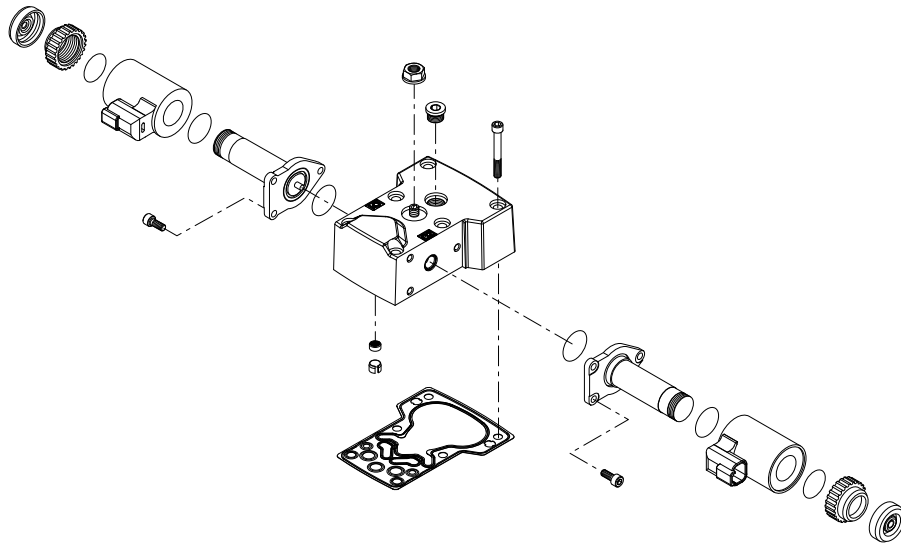


Parts Manual

# Variable Displacement Pump

## H1P 69 and 78cc



**Revision history**

*Table of revisions*

<b>Date</b>	<b>Changed</b>	<b>Rev</b>
February 2019	Added various new options	0707
November 2018	Added control options T6, T7, T8 and T9	0706
September 2018	Added control options H2 and H3	0705
May 2018	Added new orifice option and control option	0704
April 2018	Added control options H6, H7, H8 and H9	0703
February 2018	Updated to Engineering Tomorrow format	0702

## Contents

### General information

Service Parts Identification.....	5
Nameplate.....	5
Date code.....	6
About service bulletins.....	6
Procedure to identify a part.....	7
Regional part numbers.....	7
Example of a part identification (H1P 69/78).....	7
Adobe Acrobat 2-page viewing.....	8
Order code.....	9

### Common parts and special hardware

Special hardware H1, M1, P1.....	10
Special hardware M2-P4.....	12
Special hardware NN, PN.....	14

### Controls

Control A2, A3.....	16
Control A4, A5.....	18
Control A6.....	20
Control A7.....	22
Control A8.....	24
Control A9, B1.....	26
Control B5.....	28
Control B7.....	30
Control B8.....	32
Control B9.....	34
Control C1.....	36
Control C2.....	38
Control C3.....	40
Control C9, D1.....	42
Control E2.....	44
Control E5.....	46
Control E6, E7.....	48
Control E8.....	50
Control E9.....	52
Control F1, F2.....	54
Control F4.....	56
Control H2, H3.....	58
Control H6, H7.....	60
Control H8, H9.....	62
Control M1, M2.....	64
Control M3, M4.....	66
Control M5, M6.....	68
Control N1, N2.....	70
Control N3, N4.....	72
Control N5, N6.....	74
Control N7, N8.....	76
Control ND, NN.....	78
Control P5.....	80
Control P6, P7.....	82
Control P8, P9.....	84
Control R1, R2.....	86
Control R3.....	88
Control R4.....	90
Control R5.....	92
Control S6.....	94
Control S7.....	96
Control T6, T7.....	98
Control T8, T9.....	100

## Contents

	Control U1.....	102
<b>Displacement limitation</b>	Displacement limitation B-N.....	104
<b>Orifice</b>	Orifice C-D.....	106
<b>End cap</b>	End cap D3, D6.....	110
	End cap D8, F4.....	112
	End cap F5, F6.....	114
	End cap G1, G9.....	116
	End cap H2.....	118
<b>Housing</b>	Housing H, K.....	120
<b>Shaft</b>	Shaft F1-G9.....	122
<b>Auxiliary mounting</b>	Auxiliary mounting E4-NN.....	124
	Auxiliary mounting K5, S1.....	128
<b>High pressure setting</b>	F01-J45 (port A).....	130
	K18-K48 (A port).....	132
	L15-L33 (A port).....	136
	L35-L48 (A port).....	138
	S45 (A port).....	140
	F01-J45 (B port).....	142
	K18-K48 (B port).....	144
	L15-L31 (B port).....	148
	L33-L48 (B port).....	150
	S45 (B port).....	154
<b>Charge pump</b>	Charge pump C-N.....	156
<b>Filtration</b>	Filtration E-P.....	158
<b>Charge pressure relief</b>	Charge pressure relief 18-34.....	160
<b>Overhaul seal kit</b>	H1P 69/78cc seal kit.....	162
<b>Service bulletins</b>	SB-2007-033.....	163
	SB-2008-038.....	165
	SB-2008-040.....	167
	SB-2009-007.....	168
	SB-2009-046.....	170
	SB-2009-068.....	172
	SB-2012-009.....	174
	SB-2012-015.....	175
	SB-2013-003.....	176
	SB-2013-019.....	178
	SB-2015-035.....	179
	SB-2016-033.....	181
	SB-2018-004.....	182
	SB-2018-025.....	184

## 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.

### 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.

## General information

### 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 a part identification (H1P 69/78)

The nameplate on an H1 pump has an order code of H1P78L A A A2 C2 N F5 H G1 H6 L 33 L 33 C P 28 NN C07 NNN. Use the following procedures to determine the part number of the drive shaft used on this pump.

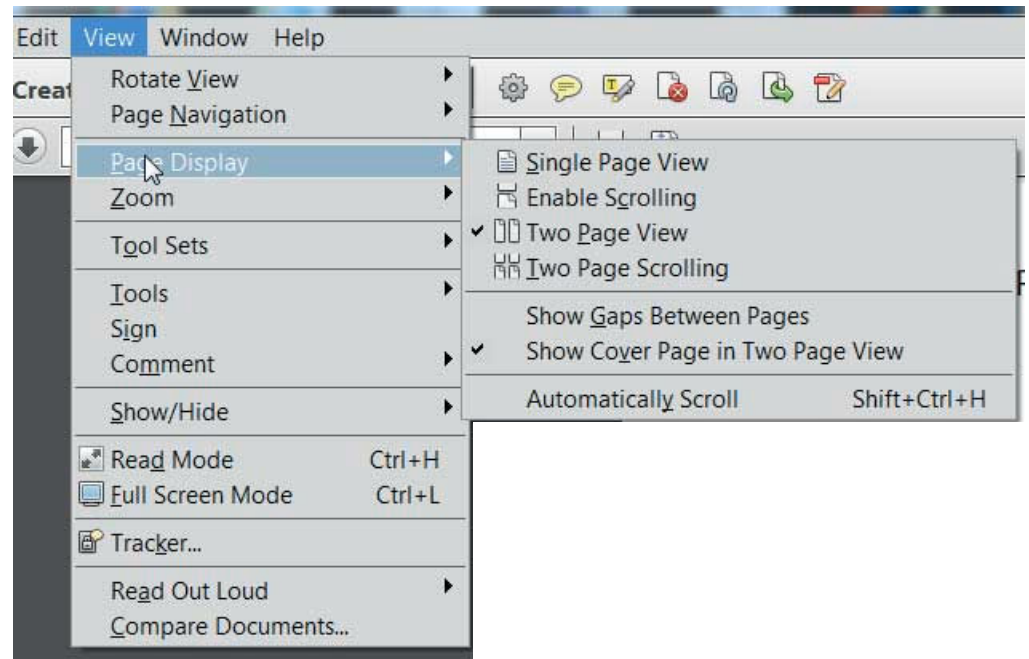
1. Referring to the input shaft module in the [Order code](#) on page 9, the input shaft option for this pump is identified by the code "G1". (H1P78L A A A2 C2 N F5 H G1H6 L 33 L 33 C P 28 NN C07 NNN).
2. Referring to the Service Parts List, find the shaft group. Next find the order code that relates to this unit, which is "G1". The shaft is found to be item J100 and part number 11112174.

## 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.

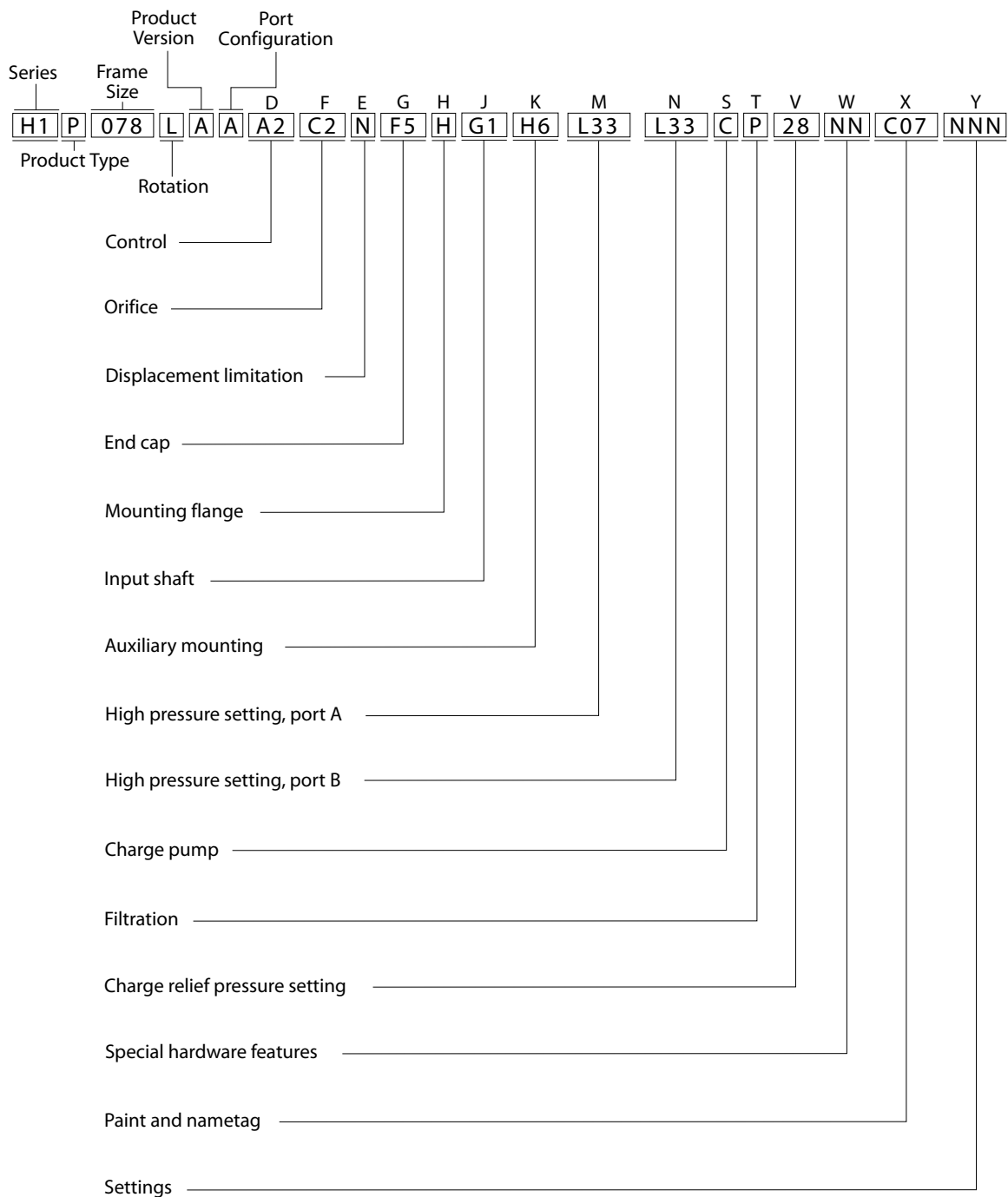
1. Select "View" → "Page Display" → "Two Page View"
2. Select "View" → "Page Display" → "Show Cover Page in Two Page View"





**General information**

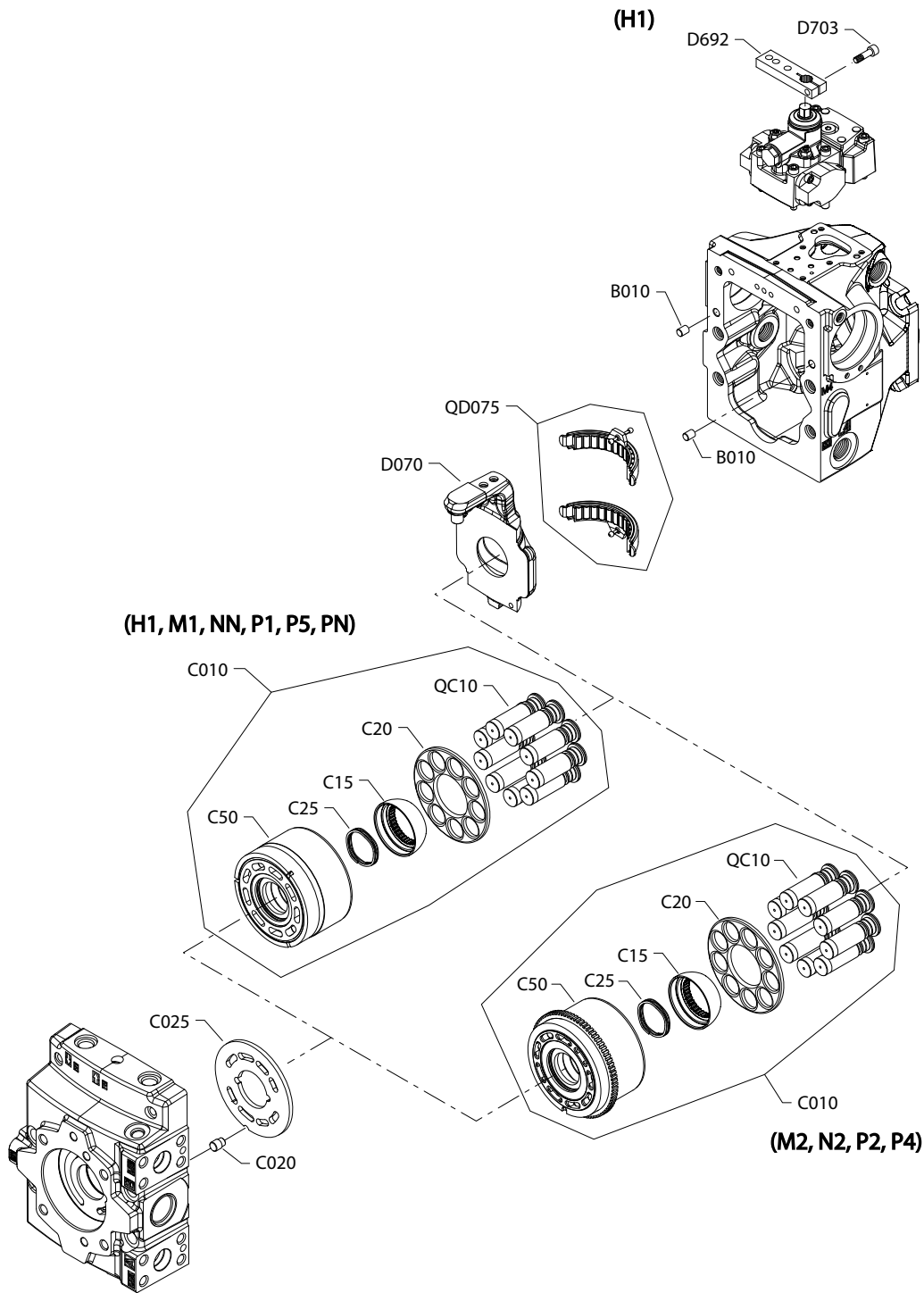
**Order code**



**Common parts and special hardware**

**H1P 69/78cc special hardware H1, M1, P1**

*Parts configuration*



Generic control and housing used to show part location only.

Option M5 is replaced with PN for pumps with EDC or FNR control, and replaced with option P1 for pumps with NFPE control.

## Common parts and special hardware

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B010	07-14		9004800-3708	Dowel pin	2
C020	07-14		141128	Valve plate pin, CCW	1
C020	07-14		141126	Valve plate pin, CW	1
C15	17-47		11148925	Slipper retainer ball guide ( <a href="#">SB-2018-004</a> on page 182)	1
C20	07-14		140770	Slipper retainer	1
C25	11-41		11187155	Spring washer	1
C25	07-14	11-40	11091044	Slipper retainer ball guide/spring washer replacement kit	1
D070	07-14		11105985	Swashplate	1
QC10	12-49		11089754	Slipper/piston kit, 69cc	1
QC10	07-14		11026146	Slipper/piston kit, 78cc	1
QD075	07-14		11008670	Swashplate bearing kit	1

### Order code: H1

C50	13-28		11124482	Cylinder block assembly, 69cc	1
C50	13-28		11124484	Cylinder block assembly, 78cc	1
C010	17-47		11189989	Cylinder block kit, 69cc ( <a href="#">SB-2018-004</a> on page 182)	1
C010	17-47		11189990	Cylinder block kit, 78cc ( <a href="#">SB-2018-004</a> on page 182)	1
C025	13-28		11125562	Valve plate, CCW	1
C025	13-28		11125564	Valve plate, CW	1
D692	13-28		11185938	Control handle	1
D703	13-28		11173701	Screw, M6 x 20	1

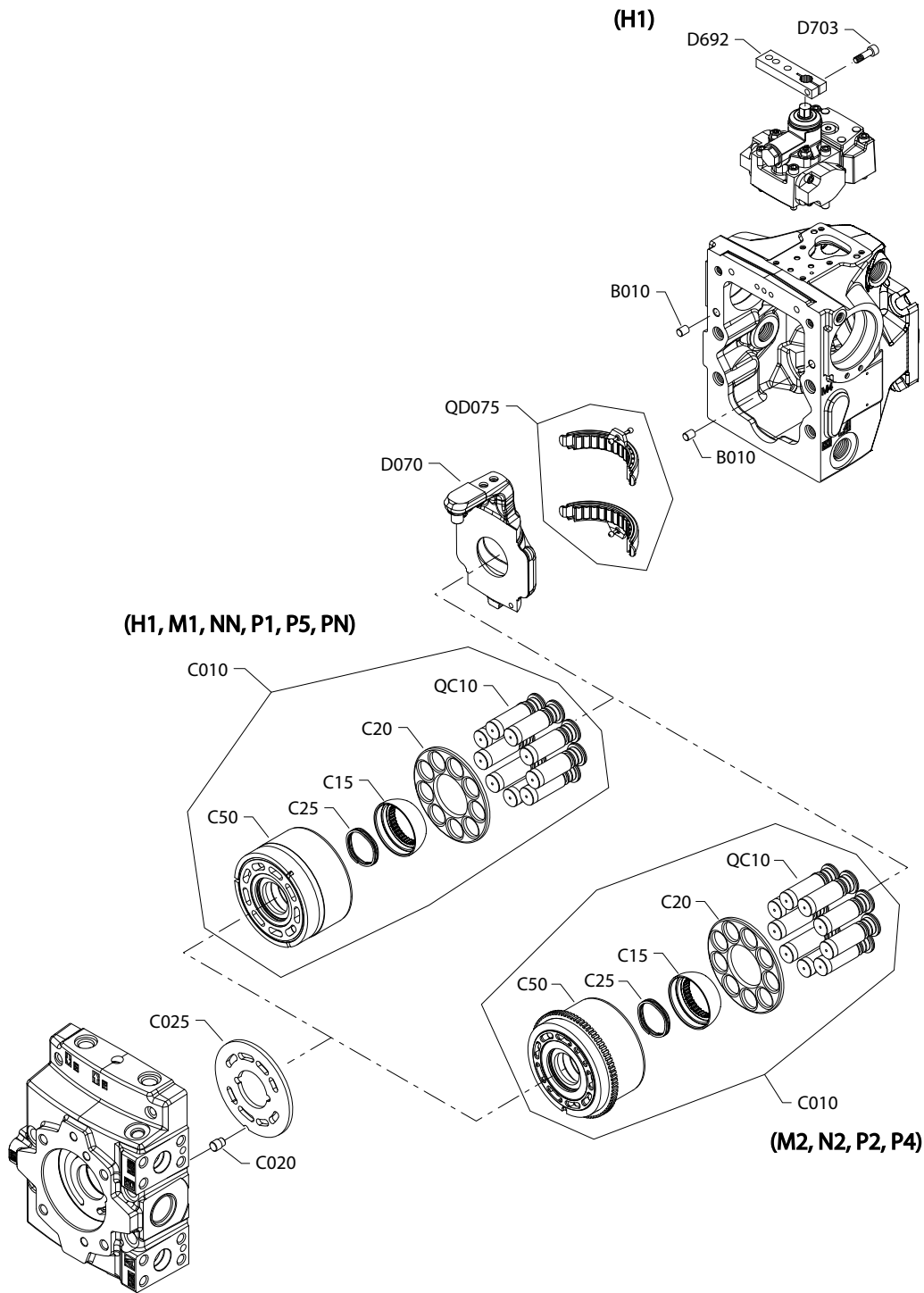
### Order code: M1, P1

C50	12-49		11124482	Cylinder block assembly, 69cc	1
C50	11-41		11124484	Cylinder block assembly, 78cc	1
C010	17-47		11189989	Cylinder block kit, 69cc ( <a href="#">SB-2018-004</a> on page 182)	1
C010	17-47		11189990	Cylinder block kit, 78cc ( <a href="#">SB-2018-004</a> on page 182)	1
C025	09-47		11125551	Valve plate, CCW ( <a href="#">SB-2013-003</a> on page 176)	1
C025	09-47		11125563	Valve plate, CW ( <a href="#">SB-2013-003</a> on page 176)	1

**Common parts and special hardware**

**H1P 69/78cc special hardware M2-P4**

*Parts configuration*



Generic control and housing used to show part location only.

Option M5 is replaced with PN for pumps with EDC or FNR control, and replaced with option P1 for pumps with NFPE control.

### Common parts and special hardware

Order code: M2, N2, P2

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C50	12-49		11124483	Cylinder block assembly, speed ring, 69cc	1
C50	11-41		11124485	Cylinder block assembly, speed ring, 78cc	1
C010	17-47		11191001	Cylinder block kit, speed ring, 69cc ( <a href="#">SB-2018-004</a> on page 182)	1
C010	17-47		11191002	Cylinder block kit, speed ring, 78cc ( <a href="#">SB-2018-004</a> on page 182)	1
C025	09-47		11125551	Valve plate, CCW ( <a href="#">SB-2013-003</a> on page 176)	1
C025	09-47		11125563	Valve plate, CW ( <a href="#">SB-2013-003</a> on page 176)	1

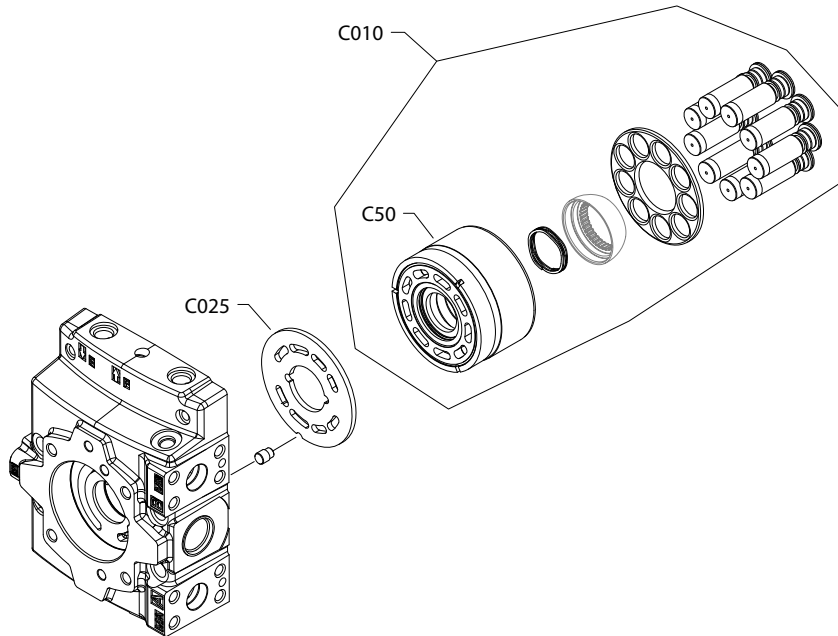
Order code: P4

C50	12-49		11124483	Cylinder block assembly, speed ring, 69cc	1
C50	11-41		11124485	Cylinder block assembly, speed ring, 78cc	1
C010	17-47		11191001	Cylinder block kit, speed ring, 69cc ( <a href="#">SB-2018-004</a> on page 182)	1
C010	17-47		11191002	Cylinder block kit, speed ring, 78cc ( <a href="#">SB-2018-004</a> on page 182)	1
C025	09-47		11125562	Valve plate, CCW ( <a href="#">SB-2013-003</a> on page 176)	1
C025	09-47		11125564	Valve plate, CW ( <a href="#">SB-2013-003</a> on page 176)	1

**Common parts and special hardware**

**H1P 69/78 special hardware NN, PN**

*Parts configuration*



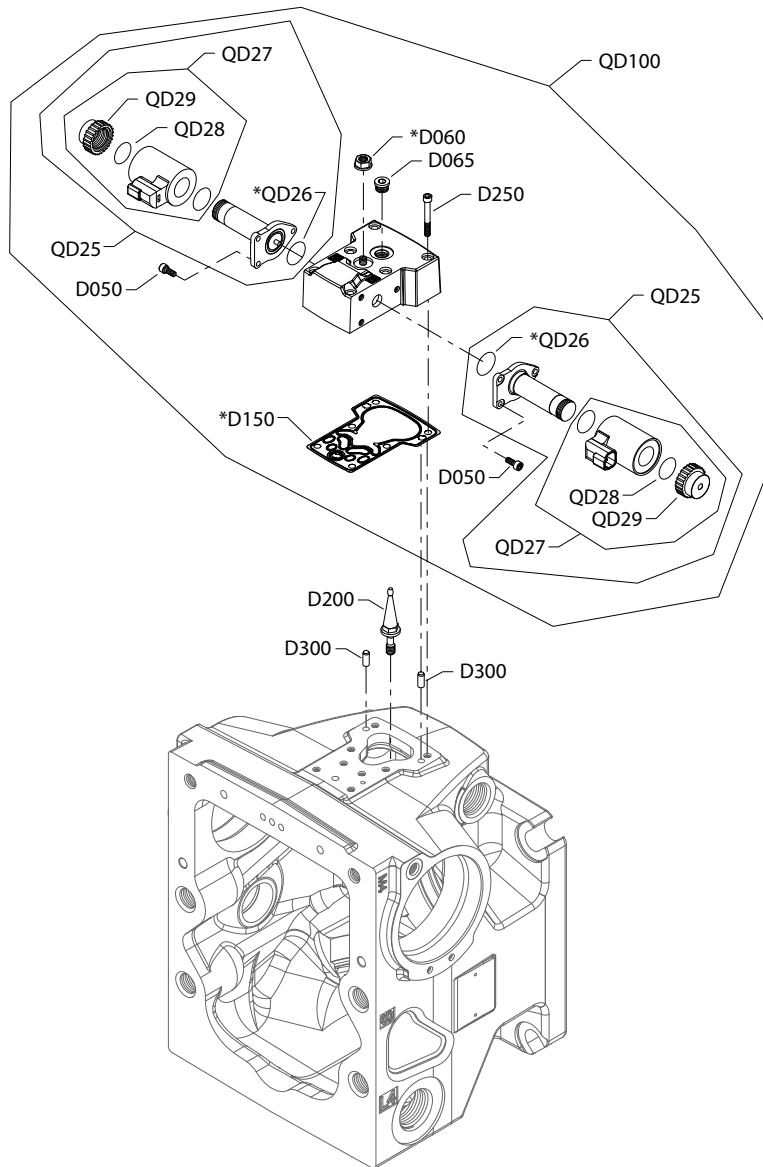
### Common parts and special hardware

Order code: NN, PN

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C50	12-49		11124482	Cylinder block assembly, 69cc	1
C50	11-41		11124484	Cylinder block assembly, 78cc	1
C010	17-47		11189989	Cylinder block kit, 69cc ( <a href="#">SB-2018-004</a> on page 182)	1
C010	17-47		11189990	Cylinder block kit, 78cc ( <a href="#">SB-2018-004</a> on page 182)	1
C025	10-02		11125562	Valve plate, CCW ( <a href="#">SB-2013-003</a> on page 176)	1
C025	10-02		11125564	Valve plate, CW ( <a href="#">SB-2013-003</a> on page 176)	1

**Controls**

**H1P control A2, A3**



E100 912E

---

Generic housing shown.

---

\* Included in overhaul seal kit Q210



## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14		716860	Screw, M5 x 12	6
D060	07-14		612291 (9003508-0008)	Seal nut, M8	1
D065	07-14		327007	Plug assembly (SAE)	1
D150	07-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	07-14		11202172	Swash plate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	07-14		505038	Screw, M6 x 45	6
D300	07-14		310979	Dowel pin	2
QD26	07-14		11001952	O-ring	2
QD28	07-14		063172	O-ring	2

### Order code: A2

QD25	07-14		11012457	Proportional solenoid, 12v	2
QD27	07-14		11028018	Coil kit, 12v, DEUTSCH connector	2
QD29	07-14		11027046	Coil nut	2
QD100	07-14		11019680	EDC kit, 12v, DEUTSCH connector, fast	1

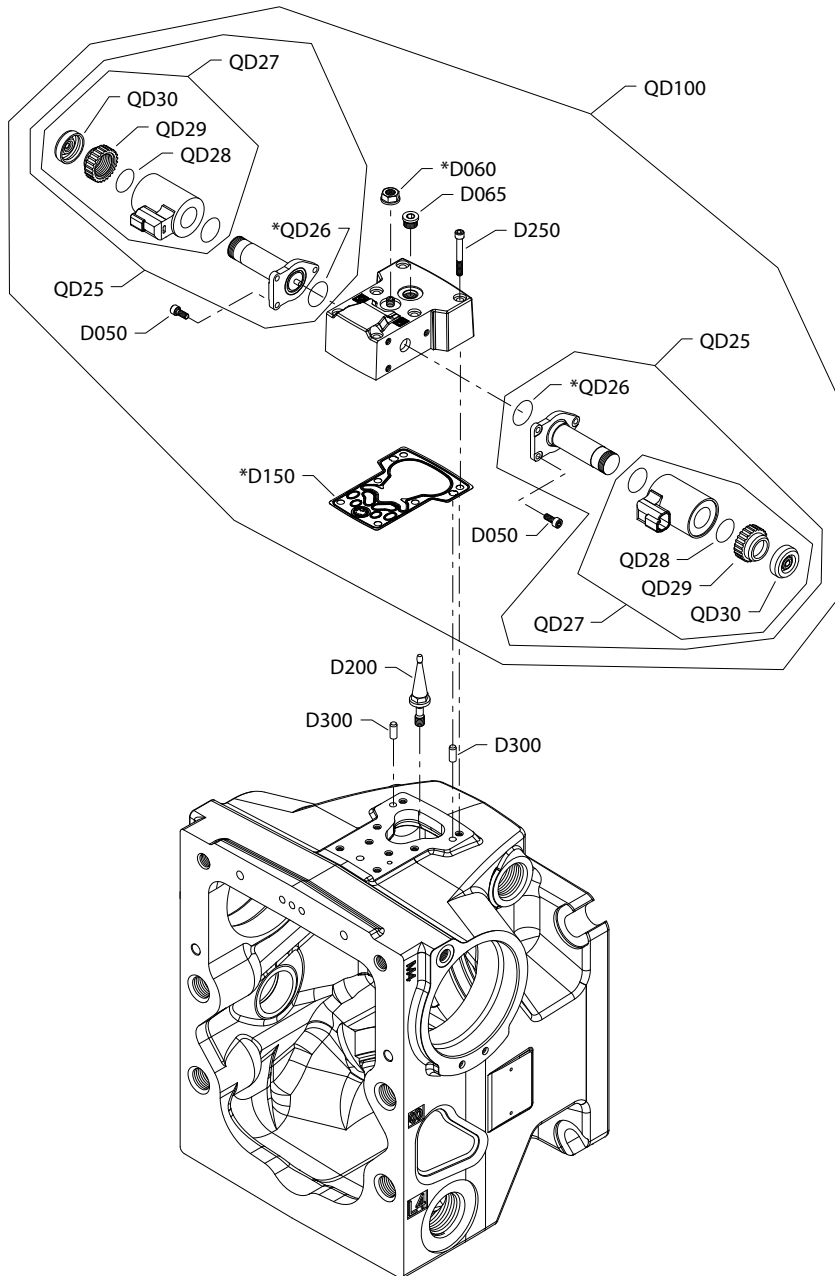
### Order code: A3

QD25	07-14		11012459	Proportional solenoid, 24v	2
QD27	07-14		11028019	Coil kit, 24v, DEUTSCH connector	2
QD29	07-14		11028024	Coil nut	2
QD100	07-14		11019681	EDC kit, 24v, DEUTSCH connector, fast	1

**Controls**

**H1P control A4, A5**

*A4 and A5 configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14		716860	Screw, M5 x 12	6
D060	07-14		612291 (9003508-0008)	Seal nut, M8	1
D065	07-14		327007	Plug assembly	1
D150	07-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	07-14		11202172	Swash plate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	07-14		505038	Screw, M6 x 45	6
D300	07-14		310979	Dowel pin	2
QD26	07-14		11001952	O-ring	2
QD28	07-14		063172	O-ring	2
QD30	07-14		11027883	Cap	2

### Order code: A4

QD25	07-14		140750	Proportional solenoid, 12v	2
QD27	07-14		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	07-14		11004749	Coil nut	2
QD100	07-14		11019732	EDC kit, 12v, DEUTSCH connector, fast, manual override	1

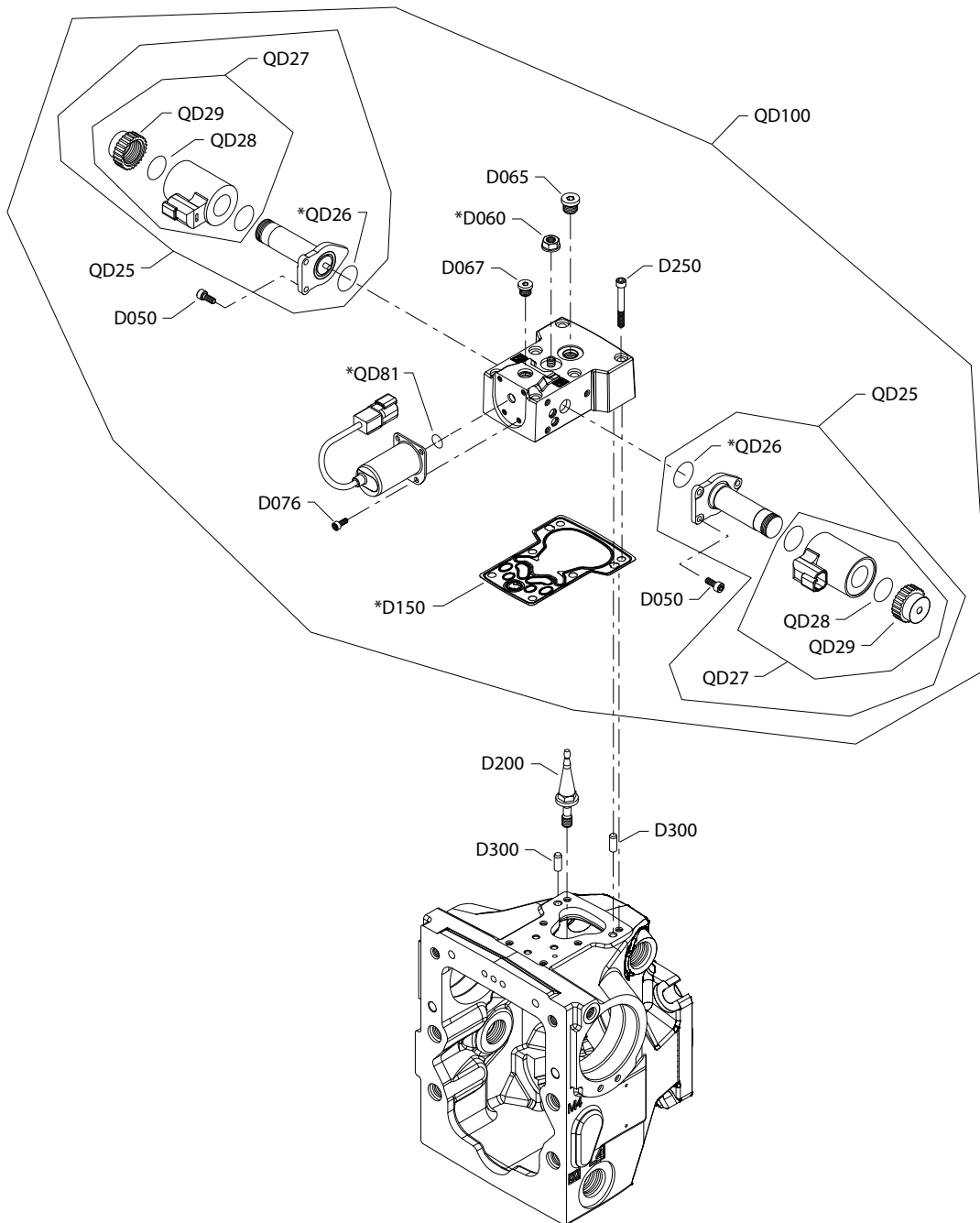
### Order code: A5

QD25	07-14		140751	Proportional solenoid, 24v	2
QD27	07-14		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	07-14		11004750	Coil nut	2
QD100	07-14		11019733	EDC kit, 24v, DEUTSCH connector, fast, manual override	1

**Controls**

**H1P control A6**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

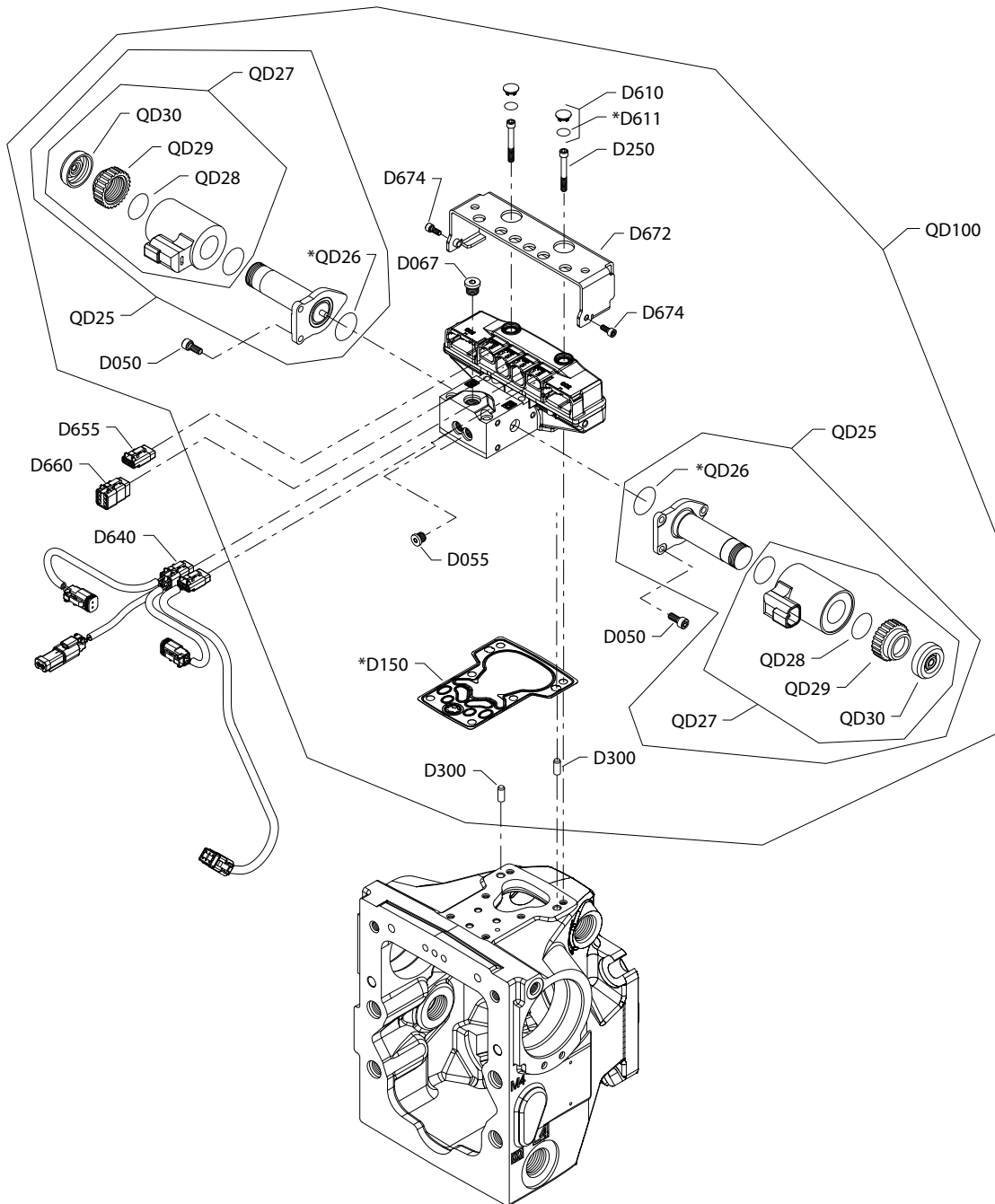
Order code: A6

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14	12-52	716860	Screw, M5 x 12	6
D060	07-14	12-52	612291 (9003508-0008)	Seal nut, M8	1
D065	07-14	12-52	327007	Plug assembly	1
D067	07-14	12-52	11040532	Plug assembly	1
D076	07-14	12-52	346957	Screw, M4 x 8	4
D150	07-14	12-52	11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	07-14	12-52	11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	07-14	12-52	505038	Screw, M6 x 45	6
D300	07-14	12-52	310979	Dowel pin	2
QD25	07-14	12-52	11012457	Proportional solenoid, 12V	2
QD26	07-14	12-52	11001952	O-ring	2
QD27	07-14	12-52	11028018	Coil kit, 12V, DEUTSCH connector	2
QD28	07-14	12-52	063172	O-ring	2
QD29	07-14	12-52	11027046	Coil nut	2
QD081	07-14	12-52	11059551	O-ring	1
QD100	07-14	12-52	11152574	EDC kit, 12V, high gain spool, control override ( <a href="#">SB-2015-035</a> on page 179)	1

**Controls**

**H1P control A7**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit

## Controls

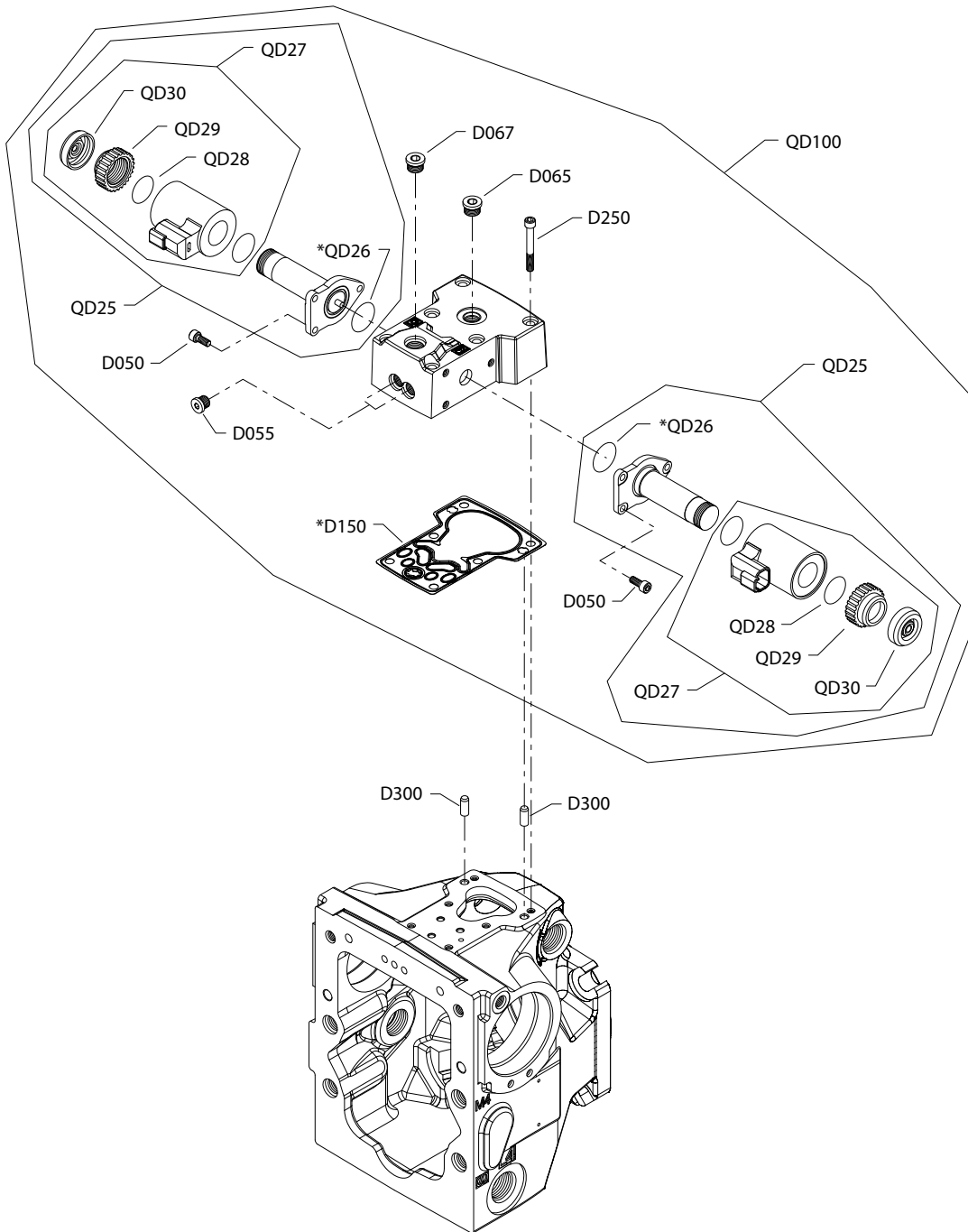
Order code: A7

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	10-14		716860	Screw, M5 x 12	6
D055	10-14		11040532	Plug assembly	2
D067	10-14		327007	Plug assembly	1
D150	10-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	10-14		505038	Screw, M6 x 45	6
D300	10-14		11036469	Dowel pin	2
D610	10-14		11000467	Plug assembly	2
D611	10-14		11066774	O-ring	2
D640	10-14		11023348	AC wiring harness	1
D655	10-14		11084827	Connector DTM 06-3S	1
D660	10-14		11084822	Connector DTM 06-6S	1
D672	10-14		11151875	Protection	1
D674	10-14		716860	Screw, M5 x 12	2
QD25	10-14		140750	Proportional solenoid, 12 volt	2
QD26	10-14		11001952	O-ring	2
QD27	10-14		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	10-14		063172	O-ring	2
QD29	10-14		11004749	Coil nut	2
QD30	10-14		11027883	Cap	2
QD100	10-14		11065118	Automotive control kit, 12v, manual override	1

**Controls**

**H1P control A8**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210



## Controls

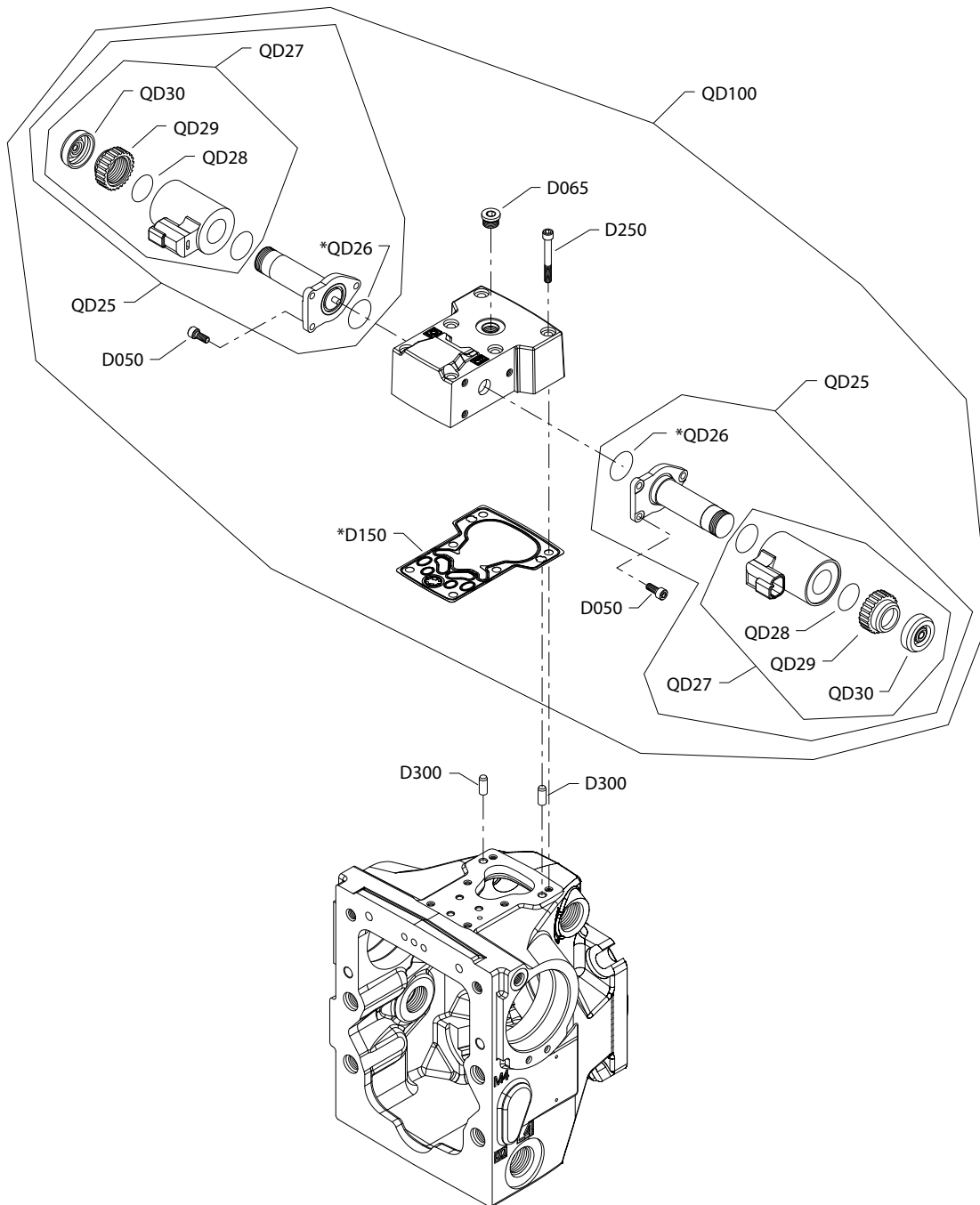
Order code: A8

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14		716860	Screw, M5 x 12	6
D055	07-14		11040532	Plug assembly	2
D065	07-14		327007	Plug assembly	1
D067	07-14		327007	Plug assembly	1
D150	07-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	07-14		505038	Screw, M6 x 45	6
D300	07-14		310979	Dowel pin	2
QD25	07-14		140750	Proportional solenoid, 12v, DEUTSCH connector	2
QD26	07-14		11001952	O-ring	2
QD27	07-14		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	07-14		063172	O-ring	2
QD29	07-14		11004749	Coil nut	2
QD30	07-14		11027883	Cap	2
QD100	07-14		11015803	NFPE control kit, 12V, manual override, DEUTSCH connector	1

**Controls**

**H1P control A9, B1**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14		716860	Screw, M5 x 12	6
D065	07-14		327007	Plug assembly	1
D150	07-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	07-14		505038	Screw, M6 x 45	6
D300	07-14		310979	Dowel pin	2
QD26	07-14		11001952	O-ring	2
QD28	07-14		063172	O-ring	2
QD30	07-14		11027883	Cap	2

### Order code: A9

QD25	07-14		141301	Proportional solenoid, 12v, DEUTSCH connector	2
QD27	07-14		11005222	Coil kit, 12v, DEUTSCH connector	2
QD29	07-14		11004749	Coil nut	2
QD100	07-14		11025905	FNR control kit, 12v, manual override, DEUTSCH connector	1

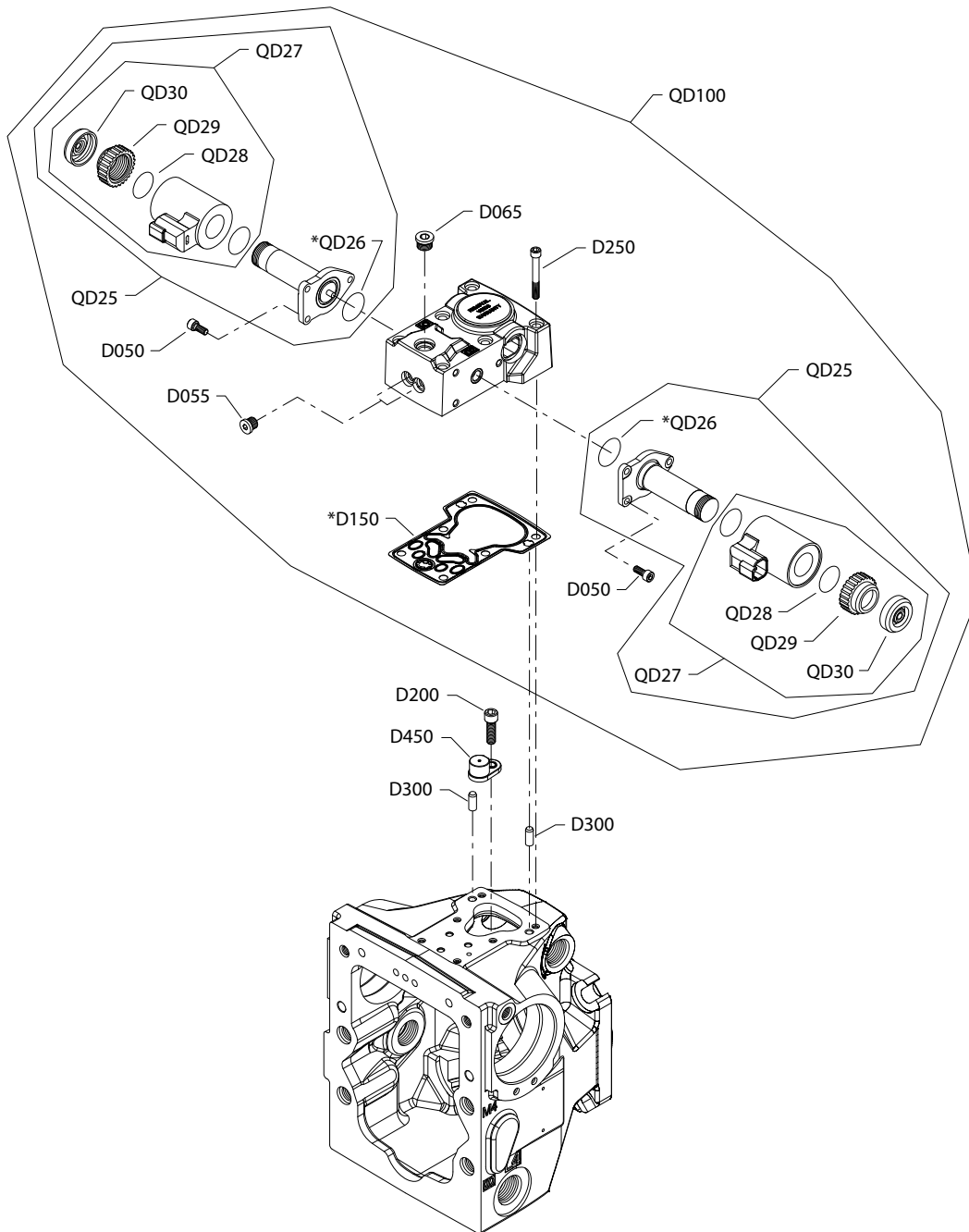
### Order code: B1

QD25	07-14		141313	Proportional solenoid, 24v, DEUTSCH connector	2
QD27	07-14		11005223	Coil kit, 24v, DEUTSCH connector	2
QD29	07-14		11004750	Coil nut	2
QD100	07-14		11025906	FNR control kit, 24v, manual override, DEUTSCH connector	1

**Controls**

**H1P control B5**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

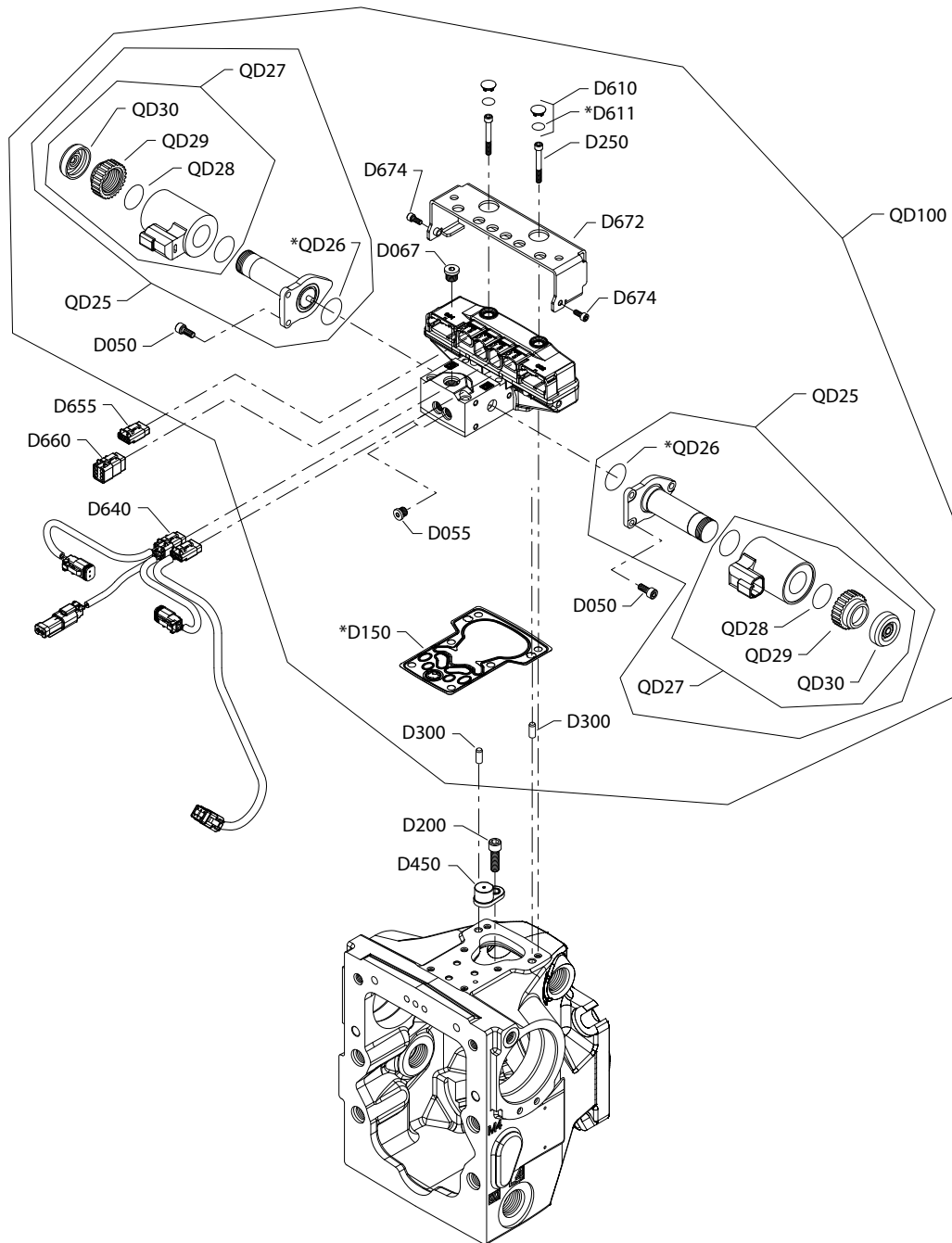
Order code: B5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	10-14		716860	Screw	6
D055	10-14		11040532	Plug assembly	2
D067	10-14		327007	Plug assembly	1
D150	10-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	10-14		141472	Screw	1
D250	10-14		505038	Screw	6
D300	10-14		310979	Dowel pin	2
D450	10-14		11003097	Magnet carrier	1
QD25	10-14		140750	Proportional solenoid, 12 volt	2
QD26	10-14		11001952	O-ring	2
QD27	10-14		11004698	Coil kit, 12V, DEUTSCH connector	2
QD28	10-14		063172	O-ring	2
QD29	10-14		11004749	Coil nut	2
QD30	10-14		11027883	Cap	2
QD100	10-14		11050138	NFPE control kit, 12V, manual override	1

**Controls**

**H1P control B7**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

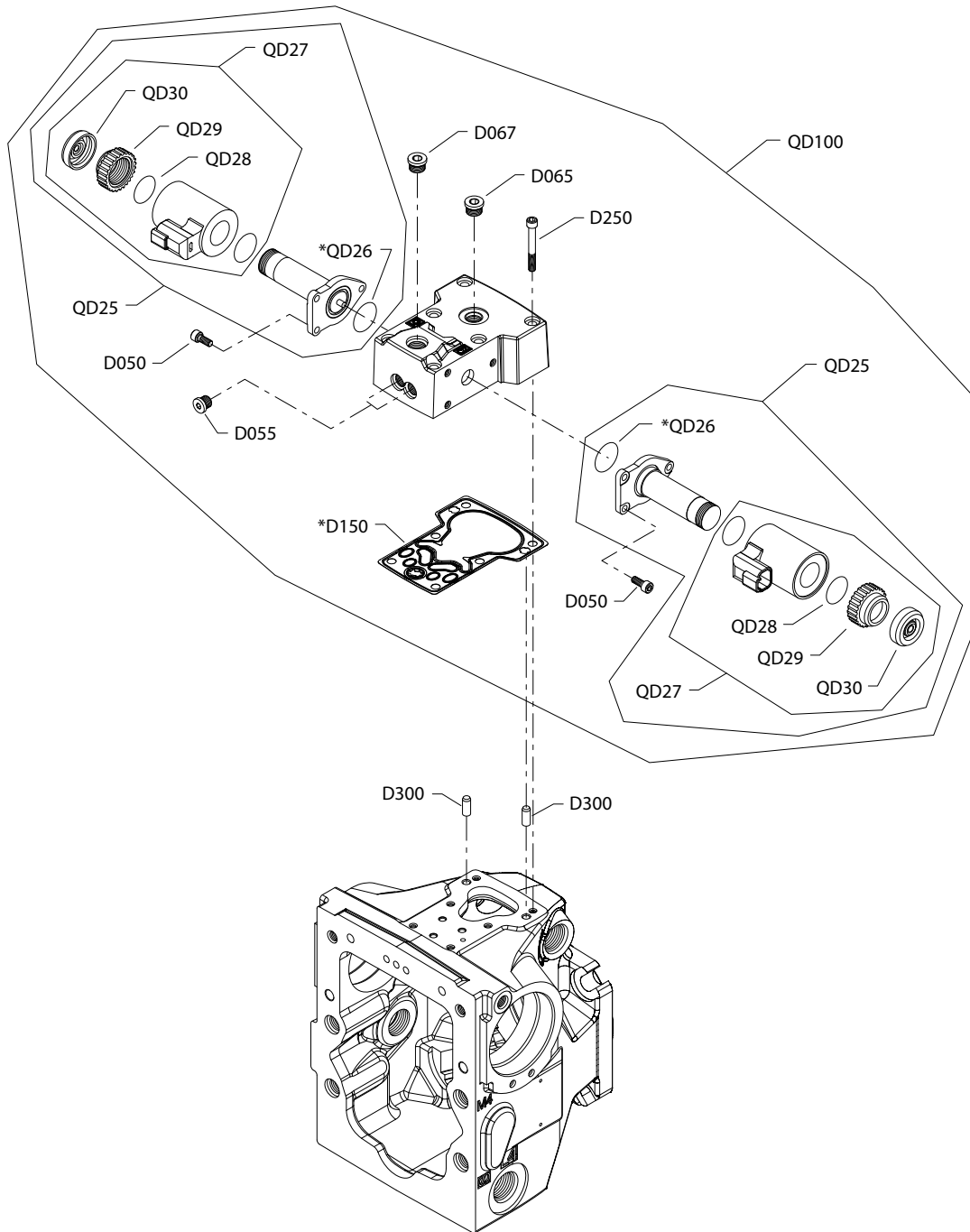
Order code: B7

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	10-04		716860	Screw, M5 x 12	6
D055	10-04		11040532	Plug assembly	2
D067	10-04		327007	Plug assembly	1
D150	10-04		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	10-04		141472	Screw, special	1
D250	10-04		505038	Screw, M6 x 45	6
D300	10-04		11036469	Dowel pin	2
D450	10-04		11003097	Magnet carrier	1
D610	10-04		11000467	Plug assembly	2
D611	10-04		11066774	O-ring	2
D640	10-04		11023348	AC wiring harness	1
D655	10-04		11084827	Connector DTM 06-3S	1
D660	10-04		11084822	Connector DTM 06-6S	1
D672	10-04		11151875	Protection	1
D674	10-04		716860	Screw, M5 x 12	2
QD25	10-04		140750	Proportional solenoid, 12 volt	2
QD26	10-04		11001952	O-ring	2
QD27	10-04		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	10-04		063172	O-ring	2
QD29	10-04		11004749	Coil nut	2
QD30	10-04		11027883	Cap	2
QD100	10-04		11065119	Automotive control kit, 12v, manual override	1

**Controls**

**H1P control B8**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210



## Controls

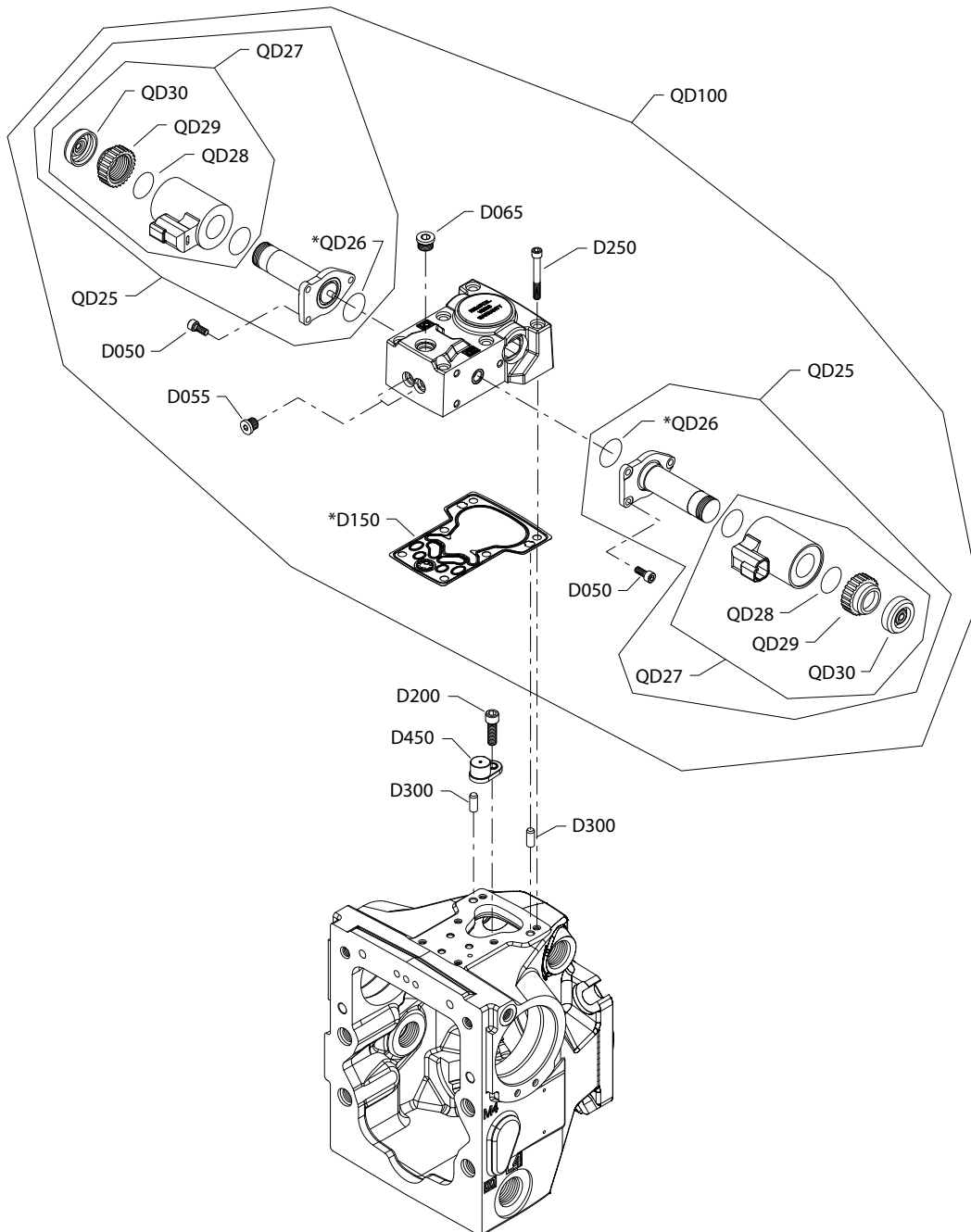
Order code: B8

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14		716860	Screw, M5 x 12	6
D055	07-14		11040532	Plug assembly	2
D065	07-14		327007	Plug assembly	1
D067	07-14		327007	Plug assembly	1
D150	07-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	07-14		505038	Screw, M6 x 45	6
D300	07-14		310979	Dowel pin	2
QD25	07-14		140751	Proportional solenoid, 24v, DEUTSCH connector	2
QD26	07-14		11001952	O-ring	2
QD27	07-14		1104700	Coil kit, 24v, DEUTSCH connector	2
QD28	07-14		063172	O-ring	2
QD29	07-14		11004750	Coil nut	2
QD30	07-14		11027883	Cap	2
QD100	07-14		11025904	NFPE control kit, 24v, manual override, DEUTSCH connector	1

**Controls**

**H1P control B9**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

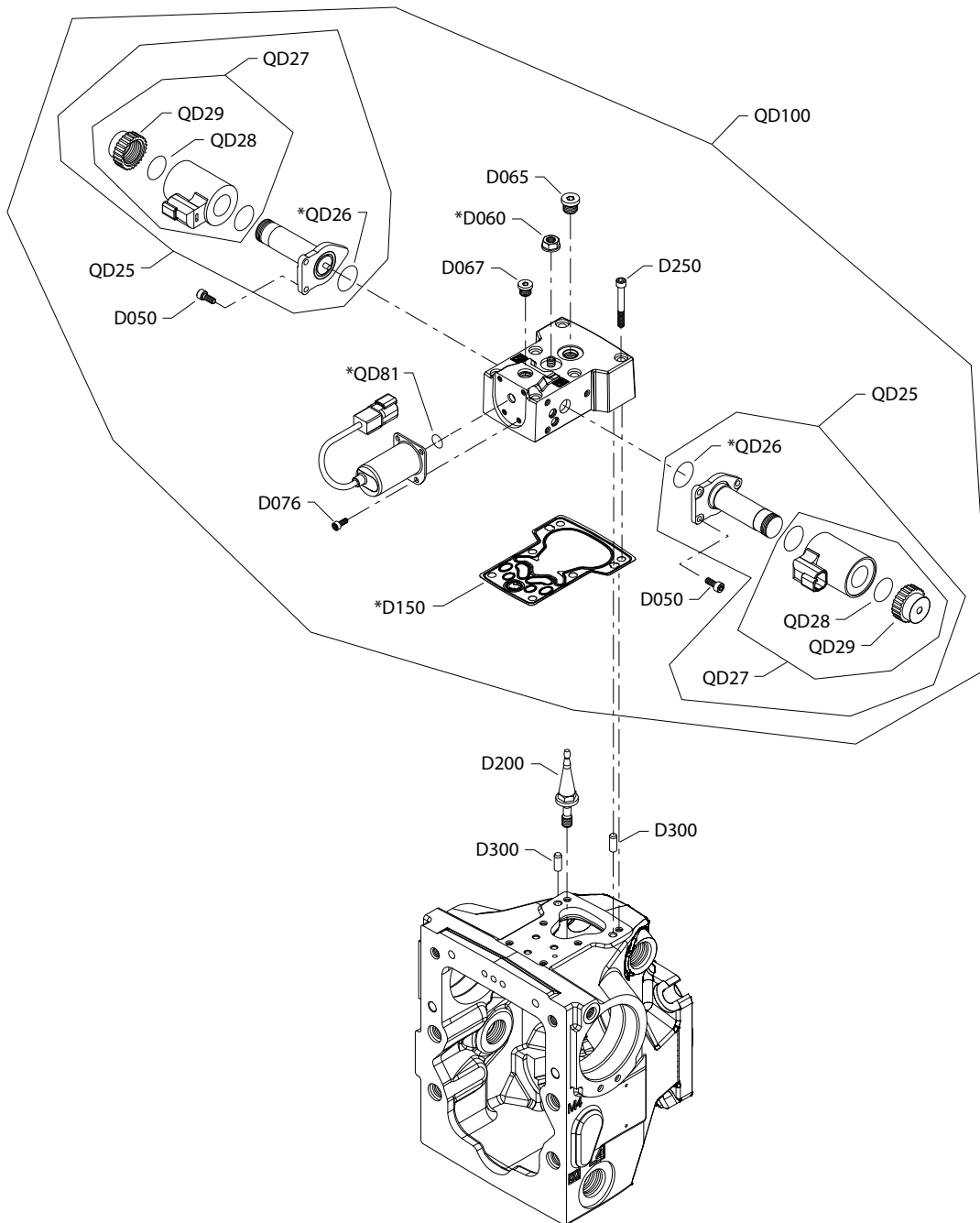
Order code: B9

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14		716860	Screw	6
D055	07-14		11040532	Plug assembly	2
D067	07-14		327007	Plug assembly	1
D150	07-14		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	07-14		141472	Screw	1
D250	07-14		505038	Screw	6
D300	07-14		310979	Dowel pin	2
D450	07-14		11003097	Magnet carrier	1
QD25	07-14		140751	Proportional solenoid, 24v, DEUTSCH connector	2
QD26	07-14		11001952	O-ring	2
QD27	07-14		1104700	Coil kit, 24v, DEUTSCH connector	2
QD28	07-14		063172	O-ring	2
QD29	07-14		11004750	Coil nut	2
QD30	07-14		11027883	Cap	2
QD100	07-14		11050137	NFPE control kit,, 24V, manual override	1

**Controls**

**H1P control C1**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

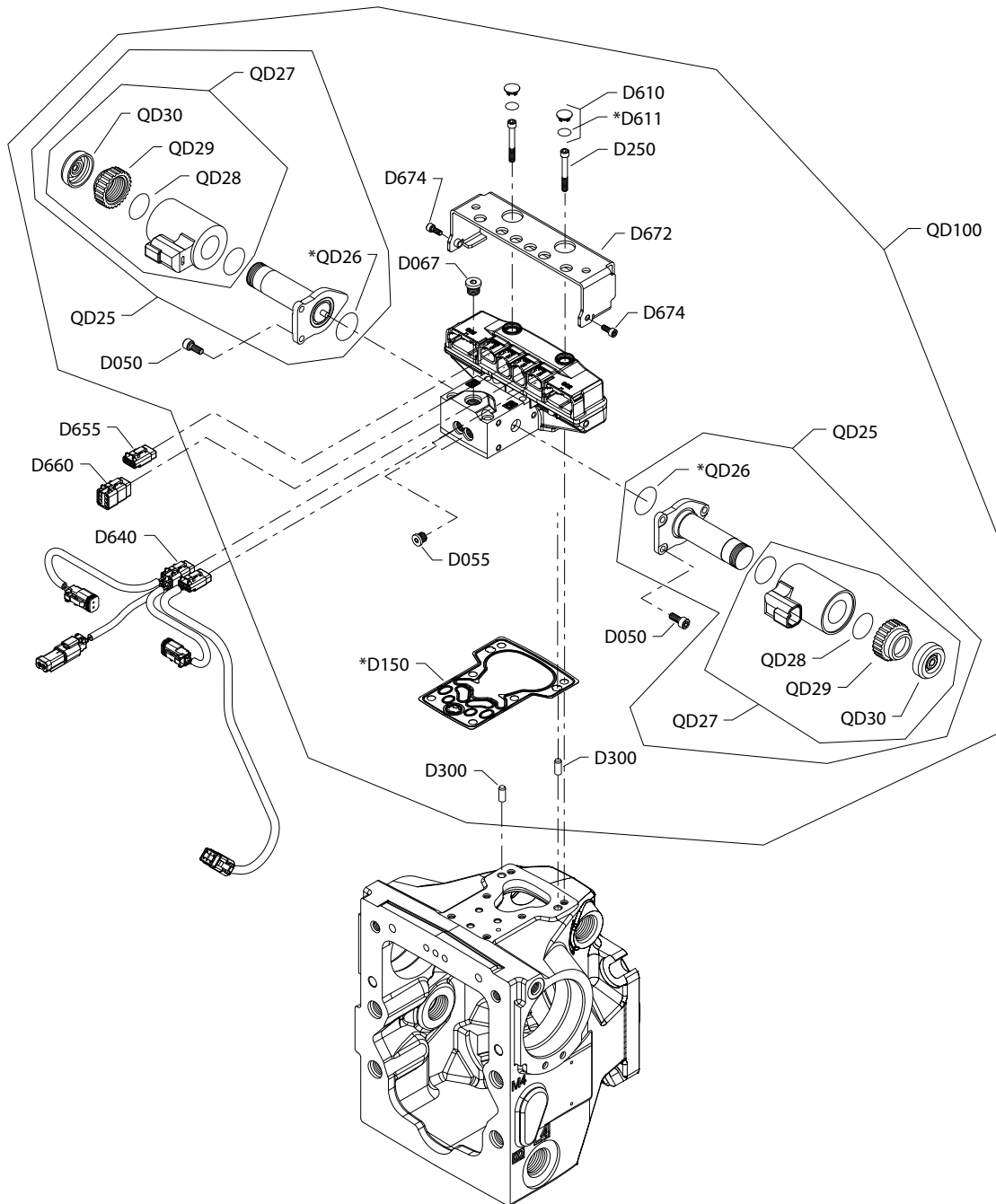
Order code: C1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	07-14	12-52	716860	Screw	6
D060	07-14	12-52	612291 (9003508-0008)	Seal nut	1
D065	07-14	12-52	327007	Plug assembly	1
D067	07-14	12-52	11040532	Plug assembly	1
D076	07-14	12-52	346957	Screw, M4 x 8	4
D150	07-14	12-52	11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	07-14	12-52	11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	07-14	12-52	505038	Screw	6
D300	07-14	12-52	310979	Dowel pin	2
QD25	07-14	12-52	11012459	Proportional solenoid, 24V, DEUTSCH connector	2
QD26	07-14	12-52	11001952	O-ring	2
QD27	07-14	12-52	11028019	Coil kit, 24V, DEUTSCH connector	2
QD28	07-14	12-52	063172	O-ring	2
QD29	07-14	12-52	11028024	Coil nut	2
QD81	07-14	12-52	11059551	O-ring	1
QD100	07-14	12-52	11147472	EDC kit, 24V, high gain spool, control override ( <a href="#">SB-2015-035</a> on page 179)	1

**Controls**

**H1P control C2**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

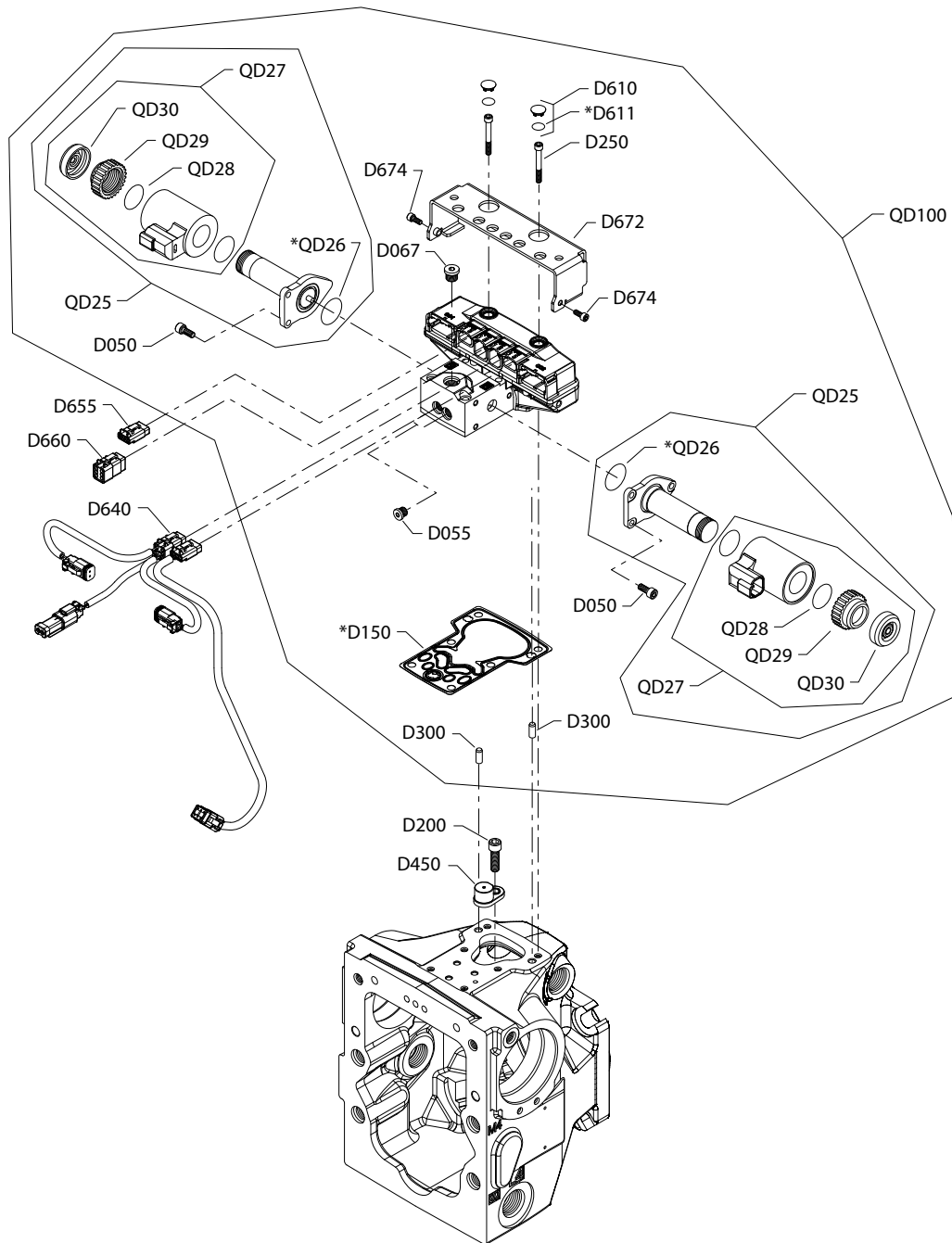
Order code: C2

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	10-04		716860	Screw, M5 x 12	6
D055	10-04		11040532	Plug assembly	2
D067	10-04		327007	Plug assembly	1
D150	10-04		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	10-04		505038	Screw, M6 x 45	6
D300	10-04		11036469	Dowel pin	2
D610	10-04		11000467	Plug assembly	2
D611	10-04		11066774	O-ring	2
D640	10-04		11023348	AC wiring harness	1
D655	10-04		11084827	Connector DTM 06-3S	1
D660	10-04		11084822	Connector DTM 06-6S	1
D672	10-04		11151875	Protection	1
D674	10-04		716860	Screw, M5 x 12	2
QD25	10-04		140751	Proportional solenoid, 24 volt	2
QD26	10-04		11001952	O-ring	2
QD27	10-04		11004700	Coil kit, 24v, DEUTSCH connector	2
QD28	10-04		063172	O-ring	2
QD29	10-04		11004750	Coil nut	2
QD30	10-04		11027883	Cap	2
QD100	10-04		11065120	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control C3**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210



## Controls

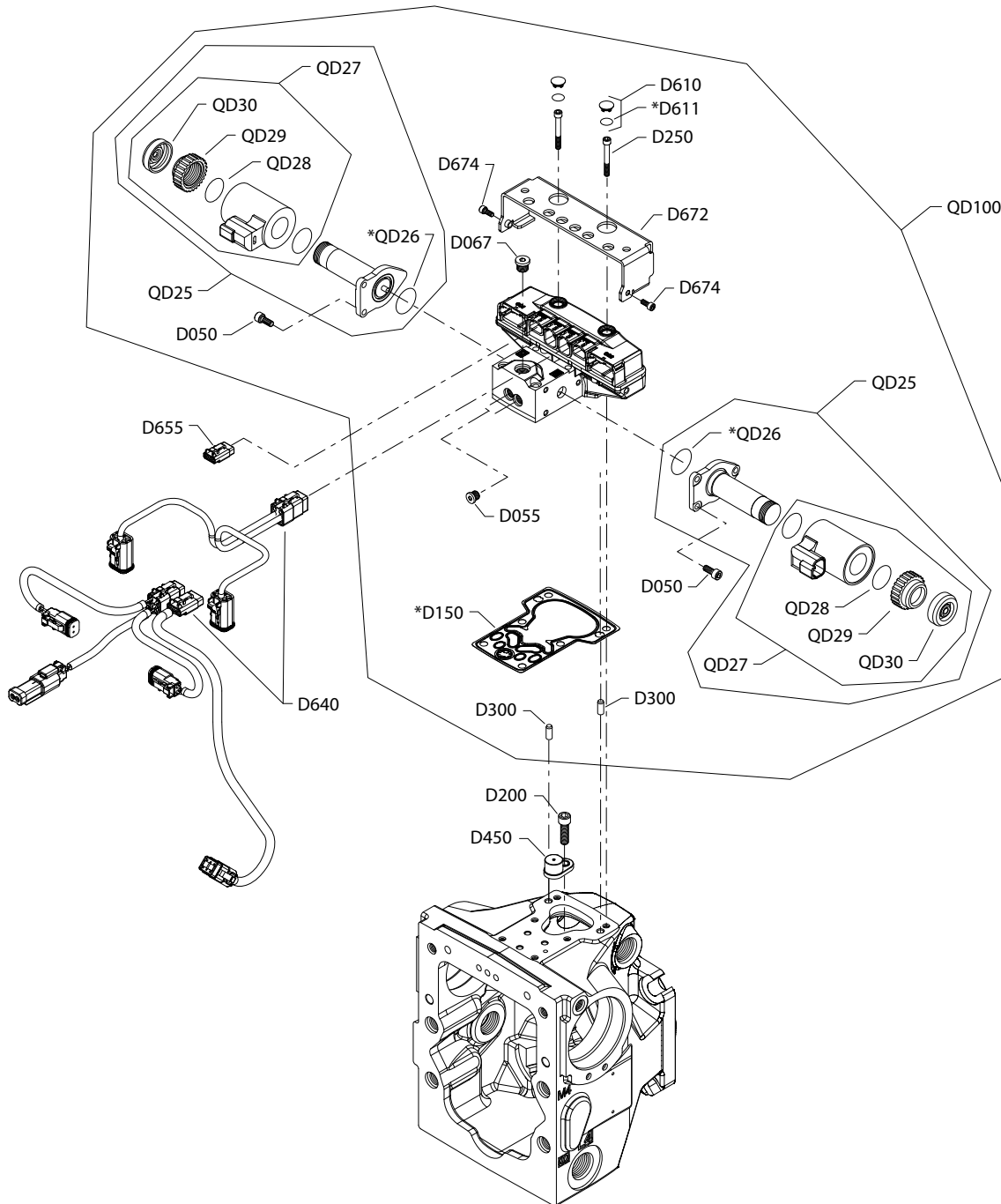
Order code: C3

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	10-04		716860	Screw, M5 x 12	6
D055	10-04		11040532	Plug assembly	2
D067	10-04		327007	Plug assembly	1
D150	10-04		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	10-04		141472	Screw, special	1
D250	10-04		505038	Screw, M6 x 45	6
D300	10-04		11036469	Dowel pin	2
D450	10-04		11003097	Magnet carrier	1
D610	10-04		11000467	Plug assembly	2
D611	10-04		11066774	O-ring	2
D640	10-04		11023348	AC wiring harness	1
D655	10-04		11084827	Connector DTM 06-3S	1
D660	10-04		11084822	Connector DTM 06-6S	1
D672	10-04		11151875	Protection	1
D674	10-04		716860	Screw, M5 x 12	2
QD25	10-04		140751	Proportional solenoid, 24 volt	2
QD26	10-04		11001952	O-ring	2
QD27	10-04		11004700	Coil kit, 24v, DEUTSCH connector	2
QD28	10-04		063172	O-ring	2
QD29	10-04		11004750	Coil nut	2
QD30	10-04		11027883	Cap	2
QD100	10-04		11065121	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control C9, D1**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	12-22		716860	Screw, M5 x 12	6
D055	12-22		11040532	Plug assembly	2
D067	12-22		327007	Plug assembly	1
D150	12-22		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	12-22		141472	Screw, special	1
D250	12-22		505038	Screw, M6 x 45	6
D300	12-22		11036469	Dowel pin	2
D450	12-22		11003097	Magnet carrier	1
D610	12-22		11000467	Plug assembly	2
D611	12-22		11066774	O-ring	2
D640	12-22		11105876	AC wiring harness	1
D655	12-22		11084827	Connector DTM 06-3S	1
D672	12-22		11151875	Protection	1
D674	12-22		716860	Screw, M5 x 12	2
QD26	12-22		11001952	O-ring	2
QD28	12-22		063172	O-ring	2
QD30	12-22		11027883	Cap	2

### Order code: C9

QD25	12-22		140751	Proportional solenoid, 24v	2
QD27	12-22		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	12-22		11004750	Coil nut	2
QD100	12-22		11065121	Automotive control kit, 24v, manual override	1

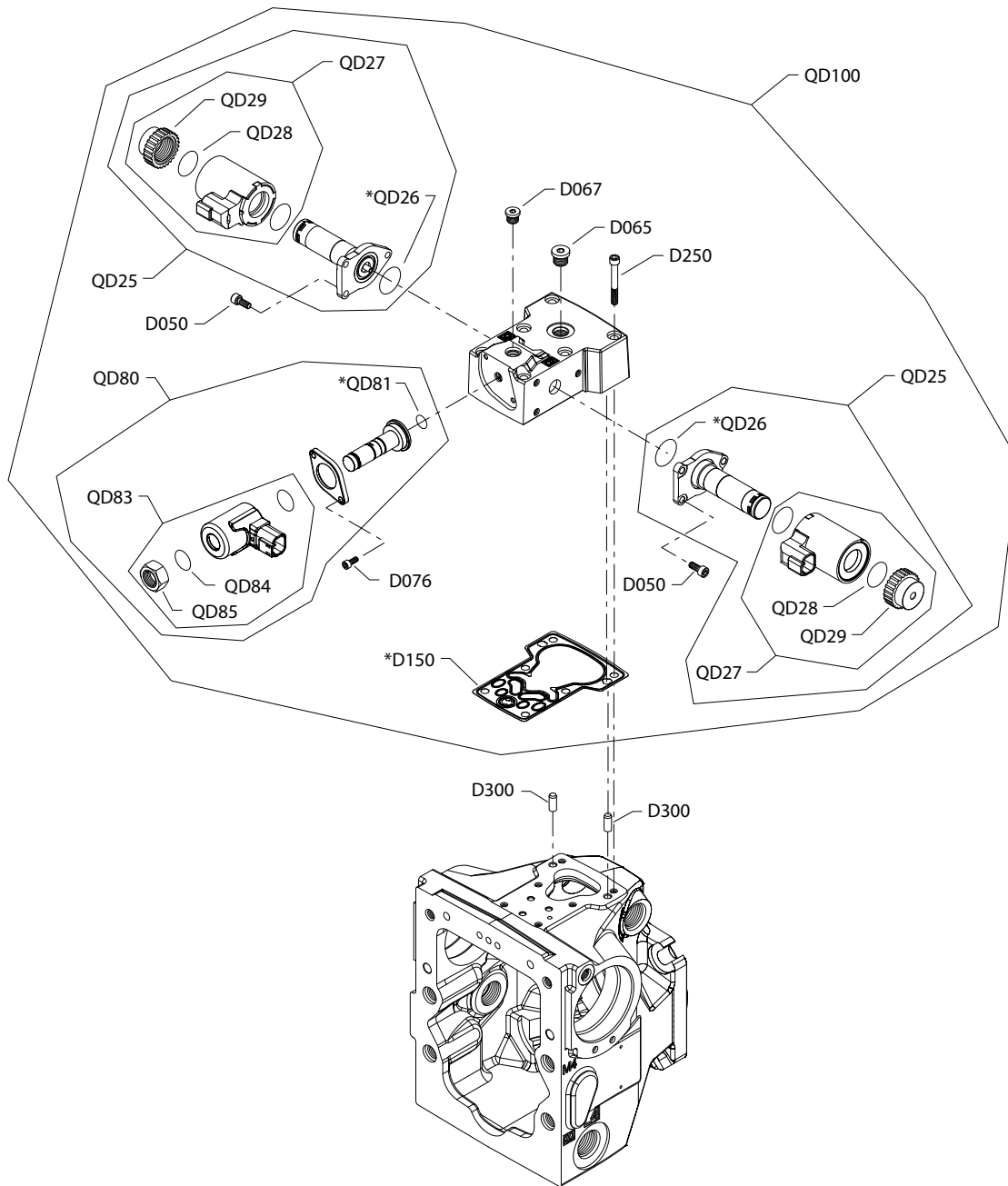
### Order code: D1

QD25	12-22		140750	Proportional solenoid, 12v	2
QD27	12-22		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	12-22		11004749	Coil nut	2
QD100	12-22		11065119	Automotive control kit, 12v, manual override	1

**Controls**

**H1P control E2**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

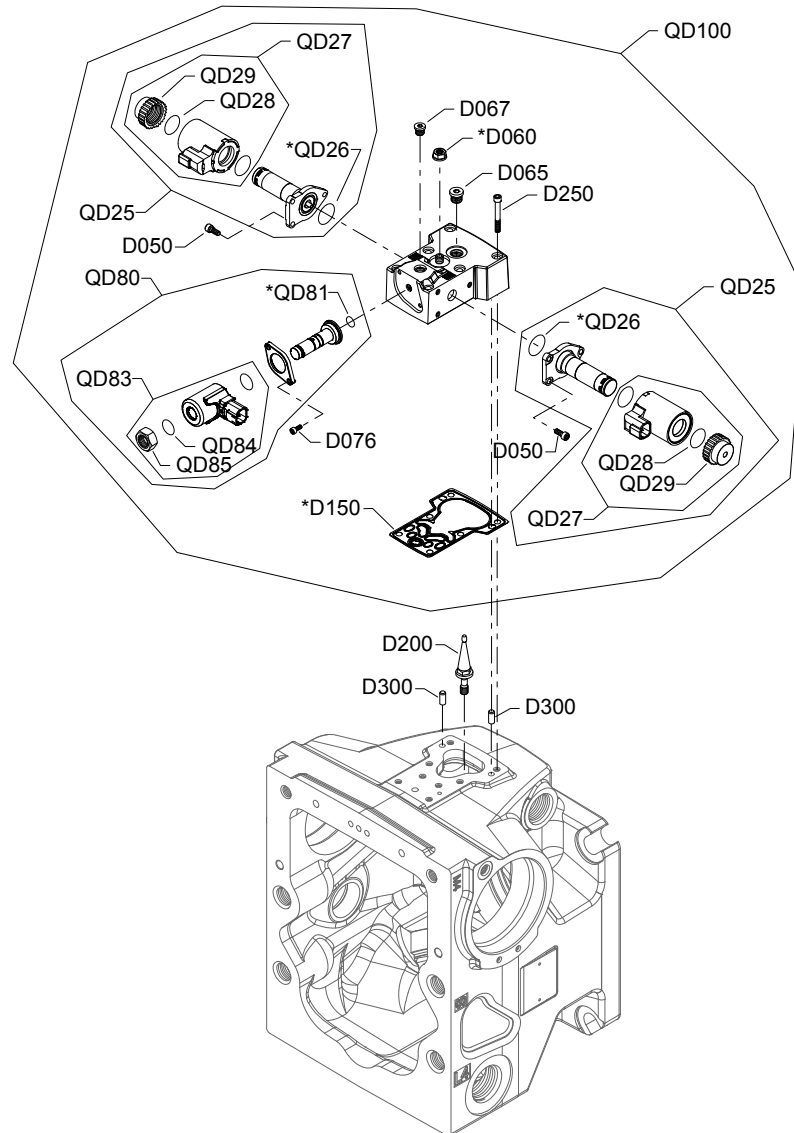
Order code: E2

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	13-45		716860	Screw M5 x 12	6
D065	13-45		327007	Plug assembly	2
D067	13-45		327007	Plug assembly	1
D076	13-45		067694	Screw, M4 x 10	2
D150	13-45		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	13-45		505038	Screw, M6 x45	6
D300	13-45		310979	Dowel pin	2
QD25	13-45		11012457	Proportional solenoid, 12V	2
QD26	13-45		11001952	O-ring	2
QD27	13-45		11028018	Coil kit, 12V, DEUTSCH connector	2
QD28	13-45		063172	O-ring	2
QD29	13-45		11027046	Coil nut	2
QD80	13-45		11129914	Solenoid, 12V, DEUTSCH connector	1
QD81	13-45		11152257	O-ring	1
QD83	13-45		11147301	Coil kit, 12V, DEUTSCH connector	1
QD84	13-45		11140393	O-ring	1
QD85	13-45		11140394	Nut	1
QD100	13-45		11145115	NFPE kit, 12V, high gain spool, control override	1

**Controls**

**H1P control E5**

*Parts configuration*




---

Generic housing shown.

---

\* Included in overhaul seal kit Q210

## Controls

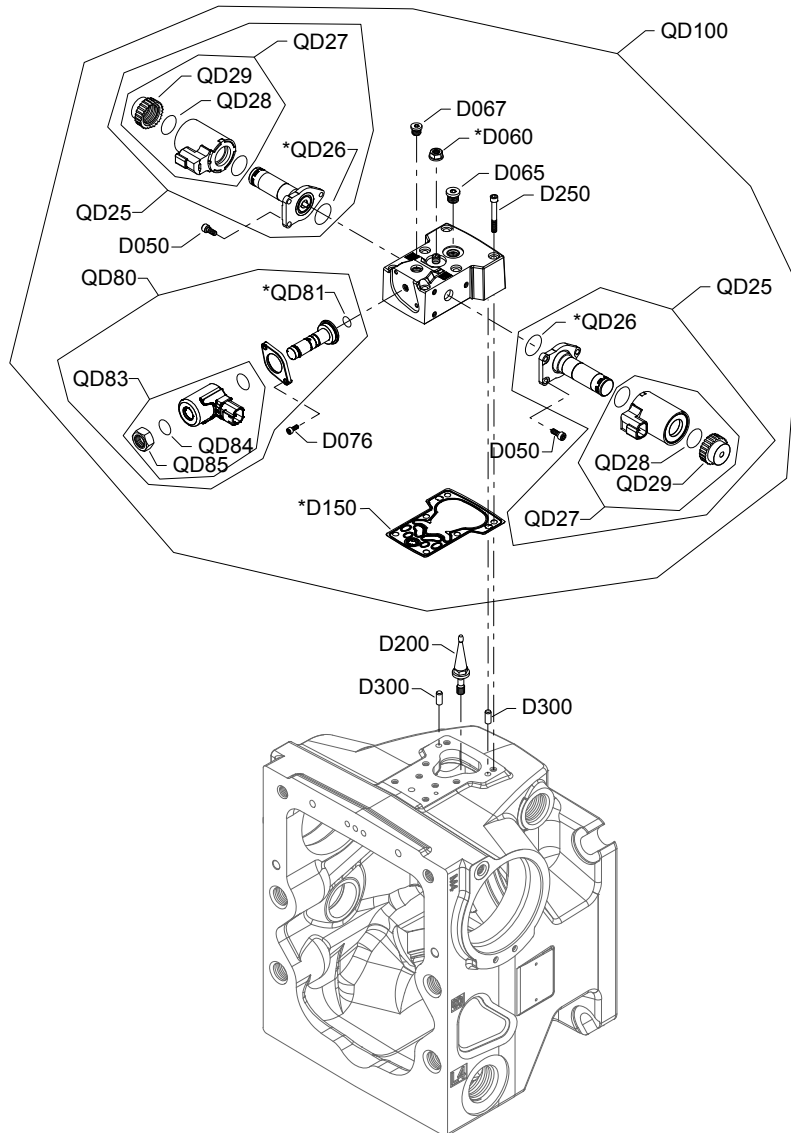
Order code: E5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	14-25		716860	Screw M5 x 12	6
D060	14-25		612291	Seal nut	1
D065	14-25		327007	Plug assembly	2
D067	14-25		327007	Plug assembly	1
D076	14-25		067694	Screw, M4 x 10	2
D150	14-25		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-25		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-25		505038	Screw	6
D300	14-25		310979	Dowel pin	2
QD25	14-25		11012457	Proportional solenoid, 12V	2
QD26	14-25		11001952	O-ring	2
QD27	14-25		11028018	Coil kit, 12V, DEUTSCH connector	2
QD28	14-25		063172	O-ring	2
QD29	14-25		11027046	Coil nut	2
QD80	14-25		11129914	Solenoid, 12V, DEUTSCH connector	1
QD81	14-25		11152257	O-ring	1
QD83	14-25		11147301	Coil kit, 12V, DEUTSCH connector	1
QD84	14-25		11140393	O-ring	1
QD85	14-25		11140394	Nut	1
QD100	14-25		11147422	EDC kit, 12V, control override	1

**Controls**

**H1P control E6, E7**

*E6 and E7 configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210



## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	14-25		716860	Screw, M5 x 12	6
D060	14-25		612291 (9003508-0008)	Seal nut, M8	1
D065	14-25		327007	Plug assembly (SAE)	1
D067	14-25		327007	Plug assembly (SAE)	1
D076	14-25		067694	Screw, M4 x 10	2
D150	14-25		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-25		11202172	Swash plate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-25		505038	Screw, M6 x 45	6
D300	14-25		310979	Dowel pin	2
QD26	14-25		11001952	O-ring	2
QD28	14-25		063172	O-ring	2
QD81	14-25		11152257	O-ring	1
QD84	14-25		11140393	O-ring	1
QD85	14-25		11140394	Coil nut	1

### Order code: E6

QD25	14-25		11012459	Proportional solenoid, 12v	2
QD27	14-25		11028019	Coil kit, 24v, DEUTSCH connector	2
QD29	14-25		11028024	Coil nut	2
QD80	14-25		11129915	Solenoid valve, on/off, 24v	1
QD83	14-25		11147332	Coil kit, 24v	1
QD100	14-25		11147423	EDC kit, 24v, CCO	1

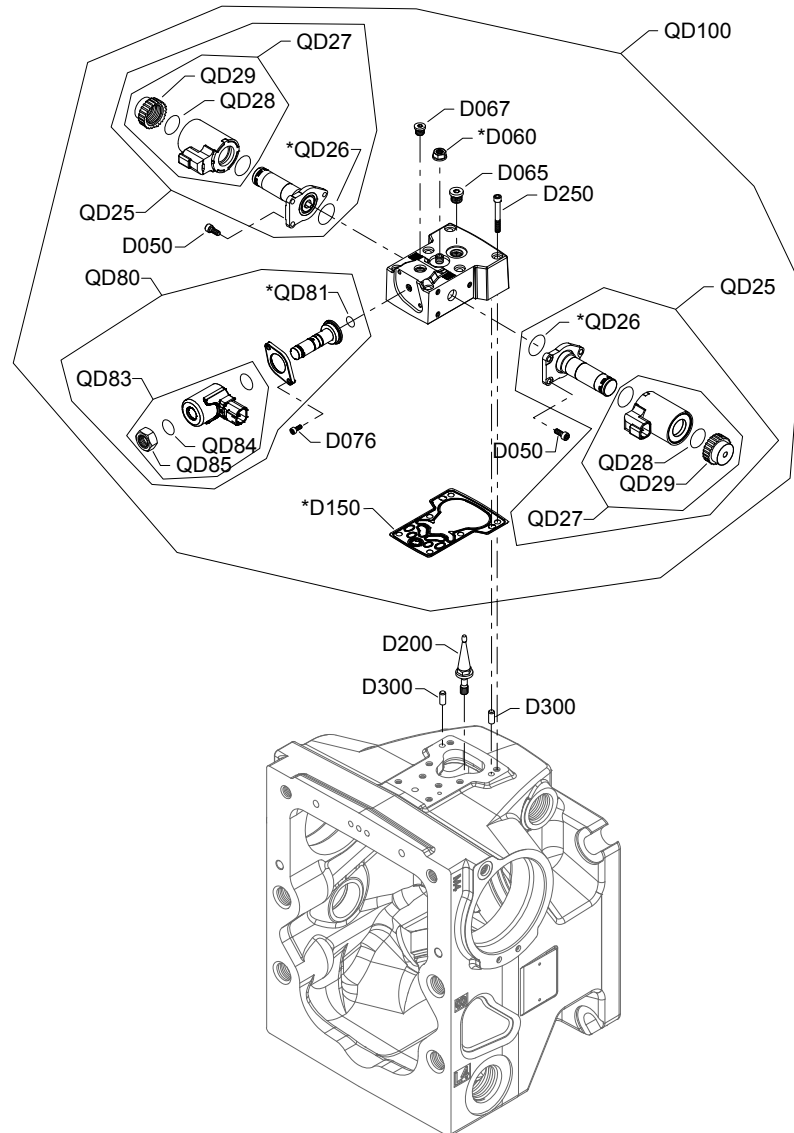
### Order code: E7

QD25	14-25		11012457	Proportional solenoid, 12v	2
QD27	14-25		11028018	Coil kit, 124v, DEUTSCH connector	2
QD29	14-25		11027046	Coil nut	2
QD80	14-25		11129914	Solenoid valve, on/off, 12v	1
QD83	14-25		11147301	Coil kit, 12v	1
QD100	14-25		11147471	EDC kit, 12v, CCO (SAE)	1

**Controls**

**H1P control E8**

*Parts configuration*




---

Generic housing shown.

---

\* Included in overhaul seal kit Q210

## Controls

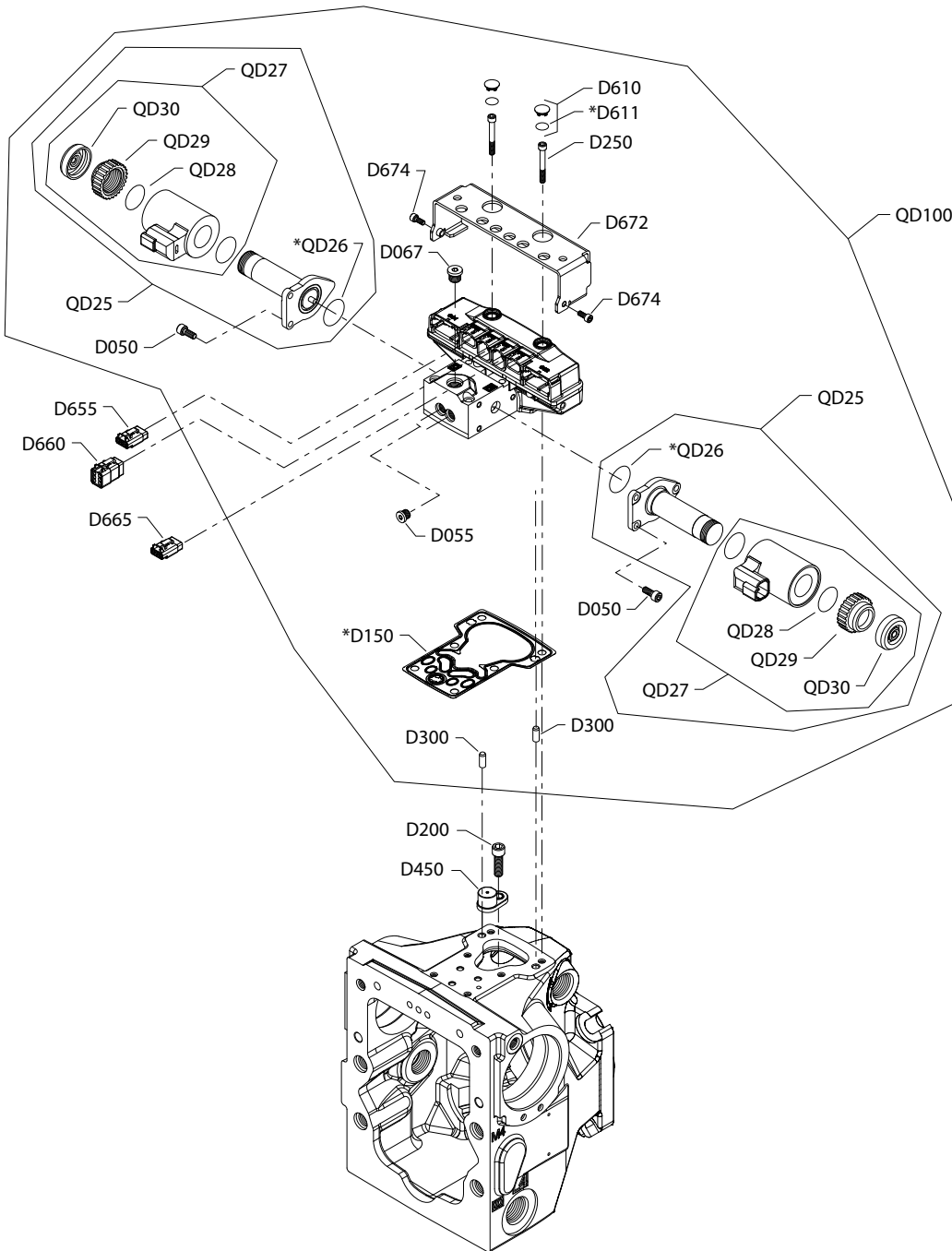
Order code: E8

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	14-25		716860	Screw, M5 x 12	6
D060	14-25		612291 (9003508-0008)	Seal nut, M8	1
D065	14-25		327007	Plug assembly	1
D067	14-25		327007	Plug assembly	1
D076	14-25		067694	Screw, M4 x 10	2
D150	14-25		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-25		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-25		505038	Screw, M6 x 45	6
D300	14-25		310979	Dowel pin	2
QD25	14-25		11012459	Proportional solenoid, 24v	2
QD26	14-25		11001952	O-ring	2
QD27	14-25		11028019	Coil kit, 24v, DEUTSCH connector	2
QD28	14-25		063172	O-ring	2
QD29	14-25		11028024	Coil nut	2
QD80	14-25		11129915	Solenoid vale, on/off, 24v	1
QD81	14-25		11152257	O-ring	1
QD83	14-25		11147332	Coil kit, 24v	1
QD84	14-25		11140393	O-ring	1
QD85	14-25		11140394	Coil nut	1
QD100	14-25		11147472	EDC kit, 24v, CCO	1

**Controls**

**H1P control E9**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

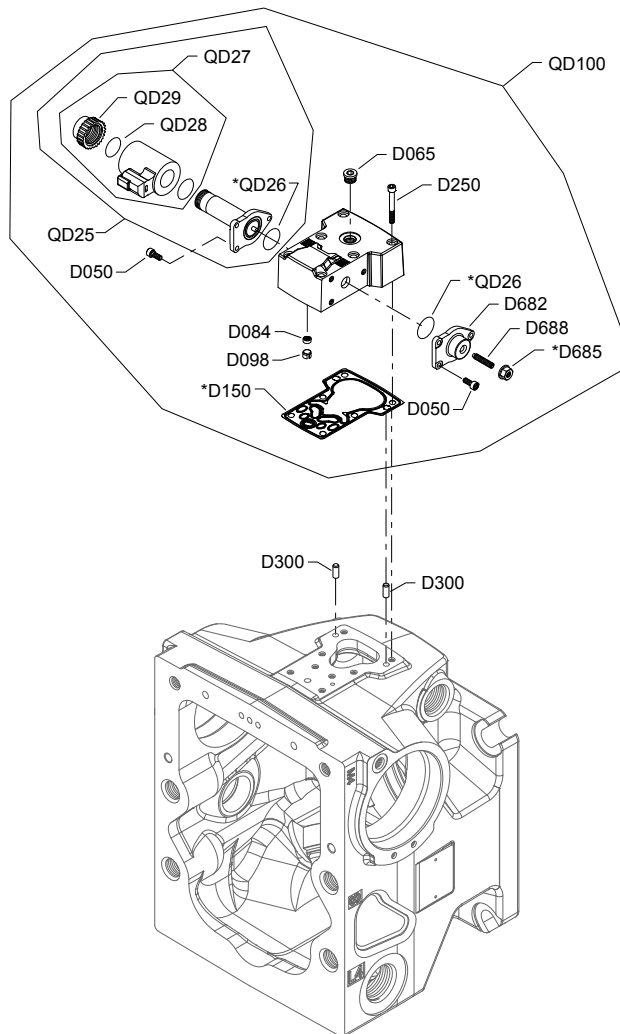
Order code: E9

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	10-04		716860	Screw, M5 x 12	6
D055	10-04		11040532	Plug assembly	2
D067	10-04		327007	Plug assembly	1
D150	10-04		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	10-04		141472	Screw, special	1
D250	10-04		505038	Screw, M6 x 45	6
D300	10-04		11036469	Dowel pin	2
D450	10-04		11003097	Magnet carrier	1
D610	10-04		11000467	Plug assembly	2
D611	10-04		11066774	O-ring	2
D655	10-04		11084827	Connector DTM 06-3S	1
D660	10-04		11084822	Connector DTM 06-6S	1
D665	10-04		11084827	Connector DTM 06-3S	1
D672	10-04		11151875	Protection	1
D674	10-04		716860	Screw, M5 x 12	2
QD25	10-04		140750	Proportional solenoid, 12 volt	2
QD26	10-04		11001952	O-ring	2
QD27	10-04		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	10-04		063172	O-ring	2
QD29	10-04		11004749	Coil nut	2
QD30	10-04		11027883	Cap	2
QD100	10-04		11065119	Automotive control kit, 12v, manual override	1

**Controls**

**H1P control F1, F2**

*F1 and F2 configuration*



Generic housing shown.

**⚠ Warning**

This control is for Fan Drive systems only. Use in other systems could result in unintended movement of machine or its elements. Loss of the input signal to this control will cause the pump to produce maximum flow. Contact Danfoss or an authorized distributor with questions regarding the use of this product.

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	12-33		716860	Screw, M5 x 12	6
D065	12-33		327007	Plug assembly	1
D150	12-33		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	12-33		505038	Screw, M6 x 45	6
D300	12-33		310979	Dowel pin	2
D682	12-33		11079441	Flange	1
D685	12-33		612291 (9003508-0008)	Seal nut, M8	1
D688	12-33		11079453	Adjusting screw	1
QD26	12-33		11001952	O-ring	2
QD28	12-33		063172	O-ring	1

### Order code: F1

QD25	12-33		11012457	Proportional solenoid, 12v	1
QD27	12-33		11028018	Coil kit, 12v, DEUTSCH connector	1
QD29	12-33		11027046	Coil nut	1
QD100	12-33		11081306	FDC kit, 12v, DEUTSCH connector	1

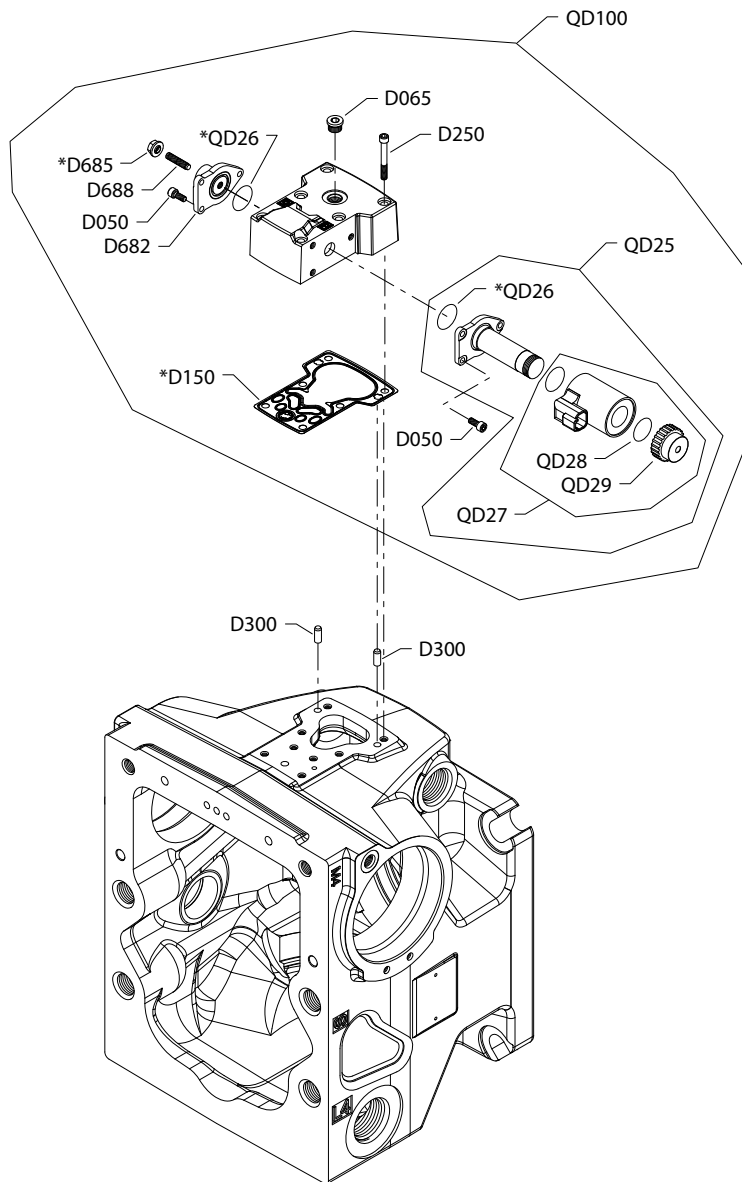
### Order code: F2

QD25	12-33		11012459	Proportional solenoid, 24v	1
QD27	12-33		11028019	Coil kit, 24v, DEUTSCH connector	1
QD29	12-33		11028024	Coil nut	1
QD100	12-33		11081307	FDC kit, 24v, DEUTSCH connector	1

**Controls**

**H1P control F4**

*F4 configuration*



Generic housing shown.

\* Included in overhaul seal kit



## Controls

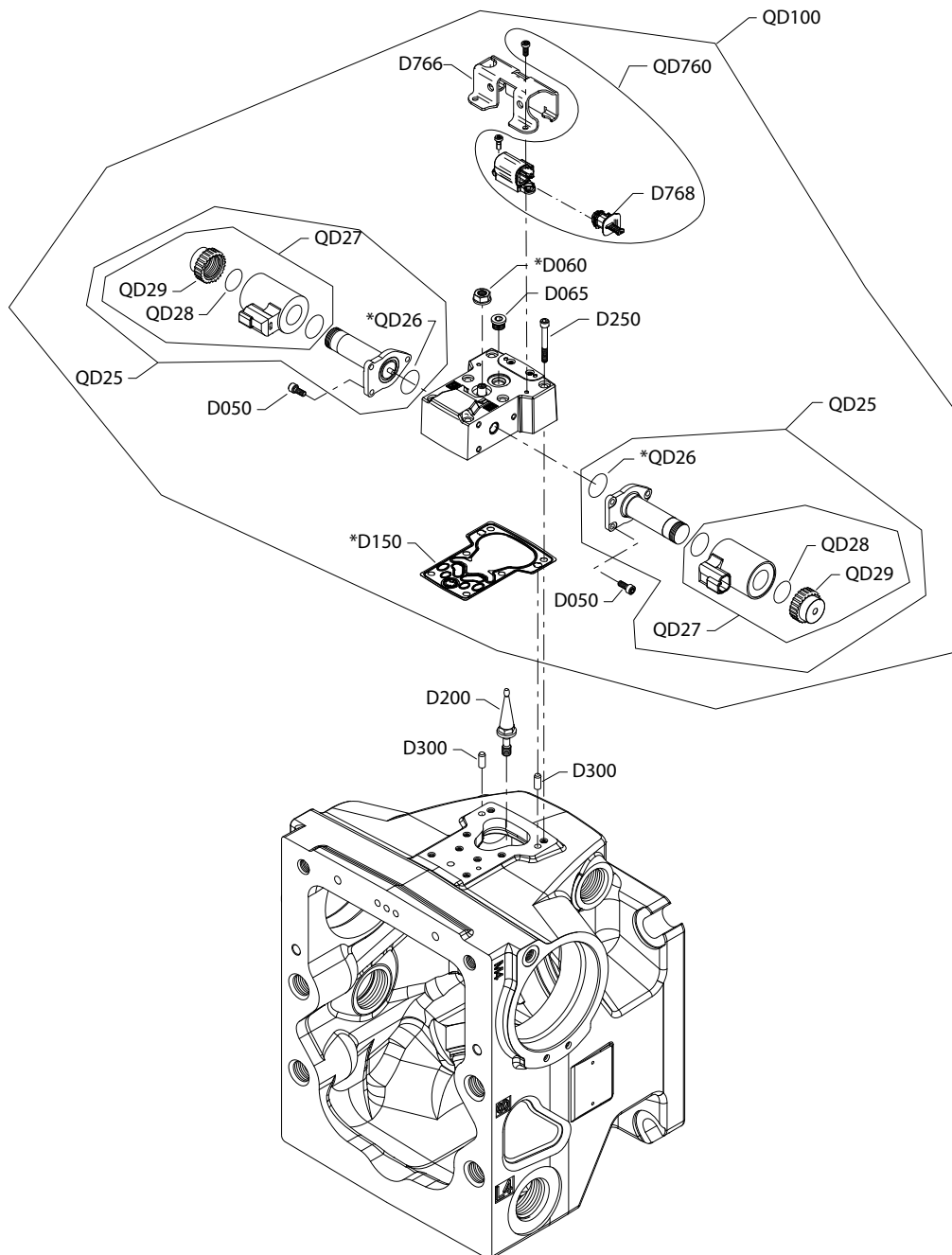
Order code: F4

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050			716860	Screw, M5 x 12	6
D065			327007	Plug assembly	1
D150			11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250			505038	Screw, M6 x 45	6
D300			310979	Dowel pin	2
D682			11079441	Flange	1
D685			612291 (9003508-0008)	Seal nut, M8	1
D688			11079453	Adjusting screw	1
QD25			11012459	Proportional solenoid, 24v	1
QD26			11001952	O-ring	2
QD27			11028019	Coil kit, 24v, DEUTSCH connector	1
QD28			063172	O-ring	1
QD29			11028024	Coil nut	1
QD100			11174982	FDC kit, 24v, DEUTSCH connector	1

**Controls**

**H1P control H2, H3**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	18-11		716860	Screw, M5 x 12	6
D060	18-11		612291	Seal nut	1
D065	18-11		327007	Plug assembly	1
D150	18-11		11173377	Control gasket	1
D200	18-11		11202172	Swashplate feedback link	1
D250	18-11		505038	Screw, M6 x 45	6
D300	18-11		310979	Dowel pin	2
D766	18-11		11187406	Protection cover	1
D768	18-11		11184617	Paint cover	1
QD26	18-11		11001952	O-ring	2
QD28	18-11		063172	O-ring	2
QD760	18-11		11201819	EDC sensor service kit	1

### Order code: H2

QD100	18-11		11196619	EDC kit, 12v, ASNSR	1
QD25	18-11		11012457	Proportional solenoid, 12v	2
QD27	18-11		11028018	Coil kit, 12V, DEUTSCH connector	2
QD29	18-11		11027046	Nut	2

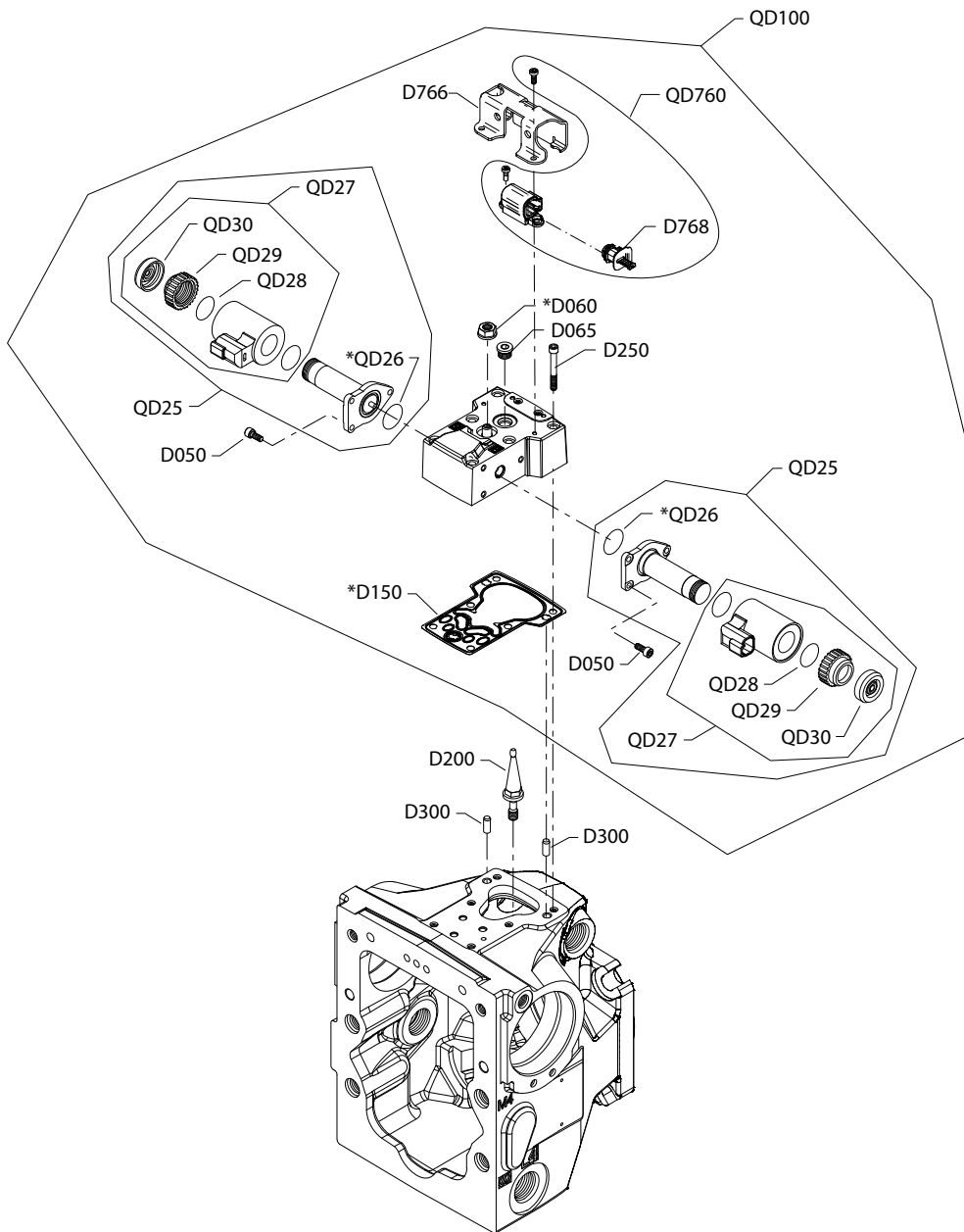
### Order code: H3

QD100	18-11		11179280	EDC kit, 24v, ASNSR	1
QD25	18-11		11012459	Proportional solenoid, 24v	2
QD27	18-11		11028019	Coil kit, 24v DEUTSCH connector	2
QD29	18-11		11028024	Nut	2

**Controls**

**H1P control H6, H7**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	18-13		716860	Screw, M5 x 12	6
D060	18-13		612291	Seal nut	1
D065	18-13		327007	Plug assembly	1
D150	18-13		11173377	Control gasket	1
D200	18-13		11202172	Swashplate feedback link	1
D250	18-13		505038	Screw, M6 x 45	6
D300	18-13		310979	Dowel pin	2
D766	18-13		11187406	Protection cover	1
D768	18-13		11184617	Paint cover	1
QD26	18-13		11001952	O-ring	2
QD28	18-13		063172	O-ring	2
QD30	18-13		11027883	Cap	2
QD760	18-13		11201819	EDC sensor service kit	1

### Order code: H6

QD100	18-13		11179281	EDC kit, 12V	1
QD25	18-13		140750	Proportional solenoid, 12V	2
QD27	18-13		11004698	Coil kit, 12V, DEUTSCH connector	2
QD29	18-13		11004749	Coil nut	2

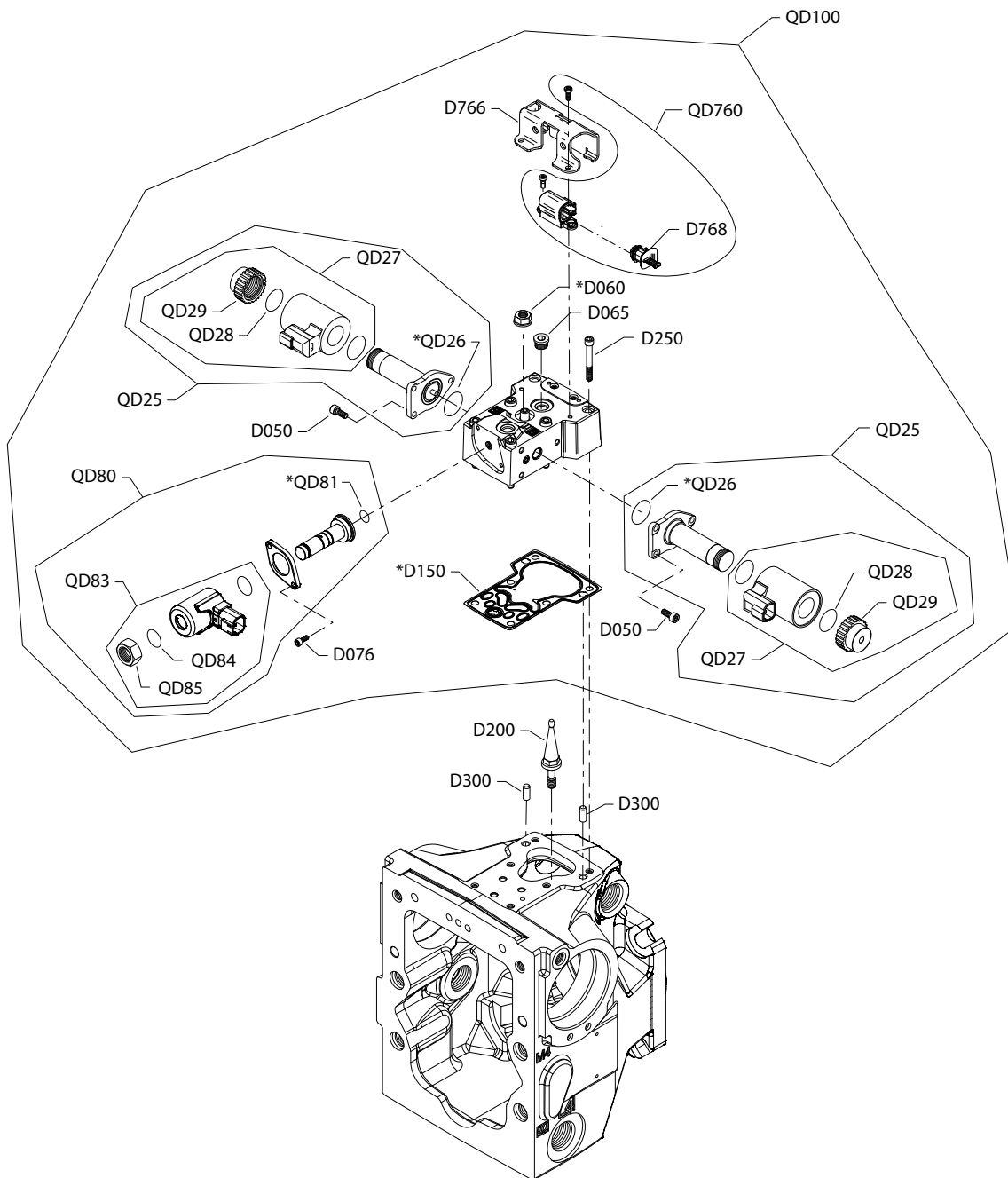
### Order code: H7

QD100	18-13		11179292	EDC kit, 24V	1
QD25	18-13		140751	Proportional solenoid, 24V	2
QD27	18-13		11004700	Coil kit, 24V, DEUTSCH connector	2
QD29	18-13		11004750	Coil nut	2

**Controls**

**H1P control H8, H9**

*Parts configuration*



Generic housing shown

Option H8 is available in SAE and metric configurations. Please order accordingly.

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	18-13		716860	Screw, M5 x 12	6
D060	18-13		612291	Seal nut	1
D065	18-13		327007	Plug assembly	1
D067	18-13		327007	Plug assembly	1
D076	18-13		067694	Screw, M4 x 10	2
D150	18-13		11173377	Control gasket	1
D200	18-13		11202172	Swashplate feedback link	1
D250	18-13		505038	Screw, M6 x 45	6
D300	18-13		310979	Dowel pin	2
D766	18-13		11187406	Protection cover	1
D768	18-13		11184617	Paint cover	1
QD28	18-13		063172	O-ring	2
QD84	18-13		11140393	O-ring	1
QD85	18-13		11140394	Nut	1
QD760	18-13		11201819	EDC sensor service kit	1

### Order code: H8

QD100	18-13		11179293	EDC kit, 12V	1
QD100	16-30		11182566	EDC kit, 12v ASNSR (metric)	1
QD25	18-13		11012457	Proportional solenoid, 12V	2
QD27	18-13		11028018	Coil kit, 12V, DEUTSCH connector	2
QD29	18-13		11027046	Coil nut	2
QD80	18-13		11129914	Solenoid, 12V, DEUTSCH connector	1
QD83	18-13		11136347	Coil kit, 12V, DEUTSCH connector	1

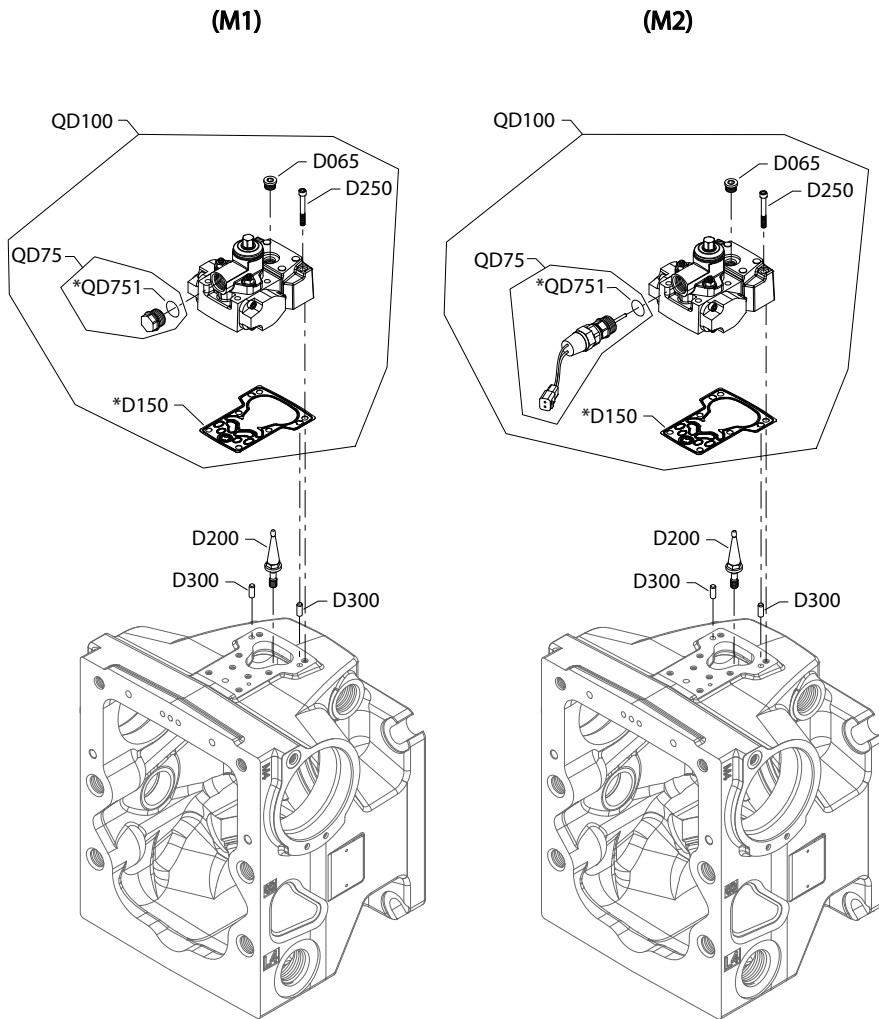
### Order code: H9

QD100	18-13		11179296	EDC kit, 24V	1
QD25	18-13		11012459	Proportional solenoid, 24V	2
QD27	18-13		11028019	Coil kit, 24V, DEUTSCH connector	2
QD29	18-13		11028024	Coil nut	2
QD80	18-13		11129915	Solenoid, 24V, DEUTSCH connector	1
QD83	18-13		11147332	Coil kit, 24V, DEUTSCH connector	1

**Controls**

**H1P control M1, M2**

*M1 and M2 configuration*



Generic housing shown

\* Included in overhaul seal kit



## Controls

Order code: common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D065	14-01		327007	Plug assembly	1
D150	14-01		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-01		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-01		505038	Screw, M6 x 45	6
D300	14-01		310979	Dowel pin	2
QD751	14-01		001131 (9004201-5000)	O-ring	1

Order code: M1

QD75	14-01		11119332	Spring seat assembly	1
QD100	14-01		11141225	MDC kit	1

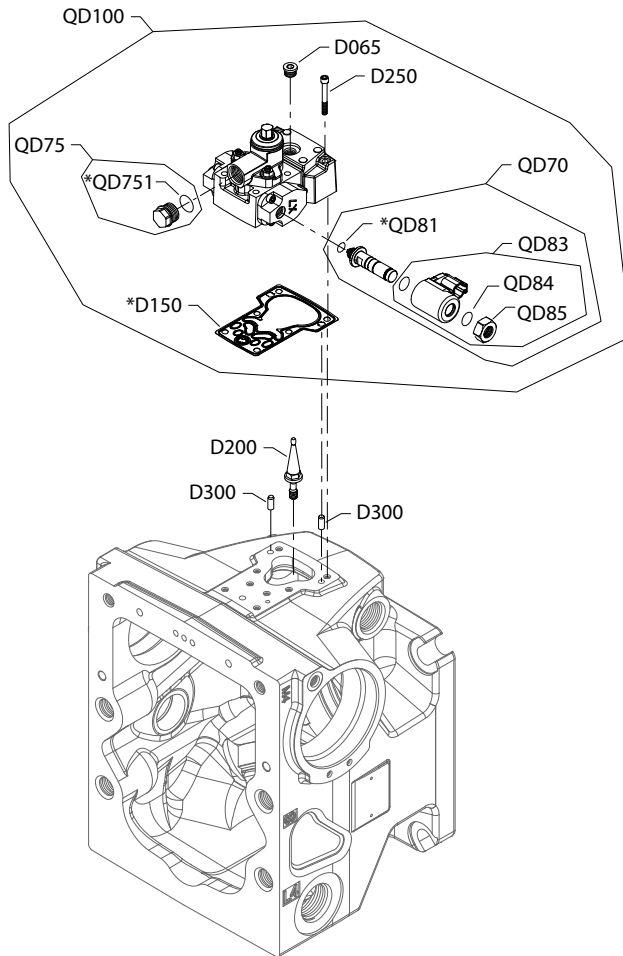
Order code: M2

QD75	14-01		11126847	Spring seat/neutral start switch assembly	1
QD100	14-01		11141236	MDC kit	1

**Controls**

**H1P control M3, M4**

*M3 and M4 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D065	14-01		327007	Plug assembly	1
D150	14-01		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-01		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-01		505038	Screw, M6 x 45	6
D300	14-01		310979	Dowel pin	2
QD81	14-01		11152257	O-ring	1
QD84	14-01		11140393	O-ring	1
QD85	14-01		11140394	Coil nut	1
QD751	14-01		001131 (9004201-5000)	O-ring	1

### Order code: M3

QD70	14-01		11129916	Solenoid valve, 12v	1
QD75	14-01		11119332	Spring seat assembly	1
QD83	14-01		11136347	Coil kit, 12v	1
QD100	14-01		11141237	MDC kit, 12v, CCO	1

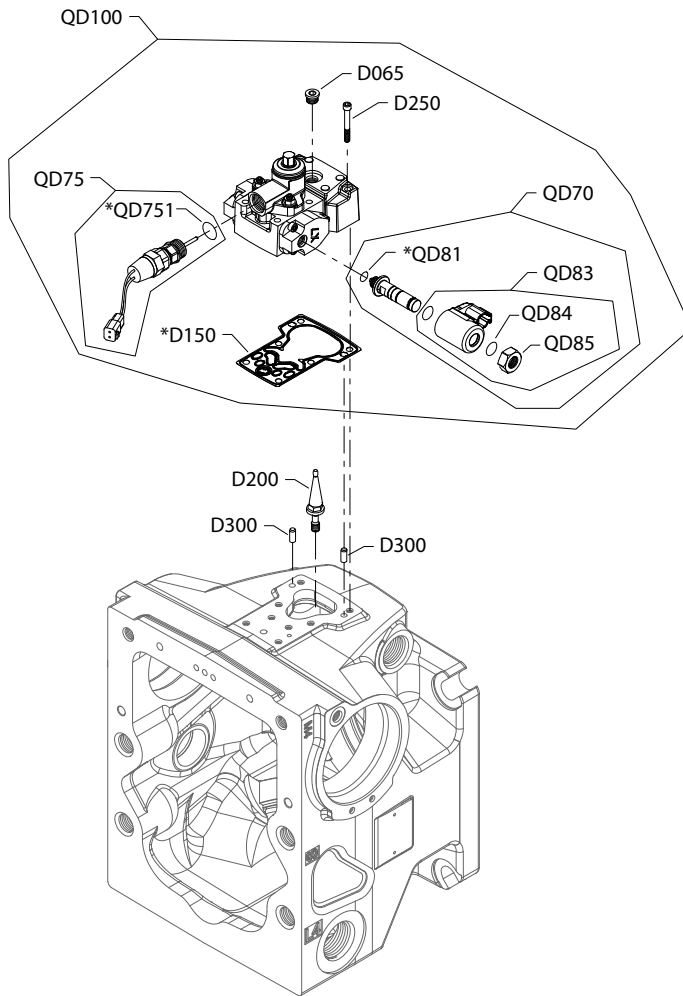
### Order code: M4

QD70	14-01		11129917	Solenoid valve, 24v	1
QD83	14-01		11136348	Coil kit, 24v, CCO	1
QD100	14-01		11141238	MDC kit, 24v	1

**Controls**

**H1P control M5, M6**

*M5 and M6 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D065	14-01		327007	Plug assembly	1
D150	14-01		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-01		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-01		505038	Screw, M6 x 45	6
D300	14-01		310979	Dowel pin	2
QD75	14-01		11126847	Spring seat/neutral start switch assembly	1
QD81	14-01		11152257	O-ring	1
QD84	14-01		11140393	O-ring	1
QD85	14-01		11140394	Coil nut	1
QD751	14-01		001131 (9004201-5000)	O-ring	1

### Order code: M5

QD70	14-01		11129916	Solenoid valve, 12v	1
QD83	14-01		11136347	Coil kit, 12v	1
QD100	14-01		11141239	MDC kit, 12v, neutral start switch assembly, CCO	1

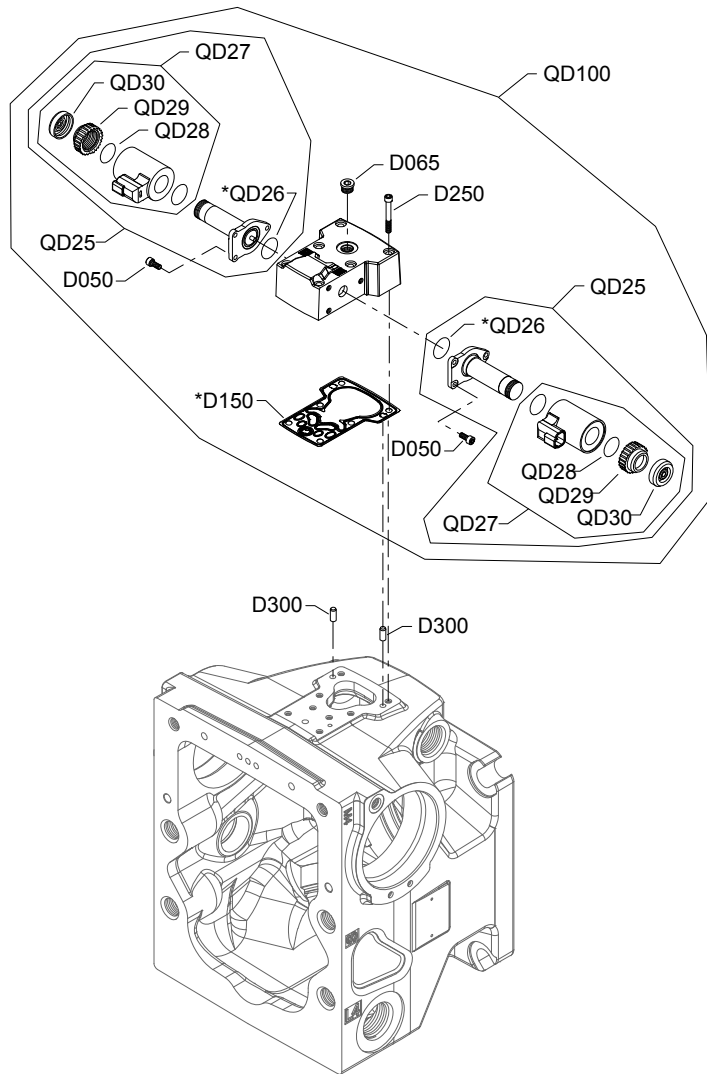
### Order code: M6

QD70	14-01		11129917	Solenoid valve, 24v	1
QD83	14-01		11136348	Coil kit, 24v	1
QD100	14-01		11141240	MDC kit, 24v, neutral start switch assembly, CCO	1

**Controls**

**H1P control N1, N2**

*N1 and N2 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D065	16-30		327007	Plug assembly	1
D150	16-30		11173377	Control gasket	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		310979	Dowel pin	2
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD30	16-30		11027883	Cap	2

### Order code: N1

QD25	16-30		140750	Proportional solenoid, 12v, DEUTSCH connector	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-30		11004749	Coil nut	2
QD100	16-30		11147921	NFPE control kit, 12v, manual override, DEUTSCH connector	1

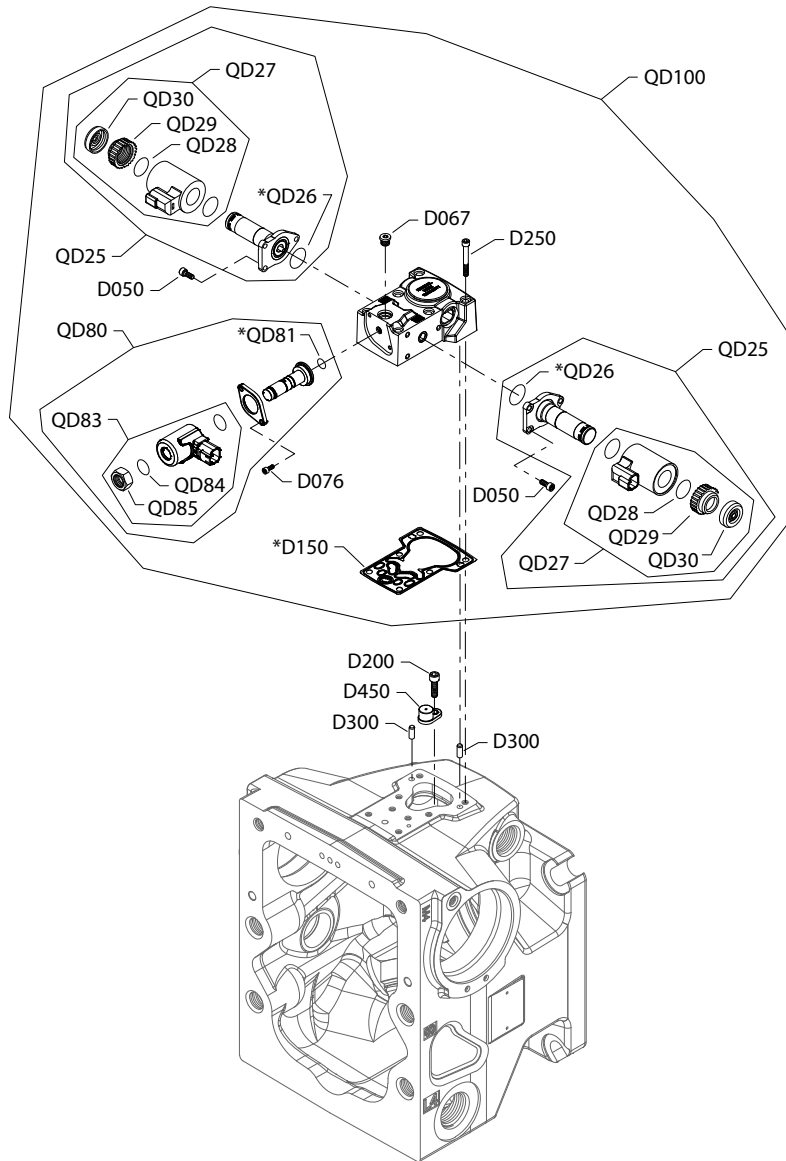
### Order code: N2

QD25	16-30		140751	Proportional solenoid, 24v, DEUTSCH connector	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-30		11004750	Coil nut	2
QD100	16-30		11147925	NFPE control kit, 24v, manual override, DEUTSCH connector	1

**Controls**

**H1P control N3, N4**

*N3 and N4 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210



## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D067	16-30		327007	Plug assembly	1
D076	16-30		067694	Screw, M4 x 10	2
D150	16-30		11173377	Control gasket	1
D200	16-30		141472	Screw, special	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		310979	Dowel pin	2
D450	16-30		11003097	Magnetic carrier	1
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD29	16-30		11004749	Coil nut	2
QD30	16-30		11027883	Cap	2
QD81	16-30		11152257	O-ring	1
QD84	16-30		11140393	O-ring	1
QD85	16-30		11140394	Nut	1

### Order code: N3

QD25	16-30		140750	Proportional solenoid, 12v	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD80	16-30		11129914	Solenoid, 12V, DEUTSCH connector	1
QD83	16-30		11147301	Coil kit, 12V, DEUTSCH connector	1
QD100	16-30		11147920	NFPE control kit, 12v, CCO	1

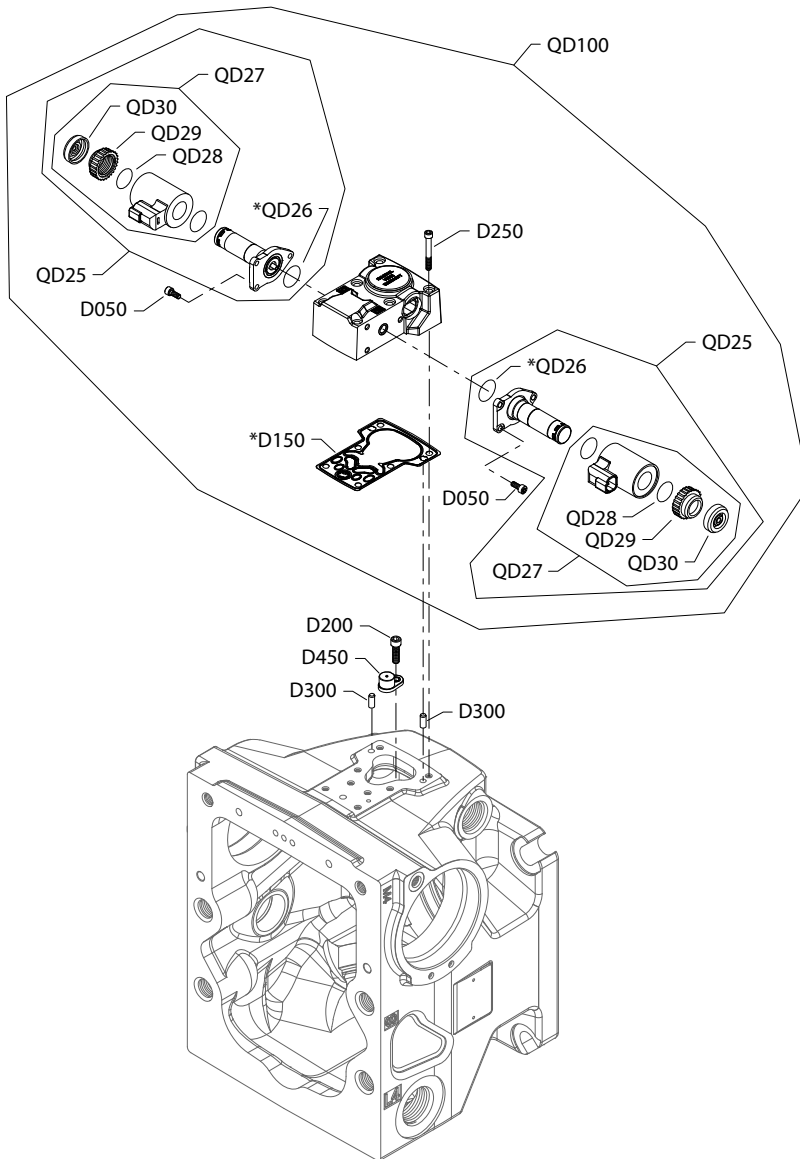
### Order code: N4

QD25	16-30		140751	Proportional solenoid, 24v	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD80	16-30		11129915	Solenoid, 24V, DEUTSCH connector	1
QD83	16-30		11147332	Coil kit, 24V, DEUTSCH connector	1
QD100	16-30		11147924	NFPE control kit, 24v, CCO	1

### Controls

#### H1P control N5, N6

N5 and N6 configuration



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D150	16-30		11173377	Control gasket	1
D200	16-30		141472	Screw, special	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		310979	Dowel pin	2
D450	16-30		11003097	Magnetic carrier	1
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD29	16-30		11004749	Coil nut	2
QD30	16-30		11027883	Cap	2

### Order code: N5

QD25	16-30		140750	Proportional solenoid, 12v	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD100	16-30		11147918	NFPE control kit, 12v, manual override	1

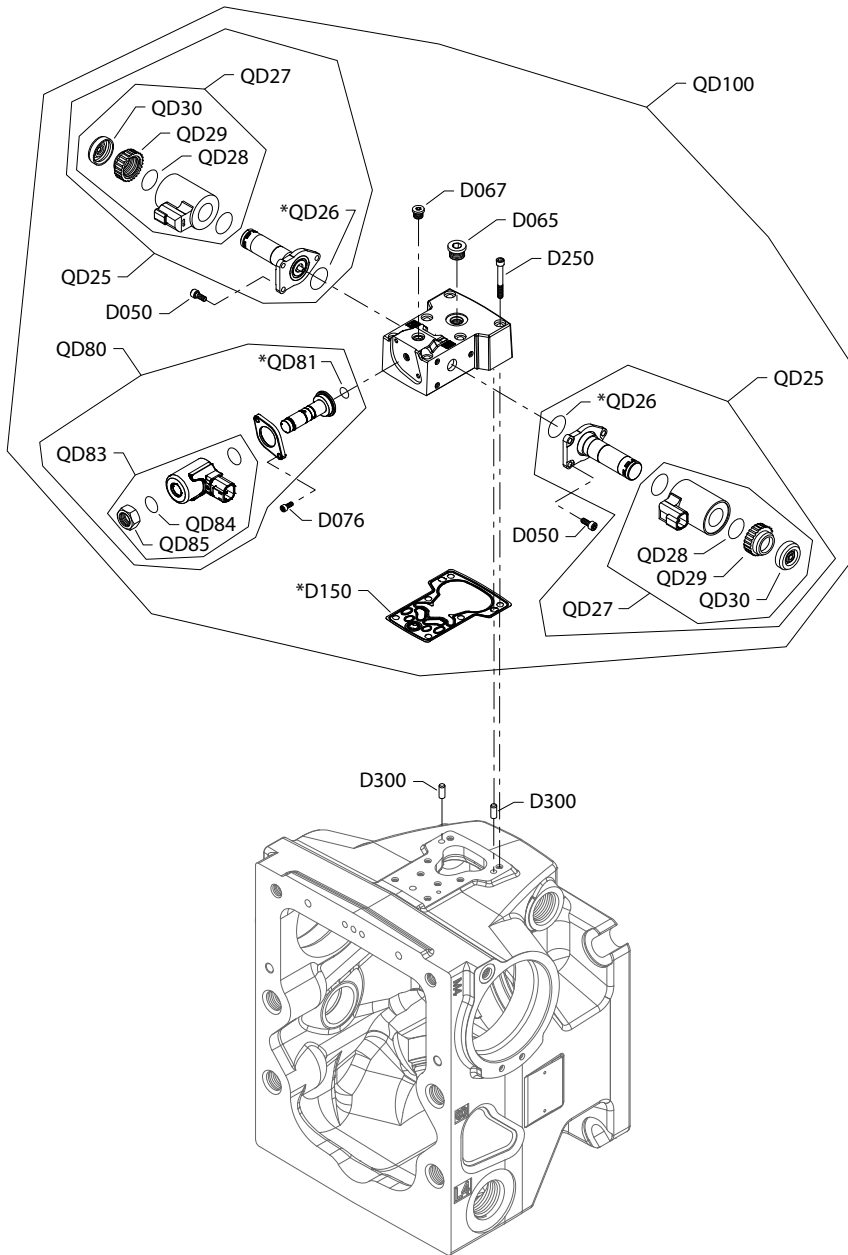
### Order code: N6

QD25	16-30		140751	Proportional solenoid, 24v	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD100	16-30		11147922	NFPE control kit, 24v, manual override	1

**Controls**

**H1P control N7, N8**

*N7 and N8 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D067	16-30		327007	Plug assembly	1
D076	16-30		067694	Screw, M4 x 10	1
D150	16-30		11173377	Control gasket	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		310979	Dowel pin	2
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD30	16-30		11027883	Cap	2
QD81	16-30		11152257	O-ring	1
QD84	16-30		11140393	O-ring	1
QD85	16-30		11140394	Nut	1

### Order code: N7

QD25	16-30		140750	Proportional solenoid, 12v	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-30		11004749	Coil nut	2
QD80	16-30		11129914	Solenoid, 12V, DEUTSCH connector	1
QD83	16-30		11147301	Coil kit, 12V, DEUTSCH connector	1
QD100	16-30		11147919	NFPE control kit, 12v, CCO	1

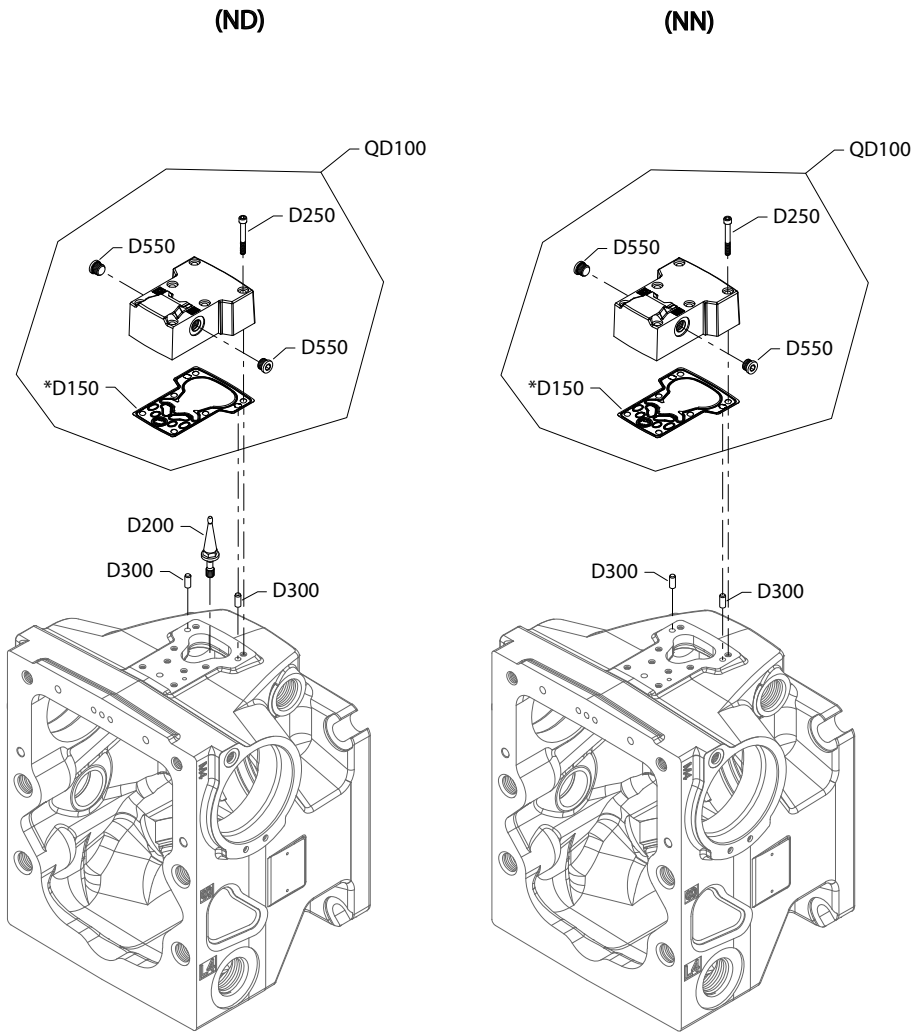
### Order code: N8

QD25	16-30		140751	Proportional solenoid, 24v	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-30		11004750	Coil nut	2
QD80	16-30		11129915	Solenoid, 24V, DEUTSCH connector	1
QD83	16-30		11147332	Coil kit, 24V, DEUTSCH connector	1
QD100	16-30		11147923	NFPE control kit, 24v, CCO	1

### Controls

#### H1P control ND, NN

ND and NN configuration



---

Generic housing shown

---

\* Included in overhaul seal kit Q210

## Controls

Order code: ND

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D150	16-02		11173377	Control gasket	1
D200	16-02		11202172	Swashplate feedback link	1
D250	16-02		505038	Screw, M6 x 45	6
D300	16-02		310979	Dowel pin	2
D550	16-02		140644	Plug assembly	2
QD100	16-02		11121984	Control cover kit	1

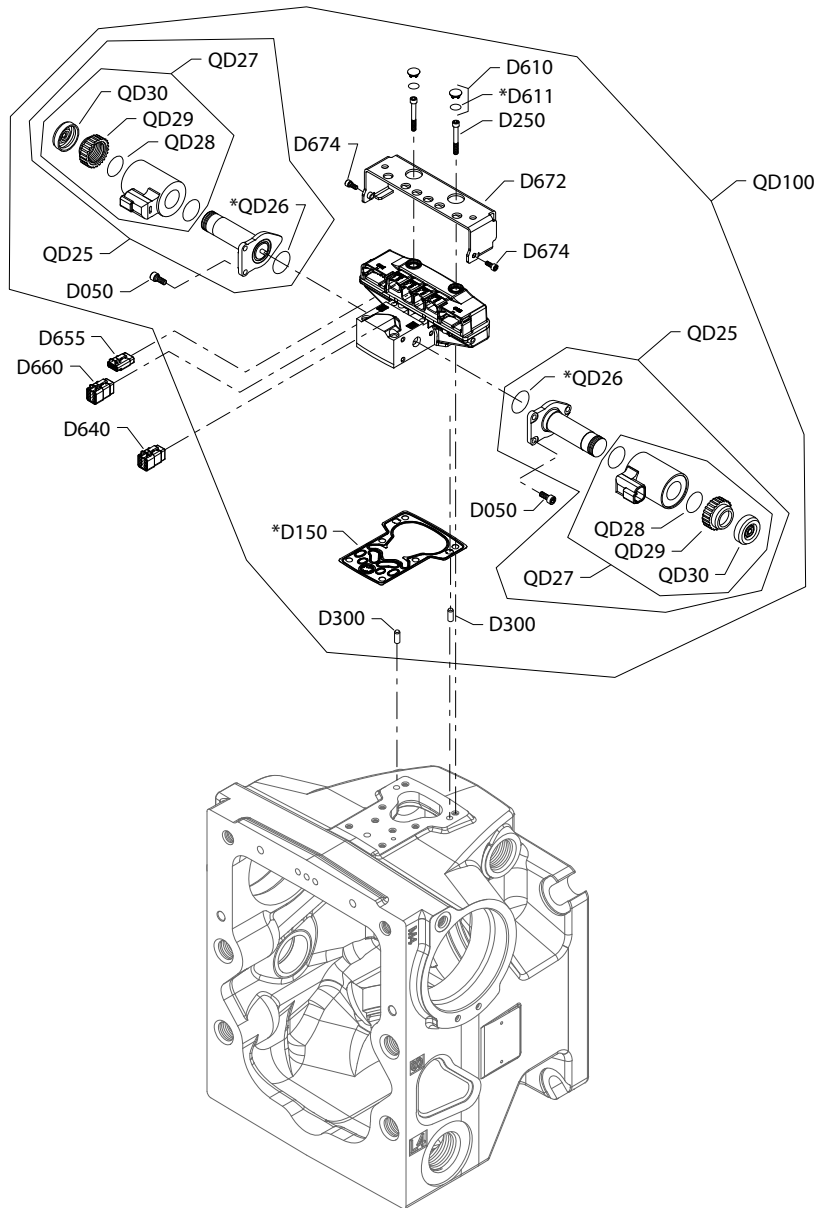
Order code: NN

D150	14-01		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D250	14-01		505038	Screw, M6 x 45	6
D300	14-01		310979	Dowel pin	2
D550	14-01		140644	Plug assembly	2
QD100	14-01		11121984	Control cover kit	1

**Controls**

**H1P control P5**

*P5 configuration*



Generic housing shown

\* Included in overhaul kit Q210



## Controls

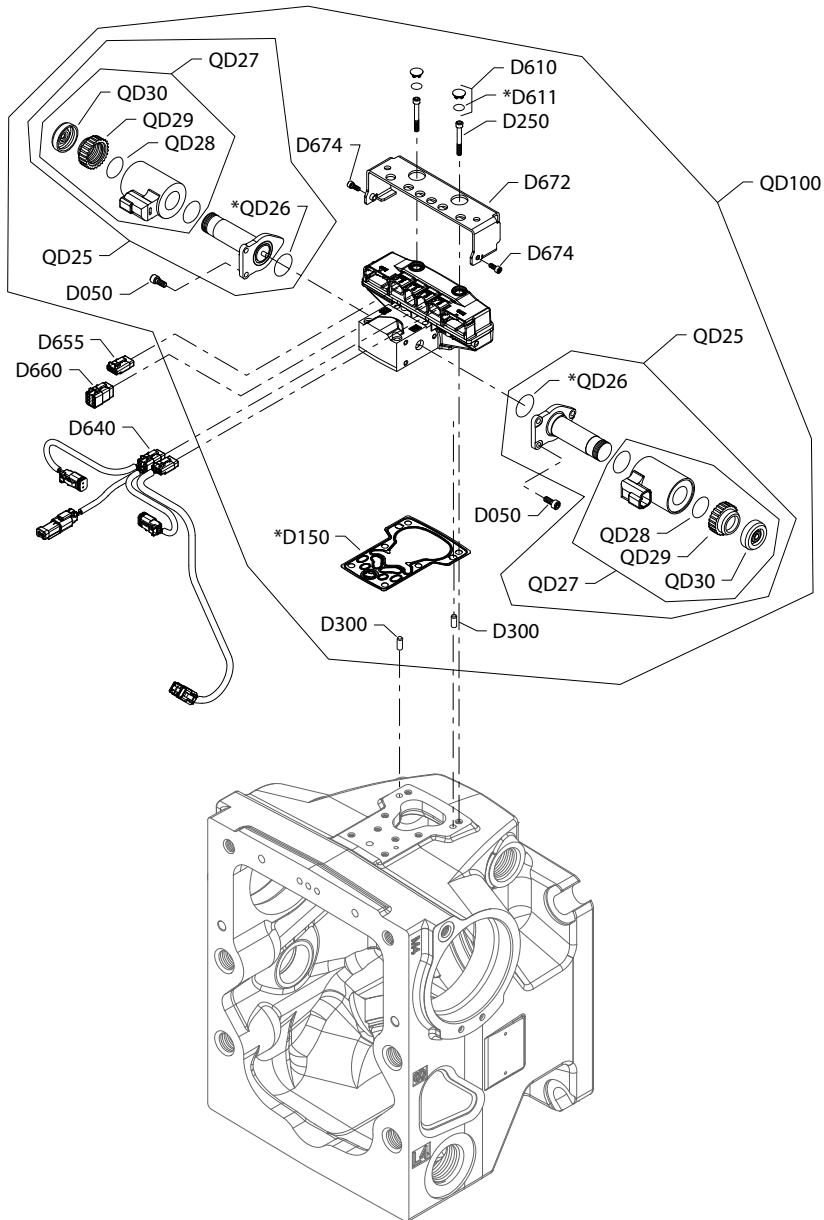
Order code: P5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	17-15		716860	Screw, M5 x 12	6
D150	17-15		11173377	Control gasket	1
D250	17-15		505038	Screw, M6 x 45	6
D300	17-15		11036469	Dowel pin	2
D610	17-15		11000467	Plug assembly	2
D611	17-15		11066774	O-ring	2
D640	17-15		11084822	Blank, connector DTM 06-6S	1
D655	17-15		11084827	Blank, connector DTM 06-3S	1
D660	17-15		11084822	Blank, connector DTM 06-6S	1
D672	17-15		11151875	Protection	1
D674	17-15		716860	Screw, M5 x 12	2
QD25	17-15		140750	Proportional solenoid, 12 volt	2
QD26	17-15		11001952	O-ring	2
QD27	17-15		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	17-15		063172	O-ring	2
QD29	17-15		11004749	Coil nut	2
QD30	17-15		11027883	Cap	2
QD100	17-15		11147941	Automotive control kit, 12v, manual override	1

**Controls**

**H1P control P6, P7**

*P6 and P7 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D150	16-30		11173377	Control gasket	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		11036469	Dowel pin	2
D610	16-30		11000467	Plug assembly	2
D611	16-30		11066774	O-ring	2
D640	16-30		11023348	AC wiring harness	1
D655	16-30		11084827	Blank, connector DTM 06-3S	1
D660	16-30		11084822	Blank, connector DTM 06-6S	1
D672	16-30		11151875	Protection	1
D674	16-30		716860	Screw, M5 x 12	2
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD29	16-30		11004749	Coil nut	2
QD30	16-30		11027883	Cap	2

### Order code: P6

QD25	16-30		140750	Proportional solenoid, 12 volt	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD100	16-30		11147941	Automotive control kit, 12v, manual override	1

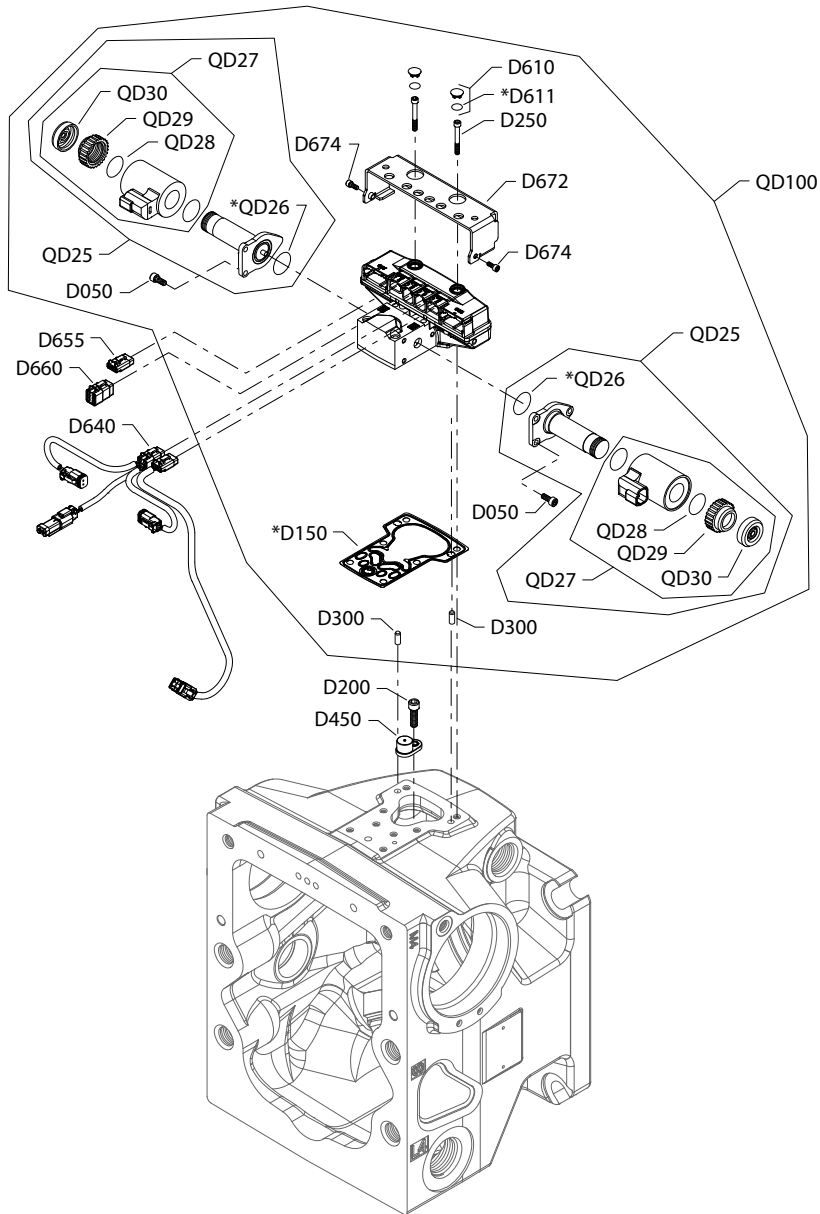
### Order code: P7

QD25	16-30		140751	Proportional solenoid, 24 volt	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD100	16-30		11147943	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control P8, P9**

*P8 and P9 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D150	16-30		11173377	Control gasket	1
D200	16-30		141472	Screw, special	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		11036469	Dowel pin	2
D450	16-30		11003097	Magnetic carrier	1
D610	16-30		11000467	Plug assembly	2
D611	16-30		11066774	O-ring	2
D640	16-30		11023348	AC wiring harness	1
D655	16-30		11084827	Blank, connector DTM 06-3S	1
D660	16-30		11084822	Blank, connector DTM 06-6S	1
D672	16-30		11151875	Protection	1
D674	16-30		716860	Screw, M5 x 12	2
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD30	16-30		11027883	Cap	2

### Order code: P8

QD25	16-30		140750	Proportional solenoid, 12 volt	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-30		11004749	Coil nut	2
QD100	16-30		11147940	Automotive control kit, 12v, manual override	1

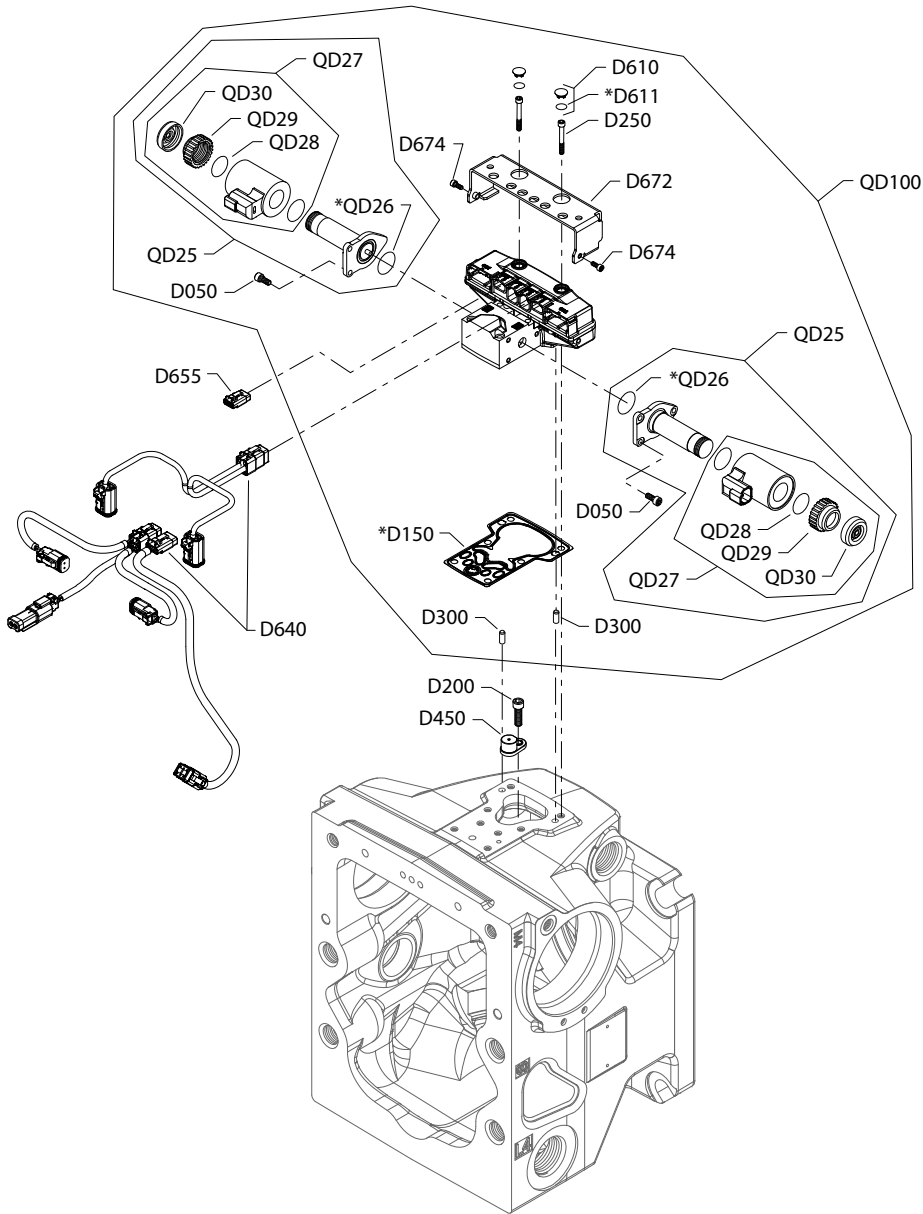
### Order code: P9

QD25	16-30		140751	Proportional solenoid, 24 volt	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-30		11004750	Coil nut	2
QD100	16-30		11147942	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control R1, R2**

*R1 and R2 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-30		716860	Screw, M5 x 12	6
D150	16-30		11173377	Control gasket	1
D200	16-30		141472	Screw, special	1
D250	16-30		505038	Screw, M6 x 45	6
D300	16-30		11036469	Dowel pin	2
D450	16-30		11003097	Magnetic carrier	1
D610	16-30		11000467	Plug assembly	2
D611	16-30		11066774	O-ring	2
D640	16-30		11105876	AC wiring harness	1
D655	16-30		11084827	Blank, connector DTM 06-35	1
D672	16-30		11151875	Protection	1
D674	16-30		716860	Screw, M5 x 12	2
QD26	16-30		11001952	O-ring	2
QD28	16-30		063172	O-ring	2
QD30	16-30		11027883	Cap	2

### Order code: R1

QD25	16-30		140750	Proportional solenoid, 12 volt	2
QD27	16-30		11004698	Coil kit, 12v, DEUTSCH connector	2
QD29	16-30		11004749	Coil nut	2
QD100	16-30		11147940	Automotive control kit, 12v, manual override	1

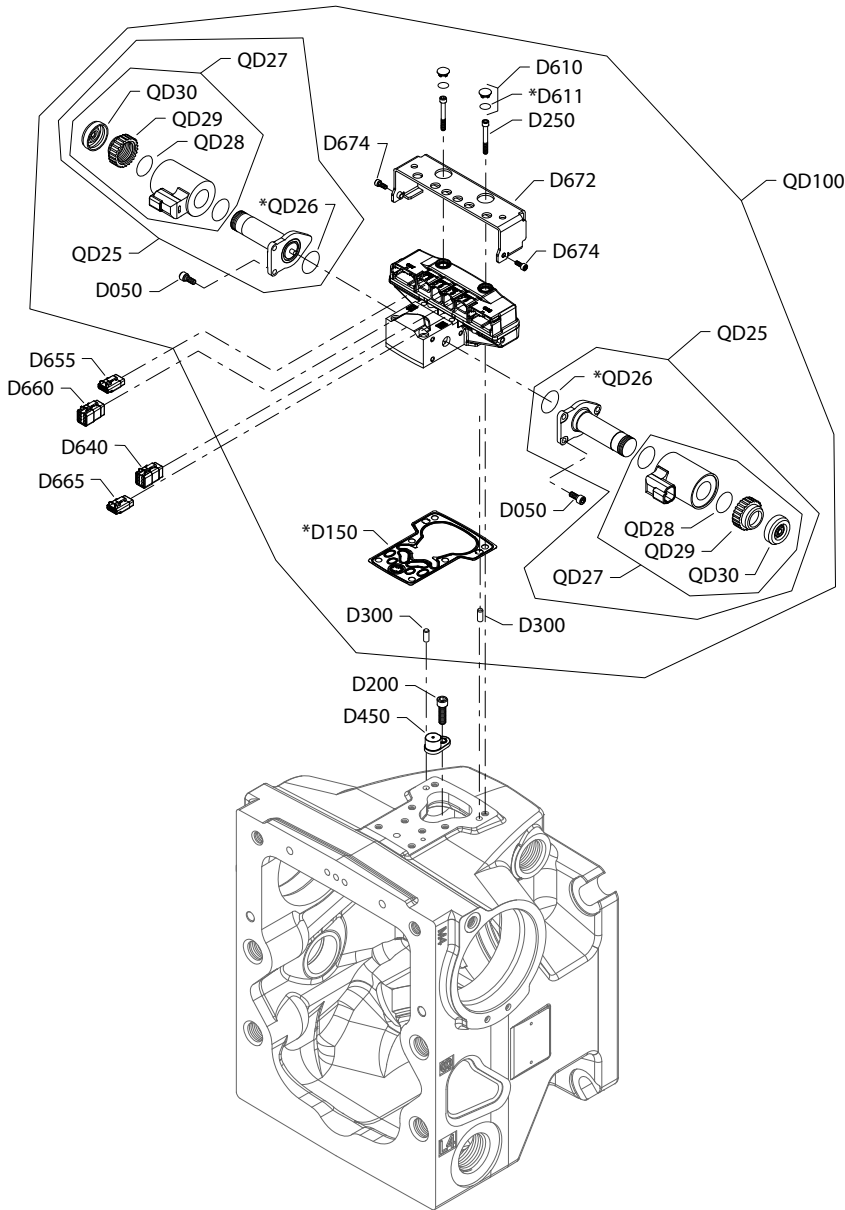
### Order code: R2

QD25	16-30		140751	Proportional solenoid, 24 volt	2
QD27	16-30		11004700	Coil kit, 24v, DEUTSCH connector	2
QD29	16-30		11004750	Coil nut	2
QD100	16-30		11147942	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control R3**

*R3 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210



## Controls

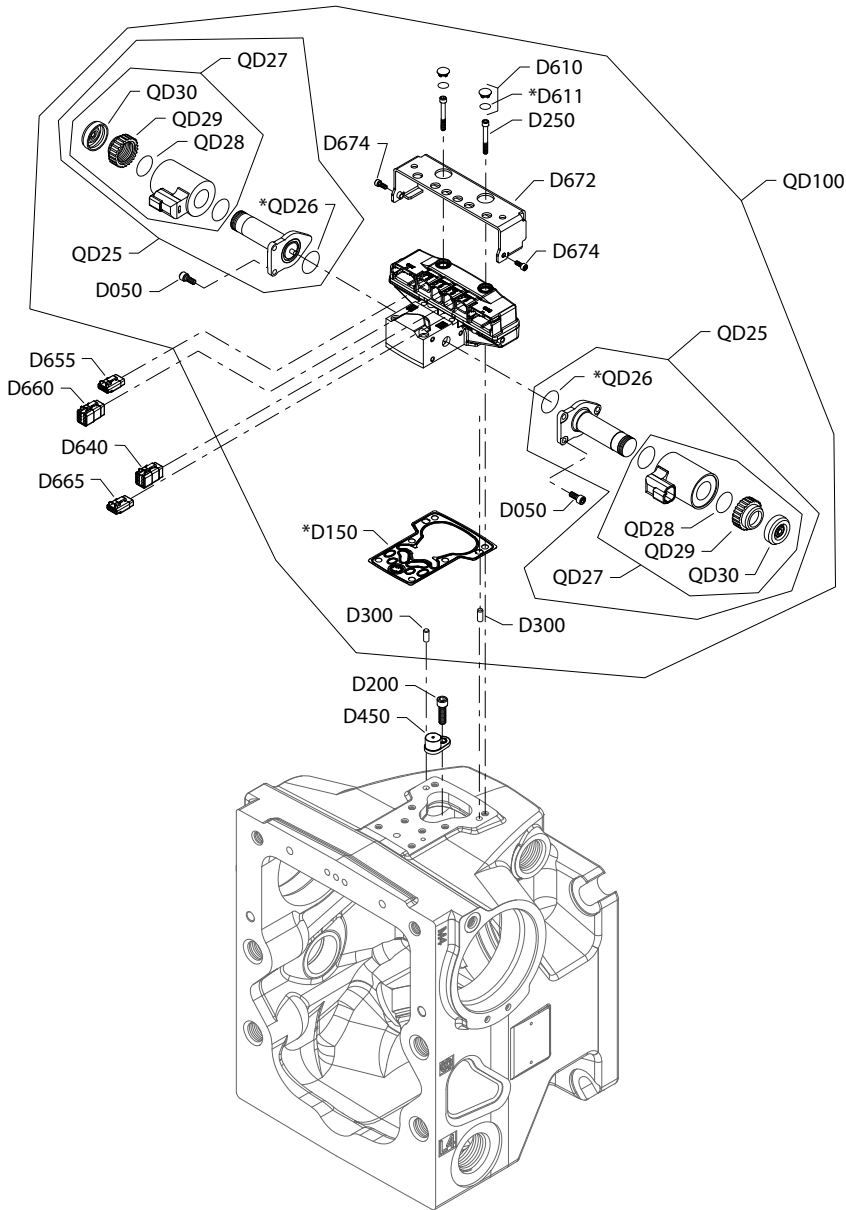
Order code: R3

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	16-17		716860	Screw, M5 x 12	6
D150	16-17		11173377	Control gasket	1
D200	16-17		141472	Screw, special	1
D250	16-17		505038	Screw, M6 x 45	6
D300	16-17		11036469	Dowel pin	2
D450	16-17		11003097	Magnetic carrier	1
D610	16-17		11000467	Plug assembly	2
D611	16-17		11066774	O-ring	2
D640	16-17		11084822	Blank, connector DTM 06-6S	1
D655	16-17		11084827	Blank, connector DTM 06-3S	1
D660	16-17		11084822	Blank, connector DTM 06-6S	1
D665	16-17		11084827	Blank, connector DTM 06-3S	1
D672	16-17		11151875	Protection	1
D674	16-17		716860	Screw, M5 x 12	2
QD25	16-17		140751	Proportional solenoid, 24 volt	2
QD26	16-17		11001952	O-ring	2
QD27	16-17		11004700	Coil kit, 24v, DEUTSCH connector	2
QD28	16-17		063172	O-ring	2
QD29	16-17		11004750	Coil nut	2
QD30	16-17		11027883	Cap	2
QD100	16-17		11147943	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control R4**

*R4 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

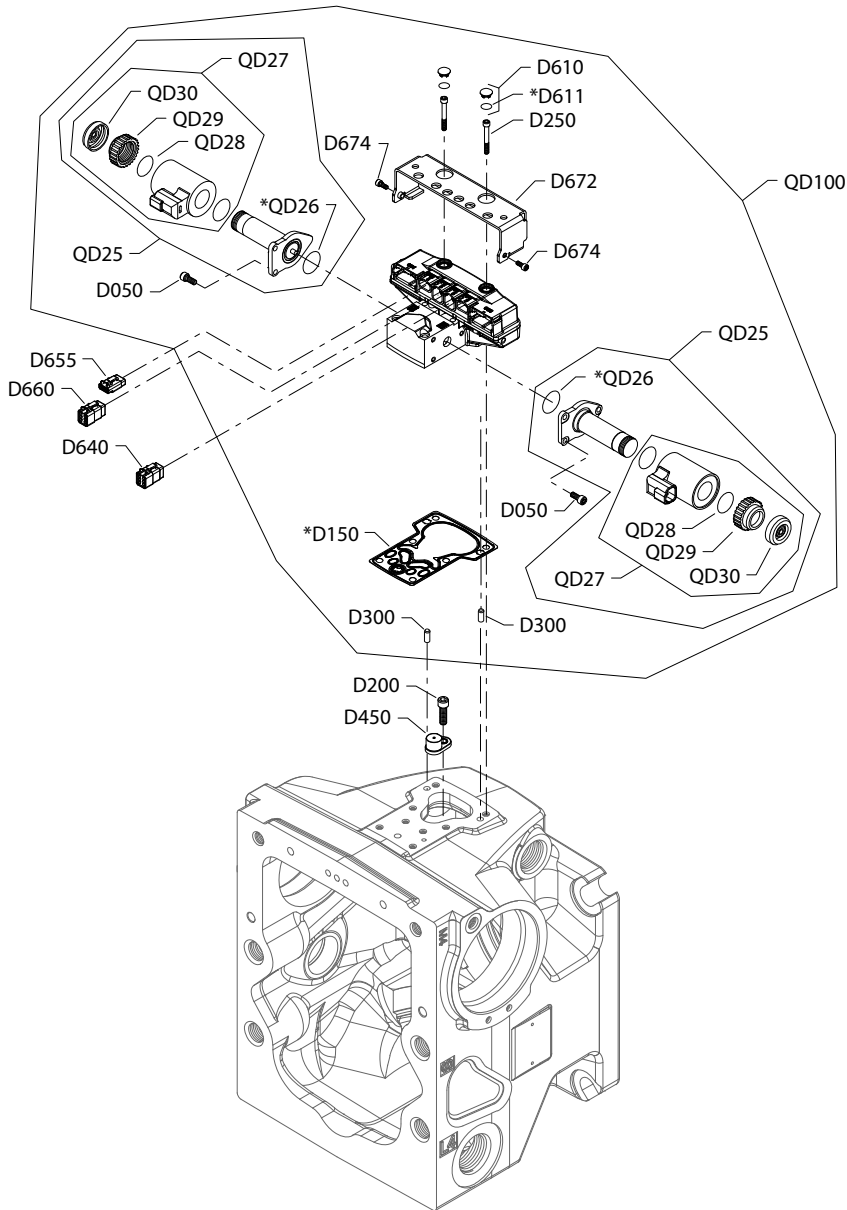
Order code: R4

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	17-15		716860	Screw, M5 x 12	6
D150	17-15		11173377	Control gasket	1
D200	17-15		141472	Screw, special	1
D250	17-15		505038	Screw, M6 x 45	6
D300	17-15		11036469	Dowel pin	2
D450	17-15		11003097	Magnetic carrier	1
D610	17-15		11000467	Plug assembly	2
D611	17-15		11066774	O-ring	2
D640	17-15		11084822	Blank, connector DTM 06-6S	1
D655	17-15		11084827	Blank, connector DTM 06-3S	1
D660	17-15		11084822	Blank, connector DTM 06-6S	1
D665	17-15		11084827	Blank, connector DTM 06-3S	1
D672	17-15		11151875	Protection	1
D674	17-15		716860	Screw, M5 x 12	2
QD25	17-15		140750	Proportional solenoid, 12 volt	2
QD26	17-15		11001952	O-ring	2
QD27	17-15		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	17-15		063172	O-ring	2
QD29	17-15		11004749	Coil nut	2
QD30	17-15		11027883	Cap	2
QD100	17-15		11147940	Automotive control kit, 12v, manual override	1

**Controls**

**H1P control R5**

*R5 configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

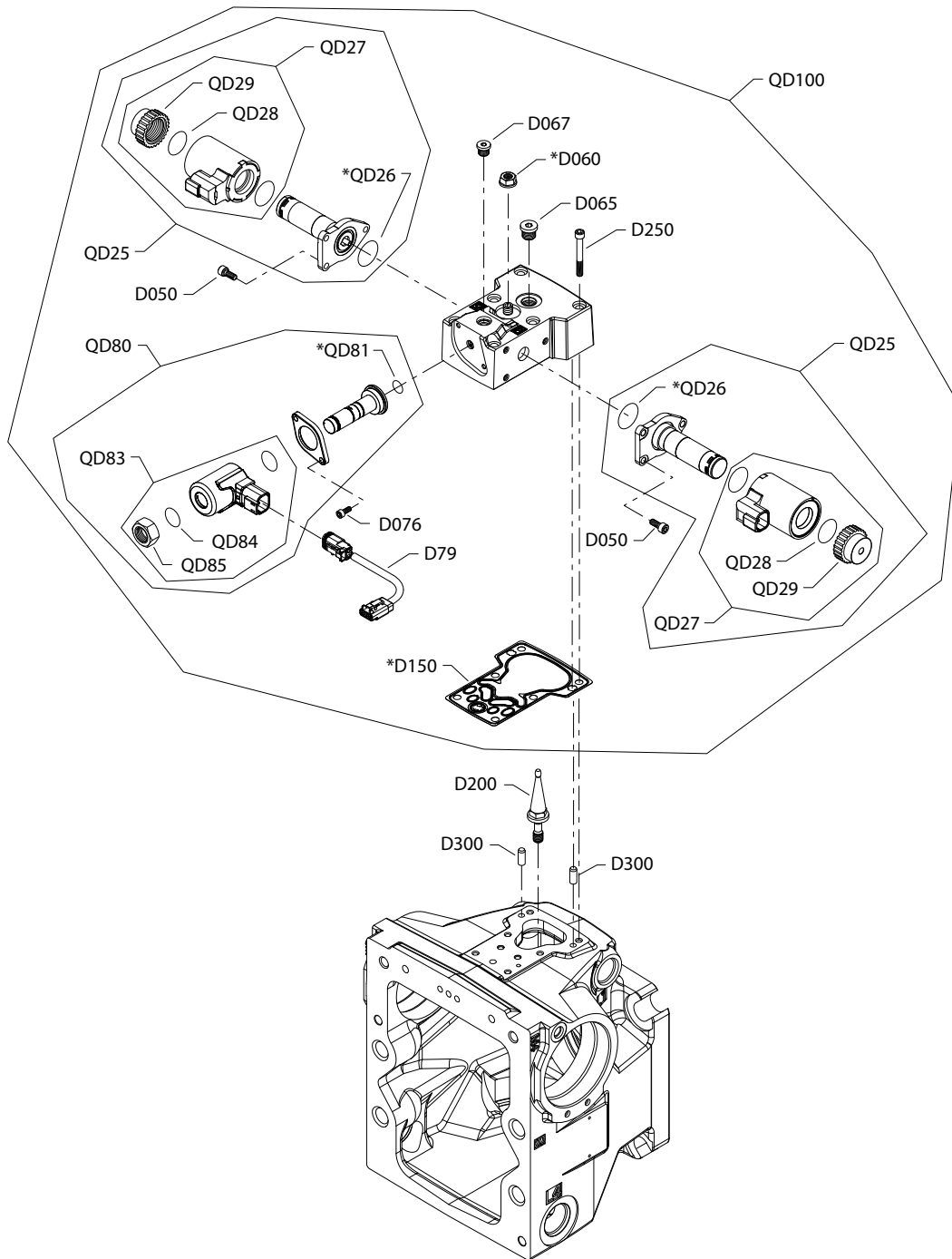
Order code: R5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	17-15		716860	Screw, M5 x 12	6
D150	17-15		11173377	Control gasket	1
D200	17-15		141472	Screw, special	1
D250	17-15		505038	Screw, M6 x 45	6
D300	17-15		11036469	Dowel pin	2
D450	17-15		11003097	Magnetic carrier	1
D610	17-15		11000467	Plug assembly	2
D611	17-15		11066774	O-ring	2
D640	17-15		11084822	Blank, connector DTM 06-6S	1
D655	17-15		11084827	Blank, connector DTM 06-3S	1
D660	17-15		11084822	Blank, connector DTM 06-6S	1
D672	17-15		11151875	Protection	1
D674	17-15		716860	Screw, M5 x 12	2
QD25	17-15		140751	Proportional solenoid, 24 volt	2
QD26	17-15		11001952	O-ring	2
QD27	17-15		11004700	Coil kit, 24v, DEUTSCH connector	2
QD28	17-15		063172	O-ring	2
QD29	17-15		11004750	Coil nut	2
QD30	17-15		11027883	Cap	2
QD100	17-15		11147942	Automotive control kit, 24v, manual override	1

**Controls**

**H1P control S6**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210

## Controls

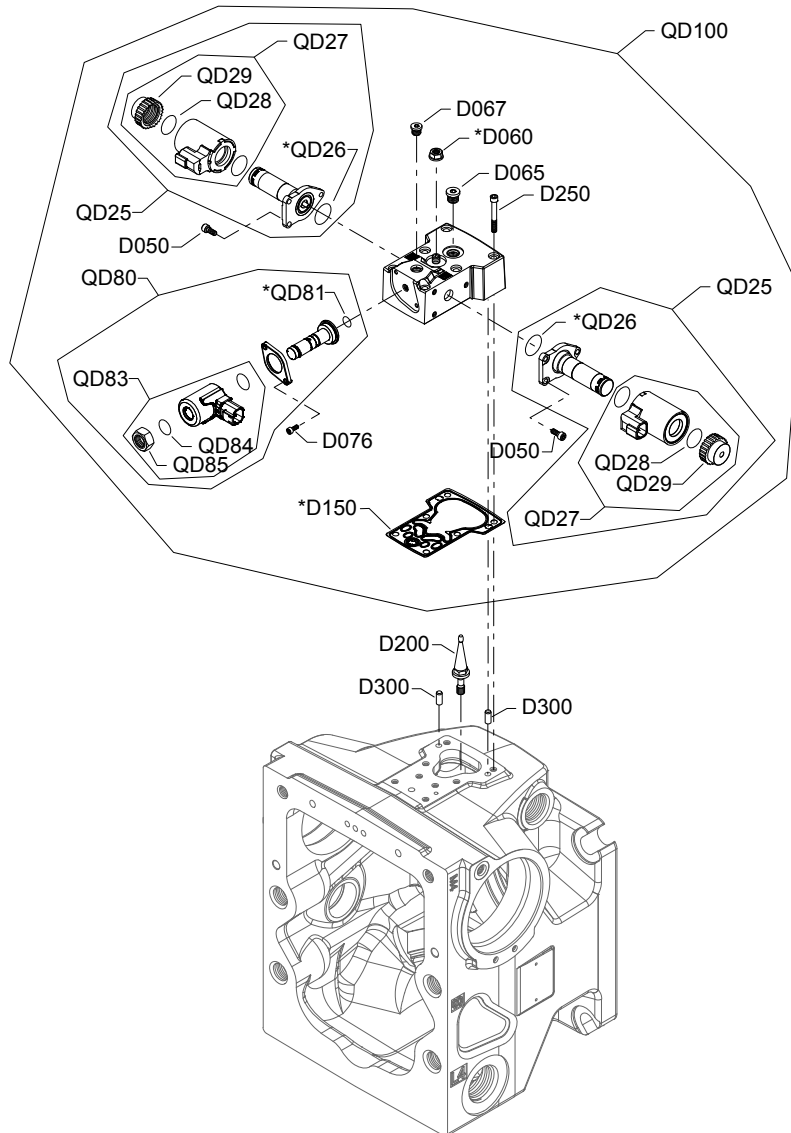
Order code: S6

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D79	14-25		11150437	Cable adapter	1
D050	14-25		716860	Screw, M5 x 12	6
D060	14-25		612291 (9003508-0008)	Seal nut, M8	1
D065	14-25		327007	Plug assembly	1
D067	14-25		11040532	Plug assembly	1
D076	14-25		067694	Screw, M4 x 10	2
D150	14-25		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-25		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-25		505038	Screw, M6 x 45	6
D300	14-25		310979	Dowel pin	2
QD25	14-25		11012457	Proportional solenoid, 12v	2
QD26	14-25		11001952	O-ring	2
QD27	14-25		11028018	Coil kit, 12v, DEUTSCH connector	2
QD28	14-25		063172	O-ring	2
QD29	14-25		11027046	Coil nut	2
QD80	14-25		11129914	Solenoid vale, on/off, 12v	1
QD81	14-25		11152257	O-ring	1
QD83	14-25		11147301	Coil kit, 12v	1
QD84	14-25		11140393	O-ring	1
QD85	14-25		11140394	Coil nut	1
QD100	14-25		11152574	EDC kit, 12v, CORF	1

**Controls**

**H1P control S7**

*Parts configuration*




---

Generic housing shown.

---

\* Included in overhaul seal kit Q210



## Controls

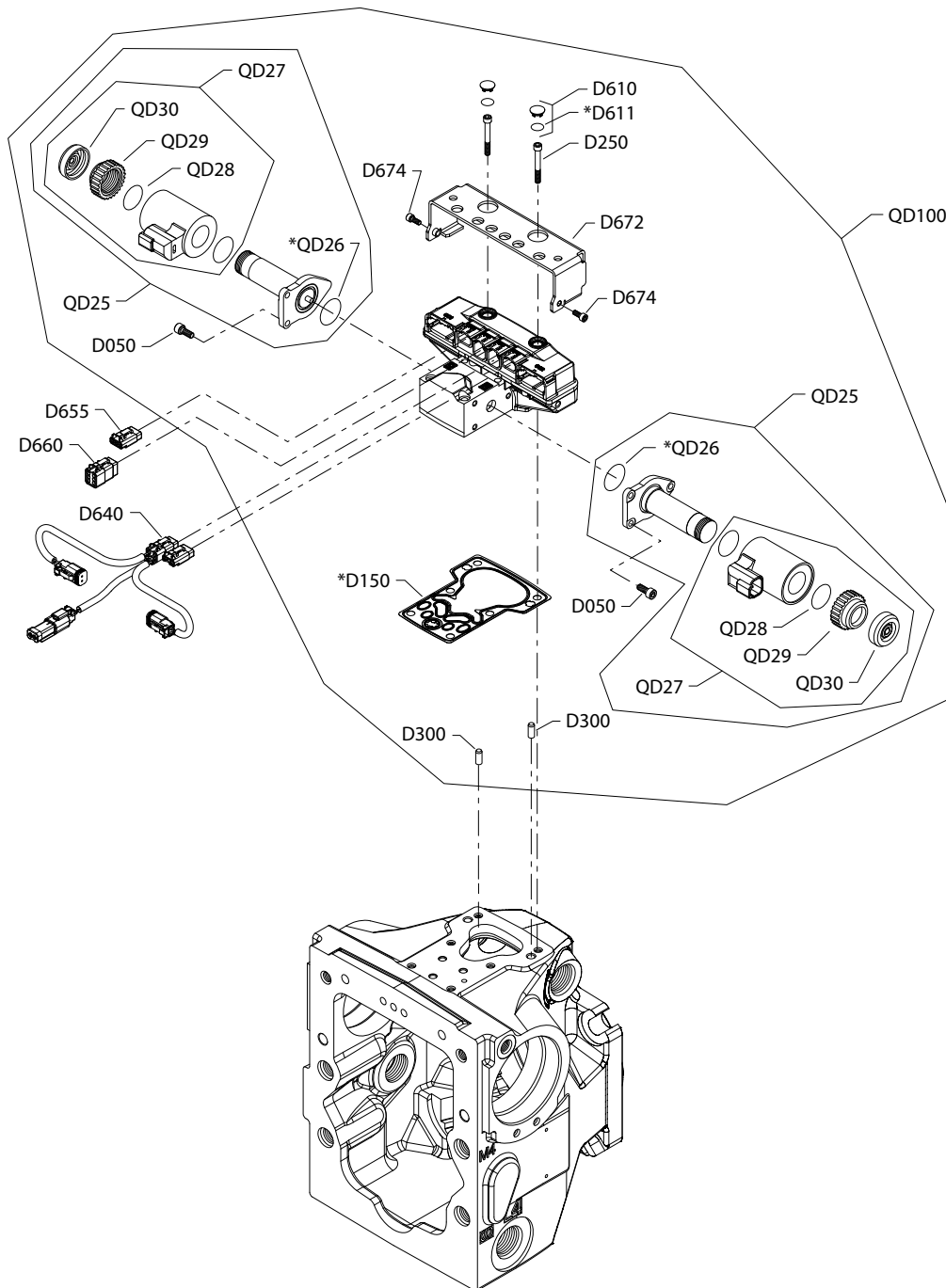
Order code: S7

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	14-31		716860	Screw, M5 x 12	6
D060	14-31		612291 (9003508-0008)	Seal nut, M8	1
D065	14-31		327007	Plug assembly	1
D067	14-31		11040532	Plug assembly	1
D076	14-25		067694	Screw, M4 x 10	2
D150	14-31		11173377	Control gasket ( <a href="#">SB-2016-033</a> on page 181)	1
D200	14-31		11202172	Swashplate feedback link ( <a href="#">SB-2018-025</a> on page 184)	1
D250	14-31		505038	Screw, M6 x 45	6
D300	14-31		310979	Dowel pin	2
QD25	14-31		11012457	Proportional solenoid, 12v	2
QD26	14-31		11001952	O-ring	2
QD27	14-31		11028018	Coil kit, 12v, DEUTSCH connector	2
QD28	14-31		063172	O-ring	2
QD29	14-31		11027046	Coil nut	2
QD80	14-31		11129914	Solenoid vale, on/off, 12v	1
QD81	14-31		11152257	O-ring	1
QD83	14-31		11147301	Coil kit, 12v	1
QD84	14-31		11140393	O-ring	1
QD85	14-31		11140394	Coil nut	1
QD100	14-31		11152574	EDC kit, 12v, CORF	1

**Controls**

**H1P control T6, T7**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

Order code: T6

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	18-15		716860	Screw, M5 x 12	6
D150	18-15		11173377	Control Gasket	1
D250	18-15		505038	Screw, M6 x 45	6
D300	18-15		11036469	Dowel pin	2
D610	18-15		11000467	Plug assembly	2
D611	18-15		11066774	O-ring	1
D640	18-15		11197432	AC wiring harness	1
D655	18-15		11084827	Blank, connector DTM 06-3S	1
D660	18-15		11084822	Blank, connector DTM 06-6S	1
D665	18-15		11084827	Blank, connector DTM 06-3S	1
D672	18-15		11151875	Protection	1
D674	18-15		716860	Screw, M5 x 12	2
QD100	18-15		11147941	Automotive control kit, 12v, manual override	1
QD25	18-15		140750	Proportional solenoid, 12v	2
QD26	18-15		11001952	O-ring	2
QD27	18-15		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	18-15		063172	O-ring	2
QD29	18-15		11004749	Coil nut	2
QD30	18-15		11027883	Cap	2

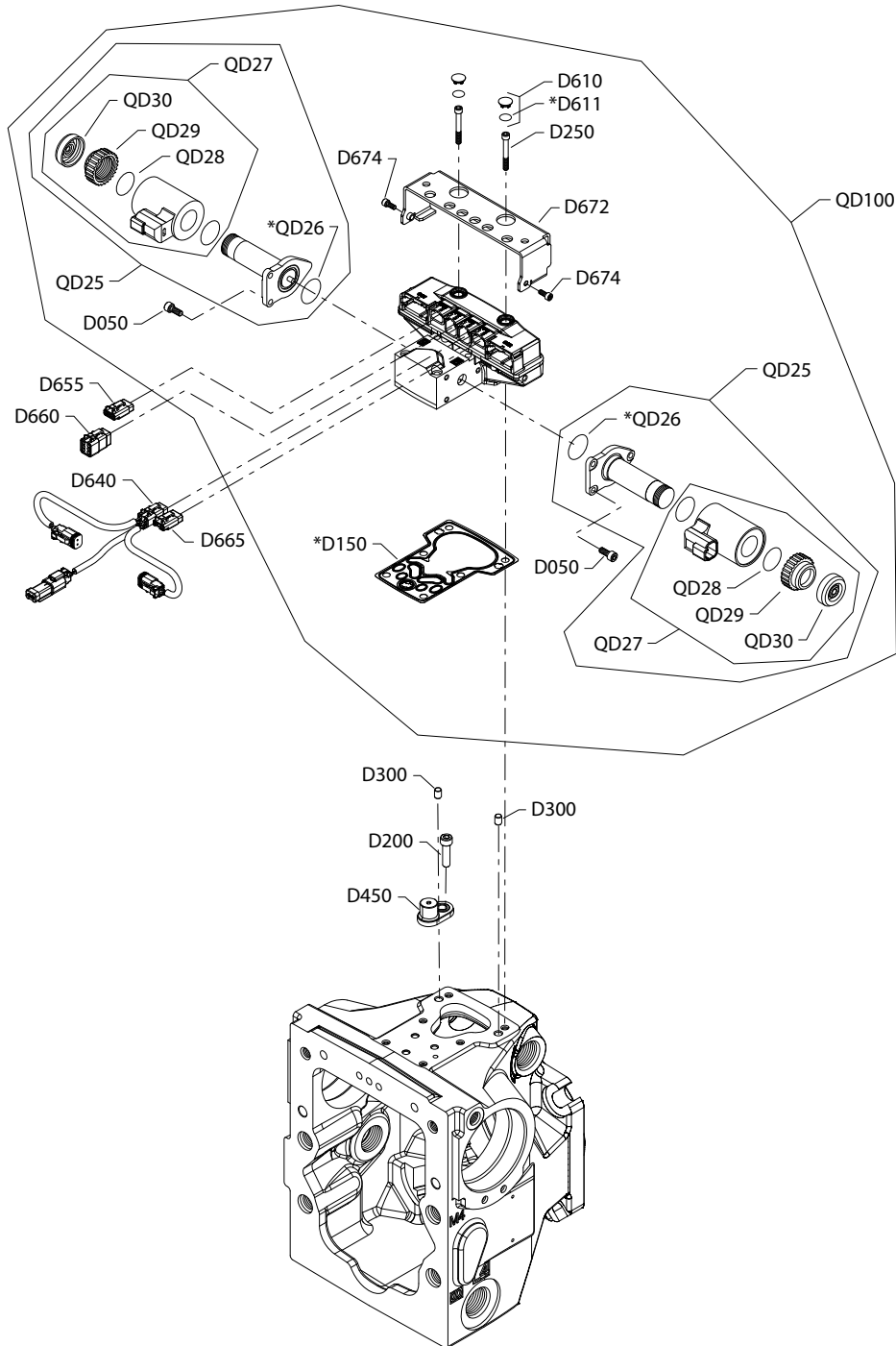
Order code: T7

D050	18-15		716860	Screw, M5 x 12	6
D150	18-15		11173377	Control gasket	1
D250	18-15		505038	Screw, M6 x 45	6
D300	18-15		11036469	Dowel pin	2
D610	18-15		11000467	Plug assembly	2
D611	18-15		11066774	O-ring	1
D640	18-15		11197432	AC wiring harness	1
D655	18-15		11084827	Blank, connector DTM 06-3S	1
D660	18-15		11084822	Blank, connector DTM 06-6S	1
D665	18-15		11084827	Blank, connector DTM 06-3S	1
D672	18-15		11151875	Protection	1
D674	18-15		716860	Screw, M5 x 12	2
QD100	18-15		11147943	Automotive control kit, 24v, manual override	1
QD25	18-15		140751	Proportional solenoid, 24v	2
QD26	18-15		11001952	O-ring	2
QD27	18-15		11004700	Coil kit, 24v, DEUTSCH connector	2
QD28	18-15		063172	O-ring	2
QD29	18-15		11004750	Coil nut	2
QD30	18-15		11027883	Cap	2

**Controls**

**H1P control T8, T9**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

Order code: T8

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D050	18-12		716860	Screw, M5 x 12	6
D150	18-12		11173377	Control gasket	1
D200	18-12		141472	Screw, special	1
D250	18-12		505038	Screw, M6 x 45	6
D300	18-12		11036469	Dowel pin	2
D450	18-12		11003097	Magnet carrier	1
D610	18-12		11000467	Plug assembly	2
D611	18-12		11066774	O-ring	1
D640	18-12		11197432	AC wiring harness	1
D655	18-12		11084827	Blank, connector DTM 06-3S	1
D660	18-12		11084822	Blank, connector DTM 06-6S	1
D665	18-12		11084827	Blank, connector DTM 06-3S	1
D672	18-12		11151875	Protection	1
D674	18-12		716860	Screw, M5 x 12	2
QD100	18-12		11147940	Automotive control kit, 12v, manual override	1
QD25	18-12		140750	Proportional solenoid, 12v	2
QD26	18-12		11001952	O-ring	2
QD27	18-12		11004698	Coil kit, 12v, DEUTSCH connector	2
QD28	18-12		063172	O-ring	2
QD29	18-12		11004749	Coil nut	2
QD30	18-12		11027883	Cap	2

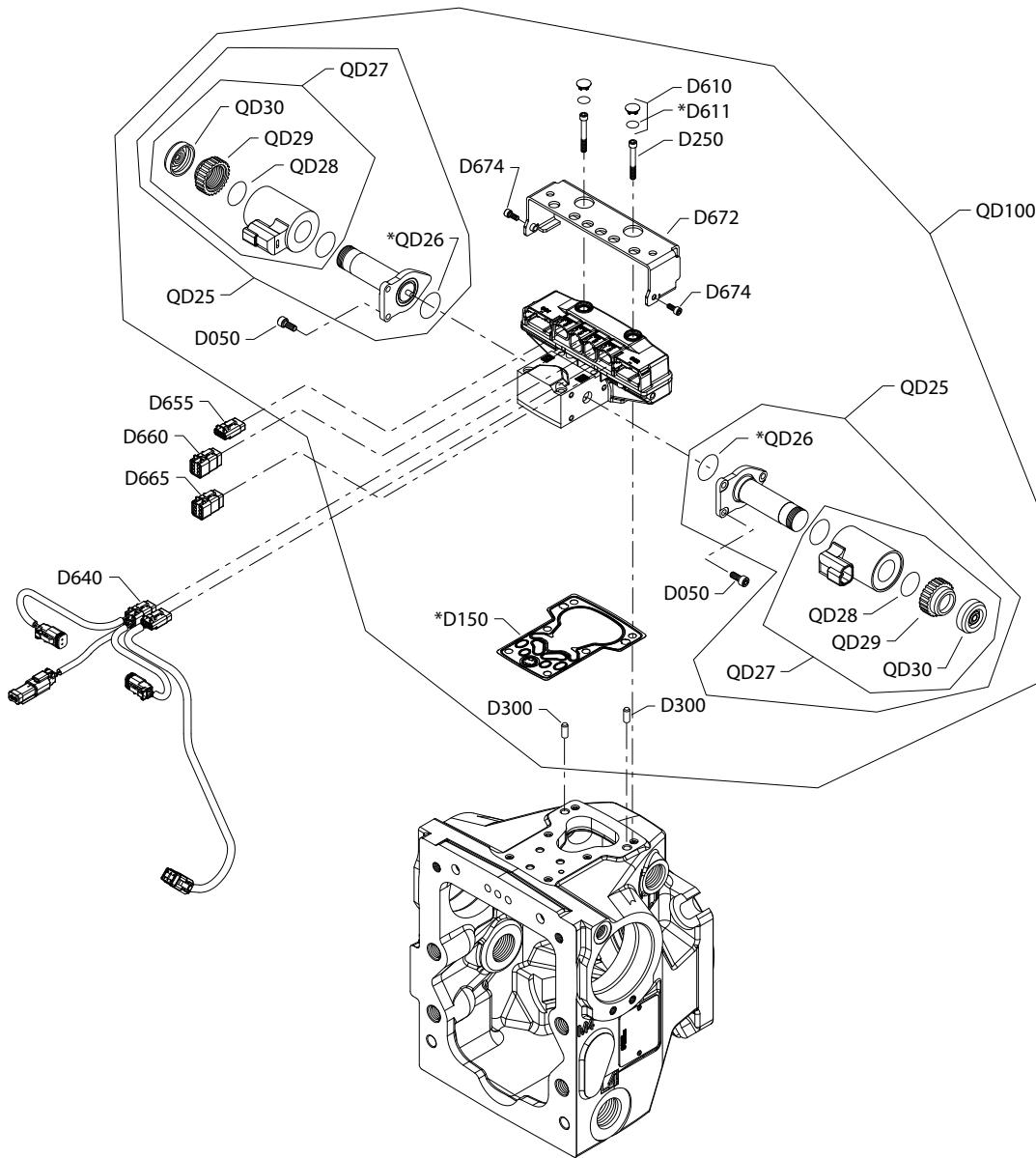
Order code: T9

D150	18-12		11173377	Control gasket	1
D200	18-12		141472	Screw, special	1
D250	18-12		505038	Screw, M6 x 45	6
D450	18-12		11003097	Magnet carrier	1
D610	18-12		11000467	Plug assembly	2
D611	18-12		11066774	O-ring	1
D640	18-12		11197432	AC wiring harness	1
D655	18-12		11084827	Blank, connector DTM 06-3S	1
D660	18-12		11084822	Blank, connector DTM 06-6S	1
D665	18-15		11084827	Blank, connector DTM 06-3S	1
D672	18-12		11151875	Protection	1
D674	18-12		716860	Screw, M5 x 12	2
QD100	18-12		11147942	Automotive control kit, 24v, manual override	1
QD25	18-12		140751	Proportional solenoid, 24v	2
QD26	18-12		11001952	O-ring	2
QD27	18-12		11004700	Coil kit, 24v, DEUTSCH connector	2
QD28	18-12		063172	O-ring	2
QD29	18-12		11004750	Coil nut	2
QD30	18-12		11027883	Cap	2

**Controls**

**H1P control U1**

*Parts configuration*



Generic housing shown

\* Included in overhaul seal kit Q210

## Controls

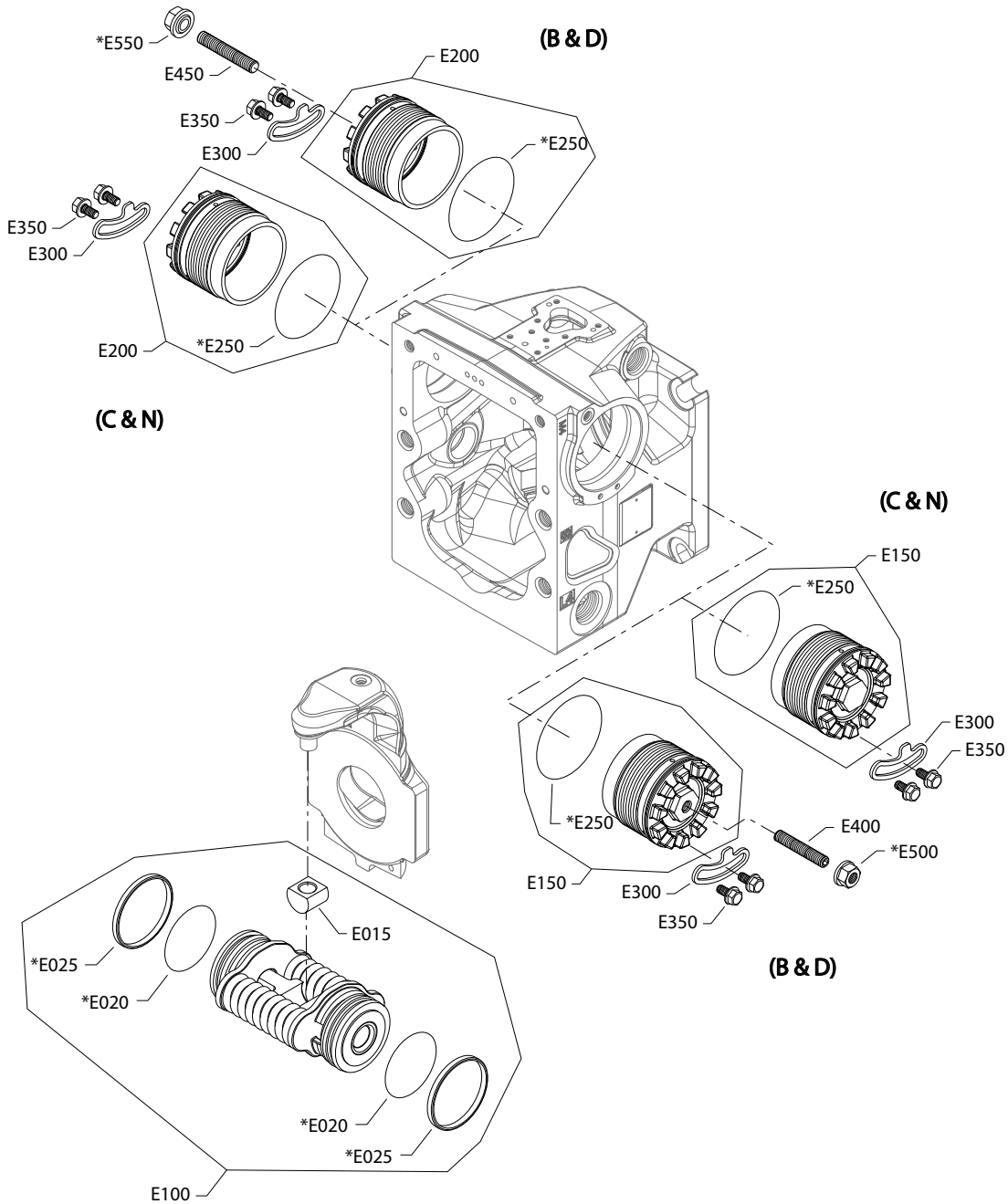
Order code: U1

Item	Date Begin	Date End	Part Number	Part Number	Qty. per Model/Kit
D050	18-10		716860	Screw, M5 x 12	6
D150	18-10		11173377	Control gasket	1
D250	18-10		505038	Screw, M6 x 45	6
D300	18-10		11036469	Dowel pin	2
D610	18-10		11000467	Plug assembly	2
D611	18-10		11066774	O-ring	1
D640	18-10		11197432	AC wiring harness	1
D655	18-10		11084827	Connector DTM 06-3s	1
D660	18-10		11084822	Connector DTM 06-6s	1
D665	18-10		11084827	Connector DTM 06-3s	1
D672	18-10		11151875	Protection	1
D674	18-10		716860	Screw, M5 x 12	2
QD100	18-10		11180761	Service control kit, 12v	1
QD25	18-10		140750	Proportional solenoid, 12v	2
QD26	18-10		11001952	O-ring	2
QD27	18-10		11004698	Coil kit, 12v, Deutsch connector	2
QD28	18-10		063172	O-ring	2
QD29	18-10		11004749	Coil nut	2
QD30	18-10		11027883	Cap	2

**Displacement limitation**

**H1P 69/78cc displacement B-N**

*Parts configuration*



Generic housing shown.

\* Included in overhaul seal kit Q210



## Displacement limitation

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E015	07-14		11141989	Slider block	1
E020	07-14		11075553	O-ring	2
E025	07-14		11075552	Piston seal ring	2
E250	07-14		140896	O-ring	2
E300	10-35		11033382	Locking plate	2
E300	07-14	10-34	140513	Locking plate ( <a href="#">SB-2009-046</a> on page 170)	2
E350	07-14		508438	Screw, M6 x 12	4

### Order code: B

E100	07-14		140891	Servo piston assembly	1
E150	07-14		11089779	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1
E200	07-14		11089779	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1
E400	07-14		11001516	Set screw	1
E450	07-14		11001516	Set screw	1
E500	07-14		505412	Seal nut, M8	1
E550	07-14		505412	Seal nut, M8	1

### Order code: C

E100	07-14		11000808	Servo piston assembly w/nested spring	1
E150	07-14		11089749	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1
E200	07-14		11089749	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1

### Order code: D

E100	07-14		11000808	Servo piston assembly w/nested spring	1
E150	07-14		11089779	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1
E200	07-14		11089779	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1
E400	07-14		11001516	Set screw	1
E450	07-14		11001516	Set screw	1
E500	07-14		505412	Seal nut, M8	1
E550	07-14		505412	Seal nut, M8	1

### Order code: N

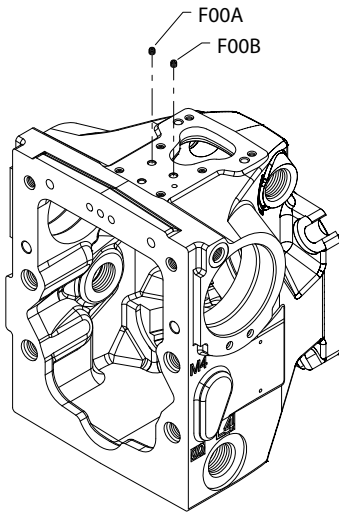
E100	07-14		140891	Servo piston assembly	1
E150	07-14		11089749	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1
E200	07-14		11089749	Servo cylinder assembly ( <a href="#">SB-2009-046</a> on page 170)	1

**Orifice**

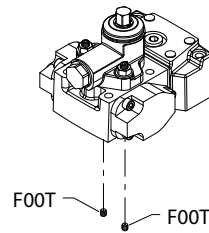
**H1P orifice C-D**

*Parts configuration*

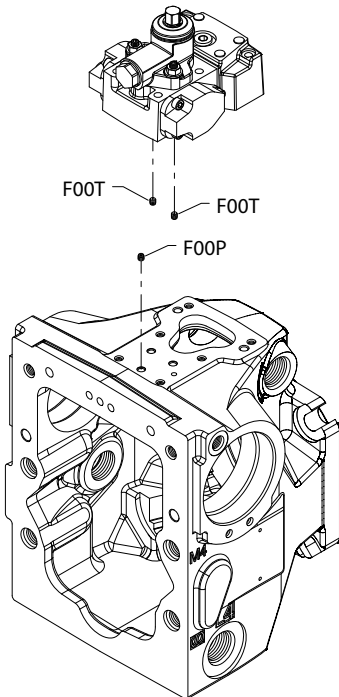
**(C1, C2, C4, C5, D8, E1)**



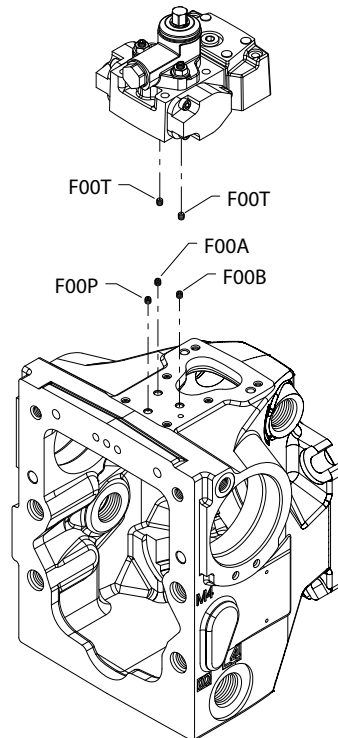
**(C6, C7)**



**(C8, C9, D1, D2, D3, D6)**



**(D4, D5)**



Generic controls and housings shown.

## Orifice

### Order code: C1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F00A	07-14		140611	Orifice, 0.8, M6 x 0.75 mm	1
F00B	07-14		140611	Orifice, 0.8, M6 x 0.75 mm	1

### Order code: C2

F00A	07-14		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00B	07-14		140754	Orifice, 1.3, M6 x 0.75 mm	1

### Order code: C3

No parts					
----------	--	--	--	--	--

### Order code: C4

F00A	13-12		140757	Orifice, 1.8, M6 x 0.75 mm	1
F00B	13-12		140757	Orifice, 1.8, M6 x 0.75 mm	1

### Order code: C5

F00A	18-01		140759	Orifice, 2.5, M6 x 0.75mm	1
F00B	18-01		140759	Orifice, 2.5, M6 x 0.75mm	1

### Order code: C6

F00T	14-44		11151734	Orifice, 1.0, M6 x 0.75 mm	2
------	-------	--	----------	----------------------------	---

### Order code: C7

F00T	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	2
------	-------	--	--------	----------------------------	---

### Order code: C8

F00P	14-44		140611	Orifice, 0.8 M6 x 0.75 mm	1
F00T	14-44		11151733	Orifice, 0.6 M6 x 0.75 mm	2

### Order code: C9

F00P	14-44		11151734	Orifice, 1.0 M6 x 0.75 mm	1
F00T	14-44		11151733	Orifice, 0.6 M6 x 0.75 mm	2

### Order code: D1

F00P	14-44		11151734	Orifice, 1.0 M6 x 0.75 mm	1
F00T	14-44		140611	Orifice, 0.8 M6 x 0.75 mm	2

### Order code: D2

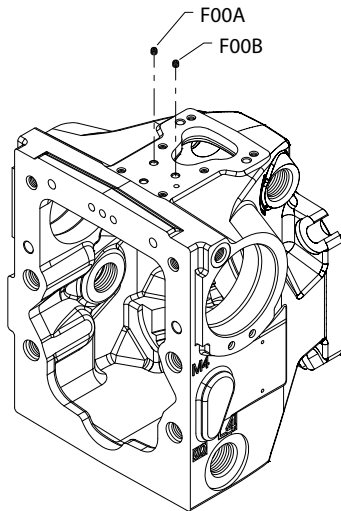
F00P	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00T	14-44		140611	Orifice, 0.8 M6 x 0.75 mm	2

[Parts continue to the next 2 pages.](#)

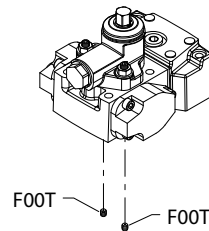
**Orifice**

*Parts configuration*

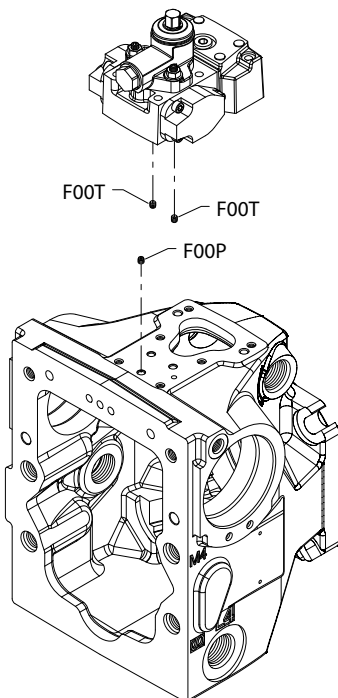
**(C1, C2, C4, C5, D8, E1)**



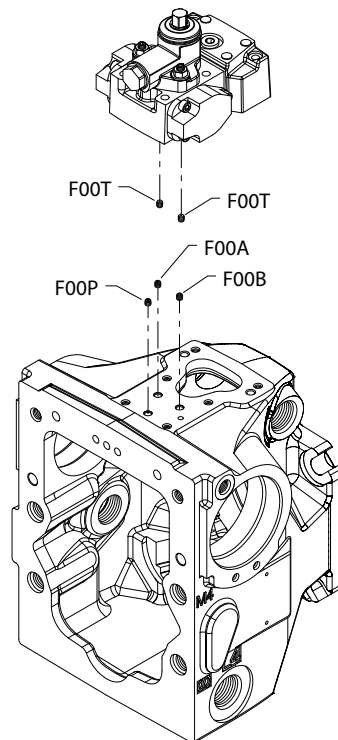
**(C6, C7)**



**(C8, C9, D1, D2, D3, D6)**



**(D4, D5)**



Generic controls and housings shown.

## Orifice

### Order code: D3

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F00P	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00T	14-44		11151734	Orifice, 1.0 M6 x 0.75 mm	2

### Order code: D4

F00A	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00B	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00P	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00T	14-44		11151734	Orifice, 1.0 M6 x 0.75 mm	2

### Order code: D5

F00A	14-44		140611	Orifice, 0.8 M6 x 0.75 mm	1
F00B	14-44		140611	Orifice, 0.8 M6 x 0.75 mm	1
F00P	14-44		11151733	Orifice, 0.6 M6 x 0.75 mm	1
F00T	14-44		11151733	Orifice, 0.6 M6 x 0.75 mm	2

### Order code: D6

F00P	14-29		140754	Orifice, 1.3, M6 x 0.75 mm	1
F00T	14-29		140754	Orifice, 1.3, M6 x 0.75 mm	2

### Order code: D8

F00A	17-07		11189557	Orifice, 2.3, M6 x 0.75mm	1
F00B	17-07		11189557	Orifice, 2.3, M6 x 0.75mm	1

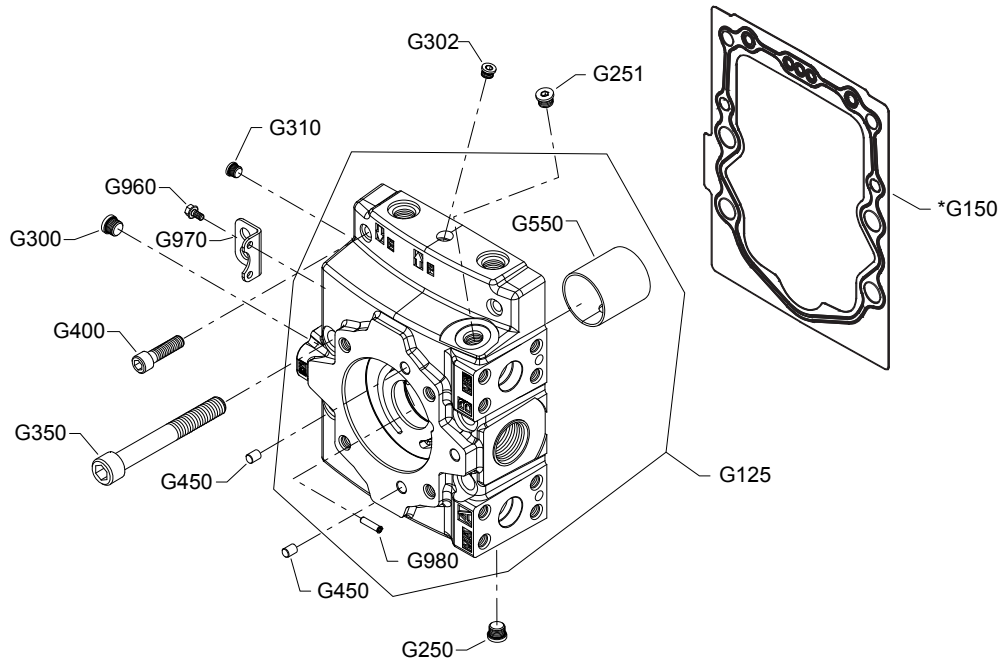
### Order code: E1

F00A	17-09		11151734	Orifice, 1.0, M6 x 0.75	1
F00B	17-09		11151734	Orifice, 1.0, M6 x 0.75	1

### End cap

#### **H1P 69/78cc end cap D3, D6**

*Parts configuration*



## End cap

Order code: D3

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G125	07-14		11003563	End cap assembly, CW	1
G125	07-14		11003569	End cap assembly, CCW	1
G150	07-14		140902	End cap gasket	1
G250	07-14		140644	Plug assembly	1
G251	07-14		140644	Plug assembly	1
G300	07-14		140644	Plug assembly	1
G302	07-14		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G450	07-14		9004800-3708	Dowel pin	2
G550	07-14		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

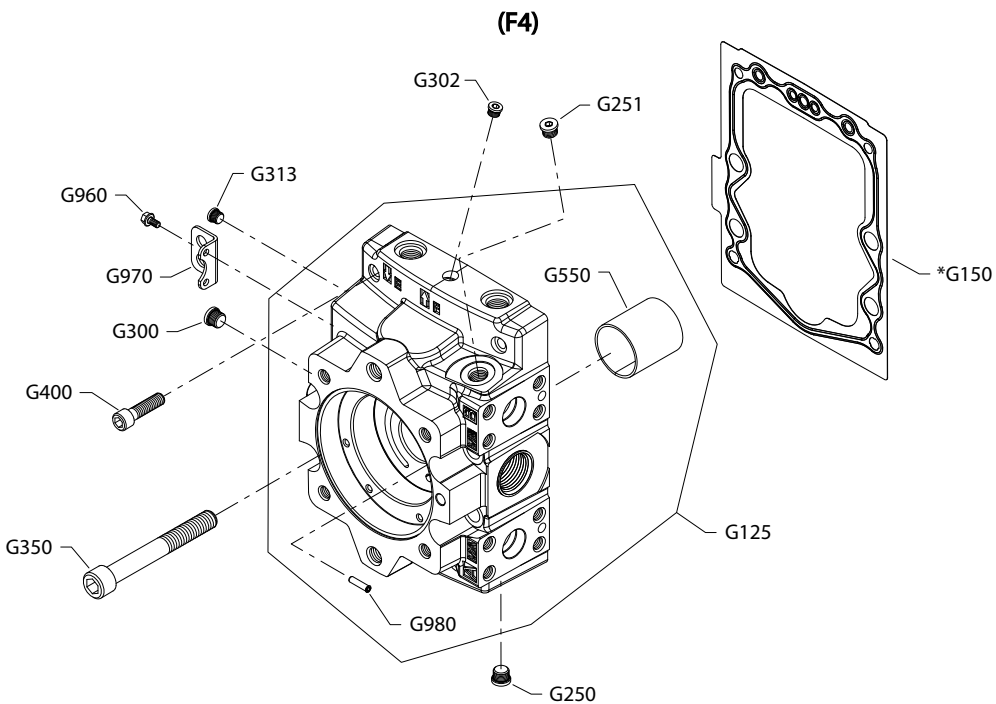
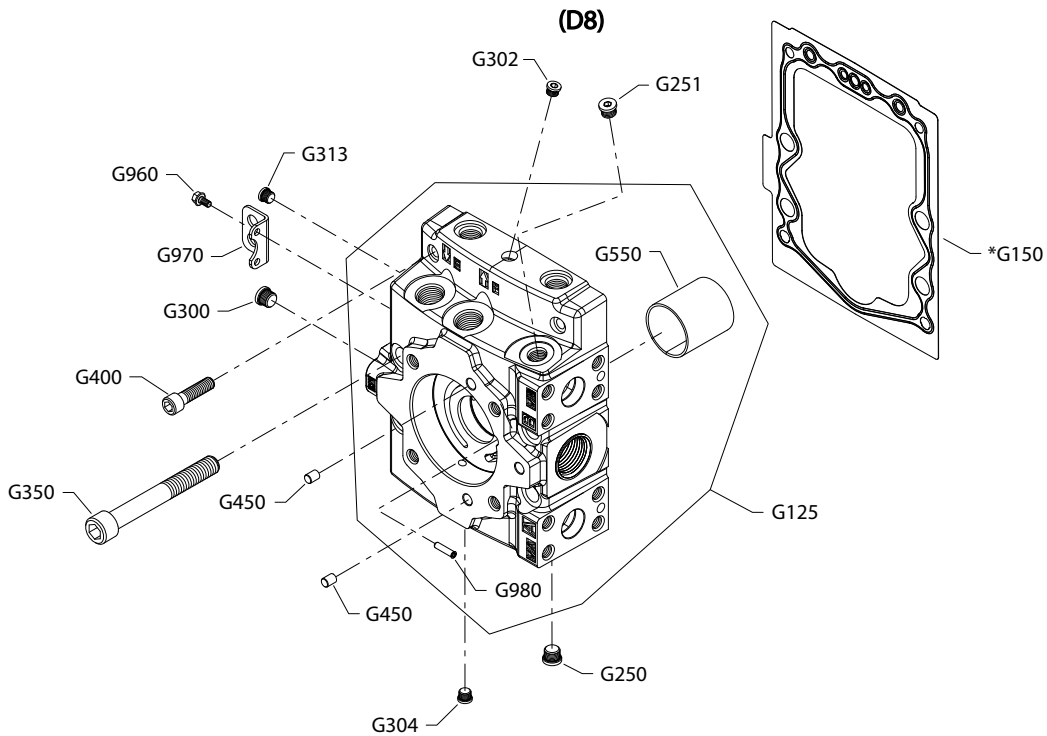
Order code: D6

G125	07-14		11003565	End cap assembly, CW	1
G125	07-14		11003571	End cap assembly, CCW	1
G150	07-14		140902	End cap gasket	1
G250	07-14		140644	Plug assembly	1
G251	07-14		140644	Plug assembly	1
G300	07-14		140644	Plug assembly	1
G302	07-14		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G450	07-14		9004800-3708	Dowel pin	2
G550	07-14		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

**End cap**

**H1P 69/78cc end cap D8, F4**

Parts configuration



\* Included in overhaul seal kit Q210



## End cap

Order code: D8

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G125	07-14		11003567	End cap assembly, CW	1
G125	07-14		11003573	End cap assembly, CCW	1
G150	07-14		140902	End cap gasket	1
G250	07-14		140644	Plug assembly	1
G251	07-14		140644	Plug assembly	1
G300	07-14		140644	Plug assembly	1
G302	07-14		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G304	07-14		11040532	Plug assembly	1
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G450	07-14		9004800-3708	Dowel pin	2
G550	07-14		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

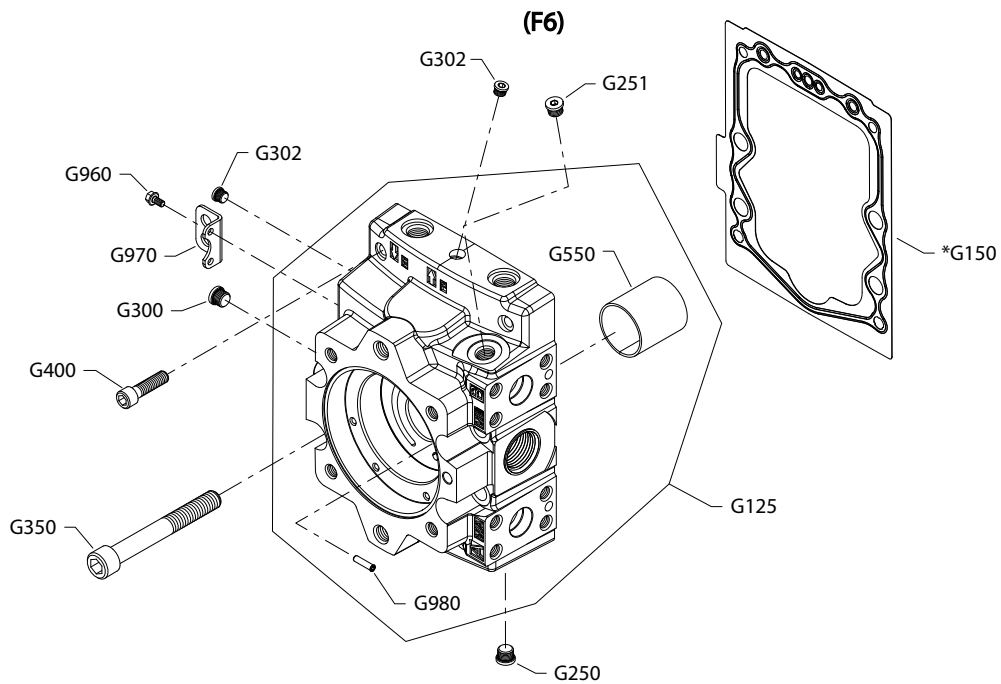
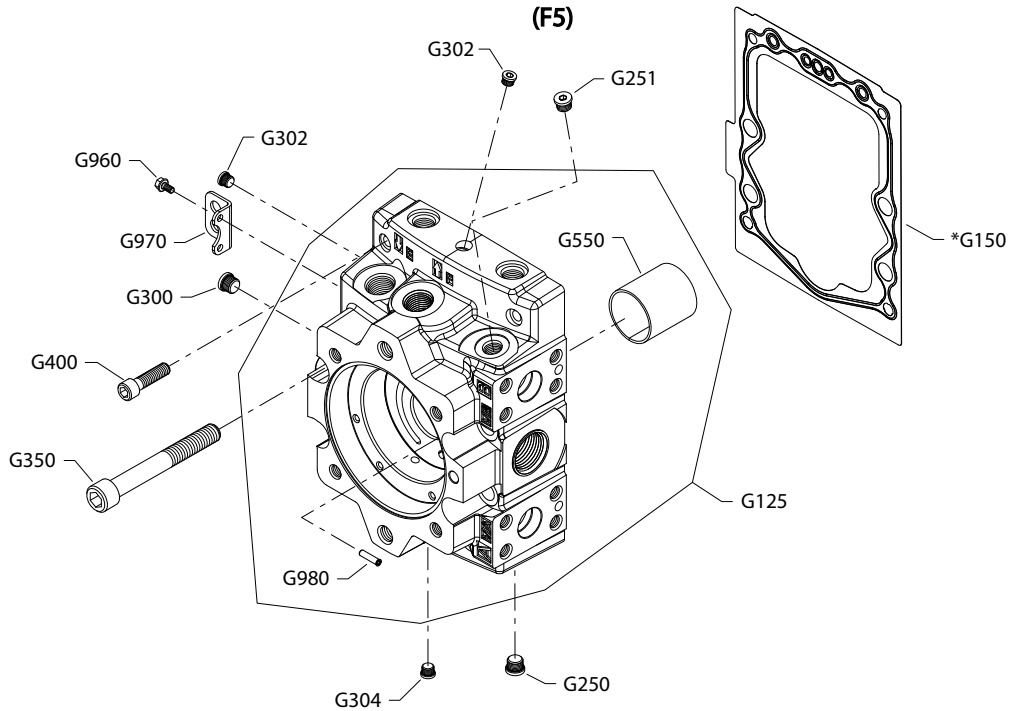
Order code: F4

G125	07-14		11003564	End cap assembly, CW, SAE C	1
G125	07-14		11003570	End cap assembly, CCW, SAE C	1
G150	07-14		140902	End cap gasket	1
G250	07-14		140644	Plug assembly	1
G251	07-14		140644	Plug assembly	1
G300	07-14		140644	Plug assembly	1
G302	07-14		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G550	07-14		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

**End cap**

**H1P 69/78cc end cap F5, F6**

Parts configuration



\* Included in overhaul seal kit Q210

## End cap

Order code: F5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G125	07-14		11003566	End cap assembly, CW, SAE C	1
G125	07-14		11003572	End cap assembly, CCW, SAE C	1
G150	07-14		140902	End cap gasket	1
G250	07-14		140644	Plug assembly	1
G251	07-14		140644	Plug assembly	1
G300	07-14		140644	Plug assembly	1
G302	07-14		11040532	Plug assembly	2
G304	07-14		11040532	Plug assembly	1
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G550	07-14		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

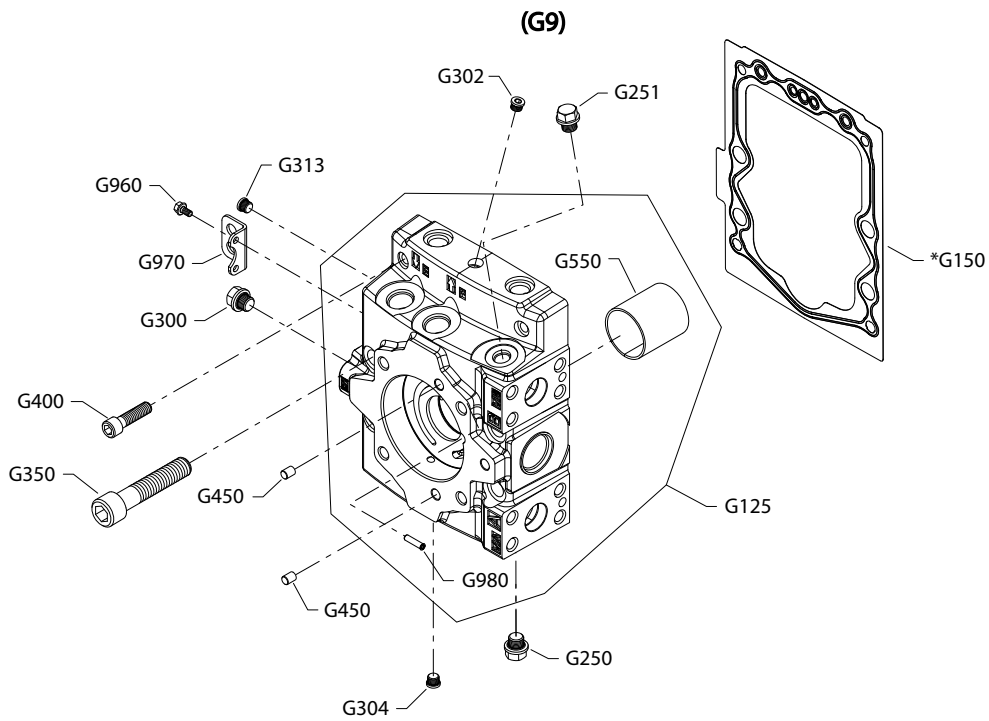
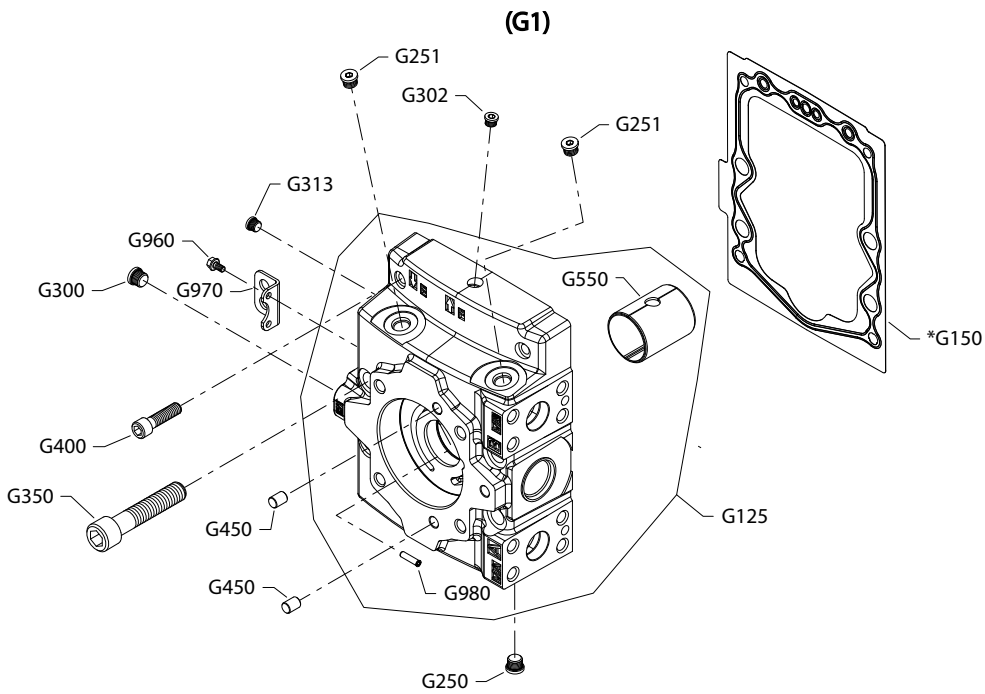
Order code: F6

G125	07-14		11003568	End cap assembly, CW, SAE C	1
G125	07-14		11003574	End cap assembly, CCW, SAE C	1
G150	07-14		140902	End cap gasket	1
G250	07-14		140644	Plug assembly	1
G251	07-14		140644	Plug assembly	1
G300	07-14		140644	Plug assembly	1
G302	07-14		11040532	Plug assembly	2
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G550	07-14		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

End cap

H1P 69/78cc end cap G1, G9

Parts configuration



## End cap

Order code: G1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G125	10-41		11079594	End cap assembly, CW	1
G150	10-41		140902	End cap gasket	1
G250	10-41		140644	Plug assembly	1
G251	10-41		140644	Plug assembly	2
G300	10-41		140644	Plug assembly	1
G302	10-41		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G350	10-41		11000510	Screw	4
G400	10-41		376624	Screw	2
G450	10-41		9004800-3708	Pin	2
G550	10-41		11087822	Journal bearing (SB-2012-009 on page 174)	1
G960	10-41		508438	Screw	2
G970	10-41		4460311	Lifting bracket	1
G980	10-41		11000229	Lubrication orifice	1

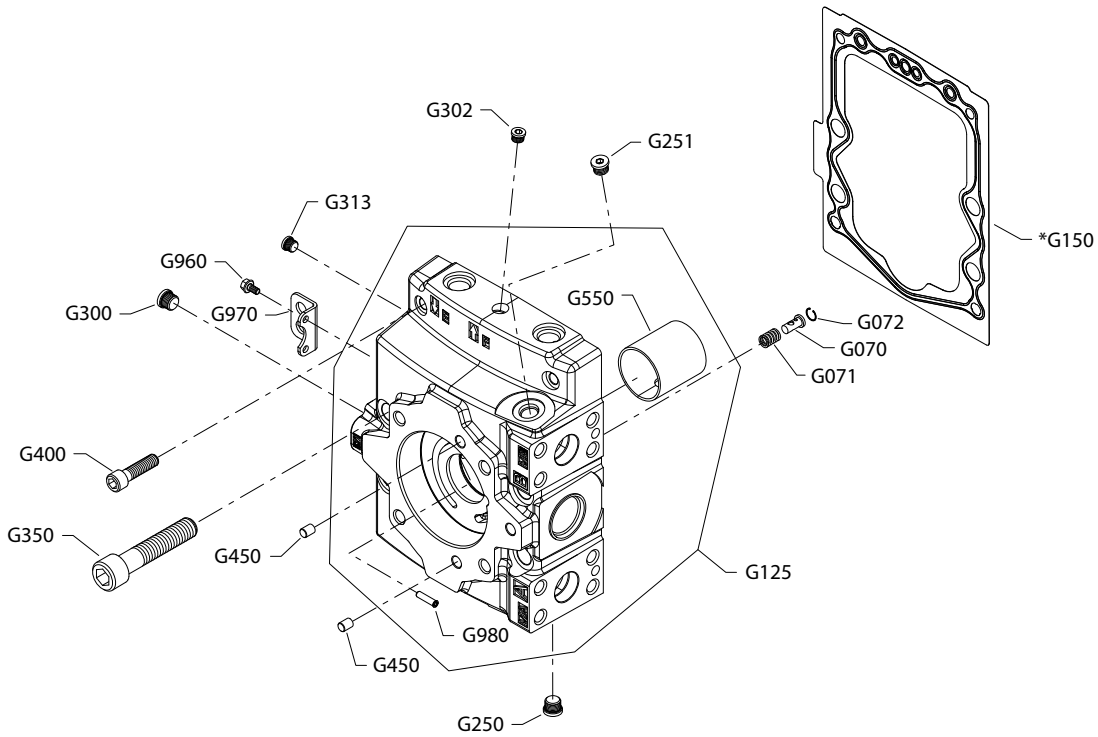
Order code: G9

G125	07-14		11003573	End cap assembly, CCW	1
G150	07-14		140902	End cap gasket	1
G250	07-14		11147119	Plug assembly, special	1
G251	07-14		11147119	Plug assembly, special	1
G300	07-14		11147119	Plug assembly, special	1
G302	07-14		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G304	07-14		11040532	Plug assembly	1
G350	07-14		11000510	Screw, M14 x 90	4
G400	07-14		376624	Screw, M8 x 45	2
G450	07-14		9004800-3708	Dowel pin	2
G550	07-14		11087822	Journal bearing (SB-2012-009 on page 174)	1
G960	07-14		508438	Screw	2
G970	07-14		4460311	Lifting bracket	1
G980	07-14		11000229	Lubrication orifice	1

### End cap

#### H1P 69/78cc end cap H2

Parts configuration



## End cap

Order code: H2

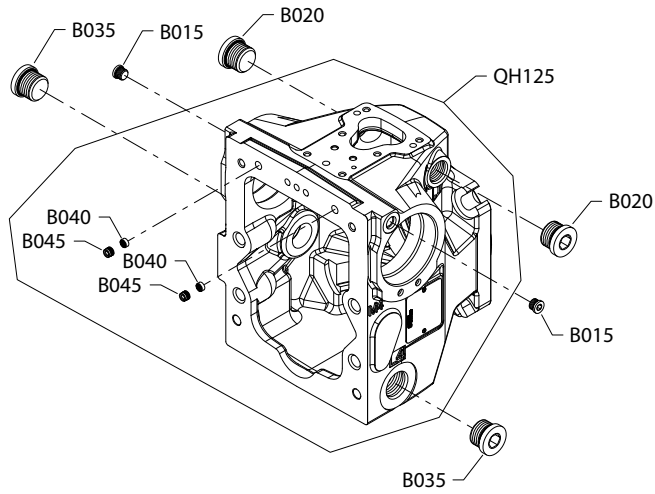
Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G070	13-42		508211	Valve body	1
G071	13-42		508209	Spring	1
G072	13-42		521472	Retaining ring	1
G125	13-42		11134246	End cap assembly, CW	1
G150	13-42		140902	End cap gasket	1
G250	13-42		140644	Plug assembly	1
G251	13-42		140644	Plug assembly	2
G300	13-42		140644	Plug assembly	1
G302	13-42		11040532	Plug assembly	1
G313	07-14		11040532	Plug assembly	1
G350	13-42		11000510	Screw, M14 x 90	4
G400	13-42		376624	Screw, M8 x 45	2
G450	13-42		9004800-3708	Pin	2
G550	13-42		11087822	Journal bearing ( <a href="#">SB-2012-009</a> on page 174)	1
G960	13-42		508438	Screw, M6 x 12	2
G970	13-42		4460311	Lifting bracket	1
G980	13-42		11000229	Lubrication orifice	1

**Housing**

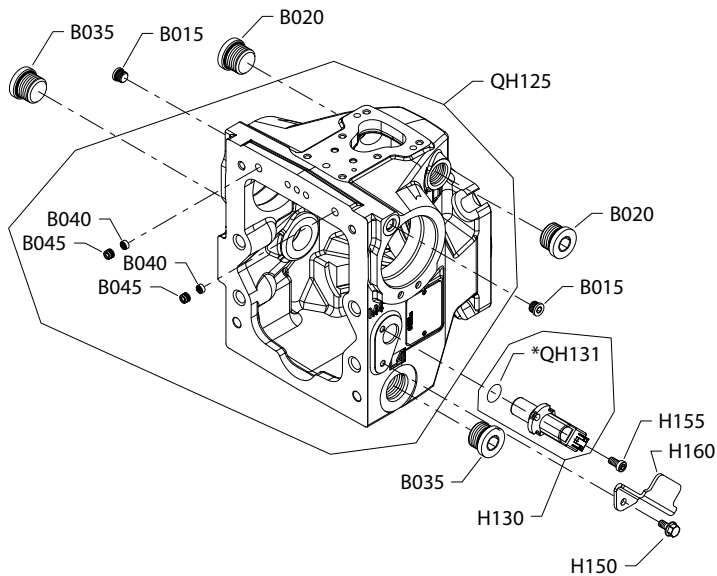
**H1P 69/78cc housing H, K**

*Parts configuration*

**(H)**



**(K)**



\* Included in overhaul seal kit Q210



## Housing

Order code: H

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B015	07-14		140642 (9005110-4400)	Plug assembly	2
B020	07-14		315325 (9005110-8700)	Plug assembly	2
B035	07-14		664524 (9005110-9000)	Plug assembly	2
B040	07-14		140967	Screen, 8 mm, 125 micron	2
B045	09-25		11062684	Screen retainer ( <a href="#">SB-2009-068</a> on page 172)	2
QH125	07-14		11005071	Housing assembly, H1P078	1

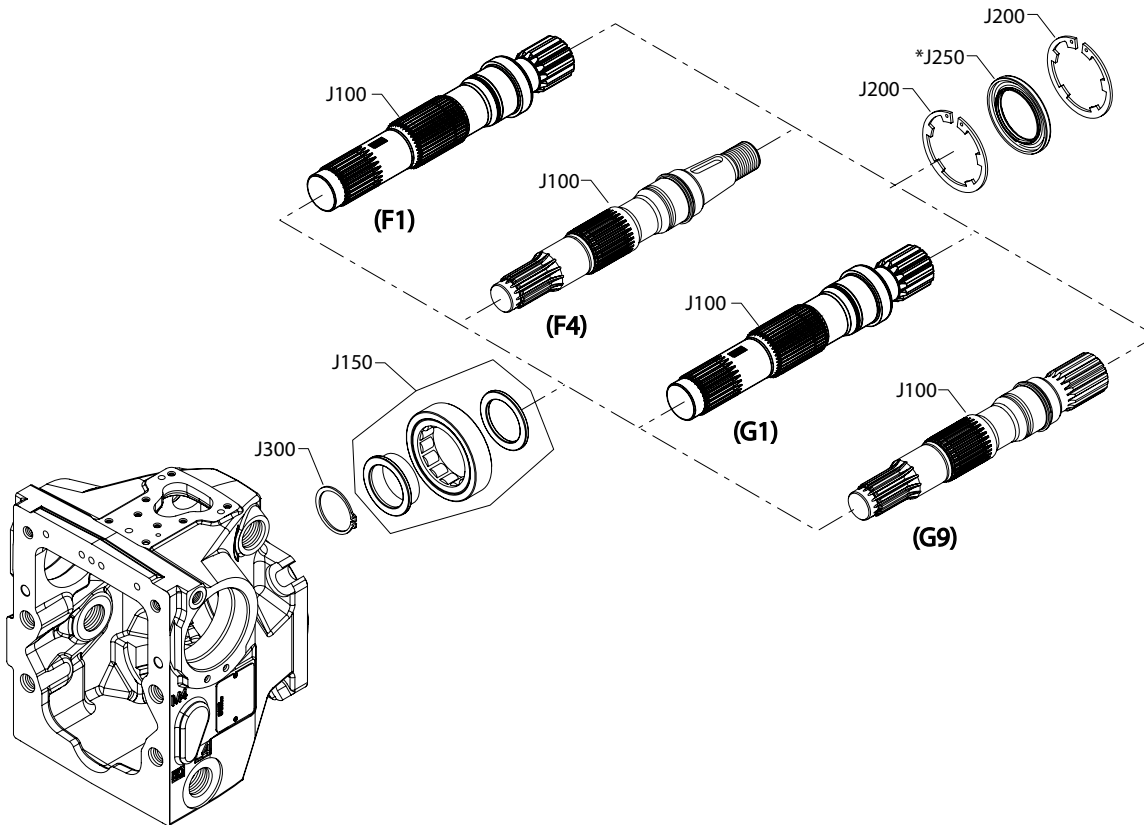
Order code: K

B015	07-14		140642 (9005110-4400)	Plug assembly	2
B020	07-14		315325 (9005110-8700)	Plug assembly	2
B035	07-14		664524 (9005110-9000)	Plug assembly	2
B040	07-14		140967	Screen, 8 mm, 125 micron	2
B045	09-25		11062684	Screen retainer ( <a href="#">SB-2009-068</a> on page 172)	2
H150	07-14		508438	Screw	1
H155	07-14		376749	Screw	1
H160	07-14		11186383	Speed sensor protector	1
H130	07-14		149055	Speed sensor assembly	1
QH125	07-14		11011752	Housing assembly, H1P078	1
QH131	07-14		11013397	O-ring	1

### Shaft

#### H1P 69/78cc shaft F1, F4, G1, G9

Parts configuration



\* Included in overhaul seal kit Q210

## Shaft

Order code: F1

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
J100	17-35		11179422	Shaft, 21 tooth spline, 16/32 pitch ( <a href="#">SB-2012-015</a> on page 175, <a href="#">SB-2018-004</a> on page 182)	1

Order code: F4

J100	17-35		11179423	Shaft, tapered ( <a href="#">SB-2012-015</a> on page 175, <a href="#">SB-2018-004</a> on page 182)	1
J150	07-29		11056378	Roller bearing	1
J200	07-29		11000195	Retaining ring	2
J250	07-29		140911	Lip seal	1
J300	07-29		392167	Retaining ring	1

Order code: G1

J100	17-35		11176498	Shaft, 14 tooth spline, 12/24 pitch ( <a href="#">SB-2012-015</a> on page 175, <a href="#">SB-2018-004</a> on page 182)	
J150	07-14		11056378	Roller bearing	1
J200	07-14		11000195	Retaining ring	2
J250	07-14		140911	Lip seal	1
J300	07-14		392167	Retaining ring	1

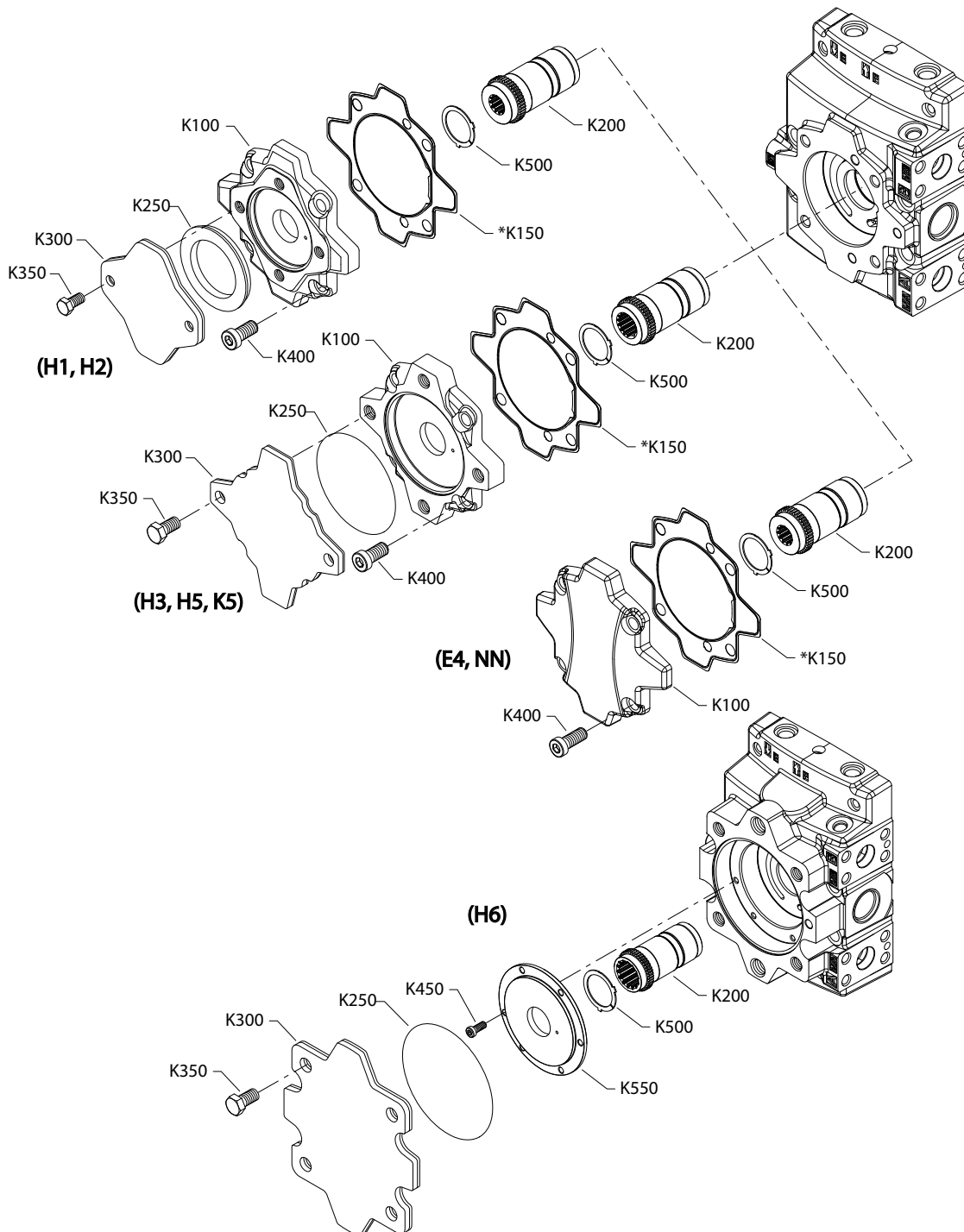
Order code: G9

J100	17-35		11179425	Shaft, 23 tooth spline, 16/32 pitch ( <a href="#">SB-2012-015</a> on page 175, <a href="#">SB-2018-004</a> on page 182)	1
J150	07-14		11056378	Roller bearing	1
J200	07-14		11000195	Retaining ring	2
J250	07-14		140911	Lip seal	1
J300	07-14		392167	Retaining ring	1

**Auxiliary mounting**

**H1P 69/78cc aux mounting E4-NN**

*Parts configuration*



\* Included in overhaul seal kit Q210

## Auxiliary mounting

Order code: E4

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K100	07-14		11135390	Adapter flange	1
K150	07-14		11029873	Adapter seal	1
K200	07-14		141268	Coupling, 14 tooth, 12/24 pitch	1
K400	07-14		11000819	Screw	4
K500	07-14		141105	Thrust washer	1

Order code: H1

K100	07-14		140927	Adapter flange, SAE A	1
K150	07-14		11029873	Adapter seal	1
K200	07-14		11000712	Coupling, 11 tooth, 16/32 pitch	1
K250	07-14	07-31	4800432	A pad seal ( <a href="#">SB-2008-038</a> on page 165)	1
K300	07-14		11017125	Flange cover ( <a href="#">SB-2008-038</a> on page 165)	1
K350	07-14		370247	Screw	2
K400	07-14		11000819	Screw	4
K500	07-14		141105	Thrust washer	1

Order code: H2

K100	07-14		140927	Adapter flange, SAE A	1
K150	07-14		11029873	Adapter seal	1
K200	07-14		140930	Coupling, 9 tooth, 16/32 pitch	1
K250	07-14	07-31	4800432	A pad seal ( <a href="#">SB-2008-038</a> on page 165)	1
K300	07-14		11017125	Flange cover ( <a href="#">SB-2008-038</a> on page 165)	1
K350	07-14		370247	Screw	2
K400	07-14		11000819	Screw	4
K500	07-14		141105	Thrust washer	1

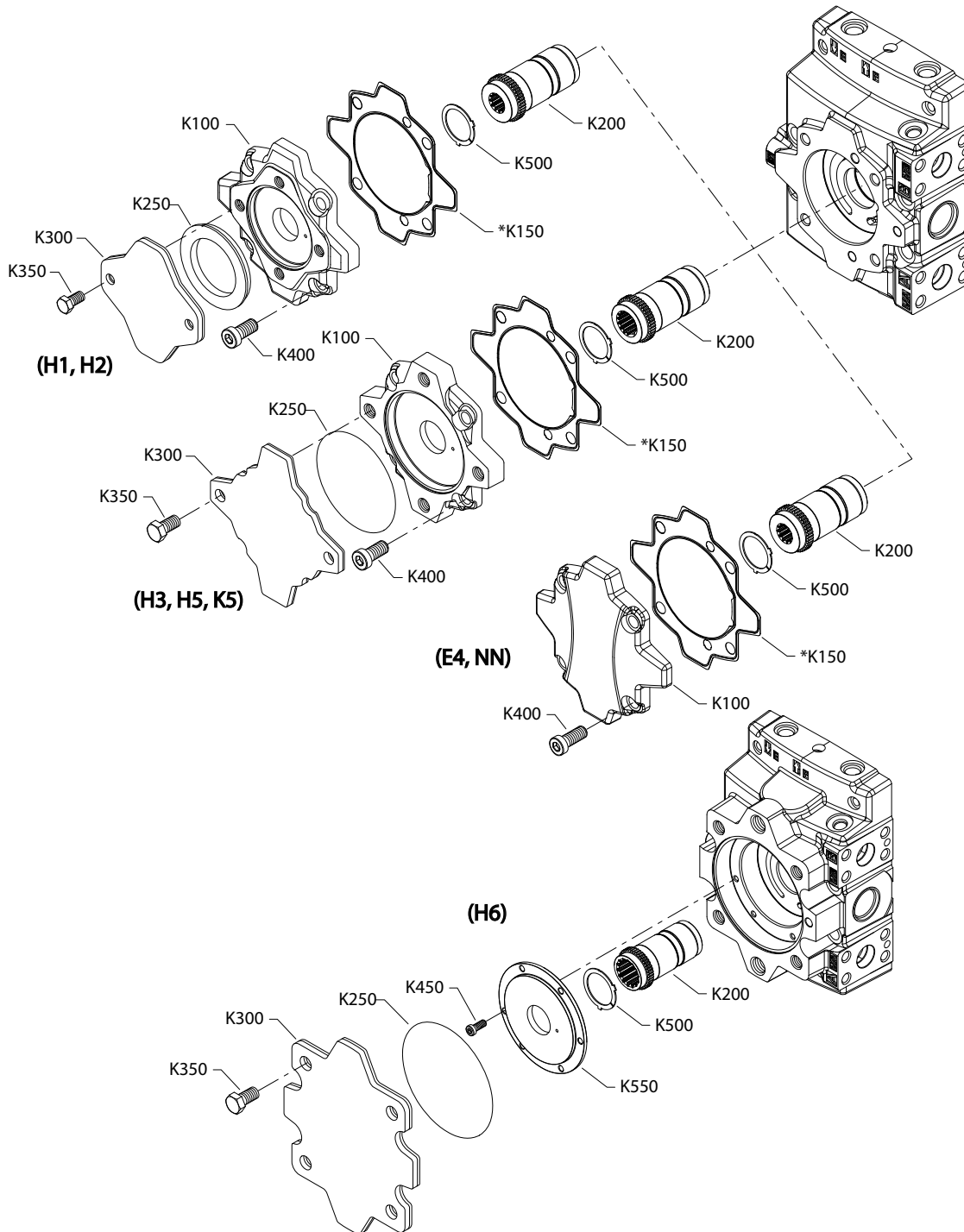
Order code: H3

K100	07-14		141240	Adapter flange, SAE B	1
K150	07-14		11029873	Adapter seal	1
K200	07-14		141239	Coupling, 13 tooth, 16/32 pitch	1
K250	07-14	08-35	327627 (9004104-1540)	O-ring ( <a href="#">SB-2008-038</a> on page 165)	1
K300	07-14		11023746	Flange cover ( <a href="#">SB-2008-038</a> on page 165)	1
K350	07-14		509528	Screw	2
K400	07-14		11000819	Screw	4
K500	07-14		141105	Thrust washer	1

[Parts continue to the next 2 pages.](#)

**Auxiliary mounting**

*Parts configuration*



\* Included in overhaul seal kit Q210

## Auxiliary mounting

Order code: H5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K100	07-14		141240	Adapter flange, SAE B	1
K150	07-14		11029873	Adapter seal	1
K200	07-14		11000657	Coupling, 15 tooth, 16/32 pitch	1
K250	07-14	08-35	327627 (9004104-1540)	O-ring ( <a href="#">SB-2008-038</a> on page 165)	1
K300	07-14		11023746	Flange cover ( <a href="#">SB-2008-038</a> on page 165)	1
K350	07-14		509528	Screw	2
K400	07-14		11000819	Screw	4
K500	07-14		141105	Thrust washer	1

Order code: H6

K200	07-14		141268	Coupling, 14 tooth, 12/24 pitch	1
K250	07-14	08-35	056739 (9004104-1580)	O-ring ( <a href="#">SB-2008-038</a> on page 165)	1
K300	07-14		11023750	Flange cover ( <a href="#">SB-2008-038</a> on page 165)	1
K350	07-14		509528	Screw	4
K450	07-14		376749	Screw	6
K500	07-14		141105	Thrust washer	1
K550	07-14		11149453	Charge pump cover	1

Order code: K5

K100	18-13		11176495	Adapter flange	1
K150	18-13		11029873	Adapter seal	1
K200	18-13		11000657	Coupling, 15 tooth 16/32 pitch	1
K300	18-13		11023746	Flange cover	1
K350	18-13		509528	Screw	2
K400	18-13		11000819	Screw	4
K500	18-13		141105	Thrust washer	1

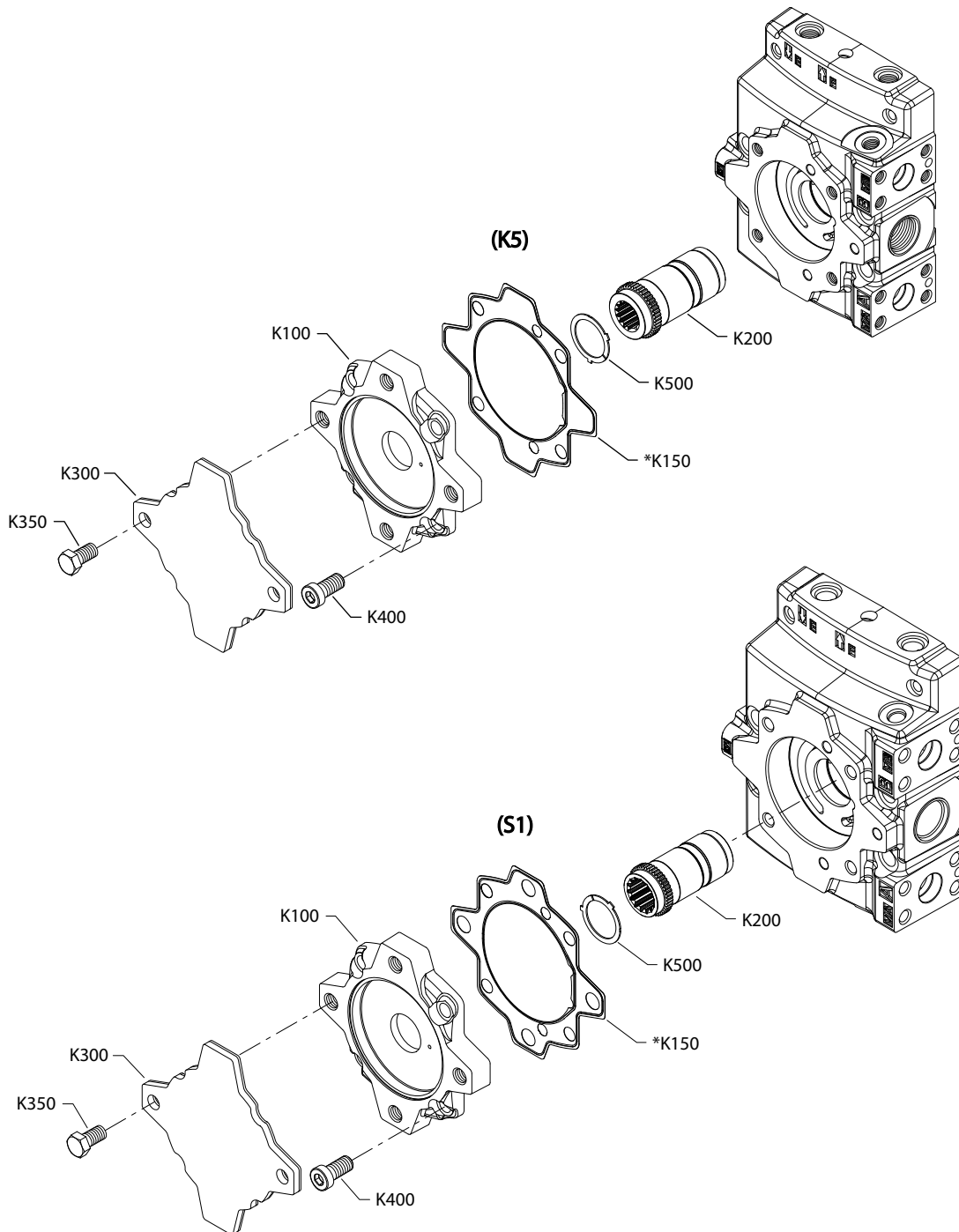
Order code: NN

K100	07-14		141249	Adapter flange, no pad	1
K150	07-14		11029873	Adapter seal	1
K200	07-14		140930	Coupling, 9 tooth, 16/32 pitch	1
K400	07-14		11000819	Screw	4
K500	07-14		141105	Thrust washer	1

**Auxiliary mounting**

**H1P 69/78cc aux mounting K5, S1**

*Parts configuration*



Generic end cap shown.

\* Included in overhaul seal kit Q210



## Auxiliary mounting

Order code: K5

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
K100	16-05		11176595	Adapter flange	1
K150	16-05		11029873	Adapter seal	1
K200	16-05		11000657	Coupling, 15 tooth, 16/32 pitch	1
K300	16-05		11023746	Flange cover	1
K350	16-05		509528	Screw	2
K400	16-05		11000819	Screw	4
K500	16-05		141105	Thrust washer	1

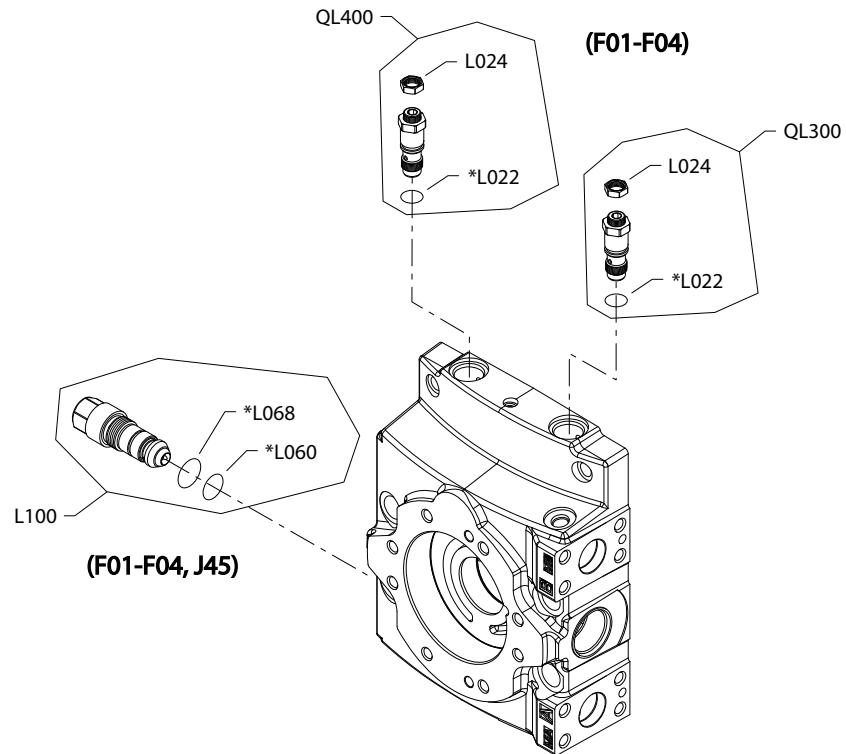
Order code: S1

K100	11-17		141240	Adapter flange, SAE B	1
K150	11-17		11029873	Adapter seal	1
K200	11-17		141268	Coupling, 14 tooth, 12/24 pitch	1
K300	11-17		11023746	Flange cover	1
K350	11-17		509528	Screw	2
K400	11-17		11000819	Screw	4
K500	11-17		141105	Thrust washer	1

### High pressure setting

#### H1P 69/78cc high pressure setting F01-J45 (port A)

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L060	07-14		141109	O-ring	1
L068	07-14		11052215	O-ring	1

### Order code: F01

L022	07-14		041152	O-ring	1
L024	13-14		11054668	Nut	1
L100	13-14		11049123	High pressure relief valve, 250 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1

### Order code: F02

L022	07-14		041152	O-ring	1
L024	13-14		11054668	Nut	1
L100	13-14		11049125	High pressure relief valve, 300 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1

### Order code: F03

L022	07-14		041152	O-ring	1
L024	13-14		11054668	Nut	1
L100	13-14		11049127	High pressure relief valve, 350 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1

### Order code: F04

L022	07-14		041152	O-ring	1
L024	13-14		11054668	Nut	1
L100	13-14		11049129	High pressure relief valve, 400 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1

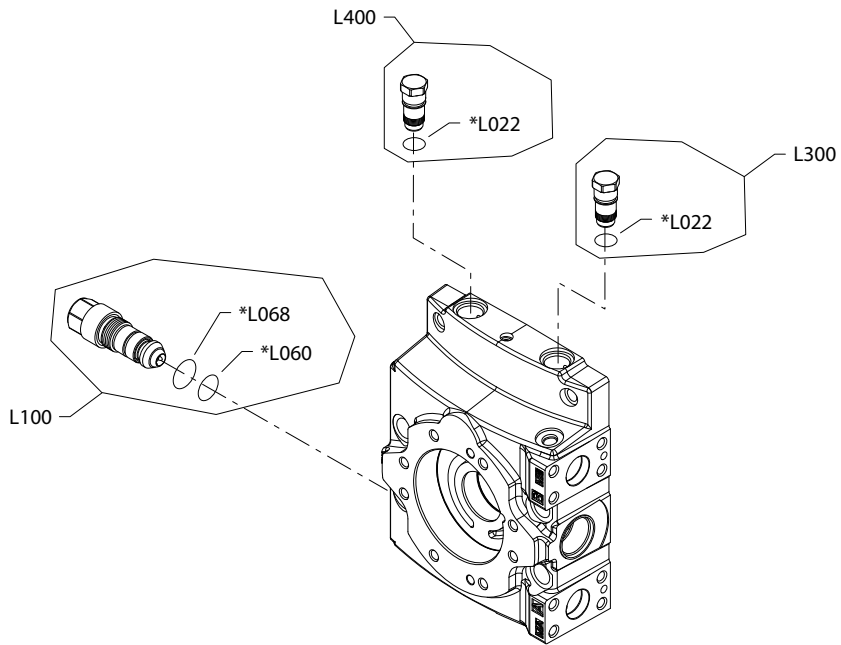
### Order code: J45

L100	13-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### High pressure setting

#### H1P 69/78cc high pressure setting K18-K48 (port A)

*Parts configuration*



---

Generic housing shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L060	07-14		141109	O-ring	1
L068	07-14		11052215	O-ring	1
L300	07-14		11002291	Pressure limiter plug assembly, CCW rotation pump	1
L400	07-14		11002291	Pressure limiter plug assembly, CW rotation pump	1

### Order code: K18

L100	07-14		11049120	High pressure relief valve, 180 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K20

L100	07-14		11049121	High pressure relief valve, 200 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K23

L100	07-14		11049122	High pressure relief valve, 230 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K25

L100	07-14		11049123	High pressure relief valve, 250 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K28

L100	07-14		11049124	High pressure relief valve, 280 bar	1
------	-------	--	----------	-------------------------------------	---

### Order K30

L100	07-14		11049125	High pressure relief valve, 300 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K33

L100	07-14		11049126	High pressure relief valve, 330 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K35

L100	07-14		11049127	High pressure relief valve, 350 bar	1
------	-------	--	----------	-------------------------------------	---

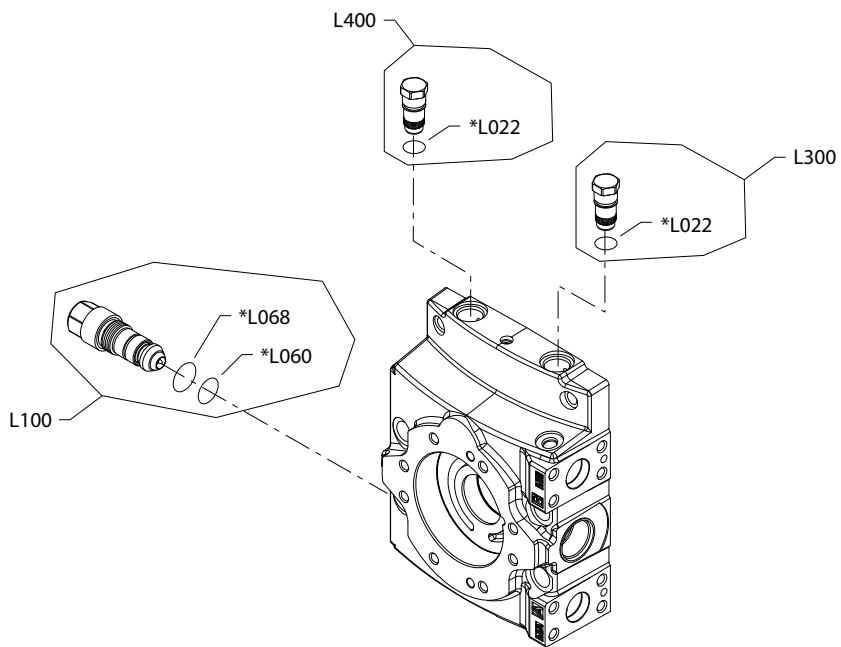
### Order code: K38

L100	07-14		11049128	High pressure relief valve, 380 bar	1
------	-------	--	----------	-------------------------------------	---

[Parts continue to the next 2 pages.](#)

## High pressure setting

Parts configuration



---

Generic housing shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L060	07-14		141109	O-ring	1
L068	07-14		11052215	O-ring	1
L300	07-14		11002291	Pressure limiter plug assembly, CCW rotation pump	1
L400	07-14		11002291	Pressure limiter plug assembly, CW rotation pump	1

### Order code: K40

L100	07-14		11049129	High pressure relief valve, 400 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K42

L100	07-14		11049130	High pressure relief valve, 420 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K43

L100	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K45

L100	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

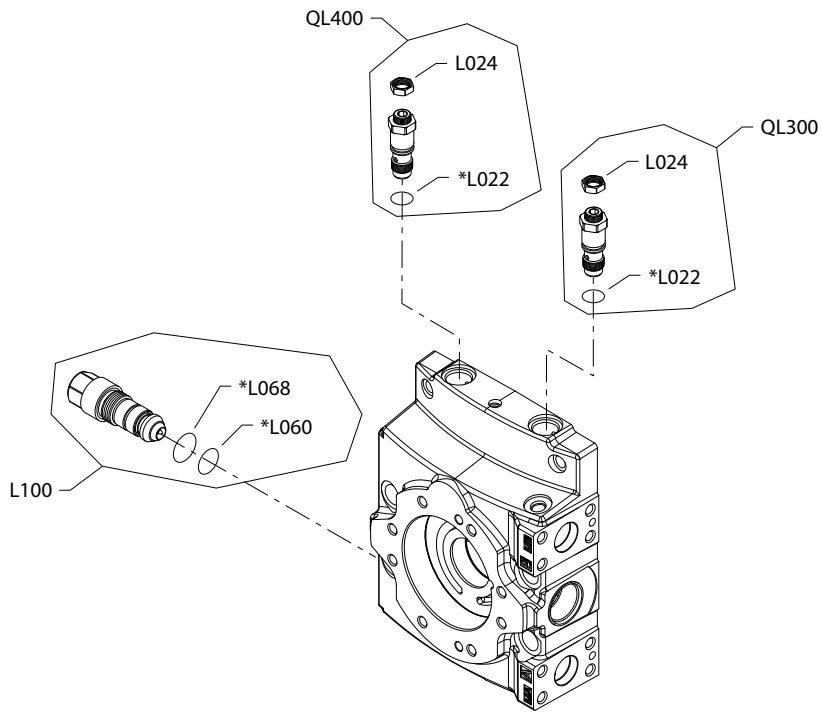
### Order code: K48

L100	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### High pressure setting

#### H1P 69/78cc high pressure setting L15-L33 (port A)

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210



## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L024	07-14		11054668	Nut	1
L060	07-14		141109	O-ring	1
L068	07-14		11052215	O-ring	1
QL300	07-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
QL400	07-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1

### Order code: L15

L100	07-14		11049121	High pressure relief valve, 200 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L18

L100	07-14		11049122	High pressure relief valve, 230 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L20

L100	07-14		11049123	High pressure relief valve, 250 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L23

L100	07-14		11049124	High pressure relief valve, 280 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L25

L100	07-14		11049125	High pressure relief valve, 300 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L28

L100	07-14		11049126	High pressure relief valve, 330 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L30, L31

L100	07-14		11049127	High pressure relief valve, 350 bar	1
------	-------	--	----------	-------------------------------------	---

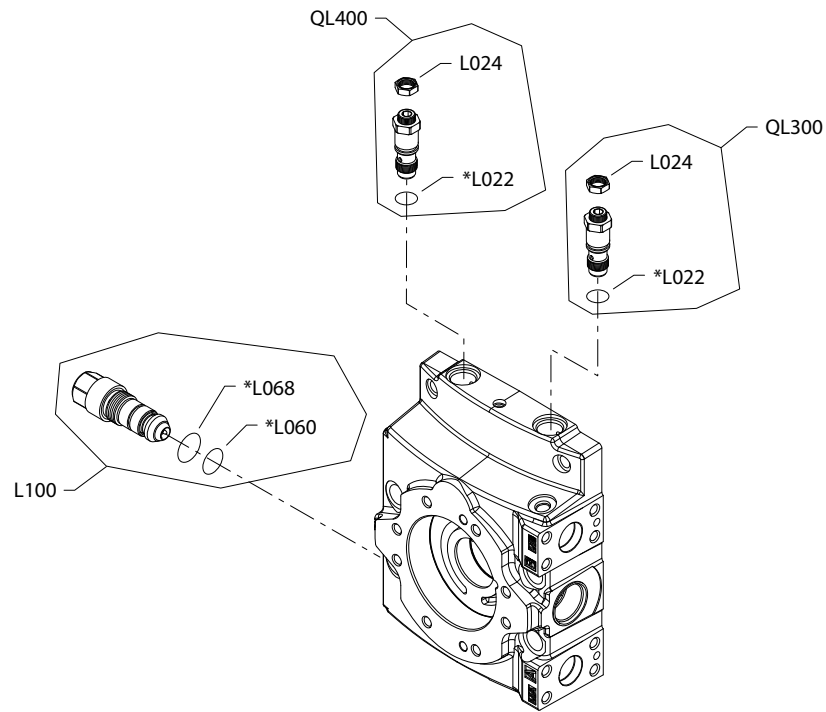
### Order code: L33

L100	07-14		11049128	High pressure relief valve, 380 bar	1
------	-------	--	----------	-------------------------------------	---

## High pressure setting

### H1P 69/78cc high pressure setting L35-L48 (port A)

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L024	07-14		11054668	Nut	1
L060	07-14		141109	O-ring	1
L068	07-14		11052215	O-ring	1
QL300	07-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
QL400	07-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1

### Order code: L35

L100	07-14		11049129	High pressure relief valve, 400 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L38

L100	07-14		11049130	High pressure relief valve, 420 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L40

L100	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L41

L100	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L42

L100	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L43

L100	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L44

L100	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L45

L100	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L46

L100	07-14		11049133	High pressure relief valve, 510 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L47

L100	07-14		11049133	High pressure relief valve, 510 bar	1
------	-------	--	----------	-------------------------------------	---

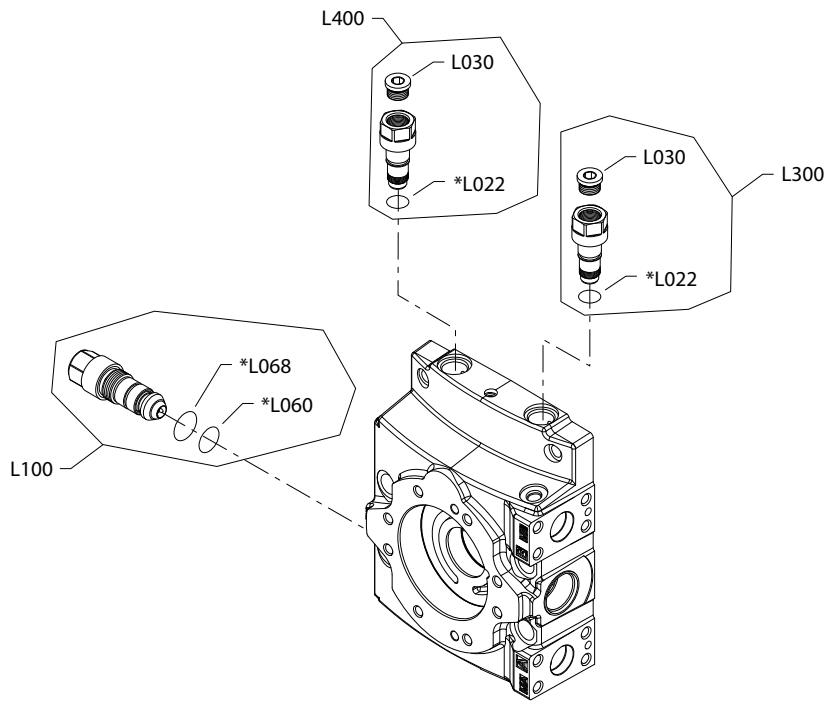
### Order code: L48

L100	07-14		11049133	High pressure relief valve, 510 bar	1
------	-------	--	----------	-------------------------------------	---

### High pressure setting

#### H1P 69/78cc high pressure setting S45 (port A)

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

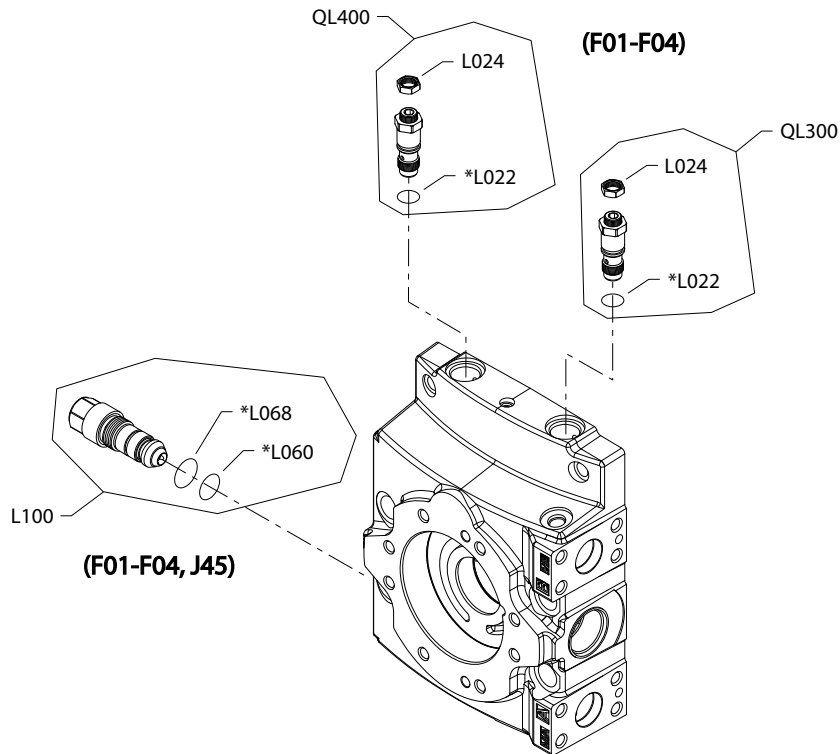
Order code: S45

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	15-05		041152	O-ring	1
L030	15-05		140644	Plug assembly	1
L060	15-05		141109	O-ring	1
L068	15-05		11052215	O-ring	1
L100	15-05		11049131	High pressure relief valve, 450 bar	1
L300	15-05		11049809	Pressure sensor adapter, CCW rotation pump	1
L400	15-05		11049809	Pressure sensor adapter, CW rotation pump	1

### High pressure setting

#### H1P 69/78cc high pressure setting F01-J45 (port B)

Parts configuration



---

Generic end caps shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

Order code: F01

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	13-14		041152	O-ring	1
L024	13-14		11054668	Nut	1
L060	13-14		141109	O-ring	1
L068	13-14		11052215	O-ring	1
L200	13-14		11049123	High pressure relief valve, 250 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

Order code: F02

L022	07-14		504207	O-ring	1
L024	13-14		11054668	Nut	1
L060	13-14		141109	O-ring	1
L068	13-14		11052215	O-ring	1
L200	13-14		11049125	High pressure relief valve, 300 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

Order code: F03

L022	07-14		504207	O-ring	1
L024	13-14		11054668	Nut	1
L060	13-14		141109	O-ring	1
L068	13-14		11052215	O-ring	1
L200	13-14		11049127	High pressure relief valve, 350 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

Order code: F04

L022	07-14		504207	O-ring	1
L024	13-14		11054668	Nut	1
L060	13-14		141109	O-ring	1
L068	13-14		11052215	O-ring	1
L200	13-14		11049129	High pressure relief valve, 400 bar	1
QL300	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

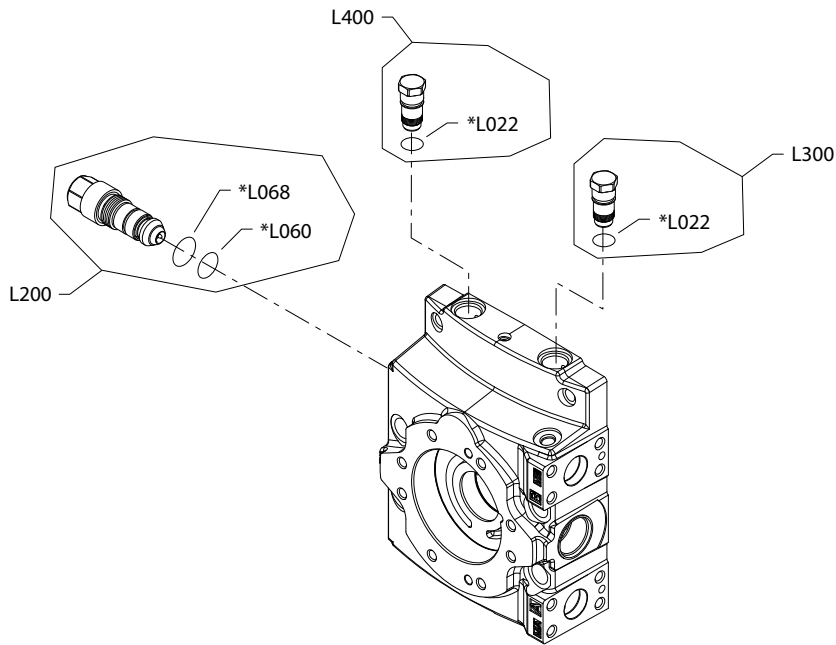
Order code: J45

L060	13-14		141109	O-ring	1
L068	13-14		11052215	O-ring	1
L200	13-14		11049131	High pressure relief valve, 450 bar	1

### High pressure setting

#### H1P 69/78cc high pressure setting K18-K48 (port B)

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210



## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		504207	O-ring	1
L060	07-14		365023	O-ring	1
L068	07-14		11052201	O-ring	1
L300	07-14		11002291	Pressure limiter plug assembly, CW rotation pump	1
L400	07-14		11002291	Pressure limiter plug assembly, CCW rotation pump	1

### Order code: K18

L200	07-14		11049120	High pressure relief valve, 180 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K20

L200	07-14		11049121	High pressure relief valve, 200 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K23

L200	07-14		11049122	High pressure relief valve, 230 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K25

L200	07-14		11049123	High pressure relief valve, 250 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K28

L200	07-14		11049124	High pressure relief valve, 280 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K30

L200	07-14		11049125	High pressure relief valve, 300 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K33

L200	07-14		11049126	High pressure relief valve, 330 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K35

L200	07-14		11049127	High pressure relief valve, 350 bar	1
------	-------	--	----------	-------------------------------------	---

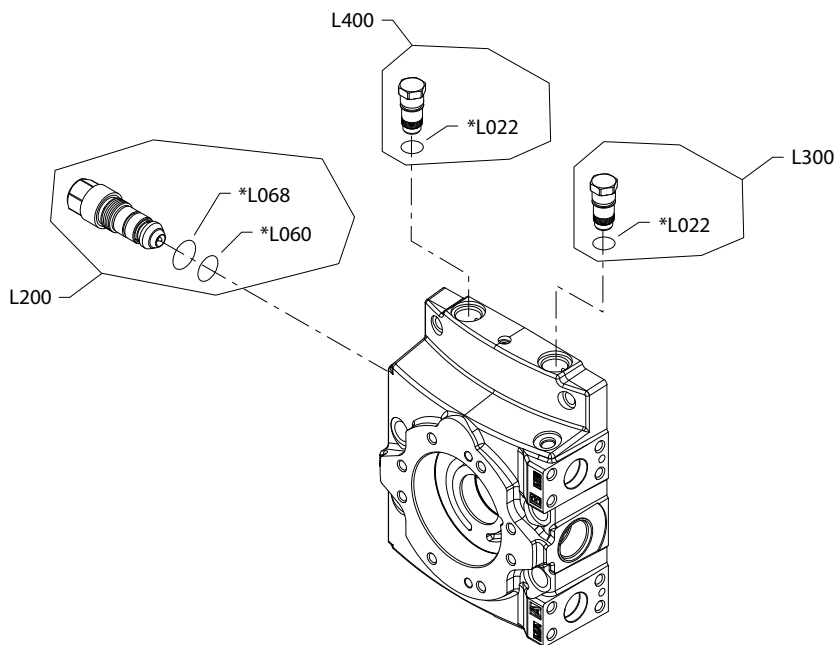
### Order code: K38

L200	07-14		11049128	High pressure relief valve, 380 bar	1
------	-------	--	----------	-------------------------------------	---

[Parts continue to the next 2 pages.](#)

## High pressure setting

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		504207	O-ring	1
L060	07-14		365023	O-ring	1
L068	07-14		11052201	O-ring	1
L300	07-14		11002291	Pressure limiter plug assembly, CW rotation pump	1
L400	07-14		11002291	Pressure limiter plug assembly, CCW rotation pump	1

### Order code: K40

L200	07-14		11049129	High pressure relief valve, 400 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K42

L200	07-14		11049130	High pressure relief valve, 420 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K43

L200	07-14		11166242	High pressure relief valve, 430 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: K45

L200	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

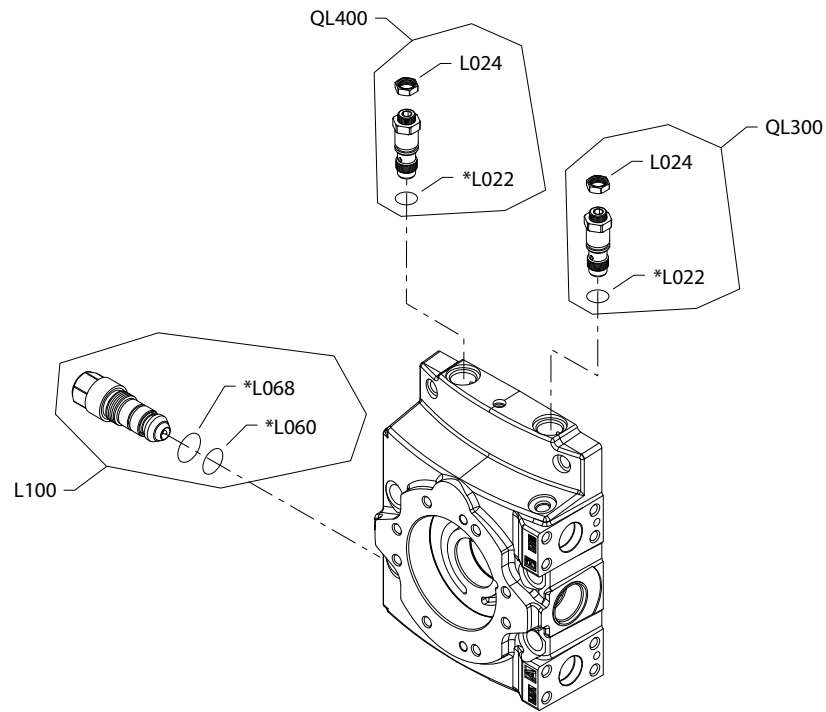
### Order code: K48

L200	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

## High pressure setting

### H1P 69/78cc high pressure setting L15-L31 (port B)

Parts configuration



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L024	07-14		11054668	Nut	1
L060	07-14		365023	O-ring	1
L068	07-14		11052201	O-ring	1
QL300	07-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	07-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

### Order code: L15

L200	07-14		11049121	High pressure relief valve, 200 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L18

L200	07-14		11049122	High pressure relief valve, 230 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L20

L200	07-14		11049123	High pressure relief valve, 250 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L23

L200	07-14		11049124	High pressure relief valve, 280 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L25

L200	07-14		11049125	High pressure relief valve, 300 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L28

L200	07-14		11049126	High pressure relief valve, 330 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L30

L200	07-14		11049127	High pressure relief valve, 350 bar	1
------	-------	--	----------	-------------------------------------	---

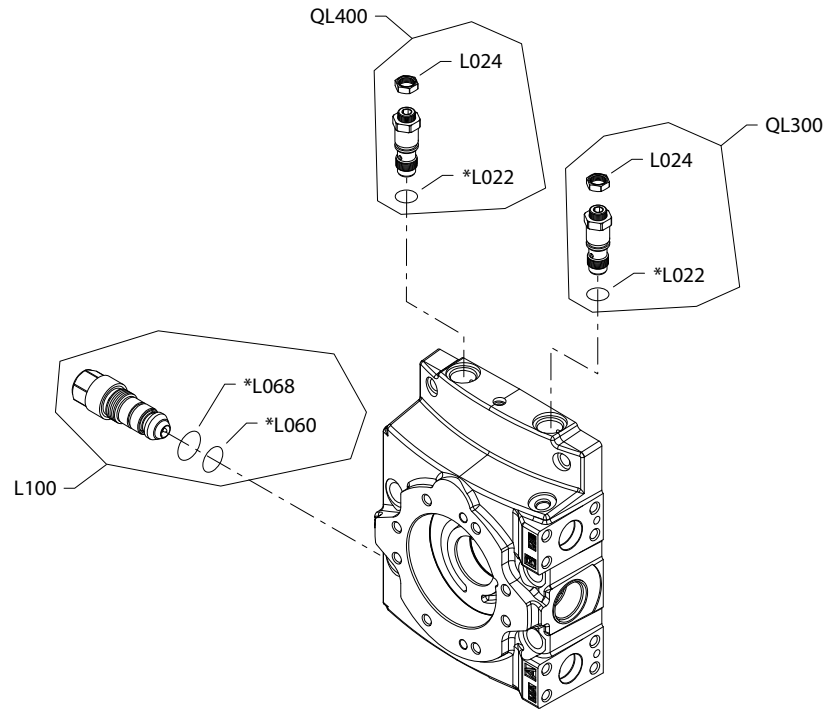
### Order code: L31

L200	07-14		11049128	High pressure relief valve, 350 bar	1
------	-------	--	----------	-------------------------------------	---

## High pressure setting

### H1P 69/78cc high pressure setting L33-L48 (port B)

Parts configuration



---

Generic housing shown.

---

\* Included in overhaul seal kit Q210

## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L024	07-14		11054668	Nut	1
L060	07-14		365023	O-ring	1
L068	07-14		11052201	O-ring	1
QL300	07-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	07-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

### Order code: L33

L200	07-14		11049128	High pressure relief valve, 380 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L35

L200	07-14		11049129	High pressure relief valve, 400 bar	1
------	-------	--	----------	-------------------------------------	---

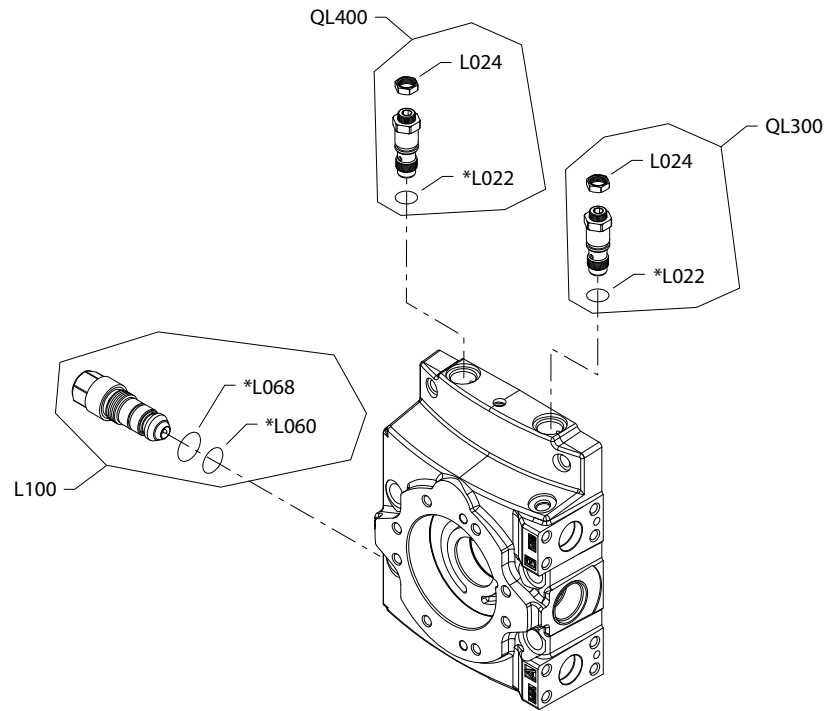
### Order code: L38

L200	07-14		11049130	High pressure relief valve, 420 bar	1
------	-------	--	----------	-------------------------------------	---

[Parts continue to the next 2 pages.](#)

## High pressure setting

Parts configuration



---

Generic housing shown.

---

\* Included in overhaul seal kit Q210



## High pressure setting

### Common parts

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
L022	07-14		041152	O-ring	1
L024	07-14		11054668	Nut	1
L060	07-14		365023	O-ring	1
L068	07-14		11052201	O-ring	1
QL300	07-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
QL400	07-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1

### Order code: L40

L200	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L41

L200	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L42

L200	07-14		11049131	High pressure relief valve, 450 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L43

L200	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L44

L200	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L45

L200	07-14		11049132	High pressure relief valve, 480 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L46

L200	07-14		11049133	High pressure relief valve, 510 bar	1
------	-------	--	----------	-------------------------------------	---

### Order code: L47

L200	07-14		11049133	High pressure relief valve, 510 bar	1
------	-------	--	----------	-------------------------------------	---

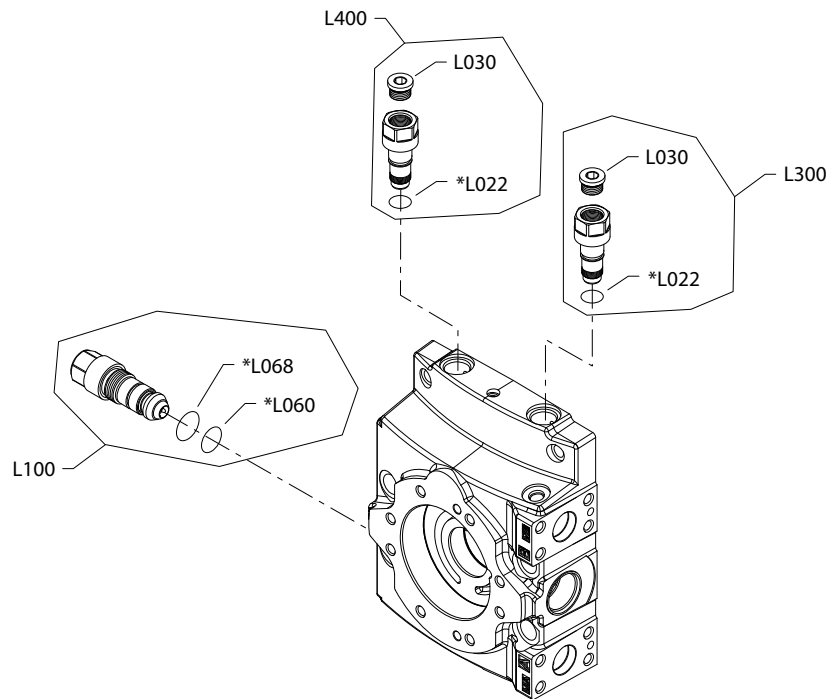
### Order code: L48

L200	07-14		11049133	High pressure relief valve, 510 bar	1
------	-------	--	----------	-------------------------------------	---

### High pressure setting

#### H1P 69/78cc high pressure setting S45 (port B)

Parts configuration



Generic end cap shown.

\* Included in overhaul seal kit Q210

## High pressure setting

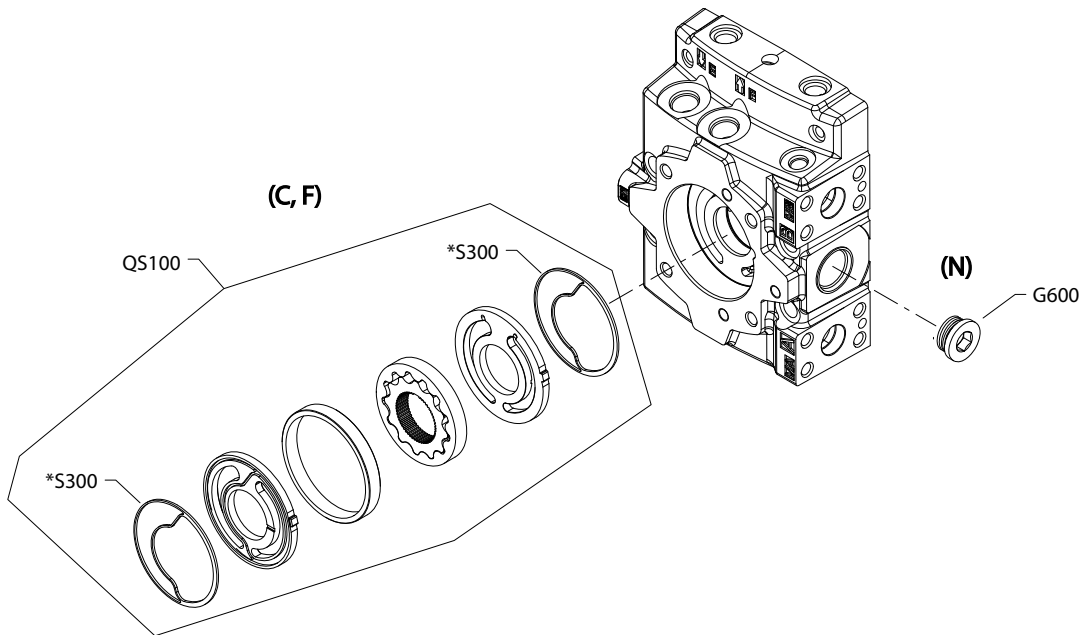
Order code: S45

Item	Date Begin	Date End	Part Number	Part name	Qty. per Model/Kit
L022	15-05		041152	O-ring	1
L030	15-05		140644	Plug assembly	1
L060	07-14		365023	O-ring	1
L068	07-14		11052201	O-ring	1
L200	15-05		11049131	High pressure relief valve, 450 bar	1
L300	15-05		11049809	Pressure sensor adapter, CW rotation pump	1
L400	15-05		11049809	Pressure sensor adapter, CCW rotation pump	1

### Charge pump

#### H1P 69/78cc charge pump C-N

Parts configuration



\* Included in overhaul seal kit Q210

## Charge pump

Order code: C

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
QS100	07-14		11008684	Charge pump kit, 17 cc	1
S300	07-14		11126777	Seal ring ( <a href="#">SB-2013-019</a> on page 178)	2

Order code: F

QS100	07-14		11008685	Charge pump kit, 14 cc	1
S300	07-14		11126777	Seal ring ( <a href="#">SB-2013-019</a> on page 178)	2

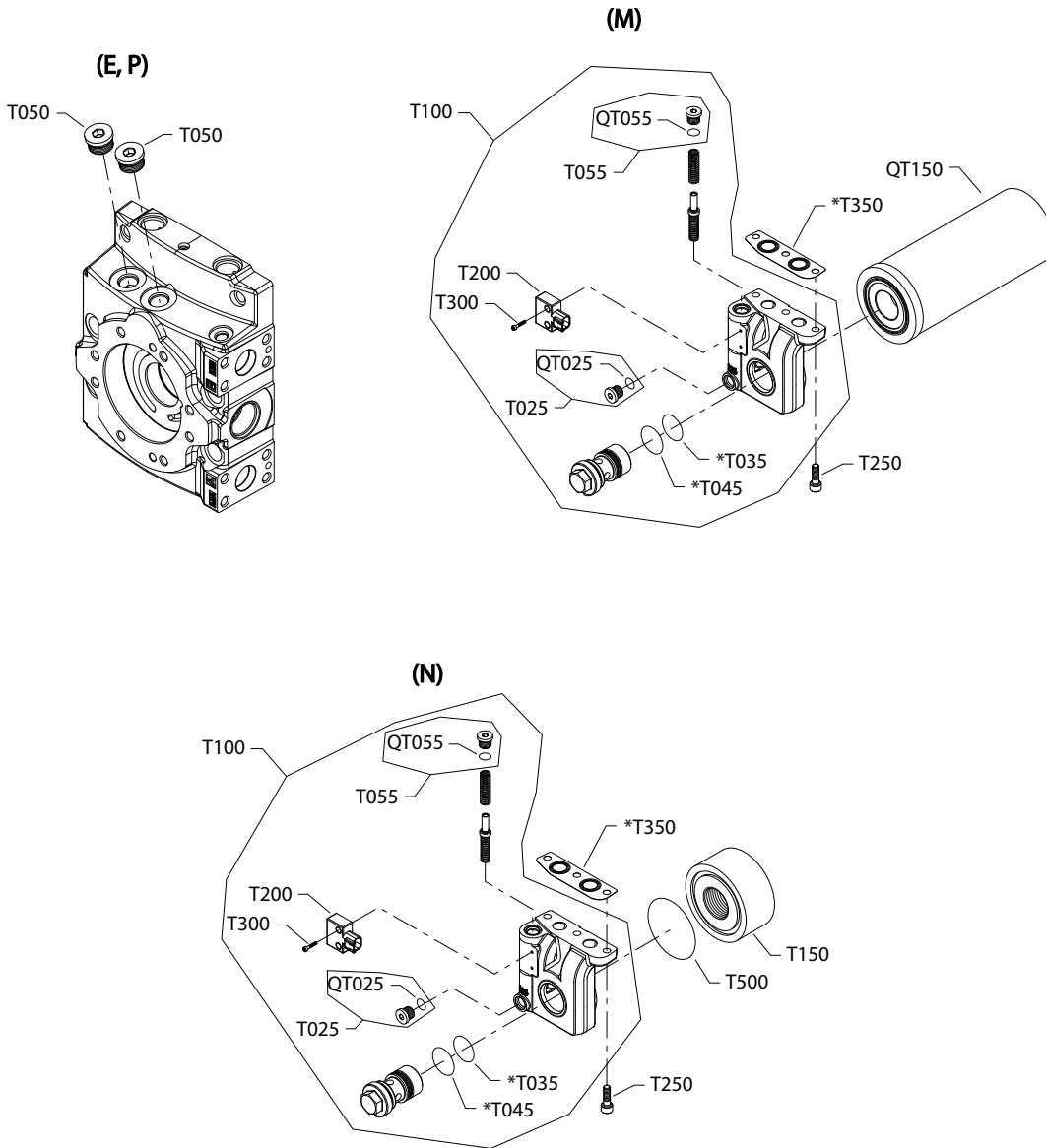
Order code: N

G600	07-14		320002 (9005110-9200)	Plug assembly	1
------	-------	--	-----------------------	---------------	---

**Filtration**

**H1P 69/78cc filtration E-P**

*Parts configuration*



Generic end cap shown.

\* Included in overhaul seal kit Q210

## Filtration

Order code: E

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
T050	07-14		315325 (9005110-8700)	Plug assembly	2

Order code: L

No parts
----------

Order code: M

T025	07-14		141269	Plug assembly	2
T035	07-14		761148 (9004100-0260)	O-ring	1
T045	07-14		314500 (9004100-1250)	O-ring	1
T100	07-14		140736	Pressure filter adapter assembly	1
T200	07-14		11031852	Filtration sensor	1
T250	07-14		11128665	Screw, M8 x 25	3
T300	07-14		140560	Screw, M3 x 16	2
T350	07-14		140737	Filter adapter gasket	1
QT150	07-14		11004918	Filter assembly	1

Order code: N

T025	09-27		141269	Plug assembly	2
T035	09-27		761148 (9004100-0260)	O-ring	1
T045	09-27		314500 (9004100-1250)	O-ring	1
T100	09-27		140736	Pressure filter adapter assembly	1
T150	09-27		11008261	Cover	1
T200	09-27		11031852	Filtration sensor	1
T250	09-27		11128665	Screw, M8 x 25	3
T300	09-27		140560	Screw, M3 x 16	2
T350	09-27		140737	Filter adapter gasket	1
T500	09-27		000943 (9004100-2300)	O-ring	1

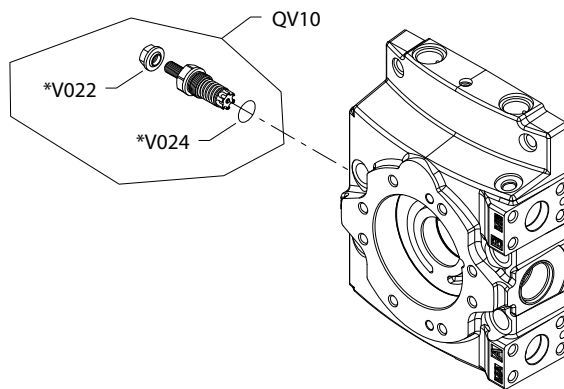
Order code: P

T050	07-14		315325 (9005110-8700)	Plug assembly	2
------	-------	--	-----------------------	---------------	---

## Charge pressure relief

### H1P 69/78cc charge pressure relief 18-34

*Parts configuration*



---

Generic end cap shown.

---

\* Included in overhaul seal kit Q210



### Charge pressure relief

Order code: 18-22

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
QV10	07-14		11004711	Charge relief valve kit	1
V022	07-14		612291 (9003508-0008)	Seal nut	1
V024	07-14		001149 (9004201-6200)	O-ring	1

Order code: 24-34

QV10	07-14		11017127	Charge relief valve kit	1
V022	07-14		612291 (9003508-0008)	Seal nut	1
V024	07-14		001149 (9004201-6200)	O-ring	1

## Overhaul seal kit

### H1P 69/78cc seal kit

Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
Q210	07-14		11178086	Overhaul seal kit, H1P069-078	1
D060	07-14		612291 (9003508-0008)	Seal nut, M8	1
D150	07-14		11173377	Control gasket (SB-2016-033), 6-screw	1
D611	07-14		11066774	O-ring, 10.82 x 1.78, red	2
E020	07-14		11075553	O-ring, 50.52 x 1.78, nitrile	2
E025	07-14		11075552	Piston seal ring	2
E250	07-14		140896	O-ring, 65.00 x 2.50, viton	2
E500	07-14		505412 (9003509-0008)	Seal nut, M8 x 1.25, coarse thread	1
E550	07-14		505412 (9003509-0008)	Seal nut, M8 x 1.25, coarse thread	1
G150	07-14		140902	End cap gasket	1
J250	07-14		140911	Lip seal	1
K150	07-14		11029873	Adapter seal	1
L022	07-14		041152	O-ring, 12.00 x 2.00, nitrile	2
L060	07-14		141109	O-ring, 16.00 x 1.50, viton	2
L068	07-14		11052215	O-ring, 19.30 x 2.40, nitrile	2
QD26	07-14		11001952	O-ring, 18.00 x 1.50, viton	2
QD81	07-14		11059551	O-ring, 9.50 X 1.78, viton	1
QD81	07-14		11152257	O-ring, 9.00 X 1.80, nitrile	1
QD751	07-18		001131 (9004201-5000)	O-ring, 16.36 x 2.21, nitrile	1
QH131	07-14		11013397	O-ring, 15.60 x 1.78, viton	1
S300	07-14		11126777	Seal ring	2
T035	07-14		761148 (9004100-0260)	O-ring, 31.47 x 1.78, nitrile	1
T045	07-14		314500 (9004100-1250)	O-ring, 32.99 x 2.62, nitrile	1
T350	07-14		140737	Filter adapter gasket	1
V022	07-14		612291 (9003508-0008)	Seal nut, M8 x 1, fine thread	1
V024	07-14		001149 (9004201-6200)	O-ring, 19.18 x 2.46, nitrile	1

**Service bulletins**

**SB-2007-033**

**Products affected**

H1 pumps

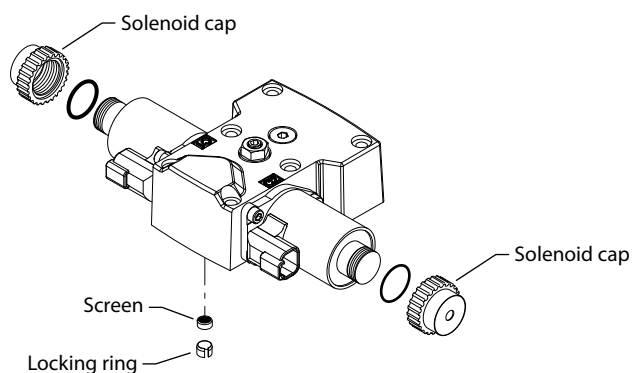
**Subject**

Control solenoid nut and screen locking ring

**Description**

As a product improvement, Danfoss changed the design of the EDC solenoids to avoid potential corrosion by changing the nut that holds the coil on the solenoid tube. The new nut has a closed cap design, which eliminates the potential of moisture to ingress past the solenoid tube threads. The new EDC and nut are functionally and physically interchangeable in all applications

A locking ring was also added to the controls. The locking ring will prevent the screen from falling out of the control during installation to the pump. The new locking ring can not be used in older style controls as the port is not drilled deep enough.



**Models affected**

All H1 pumps.

**Serial numbers**

Locking ring and solenoid nut.

**Part numbers affected**

*Locking ring and solenoid nut*

Option	45/53cc	78cc	147/165cc
A2	08-11-xxxxx	07-50-xxxxx	07-50-xxxxx
A3	08-11-xxxxx	07-50-xxxxx	07-50-xxxxx
A6	08-11-xxxxx	07-50-xxxxx	07-50-xxxxx
C1		07-39-xxxxx	07-39-xxxxx

*Locking ring only*

Option	45/53cc	78cc	147/165cc
A4	08-11-xxxxx	08-16-xxxxx	08-16-xxxxx
A5	08-11-xxxxx	08-16-xxxxx	08-16-xxxxx

### Service bulletins

#### Part numbers affected

Description	New part number
Locking ring	11012505

#### Parts disposition

- Interchangeable
- Use parts in stock

## Service bulletins

### SB-2008-038

#### Products affected

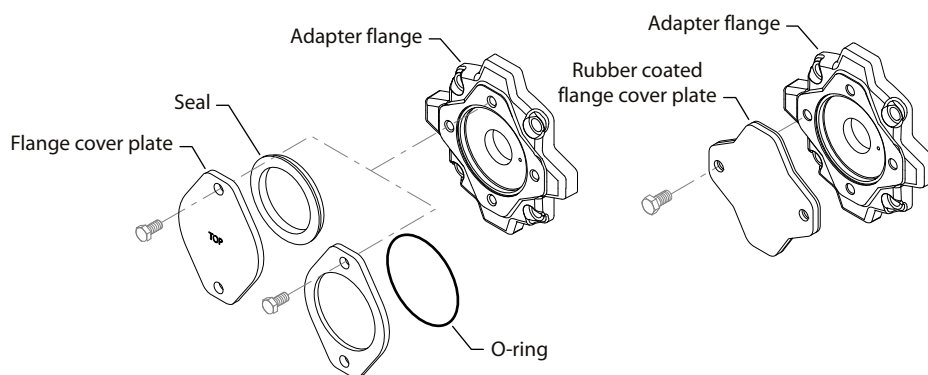
H1 pumps

#### Subject

Rubber coated auxiliary flange cover

#### Description

Danfoss has replaced the H1 pump auxiliary flange cover plate with a new rubber coated plate for all auxiliary flanges. The O-ring or donut style seal is no longer needed. The adapter flange interface to the auxiliary pump did not change, making this an interchangeable change. The new rubber coated cover plate can not be used as a running cover, if an auxiliary pump is not installed. The old cover and seal will need to be used for a running cover.



#### Models affected

All H1 pumps.

#### Serial numbers

Pad type	45/53cc	78cc	147/165cc
A	A-08-33-xxxxx	N-07-32-xxxxx	N-08-12-xxxxx
B	A-08-33-xxxxx	N-08-36-xxxxx	N-08-36-xxxxx
C	N/A	N-08-36-xxxxx	N-08-36-xxxxx
D	N/A	N/A	N-08-36-xxxxx

#### Part numbers affected

Pump size	Pad type	Description	Old part number	New part number
45 and 53cc	A	Cover plate	4460586	11017125
		Seal	4800482	
78cc	A	Cover plate	9802336	11017125
		O - ring	9004104-1520	
147 and 165cc	A	Cover plate	9802336	11017125
		O-ring	9004104-1520	
45 and 53cc	B	Cover plate	8801059	11023746
		Seal	8801061	

**Service bulletins**

Pump size	Pad type	Description	Old part number	New part number
78cc	B	Cover plate	4460370	11023746
		O-ring	9004104-1540	
147 and 165cc	B	Cover plate	4460370	11023747
		O-ring	9004104-1540	
45 and 53cc	C	Cover plate	8800406	11023750
		O-ring	9004104-1580	
78cc	C	Cover plate	8800406	11023748
		O-ring	9004104-1580	
147 and 165cc	D	Cover plate	338400	11023751
		O-ring	726927	

**Parts disposition**

Interchangeable

## Service bulletins

### SB-2008-040

#### Products affected

H1 78, 115 and 130 cc pumps

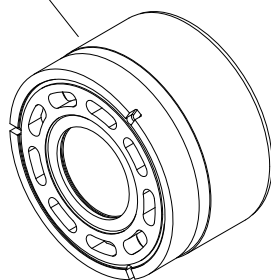
#### Subject

Cylinder blocks machined for speed ring

#### Description

A step has been machined into H1 78, 115 and 130 cc pump cylinder blocks for a speed ring. The part numbers of the cylinder blocks have been changed. The new blocks are completely interchangeable with the old blocks. The old part numbers will become obsolete and not available for service.

New speed ring step



#### Models affected

All H1 78, 115 and 130 pumps

#### Serial numbers

This change became effective at serial number

- N09-28-XXXXX, for 78cc pumps (6 July 2009)
- N09-35-XXXXX, for 115 cc pumps (24 August 2009)
- N09-37-XXXXX, for 130 cc pumps (9 September 2009)

#### Part numbers affected

Frame size	Old part number	New part number
78 cc	11012660	11011745
115 cc	141257	11030156
130 cc	141261	11030192

#### Parts disposition

- Interchangeable
- Use parts in stock
- Order replacement parts
- Revise existing part orders

**Service bulletins**

**SB-2009-007**

**Products affected**

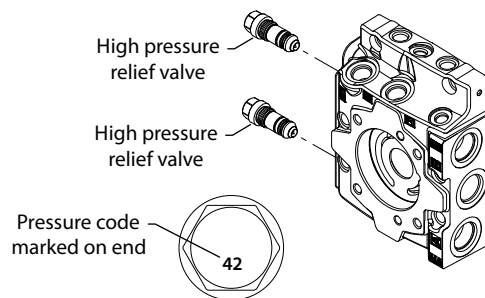
H1 pumps, 45 thru 100 cc

**Subject**

High pressure relief valve

**Description**

As a continuous improvement, Danfoss is changing the H1 high pressure relief valves used in 45 thru 100 cc pumps. The new valves will have a different weld process that locks the pressure setting. The new valves are completely interchangeable with the old valves. The part numbers for the valves are being changed to better track this change. The part number for the different settings will be incorporated into the system at different dates over the next 12 to 14 months. The old part numbers will become obsolete.



**Models affected**

All H1 45 thru 100 cc variable pumps.

**Serial numbers**

The part number for the different settings will be incorporated into the system at different dates over the next 12 to 14 months.

**Part numbers affected**

*High pressure relief valves*

Old part number	New part number	Pressure setting
11006825	11049130	420 bar
11006826	11049131	450 bar
11006827	11049132	480 bar
11006828	11049133	510 bar
11006822	11049127	350 bar
11006817	11049123	250 bar
11006821	11049126	330 bar
11006823	11049128	380 bar
11006824	11049129	400 bar
11006813	11049120	180 bar
11006816	11049122	230 bar



## Service bulletins

### *High pressure relief valves (continued)*

<b>Old part number</b>	<b>New part number</b>	<b>Pressure setting</b>
11006819	11049125	300bar
11006814	11049121	200 bar
11006818	11049124	280 bar

### **Parts disposition**

- Interchangeable
- Order replacement parts
- Revise existing part orders

**Service bulletins**

**SB-2009-046**

**Products affected**

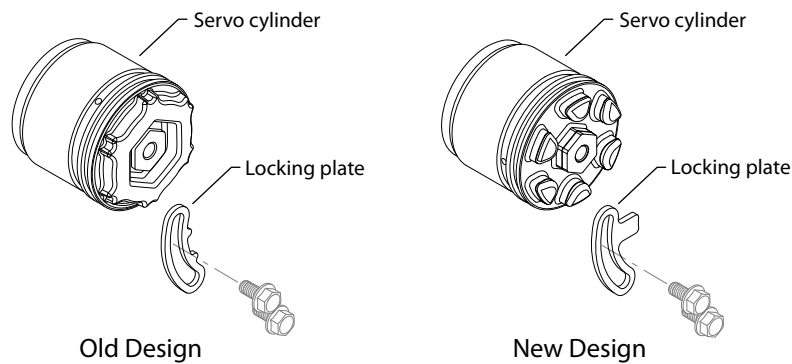
H1 78, 115/130 and 147/165cc pumps

**Subject**

Servo cylinder and locking plate design change

**Description**

As a product improvement, Danfoss has changed the servo cylinder and locking plate. The new servo cylinder has a larger locking area to allow for a larger locking plate tab for added strength. The old servo cylinders are obsolete and no longer available for service. The old locking plate will remain available for repair. The new and old designs are interchangeable, if both parts are replaced together.



**Models affected**

All H1 78, 115/130 and 147/165cc pumps

**Serial numbers**

This change became effective at serial number

- N-10-29-xxxxx (21 July 2010)
- N-10-35-xxxxx (30 August 2010)
- N-10-28-xxxxx. (15 July 2010)

**Part numbers affected**

Description	Frame size	Old part number	New part number
Servo cylinder, no-adjust	78 cc	140853	11089749
Servo cylinder, adjustable	78 cc	140852	11089779
Locking plate	78 cc	140513	11033382
Servo cylinder, no-adjust	115 - 130 cc	141224	11089773
Servo cylinder, adjustable	115 - 130 cc	141225	11089772
Locking plate	115 - 130 cc	140513	11033382
Servo cylinder, no-adjust	147 - 165 cc	140493	11089775
Servo cylinder, adjustable	147 - 165 cc	140309	11089774
Locking plate	147 - 165 cc	140513	11033382

## Service bulletins

### **Parts disposition**

Interchangeable only if both parts are replaced together

**Service bulletins**

**SB-2009-068**

**Products affected**

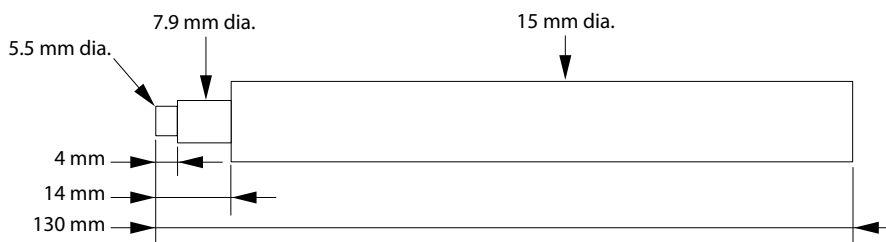
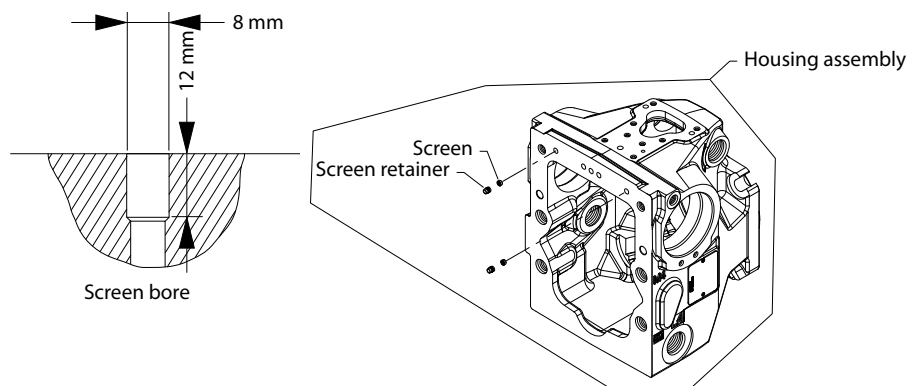
H1 78, 115/130 and 147/165 cc pumps

**Subject**

Change to the design of servo screen retention in pump housing

**Description**

Danfoss has made a change to the way the servo passage screens are retained in the pump housing of H1- 78 cc, 115/130 cc and 147/165 cc pumps. The screens in the past were retained only by friction fit. The screens are now pressed into the bores to the step. The retainers are then pressed in the bore against the screens with a maximum force of 3000 Newtons. The retainers must be against the screens so no movement of the screens occurs. A tool for installation of the retainer can be made with the dimensions shown below. The bores in the housing for the screens have been cut deeper to allow for the length of the retainers. The housings sold for service parts have changed to a housing assembly, with the screens and retainers installed. The old housings can be reworked to allow for the use of the new retainers by boring the 8mm bores for the screen and retainer 12mm deep from the gasket surface to the step that the screen sets on. The screen part number remains the same.



**Models affected**

All H1 78, 115/130 and 147/165cc pump

**Serial numbers**

This change became effective at serial number

- H1P147/165 (G): N09-25-XXX59
- H1P147/165 (Z): N09-26-XXX36
- H1P115/130 (G): N09-24-X4341

### Service bulletins

- H1P115/130 (L): N10-04-X3743
- H1P078 (H): N09-25-00081
- H1P078 (K): N09-29-03540

### Part numbers affected

Frame size	Old housing part number	Housing assembly
147/165 cc (G)	11005012	11005677
147/165 cc w/1 1/16 drain ports (Z)	11004991	11005674
115/130 cc (G)	11002342	11005070
115/130 cc w/speed sensing (L)	11030117	11030118
78 cc (H)	140904	11005071
78 cc w/speed sensing (K)	11024418	11011752

### Parts disposition

- Interchangeable
- Use parts in stock
- Order replacement parts
- Rework housing parts in stock
- Revise existing part orders

**Service bulletins**

**SB-2012-009**

**Products affected**

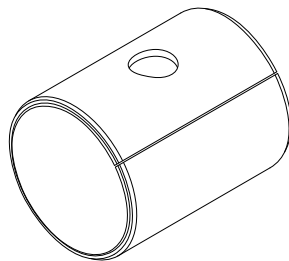
H1069/078 and 089/100 cc pumps

**Subject**

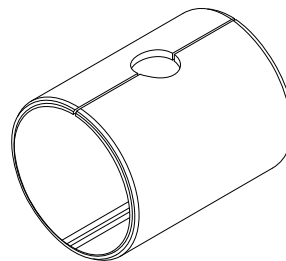
Journal bearing design change

**Description**

As a product improvement and part commonality between models, Danfoss is changing the journal bearing design in 069/078cc and 089/100cc H1 pumps. The split line center line position moves to the position of the bore center line. The new Journal Bearing is completely interchangeable with the old one. A new part number has been issued for tracking purposes. The old part number is obsolete and no longer available for service.



Old design



New design

**Models affected**

H1 069/078 and 089/100 cc pumps

**Serial numbers**

This change became effective at serial number N-12-21-08067 (20 May 2012)

**Part numbers affected**

Description	Old part number	New part number
Journal bearing	141102	11087822

**Parts disposition**

- Non-interchangeable
- Use parts in stock

## Service bulletins

### SB-2012-015

#### Products affected

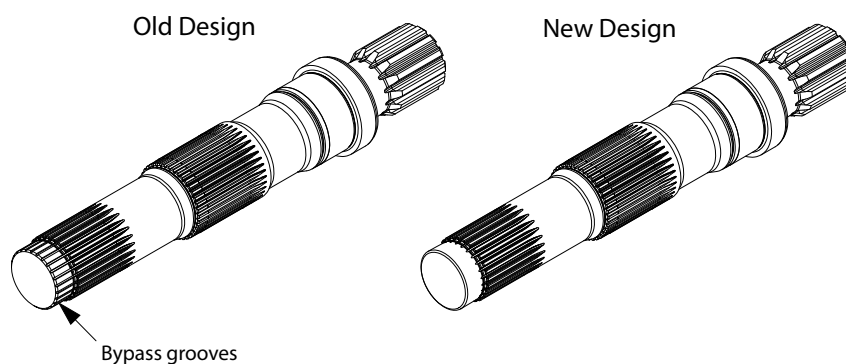
H1 78cc pumps

#### Subject

Shaft change

#### Description

Danfoss has removed the bypass on the end of the shaft on H1 78cc pumps. The old shaft allowed unfiltered oil from the pump case into charge pump and the high pressure loop. The bypass feature is now in the end cap. This change is not interchangeable with EPF end caps that have external remote filtration. The old design shafts are obsolete and no longer available.



#### Models affected

H1 78cc pumps

#### Serial numbers

See below

#### Part numbers affected

Description	Old part number	New part number	Effective date
Shaft, 21T (F1)	11000845	11112175	N12-38-xxxxx (20 Sep 2012)
Shaft, tapered (F4)	11021929	11112177	N12-27-xxxxx (04 Jul 2012)
Shaft, 14T (G1)	140908	11112174	N12-29-xxxxx (18 Jul 2012)
Shaft, 23T (G9)	11000794	11112176	N12-40-xxxxx (01 Oct 2012)

#### Parts disposition

- Non-interchangeable
- Use parts in stock

## Service bulletins

### SB-2013-003

#### Products affected

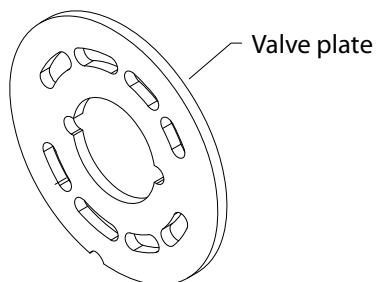
H1 pumps

#### Subject

Valve plate change

#### Description

As part of continuing product improvement efforts, Danfoss is implementing a design change to the valve plates. The new valve plates are interchangeable with old valve plate. The new design reduces cavitation wear to the valve plate. The old valve plate will become obsolete.



#### Models affected

H1 69 through 165cc pumps

#### Serial numbers

See below

#### Part numbers affected

Description	Old part number	New part number	Effective date
069/078 R CP17-1.5	11075607	11125564	N-13-05-xxxxx (31 Jan 2013)
069/078 R CP17+2.5	11076863	11125563	N-13-05-xxxxx (31 Jan 2013)
069/078 L CP17+2.5	11076865	11125551	N-13-05-xxxxx (31 Jan 2013)
069/078 L CP17-1.5	11076866	11125562	N-13-05-xxxxx (31 Jan 2013)
089/100 R CP17-1.5	11077025	11125566	N-13-05-xxxxx (31 Jan 2013)
089/100 R CP17+2.5	11077027	11125567	N-12-50-xxxxx (12 Dec 2012)
089/100 L CP17-1.5	11077026	11125568	N-13-05-xxxxx (31 Jan 2013)
089/100 L CP17+2.5	11077028	11125565	N-12-49-xxxxx (5 Dec 2012)
115/130 R CP17+2.5	11077029	11125572	N-13-05-xxxxx (25 Jan 2013)
115/130 R CP17-1.5	11077031	11123707	N-13-05-xxxxx (31 Jan 2013)



**Service bulletins**

Description	Old part number	New part number	Effective date
115/130 L CP17+2.5	11077030	11125569	N-13-05-xxxxx (31 Jan 2013)
115/130 L CP17-1.5	11077062	11125571	N-13-03-xxxxx (16 Jan 2013)
147/165 R CP17-1.5	11077063	11123708	N-13-05-xxxxx (31 Jan 2013)
147/165 R CP17+2.5	11077065	11125576	N-13-05-xxxxx (31 Jan 2013)
147/165 R (larger dia.)	11093335	11126989	N-13-05-xxxxx (31 Jan 2013)
147/165 L CP17-1.5	11077064	11125575	N-13-03-xxxxx (14 Jan 2013)
147/165 L CP17+2.5	11077066	11125574	N-13-05-xxxxx (31 Jan 2013)

**Parts disposition**

- Interchangeable
- Use parts in stock

**Service bulletins**

**SB-2013-019**

**Products affected**

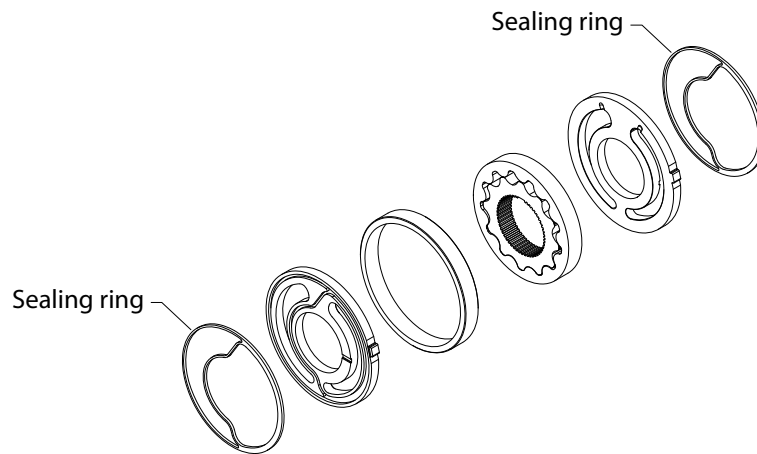
H1 pumps

**Subject**

Charge pump seal

**Description**

As a product improvement, Danfoss has changed the material on the sealing ring in the charge pump port plates of H1 pumps. The part number was changed for tracking purposes because the parts look similar. The old part numbers will become obsolete and no longer available as service parts.



**Models affected**

H1 pumps

**Serial numbers**

Part 11126778 took effect at serial number: N-13-23-00773 (04June2013)

Part 11126777 took effect at serial number: N-13-22-25411 (28 May2013)

**Part numbers affected**

Description	Old part number	New part number
Seal Ring, H1P115-165 port plate	11008462	11126778
Seal Ring, H1P045-100 port plate	11009457	11126777

**Parts disposition**

Interchangeable

Scrap used parts

**Service bulletins**

**SB-2015-035**

**Products affected**

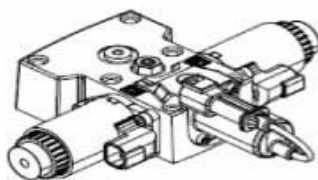
H1 pumps

**Subject**

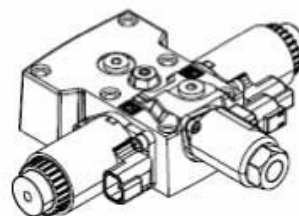
Control override valve service kit change

**Description**

Service kits for Control Override Valves (CCO/COR) on H1 pumps have been reconfigured to include a new control option. There has been a connector change to the coil. The new connector is a DEUTSCH key-lock pin style ( W2SC). The old solenoid has a wire lead with a standard DEUTSCH connector (W2P).



Old style control (W2P connector)



New style control (W2SC connector)

Each new service kit comes with an adapter cable which has a W2P and a W2SC on each end.



Adapter Cable

New service kit numbers have been issued for the new control option. The old service kits are no longer available. Reference PUB HY2014-175.

<b>EDC, 12v DEUTSCH connector, COR</b>	<p>Before Change: H1-P-100-L-A-<b>A6</b>-C2-N-D8-H-F1-H5-L-42-L-42-D-P-24-PN-NNN-NNN</p> <p>After Change: H1-P-100-L-A-<b>S6</b>-C2-N-D8-H-F1-H5-L-42-L-42-D-P-24-PN-NNN-NNN</p>
<b>EDC, 24v DEUTSCH connector, CCO</b>	<p>Before Change: H1-P-100-R-A-<b>C1</b>-C2-N-D6-H-G9-H2-L-38-L-38-M-L-24-PN-NNN-NNN</p> <p>After Change: H1-P-100-R-A-<b>E8</b>-C2-N-D6-H-G9-H2-L-38-L-38-M-L-24-PN-NNN-NNN</p>

**Models affected**

H1 pumps

## Service bulletins

### Serial numbers

No serial numbers affected. The new option began with the new part number.

### Part numbers affected

Description	Old control option	Old number	New control option	New number
SVC KIT-EDC, H1P 12V DT04 FAST CORF	A6	11019736	S6	11152574
SVC KIT-EDC, H1P 12V DT04 CCO	C5	11086382	E7	11147471
SVC KIT-EDC, H1P 12V DT04 CCO KEY-C	D4	11131492	E7	11147471
SVC KIT-EDC, H1P 24V DT04 CCO	C6	11086383	E8	11147472
SVC KIT-EDC, H1P 24V DT04 FAST CORF	C1	11037176	E8	11147472
SVC KIT-EDC, H1P 095 12V CCO			E5	11147422
SVC KIT-EDC, H1P 095 24V CCO			E6	11147423
CABLE-ADAPTER (W2SC/ W2SC)				11153287
CABLE-ADAPTER (W2SC/ W2P)				11150437

Control options S6, E7 and E8 contain parts for the new style connector. The attached cable adaptor W2P / W2SC supplied in the service kit is necessary to replace the old control.

### Parts disposition

Non-interchangeable

**Service bulletins**

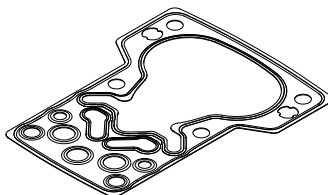
**SB-2016-033**

**Products affected** H1 pumps and tandems, MP1 and M46 control kits

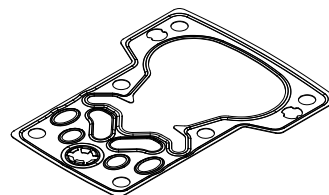
**Subject** Control Gasket

**Description** Danfoss Power Solutions has made a two-part design change to the control gasket used on H1 pumps and tandems and in MP1 and M46 control kits. The electrical displacement controls (EDC) have changed from an 8mm port to 12mm with tabs on the pressure port. The interim gasket used in the manual displacement controls has changed from a 10mm port to 12mm with tabs in the pressure port.

The gasket is now a common part to all pump models and control service kits. The new part can be substituted for the old part, but the old part cannot be substituted for the new part.



Old gasket



New gasket

**Models affected** H1 pumps and tandems, MP1 control kits, M46 control kits

**Serial numbers**  
 H1 Pumps - This change became effective on N-16-36-30132  
 H1 Tandems - This change became effective on N-16-37-30132  
 MP1 Control Kits - This change became effective on N-16-32-xxxxx  
 M46 Control Kits - This change became effective on N-16-32-xxxxx

**Part numbers affected**

Description	Old part number	New part number
Electrical displacement control gasket	140879	11173377
Manual displacement control gasket	11159911	11173377

**Parts disposition** Non-interchangeable - can substitute new for old

**Service bulletins**

**SB-2018-004**

**Products affected**

H1 69-78cc pumps

**Subject**

Shaft and cylinder block kit change

**Description**

Danfoss has made design changes to the main shaft and the slipper retainer ball guide in the H1 69/78cc pumps cylinder block kit. The internal block splines on the shaft are now machined longer and the slipper retainer ball guide is now splined.

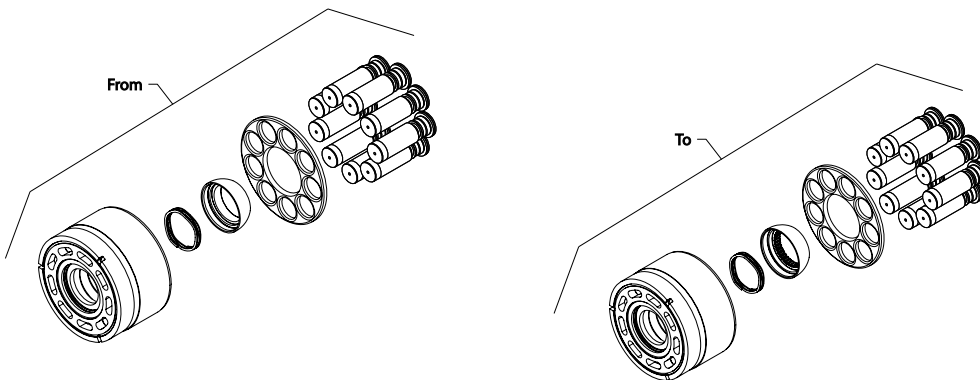
The new shaft may be substituted for the old shaft, but the old shaft cannot be substituted for the new shaft. The old shaft will be obsolete.

The slipper retainer ball guide design is changed from non-splined to splined due to the new shaft spline design change. The new splined ball guide can be used only with the new shaft design and it is not interchangeable. The old slipper retainer ball guide will be obsolete.

Shaft Change:



Cylinder Block Kit Change:



**Models affected**

H1 69-78cc pumps

**Serial numbers**

Shaft change became effective at August 24, 2017 (N1735xxxxx)

## Service bulletins

Cylinder block kit change became effective at November 15, 2017 (N1747xxxxx)

### Part numbers affected

Description	Old Part Number	New Part Number
Shaft, H1P069-078 14T 12/24	11112174	11176498
Shaft, H1P069-078 21T 16/32	11112175	11179422
Shaft, H1P069-078 23T 16/32	11112176	11179425
Shaft, H1P069-078 Taper 38-3 Keyway	11112177	11179423
Kit-Cylinder-Block H1P069	11002018	11189989
Kit-Cylinder-Block H1P078	140768/P	11189990
Kit-Cylinder Block, H1P069 Speed Sensor	11089730	11191001
Kit-Cylinder-Block H1P078 Speed Sensor	11011746	11191002
Guide-Slipper Retainer, H1P069-078	11121502	11148925

### Parts disposition

- Shaft: Interchangeable new to old
- Cylinder block kit: non-interchangeable
- Slipper retainer ball guide: non-interchangeable

**Service bulletins**

**SB-2018-025**

**Products affected**

H1 pumps

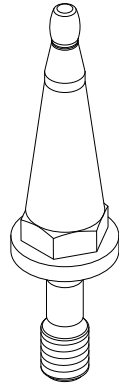
**Subject**

Swashplate feedback link

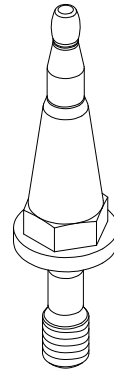
**Description**

Danfoss has made a design change to the swashplate feedback link on H1 pumps. To improve the compatibility of the controls that uses the angle sensor. The contact point on the feedback link, to the spring linkage on the angle sensor, has increased in width.

The new part can be substituted for the old part, but the old part cannot be substituted for the new. Old parts will be obsolete.



Old feedback link



New feedback link

**Models affected**

H1 45/53cc, 60/68cc, 69/78cc, 89/100cc, 115/130cc, 147/165cc, 210/250cc Pumps and Tandems

**Serial numbers**

This change became effective in Ames A-18-09-xxxxx

This change became effective in Germany N-18-06-xxxxx

**Part numbers affected**

Description	Old Part Number	New Part Number
Link-Swashplate feedback, H1P	11167724	11202172
Link-Swashplate feedback, H1P	11148827	11202172

**Parts disposition**

Non-interchangeable









**Products we offer:**

- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
- Hydrostatic motors
- Hydrostatic pumps
- Orbital motors
- PLUS+1® controllers
- PLUS+1® displays
- PLUS+1® joysticks and pedals
- PLUS+1® operator interfaces
- PLUS+1® sensors
- PLUS+1® software
- PLUS+1® software services, support and training
- Position controls and sensors
- PVG proportional valves
- Steering components and systems
- Telematics

**Danfoss Power Solutions** is a global manufacturer and supplier of high-quality hydraulic and electric components. We specialize in providing state-of-the-art technology and solutions that excel in the harsh operating conditions of the mobile off-highway market as well as the marine sector. Building on our extensive applications expertise, we work closely with you to ensure exceptional performance for a broad range of applications. We help you and other customers around the world speed up system development, reduce costs and bring vehicles and vessels to market faster.

Danfoss Power Solutions – your strongest partner in mobile hydraulics and mobile electrification.

**Go to [www.danfoss.com](http://www.danfoss.com) for further product information.**

We offer you expert worldwide support for ensuring the best possible solutions for outstanding performance. And with an extensive network of Global Service Partners, we also provide you with comprehensive global service for all of our components.

**Comatrol**

[www.comatrol.com](http://www.comatrol.com)

**Turolla**

[www.turollaocg.com](http://www.turollaocg.com)

**Hydro-Gear**

[www.hydro-gear.com](http://www.hydro-gear.com)

**Daikin-Sauer-Danfoss**

[www.daikin-sauer-danfoss.com](http://www.daikin-sauer-danfoss.com)

Local address:

**Danfoss  
Power Solutions (US) Company**  
2800 East 13th Street  
Ames, IA 50010, USA  
Phone: +1 515 239 6000

**Danfoss  
Power Solutions GmbH & Co. OHG**  
Krokamp 35  
D-24539 Neumünster, Germany  
Phone: +49 4321 871 0

**Danfoss  
Power Solutions ApS**  
Nordborgvej 81  
DK-6430 Nordborg, Denmark  
Phone: +45 7488 2222

**Danfoss  
Power Solutions Trading  
(Shanghai) Co., Ltd.**  
Building #22, No. 1000 Jin Hai Rd  
Jin Qiao, Pudong New District  
Shanghai, China 201206  
Phone: +86 21 3418 5200

Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequent changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.