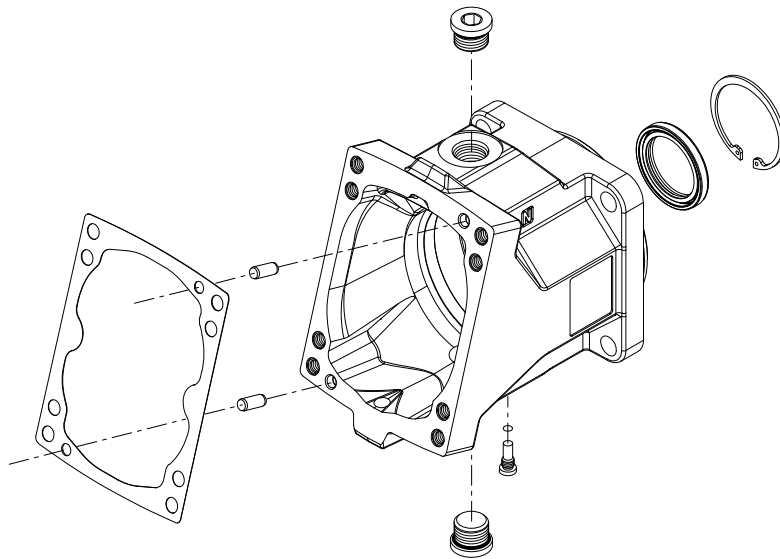


Parts Manual

# H1B 60cc

## Bent Axis Motor



**Revision history***Table of revisions*

<b>Date</b>	<b>Changed</b>	<b>Rev</b>
January 2020	Corrected valve segment assembly and HE/HF servo pressure supply part numbers	0605
August 2019	Updated part numbers and added caution for servo piston removal	0604
January 2019	Updated servo pressure supply illustrations	0603
November 2018	Updated C0140 (metric) part number in servo pressure supply HE	0602
May 2018	Added SB-2018-028	0601
November 2017	Updated to Engineering Tomorrow design	0502

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## General information

### Service Parts Identification

The following information and procedure is used to identify the module group, item number, manufacture date, part number, and part name of the parts included in the .

The parts listed include all parts which may be used when performing either "Minor Repairs", "Major Repairs" or "Conversions" on the H1B.

### Nameplate

Each unit will have a nameplate affixed to the housing. The nameplate will include the following information:

#### Model Code

The Danfoss model code completely defines the specific unit and must be used when ordering parts to service this product.

#### Model Number

The Danfoss model number is used by the factory in manufacturing. On repeat orders, a complete unit can be ordered by the model number.

#### Serial Number

The Danfoss serial number is used to identify the manufacture date and the unit sequence in the build. The serial number is also used to identify the units warranty time period.

The letter code indicates the location of original manufacture (assembly).

The first number (2 digits) indicates the year of manufacture. The second number (2 digits) indicates the calendar week of manufacture.

The third number (5 digits) is a sequential number used to identify a specific unit.



## General information

### Date code

The date code is defined as the year and week of manufacture. The same item number may list more than one part number. This indicates that there is more than one configuration for that item number. You will see that there are different date codes for the different part numbers. Find the date code of your unit from the nameplate to determine which service part number you need to order.

*Example: The service part desired is item G30*

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
80	G30	89-17		8000243	End cap gasket	1
	G30		89-16	8000151	End cap gasket (SB-1995-006)	1

All units using this order code with a date code prior to 89-17 must use part number "8000151." All units with a date code of 89-17 and newer must use part number "8000243."

### About service bulletins

A Service Bulletin Number (SB-\_\_\_\_ - \_\_\_\_ ) may follow the "Part Name" of the part you desire. You must read that Service Bulletin prior to ordering that part. The information contained in these Service Bulletins, as of the print date of this bulletin, are included at the end of this manual. Service Bulletins contain more detailed information such as interchangeability, what additional parts are involved, etc. It is suggested that you add additional Service Bulletins to this manual as you receive them.

### Procedure to identify a part

The modular design of this product results in a simplified service parts list and part number identification procedure.

The same item numbers are used for same part names on all units within a product type. A part number that has another number following it in parentheses is done to make this a world wide manual.

### Regional part numbers

Some part numbers are region specific and should be ordered accordingly.

As an example, the part number (example: 314583 (9008000-0118)) will be used. The first number is sold in Germany. The number in parentheses is sold in the United States. Customers would order 9008000-0118 if ordering the part in the United States.

### Example of part identification

The nameplate on an H1 pump has an Order Code of H1B060 A A L1 BA N B PA DS GS S A 10 NN 016 N00 NNN. Use the following procedures to determine part number of the minimum angle set screw used on the H1B 60cc.

This example generically uses H1B 60cc Bent Axis Motor order code to identify a part.

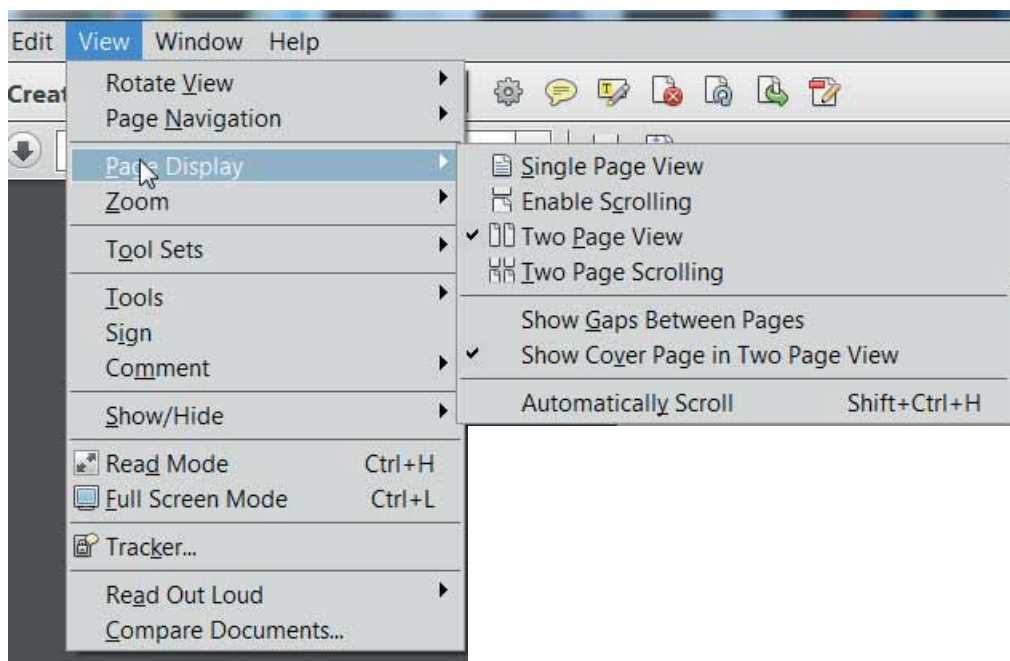
1. Referring to the minimum displacement module in the [Order Code](#), the minimum angle set screw option for this motor is identified by the code "016". (H1B060 A A L1 BA N B PA DS GS SA 10 NN 016 N00 NNN)
2. Referring to the Service Parts List, find the minimum displacement group. Next find the order code that relates to this unit, which is "016". The minimum angle set screw is found to be item N1000 and part number 11012777.

## General information

### Adobe Acrobat 2-page viewing

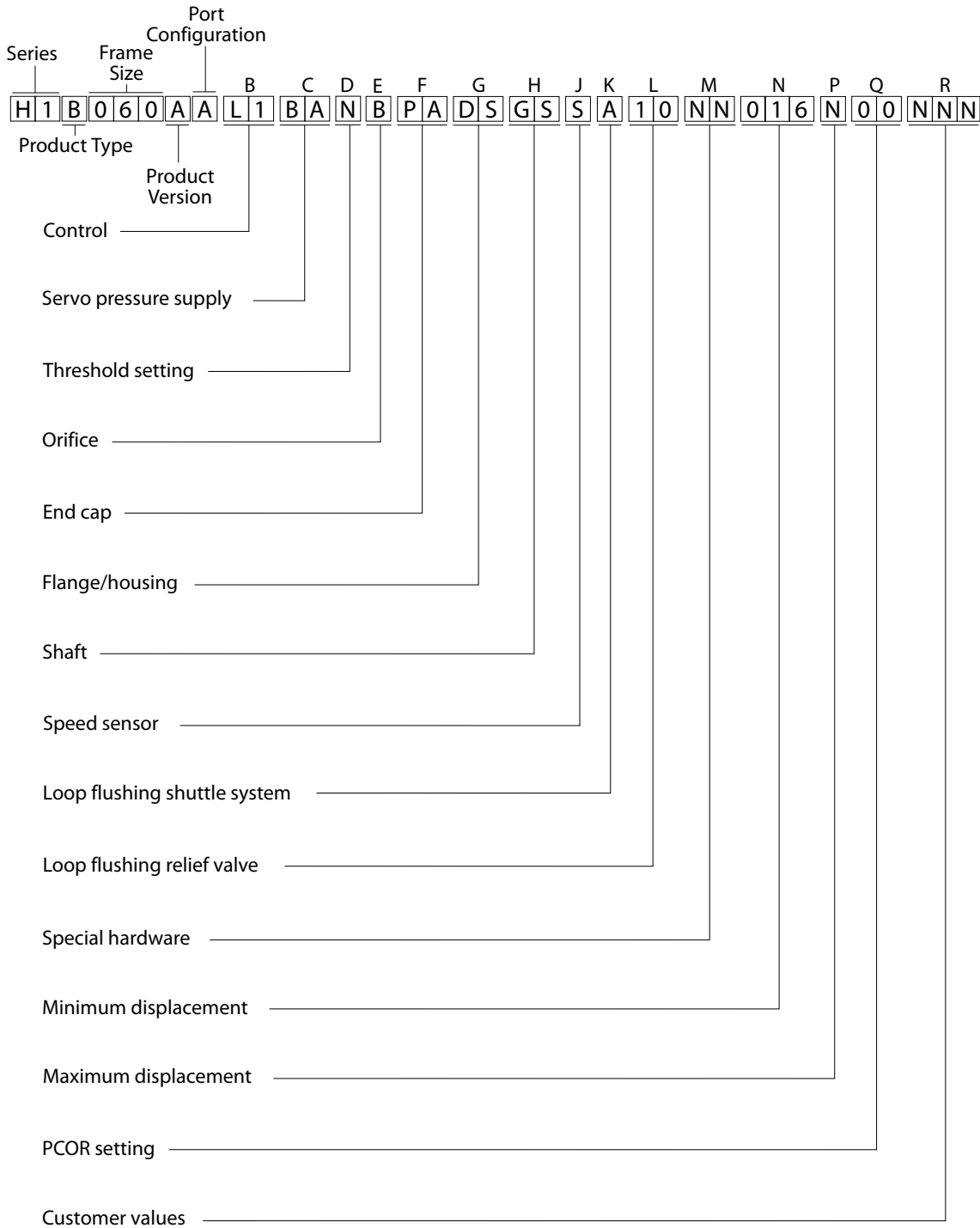
While viewing manual in Adobe Acrobat, the following settings need to be applied to ensure proper page display.

1. Select "View" → "Page Display" → "Two Page View"
2. Select "View" → "Page Display" → "Show Cover Page in Two Page View"



**General information**

**Order code**





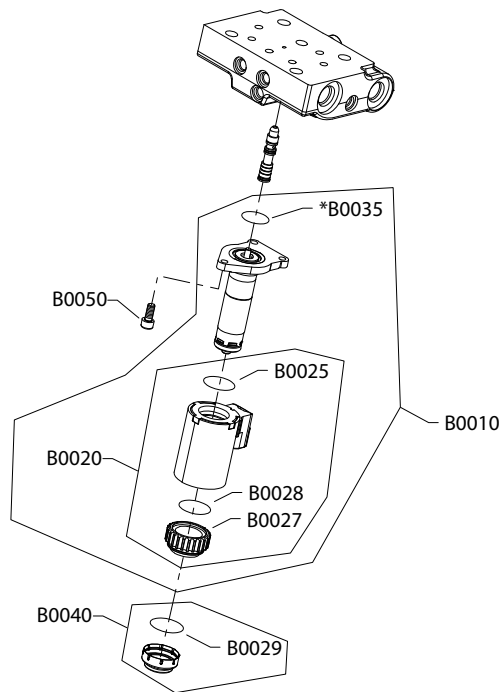
## **General information**

### **Notes**

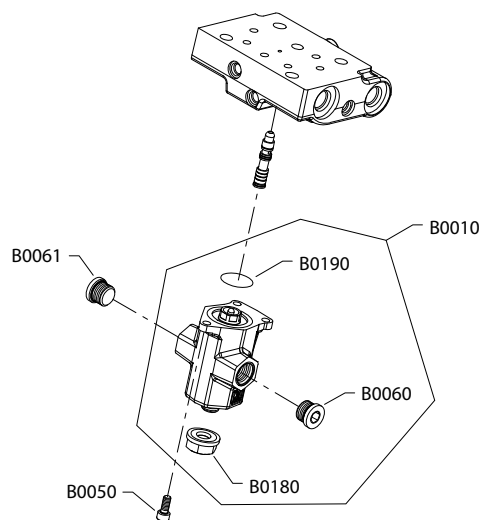
**Control**

**H1B control D1-DH**

*D1 and D2 configuration*



*DH configuration*



Generic housings used to show part locations only.

\* Included in overhaul seal kit Q210

## Control

### Electric proportional

Order code: D1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0010	09-31		149053	Solenoid valve, proportional, 12 volt	1
B0020	09-31		11031746	Coil kit, 12 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

Order code: D2

B0010	09-31		11002705	Solenoid valve, proportional, 24 volt	1
B0020	09-31		11031749	Coil kit, 24 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

### Hydraulic proportional

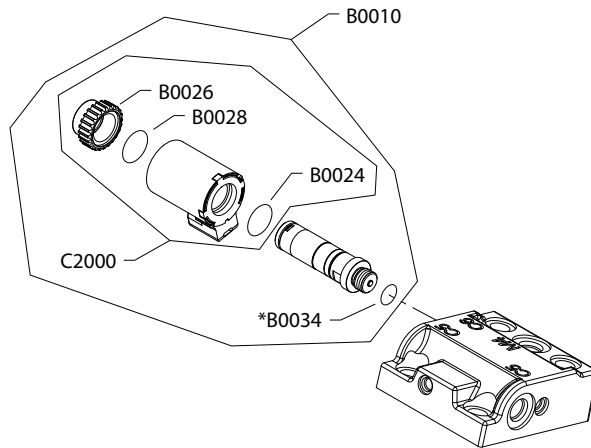
Order code: DH

B0010	14-37		11146306	Actuator assembly	1
B0050	14-37		716860	Screw, M5 x 12	3
B0060	14-37		140644	Plug assembly	1
B0061	14-37		140644	Plug assembly	1
B0180	14-37		076042 (9003509-0012)	Seal nut, M12	1
B0190	14-37		012575 (9004105-1170)	O-ring	1

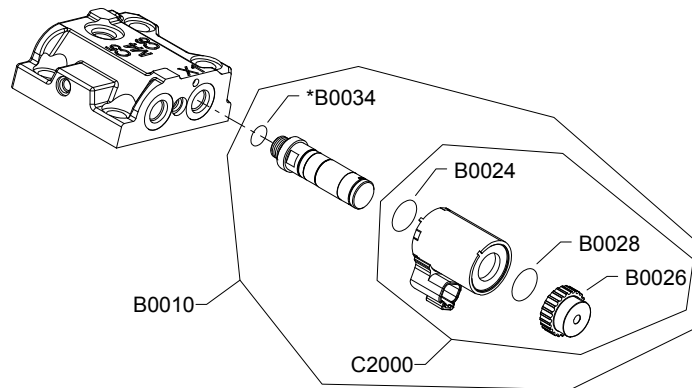
Control

H1B control E1-F2

*E1 and E2 configuration*



*F1 and F2 configuration*



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Generic housings used to show part location only.

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\* Included in overhaul seal kit Q210

## Control

### Electric 2-position

Order code: E1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0010	09-31		11013615	Solenoid, on/off, 12 volt	1
B0024	09-31		11027046	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	
B0034	09-31		085043 (9004201-3700)	O-ring	1
C2000	09-31		11031763	Coil kit, 12 volt	1

Order code: E2

B0010	09-31		11013616	Solenoid, on/off, 24 volt	1
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1
C2000	09-31		11031764	Coil kit, 24 volt	1

Order code: F1

B0010	11-48		11013615	Solenoid, on/off, 12 volt	1
B0024	11-48		11027046	O-ring	1
B0026	11-48		11027046	Coil nut	1
B0028	11-48		063172	O-ring	
B0034	11-48		085043 (9004201-3700)	O-ring	1
C2000	11-48		11031763	Coil kit, 12 volt	1

Order code: F2

B0010	11-48		11013616	Solenoid, on/off, 24 volt	1
B0024	11-48		11031608	O-ring	1
B0026	11-48		11027046	Coil nut	1
B0028	11-48		063172	O-ring	1
B0034	11-48		085043 (9004201-3700)	O-ring	1
C2000	11-48		11031764	Coil kit, 24 volt	1

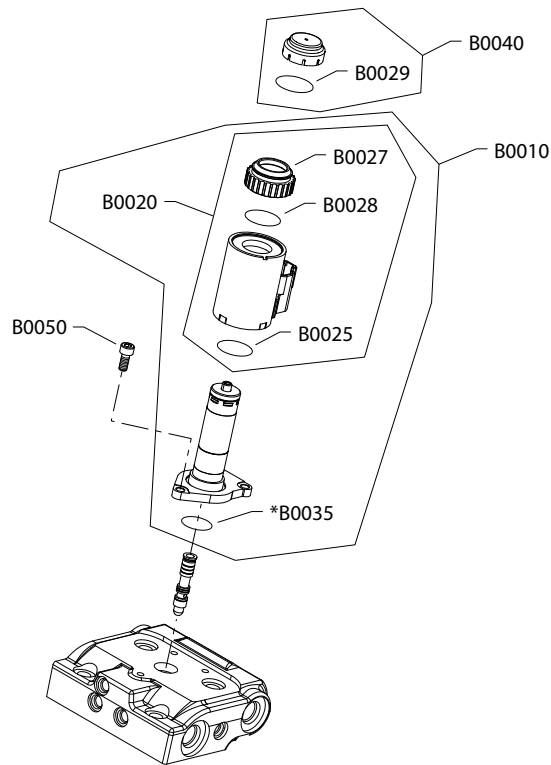
Order code: HE and HF

No parts
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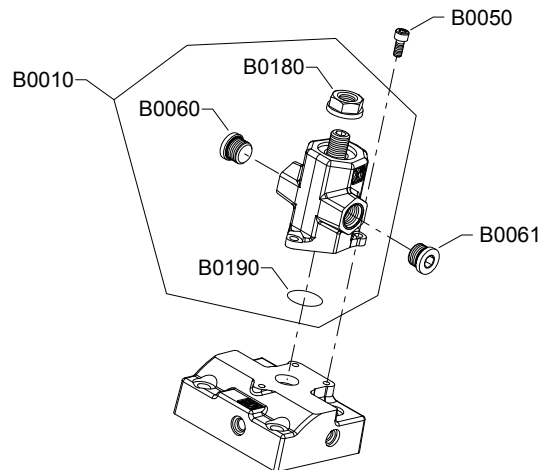
**Control**

**H1B control K1-KH**

*K1, K2 configuration*



*KH configuration*



Generic housing used to show part location only.

\* Included in overhaul seal kit Q210

## Control

Order code: K1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0010	09-31		149053	Solenoid valve, proportional, 12 volt	1
B0020	09-31		11031746	Coil kit, 12 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

Order code: K2

B0010	09-31		11002705	Solenoid valve, proportional, 24 volt	1
B0020	09-31		11031749	Coil kit, 24 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

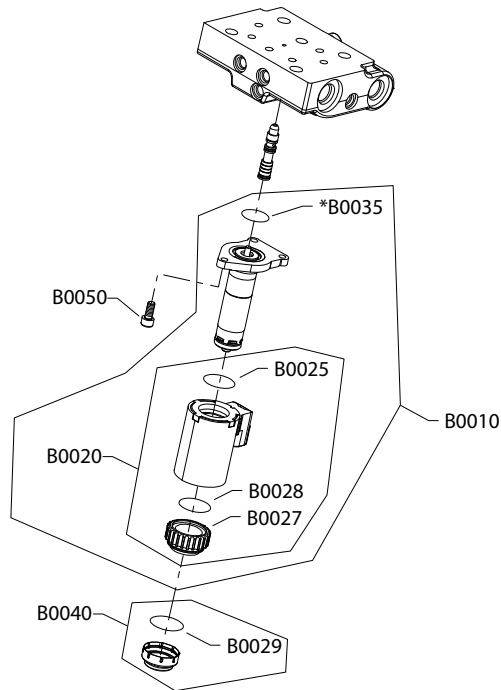
Order code: KH

B0010	15-48		11146306	Actuator assembly	1
B0050	15-48		716860	Screw, M5 x 12	3
B0060	15-48		140644	Plug assembly	1
B0061	15-48		140644	Plug assembly	1
B0180	15-48		076042 (9003509-0012)	Seal nut, M12	1
B0190	15-48		012575 (9004105-1170)	O-ring	1

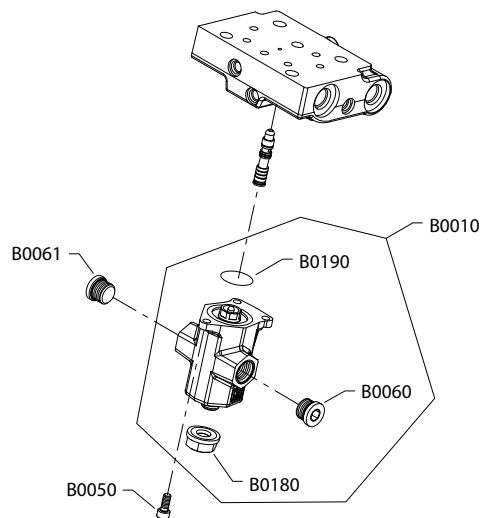
**Control**

**H1B control L1-LH**

*L1 and L2 configuration*



*LH configuration*



Generic housings used to show part locations only.

\* Included in overhaul seal kit Q210



## Control

### Electric proportional

Order code: L1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0010	09-31		149053	Solenoid valve, proportional, 12 volt	1
B0020	09-31		11031746	Coil kit, 12 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

Order code: L2

B0010	09-31		11002705	Solenoid valve, proportional, 24 volt	1
B0020	09-31		11031749	Coil kit, 24 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

### Hydraulic proportional

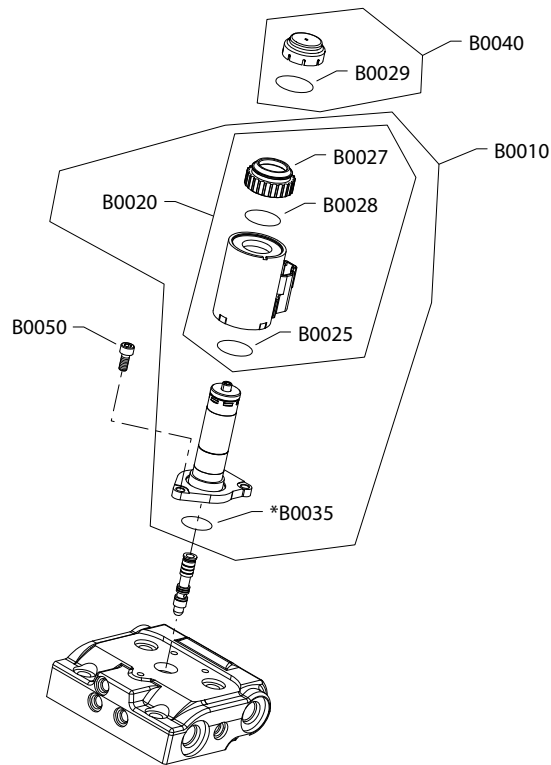
Order code: LH

B0010	14-37		11146306	Actuator assembly	1
B0050	14-37		716860	Screw, M5 x 12	3
B0060	14-37		140644	Plug assembly	1
B0061	14-37		140644	Plug assembly	1
B0180	14-37		076042 (9003509-0012)	Seal nut, M12	1
B0190	14-37		012575 (9004105-1170)	O-ring	1

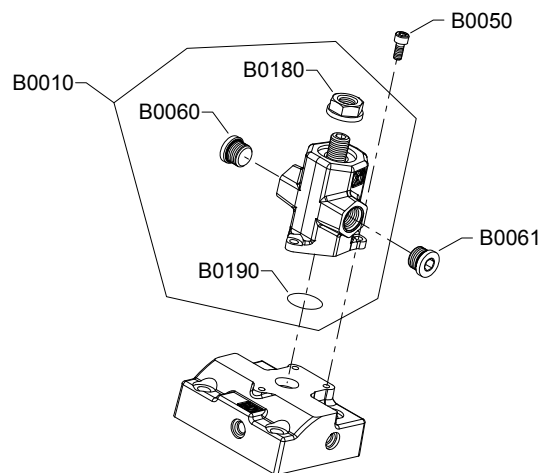
Control

H1B control M1-MH

M1, M2 configuration



MH configuration



Generic housing used to show part location only.

\* Included in overhaul seal kit Q210

## Control

Order code: M1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0010	09-31		149053	Solenoid valve, proportional, 12 volt	1
B0020	09-31		11031746	Coil kit, 12 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

Order code: M2

B0010	09-31		11002705	Solenoid valve, proportional, 24 volt	1
B0020	09-31		11031749	Coil kit, 24 volt	1
B0025	09-31		11004735	O-ring	1
B0027	09-31		11004749	Coil nut	1
B0028	09-31		063172	O-ring	1
B0029	09-31		11037174	O-ring	1
B0035	09-31		11001952	O-ring	1
B0040	09-31		11014185	Plastic cap	1
B0050	09-31		716860	Screw, M5 x 12	3

Order code: MH

B0010	14-23		11146306	Actuator assembly	1
B0050	14-23		716860	Screw, M5 x 12	3
B0060	14-23		140644	Plug assembly	1
B0061	14-23		140644	Plug assembly	1
B0180	14-23		076042 (9003509-0012)	Seal nut, M12	1
B0190	14-23		012575 (9004105-1170)	O-ring	1

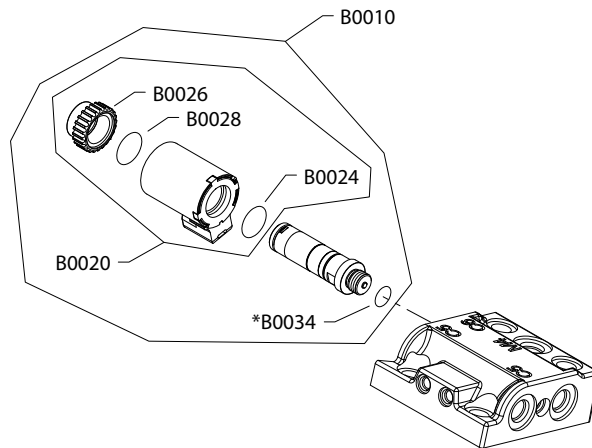
Order code: N1, NA, NB

No parts
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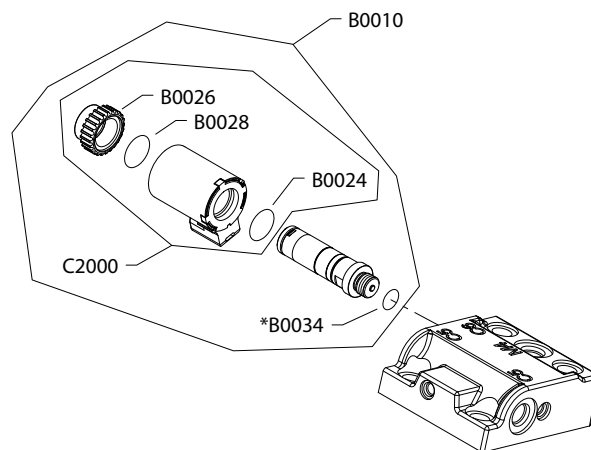
### Control

#### H1B control P1-T2

*P1 and P2 configuration*



*T1 and T2 configuration*



Generic housings used to show part location only.

\* Included in overhaul seal kit Q210

## Control

Order code: P1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0010	09-31		11013613	Solenoid valve, proportional, 12 volt	1
B0020	09-31		11031751	Coil kit, 12 volt	1
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1

Order code: P2

B0010	09-31		11013614	Solenoid valve, proportional, 24 volt	1
B0020	09-31		11031762	Coil kit, 24 volt	1
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1

Order code: T1

B0010	09-31		11013615	Solenoid, on/off, 12 volt	1
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1
C2000	09-31		11031763	Coil kit, 12 volt	1

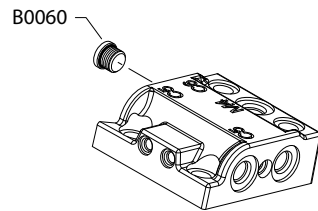
Order code: T2

B0010	09-31		11013616	Solenoid, on/off, 24 volt	1
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1
C2000	09-31		11031764	Coil kit, 24 volt	1

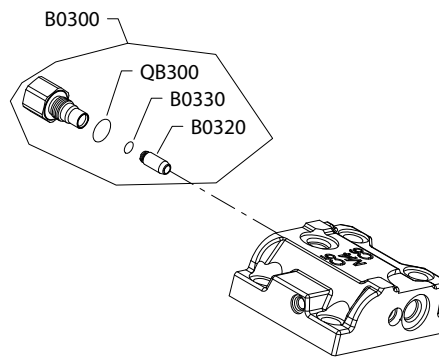
**Control**

**H1B control TA, TH**

*TA configuration*



*TH configuration*



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Generic housings used to show part location only.

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\* Included in overhaul seal kit Q210

### Control

Order code: TA

Item	Date Begin	Date Begin	Part Number	Part Name	Qty. per Model/Kit
B0060	11-46		140644	Plug assembly	1

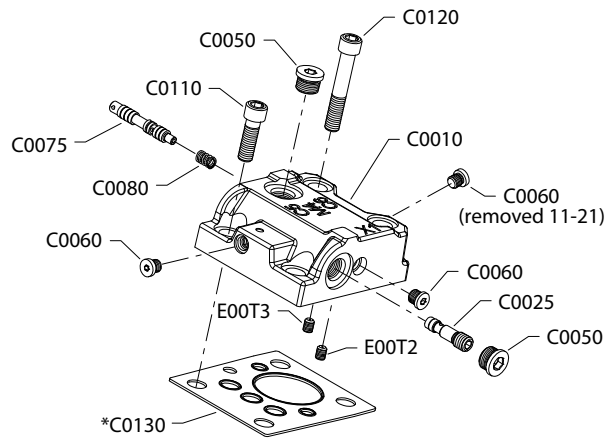
Order code: TH

B0300	15-27		11157844	PCOR override adapter assembly	1
B0320	15-27		11157843	Sensing spool	1
B0330	15-27		11164139	O-ring	1
QB300	15-27		085043 (9004201-3700)	O-ring	1

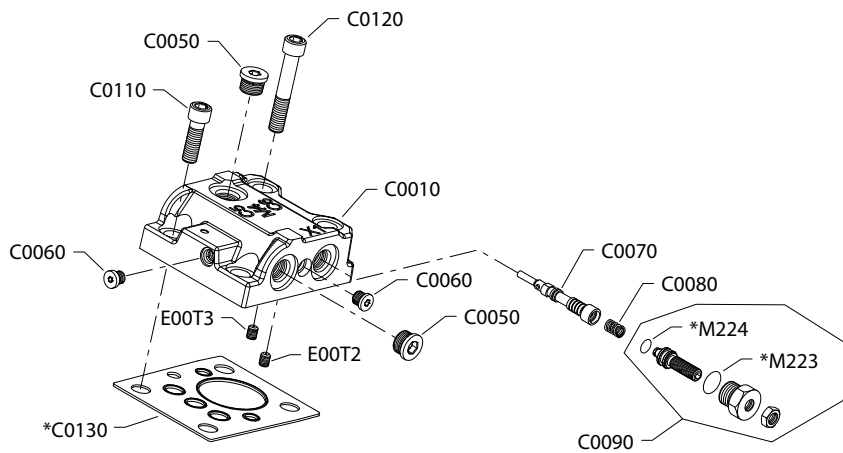
**Servo pressure supply**

**H1B servo pressure AA, AD**

*AA configuration*



*AD configuration*



\* Included in overhaul seal kit Q210

Option AA is available in SAE and metric port configurations. Please order accordingly.



**Servo pressure supply**

Order code: AA

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	09-31		11086113	Control housing, 2-position (SAE)	1
C0010	15-48		11171632	Control housing, 2-position (metric)	1
C0025	09-31		11000893	Shuttle valve assembly	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0050	15-48		11178809	Plug assembly (metric)	2
C0060	11-22		11040532	Plug assembly	2
C0060	09-31	11-21	11040532	Plug assembly	3
C0075	09-31		11016166	Spool	1
C0080	09-31		11160236	Spring (SAE)	1
C0080	09-31		11160236	Spring (metric)	1
C0110	09-31		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	09-31		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	09-31		11016168	Control seal	1

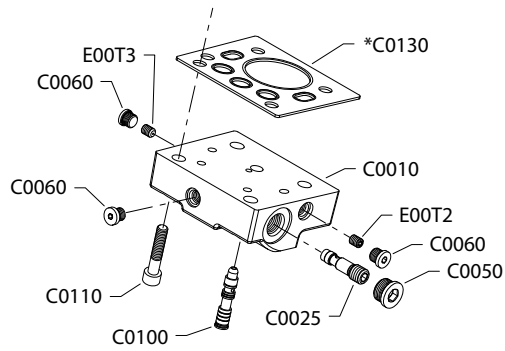
Order code: AD

C0010	12-14		11110070	Control housing, 2-position	1
C0050	12-14		140644	Plug assembly (SAE)	2
C0060	11-22		11040532	Plug assembly	2
C0070	12-14		11016228	Spool	1
C0080	12-14		11160236	Spring (SAE)	1
C0090	12-14		509360	Adjuster	1
C0110	12-14		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	12-14		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	12-14		11016168	Control seal	1
M223	12-14		085043 (9004201-3700)	O-ring	1
M224	12-14		11197086	O-ring	1

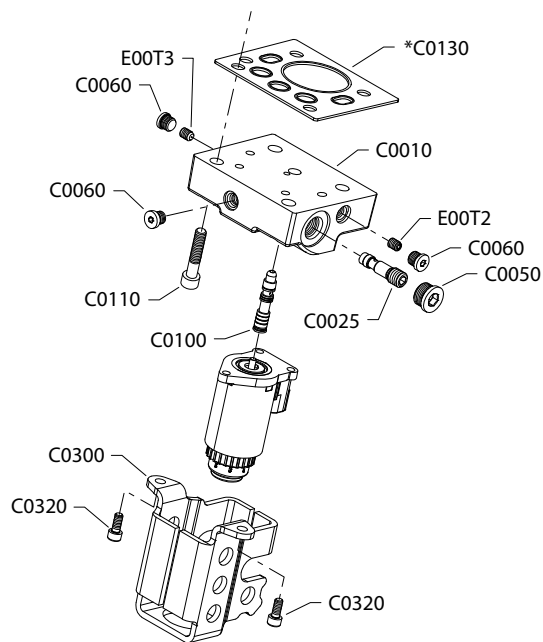
**Servo pressure supply**

**H1B servo pressure BA, BB**

*BA configuration*



*BB configuration*



\* Included in overhaul seal kit Q210

### Servo pressure supply

Option BA and BB are available in SAE and metric. Please order accordingly.

Order code: BA

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	09-31		149057	Control housing, proportional (SAE)	1
C0010	15-45		11161819	Control housing, proportional (metric)	1
C0025	09-31		11000893	Shuttle valve assembly	1
C0050	09-31		140644	Plug assembly (SAE)	1
C0050	15-45		11178808	Plug assembly (metric)	1
C0060	09-31		11040532	Plug assembly	3
C0100	09-31		11146871	Spool (SAE)	1
C0100	15-45		11146871	Spool (metric)	1
C0110	09-31		710855	Screw, M8 x 35	4
C0130	09-31		149040	Control seal	1

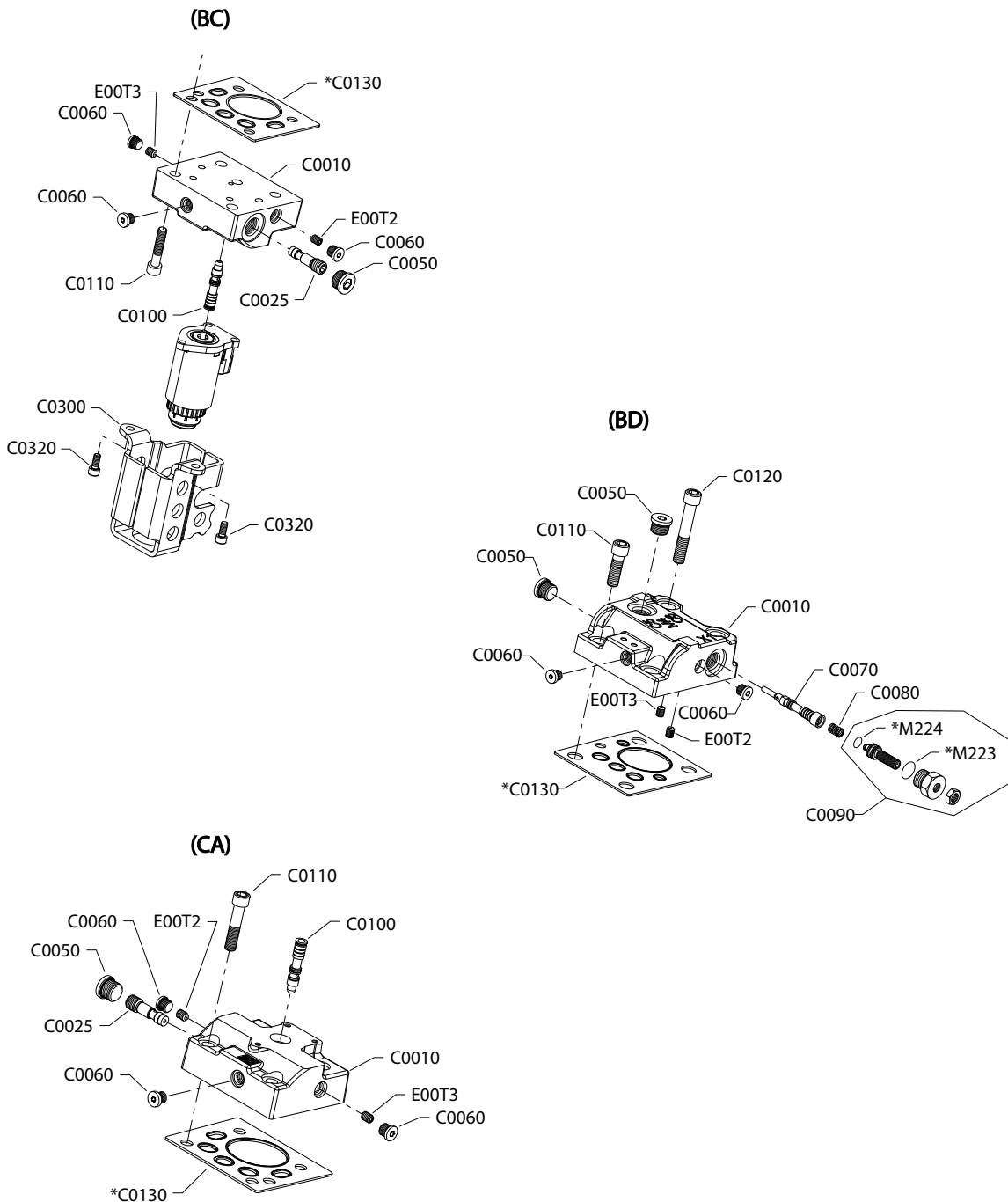
Order code: BB

C0010	12-24		11116918	Control housing, proportional (SAE)	1
C0025	12-24		11000893	Shuttle valve assembly	1
C0050	12-24		140644	Plug assembly (SAE)	1
C0060	12-24		11040532	Plug assembly	3
C0100	12-24		11146871	Spool (SAE)	1
C0110	12-24		710855	Screw, M8 x 35	4
C0130	12-24		149040	Control seal	1
C0300	12-24		11086158	Protective cover	1
C0320	12-24		395822	Screw, M6 x 12mm	2

**Servo pressure supply**

**H1B servo pressure BC, BD, CA**

*Parts configuration*



\* Included in overhaul seal kit Q210

Option BC is only available in metric configuration. Option CA is available in both SAE and metric configurations. Please order accordingly.

**Servo pressure supply**

Order code: BC

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	16-38		11169197	Control housing, proportional (metric)	1
C0025	16-38		11000893	Shuttle valve assembly	1
C0050	16-38		11178808	Plug assembly (metric)	1
C0060	16-38		11040532	Plug assembly	3
C0100	16-38		11146871	Spool (metric)	1
C0110	16-38		710855	Screw, M8 x 35	4
C0130	16-38		149040	Control seal	1
C0300	16-38		11086158	Protection cover	1
C0320	16-38		395822	Screw, M6 x 12	2

Order code: BD

C0010	12-14		11110071	Control housing, 2-position	1
C0050	12-14		140644	Plug assembly (SAE)	2
C0060	12-14		11040532	Plug assembly	2
C0070	12-14		11016228	Spool	1
C0080	12-14		11160236	Spring (SAE)	1
C0090	12-14		509360	Adjuster	1
C0110	12-14		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	12-14		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	12-14		11016168	Control seal	1
M223	12-14		085043 (9004201-3700)	O-ring	1
M224	12-14		11197086	O-ring	1

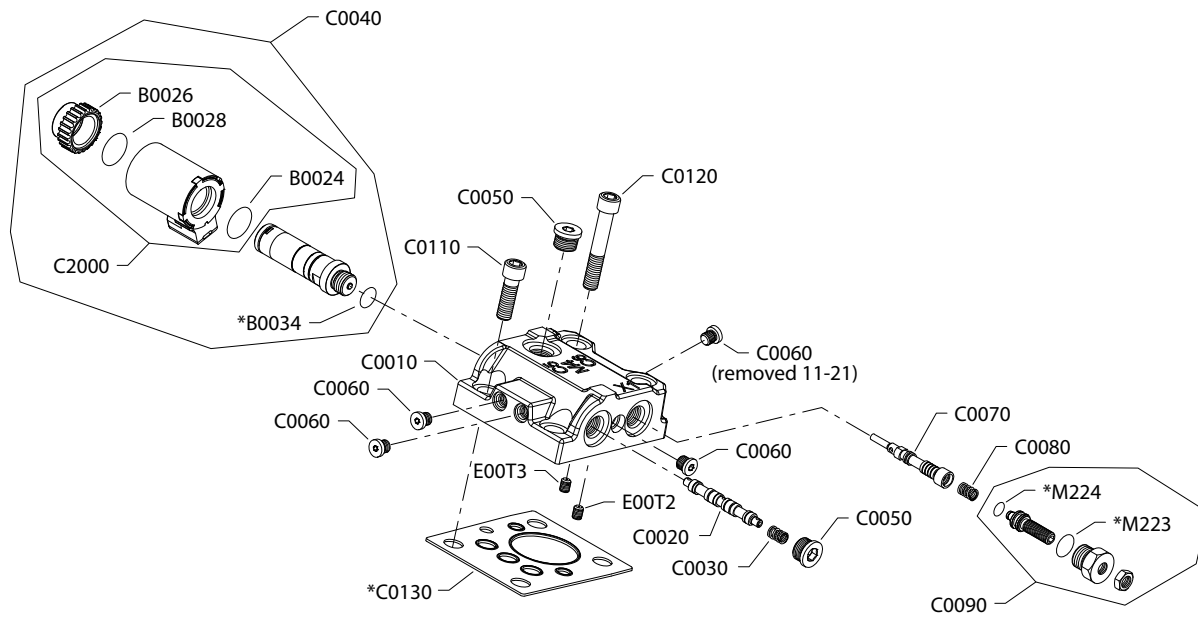
Order code: CA

C0010	09-31		149057	Control housing, proportional (SAE)	1
C0010	09-31		11161819	Control housing, proportional (metric)	1
C0025	09-31		11000893	Shuttle valve assembly	1
C0050	09-31		140644	Plug assembly (SAE)	1
C0050	09-31		11178808	Plug assembly (metric)	1
C0060	09-31		11040532	Plug assembly	3
C0100	09-31		11146871	Spool (SAE)	1
C0100	09-31		11146871	Spool (metric)	1
C0110	09-31		710855	Screw, M8 x 35	4
C0130	09-31		149040	Control seal	1

**Servo pressure supply**

**H1B servo pressure D1, D2**

*D1 and D2 configuration*



\* Included in overhaul seal kit Q210

### Servo pressure supply

Order code: D1 and D2 common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1
C0010	09-31		11086114	Control housing, PCOR	1
C0020	09-31		11016229	Spool	1
C0030	09-31		11160236	Spring	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0060	11-22		11040532	Plug assembly	3
C0060	09-31	11-21	11040532	Plug assembly	4
C0070	09-31		11016228	Spool	1
C0080	09-31		11160236	Spring	1
C0090	09-31		509360	Adjuster	1
C0110	09-31		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	09-31		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	09-31		11016168	Control seal	1
M223	09-31		085043 (9004201-3700)	O-ring	1
M224	09-31		11197086	O-ring	1

Order code: D1

C0040	09-31		11013615	Solenoid, on/off, 12 volt	1
C2000	09-31		11031763	Coil kit, 12 volt	1

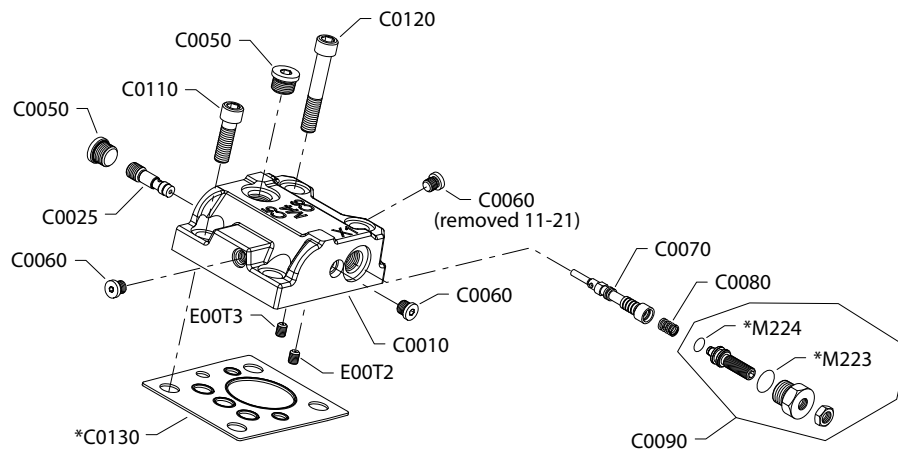
Order code: D2

C0040	09-31		11013616	Solenoid, on/off, 24 volt	1
C2000	09-31		11031764	Coil kit, 24 volt	1

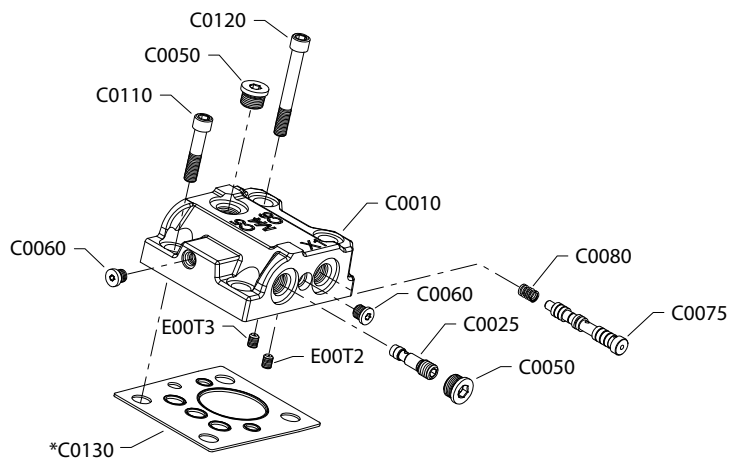
**Servo pressure supply**

**H1B servo pressure DA, EA**

*DA configuration*



*EA configuration*



\* Included in overhaul seal kit Q210



**Servo pressure supply**

Order code: DA

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	09-31		11086115	Control housing, PCOR	1
C0025	09-31		11000893	Shuttle valve assembly	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0060	11-22		11040532	Plug assembly	2
C0060	09-31	11-21	11040532	Plug assembly	3
C0070	09-31		11016228	Spool	1
C0080	09-31		11160236	Spring	1
C0090	09-31		509360	Adjuster	1
C0110	09-31		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	09-31		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	09-31		11016168	Control seal	1
M223	09-31		085043 (9004201-3700)	O-ring	1
M224	09-31		11197086	O-ring	1

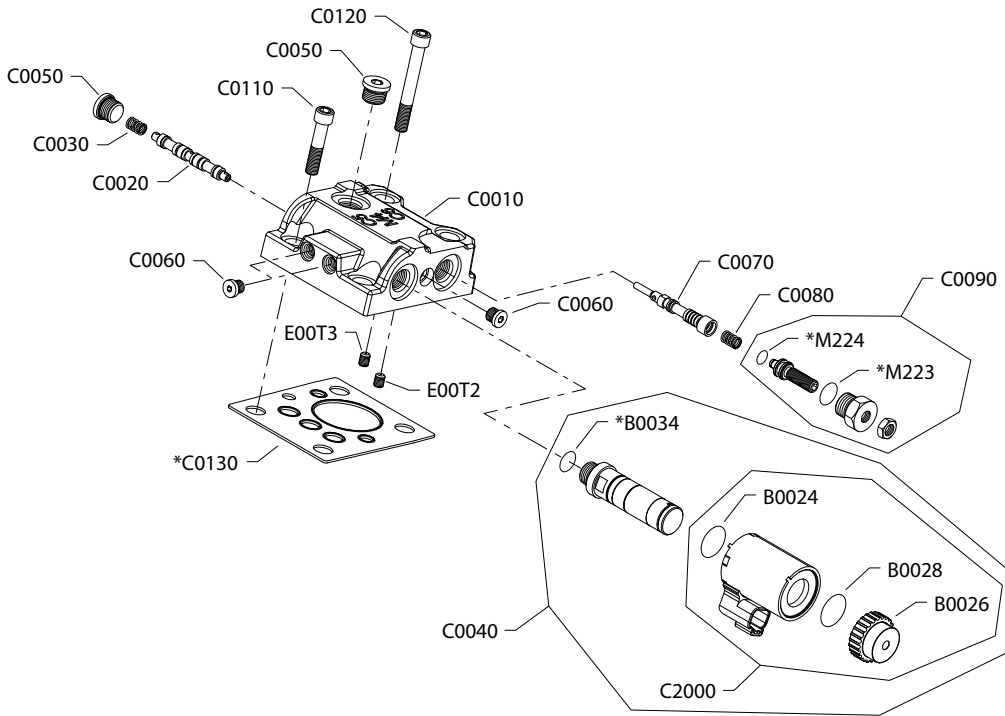
Order code: EA

C0010	11-22		11099281	Control housing, 2-position	1
C0025	11-22		11000893	Shuttle valve assembly	1
C0050	11-22		140644	Plug assembly	1
C0060	11-22		11040532	Plug assembly	2
C0075	11-22		11122114	Spool, 2-position	1
C0080	11-22		11160236	Spring	1
C0110	11-22		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	11-22		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	11-22		11016168	Control seal	1

**Servo pressure supply**

**H1B servo pressure G1, G2**

*G1 and G2 configuration*



\* Included in overhaul seal kit Q210

### Servo pressure supply

Order code: G1 and G2 common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0024	16-07		11031608	O-ring	1
B0026	16-07		11027046	Coil nut	1
B0028	16-07		063172	O-ring	1
B0034	16-07		085043 (9004201-3700)	O-ring	1
C0010	16-07		11173253	Control housing, 2-position	1
C0020	16-07		11016229	Spool	1
C0030	16-07		11160236	Spring	1
C0050	16-07		140644	Plug assembly (SAE)	2
C0060	16-07		11040532	Plug assembly	3
C0070	16-07		11016228	Spool	1
C0080	16-07		11160236	Spring	1
C0090	16-07		509360	Adjuster	1
C0110	16-07		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	16-07		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	16-07		11016168	Control seal	1
M223	16-07		085043 (9004201-3700)	O-ring	1
M224	16-07		11197086	O-ring	1

Order code: G1

C0040	16-07		11013615	Solenoid valve, 12v	1
C200	16-07		11031763	Coil kit, 12 volt	1

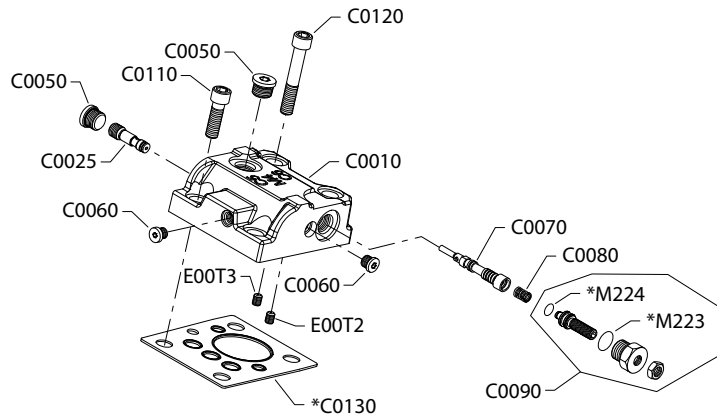
Order code: G2

C0040	16-07		11013616	Solenoid valve, 24v	1
C2000	16-07		11031764	Coil kit, 24 volt	1

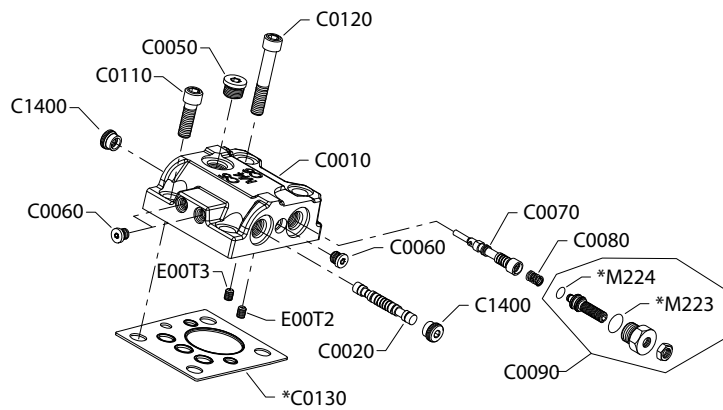
**Servo pressure supply**

**H1B servo pressure HA, HB, HC**

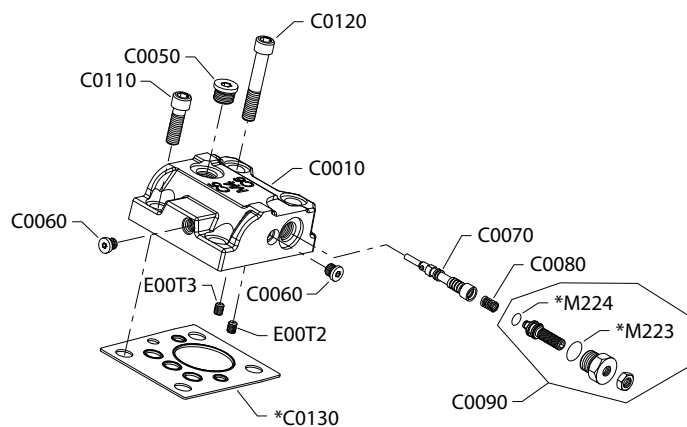
*HA configuration*



*HB configuration*



*HC configuration*



\* Included in overhaul seal kit Q210

### Servo pressure supply

Order code: Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0070	15-37		11016228	Spool	1
C0080	15-37		11160236	Spring	1
C0090	15-37		509360	Adjuster	1
C0110	15-37		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	15-37		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	15-37		11016168	Control seal	1
M223	15-37		085043 (9004201-3700)	O-ring	1
M224	15-37		11197086	O-ring	1

Order code: HA

C0010	15-37		11162117	Control housing, 2-position	1
C0025	15-37		11000893	Shuttle valve assembly	1
C0050	15-37		140644	Plug assembly	2
C0060	15-37		11040532	Plug assembly	2

Order code: HB

C0010	15-37		11162118	Control housing, 2-position	1
C0020	15-37		11162120	Spool	1
C0050	15-37		140644	Plug assembly	1
C0060	15-37		11040532	Plug assembly	3

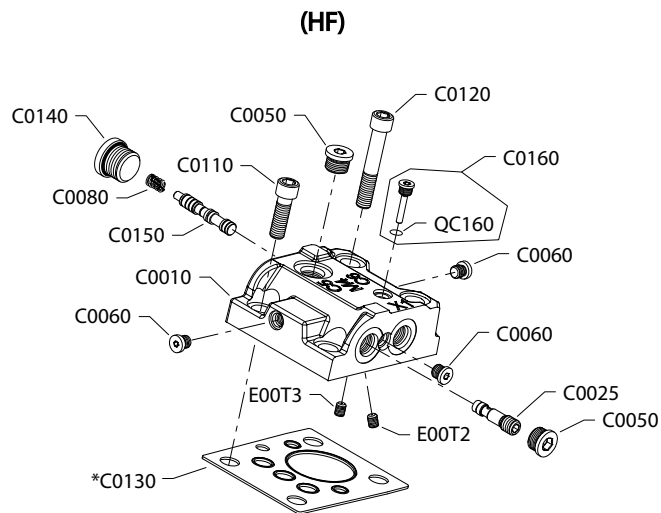
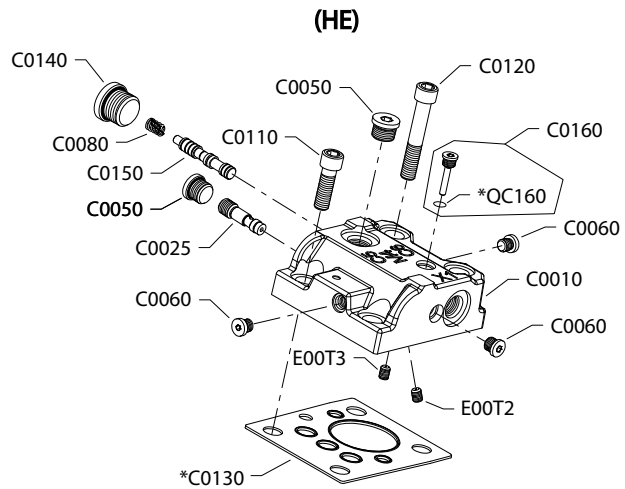
Order code: HC

C0010	15-37		11162119	Control housing, 2-position	1
C0050	15-37		140644	Plug assembly	1
C0060	15-37		11040532	Plug assembly	2

**Servo pressure supply**

**H1B servo pressure HE, HF**

*HE and HF configuration*



\* Included in overhaul seal kit Q210

Option HE is available in SAE and metric. Please order accordingly.

### Servo pressure supply

Order code: HE and HF common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0025	09-31		11000893	Shuttle valve assembly	1
C0060	09-31		11040532	Plug assembly	3
C0110	09-31		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	09-31		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	09-31		11016168	Control seal	1
C0150	09-31		11068172	Spool	1
C0160	09-31		511244	Plug assembly	1
QC160	09-31		039297 (9004201-1200)	O-ring	1

Order code: HE

C0010	09-31		11086117	Control housing, 2-position (SAE)	1
C0010	09-31		11175039	Control housing, 2-position (metric)	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0050	09-31		11178808	Plug assembly (metric)	2
C0080	09-31		11160236	Spring (SAE)	1
C0080	09-31		11160236	Spring (metric)	1
C0140	09-31		9005110-8700 (315325)	Plug assembly (SAE)	1
C0140	09-31		9005110-8700 (315325)	Plug assembly (metric)	1

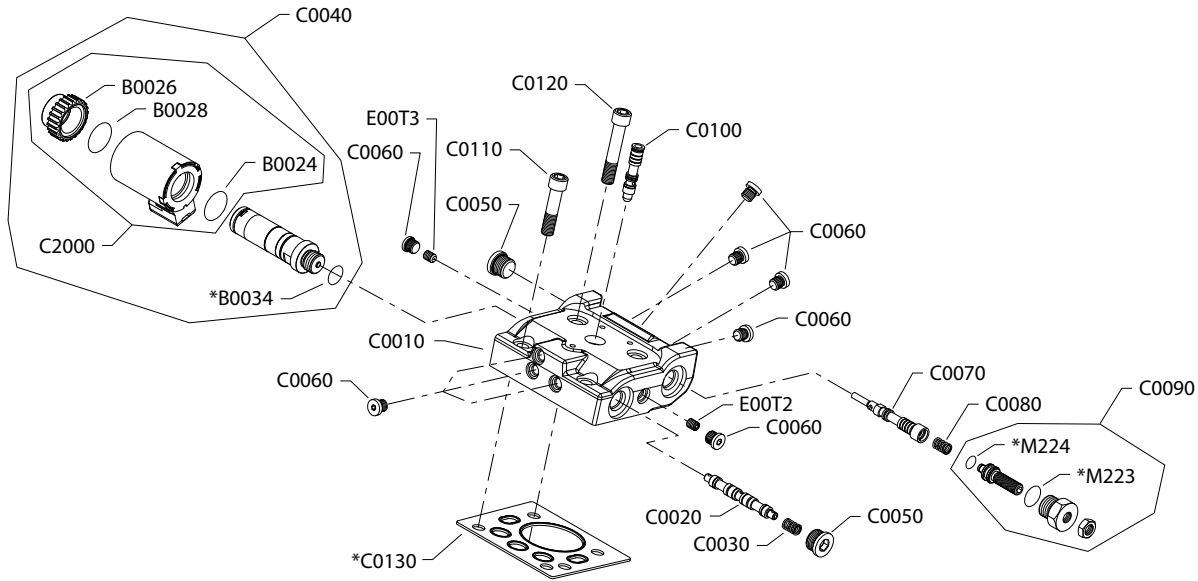
Order code: HF

C0010	09-31		11086118	Control housing, 2-position (SAE)	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0080	09-31		11160236	Spring (SAE)	1
C0140	09-31		9005110-8700 (315325)	Plug assembly (SAE)	1

**Servo pressure supply**

**H1B servo pressure K1, K2**

*K1 and K2 configuration*



\* Included in overhaul seal kit Q210



### Servo pressure supply

Order code: K1 and K2 common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1
C0010	09-31		11026748	Control housing, proportional, PCOR	1
C0020	09-31		11026792	Spool	1
C0030	09-31		11160236	Spring	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0060	09-31		11040532	Plug assembly	9
C0070	09-31		11026751	Spool	1
C0080	09-31		11160236	Spring	1
C0090	09-31		509360	Adjuster	1
C0100	09-31		11146871	Spool	1
C0110	09-31		710855	Screw, M8 x 35	2
C0120	09-31		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	09-31		149040	Control seal	1
M223	09-31		085043 (9004201-3700)	O-ring	1
M224	09-31		11197086	O-ring	1

Order code: K1

C0040	09-31		11013615	Solenoid, on/off, 12 volt	1
C2000	09-31		11031763	Coil kit, 12 volt	1

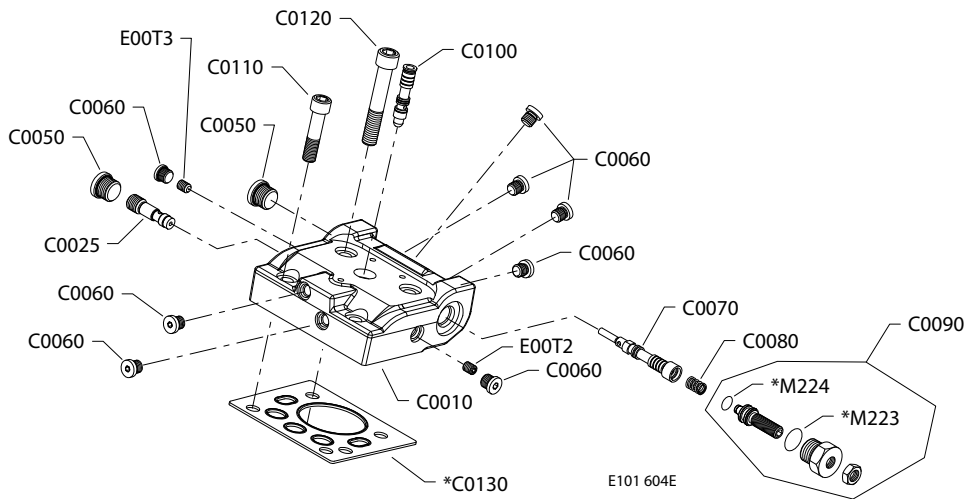
Order code: K2

C0040	09-31		11013616	Solenoid, on/off, 24 volt	1
C2000	09-31		11031764	Coil kit, 24 volt	1

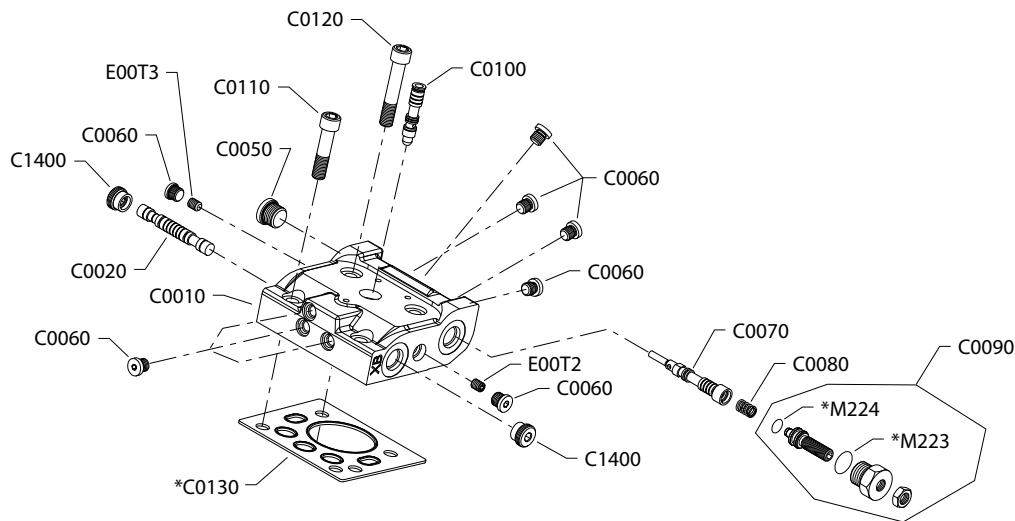
**Servo pressure supply**

**H1B servo pressure KA, KH**

*KA configuration*



*KH configuration*



\* Included in overhaul seal kit Q210

### Servo pressure supply

Order code: KA

Item	Date Begin		Part Number	Part Name	Qty. per Model/Kit
C0010	09-31		11026749	Control housing, proportional, PCOR	1
C0025	09-31		11000893	Shuttle valve assembly	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0060	09-31		11040532	Plug assembly	8
C0070	09-31		11026751	Spool	1
C0080	09-31		11160236	Spring	1
C0090	09-31		509360	Adjuster	1
C100	09-31		11146871	Spool	1
C0110	09-31		710855	Screw, M8 x 35	2
C0120	09-31		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	09-31		149040	Control seal	1
M223	09-31		085043 (9004201-3700)	O-ring	1
M224	09-31		11197086	O-ring	1

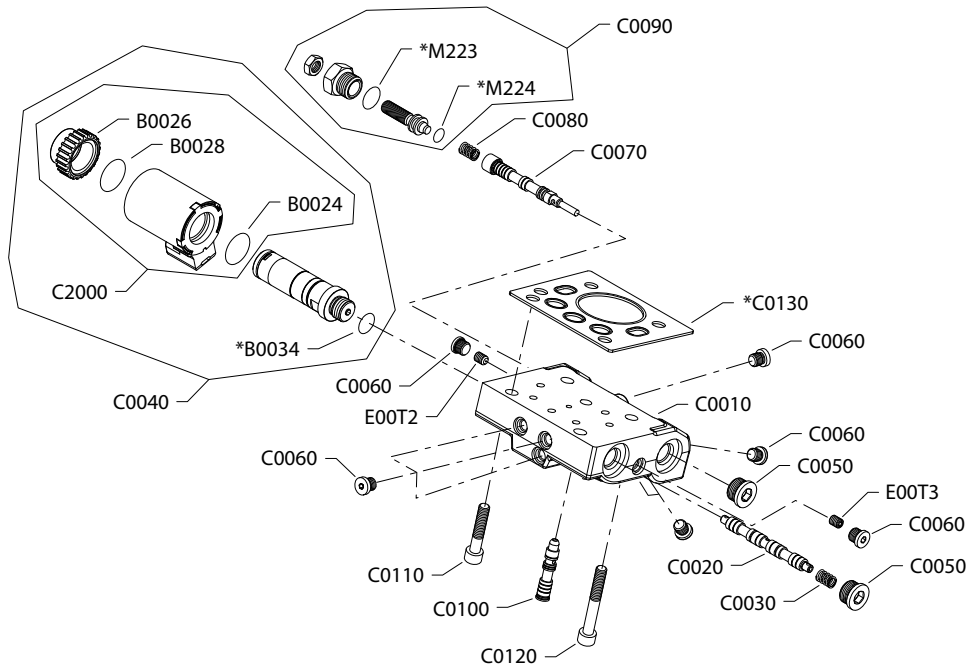
Order code: KH

C0010	15-48		11161283	Control housing, proportional, PCOR	1
C0020	15-48		11151818	Spool	1
C0050	15-48		140644	Plug assembly	1
C0060	15-48		11040532	Plug assembly	9
C0070	15-48		11026751	Spool	1
C0080	15-48		11160236	Spring	1
C0090	15-48		509360	Adjuster	1
C100	15-48		11146871	Spool	1
C0110	15-48		710855	Screw, M8 x 35	2
C0120	15-48		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	15-48		149040	Control seal	1
C1400	15-48		11151817	Limiter plug	2
M223	15-48		085043 (9004201-3700)	O-ring	1
M224	15-48		11197086	O-ring	1

**Servo pressure supply**

**H1B servo pressure M1, M2**

*M1 and M2 configuration*



\* Included in overhaul seal kit Q210

**Servo pressure supply**

Order code: M1 and M2 common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0024	09-31		11031608	O-ring	1
B0026	09-31		11027046	Coil nut	1
B0028	09-31		063172	O-ring	1
B0034	09-31		085043 (9004201-3700)	O-ring	1
C0010	09-31		11028958	Control housing, proportional, PCOR	1
C0020	09-31		11026792	Spool	1
C0030	09-31		11160236	Spring	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0060	09-31		11040532	Plug assembly	9
C0070	09-31		11028957	Spool	1
C0080	09-31		11160236	Spring	1
C0090	09-31		509360	Adjuster	1
C0100	09-31		11146871	Spool	1
C0110	09-31		710855	Screw, M8 x 35	2
C0120	09-31		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	09-31		149040	Control seal	1
M223	09-31		085043 (9004201-3700)	O-ring	1
M224	09-31		11197086	O-ring	1

Order code: M1

C0040	09-31		11013615	Solenoid, on/off, 12 volt	1
C2000	09-31		11031763	Coil kit, 12 volt	1

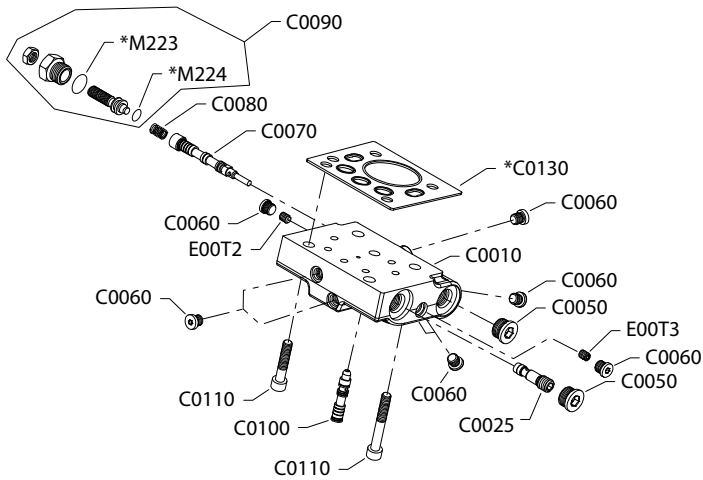
Order code: M2

C0040	09-31		11013616	Solenoid, on/off, 24 volt	1
C2000	09-31		11031764	Coil kit, 24 volt	1

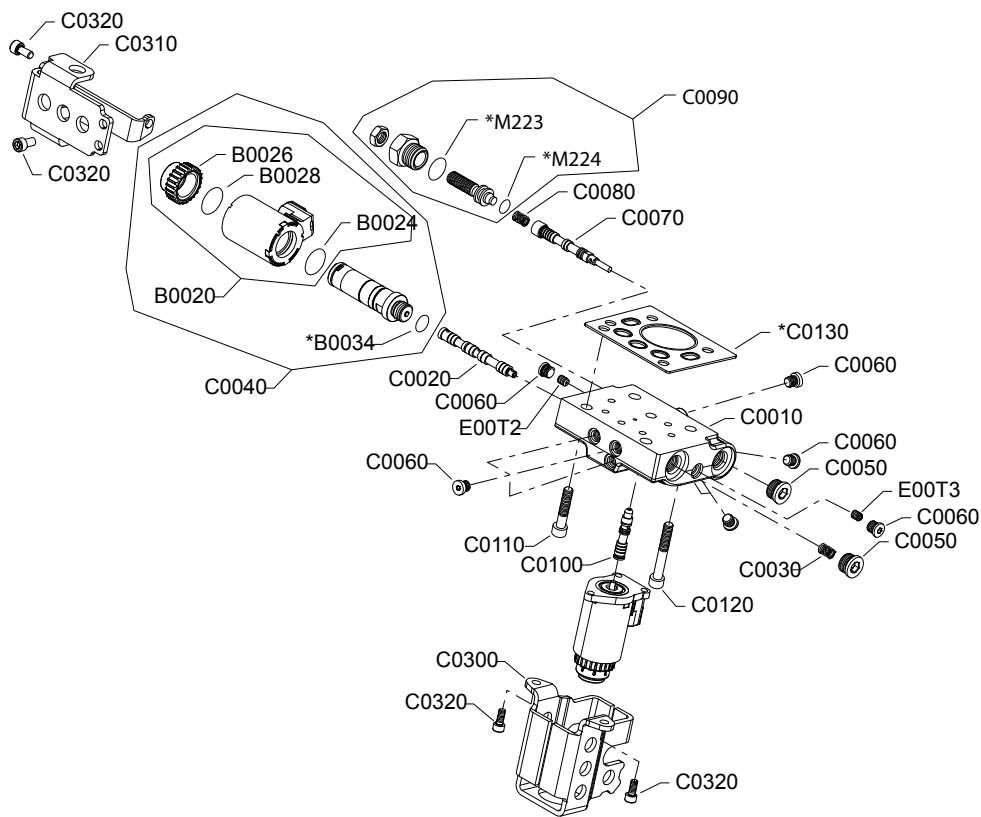
**Servo pressure supply**

**H1B servo pressure MA, MF**

*MA configuration*



*MF configuration*



\* Included in overhaul seal kit Q210

### Servo pressure supply

Order code: MA

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	09-31		11028959	Control housing, proportional, PCOR	1
C0025	09-31		11000893	Shuttle valve assembly	1
C0050	09-31		140644	Plug assembly (SAE)	2
C0060	09-31		11040532	Plug assembly	8
C0070	09-31		11028957	Spool	1
C0080	09-31		11160236	Spring	1
C0090	09-31		509360	Adjuster	1
C0100	09-31		11146871	Spool	1
C0110	09-31		710855	Screw, M8 x 35	2
C0120	09-31		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	09-31		149040	Control seal	1
M223	09-31		085043 (9004201-3700)	O-ring	1
M224	09-31		11197086	O-ring	1

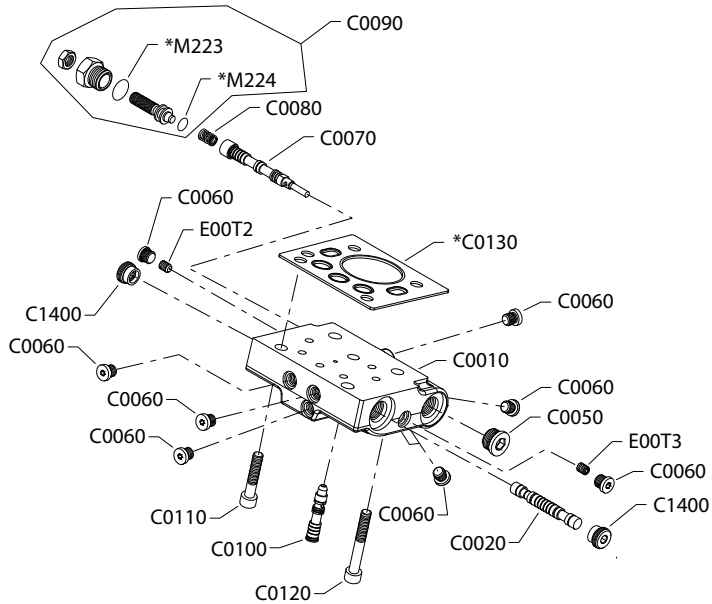
Order code: MF

B0020	12-05		11031763	Coil kit, 12 volt	1
B0024	12-05		11031608	O-ring	1
B0026	12-05		11027046	Coil nut	1
B0028	12-05		063172	O-ring	1
B0034	12-05		085043 (9004201-3700)	O-ring	1
C0010	12-05		11123556	Control housing, proportional, PCOR	1
C0020	12-05		11101616	Spool	1
C0030	12-05		11160236	Spring	1
C0040	12-05		11013615	Solenoid, on/off, 12 volt	1
C0050	12-05		140644	Plug assembly	2
C0060	12-05		11040532	Plug assembly	9
C0070	12-05		11028957	Spool	1
C0080	12-05		11160263	Spring	1
C0090	12-05		509360	Adjuster	1
C0100	12-05		11146871	Spool	1
C0110	12-05		710855	Screw, M8 x 35	2
C0120	12-05		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	12-05		149040	Control seal	1
C0300	12-05		11086158	Protective cover	1
C0310	12-05		11086159	Protective cover	1
C0320	12-05		395822	Screw, M6 x 12mm	4
M223	12-05		085043 (9004201-3700)	O-ring	1
M224	12-05		11197086	O-ring	1

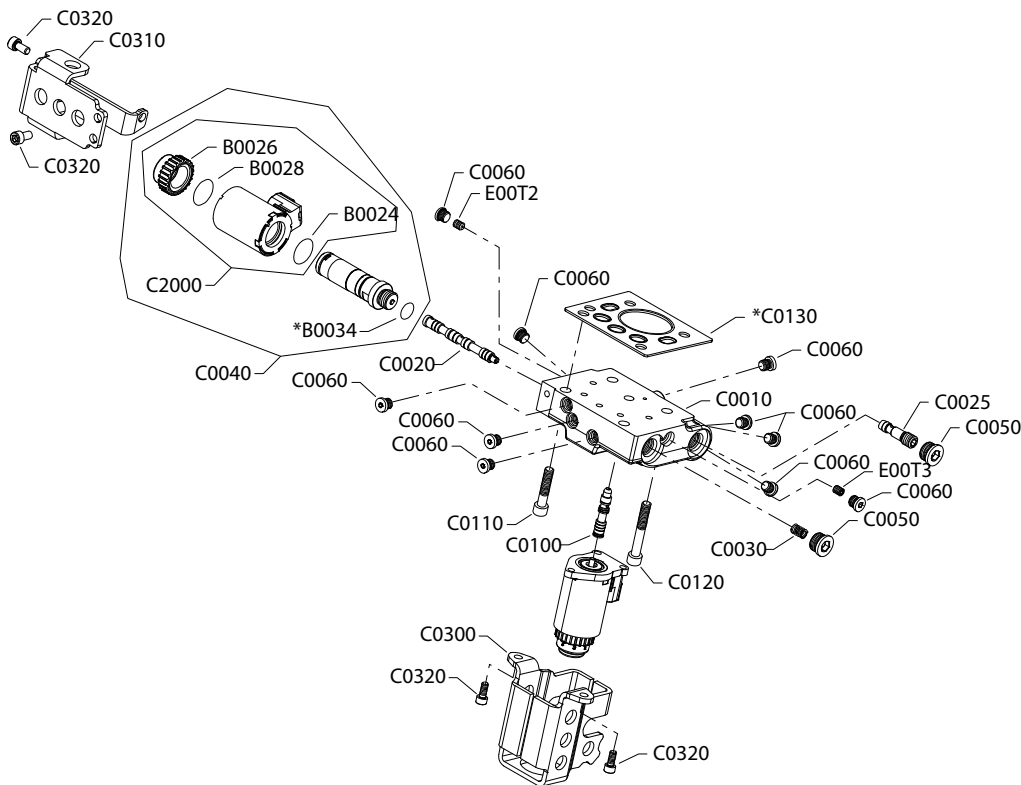
**Servo pressure supply**

**H1B servo pressure MH, MW**

*MH configuration*



*MW configuration*



\* Included in overhaul seal kit Q210



### Servo pressure supply

Order code: MH

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	14-37		11151816	Control housing, proportional, PCOR	1
C0020	14-37		11151818	Spool	1
C0050	14-37		140644	Plug assembly	1
C0060	14-37		11040532	Plug assembly	9
C0070	14-37		11028957	Spool	1
C0080	14-37		11160236	Spring	1
C0090	14-37		509360	Adjuster	1
C0100	14-37		11146871	Spool	1
C0110	14-37		710855	Screw, M8 x 35	2
C0120	14-37		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	14-37		149040	Control seal	1
C1400	14-37		11151817	Limiter plug	2
M223	14-37		085043 (9004201-3700)	O-ring	1
M224	14-37		11197086	O-ring	1

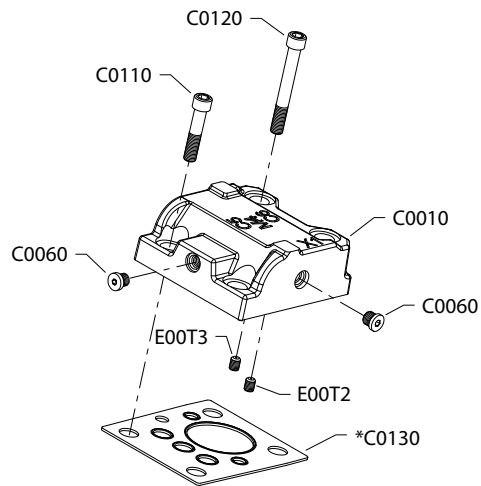
Order code: MW

B0024	12-05		11031608	O-ring	1
B0026	12-05		11027046	Coil nut	1
B0028	12-05		063172	O-ring	1
B0034	12-05		085043 (9004201-3700)	O-ring	1
C0010	12-05		11101720	Control housing, proportional, PCOR	1
C0020	12-05		11101616	Spool	1
C0025	12-05		11000893	Shuttle valve assembly	1
C0030	12-05		11160236	Spring	1
C0040	12-05		11013615	Solenoid, on/off, 12 volt	1
C0050	12-05		140644	Plug assembly	2
C0060	12-05		11146871	Plug assembly	10
C0100	12-05		1146871	Spool	1
C0110	12-05		710855	Screw, M8 x 35	2
C0120	12-05		746644 (9007314-0810)	Screw, M8 x 45	2
C0130	12-05		149040	Control seal	1
C0300	12-05		11086158	Protective cover	1
C0310	12-05		11086159	Protective cover	1
C0320	12-05		395822	Screw, M6 x 12	4
C2000	12-05		11031763	Coil kit, 12 volt	1

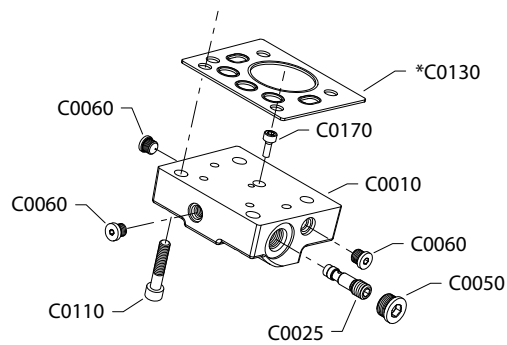
**Servo pressure supply**

**H1B servo pressure NP, NR, NT**

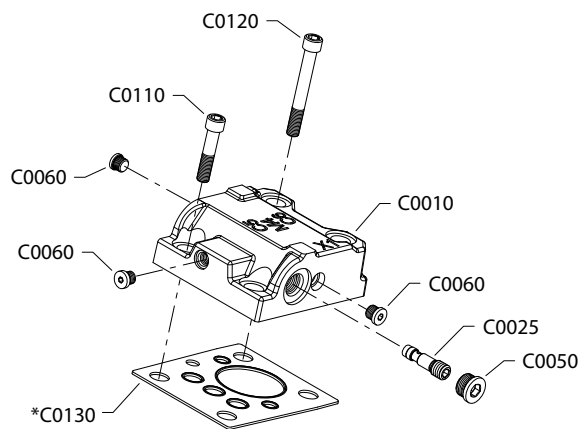
*NP configuration*



*NR configuration*



*NT configuration*



\* Included in overhaul seal kit Q210

**Servo pressure supply**

Order code: NP

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C0010	09-31		11086116	Control housing, 2-position	1
C0050	09-31		140644	Plug assembly	1
C0060	09-31		11040532	Plug assembly	2
C0110	09-31		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	09-31		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	09-31		11016168	Control seal	1

Order code: NR

C0010	12-42		11123843	Control housing, proportional	1
C0025	12-42		11000893	Shuttle valve	1
C0050	12-42		140644	Plug assembly	1
C0060	12-42		11040532	Plug assembly	3
C0110	12-42		710855	Screw, M8 x 35	2
C0130	12-42		149040	Control seal	1
C0170	12-42		716860	Screw, M5 x 12	1

Order code: NT

C0010	12-42		11123847	Control housing, 2-position	1
C0025	12-42		11000893	Shuttle valve	1
C0050	12-42		140644	Plug assembly	1
C0060	12-42		11040532	Plug assembly	3
C0110	12-42		737866 (9007314-1207)	Screw, M12 x 30	2
C0120	12-42		283325 (9007314-1211)	Screw, M12 x 50	2
C0130	12-42		11016168	Control seal	1

**Orifice**

**H1B orifice A, B, C, D**

*A-D orifice plugs*



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[See servo pressure supply drawing for orifice location.](#)

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**Orifice**

*Order code: A*

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E00T2	09-31		516598	Orifice plug, 1.2 mm	1
E00T3	09-31		516598	Orifice plug, 1.2 mm	1

*Order code: B*

E00T2	09-31		578542	Orifice plug, 0.8 mm	1
E00T3	09-31		578542	Orifice plug, 0.8 mm	1

*Order code: C*

E00T2	09-31		511825	Orifice plug, 0.6 mm	1
E00T3	09-31		511825	Orifice plug, 0.6 mm	1

*Order code: D*

E00T2	09-31		679316	Orifice plug, 0.5 mm	1
E00T3	09-31		679316	Orifice plug, 0.5 mm	1

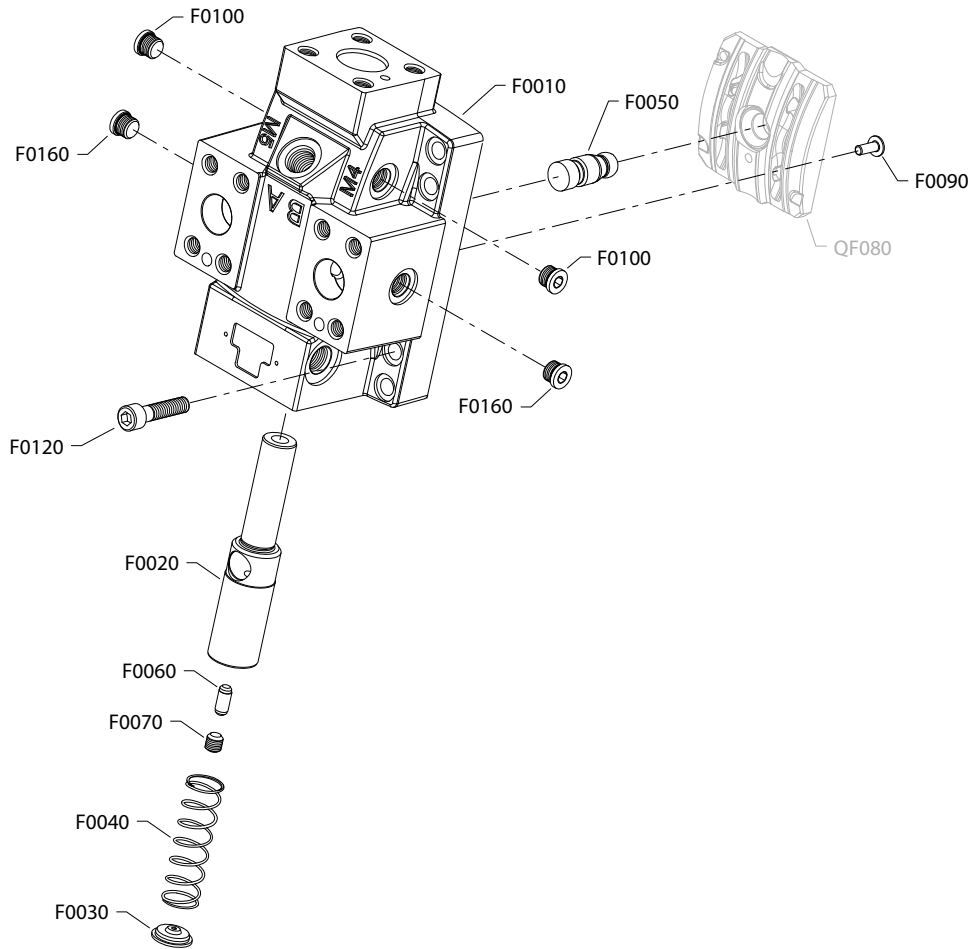
*Order code: N*

No parts					
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**End cap**

**H1B end cap PA**

*PA configuration*



**End cap**

Order code: PA

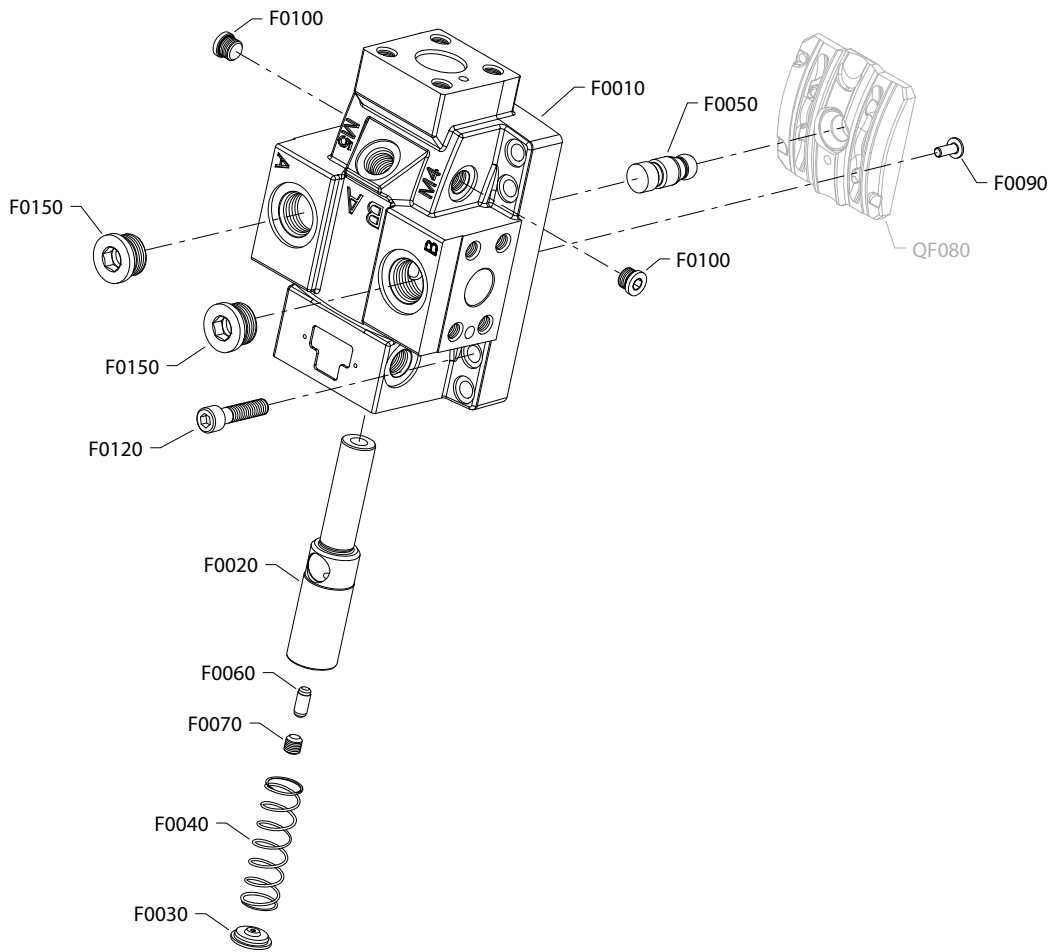
Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	09-31		11007456	End cap	1
F0020	09-31		11007450	Servo piston	1
F0030	09-31		11007448	Spring guide	1
F0040	09-31		11160231	Spring	1
F0050	09-31		11007449	Setting lug	1
F0060	09-31		11008915	Setting lug pin	1
F0070	09-31		042465	Set screw	1
F0090	09-31		11014186	Button head screw	1
F0100	09-31		140644	Plug assembly (SAE)	2
F0120	09-31		672295 (9007314-1010)	Screw, M10 x 45	8
F0160	09-31		140644	Plug assembly (SAE)	2
QF080	09-31	18-16	11051880	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

[Parts for option PB-PM are found on the next few pages.](#)

End cap

H1B end cap PB

PB configuration





**End cap**

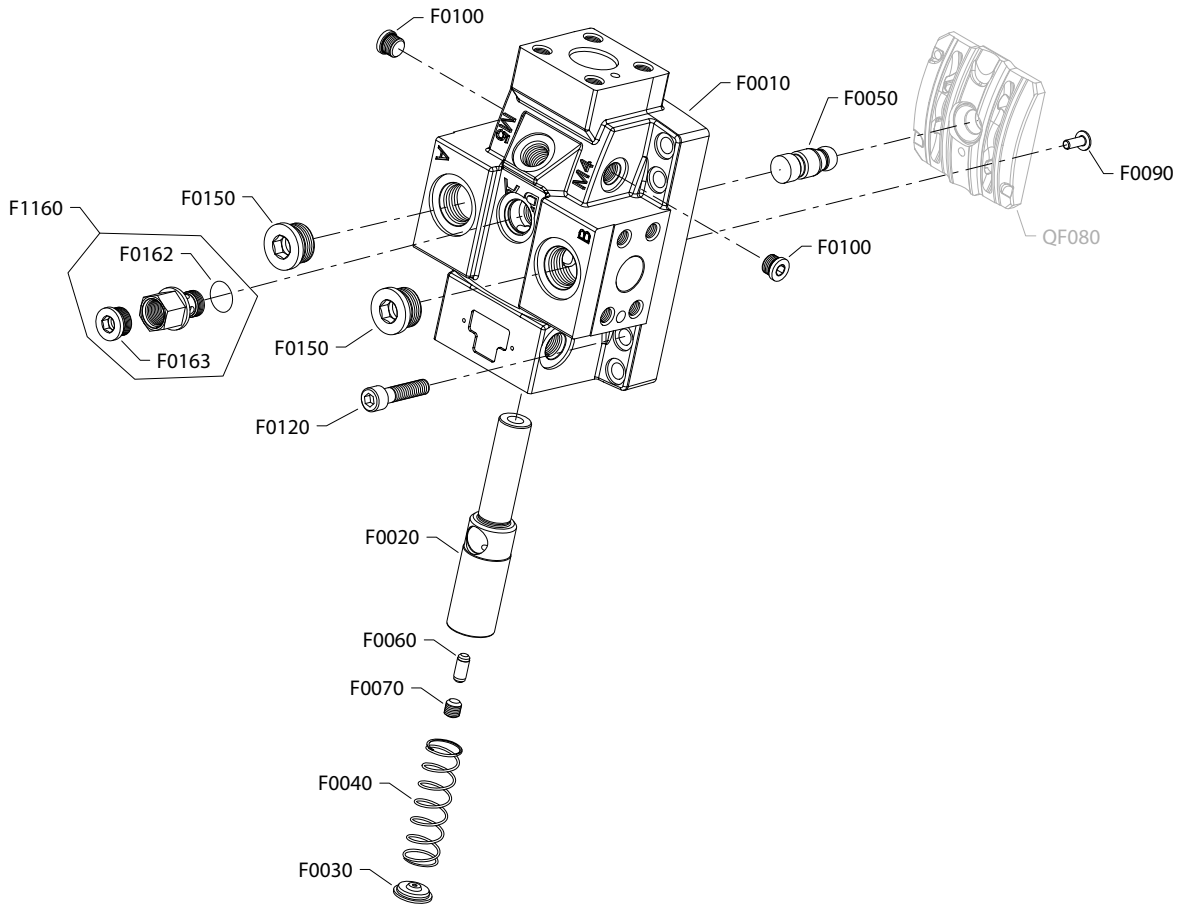
Order code: PB

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Mode/Kit
F0010	09-31		11007457	End cap	1
F0020	09-31		11007450	Servo piston	1
F0030	09-31		11007448	Spring guide	1
F0040	09-31		11160231	Spring	1
F0050	09-31		11007449	Setting lug	1
F0060	09-31		11008915	Setting lug pin	1
F0070	09-31		042465	Set screw	1
F0090	09-31		11014186	Button head screw	1
F0100	09-31		140644	Plug assembly (SAE)	2
F0120	09-31		672295 (9007314-1010)	Screw, M10 x 45	8
F0150	09-31		315325 (9005110-8700)	Plug assembly	2
QF080	09-31	18-16	11051880	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

End cap

H1B end cap PM

PM configuration



**End cap**

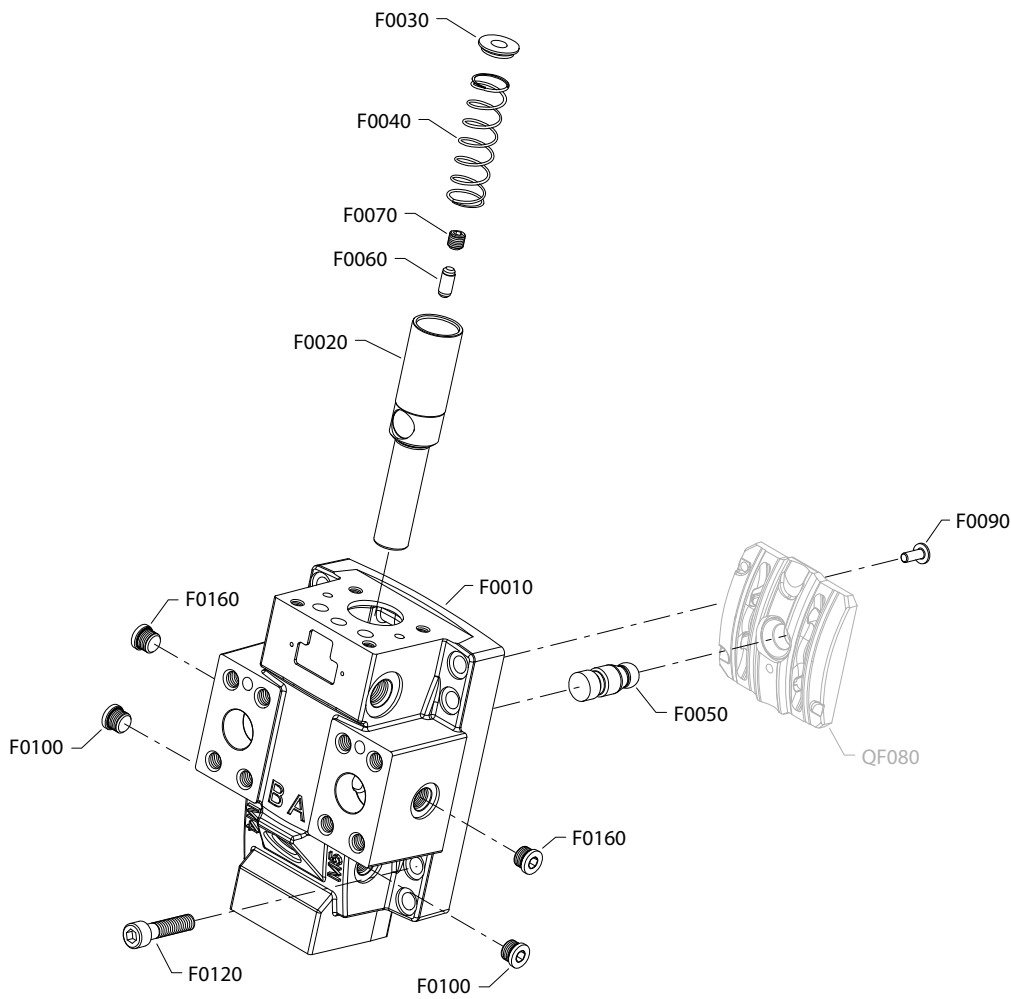
Order code: PM

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	12-03		11108196	End cap	1
F0020	12-03		11007450	Servo piston	1
F0030	12-03		11007448	Spring guide	1
F0040	12-03		11160231	Spring	1
F0050	12-03		11007449	Setting lug	1
F0060	12-03		11008915	Setting lug pin	1
F0070	12-03		042465	Set screw	1
F0090	12-03		11014186	Button head screw	1
F0100	12-03		140644	Plug assembly	2
F0120	12-03		672295 (9007314-1010)	Screw M10 x 45	8
F0105	12-03		315325 (9005110-8700)	Plug assembly	2
F0162	12-03		001149 (9004201-6200)	O-ring	1
F0163	12-03		9005110-7500	Plug assembly	1
F1160	12-03		11108129	Loop flushing adapter assembly	1
QF080	12-03	18-16	11051880	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

**End cap**

**H1B end cap RA**

*RA configuration*



**End cap**

Order code: RA

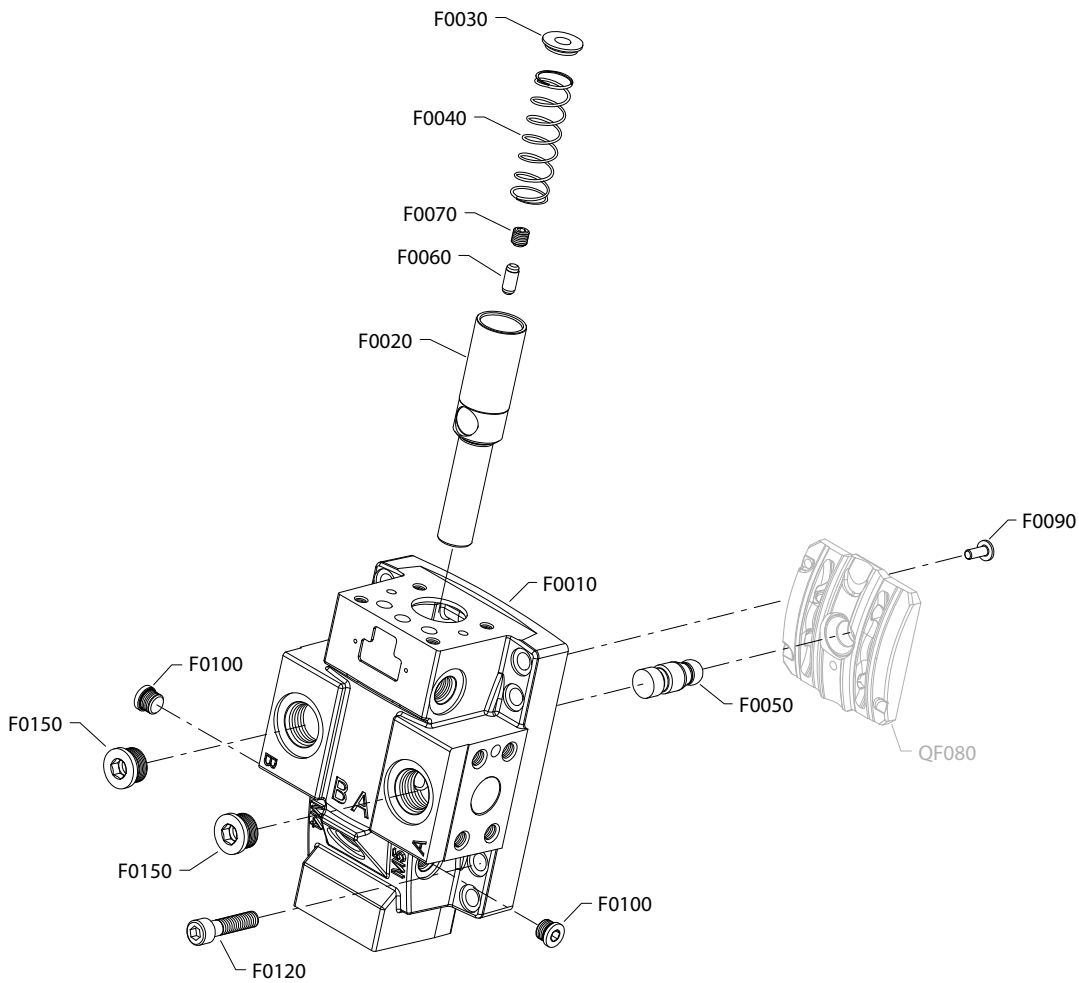
Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	12-03		11007456	End cap	1
F0020	12-03		11007450	Servo piston	1
F0030	12-03		11007448	Spring guide	1
F0040	12-03		11160231	Spring	1
F0050	12-03		11007449	Setting lug	1
F0060	12-03		11008915	Setting lug pin	1
F0070	12-03		042465	Set screw	1
F0090	12-03		11014186	Button head screw	1
F0100	12-03		140644	Plug assembly (SAE)	2
F0120	12-03		672295 (9007314-1010)	Screw, M10 x 45	8
F0160	12-03		140644	Plug assembly (SAE)	2
QF080	12-03	18-06	11051880	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

[Parts for option RB are found on the next 2 pages.](#)

**End cap**

**H1B end cap RB**

*RB configuration*



This option is available in SAE and metric configurations. Please order accordingly.

## End cap

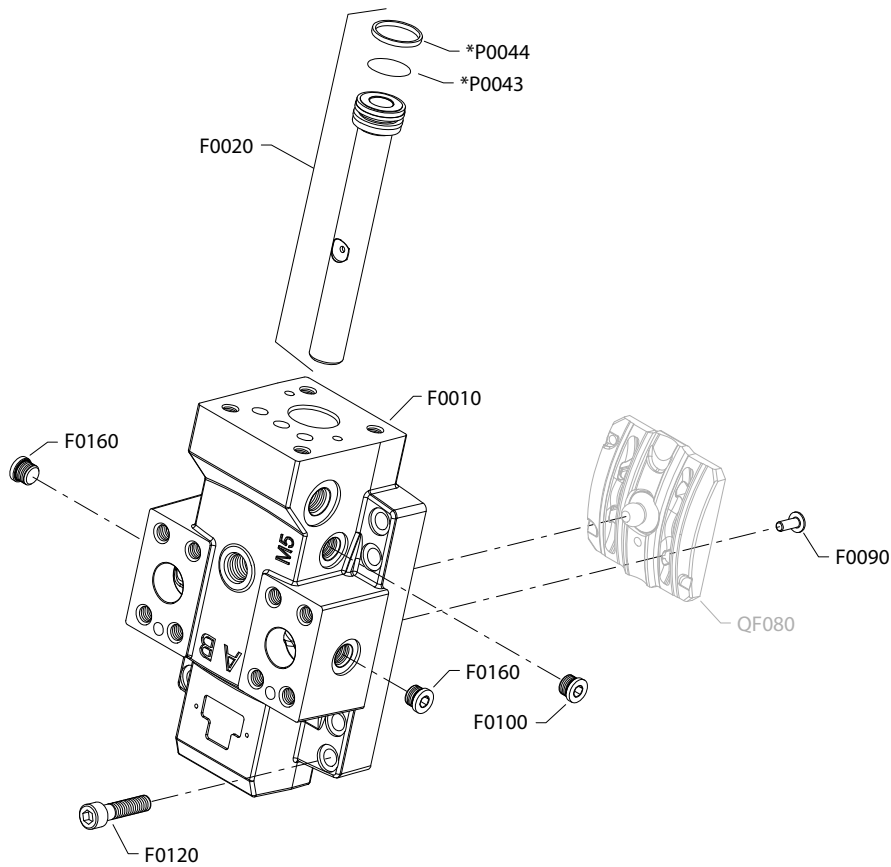
Order code: RB

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	09-31		11007457	End cap (SAE)	1
F0010	16-29		11182400	End cap (metric)	1
F0020	09-31		11007450	Servo piston	1
F0030	09-31		11007448	Spring guide	1
F0040	09-31		11160231	Spring	1
F0050	09-31		11007449	Setting lug	1
F0060	09-31		11008915	Setting lug pin	1
F0070	09-31		042465	Set screw	1
F0090	09-31		11014186	Button head screw	1
F0100	09-31		140644	Plug assembly (SAE)	2
F0100	16-29		11178809	Plug assembly (metric)	2
F0120	09-31		672295 (9007314-1010)	Screw, M10 x 45	8
F0150	09-31		315325 (9005110-8700)	Plug assembly	2
F0150	16-29		11178809	Plug assembly (metric)	2
QF080	09-31	18-16	11051880	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

**End cap**

**H1B end cap TA**

*TA configuration*



\* Included in overhaul seal kit Q210



### End cap

Order code: TA

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	09-31		11037511	End cap	1
F0020	09-31		11043400	Servo piston	1
F0090	09-31		11014186	Button head screw	1
F0100	09-31		140644	Plug assembly	1
F0120	09-31		672295 (9007314-1010)	Screw, M10 x 45	8
F0160	09-31		140644	Plug assembly	2
P0043	09-31		504207	O-ring	1
P0044	09-31		508134	Piston ring	1
QF080	09-31	18-06	11051879	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

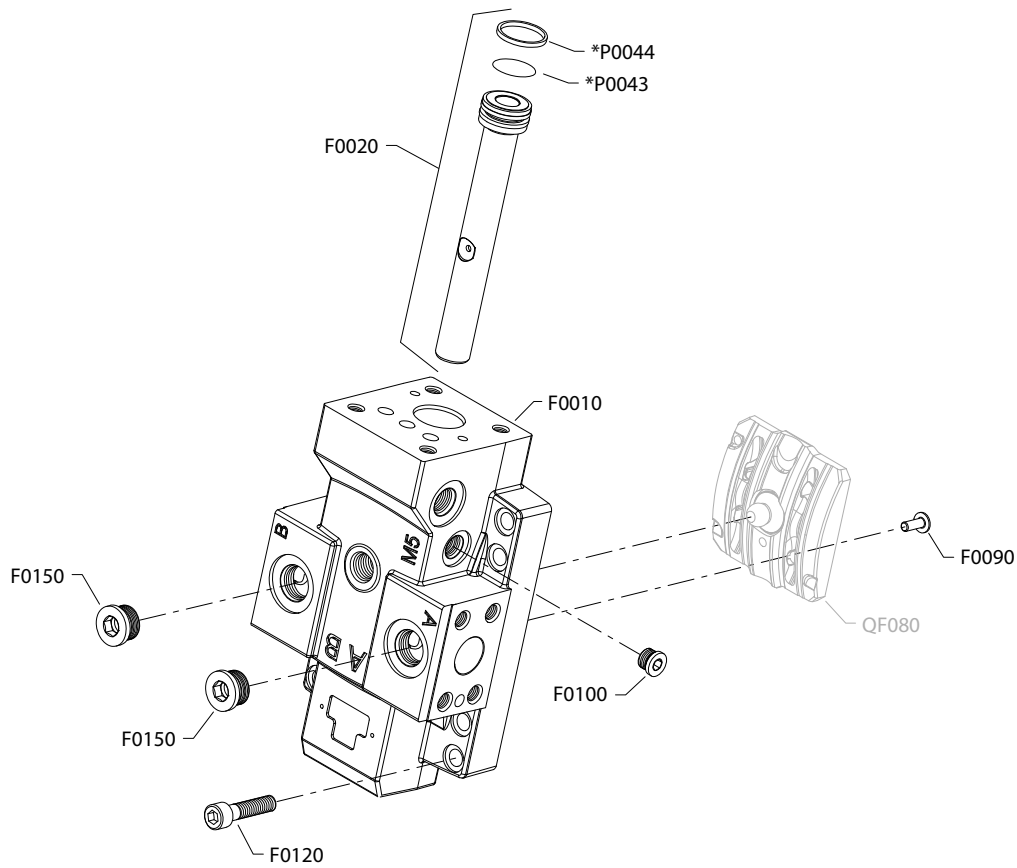
[Parts for options TB and TL are found on the next few pages.](#)

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**End cap**

**H1B end cap TB**

*TB configuration*



\* Included in overhaul seal kit Q210

This option is available in SAE and metric. Please order accordingly.

**End cap**

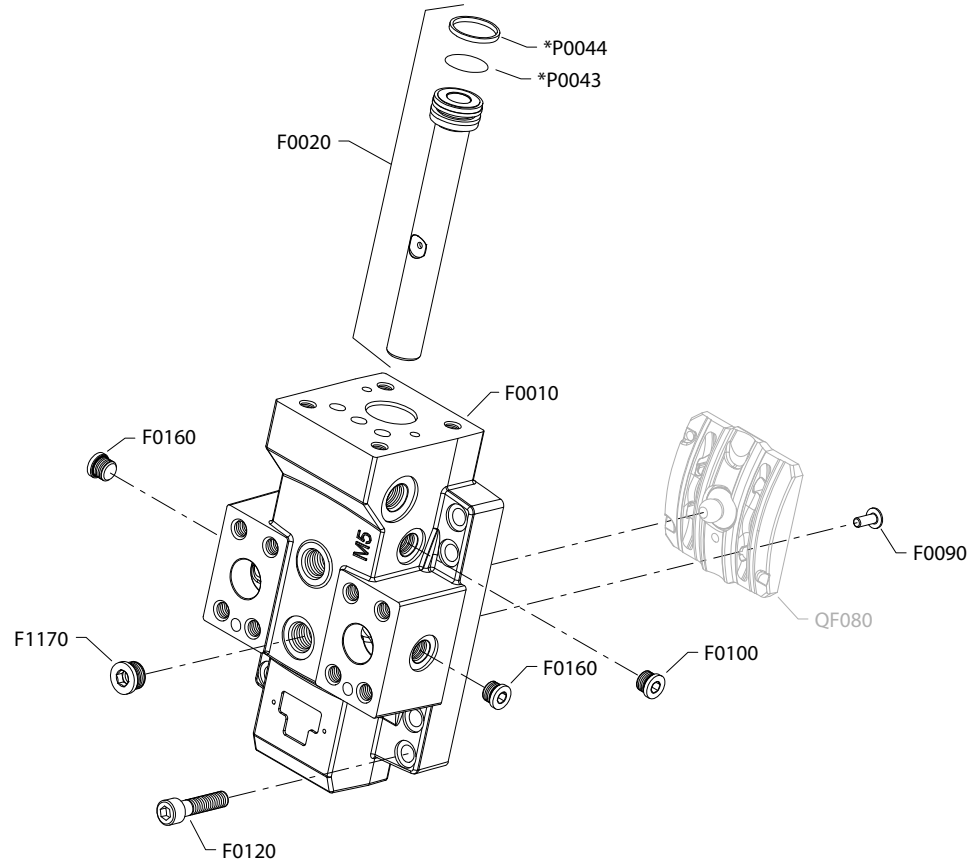
Order code: TB

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	09-31		11037522	End cap (SAE)	1
F0010	15-40		11171627	End cap (metric)	1
F0020	09-31		11043400	Servo piston	1
F0090	09-31		11014186	Button head screw	1
F0100	09-31		140644	Plug assembly (SAE)	1
F0100	16-17		11178809	Plug assembly (metric)	1
F0120	09-31		672295 (9007314-1010)	Screw, M10 x 45	8
F0150	09-31		315325 (9005110-8700)	Plug assembly	2
F0150	16-17		11178809	Plug assembly (metric)	2
P0043	09-31		504207	O-ring	1
P0044	09-31		508134	Piston ring	1
QF080	09-31	18-06	11051879	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

**End cap**

**H1B end cap TL**

*TL configuration*



\* Included in overhaul seal kit Q210

**End cap**

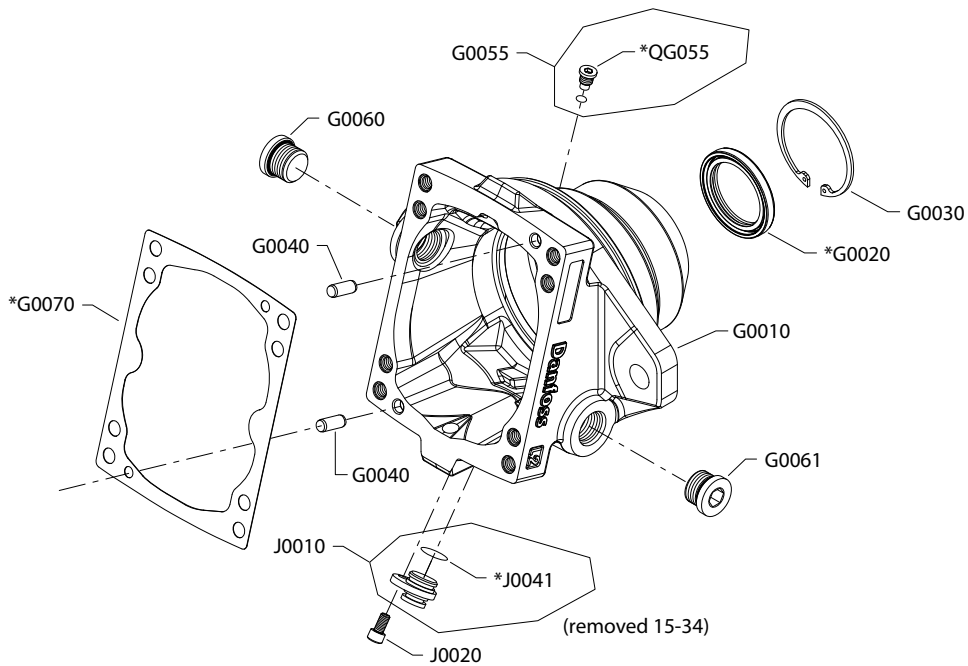
Order code: TL

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F0010	13-33		11059617	End cap, axial ports	1
F0020	13-33		11023129	Servo piston	1
F0090	13-33		11014186	Button head screw	1
F0100	13-33		140644	Plug assembly	1
F0120	13-33		672295 (9007314-1010)	Screw, M10 x 45	8
F0160	13-33		140644	Plug assembly	2
F1170	13-33		315325 (9005110-8700)	Plug assembly	1
P0043	13-33		504208	O-ring	1
P0044	13-33		508136	Piston ring	1
QF080	13-33	18-06	11051881	Valve segment assembly ( <a href="#">SB-2018-028</a> on page 95)	1

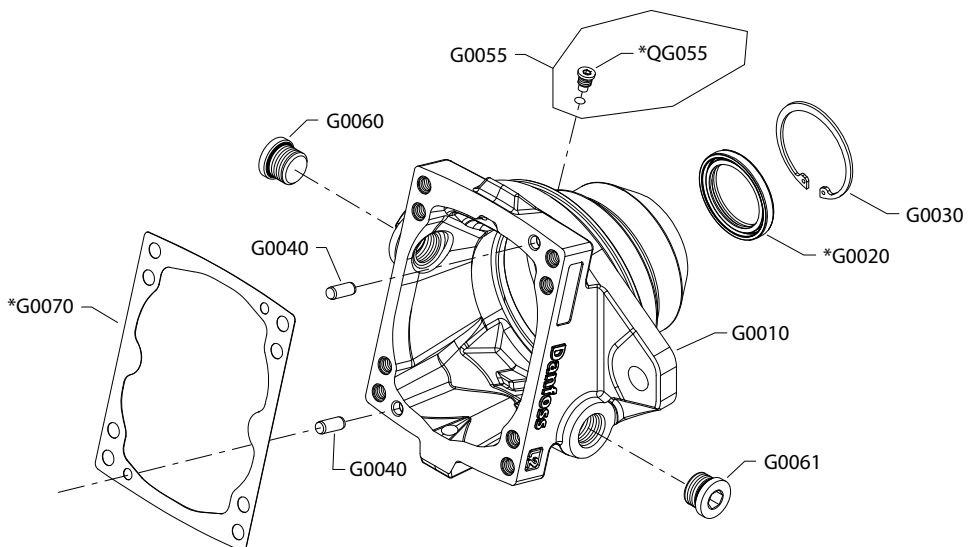
### Flange/housing

#### H1B flange/housing CN, CS

CN configuration



CS configuration



\* Included in overhaul seal kit Q210

The CS option is available in SAE and metric. Please order accordingly.

## Flange/housing

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G0020	09-31		519021	Lip seal	1
G0030	09-31		915280	Retaining ring	1
G0040	09-31		11007677	Pin	2
G0055	10-51		11056747	Bearing shaft log	1
G0055	09-31	10-50	327007 (9005110-4400)	Plug assembly	1
G0070	09-31		11007447	Gasket	1
QG055	10-51		039297 (9004201-1200)	O-ring	1

### Order code: CN

G0010	15-35		11162272	Housing, cartridge without speed sensor port	1
G0010	09-31	15-34	11078063	Housing, cartridge without speed sensor port	1
G0060	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0061	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
J0010	09-31	15-34	11013290	PPU plug assembly	1
J0020	09-31	15-34	395822 (9007315-0603)	Screw, M6 x 12	1
J0041	09-31	15-34	11013397	O-ring	1

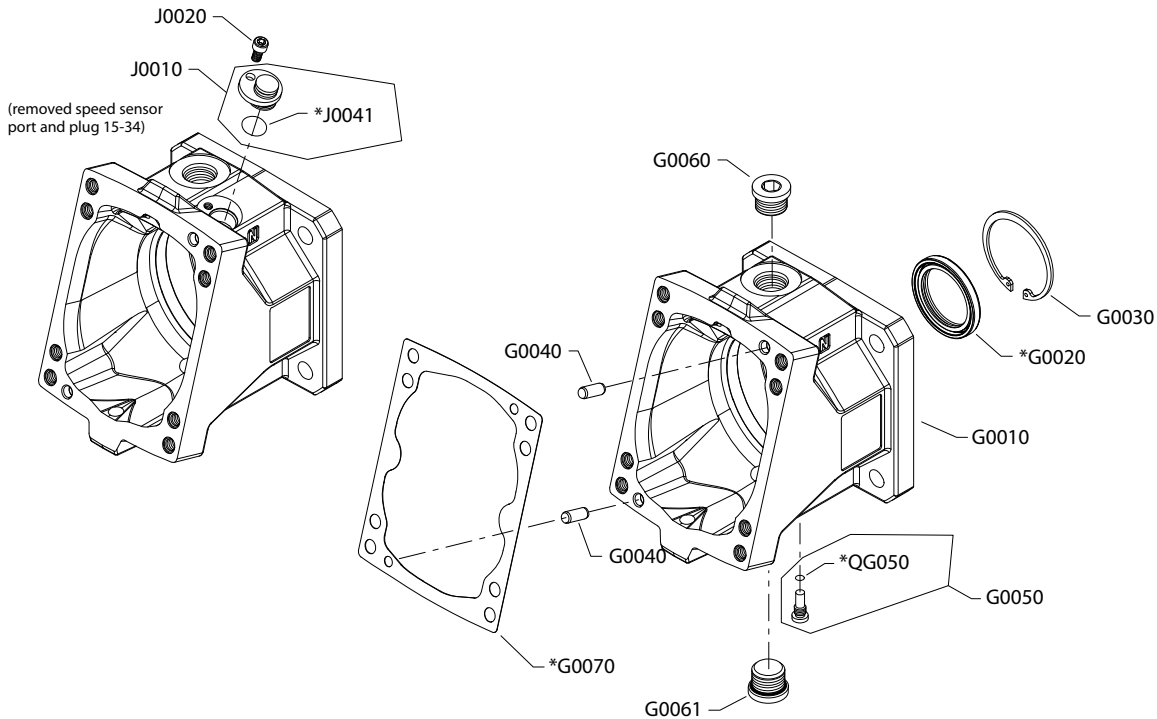
### Order code: CS

G0010	10-51		11078063	Housing, cartridge with speed sensor port (SAE)	1
G0010	15-40		11171599	Housing, cartridge with speed sensor port (metric)	1
G0060	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0060	16-17		11178809	Plug assembly (metric)	1
G0061	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0061	16-17		11178809	Plug assembly (metric)	1

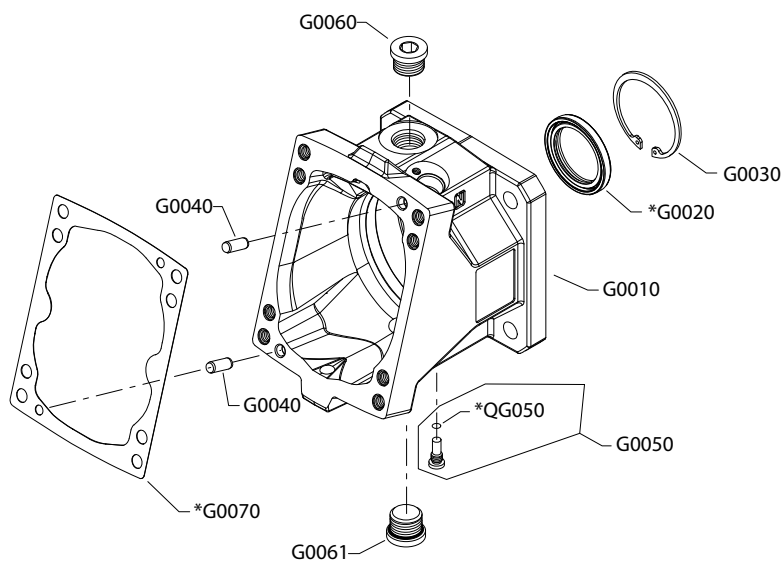
**Flange/housing**

**H1B flange/housing DN, DS**

*DN configuration*



*DS configuration*



\* Included in overhaul seal kit Q210

Option DS is available in SAE and metric configurations. Please order accordingly.



## Flange/housing

Order code: DN

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G0010	15-35		11162251	Housing, DIN flange without speed sensor port	1
G0010	09-31	15-34	11004632	Housing, DIN flange with speed sensor port	1
G0020	09-31		519021	Lip seal	1
G0030	09-31		915280	Retaining ring	1
G0040	09-31		11007677	Pin	2
G0050	10-31		11063948	Shaft locating plug assembly	1
G0050	09-31	10-30	11001378	Shaft locating plug assembly	1
G0060	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0061	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0070	09-31		11007447	Gasket	1
J0010	09-31	15-34	11013290	PPU plug assembly	1
J0041	09-31	15-34	11013397	O-ring	1
J0020	09-31	15-34	395822 (9007315-0603)	Screw, M6 x 12	1
QG050	10-31		001123 (9004201-2500)	O-ring	1
QG050	09-31	10-30	039297 (9004201-1200)	O-ring	1

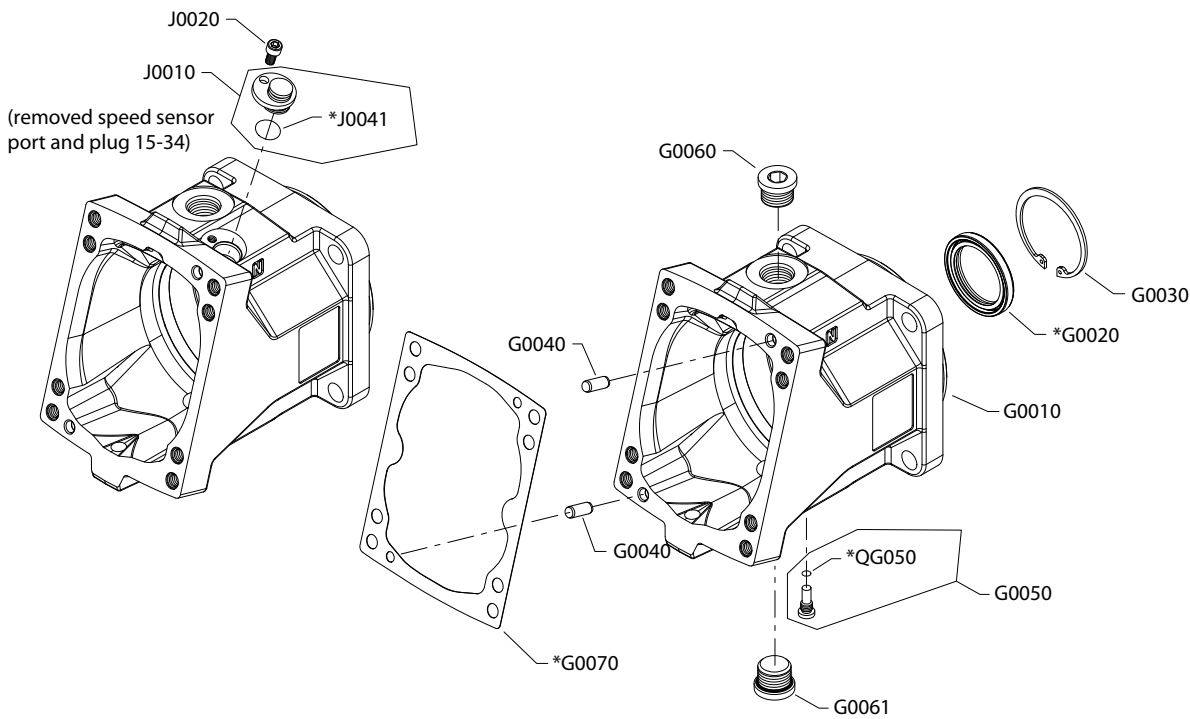
Order code: DS

G0010	10-31		11004632	Housing, DIN flange with speed sensor port	1
G0020	09-31		519021	Lip seal	1
G0030	09-31		915280	Retaining ring	1
G0040	09-31		11007677	Pin	2
G0050	10-31		11063948	Shaft locating plug assembly	1
G0050	09-31	10-30	11001378	Shaft locating plug assembly	1
G0060	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0061	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0070	09-31		11007447	Gasket	1
QG050	10-31		001123 (9004201-2500)	O-ring	1
QG050	09-31	10-30	039297 (9004201-1200)	O-ring	1

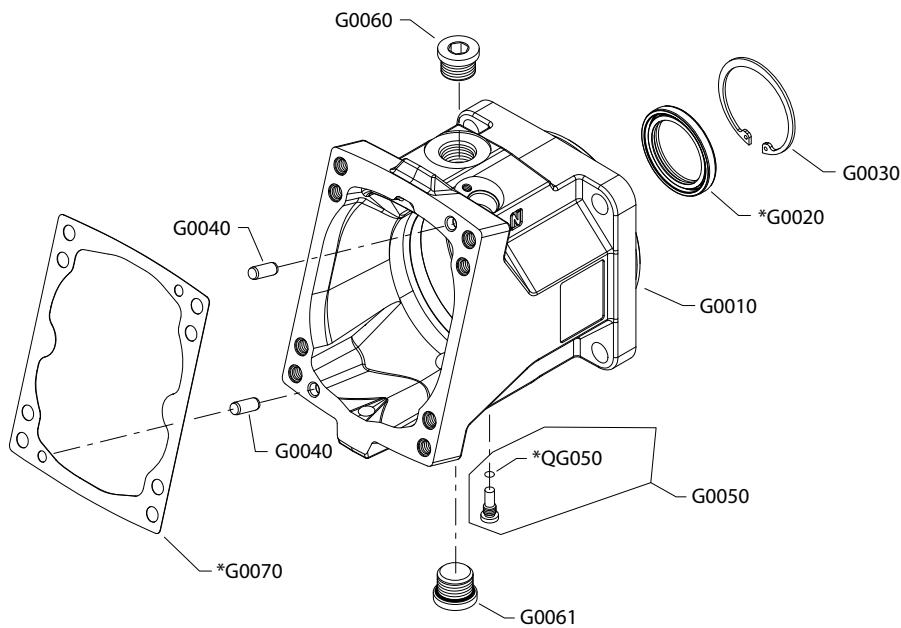
**Flange/housing**

**H1B flange/housing VN, VS**

*VN configuration*



*VS configuration*



\* Included in overhaul seal kit Q210

Option VS is available in SAE and metric configurations. Please order accordingly.

## Flange/housing

Order code: VN

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G0010	15-35		11162250	Housing, SAE flange without speed sensor port	1
G0010	09-31	15-34	11006473	Housing, SAE flange with speed sensor port	1
G0020	09-31		519021	Lip seal	1
G0030	09-31		915280	Retaining ring	1
G0040	09-31		11007677	Pin	2
G0050	10-13		11063948	Shaft locating plug assembly	1
G0050	09-31	10-12	11001378	Shaft locating plug assembly	1
G0060	09-31		315325 (9005110-8700)	Plug assembly (SAE)	2
G0061	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0070	09-31		11007447	Gasket	1
J0010	09-31		11013290	Speed sensor plug assembly	1
J0041	09-31	15-34	11013397	O-ring	1
J0020	09-31	15-34	395822 (9007315-0603)	Screw, M6 x 12	1
QG050	10-13		001123 (9004201-2500)	O-ring	1
QG050	09-31	10-12	039297 (9004201-1200)	O-ring	1

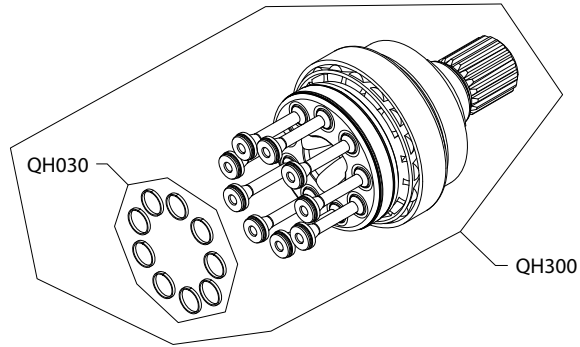
Order code: VS

G0010	10-51		11078063	Housing, cartridge with speed sensor port (SAE)	1
G0020	09-31		519021	Lip seal	1
G0030	09-31		915280	Retaining ring	1
G0040	09-31		11007677	Pin	2
G0050	10-13		11063948	Shaft locating plug assembly	1
G0050	09-31	10-12	11001378	Shaft locating plug assembly	1
G0060	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0061	09-31		315325 (9005110-8700)	Plug assembly (SAE)	1
G0070	09-31		11007447	Gasket	1
QG050	10-31		001123 (9004201-2500)	O-ring	1
QG050	09-31	10-30	039297 (9004201-1200)	O-ring	1

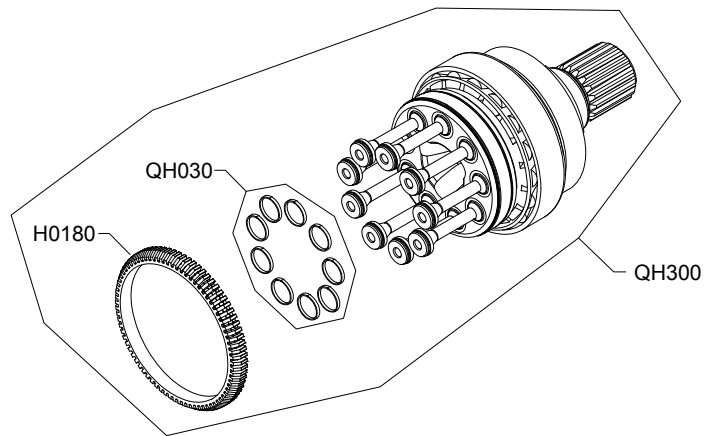
**Shaft**

**H1B 60cc shaft AN-HN, AS-HS**

*AN, BN, GN, HN configuration*



*AS, BS, GS, HS configuration*



## Shaft

Order code: AN

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
QH030	09-31		11100632	Piston ring kit	1
QH300	09-31		11050523	Shaft assembly, 14 tooth, 12/24 pitch	1

Order code: AS

H0180	09-31		11005895	Speed ring	1
QH030	09-31		11100632	Piston ring kit	1
QH300	09-31		11050522	Shaft assembly, 14 tooth, 12/24 pitch, speed ring	1

Order code: BN

QH030	13-29		11100632	Piston ring kit	1
QH300	13-29		11120999	Shaft assembly, 21 tooth, 12/24 pitch	1

Order code: BS

H0180	13-29		11005895	Speed ring	1
QH030	13-29		11100632	Piston ring kit	1
QH300	13-29		11120998	Shaft assembly, 21 tooth, 12/24 pitch, speed ring	1

Order code: GN

QH030	09-31		11100632	Piston ring kit	1
QH300	09-31		11050521	Shaft assembly, 14 tooth, DIN	1

Order code: GS

H0180	09-31		11005895	Speed ring	1
QH030	09-31		11100632	Piston ring kit	1
QH300	09-31		11050520	Shaft assembly, 14 tooth, DIN, speed ring	1

Order code: HN

QH030	09-31		11100632	Piston ring kit	1
QH300	09-31		11064303	Shaft assembly, 16 tooth, DIN	1

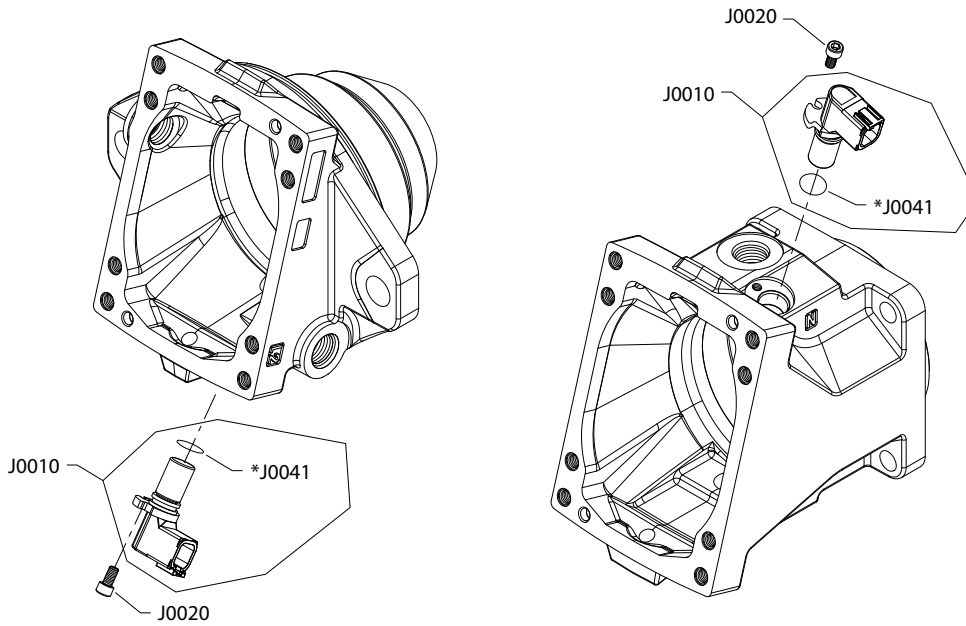
Order code: HS

H0180	09-31		11005895	Speed ring	1
QH030	09-31		11100632	Piston ring kit	1
QH300	09-31		11064305	Shaft assembly, 16 tooth, DIN, speed ring	1

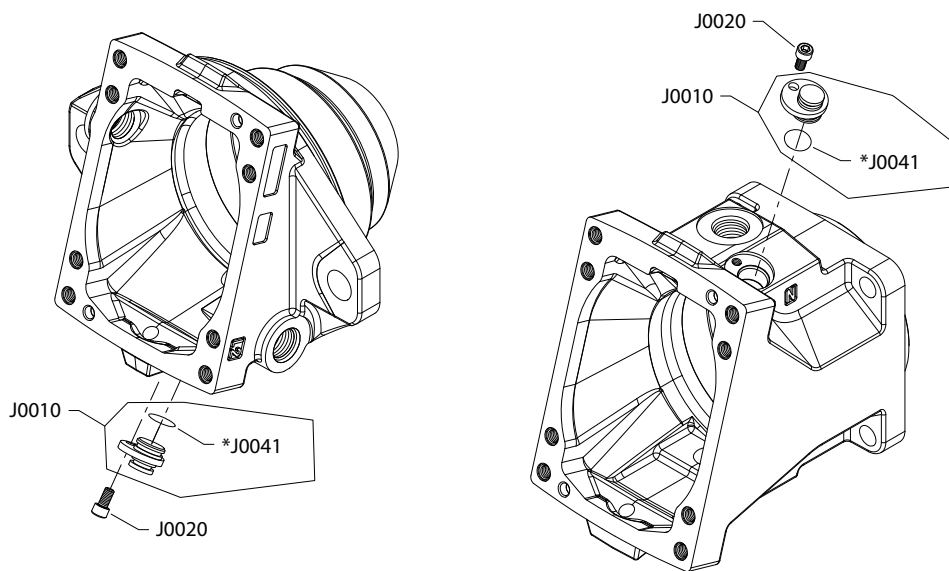
### Speed sensing

#### H1B speed sensor B, C, P, S

*B, C, S configuration*



*P configuration*



\* Included in base motor seal kit Q210

Generic housings used to show part location only.

### Speed sensing

Order code: B

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
J0010	12-15		11102032	Speed sensor assembly	1
J0020	12-15		395822 (9007315-0603)	Screw, M6 x 12	1
J0041	12-15		11013397	O-ring	1

Order code: C

J0010	14-41		11157520	Speed sensor assembly	1
J0020	14-41		395822 (9007315-0603)	Screw, M6 x 12	1
J0041	14-41		11013397	O-ring	1

Order code: N

No parts					
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Order code: P

J0010	09-31		11013290	Plug assembly	1
J0020	09-31		395822 (9007315-0603)	Screw, M6 x 12	1
J0041	09-31		11013397	O-ring	1

Order code: S

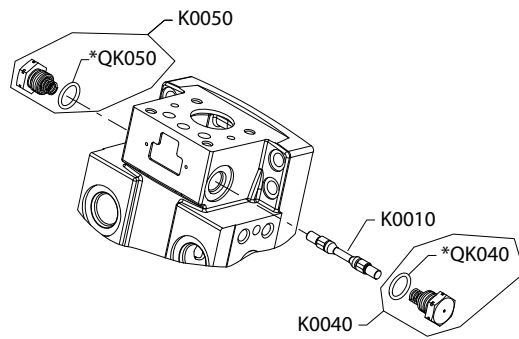
J0010	09-31		149055	Speed sensor assembly	1
J0020	09-31		395822 (9007315-0603)	Screw, M6 x 12	1
J0041	09-31		11013397	O-ring	1

**Loop flushing**

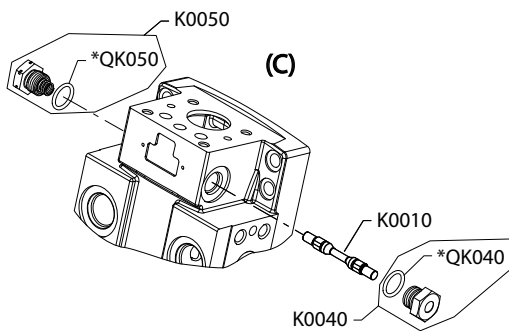
**H1B loop flushing A-N**

Parts configuration

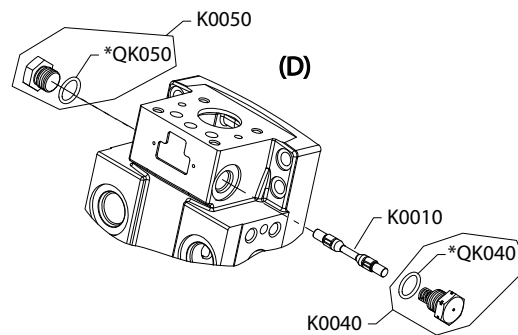
**(A & N)**



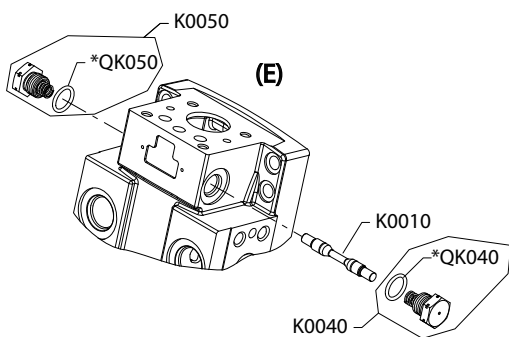
**(C)**



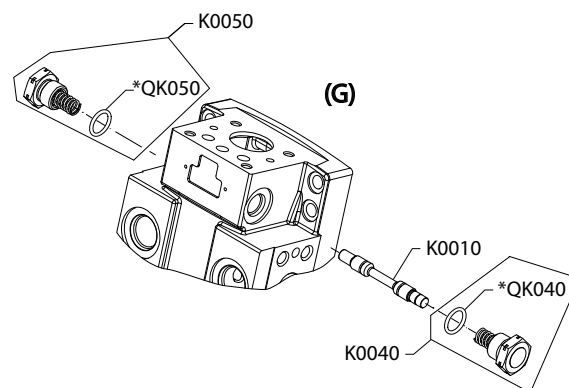
**(D)**



**(E)**



**(G)**



\* Included in base motor seal kit Q210



## Loop flushing

Order code: A and N

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K0010	09-31		11031106	Spool	1
K0040	09-31		11160780	Plug/spring assembly	1
K0050	09-31		11160780	Plug/spring assembly	1
QK040	09-31		149052	O-ring	1
QK050	09-31		149052	O-ring	1

Order code: C

K0010	12-15		11031106	Spool	1
K0040	12-15		11115123	Plug/spring assembly	1
K0050	12-15		11160780	Plug/spring assembly	1
QK040	12-15		149052	O-ring	1
QK050	12-15		149052	O-ring	1

Order code: D

K0010	12-15		11031106	Spool	1
K0040	12-15		11160780	Plug/spring assembly	1
K0050	12-15		11115123	Plug/spring assembly	1
QK040	12-15		149052	O-ring	1
QK050	12-15		149052	O-ring	1

Order code: E

K0010	14-41		11157411	Spool	1
K0040	14-41		11160780	Plug/spring assembly	1
K0050	14-41		11160780	Plug/spring assembly	1
QK040	14-41		149052	O-ring	1
QK050	14-41		149052	O-ring	1

Order code: G

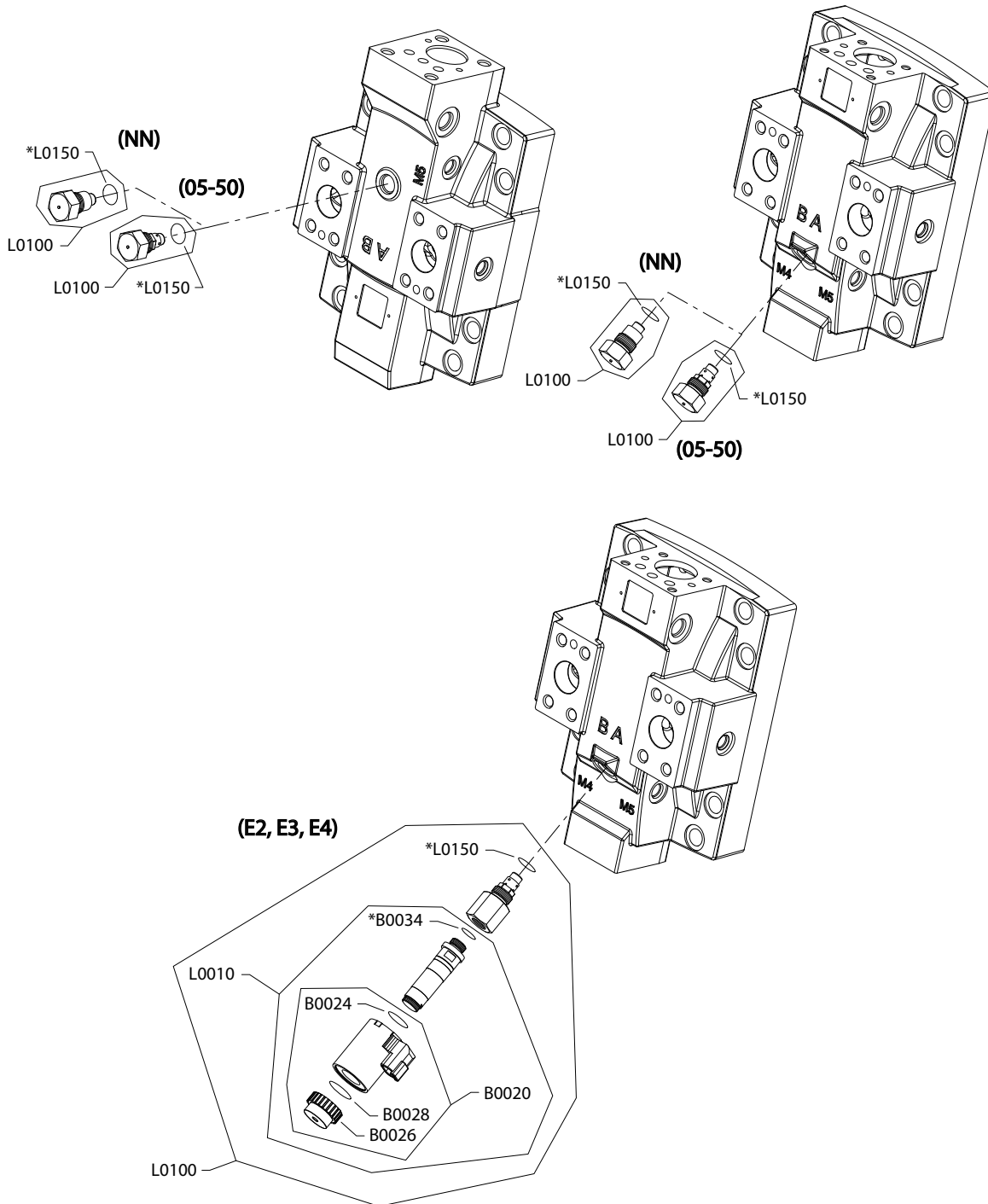
K0010	16-32		11181360	Spool	1
K0040	16-32		11181359	Plug/spring assembly	1
K0050	16-32		11181359	Plug/spring assembly	1
QK040	16-32		149052	O-ring	1
QK050	16-32		149052	O-ring	1

[For order code N, please refer to order code A.](#)

**Loop flushing**

**H1B loop flushing 05-50**

Parts configuration



Generic end caps shown

\* Included in overhaul seal kit Q210

### Loop flushing

Order code: 05

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L0100	09-31		11008698	Loop flushing relief valve, 5L/min	1
L0150	09-31		149052	O-ring	1

Order code: 10

L0100	09-31		11003448	Loop flushing relief valve, 10L/min	1
L0150	09-31		149052	O-ring	1

Order code: 15

L0100	09-31		11003450	Loop flushing relief valve, 15L/min	1
L0150	09-31		149052	O-ring	1

Order code: 20

L0100	09-31		11001676	Loop flushing relief valve, 20L/min	1
L0150	09-31		149052	O-ring	1

Order code: 30

L0100	13-23		11008700	Loop flushing relief valve, 30L/min	1
L0150	13-23		149052	O-ring	1

Order code: 40

L0100	13-23		11008701	Loop flushing relief valve, 40L/min	1
L0150	13-23		149052	O-ring	1

Order code: 50

L0100	13-23		11001697	Loop flushing relief valve, 50L/min	1
L0150	13-23		149052	O-ring	1

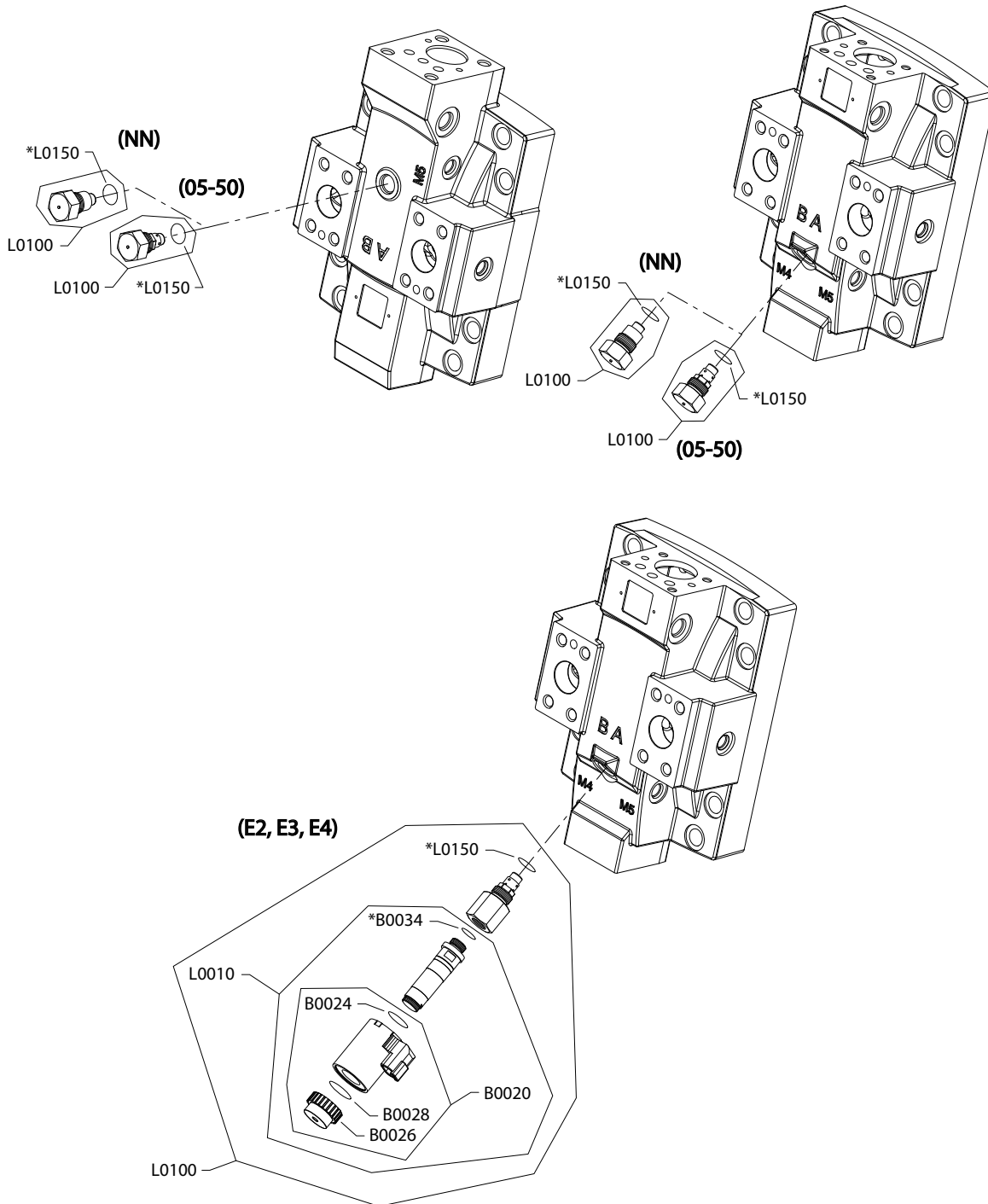
[Part numbers for options E2, E3, E4, and NN are continued on the next page.](#)

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**Loop flushing**

**H1B loop flushing E2, E3, E4, NN**

*Parts configuration*



Generic end caps shown

\* Included in overhaul seal kit Q210

### Loop flushing

Order code: E2

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B0024	13-23		11031608	O-ring	1
B0026	13-23		11027046	Coil nut	1
B0028	13-23		063172	O-ring	1
B0034	13-23		085043 (9004201-3700)	O-ring	1
C2000	13-23		11031763	Coil kit, 12 volt	1
L0100	13-23		11096763	Loop flushing relief valve, 12v, 10L/min	1
L0150	13-23		149052	O-ring	1
L1000	13-23		11013615	Solenoid valve, 12v	1

Order code: E3

B0024	13-23		11031608	O-ring	1
B0026	13-23		11027046	Coil nut	1
B0028	13-23		063172	O-ring	1
B0034	13-23		085043 (9004201-3700)	O-ring	1
C2000	13-23		11031763	Coil kit, 12 volt	1
L0100	13-23		11096763	Loop flushing relief valve, 12v, 10L/min	1
L0150	13-23		149052	O-ring	1
L1000	13-23		11013615	Solenoid valve, 12v	1

Order code: E4

B0024	16-06		11031608	O-ring	1
B0026	16-06		11027046	Coil nut	1
B0028	16-06		063172	O-ring	1
B0034	16-06		085043 (9004201-3700)	O-ring	1
C2000	16-06		11031763	Coil kit 12 volt	1
L0150	16-06		149052	O-ring	1
L0100	16-06		11175555	Loop flushing relief valve, 12v, 20L/min	1
L1000	16-06		11013615	Solenoid valve, 12v	1

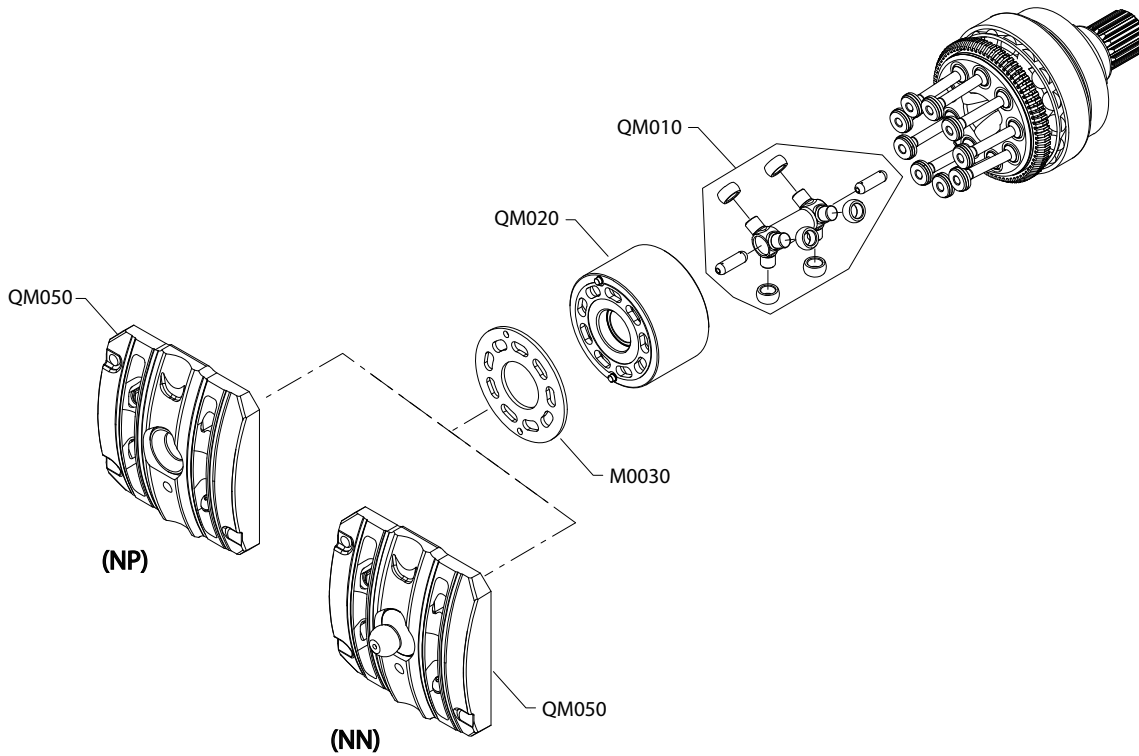
Order code: NN

L0100	09-31		11027278	Plug assembly	1
L0150	09-31		149052	O-ring	1

**Special hardware and displacement**

**H1B 60cc special hardware NN, NP**

*Parts configuration*



**Special hardware and displacement**

*Order code: NN*

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
M0030	09-31		515366	Bearing plate	1
QM010	09-31		11051897	Synch shaft assembly	1
QM020	09-31		11051891	Cylinder block assembly	1
QM050	18-06		11051879	Valve segment assembly (2-position)	1

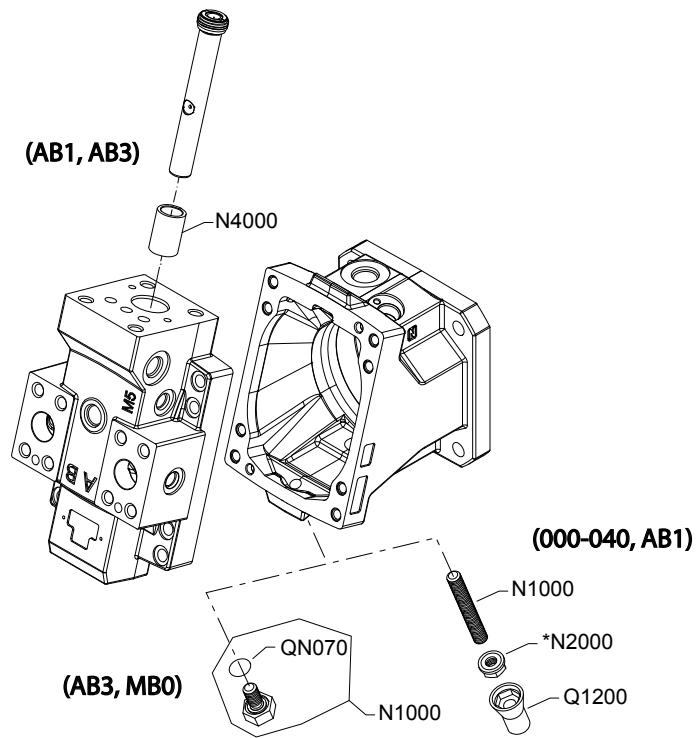
*Order code: NP*

M0030	09-31		515366	Bearing plate	1
QM010	09-31		11051897	Synch shaft assembly	1
QM020	09-31		11043127	Cylinder block assembly	1
QM050	18-06		11051880	Valve segment assembly (proportional)	1

**Special hardware and displacement**

**H1B 60cc minimum displacement**

*Parts configuration*



\* Included in overhaul seal kit Q210



### Special hardware and displacement

Order code: 000-019

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N1000	09-31		11012777	Set screw, 0-19cc, M12 x 65mm	1
N2000	09-31		076042	Seal nut, M12	1
Q1200	09-31		770842	Plastic cap, green	1

Order code: 020-040

N1000	09-31		076109	Set screw, 20-40cc, M12 x 80mm	1
N2000	09-31		076042	Seal nut, M12	1
Q1200	09-31		770842	Plastic cap, green	1

Order code: AB1

N1000	14-27		11106517	Set screw, 43cc, M12 x 40mm	1
N2000	14-27		076042	Seal nut, M12	1
N4000	14-27		11147463	Spacer, 38.42mm	1
Q1200	14-27		770842	Plastic cap, green	1

Order code: AB3

N1000	15-14		11161812	Plug assembly	1
N4000	15-14		11163281	Spacer, 17.34mm	1
QN070	15-14		11001952	O-ring	1

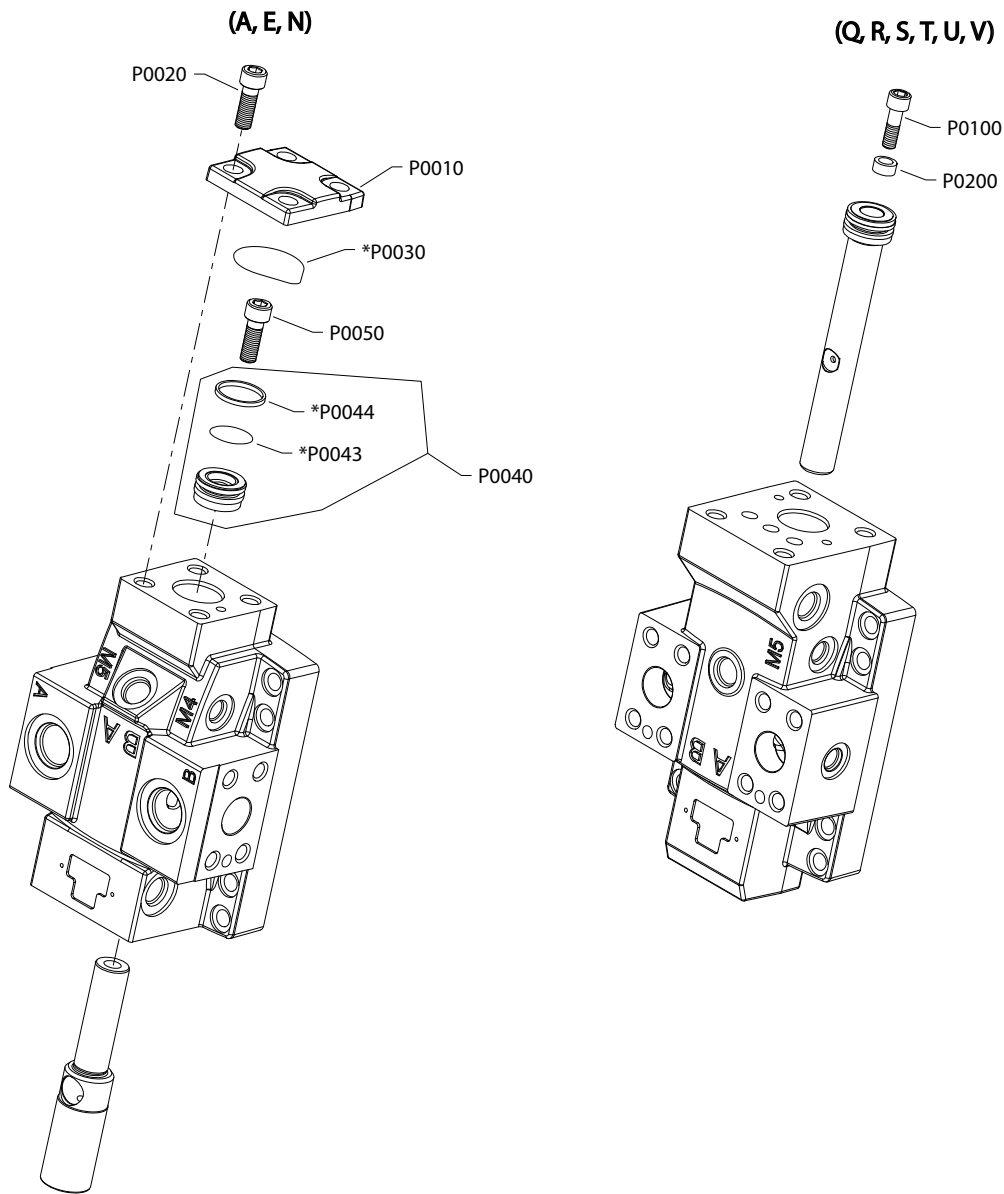
Order code: MB0

N1000	15-14		11161812	Plug assembly	1
QN070	15-14		11001952	O-ring	1

**Special hardware and displacement**

**H1B 60cc max displacement A, E, N, Q-V**

*Parts configuration*



\* Included in overhaul seal kit Q210

### Special hardware and displacement

**!** **Caution**

During removal of screw (P0050) and set screw (F0070), the servo piston assembly will be subjected to high torque and may create a pinch point for fingers. Use caution when disassembling these components from the servo piston. For more information, see [SB-2019-017](#) on page 96.

*Order code: A*

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
P0010	09-31		11001110	Servo piston cover	1
P0020	09-31		737866 (9007314-1207)	Screw, M12 x 30	4
P0030	09-31		11050757	O-ring	1
P0040	09-31		11182412	Servo piston assembly	1
P0043	09-31		504207	O-ring	1
P0044	09-31		508134	Piston ring	1
P0050	09-31		293225 (9007314-1007)	Screw, M10 x 30	1

*Order code: E*

P0010	19-14		11001110	Servo piston cover	1
P0020	19-14		737866	Screw, M12 x 30	4
P0030	19-14		11050757	O-ring	1
P0040	19-14		11234140	Servo piston assembly	1
P0043	19-14		504207	O-ring	1
P0044	19-14		508134	Piston ring	1
P0050	19-14		293225	Screw, M10 x 30	1

*Order code: N*

P0010	09-31		11001110	Servo piston cover	1
P0020	09-31		737866 (9007314-1207)	Screw, M12 x 30	4
P0030	09-31		11050757	O-ring	1
P0040	09-31		11043408	Servo piston assembly	1
P0043	09-31		504207	O-ring	1
P0044	09-31		508134	Piston ring	1
P0050	09-31		293225 (9007314-1007)	Screw, M10 x 30	1

*Order code: Q*

P0100	13-09		506969	Screw, M8 x 25	1
P0200	13-09		11064423	Spacer, 3.1mm	1

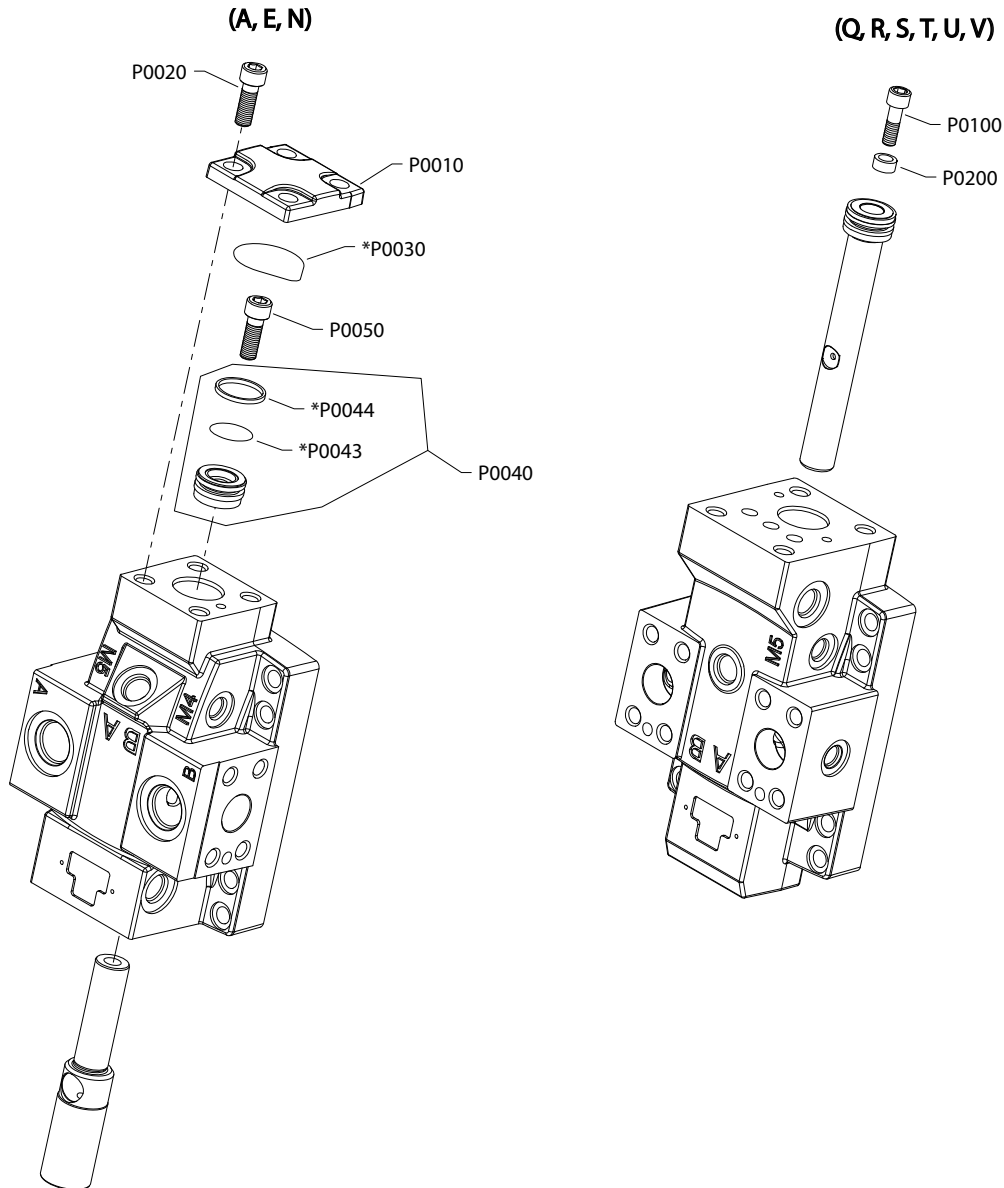
*Order code: R*

P0100	11-26		506969	Screw, M8 x 25	1
P0200	11-26		11101077	Spacer, 5.9mm	1

[Part numbers continue to the next two pages.](#)

**Special hardware and displacement**

*Parts configuration*



\* Included in overhaul seal kit Q210

### Special hardware and displacement

**⚠ Caution**

During removal of screw (P0050) and set screw (F0070), the servo piston assembly will be subjected to high torque and may create a pinch point for fingers. Use caution when disassembling these components from the servo piston. For more information, see [SB-2019-017](#) on page 96.

Order code: S

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
P0100	09-36		506969	Screw, M8 x 25	1
P0200	09-36		11068564	Spacer, 8.8mm	1

Order code: T

P0100	17-45		506969	Screw, M8 x 25	1
P0200	17-45		11038079	Spacer, 11.5 mm	1

Order code: U

P0100	10-27		710855	Screw, M8 x 35	1
P0200	10-27		11086826	Spacer, 14.6mm	1

Order code: V

P0100	13-09		149064	Screw, M8 x 40	1
P0200	13-09		11001123	Spacer, 20.5mm	1

**Overhaul seal kit**

**H1B 60cc seal kit**

*Seal kit*

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
Q210	09-31		11172537	Overhaul seal kit, H1B060	1
B0034	09-31		085043 (9004201-3700)	O-ring, 11.89 x 1.98, nitrile	2
B0035	09-31		11001952	O-ring, 18.00 x 1.50, nitrile	1
C0130	09-31		149040	Control seal	1
C0130	09-31		11016168	Control seal, 2-position	1
G0020	09-31		519021	Lip seal	1
G0070	09-31		11007447	End cap gasket, H1B060	1
J0041	09-31		11013397	O-ring, 15.60 x 1.78, nitrile	1
L0150	09-31		149052	O-ring, 15.30 x 2.20, nitrile	1
M223	09-31		085043 (9004201-3700)	O-ring, 11.89 x 1.98, nitrile	1
M224	09-31		11197086	O-ring, 6.07 x 1.78, viton	1
N2000	09-31		076042	Seal nut, M12	1
P0030	09-31		11050757	O-ring, 47.00 x 3.00, nitrile	1
P0043	09-31		504207	O-ring, 20.29 x 2.62, nitrile	1
P0044	09-31		508134	Piston ring	1
Q1200	09-31		770842	Plastic cap, green	1
QC160	09-31		039297 (9004201-1200)	O-ring, 6.07 x 1.63, nitrile	1
QG050	09-31		001123 (9004201-2500)	O-ring, 8.92 x 1.83, nitrile	1
QG055	09-31		039297 (9004201-1200)	O-ring, 6.07 x 1.63, nitrile	1
QK040	09-31		149052	O-ring, 15.30 x 2.20, nitrile	1
QK050	09-31		149052	O-ring, 15.30 x 2.20, nitrile	1

**Service bulletin**

**SB-2018-028**

**Products affected**

H1B motors

**Subject**

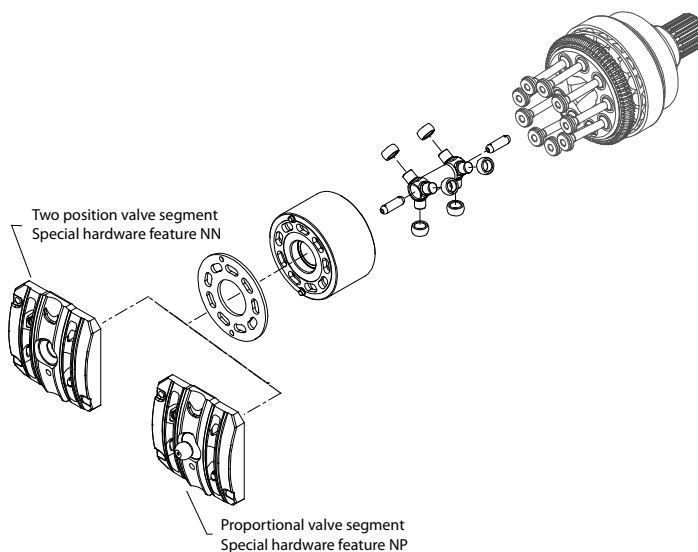
Parts manual change for valve segment assembly

**Description**

Danfoss has reorganized topics in the Parts Manual for H1B 60cc, 80cc, 110cc, 160cc, 210cc and 250cc motors. The valve segment assembly (Item QF080) has been moved to the "Special Hardware/Common Parts" section (Option M). It was formerly located in the "End Cap" section (Option F).

Because of the move, 2-position and proportional valve segments will need to be included in their own order code designation. The order code for 2-position valve segments will be NN and the order code for proportional valve segments will be NP.

Part numbers have not changed.



**Models affected**

H1B 60, 80, 110, 160, 210 and 250cc motors

**Serial numbers**

This change became effective at 18-12-xxxxx

**Part number affected**

Not applicable

**Parts disposition**

Not applicable

**Service bulletin**

**SB-2019-017**

**Products affected**

H1 Bent Axis Motors Size 060/080/110/160/210/250

**Subject**

Potential injury risk on motors with proportional control servo systems

**Description**

Danfoss Power Solutions has identified a potential safety concern when performing disassembly and reassembly of the H1B bent axis motors. Specifically, when removing and installing the servo piston assembly, it is important the instructions as documented within the *H1B Bent Axis Variable Displacement Motors Repair Instructions* (document 11020692) are strictly followed.

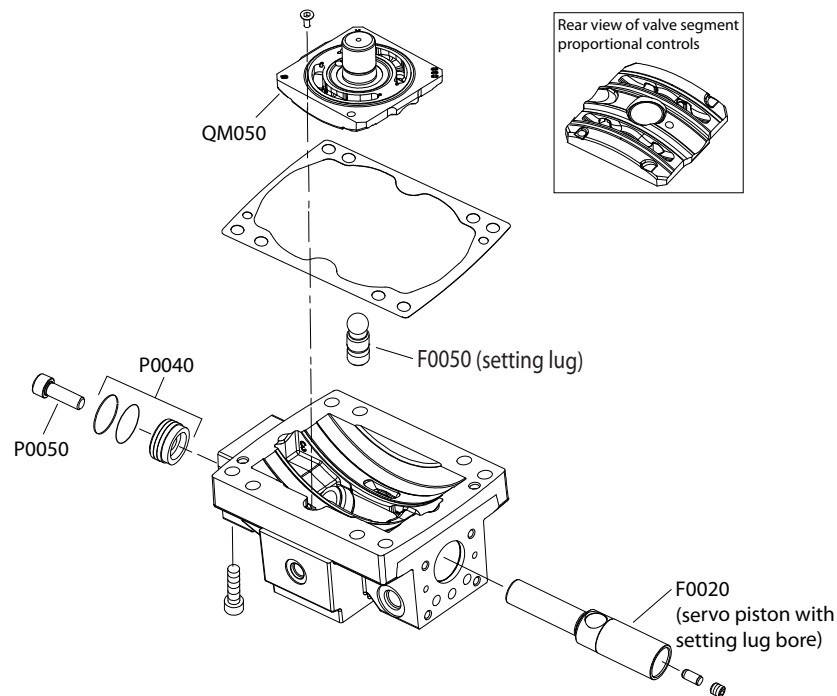
**! Caution**

**Failure to follow these instructions while performing a repair can result in a severe laceration or finger amputation injury.**

Injury may occur if the removal of the servo piston bolt (P0050) is performed after the end cap has been removed along with the valve segment (QM050) and setting lug (F0050). If torque is applied to the servo piston bolt (P0050) while an operator's fingers are in proximity to the empty and exposed setting lug bore, a severe laceration or finger amputation injury may occur.

The risk of injury is also present during the reassembly of the servo piston assembly (P0040 and F0020) in the end cap. If torque is applied to the servo piston bolt (P0050) while an operator's fingers are in the proximity to the empty and exposed setting lug bore, a severe laceration or finger amputation injury may occur.

It is important that the setting lug and valve segment (QM050) are properly installed prior to installing and torquing the servo piston bolt (P0050).





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