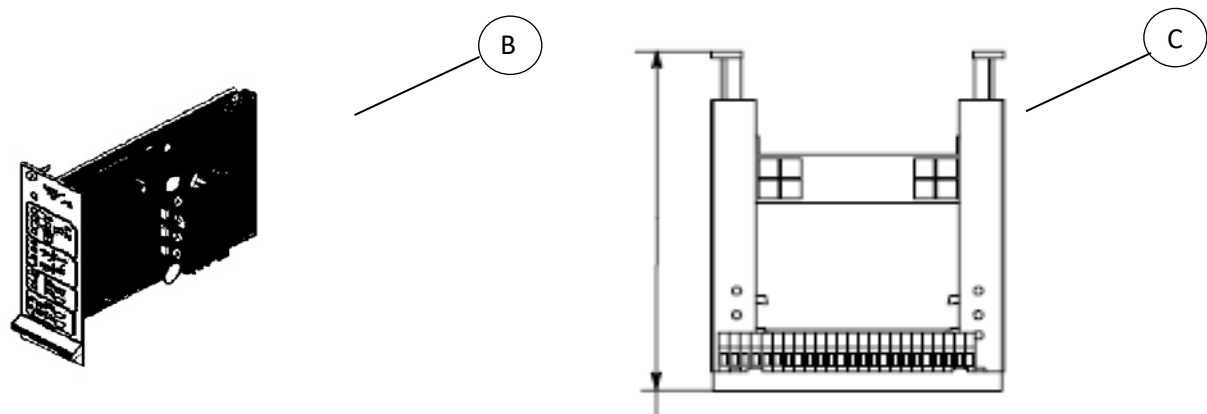
Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Valveincluded pilot oil relief valve	HC566166061150	HC566166061150	HC566076061161	HC566076061160	HC566086061150	HC566086061152
B	Pilot oil relief valve	HC000000316997	HC000000316997	HC000000316997	HC000000316997	HC000000316997	HC000000316997
C	guide block	HC606066110551	HC606066110551	HC606076100550	HC606076100550	HC606076100550	HC606076100550
D	Prop.-valve KCG3-40DZMUH1-10	HC002014731400	HC002014731400	HC002014731400	HC002014731400	HC002014731400	HC002014731400
E	Directional valve DG4V-3-6C-M U H7 60	HC000000129034	HC000000129034	HC000000129034	HC000000129034	HC000000129034	HC000000129034

7. DP control
5.4 Option



		Pump size					
Pos.	Description	130	180	250	360	500	750
A	Pressure limiter main stage	HC606056061015	HC606056061015	HC606056061016	HC606056061016	HC606056061000	HC606056061000
B	Pressure limiter pilot stage	HC536062060612	HC536062060612	HC536062060612	HC536062060612	HC536062060612	HC536062060612
C	Power control valve	HC536082062900	HC536082062900	HC536082062900	HC536082062902	HC536082062900	HC536082062902
D	Prop.-valve KCG3-350DZMUH110	HC002014595900	HC002014595900	HC002014595900	HC002014595900	HC002014595900	HC002014595900

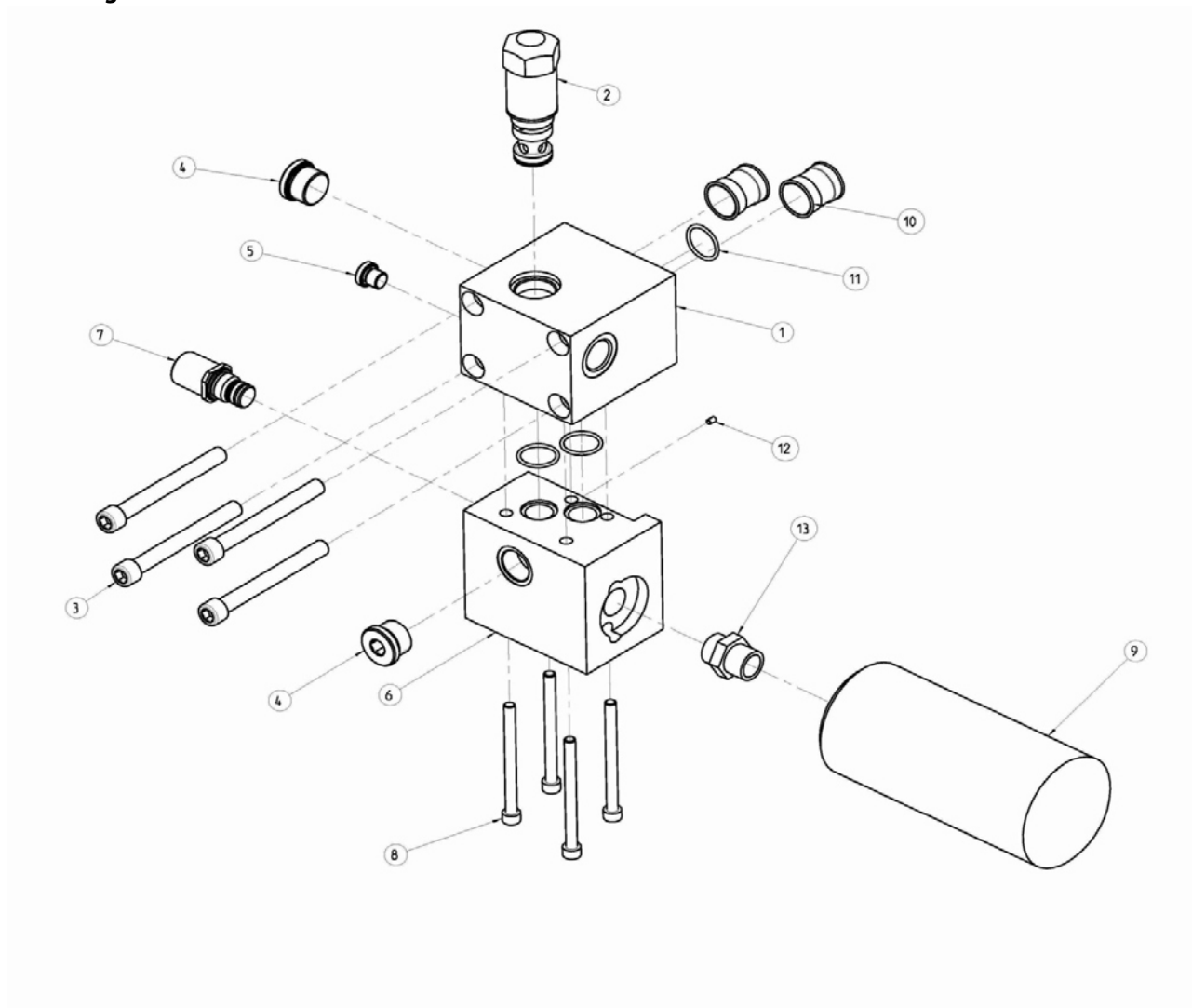
5. DP control
5.5 Accessories



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Seal kit DP control	HC966066063350	HC966066063350	HC966076063350	HC966076063350	HC966086063350	HC966086063350
B	Electronic card EEA-PAM-513-A-32	HC002032601600	HC002032601600	HC002032601600	HC002032601600	HC002032601600	HC002032601600
C	Card holder F48	HC002010480800	HC002010480800	HC002010480800	HC002010480800	HC002010480800	HC002010480800

6. Charge and flushing block size 130 / 180

6.1 Charge block overview



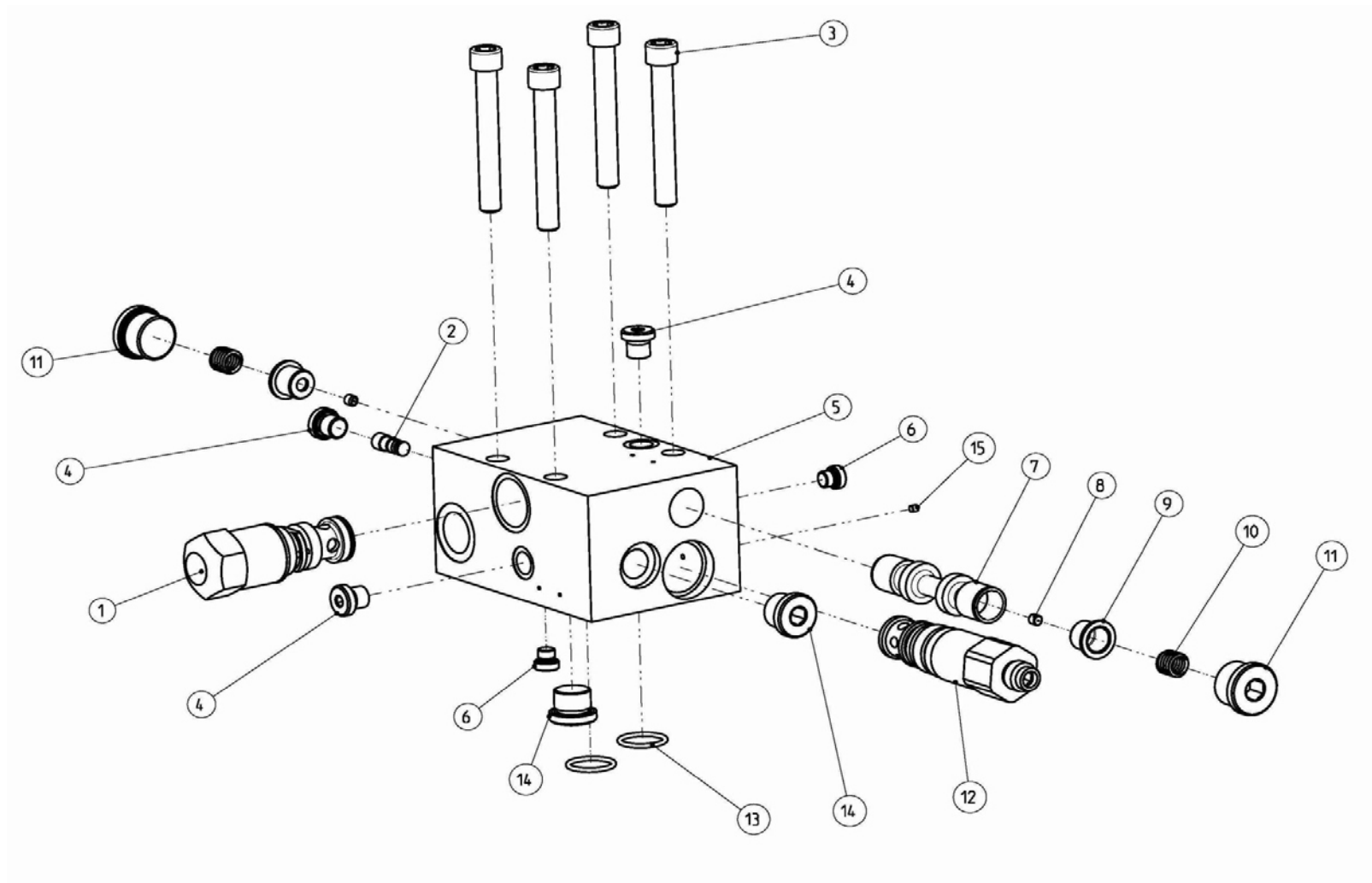
6. Charge and flushing block size 130 / 180

6.2 Charge block spares

Pos.	Description	Pump size	
		130	180
A	Charge block complete with filter (without dirt indicator)	HC206166066101	HC206166066101
A	Charge block complete without filter	on request	on request
2	Charge pressure relief valve	HC206076063600	HC206076063600
7	Dirt indicator optical	HC000000317012	HC000000317012
7	Dirt indicator electric	HC000000316920	HC000000316920
9	Filter	HC000000317013	HC000000317013
10	Charge check valve	HC000000316929	HC000000316929
	Seal kit closed loop (charge and flushing block)	HC966166066100	HC966166066100

6. Charge and flushing block size 130 / 180

6.3 Flushing overview



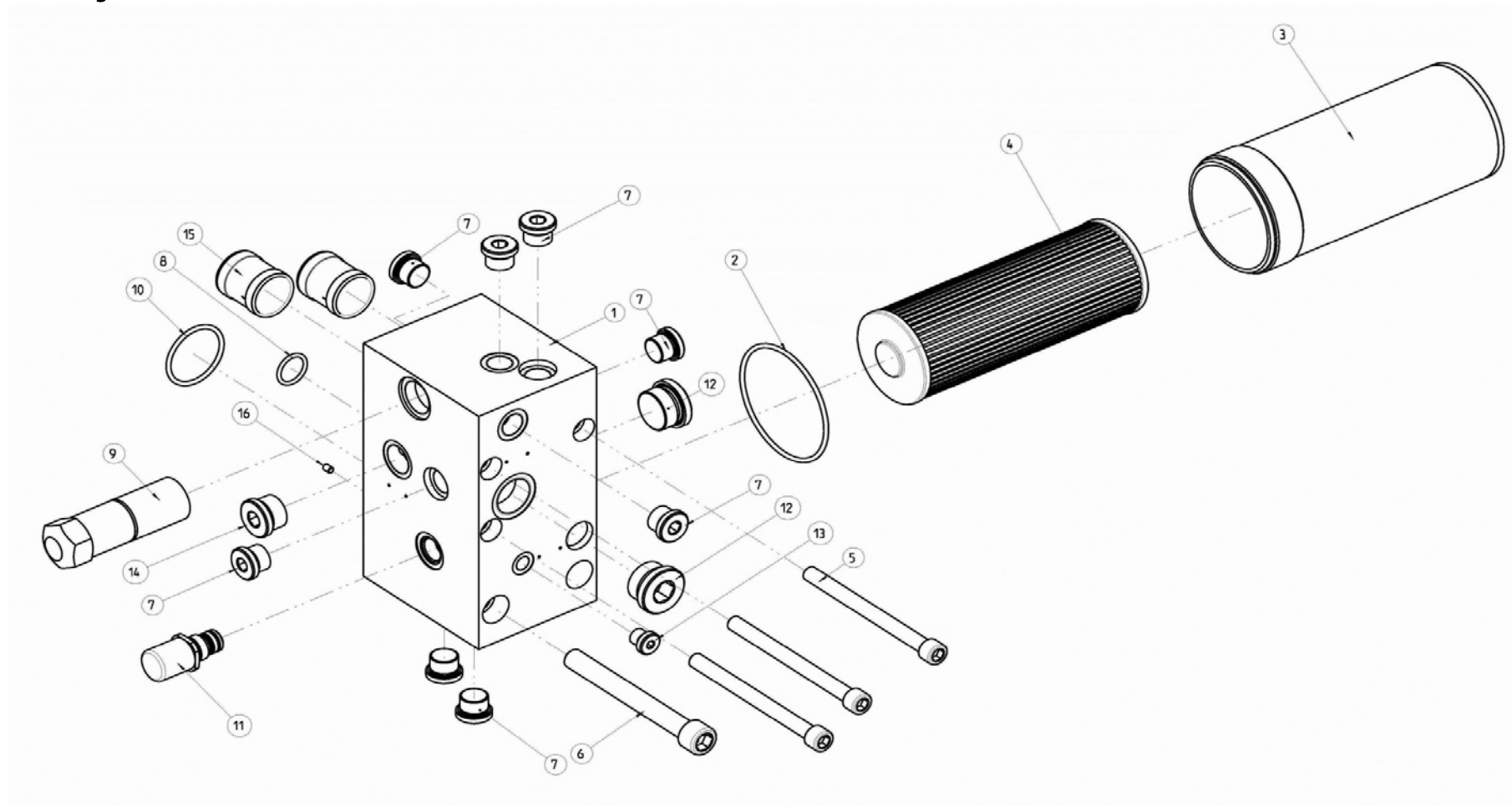
6. Charge and flushing block size 130 / 180

6.4 Flushing block spares

Pos.	Description	Pump size	
		130	180
A	Flushing block complete	HC206166066300	HC206166066300
1	Low pressure relief valve	HC206076063650	HC206076063650
2	two-way valve	HC000000316937	HC000000316937
12	High pressure relive valve	HC000000316917	HC000000316917
	Seal kit closed loop (charge and flushing block)	HC966166066100	HC966166066100

7. Charge and flushing block size 250 / 360

7.1 Charge block overview



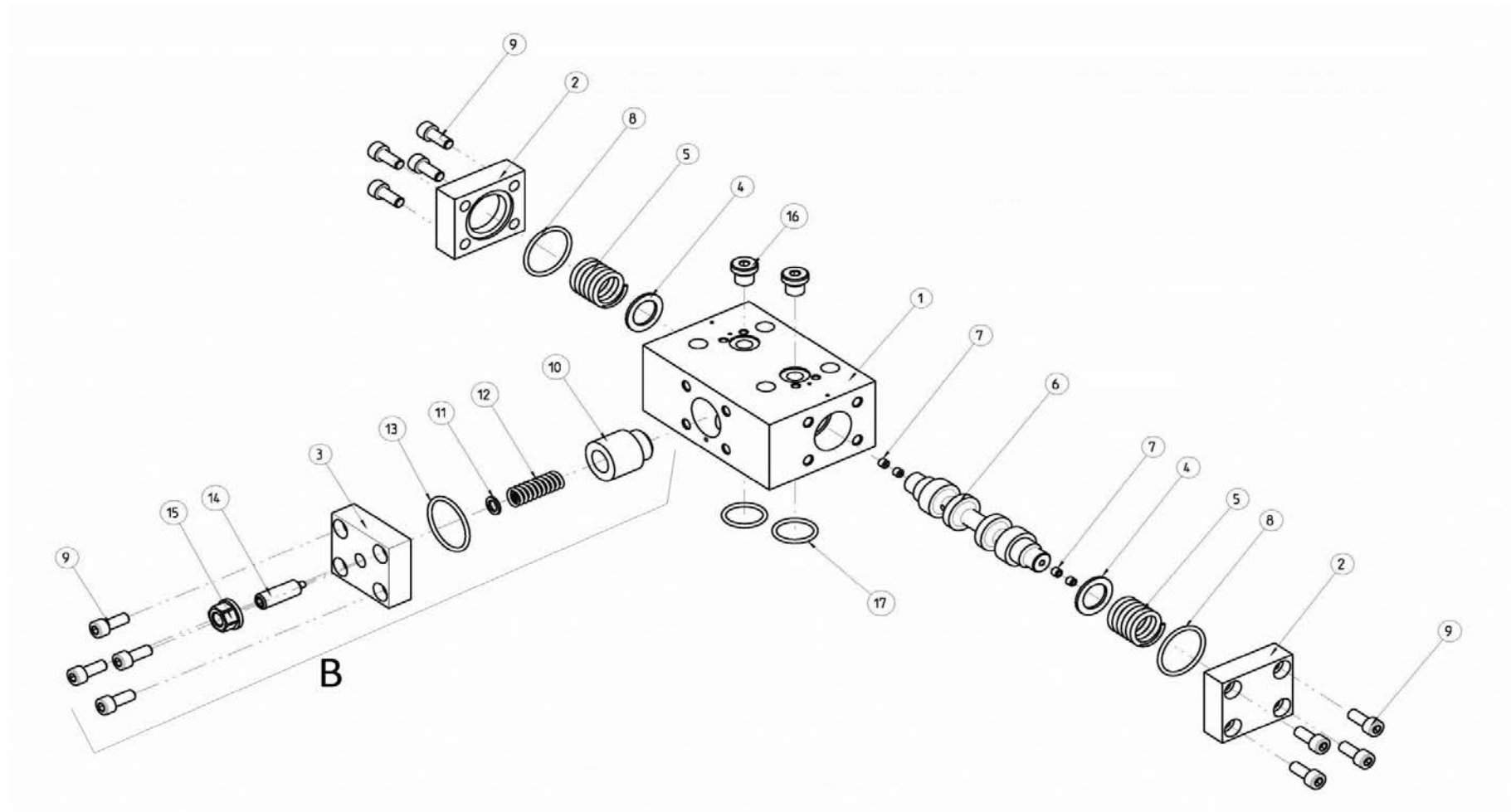
7. Charge and flushing block size 250 / 360

7.2 Charge block spares

Pos.	Description	Pump size	
		250	360
A	Charge block complete with filter and electric dirt indicator	HC206076066114	HC206076066115
A	Charge block complete with filter and optical dirt indicator	HC206076066116	HC206076066117
A	Charge block complete without filter	HC206076066122	HC206076066122
3	Filter housing	HC000000133654	HC000000133654
4	Filter element	HC000000316918	HC000000316918
9	Charge pressure relief valve	HC206076063600	HC206076063600
11	Dirt indicator optical	HC000000317012	HC000000317012
11	Dirt indicator electric	HC000000316920	HC000000316920
15	Charge check valve	HC000000316919	HC000000316919
16	Seal kit closed loop (charge and flushing block)	HC206176063300	HC206176063300

7. Charge and flushing block size 250 / 360

7.3 Flushing overview



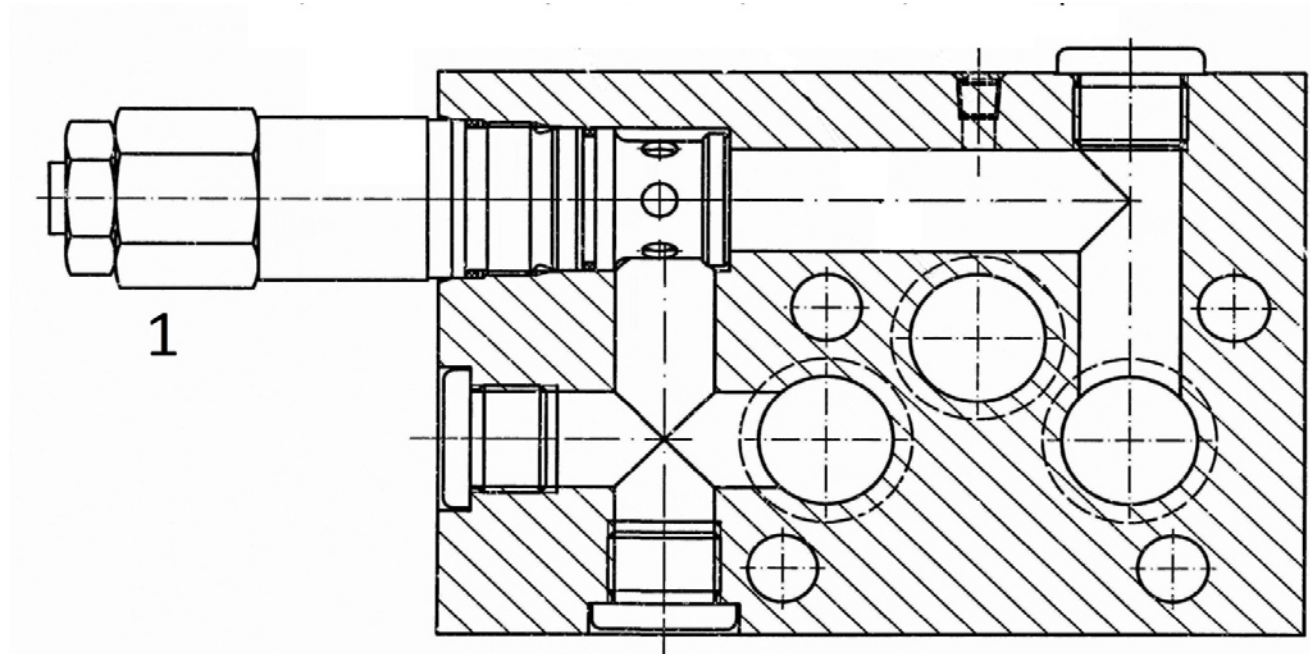
7. Charge and flushing block size 250 / 360

7.4 Flushing block spares

Pos.	Description	Pump size	
		250	360
A	Flushing block complete	HC206076066301	HC206076066301
B	Low pressure relief valve	HC966086060051	HC966086060051
	Seal kit closed loop (charge and flushing block)	HC206176063300	HC206176063300

7. Charge and flushing block size 250 / 360

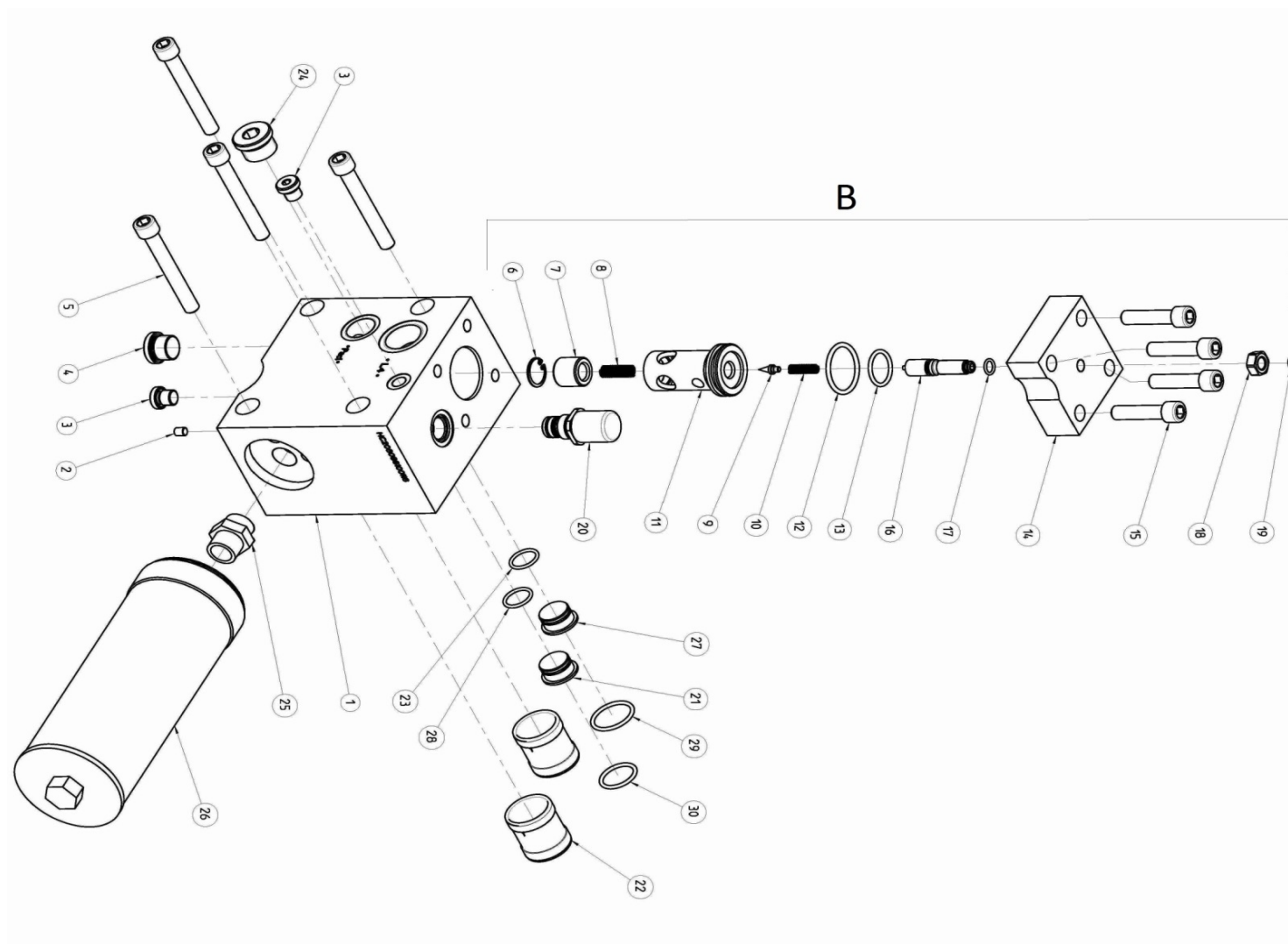
7.4 High pressure relief valve



Pos.	Description	Pump size	
		250	360
A	Block complete	HC206076066700	HC206076066700
1	High pressure relive valve	HC000000316917	HC000000316917

8. Charge and flushing block size 500

8.1 Charge block overview

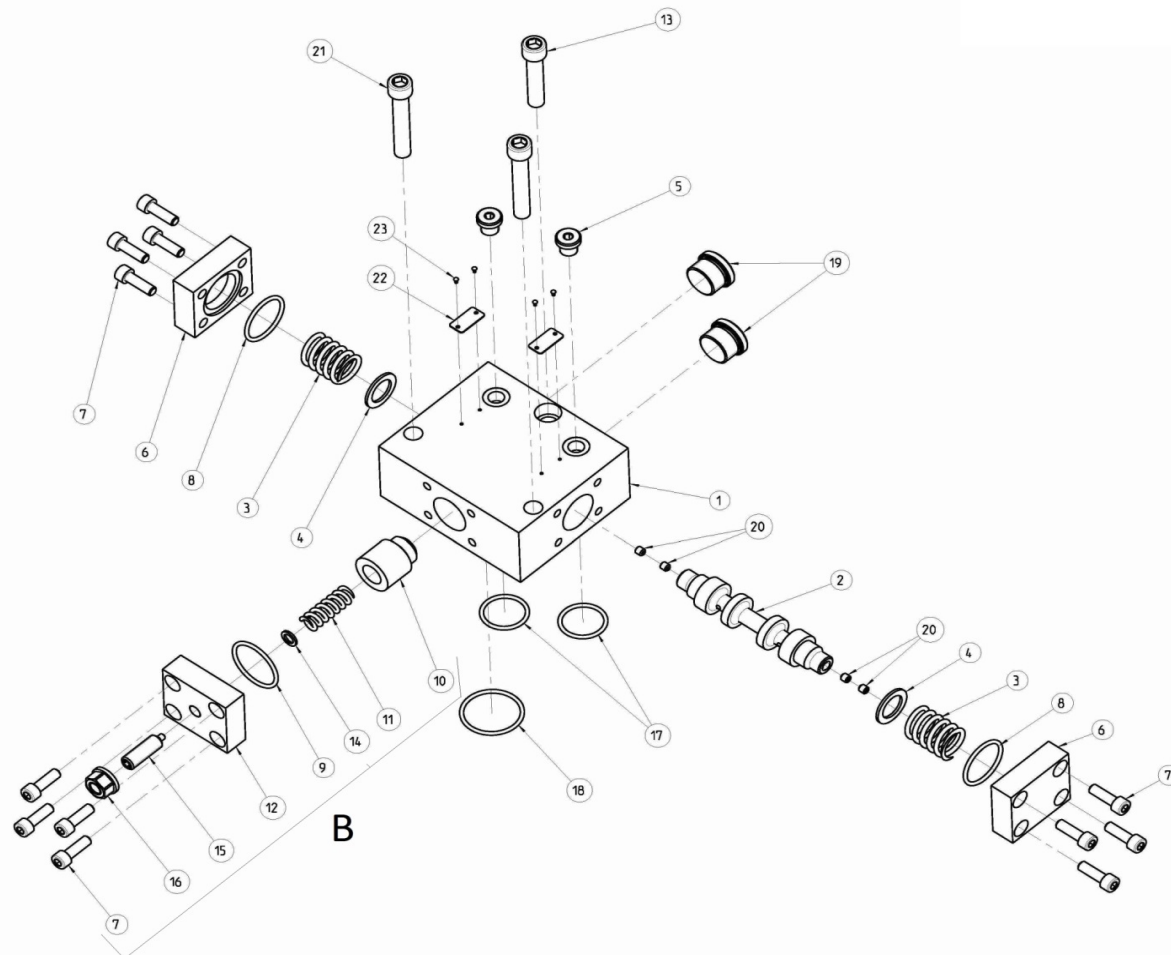


8. Charge and flushing block size 500

8.2 Charge block spares

		Pump size
Pos.	Description	500
A	Charge block complete with filter and electric dirt indicator intern charge	HC206086066150
A	Charge block complete with filter and optical dirt indicator intern charge	HC206086066152
	Charge block complete with filter and electric dirt indicator extern charge	HC206086066151
	Charge block complete with filter and optical dirt indicator extern charge	HC206086066153
B	Charge pressure relief valve	HC206086063700
20	Dirt indicator optical	HC000000317012
20	Dirt indicator electric	HC000000316920
22	Charge check valve	HC000000316919
26	Filter	HC000000317118
16	Seal kit closed loop (charge and flushing block)	HC206086063300

8. Charge and flushing block size 500 8.3 Flushing block overview



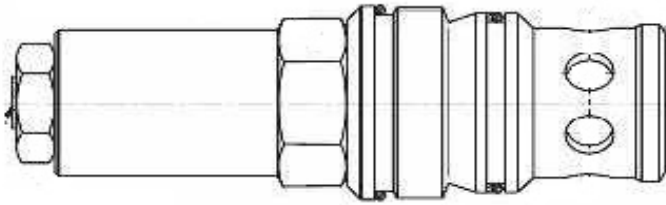
8. Charge and flushing block size 500

8.4 Flushing block spares

		Pump size
Pos.	Description	500
A	Flushing block complete	HC206086066101
B	Low pressure relief valve	HC966086060051
	Seal kit closed loop (charge and flushing block)	HC206086063300

8. Charge and flushing block size 500

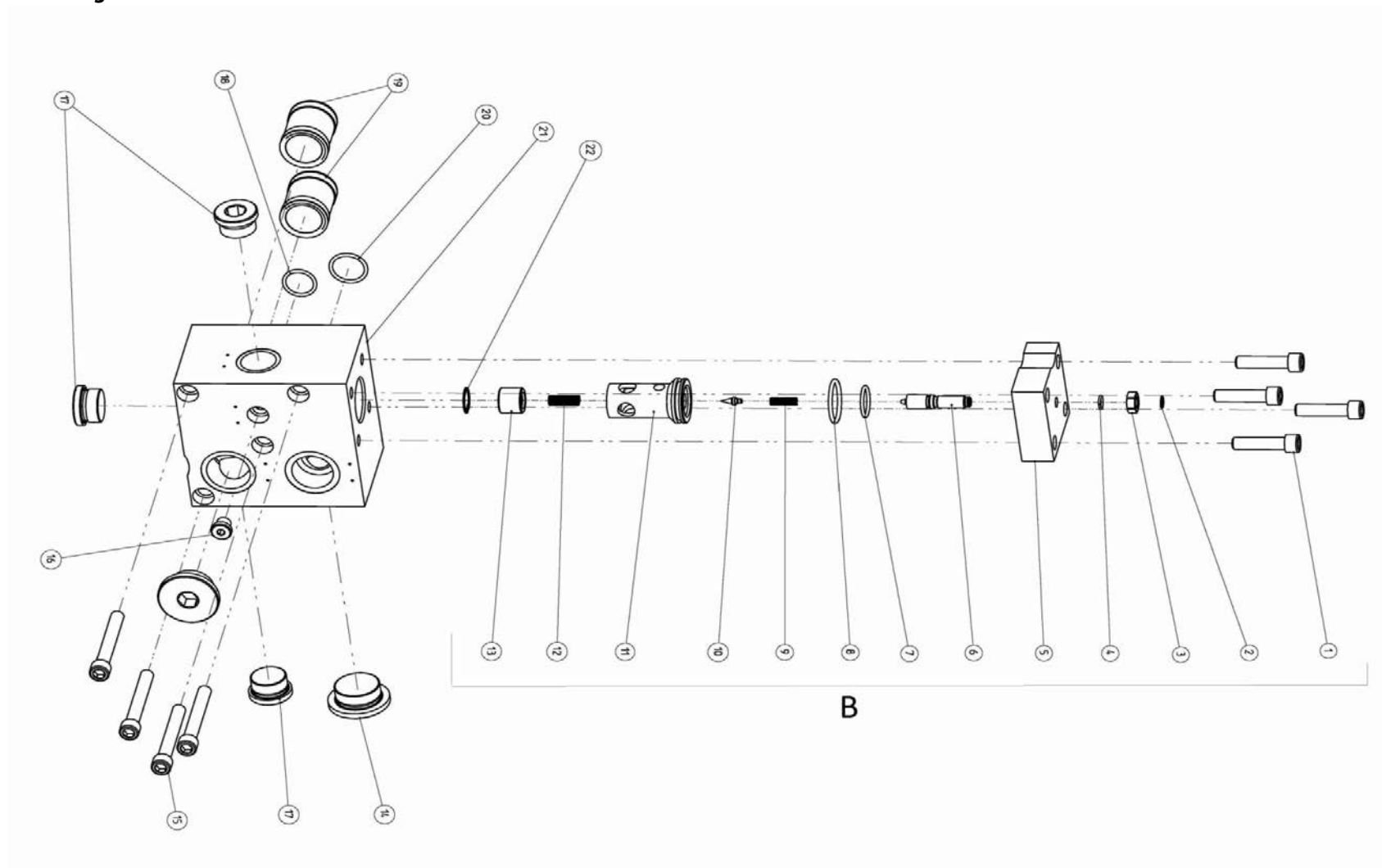
8.4 High pressure relief valve



		Pump size
Pos.	Description	500
A	High pressure relive valve	HC000000105916

9. Charge and flushing block size 750

9.1 Charge block overview

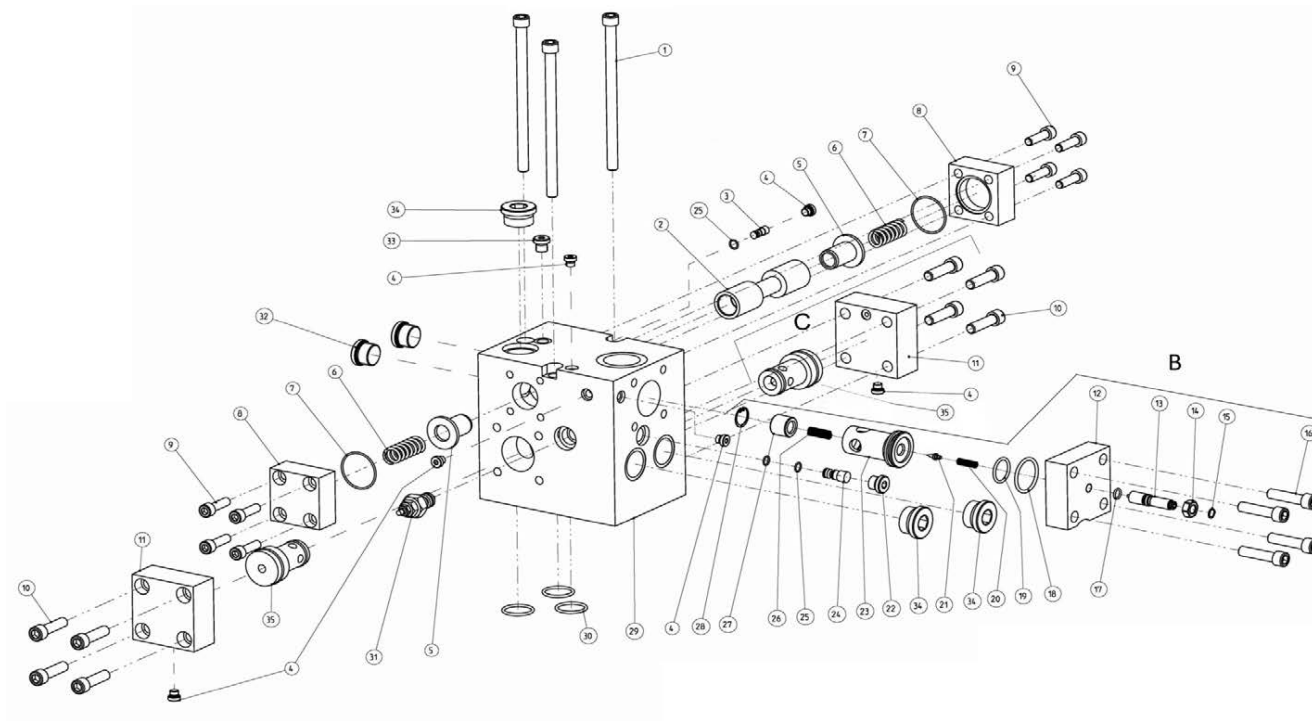


9. Charge and flushing block size 750

9.2 Charge block spares

		Pump size
Pos.	Description	750
A	Charge block	HC206086066113
B	Charge pressure relief valve	HC206086063700
19	Check valve	HC000000317098
16	Seal kit closed loop (charge and flushing block)	HC206086063340

9. Charge and flushing block size 750 9.3 Flushing block overview



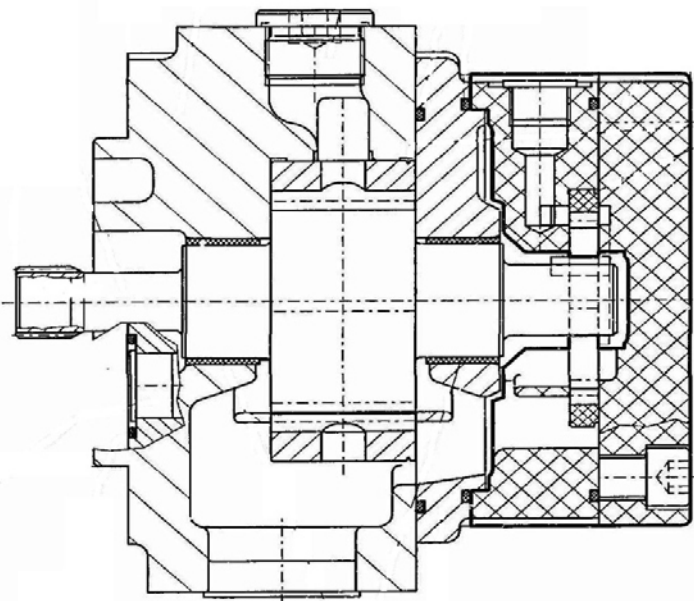
9. Charge and flushing block size 750

9.4 Flushing block spares

		Pump size
Pos.	Description	750
A	Flushing block complete	HC206086067340
B	Spüldruck Halteventil	HC206086063700
C	High pressure relive valve main stage	on request
3	two-way valve	HC000000316937
24	two-way valve	HC000000316954
31	High pressure relive valve pilot stage	HC000000105251
	Seal kit closed loop(charge and flushing block)	HC206086063340

10. Charge pump

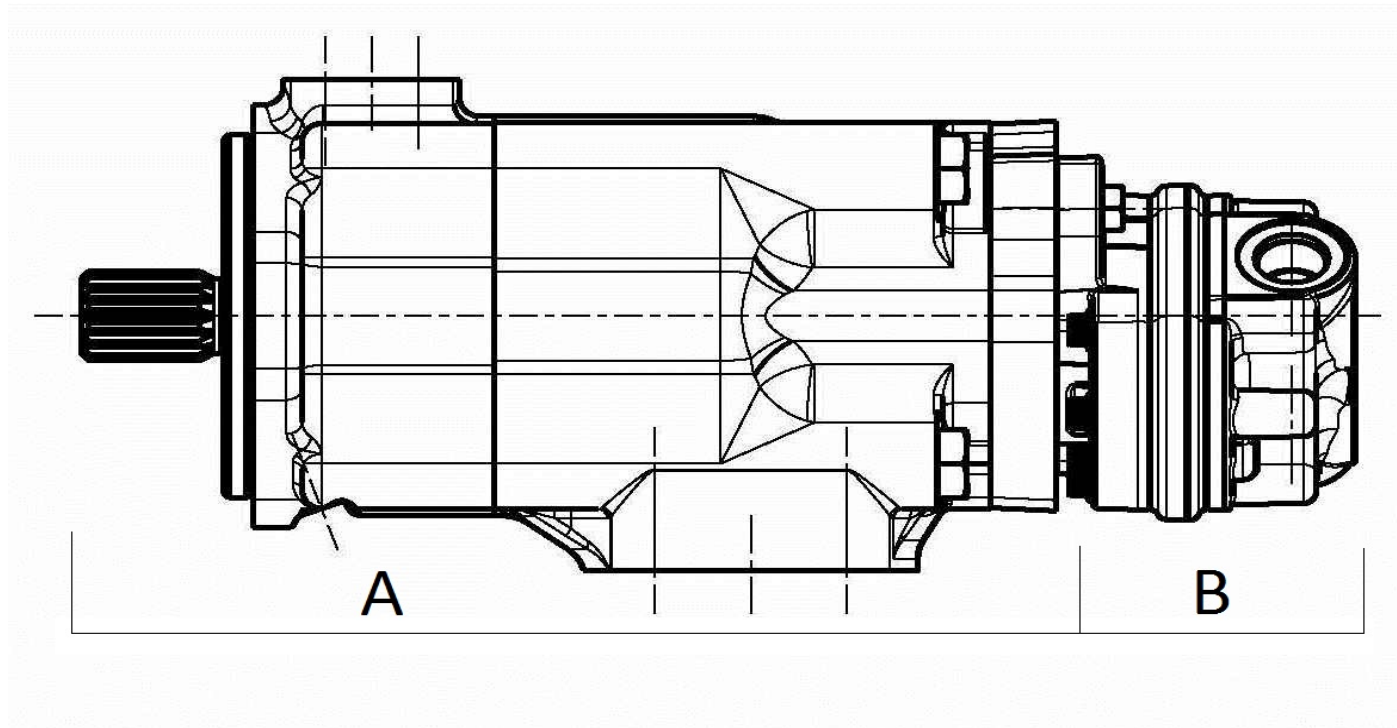
10.1 Charge and pilot oil pump HC-IPEV (old design)



Pos.	Description	Pumps size					
		130	180	250	360	500	750
A	Charge and pilot oil pump	HC236011000300	HC236011000300	HC236012000300	HC236013000300	HC236014000300	HC236015000300
		40cc / 8cc	40cc / 8cc	64cc / 8cc	80cc / 8cc	125cc / 8cc	200cc / 8cc
	Seal kit	HC236011063300	HC236011063300	HC236012063300	HC236013063300	HC236014063300	HC236015063300

10. Charge pump

10.2 Charge and pilot oil pump HC-IPEV (new design)



Pos.	Description	Pump size					
		130	180	250	360	500	750
A	Charge oil pump	HC020125399AAR	HC020125399AAR	HC020125397AAR	HC020125506AAR	HC020136746AAR	on request
B	Pilot oil pump	HC000260030RZE	HC000260030RZE	HC000260030RZE	HC000260030RZE	HC000260030RZE	on request