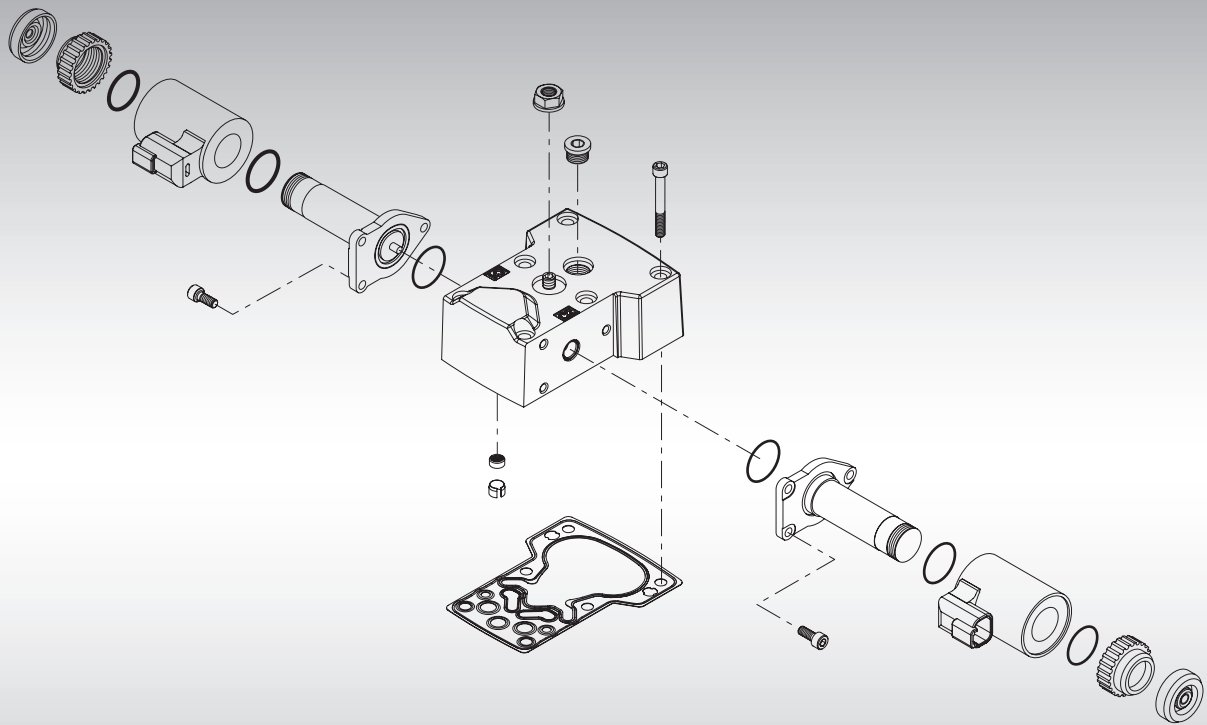




Parts Manual

H1P 69 & 78cc Variable Displacement Pump







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General information

Service parts identification

The following information and procedure is used to identify the module group, item number, manufacture date, part number, and part name of the parts included in the H1 69 and 78cc variable displacement pumps.

The parts listed include all parts which may be used when performing either “Minor Repairs”, “Major Repairs” or “Conversions” on the H1 69 and 78cc pump.

Nameplate

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

Model Code

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

Model Number

The Sauer-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 Sauer-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). “N” indicates the unit was originally assembled in Neumuenster, Germany.

The first number (2 digits) indicates the year of manufacture. (“09” would indicate the unit was manufactured in 2009)

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	87-02	89-16	8000151	End cap gasket (SB-1995-006)	1

All units using this order code with a date code of 87-02 and up to and including 89-16, must use part number "8000151". All units with a date code of 89-17 and newer must use part number "8000243".

Service bulletins

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

Procedure to identify a part

General

The modular design of H1 units 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. (Example: The lip seal - Item J250 has the same item number on all pumps.)

A part number that has another number following it in parentheses is done to make this a world wide manual. The first number is sold in Germany. The number in parentheses is sold in the United States. (Example: 314583 (9008000-0118), customers would order 9008000-0118 if ordering the part in the United States.)

Example of a Part Identification

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 (see page 7), the input shaft option for this pump is identified by the code "G1". (H1P78L A A A2 C2 N F5 H G1 H6 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.

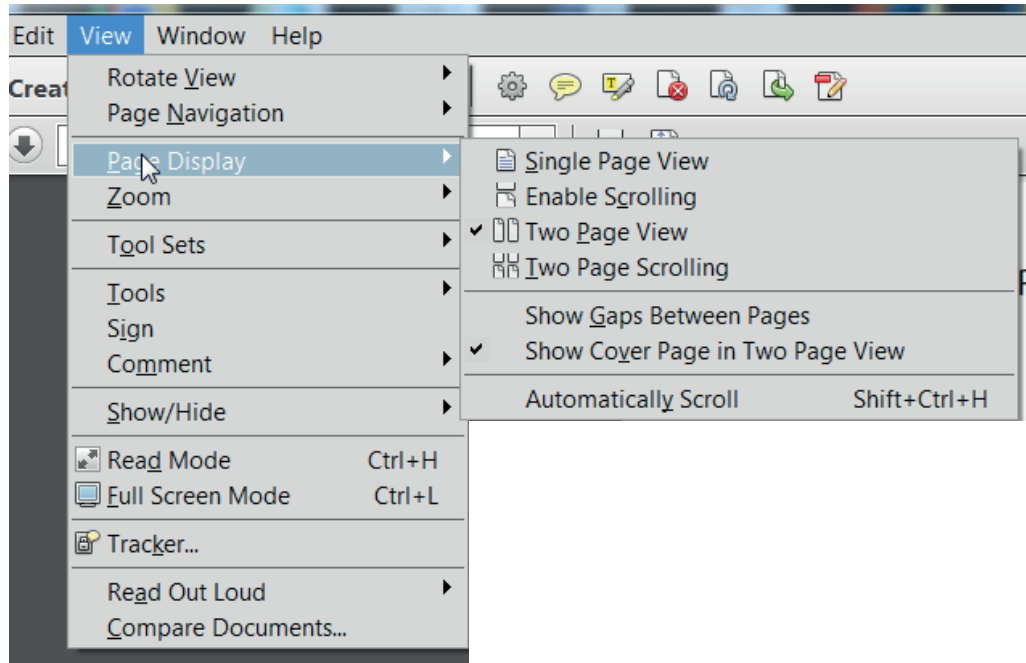


Adobe Acrobat 2-page viewing

Adobe Acrobat 2-page viewing

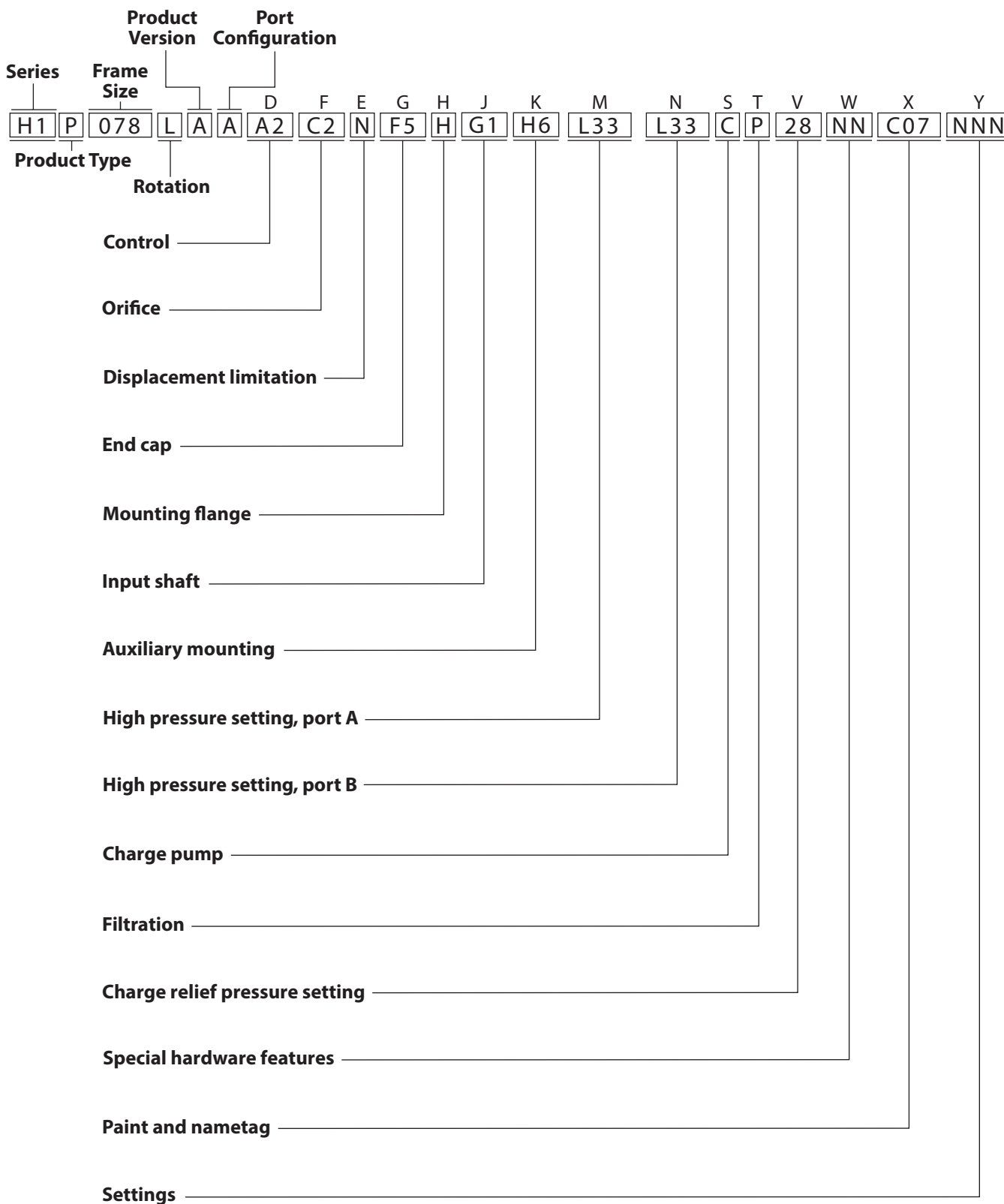
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Order code

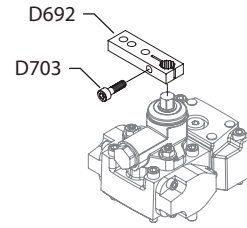


P100 687E

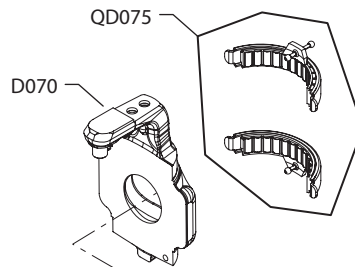
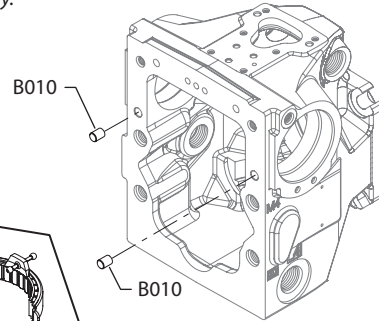


Variable displacement pump

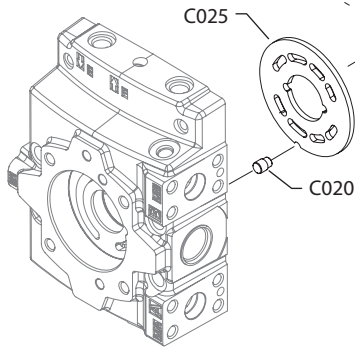
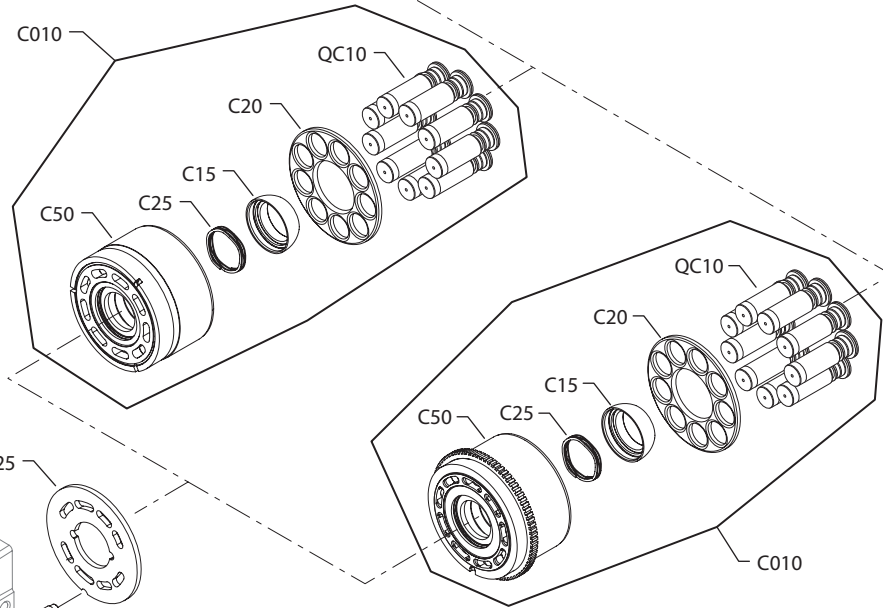
(H1)



Generic control and housing used to show part location only.



**(H1, M1, NN,
P1, P5 & PN)**



**(M2, N2, P2
& P4)**


Variable displacement pump
Common parts

Order Code	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	11-41		11121502	Slipper retainer ball guide (SB-2012-038)	1
	C15	07-14	11-40	11091044	Slipper retainer ball guide/spring washer replacement kit	1
	C20	07-14		140770	Slipper retainer	1
	C25	11-41		11187155	Spring washer (SB-2012-038)	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, 69 cc	1
	QC10	07-14		11026146	Slipper/piston kit, 78 cc	1
	QD075	07-14		11008670	Swashplate bearing kit	1

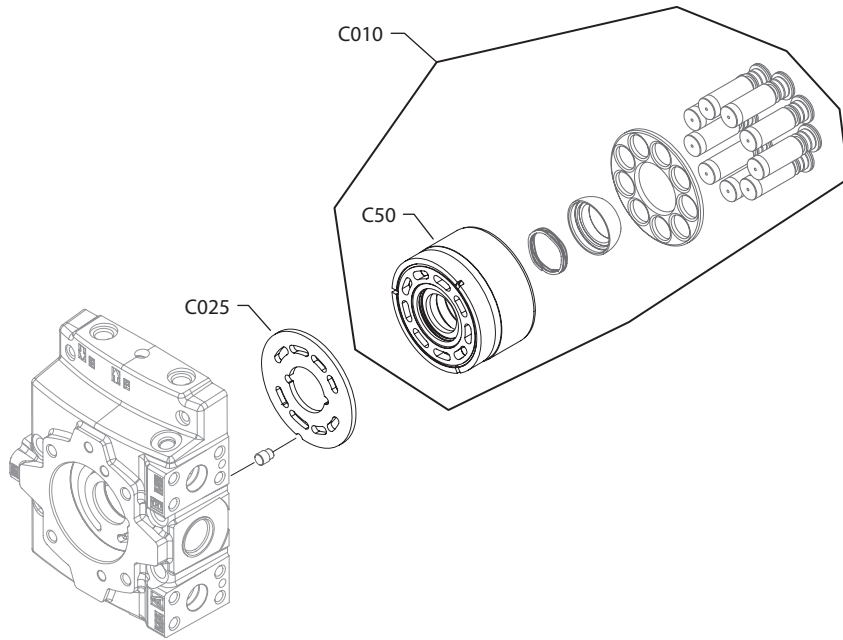
Special hardware

M5	Replaced with option PN for pumps with EDC or FNR control, and replaced with option P1 for pumps with NFPE control					
H1	C50	13-28		11124482	Cylinder block assembly, 69 cc	1
	C50	13-28		11124484	Cylinder block assembly, 78 cc	1
	C010	13-28		11002018	Cylinder block kit, 69 cc	1
	C010	13-28		140768/P	Cylinder block kit, 78 cc	1
	C025	13-28		11125562	Valve plate, CCW	1
	C025	13-28		11125564	Valve plate, CW	1
	D692	13-28		11113513	Control handle	1
	D703	13-28		041160 (9007314-0605)	Screw, M6 x 20	1
M1 & P1	C50	12-49		11124482	Cylinder block assembly, 69 cc	1
	C50	11-41		11124484	Cylinder block assembly, 78 cc (SB-2012-038)	1
	C010	12-49		11002018	Cylinder block kit, 69 cc	1
	C010	09-47		140768/P	Cylinder block kit, 78 cc	1
	C025	09-47		11125551	Valve plate, CCW (SB-2013-003)	1
	C025	09-47		11125563	Valve plate, CW (SB-2013-003)	1
M2, N2, P2	C50	12-49		11124483	Cylinder block assembly, speed ring, 69 cc	1
	C50	11-41		11124485	Cylinder block assembly, speed ring, 78 cc (SB-2012-038)	1
	C010	12-49		11089730	Cylinder block kit, speed ring, 69 cc	1
	C010	09-47		11011746	Cylinder block kit, speed ring, 78 cc	1
	C025	09-47		11125551	Valve plate, CCW (SB-2013-003)	1
	C025	09-47		11125563	Valve plate, CW (SB-2013-003)	1
P4	C50	12-49		11124483	Cylinder block assembly, speed ring, 69 cc	1
	C50	11-41		11124485	Cylinder block assembly, speed ring, 78 cc (SB-2012-038)	1
	C010	12-49		11089730	Cylinder block kit, speed ring, 69 cc	1
	C010	09-47		11011746	Cylinder block kit, speed ring, 78 cc	1
	C025	09-47		11125562	Valve plate, CCW (SB-2013-003)	1
	C025	09-47		11125564	Valve plate, CW (SB-2013-003)	1



Variable displacement pump

(NN & PN)

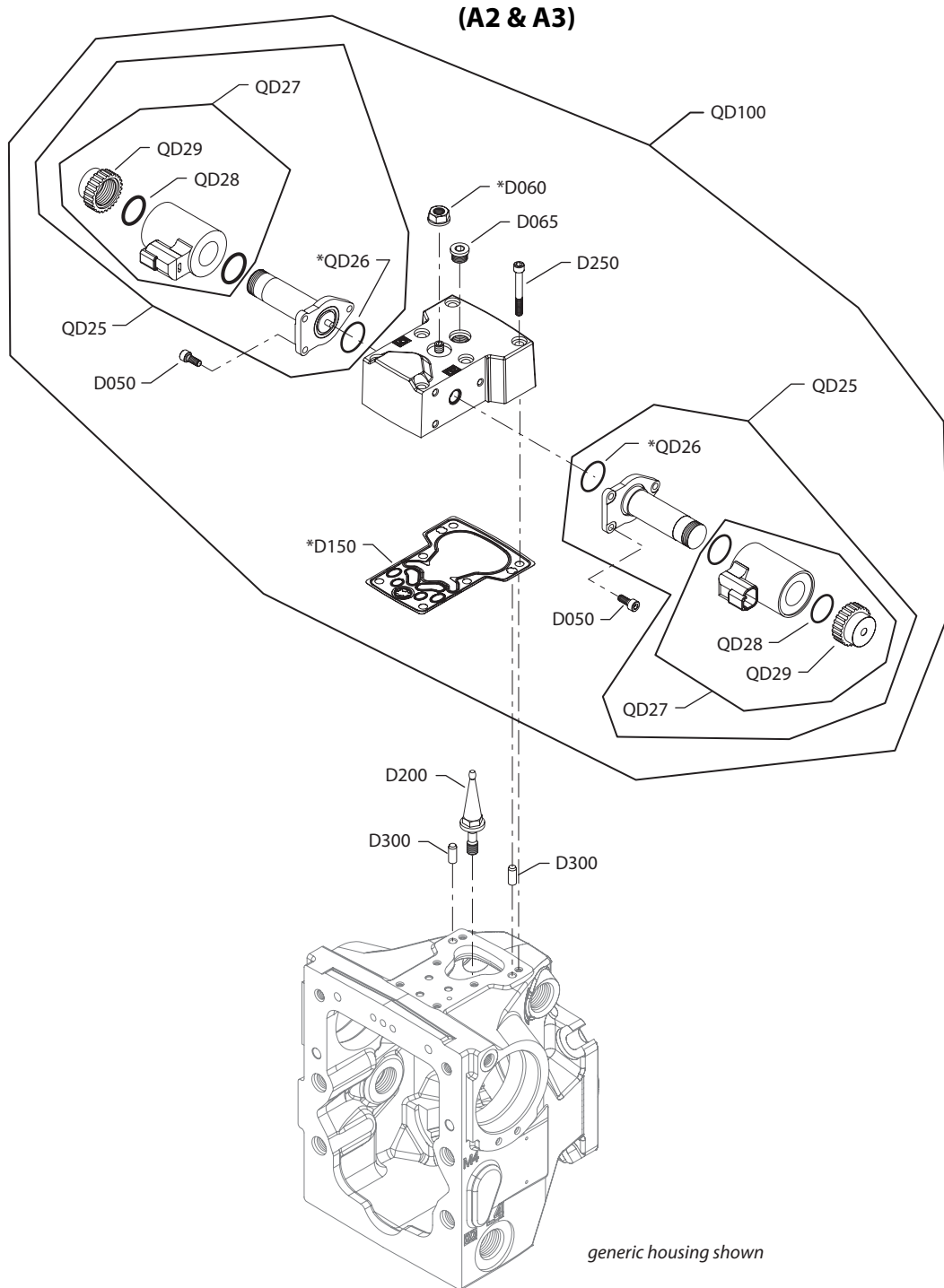



Variable displacement pump
Special hardware

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
NN & PN	C50	12-49		11124482	Cylinder block assembly, 69 cc	1
	C50	11-41		11124484	Cylinder block assembly, 78 cc (SB-2012-038)	1
	C010	12-49		11002018	Cylinder block kit, 69 cc	1
	C010	10-02		140768/P	Cylinder block kit, 78 cc	1
	C025	10-02		11125562	Valve plate, CCW (SB-2013-003)	1
	C025	10-02		11125564	Valve plate, CW (SB-2013-003)	1



Variable displacement pump



E100 912E

* = included in overhaul seal kit Q210

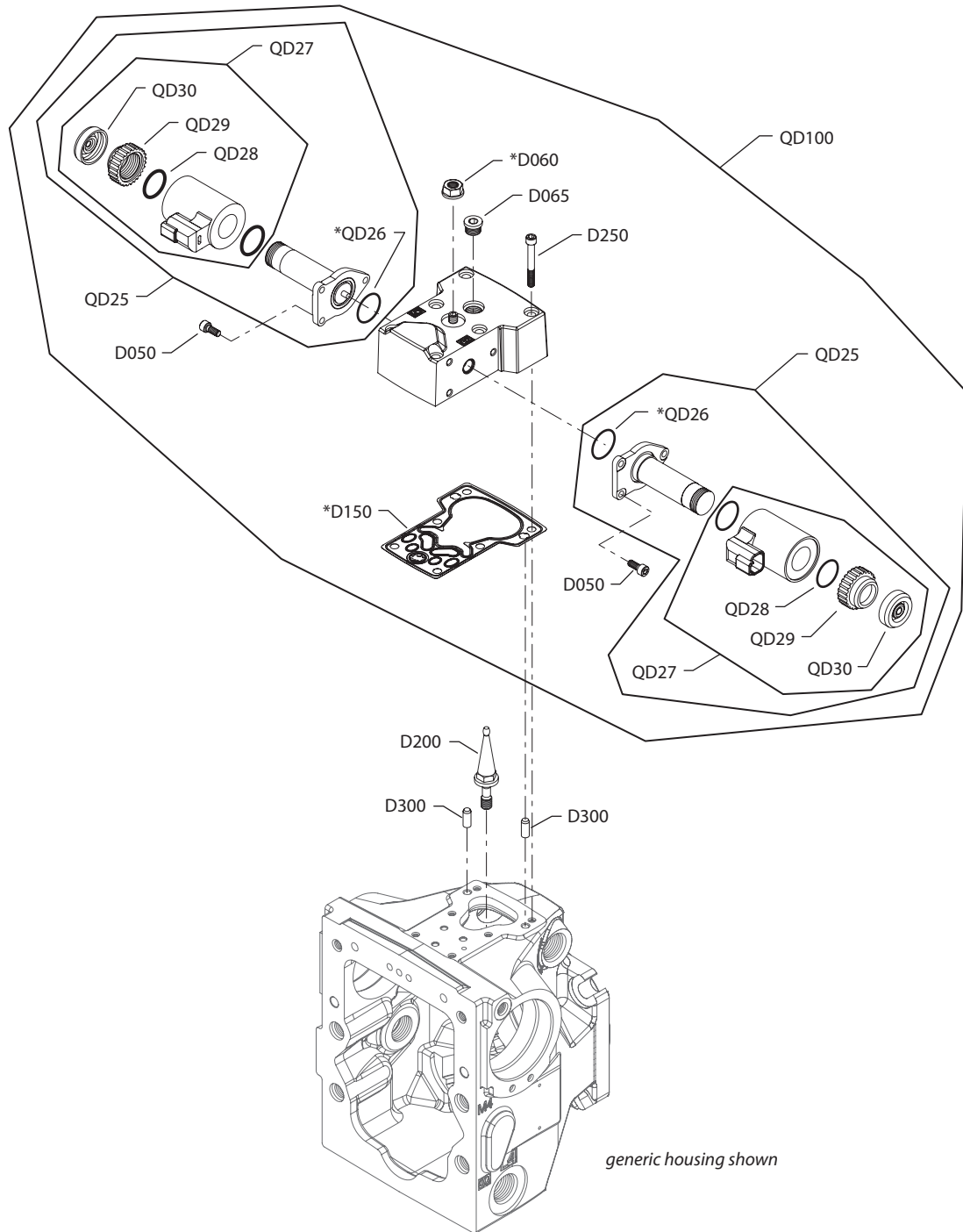

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A2	D050	07-14		716860	Screw, M5 x 12	6
	D060	07-14		612291 (9003508-0008)	Seal nut, M8	1
	D065	07-14		140642	Plug assembly	1
	D150	07-14		11173377	Control gasket (SB-2016-033)	1
	D200	07-14		11148827	Swashplate feedback link	1
	D250	07-14		505038	Screw, M6 x 45	6
	D300	07-14		310979	Dowel pin	2
	QD25	07-14		11012457	Proportional solenoid, 12V	2
	QD26	07-14		11001952	O-ring	2
	QD27	07-14		11028018	Coil kit, 12V, Deutsch connector	2
	QD28	07-14		063172	O-ring	2
	QD29	07-14		11027046	Coil nut	2
	QD100	07-14		11019680	EDC kit, 12V, Deutsch connector, fast	1
	A3	D050	07-14		716860	Screw, M5 x 12
D060		07-14		612291 (9003508-0008)	Seal nut, M8	1
D065		07-14		140642	Plug assembly	1
D150		07-14		11173377	Control gasket (SB-2016-033)	1
D200		07-14		11148827	Swashplate feedback link	1
D250		07-14		505038	Screw, M6 x 45	6
D300		07-14		310979	Dowel pin	2
QD25		07-14		11012459	Coil kit, 24V, Deutsch connector	2
QD26		07-14		11001952	O-ring	2
QD27		07-14		11028019	Coil kit, 24V, Deutsch connector	2
QD28		07-14		063172	O-ring	2
QD29		07-14		11028024	Coil nut	2
QD100		07-14		11019681	EDC kit, 24V, Deutsch connector, fast	1



Variable displacement pump

(A4 & A5)



E100 992E

* = included in overhaul seal kit Q210

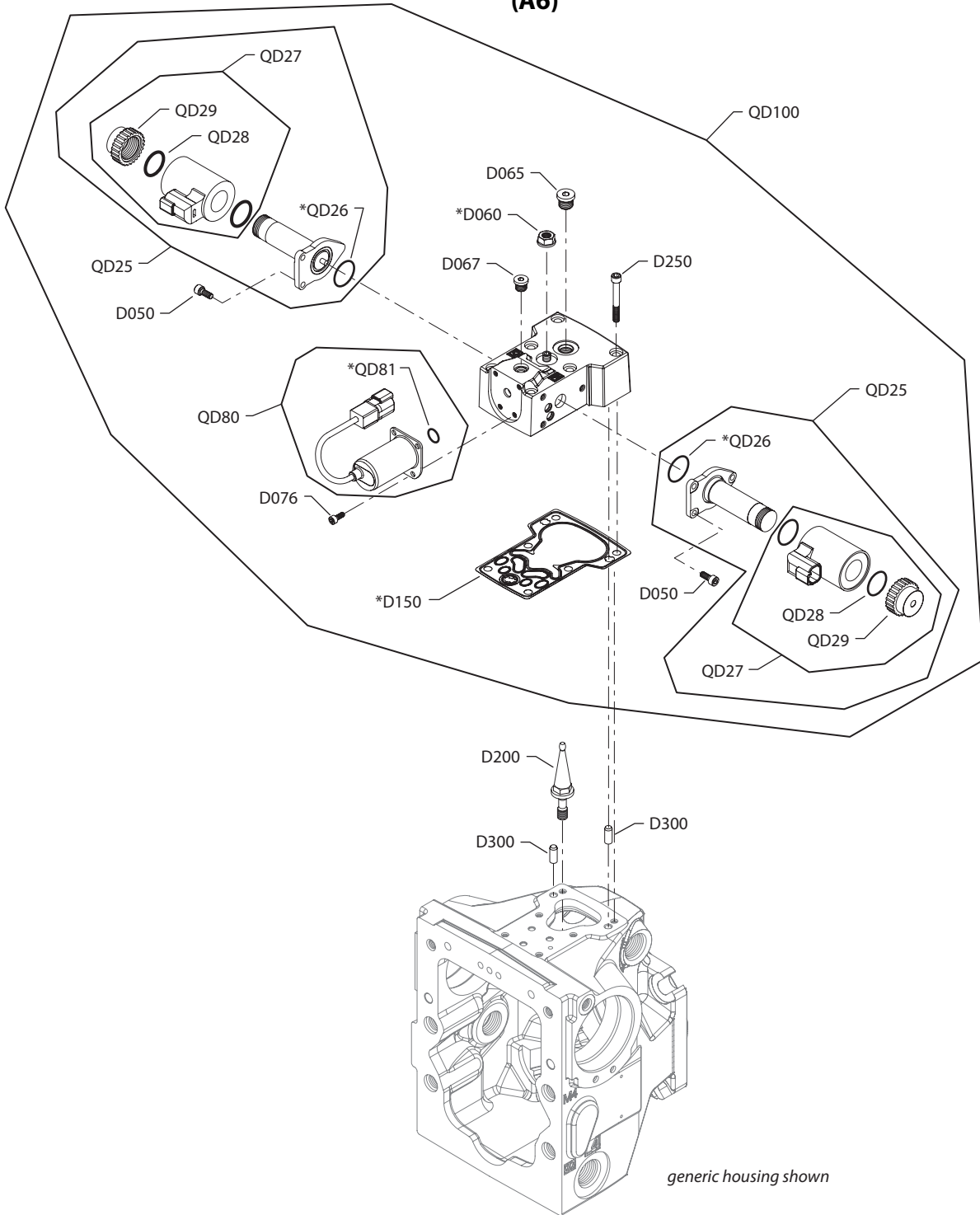

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A4	D050	07-14		716860	Screw, M5 x 12	6
	D060	07-14		612291 (9003508-0008)	Seal nut, M8	1
	D065	07-14		140642	Plug	1
	D150	07-14		11173377	Control gasket (SB-2016-033)	1
	D200	07-14		11148827	Swashplate feedback link	1
	D250	07-14		505038	Screw, M6 x 45	6
	D300	07-14		310979	Dowel pin	2
	QD25	07-14		140750	Proportional solenoid, 12v	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		11019732	EDC kit, 12V, high gain spool, manual override	1
	A5	D050	07-14		716860	Screw Screw, M5 x 12
D060		07-14		612291 (9003508-0008)	Seal nut, M8	1
D065		07-14		140642	Plug	1
D150		07-14		11173377	Control gasket (SB-2016-033)	1
D200		07-14		11148827	Swashplate feedback link	1
D250		07-14		505038	Screw, M6 x 45	6
D300		07-14		310979	Dowel pin	2
QD25		07-14		140751	Proportional solenoid, 24v	2
QD26		07-14		11001952	O-ring	2
QD27		07-14		11004700	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		11019733	EDC kit, 24V, high gain spool, manual override	1



Variable displacement pump

(A6)



E100 913E

* = included in overhaul seal kit Q210

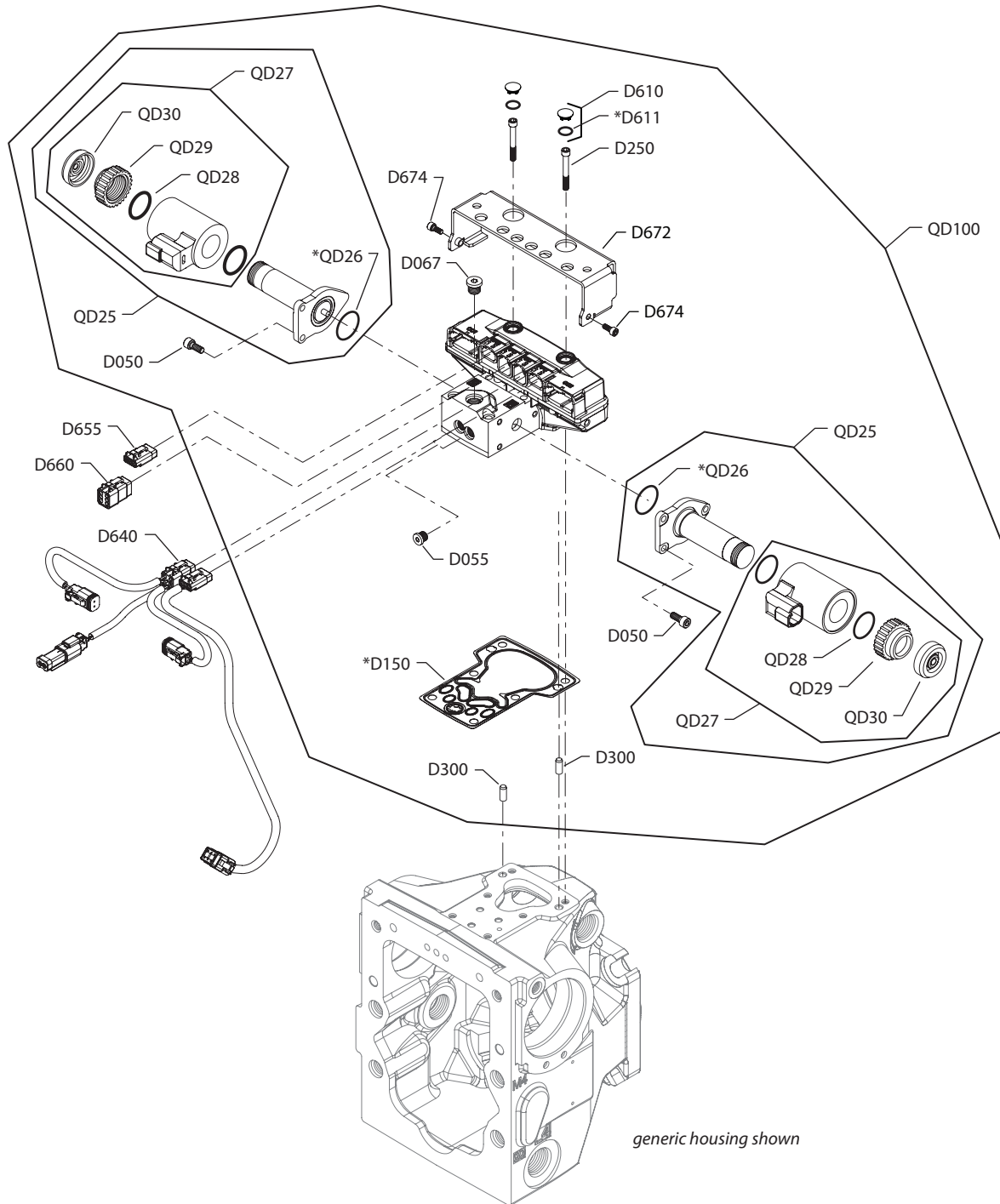

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A6	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	140642	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 (SB-2016-033)	1
	D200	07-14	12-52	11148827	Swashplate feedback link	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
	QD080	07-14	12-52	11015978	Solenoid- on/off, 12 volt	1
	QD081	07-14	12-52	11059551	O-ring	1
	QD100	07-14	12-52	11019736	EDC kit, 12V, high gain spool, control override	1



Variable displacement pump

(A7)



generic housing shown

E101 757E

* = included in overhaul seal kit Q210



Variable displacement pump

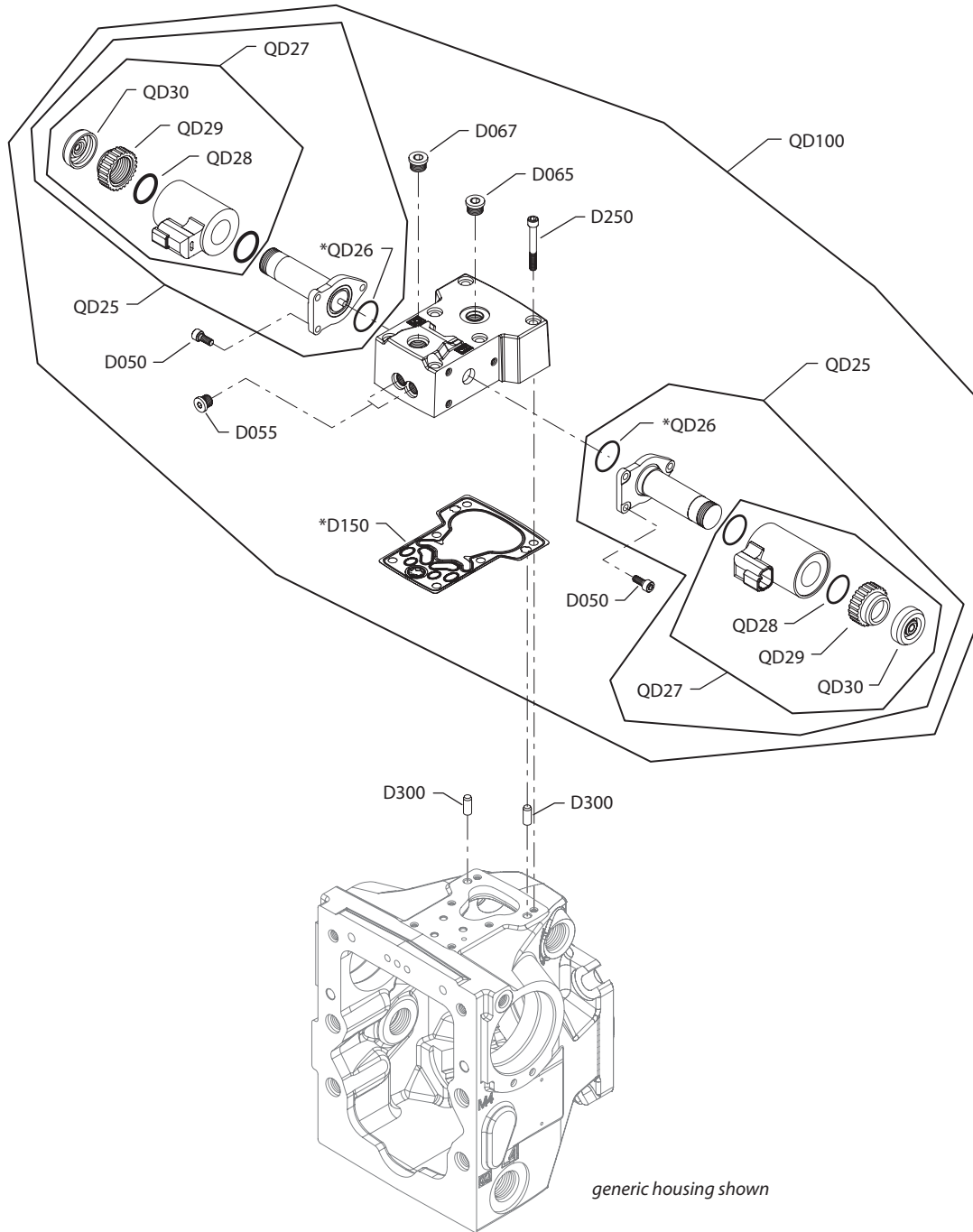
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A7	D050	10-14		716860	Screw, M5 x 12	6
	D055	10-14		11040532	Plug assembly	2
	D067	10-14		140642	Plug assembly	1
	D150	10-14		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(A8)



E100 900E

* = included in overhaul seal kit Q210

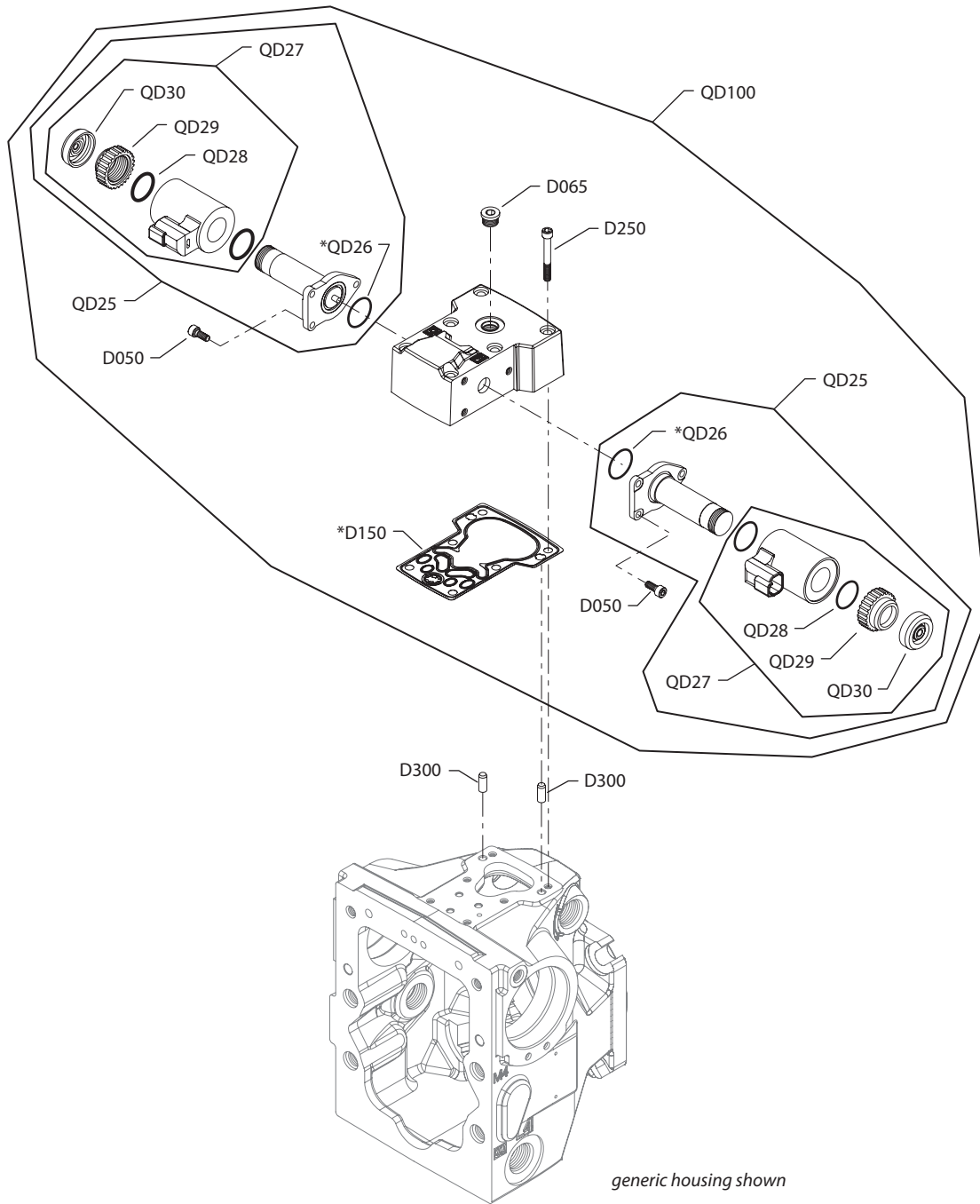

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A8	D050	07-14		716860	Screw, M5 x 12	6
	D055	07-14		11040532	Plug assembly	2
	D065	07-14		140642	Plug	1
	D067	07-14		140642	Plug	1
	D150	07-14		11173377	Control gasket (SB-2016-033)	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 conn.	1



Variable displacement pump

(A9 & B1)



E101 735E

* = included in overhaul seal kit Q210

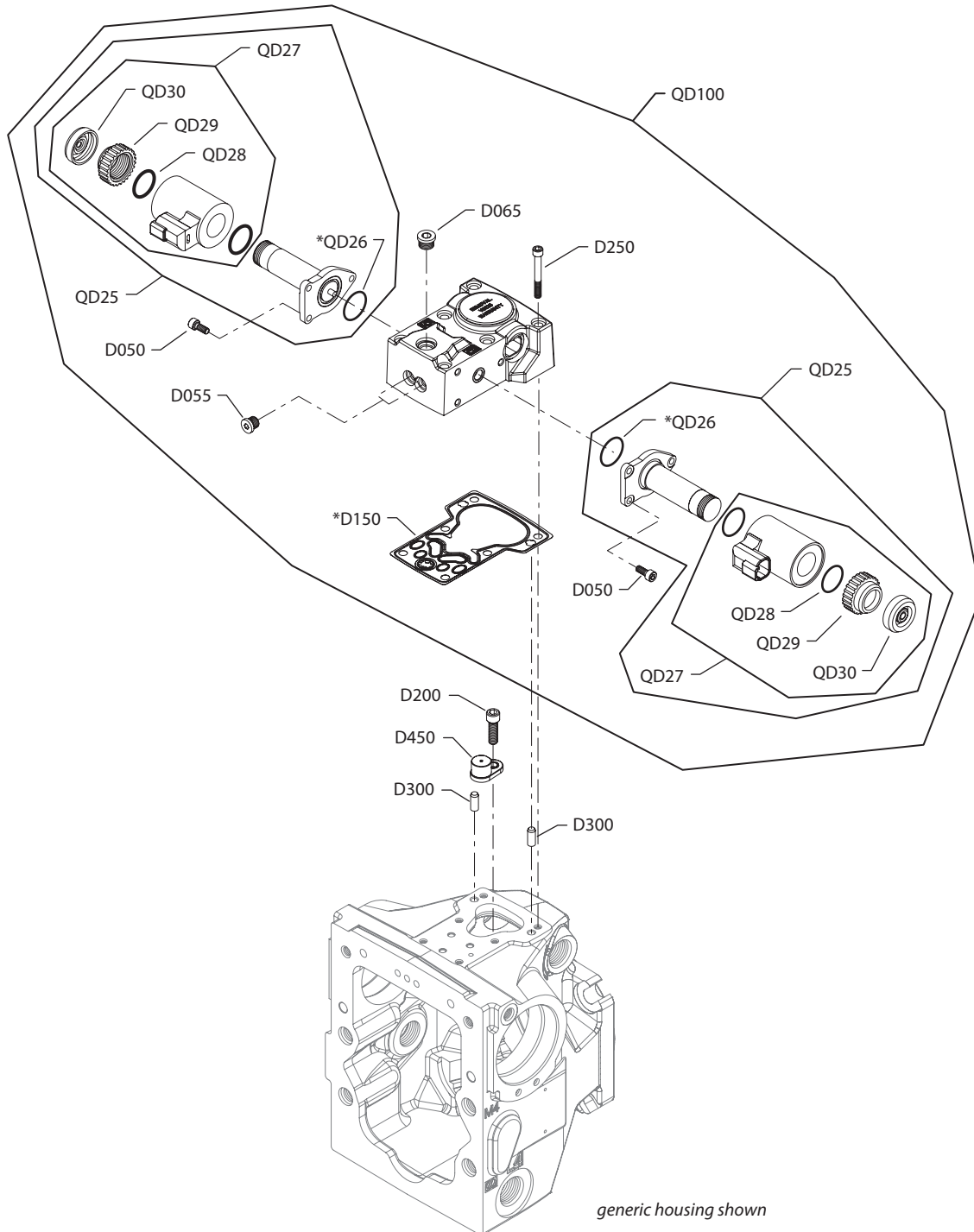

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A9	D050	07-14		716860	Screw, M5 x 12	6
	D065	07-14		140642	Plug assembly	1
	D150	07-14		11173377	Control gasket (SB-2016-033)	1
	D250	07-14		505038	Screw, M6 x 45	6
	D300	07-14		310979	Dowel pin	2
	QD25	07-14		141301	Proportional solenoid, 12v, Deutsch connector	2
	QD26	07-14		11001952	O-ring	2
	QD27	07-14		11005222	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		11025905	FNR control kit, 12v, manual override, Deutsch conn.	1
	B1	D050	07-14		716860	Screw, M5 x 12
D065		07-14		140642	Plug assembly	1
D150		07-14		11173377	Control gasket (SB-2016-033)	1
D250		07-14		505038	Screw, M6 x 45	6
D300		07-14		310979	Dowel pin	2
QD25		07-14		141313	Proportional solenoid, 24v, Deutsch connector	2
QD26		07-14		11001952	O-ring	2
QD27		07-14		11005223	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		11025906	FNR control kit, 24v, manual override, Deutsch conn.	1



Variable displacement pump

(B5)



E101 911E

* = included in overhaul seal kit Q210



Variable displacement pump

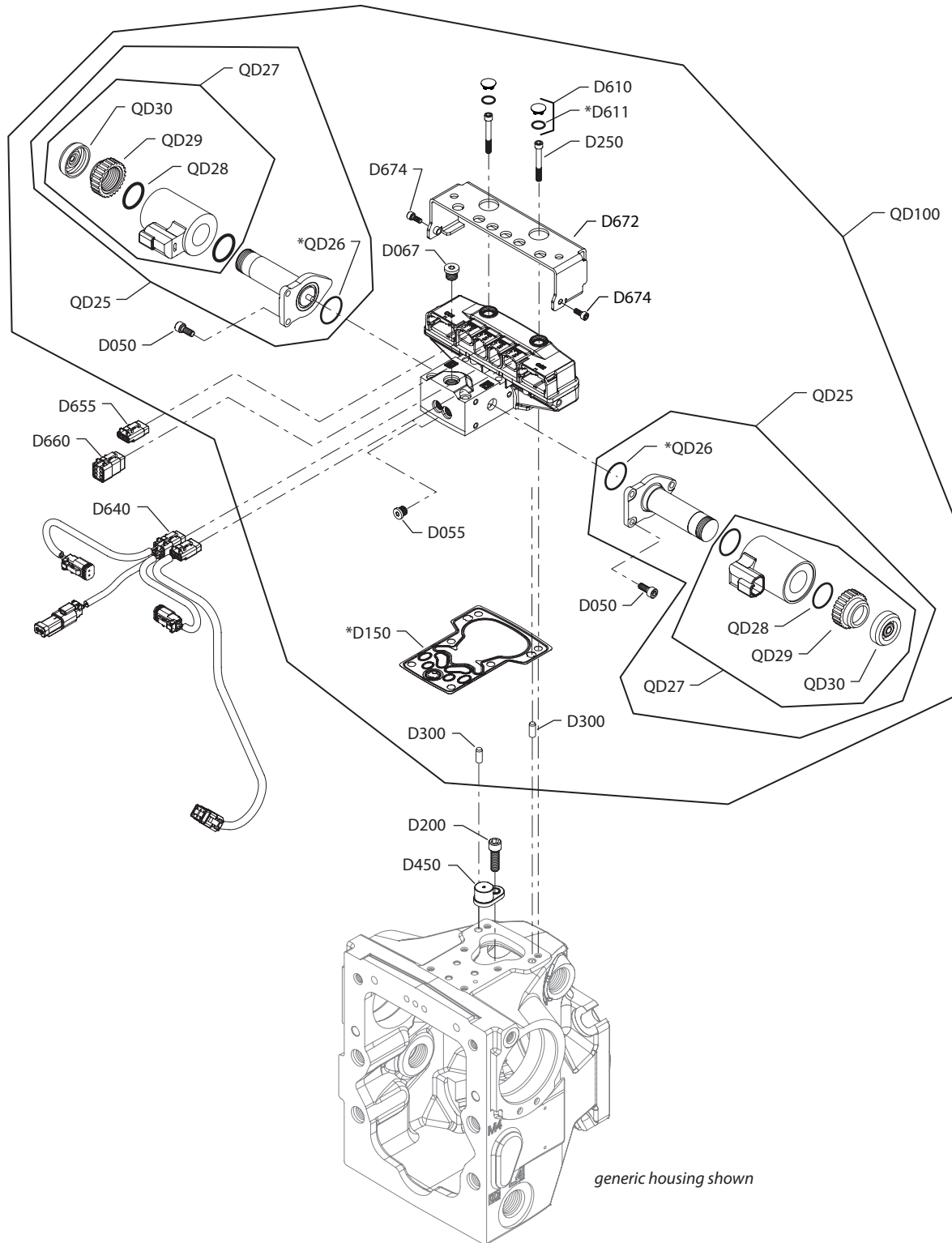
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B5	D050	10-14		716860	Screw	6
	D055	10-14		11040532	Plug assembly	2
	D067	10-14		140642	Plug assembly	1
	D150	10-14		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(B7)



generic housing shown

E101 758E

* = included in overhaul seal kit Q210

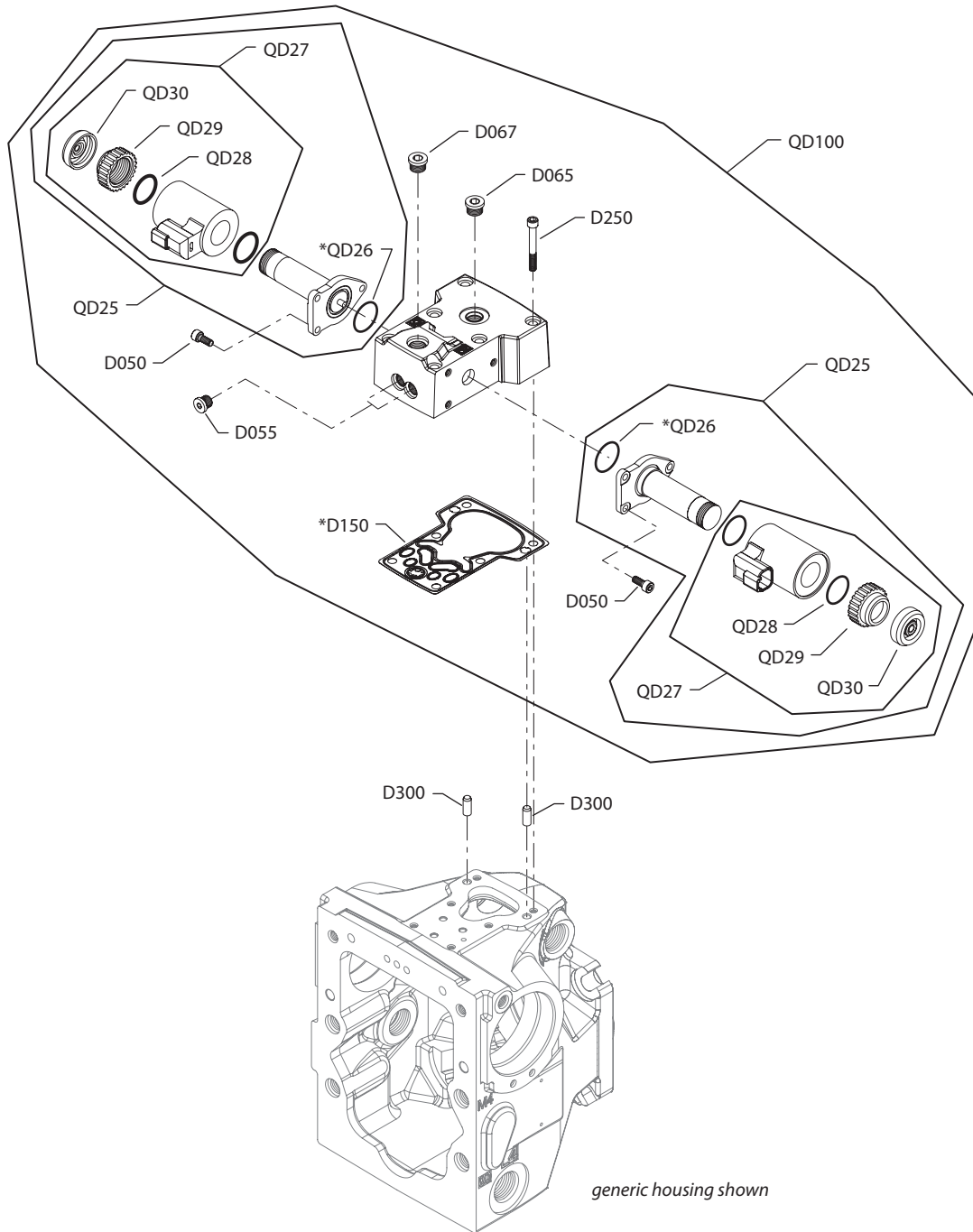

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B7	D050	10-04		716860	Screw, M5 x 12	6
	D055	10-04		11040532	Plug assembly	2
	D067	10-04		140642	Plug assembly	1
	D150	10-04		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(B8)



E100 900E

* = included in overhaul seal kit Q210

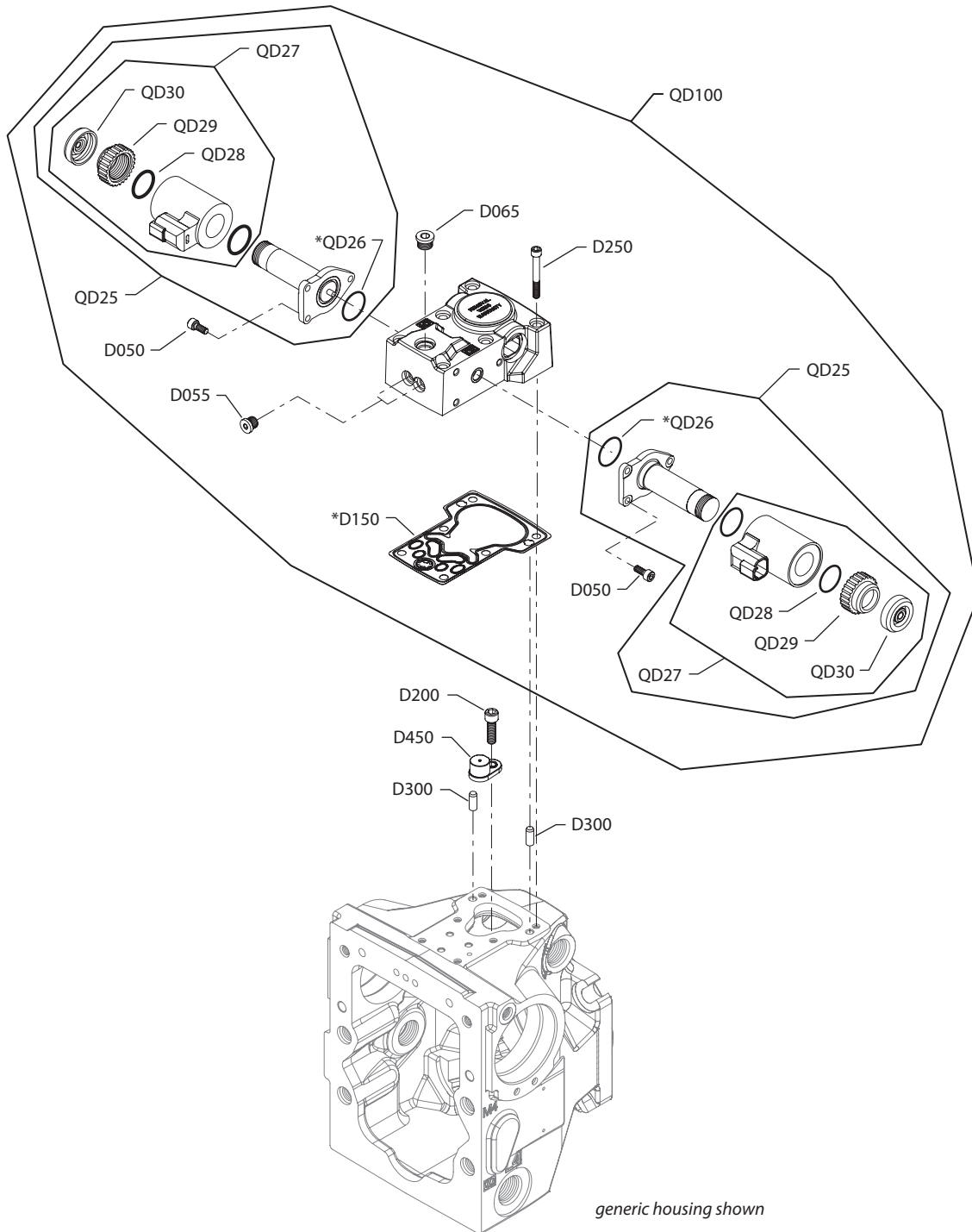

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B8	D050	07-14		716860	Screw, M5 x 12	6
	D055	07-14		11040532	Plug assembly	2
	D065	07-14		140642	Plug assembly	1
	D067	07-14		140642	Plug assembly	1
	D150	07-14		11173377	Control gasket (SB-2016-033)	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 conn.	1



Variable displacement pump

(B9)



generic housing shown

E101 911E

* = included in overhaul seal kit Q210



Variable displacement pump

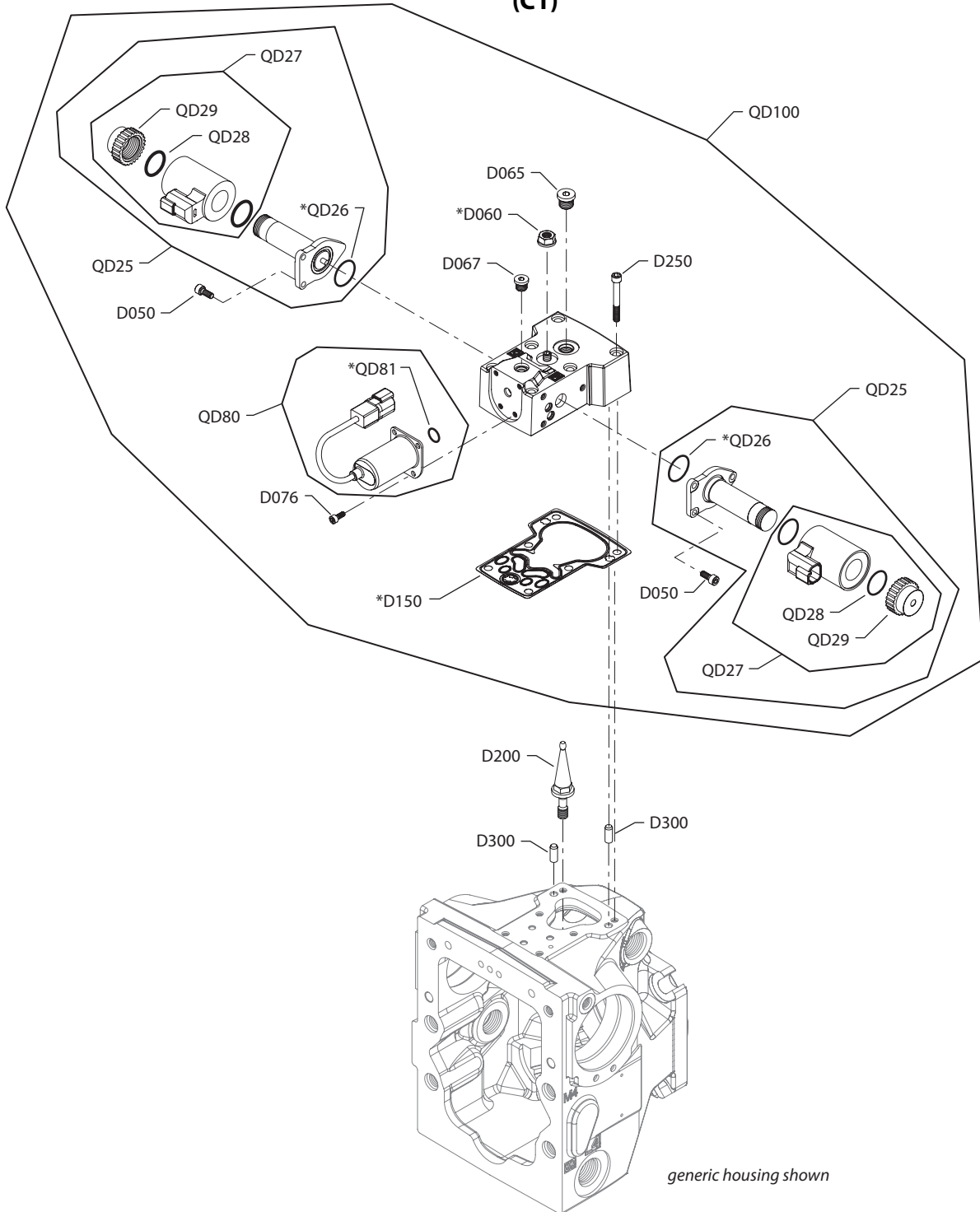
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B9	D050	07-14		716860	Screw	6
	D055	07-14		11040532	Plug assembly	2
	D067	07-14		140642	Plug assembly	1
	D150	07-14		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(C1)



E100 913E

* = included in overhaul seal kit Q210



Variable displacement pump

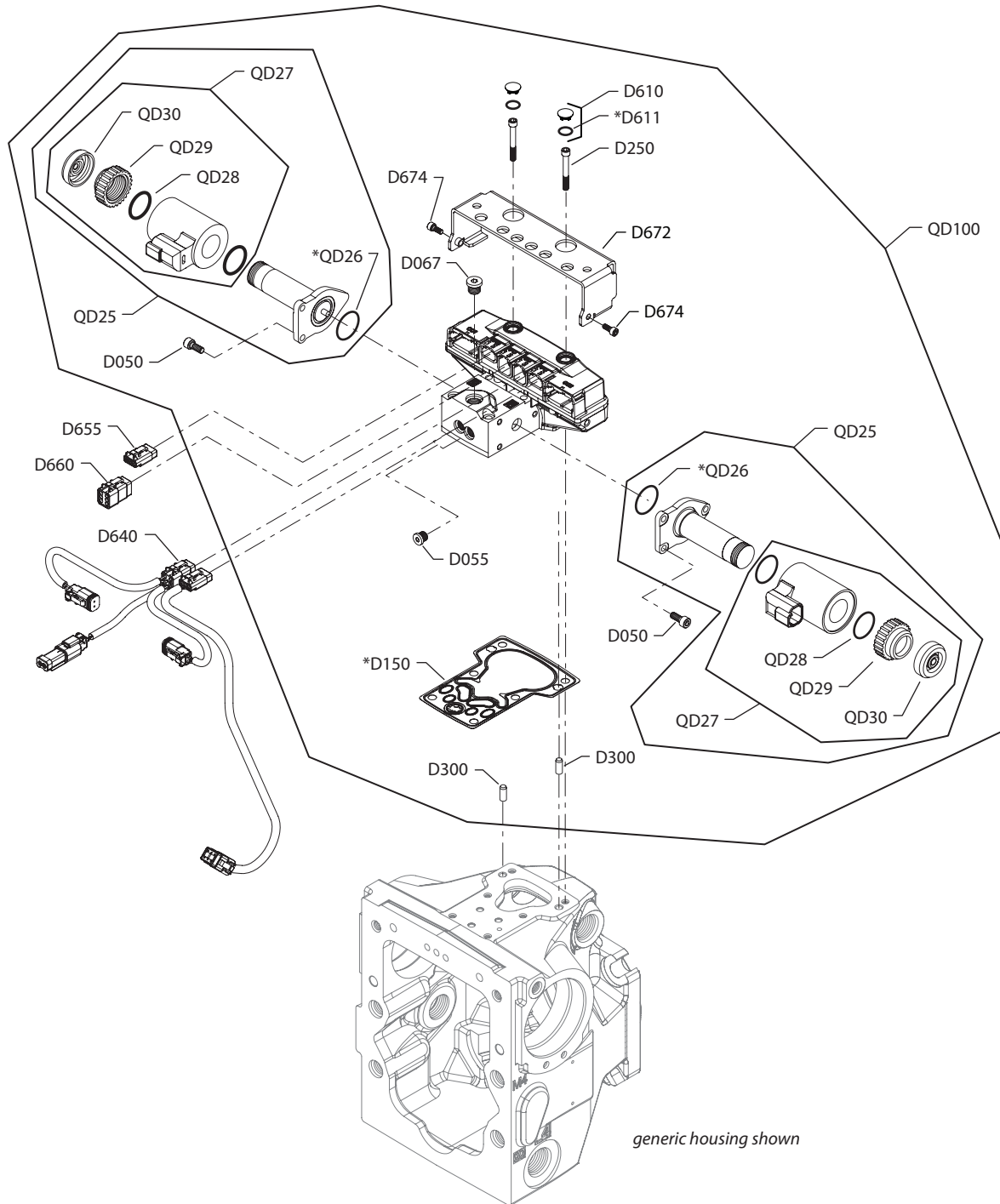
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	D050	07-14	12-52	716860	Screw	6
	D060	07-14	12-52	612291 (9003508-0008)	Seal nut	1
	D065	07-14	12-52	140642	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 (SB-2016-033)	1
	D200	07-14	12-52	11148827	Swashplate feedback link	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
	QD80	07-14	12-52	11015979	Solenoid, 24V	1
	QD81	07-14	12-52	11059551	O-ring	1
	QD100	07-14	12-52	11147472	EDC kit, 24V, high gain spool, control override	1



Variable displacement pump

(C2)



E101 757E

* = included in overhaul seal kit Q210



Variable displacement pump

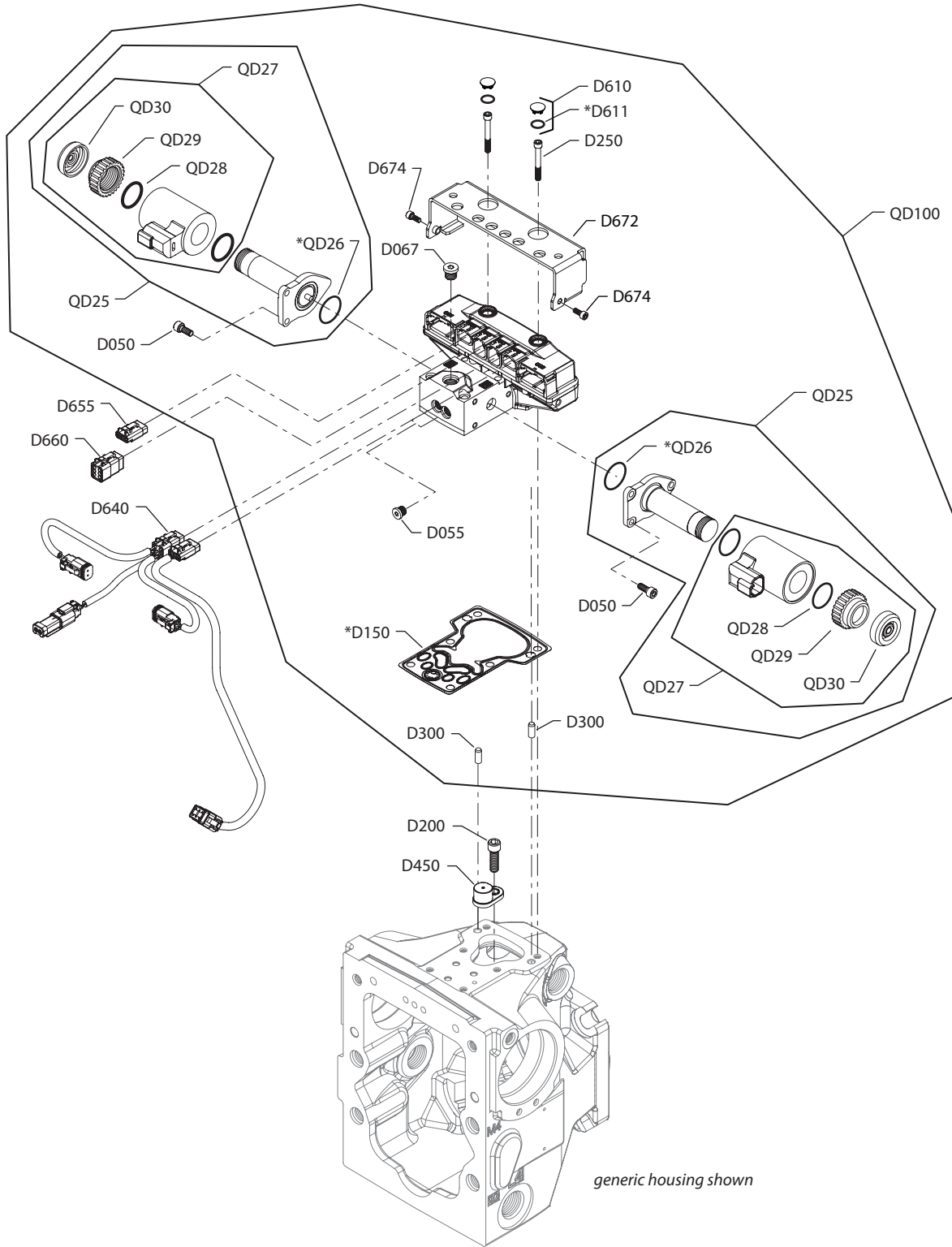
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C2	D050	10-04		716860	Screw, M5 x 12	6
	D055	10-04		11040532	Plug assembly	2
	D067	10-04		140642	Plug assembly	1
	D150	10-04		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(C3)



generic housing shown

E101 758E

* = included in overhaul seal kit Q210

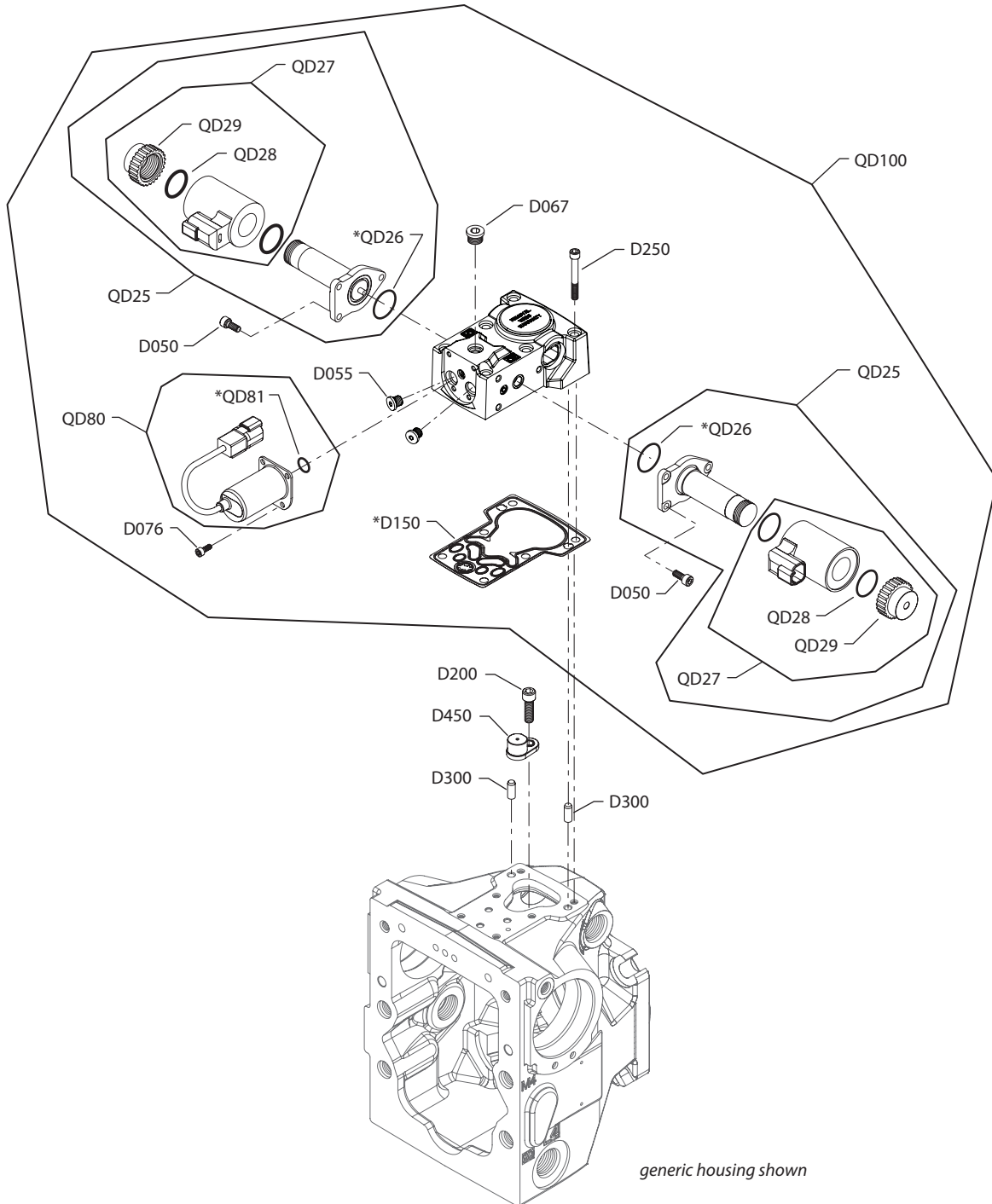

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C3	D050	10-04		716860	Screw, M5 x 12	6
	D055	10-04		11040532	Plug assembly	2
	D067	10-04		140642	Plug assembly	1
	D150	10-04		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(C7)



E101 912E

* = included in overhaul seal kit Q210

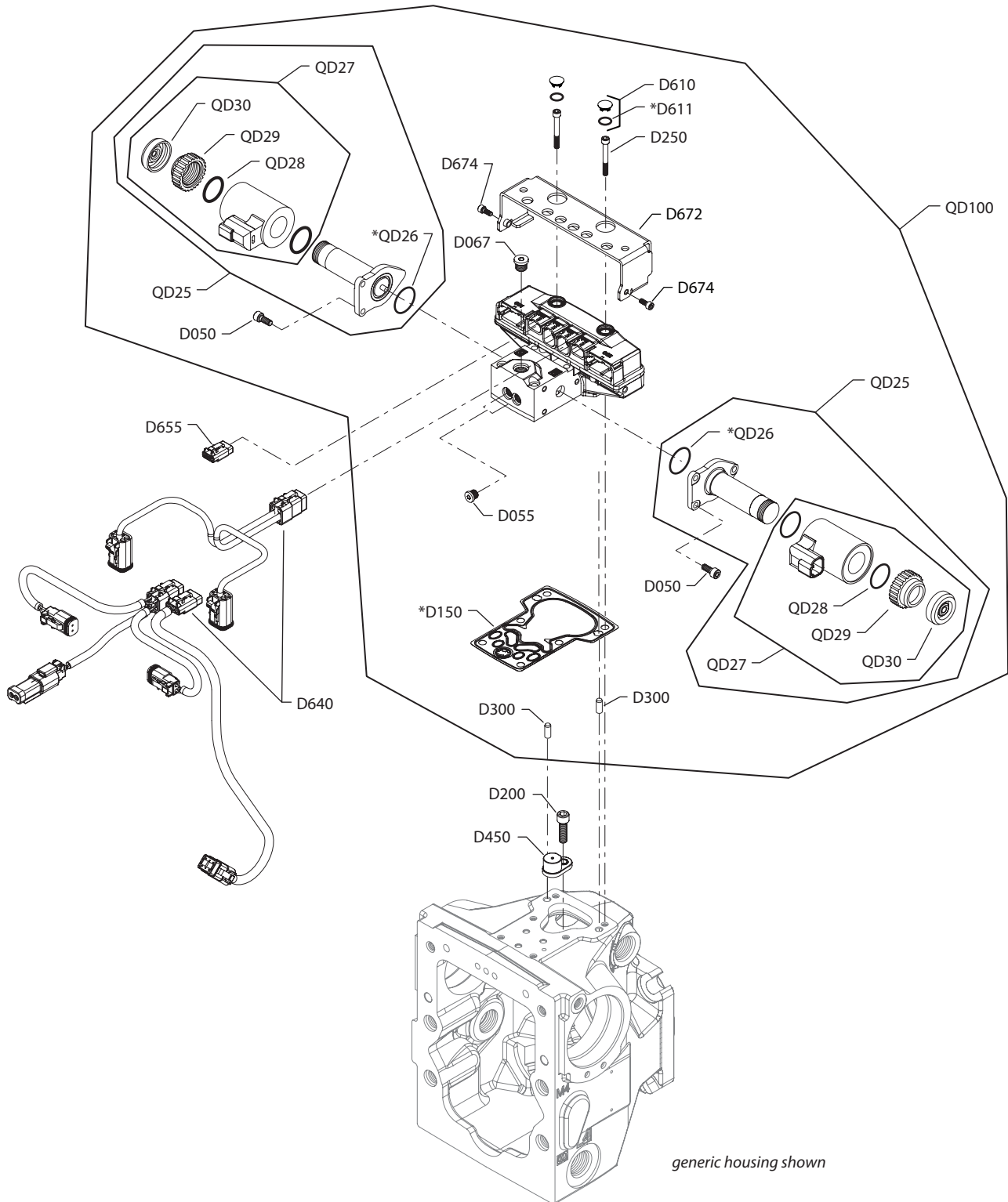

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C7	D050	10-37		716860	Screw	6
	D055	10-37		11040532	Plug assembly	2
	D067	10-37		11040532	Plug assembly	1
	D076	10-37		346957	Screw, M4 x 8	4
	D150	10-37		11173377	Control gasket (SB-2016-033)	1
	D200	10-37		141472	Screw	1
	D250	10-37		505038	Screw	6
	D300	10-37		310979	Dowel pin	2
	D450	10-37		11003097	Magnet carrier	1
	QD25	10-37		11012457	Proportional solenoid, 12V	2
	QD26	10-37		11001952	O-ring	2
	QD27	10-37		11028018	Coil kit, 12V, Deutsch connector	2
	QD28	10-37		063172	O-ring	2
	QD29	10-37		11027046	Coil nut	2
	QD80	10-37		11015978	Solenoid, 12V	1
	QD81	10-37		11059551	O-ring	1
	QD100	10-37		11088423	NFPE kit, 12V, high gain spool, control override	1



Variable displacement pump

(C9 & D1)



E101 913E
* = included in overhaul seal kit Q210

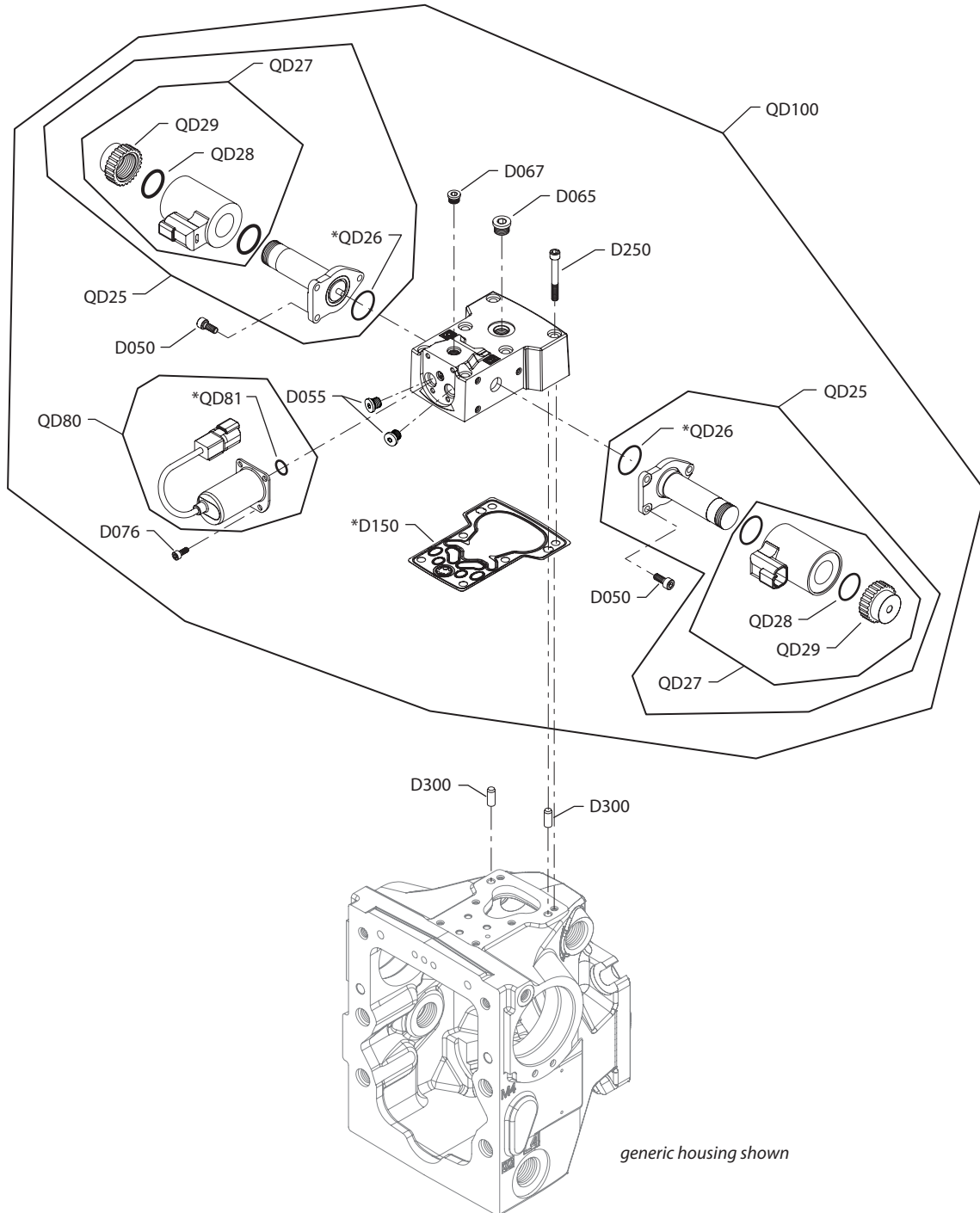

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C9	D050	12-22		716860	Screw, M5 x 12	6
	D055	12-22		11040532	Plug assembly	2
	D067	12-22		140642	Plug assembly	1
	D150	12-22		11173377	Control gasket (SB-2016-033)	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
	QD25	12-22		140751	Proportional solenoid, 24v	2
	QD26	12-22		11001952	O-ring	2
	QD27	12-22		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	12-22		063172	O-ring	2
	QD29	12-22		11004750	Coil nut	2
	QD30	12-22		11027883	Cap	2
QD100	12-22		11065121	Automotive control kit, 24v, manual override	1	
D1	D050	12-22		716860	Screw, M5 x 12	6
	D055	12-22		11040532	Plug assembly	2
	D067	12-22		140642	Plug assembly	1
	D150	12-22		11173377	Control gasket (SB-2016-033)	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
	QD25	12-22		140750	Proportional solenoid, 12v	2
	QD26	12-22		11001952	O-ring	2
	QD27	12-22		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	12-22		063172	O-ring	2
	QD29	12-22		11004749	Coil nut	2
	QD30	12-22		11027883	Cap	2
QD100	12-22		11065119	Automotive control kit, 12v, manual override	1	



Variable displacement pump

(D5 & D8)



E103 388E

* = included in overhaul seal kit Q210

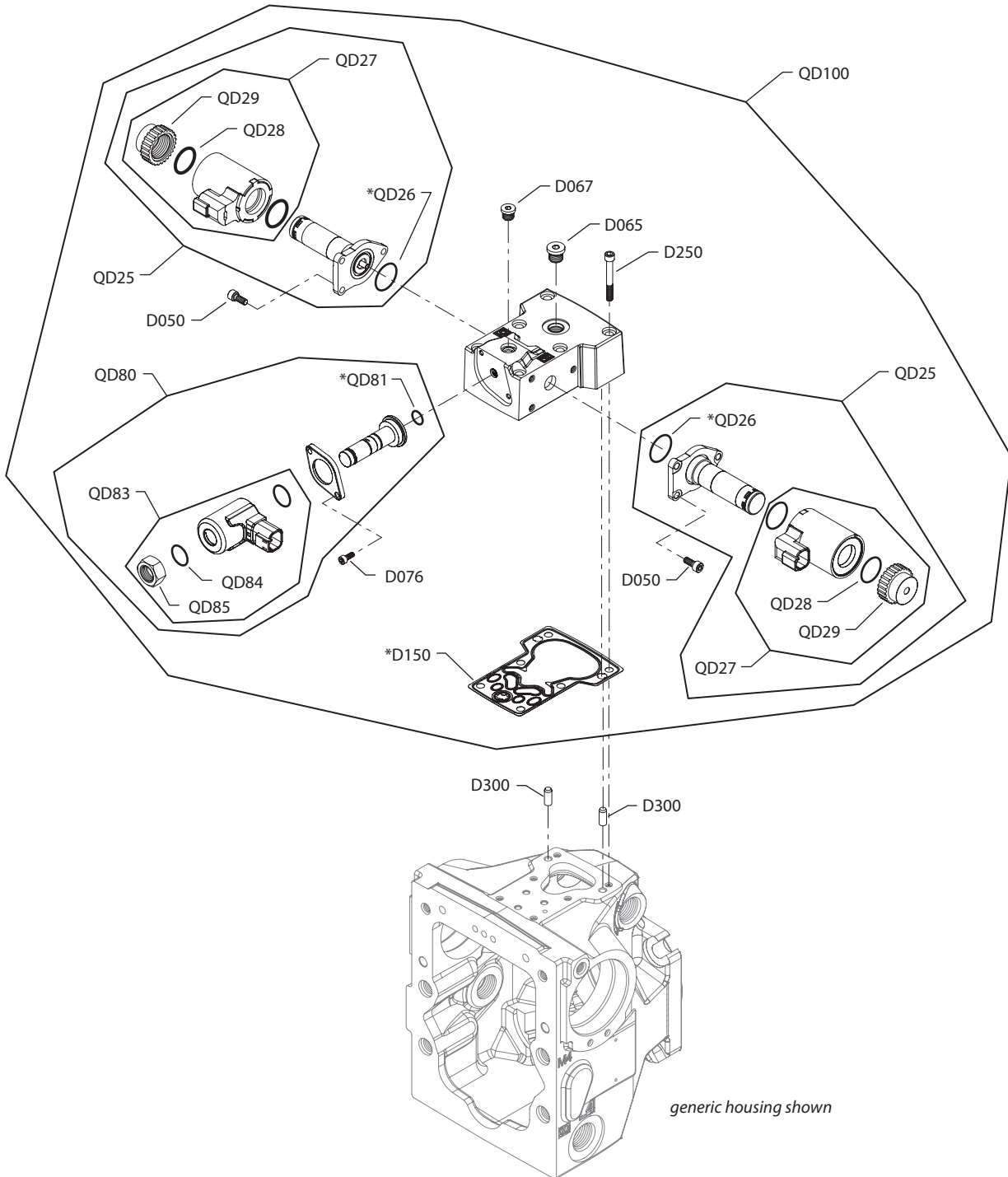

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D5	D050	13-32		716860	Screw, M5 x 12	6
	D055	13-32		11040532	Plug assembly	2
	D065	13-32		140642	Plug assembly	1
	D067	13-32		11040532	Plug assembly	1
	D076	13-32		346957	Screw, M4 x 8	4
	D150	13-32		11173377	Control gasket (SB-2016-033)	1
	D250	13-32		505038	Screw, M6 x 45	6
	D300	13-32		310979	Dowel pin	2
	QD25	13-32		11012457	Proportional solenoid, 12 volt	2
	QD26	13-32		11001952	O-ring	2
	QD27	13-32		11028018	Coil kit, 12V, Deutsch connector	2
	QD28	13-32		063172	O-ring	2
	QD29	13-32		11027046	Coil nut	2
	QD80	13-32		11015978	Solenoid valve, 12v	1
	QD81	13-32		11059551	O-ring	1
	QD100	13-32		11133841	NFPE control kit, 12V, CCO	1
D8	D050	13-32		716860	Screw, M5 x 12	6
	D055	13-32		11040532	Plug assembly	2
	D065	13-32		140642	Plug assembly	1
	D067	13-32		11040532	Plug assembly	1
	D076	13-32		346957	Screw, M4 x 8	4
	D150	13-32		11173377	Control gasket (SB-2016-033)	1
	D250	13-32		505038	Screw, M6 x 45	6
	D300	13-32		310979	Dowel pin	2
	QD25	13-32		11012459	Proportional solenoid, 24 volt	2
	QD26	13-32		11001952	O-ring	2
	QD27	13-32		11028019	Coil kit, 24V, Deutsch connector	2
	QD28	13-32		063172	O-ring	2
	QD29	13-32		11028024	Coil nut	2
	QD80	13-32		11015979	Solenoid valve, 24v	1
	QD81	13-32		11059551	O-ring	1
	QD100	13-32		11133842	NFPE control kit, 24V, CCO	1



Variable displacement pump

(E2)



E103 384E

* = included in overhaul seal kit Q210



Variable displacement pump

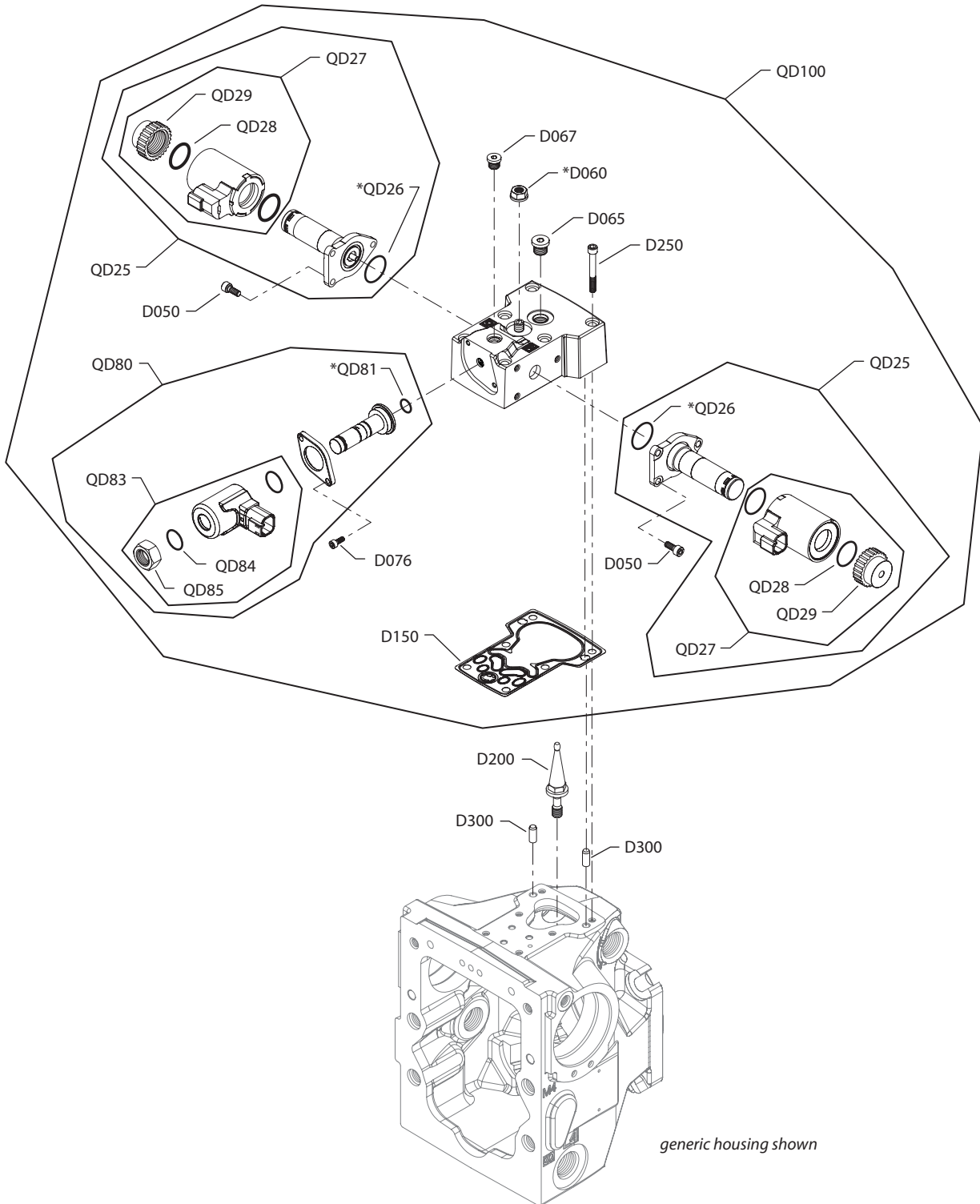
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E2	D050	13-45		716860	Screw M5 x 12	6
	D065	13-45		140642	Plug assembly	2
	D067	13-45		140642	Plug assembly	1
	D076	13-45		067694	Screw, M4 x 10	2
	D150	13-45		11173377	Control gasket (SB-2016-033)	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



Variable displacement pump

(E5 & E6)



E103 422E

* = included in overhaul seal kit Q210



Variable displacement pump

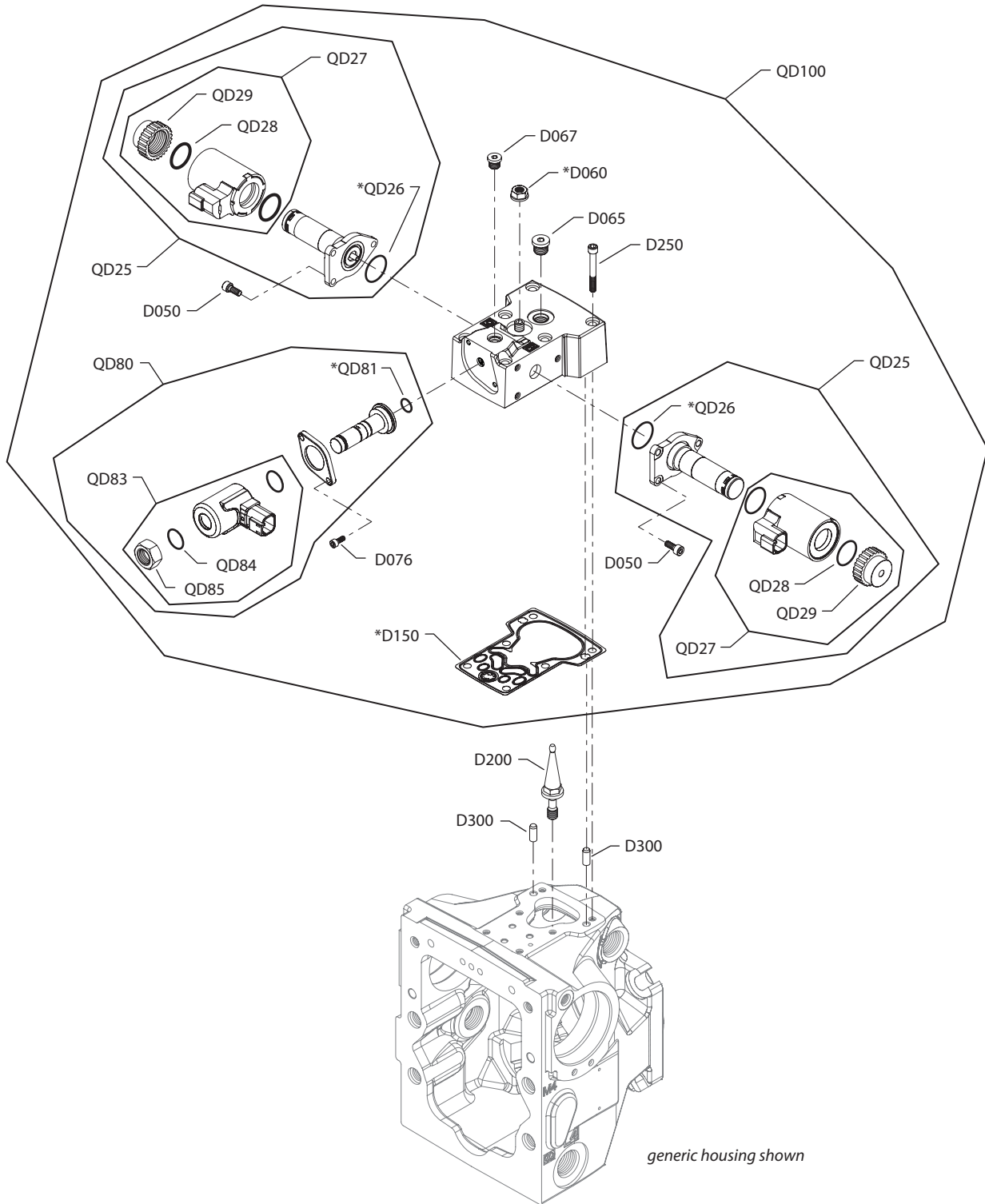
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E5	D050	14-25		716860	Screw M5 x 12	6
	D060	14-25		612291	Seal nut	1
	D065	14-25		140642	Plug assembly	2
	D067	14-25		140642	Plug assembly	1
	D076	14-25		067694	Screw, M4 x 10	2
	D150	14-25		11173377	Control gasket (SB-2016-033)	1
	D200	14-25		11148827	Swashplate feedback link	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
E6	D050	14-25		716860	Screw M5 x 12	6
	D060	14-25		612291	Seal nut	1
	D065	14-25		140642	Plug assembly	2
	D067	14-25		140642	Plug assembly	1
	D076	14-25		067694	Screw, M4 x 10	2
	D150	14-25		11173377	Control gasket (SB-2016-033)	1
	D200	14-25		11148827	Swashplate feedback link	1
	D250	14-25		505038	Screw	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, 24V, Deutsch connector	1
	QD81	14-25		11152257	O-ring	1
	QD83	14-25		11147332	Coil kit, 24V, Deutsch connector	1
	QD84	14-25		11140393	O-ring	1
	QD85	14-25		11140394	Nut	1
	QD100	14-25		11147423	EDC kit, 24V, control override	1



Variable displacement pump

(E7 & E8)



E103 356E

* = included in overhaul seal kit Q210

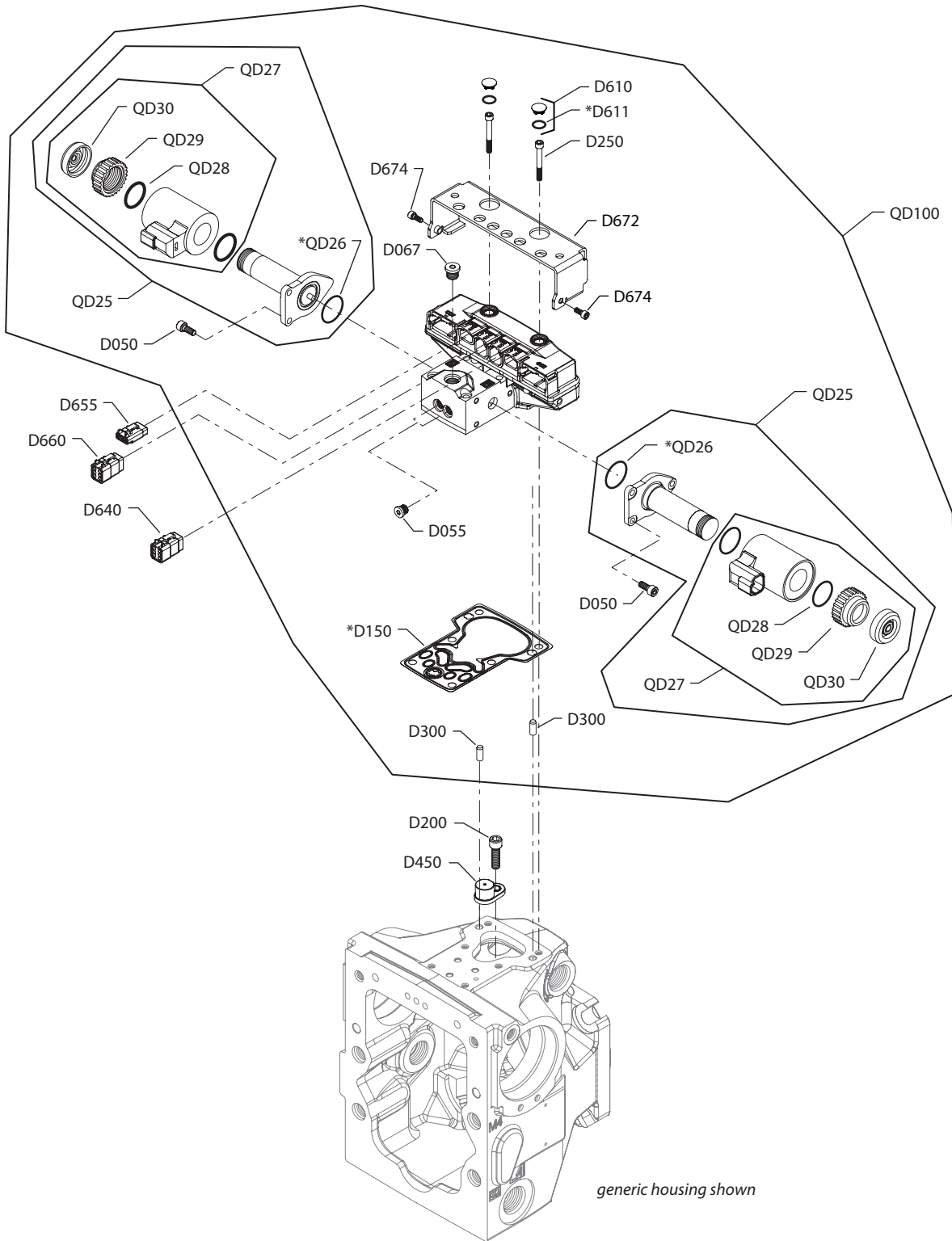

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E7	D050	14-25		716860	Screw, M5 x 12	6
	D060	14-25		612291 (9003508-0008)	Seal nut, M8	1
	D065	14-25		140642	Plug assembly	1
	D067	14-25		140642	Plug assembly	1
	D076	14-25		067694	Screw, M4 x 10	2
	D150	14-25		11173377	Control gasket (SB-2016-033)	1
	D200	14-25		11148827	Swashplate feedback link	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		11147471	EDC kit, 12v, CCO	1
E8	D050	14-25		716860	Screw, M5 x 12	6
	D060	14-25		612291 (9003508-0008)	Seal nut, M8	1
	D065	14-25		140642	Plug assembly	1
	D067	14-25		140642	Plug assembly	1
	D076	14-25		067694	Screw, M4 x 10	2
	D150	14-25		11173377	Control gasket (SB-2016-033)	1
	D200	14-25		11148827	Swashplate feedback link	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



Variable displacement pump

(E9)



generic housing shown

E103 618E

* = included in overhaul seal kit Q210

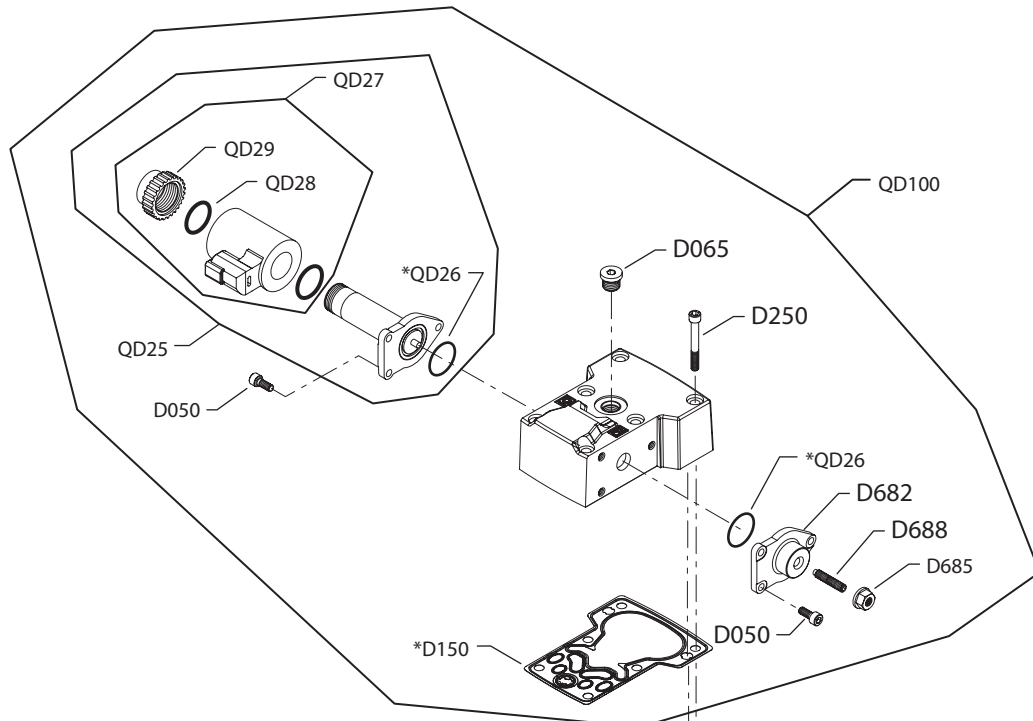

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E9	D050	10-04		716860	Screw, M5 x 12	6
	D055	10-04		11040532	Plug assembly	2
	D067	10-04		140642	Plug assembly	1
	D150	10-04		11173377	Control gasket (SB-2016-033)	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		11084822	Connector DTM 06-6S	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

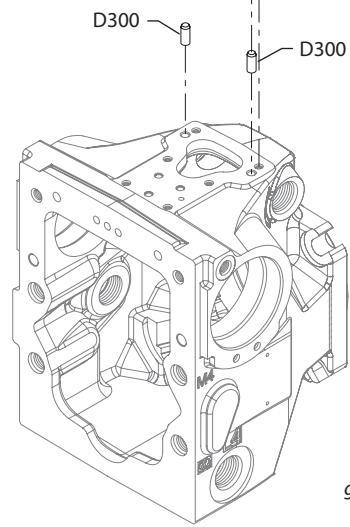


Variable displacement pump

(F1 & F2)



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.



generic housing shown

E101 902E

* = included in overhaul seal kit Q210


Variable displacement pump
Control

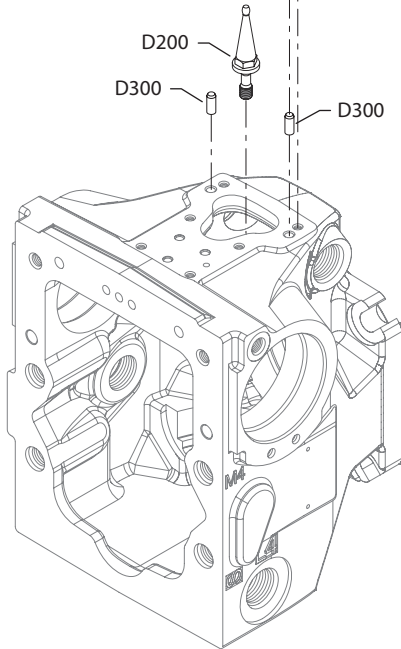
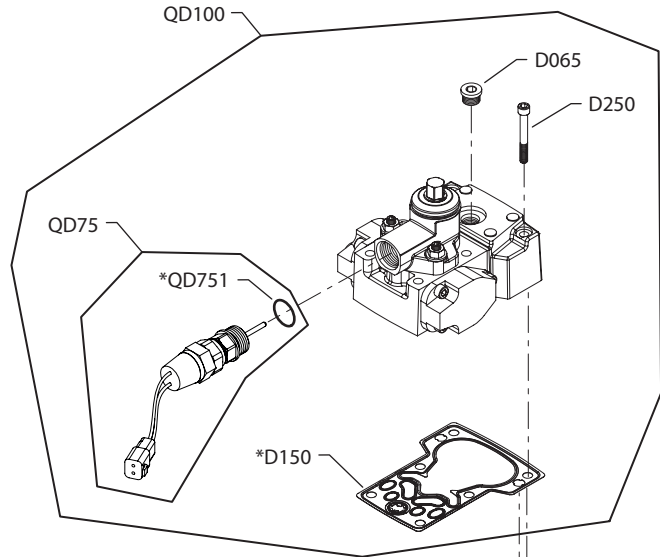
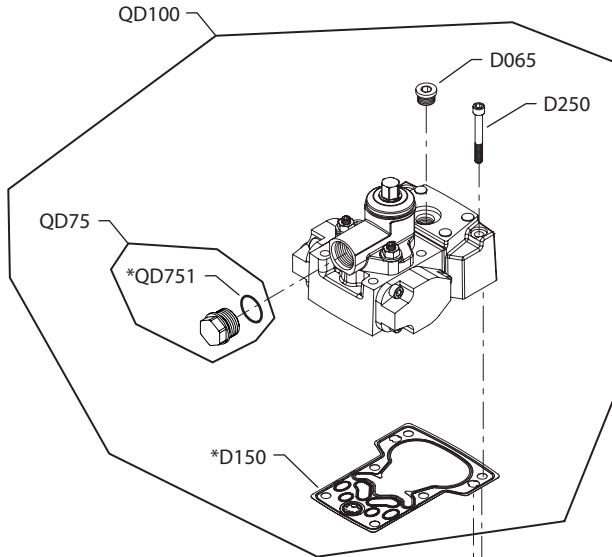
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F1	D050	12-33		716860	Screw, M5 x 12	6
	D065	12-33		140642	Plug assembly	1
	D150	12-33		11173377	Control gasket (SB-2016-033)	1
	D250	12-33		505038	Screw, M6 x 45	6
	D300	12-33		310979	Dowel pin	2
	D682	12-33		11079441	Flange	1
	D685	12-33		612291 (9003508-0008)	Seal nut, M8	1
	D688	12-33		11079453	Adjusting screw	1
	QD25	12-33		11012457	Proportional solenoid, 12v	1
	QD26	12-33		11001952	O-ring	2
	QD27	12-33		11028018	Coil kit, 12v, Deutsch connector	1
	QD28	12-33		063172	O-ring	1
	QD29	12-33		11027046	Coil nut	1
	QD100	12-33		11081306	FDC kit, 12v, Deutsch connector	1
	F2	D050	12-33		716860	Screw, M5 x 12
D065		12-33		140642	Plug assembly	1
D150		12-33		11173377	Control gasket (SB-2016-033), 6-screw	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
QD25		12-33		11012459	Proportional solenoid, 24v	1
QD26		12-33		11001952	O-ring	2
QD27		12-33		11028019	Coil kit, 24v, Deutsch connector	1
QD28		12-33		063172	O-ring	1
QD29		12-33		11028024	Coil nut	1
QD100		12-33		11081307	FDC kit, 24v, Deutsch connector	1



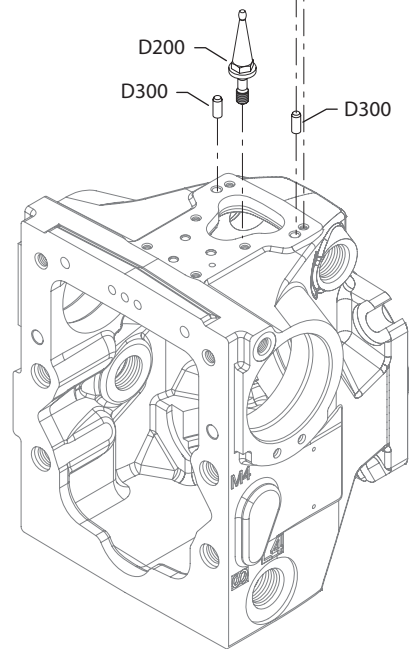
Variable displacement pump

(M1)

(M2)



generic housing shown



E103 357E

* = included in overhaul seal kit Q210



Variable displacement pump

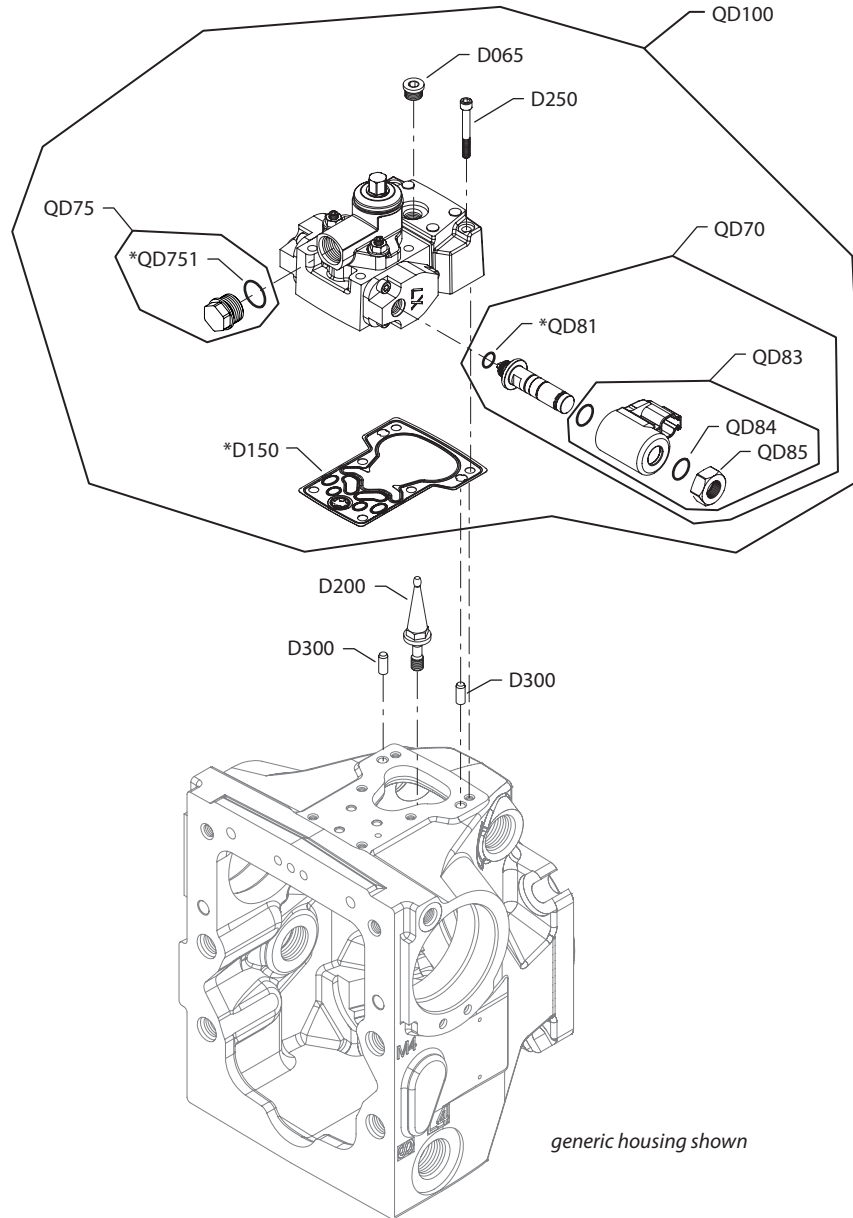
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
M1	D065	14-01		140642	Plug assembly	1
	D150	14-01		11173377	Control gasket (SB-2016-033)	1
	D200	14-01		11148827	Swashplate feedback link	1
	D250	14-01		505038	Screw, M6 x 45	6
	D300	14-01		310979	Dowel pin	2
	QD75	14-01		11119332	Spring seat assembly	1
	QD100	14-01		11141225	MDC kit	1
	QD751	14-01		001131 (9004201-5000)	O-ring	1
	M2	D065	14-01		140642	Plug assembly
D150		14-01		11173377	Control gasket (SB-2016-033)	1
D200		14-01		11148827	Swashplate feedback link	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
QD100		14-01		11141236	MDC kit	1
QD751		14-01		001131 (9004201-5000)	O-ring	1



Variable displacement pump

(M3 & M4)



E103 358E

* = included in overhaul seal kit Q210

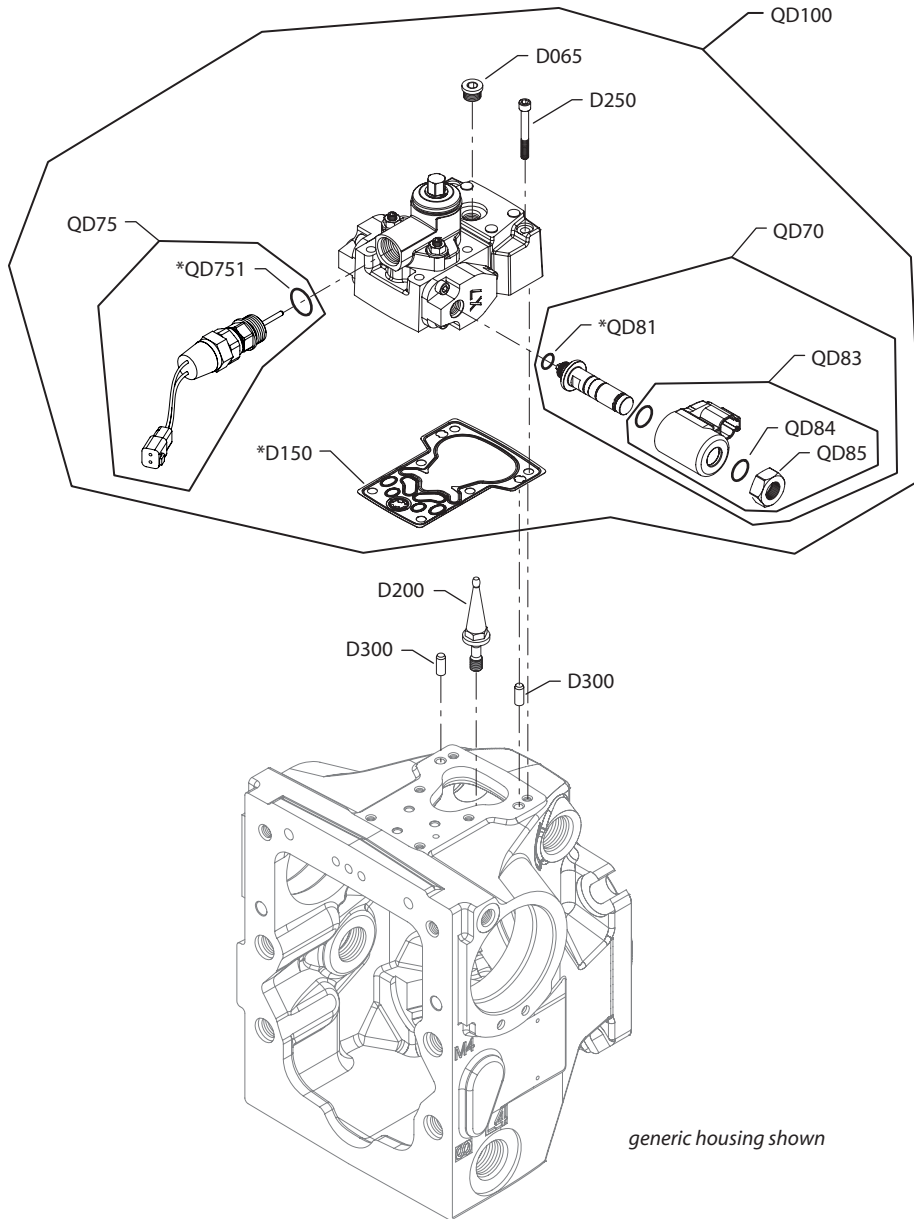

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit	
M3	D065	14-01		140642	Plug assembly	1	
	D150	14-01		11173377	Control gasket (SB-2016-033)	1	
	D200	14-01		11148827	Swashplate feedback link	1	
	D250	14-01		505038	Screw, M6 x 45	6	
	D300	14-01		310979	Dowel pin	2	
	QD70	14-01		11129916	Solenoid valve, 12v	1	
	QD75	14-01		11119332	Spring seat assembly	1	
	QD81	14-01		11152257	O-ring	1	
	QD83	14-01		11136347	Coil kit, 12v	1	
	QD84	14-01		11140393	O-ring	1	
	QD85	14-01		11140394	Coil nut	1	
	QD100	14-01		11141237	MDC kit, 12v	1	
	QD751	14-01		001131 (9004201-5000)	O-ring	1	
	M4	D065	14-01		140642	Plug assembly	1
		D150	14-01		11173377	Control gasket (SB-2016-033)	1
D200		14-01		11148827	Swashplate feedback link	1	
D250		14-01		505038	Screw, M6 x 45	6	
D300		14-01		310979	Dowel pin	2	
QD70		14-01		11129917	Solenoid valve, 24v	1	
QD75		14-01		11119332	Spring seat assembly	1	
QD81		14-01		11152257	O-ring	1	
QD83		14-01		11136348	Coil kit, 24v	1	
QD84		14-01		11140393	O-ring	1	
QD85		14-01		11140394	Coil nut	1	
QD100		14-01		11141238	MDC kit, 24v	1	
QD751		14-01		001131 (9004201-5000)	O-ring	1	



Variable displacement pump

(M5 & M6)



E103 359E

* = included in overhaul seal kit Q210

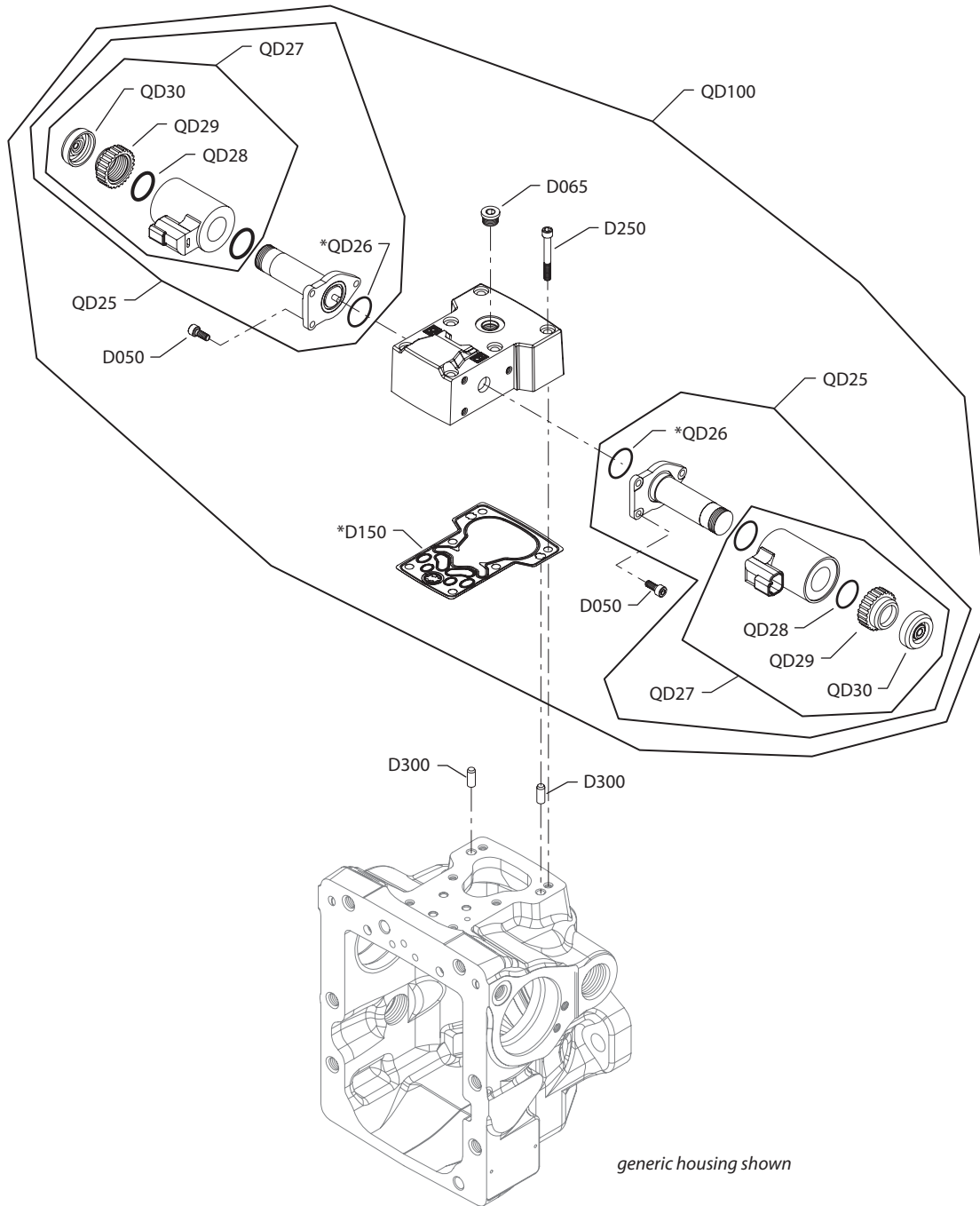

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
M5	D065	14-01		140642	Plug assembly	1
	D150	14-01		11173377	Control gasket (SB-2016-033)	1
	D200	14-01		11148827	Swashplate feedback link	1
	D250	14-01		505038	Screw, M6 x 45	6
	D300	14-01		310979	Dowel pin	2
	QD70	14-01		11129916	Solenoid valve, 12v	1
	QD75	14-01		11126847	Spring seat/neutral start switch assembly	1
	QD81	14-01		11152257	O-ring	1
	QD83	14-01		11136347	Coil kit, 12v	1
	QD84	14-01		11140393	O-ring	1
	QD85	14-01		11140394	Coil nut	1
	QD100	14-01		11141239	MDC kit, 12v	1
	QD751	14-01		001131 (9004201-5000)	O-ring	1
	M6	D065	14-01		140642	Plug assembly
D150		14-01		11173377	Control gasket (SB-2016-033)	1
D200		14-01		11148827	Swashplate feedback link	1
D250		14-01		505038	Screw, M6 x 45	6
D300		14-01		310979	Dowel pin	2
QD70		14-01		11129917	Solenoid valve, 24v	1
QD75		14-01		11126847	Spring seat/neutral start switch assembly	1
QD81		14-01		11152257	O-ring	1
QD83		14-01		11136348	Coil kit, 24v	1
QD84		14-01		11140393	O-ring	1
QD85		14-01		11140394	Coil nut	1
QD100		14-01		11141240	MDC kit, 24v	1
QD751		14-01		001131 (9004201-5000)	O-ring	1



Variable displacement pump

(N1 & N2)



generic housing shown

E101 703E

* = included in overhaul seal kit Q210

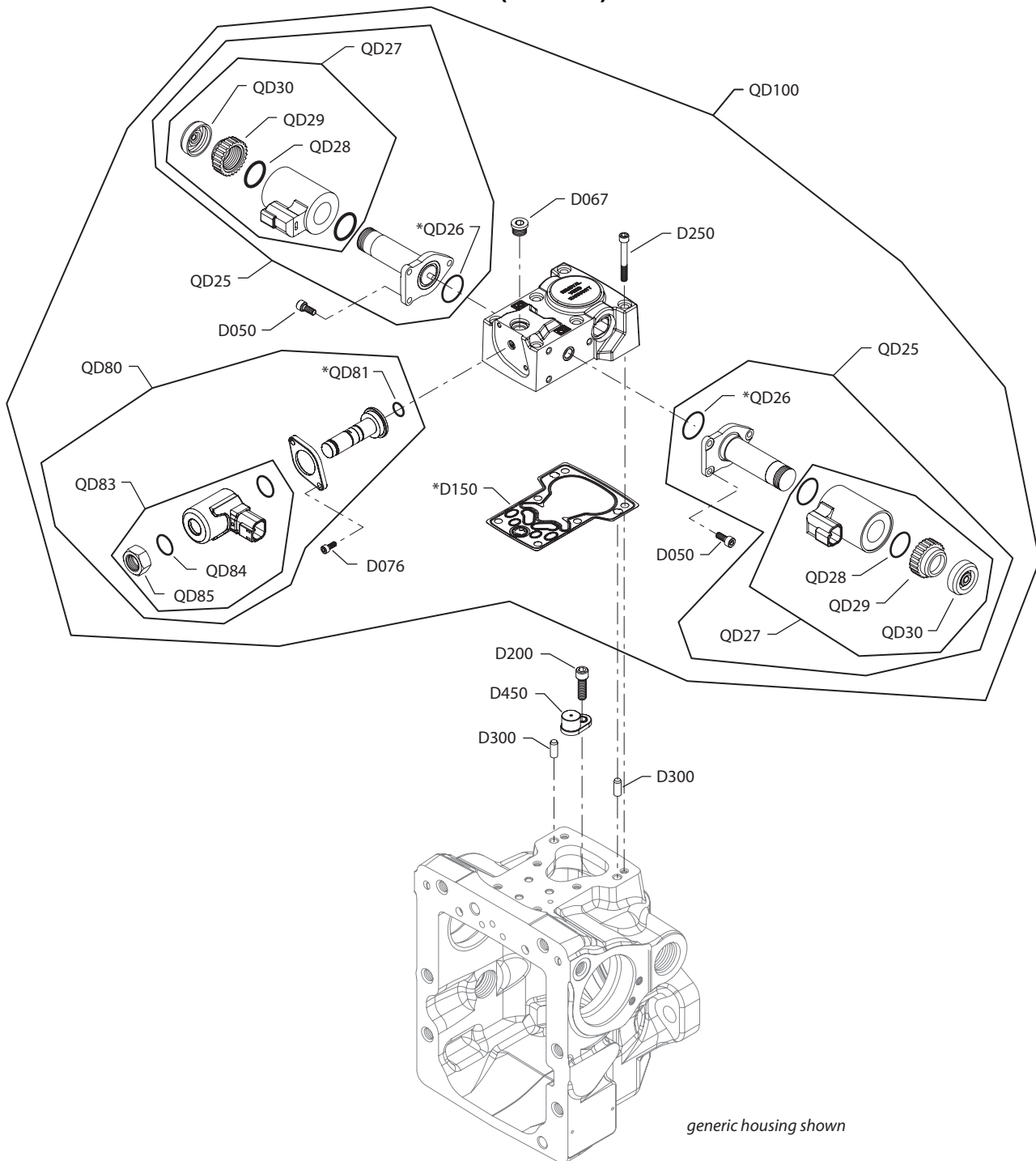

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N1	D050	16-21		716860	Screw, M5 x 12	6
	D065	16-21		140642	Plug assembly	1
	D150	16-21		11173377	Control gasket (SB-2016-033)	1
	D250	16-21		505038	Screw, M6 x 45	6
	D300	16-21		310979	Dowel pin	2
	QD25	16-21		140750	Proportional solenoid, 12v, Deutsch connector	2
	QD26	16-21		11001952	O-ring	2
	QD27	16-21		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-21		063172	O-ring	2
	QD29	16-21		11004749	Coil nut	2
	QD30	16-21		11027883	Cap	2
	QD100	16-21		11147921	NFPE control kit, 12v, manual override, Deutsch conn.	1
	N2	D050	16-21		716860	Screw, M5 x 12
D065		16-21		140642	Plug assembly	1
D150		16-21		11173377	Control gasket (SB-2016-033)	1
D250		16-21		505038	Screw, M6 x 45	6
D300		16-21		310979	Dowel pin	2
QD25		16-21		140751	Proportional solenoid, 24v, Deutsch connector	2
QD26		16-21		11001952	O-ring	2
QD27		16-21		11004700	Coil kit, 24v, Deutsch connector	2
QD28		16-21		063172	O-ring	2
QD29		16-21		11004750	Coil nut	2
QD30		16-21		11027883	Cap	2
QD100		16-21		11147925	NFPE control kit, 24v, manual override, Deutsch conn.	1



Variable displacement pump

(N3 & N4)



generic housing shown

E103 608E

* = included in overhaul seal kit Q210

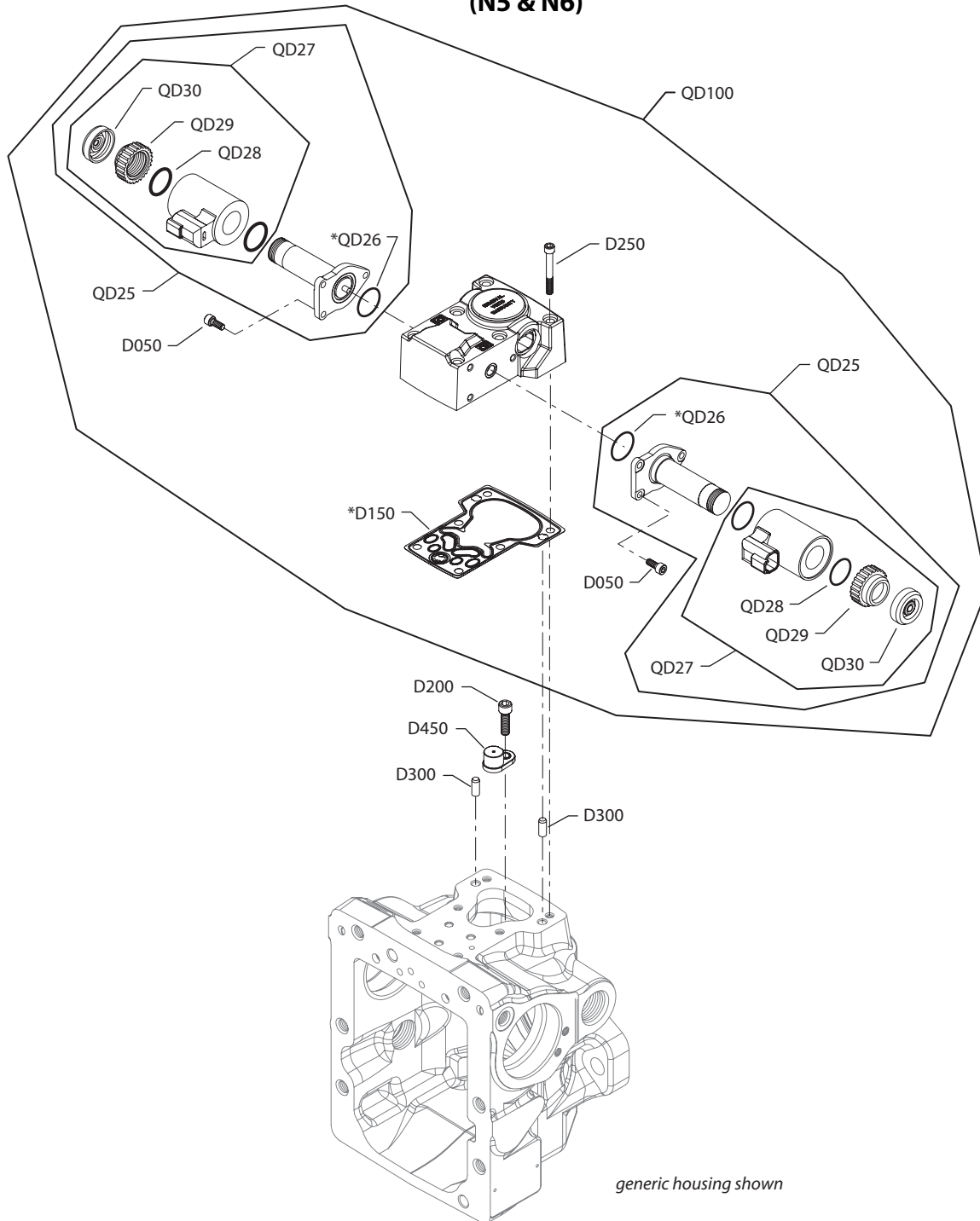

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N3	D050	16-21		716860	Screw, M5 x 12	6
	D067	16-21		140642	Plug assembly	1
	D076	16-21		067694	Screw, M4 x 10	2
	D150	16-21		11173377	Control gasket (SB-2016-033)	1
	D200	16-21		141472	Screw, special	1
	D250	16-21		505038	Screw, M6 x 45	6
	D300	16-21		310979	Dowel pin	2
	D450	16-21		11003097	Magnetic carrier	1
	QD25	16-21		140750	Proportional solenoid, 12v	2
	QD26	16-21		11001952	O-ring	2
	QD27	16-21		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-21		063172	O-ring	2
	QD29	16-21		11004749	Coil nut	2
	QD30	16-21		11027883	Cap	2
	QD80	16-21		11129914	Solenoid, 12V, Deutsch connector	1
	QD81	16-21		11152257	O-ring	1
	QD83	16-21		11147301	Coil kit, 12V, Deutsch connector	1
	QD84	16-21		11140393	O-ring	1
	QD85	16-21		11140394	Nut	1
	QD100	16-21		11147920	NFPE control kit, 12v, CCO	1
N4	D050	16-21		716860	Screw, M5 x 12	6
	D067	16-21		140642	Plug assembly	1
	D076	16-21		067694	Screw, M4 x 10	2
	D150	16-21		11173377	Control gasket (SB-2016-033)	1
	D200	16-21		141472	Screw, special	1
	D250	16-21		505038	Screw, M6 x 45	6
	D300	16-21		310979	Dowel pin	2
	D450	16-21		11003097	Magnetic carrier	1
	QD25	16-21		140751	Proportional solenoid, 24v	2
	QD26	16-21		11001952	O-ring	2
	QD27	16-21		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-21		063172	O-ring	2
	QD29	16-21		11004750	Coil nut	2
	QD30	16-21		11027883	Cap	2
	QD80	16-21		11129915	Solenoid, 24V, Deutsch connector	1
	QD81	16-21		11152257	O-ring	1
	QD83	16-21		11147332	Coil kit, 24V, Deutsch connector	1
	QD84	16-21		11140393	O-ring	1
	QD85	16-21		11140394	Nut	1
	QD100	16-21		11147924	NFPE control kit, 24v, CCO	1



Variable displacement pump

(N5 & N6)



E103 609E

* = included in overhaul seal kit Q210

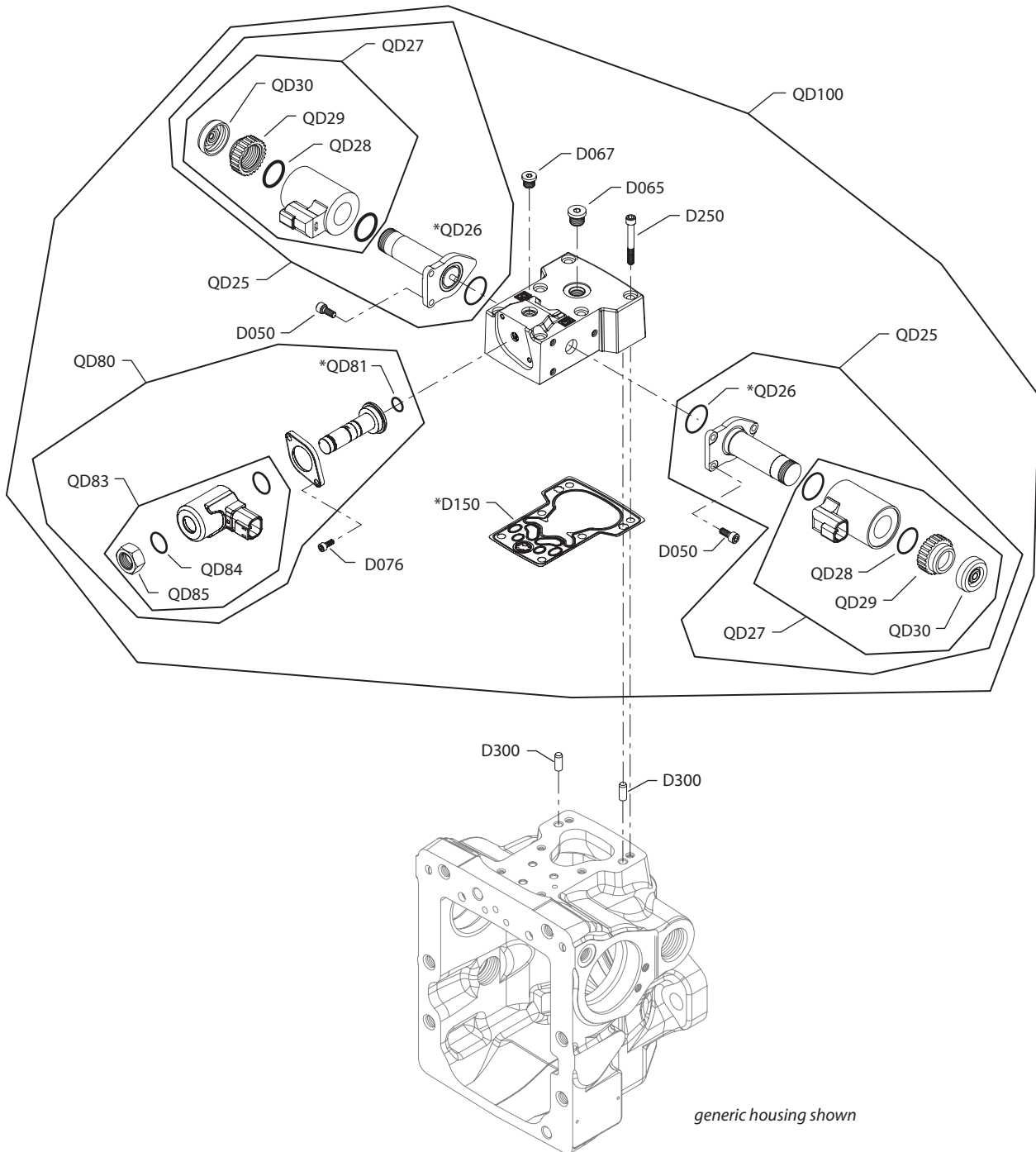

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N5	D050	16-21		716860	Screw, M5 x 12	6
	D150	16-21		11173377	Control gasket (SB-2016-033)	1
	D200	16-21		141472	Screw, special	1
	D250	16-21		505038	Screw, M6 x 45	6
	D300	16-21		310979	Dowel pin	2
	D450	16-21		11003097	Magnetic carrier	1
	QD25	16-21		140750	Proportional solenoid, 12v	2
	QD26	16-21		11001952	O-ring	2
	QD27	16-21		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-21		063172	O-ring	2
	QD29	16-21		11004749	Coil nut	2
	QD30	16-21		11027883	Cap	2
	QD100	16-21		11147918	NFPE control kit, 12v, manual override	1
	N6	D050	16-21		716860	Screw, M5 x 12
D150		16-21		11173377	Control gasket (SB-2016-033)	1
D200		16-21		141472	Screw, special	1
D250		16-21		505038	Screw, M6 x 45	6
D300		16-21		310979	Dowel pin	2
D450		16-21		11003097	Magnetic carrier	1
QD25		16-21		140751	Proportional solenoid, 24v	2
QD26		16-21		11001952	O-ring	2
QD27		16-21		11004700	Coil kit, 24v, Deutsch connector	2
QD28		16-21		063172	O-ring	2
QD29		16-21		11004750	Coil nut	2
QD30		16-21		11027883	Cap	2
QD100		16-21		11147922	NFPE control kit, 24v, manual override	1



Variable displacement pump

(N7 & N8)




Variable displacement pump
Control

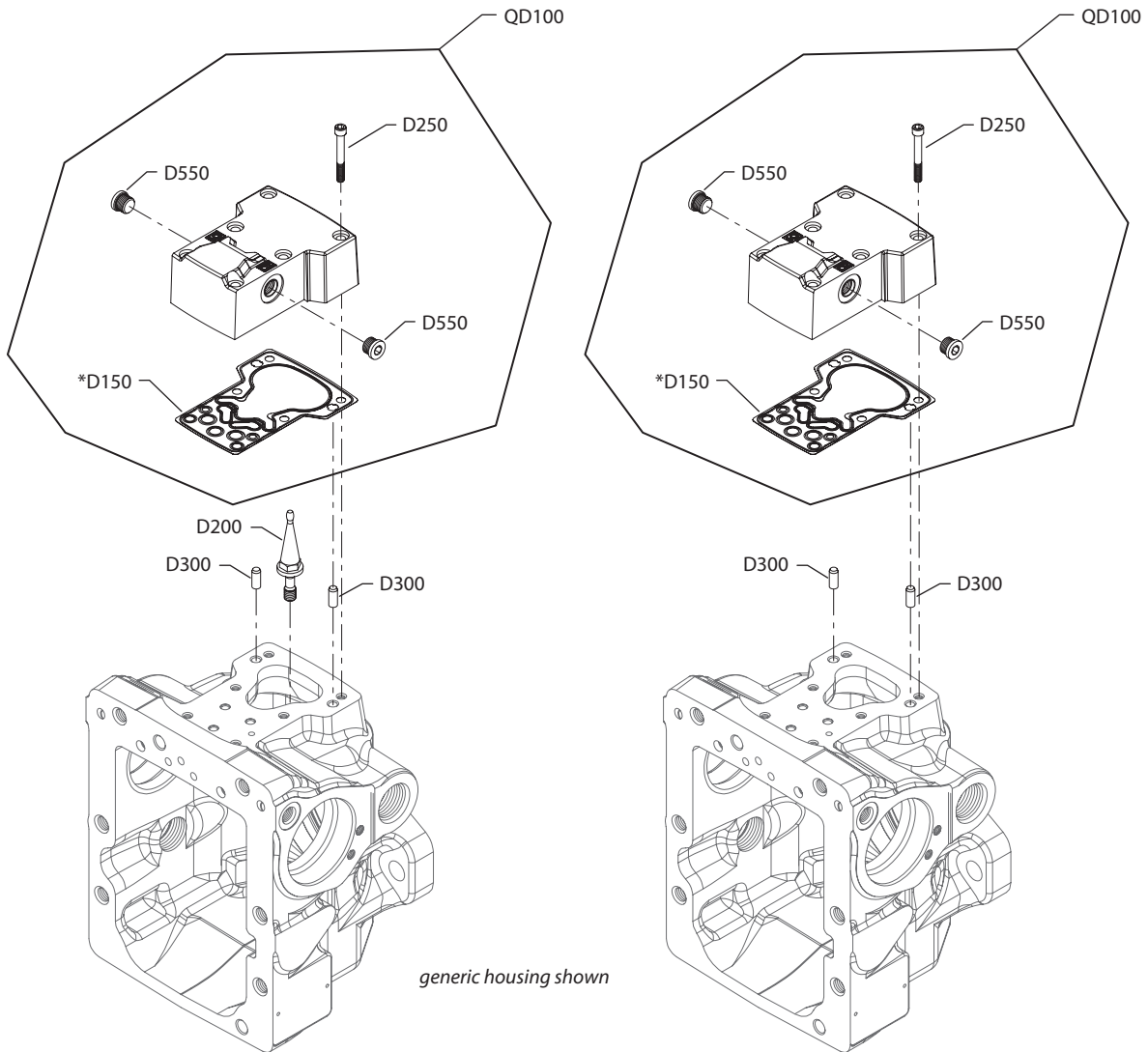
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit	
N7	D050	16-21		716860	Screw, M5 x 12	6	
	D067	16-21		140642	Plug assembly	1	
	D076	16-21		067694	Screw, M4 x 10	2	
	D150	16-21		11173377	Control gasket (SB-2016-033)	1	
	D250	16-21		505038	Screw, M6 x 45	6	
	D300	16-21		310979	Dowel pin	2	
	QD25	16-21		140750	Proportional solenoid, 12v	2	
	QD26	16-21		11001952	O-ring	2	
	QD27	16-21		11004698	Coil kit, 12v, Deutsch connector	2	
	QD28	16-21		063172	O-ring	2	
	QD29	16-21		11004749	Coil nut	2	
	QD30	16-21		11027883	Cap	2	
	QD80	16-21		11129914	Solenoid, 12V, Deutsch connector	1	
	QD81	16-21		11152257	O-ring	1	
	QD83	16-21		11147301	Coil kit, 12V, Deutsch connector	1	
	QD84	16-21		11140393	O-ring	1	
	QD85	16-21		11140394	Nut	1	
	QD100	16-21		11147919	NFPE control kit, 12v, CCO	1	
	N8	D050	16-21		716860	Screw, M5 x 12	6
		D067	16-21		140642	Plug assembly	1
D076		16-21		067694	Screw, M4 x 10	2	
D150		16-21		11173377	Control gasket (SB-2016-033)	1	
D250		16-21		505038	Screw, M6 x 45	6	
D300		16-21		310979	Dowel pin	2	
QD25		16-21		140751	Proportional solenoid, 24v	2	
QD26		16-21		11001952	O-ring	2	
QD27		16-21		11004700	Coil kit, 24v, Deutsch connector	2	
QD28		16-21		063172	O-ring	2	
QD29		16-21		11004750	Coil nut	2	
QD30		16-21		11027883	Cap	2	
QD80		16-21		11129915	Solenoid, 24V, Deutsch connector	1	
QD81		16-21		11152257	O-ring	1	
QD83		16-21		11147332	Coil kit, 24V, Deutsch connector	1	
QD84		16-21		11140393	O-ring	1	
QD85		16-21		11140394	Nut	1	
QD100		16-21		11147923	NFPE control kit, 24v, CCO	1	



Variable displacement pump

(ND)

(NN)



E103 360E

* = included in overhaul seal kit Q210



Variable displacement pump

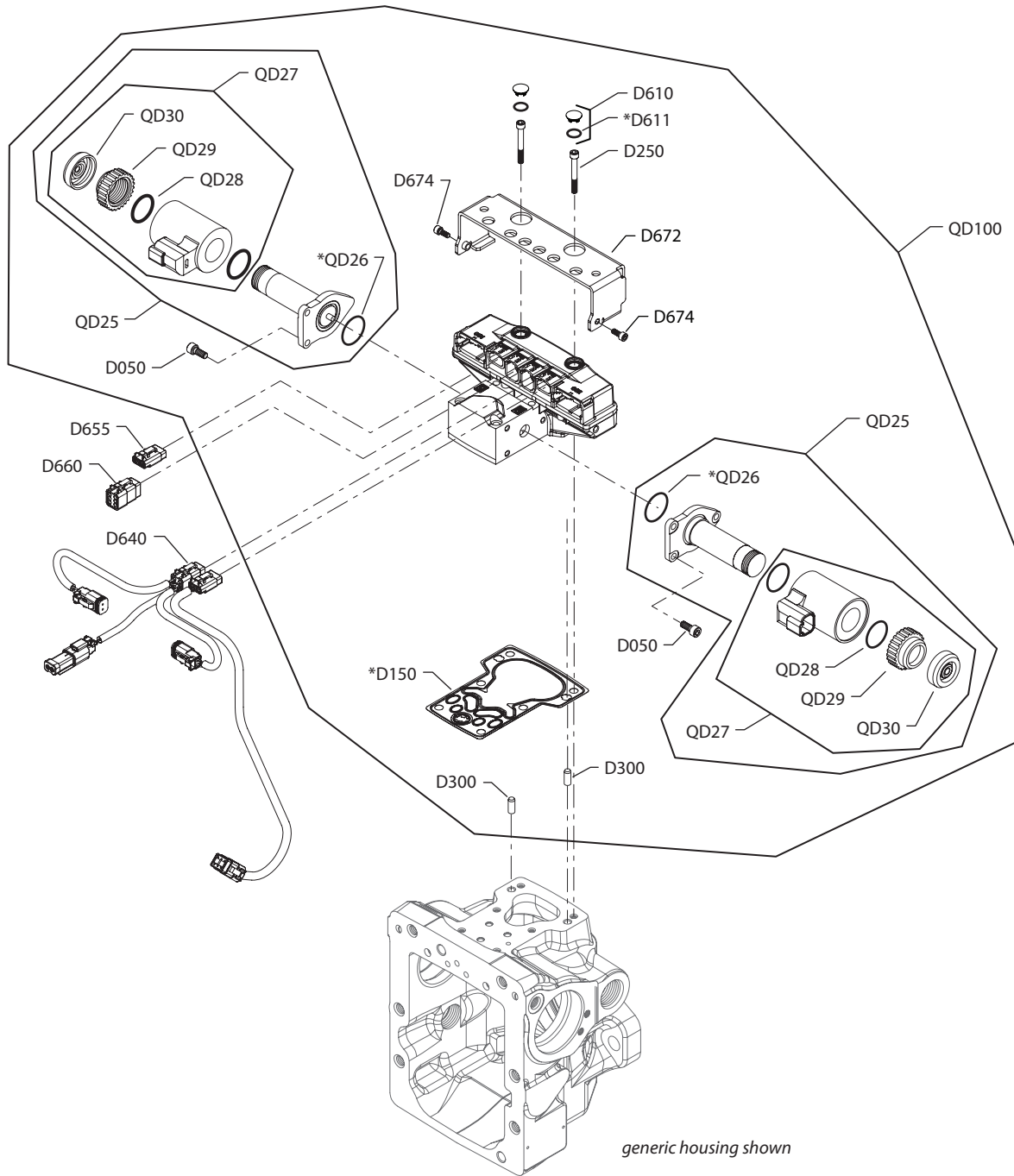
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
ND	D150	15-11		11173377	Control gasket (SB-2016-033)	1
	D200	15-11		11148827	Swashplate feedback link	1
	D250	15-11		505038	Screw, M6 x 45	6
	D300	15-11		310979	Dowel pin	2
	D550	15-11		140644	Plug assembly	2
	QD100	15-11		11121984	Control cover kit	1
NN	D150	13-38		11173377	Control gasket (SB-2016-033)	1
	D250	13-38		505038	Screw, M6 x 45	6
	D300	13-38		310979	Dowel pin	2
	D550	13-38		140644	Plug assembly	2
	QD100	13-38		11121984	Control cover kit	1



Variable displacement pump

(P6 & P7)



E103 611E

* = included in overhaul seal kit Q210



Variable displacement pump

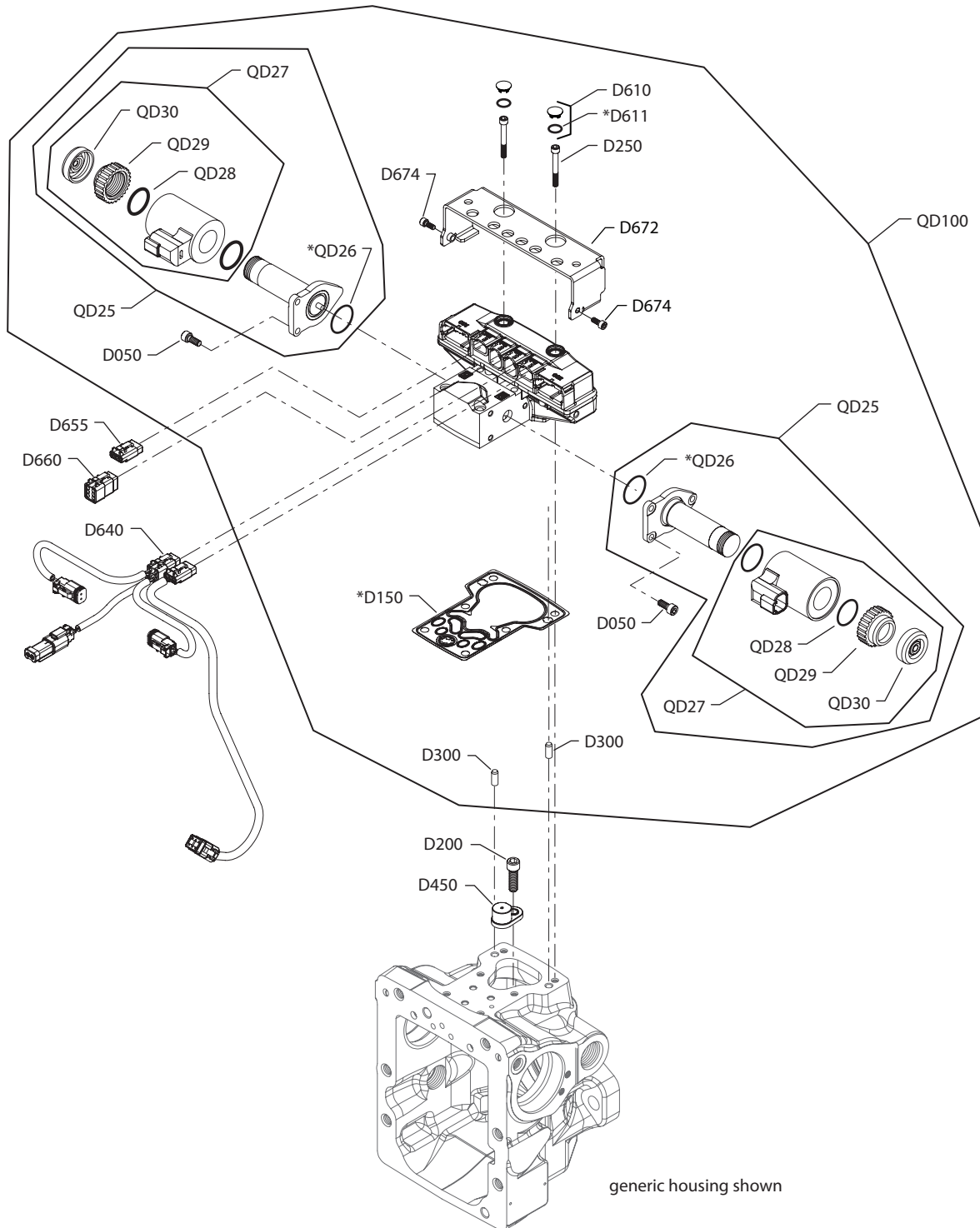
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit	
P6	D050	10-04		716860	Screw, M5 x 12	6	
	D150	10-04		11173377	Control gasket (SB-2016-033)	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	Blank, connector DTM 06-3S	1	
	D660	10-04		11084822	Blank, 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		11147941	Automotive control kit, 12v, manual override	1	
	P7	D050	10-04		716860	Screw, M5 x 12	6
		D150	10-04		11173377	Control gasket (SB-2016-033)	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	Blank, connector DTM 06-3S	1	
D660		10-04		11084822	Blank, 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		11147943	Automotive control kit, 24v, manual override	1	



Variable displacement pump

(P8 & P9)



generic housing shown

E103 612E

* = included in overhaul seal kit Q210



Variable displacement pump

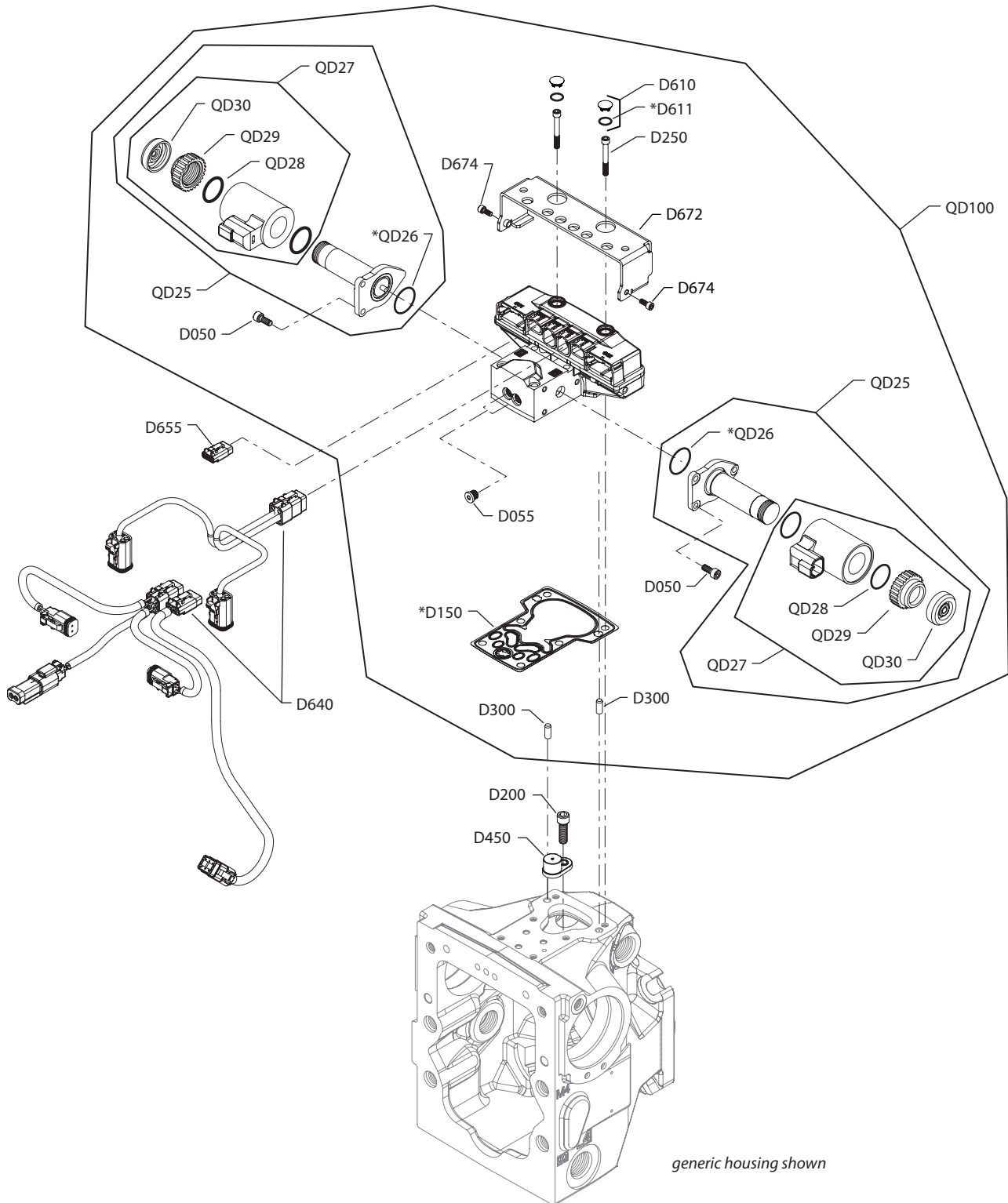
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
P8	D050	10-04		716860	Screw, M5 x 12	6
	D150	10-04		11173377	Control gasket (SB-2016-033)	1
	D200	16-21		141472	Screw, special	1
	D250	10-04		505038	Screw, M6 x 45	6
	D300	10-04		11036469	Dowel pin	2
	D450	16-21		11003097	Magnetic 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	Blank, connector DTM 06-3S	1
	D660	10-04		11084822	Blank, 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		11147940	Automotive control kit, 12v, manual override	1
P9	D050	10-04		716860	Screw, M5 x 12	6
	D150	10-04		11173377	Control gasket (SB-2016-033)	1
	D200	16-21		141472	Screw, special	1
	D250	10-04		505038	Screw, M6 x 45	6
	D300	10-04		11036469	Dowel pin	2
	D450	16-21		11003097	Magnetic 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	Blank, connector DTM 06-3S	1
	D660	10-04		11084822	Blank, 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		11147942	Automotive control kit, 24v, manual override	1



Variable displacement pump

(R1 & R2)



generic housing shown

E103 619E

* = included in overhaul seal kit Q210



Variable displacement pump

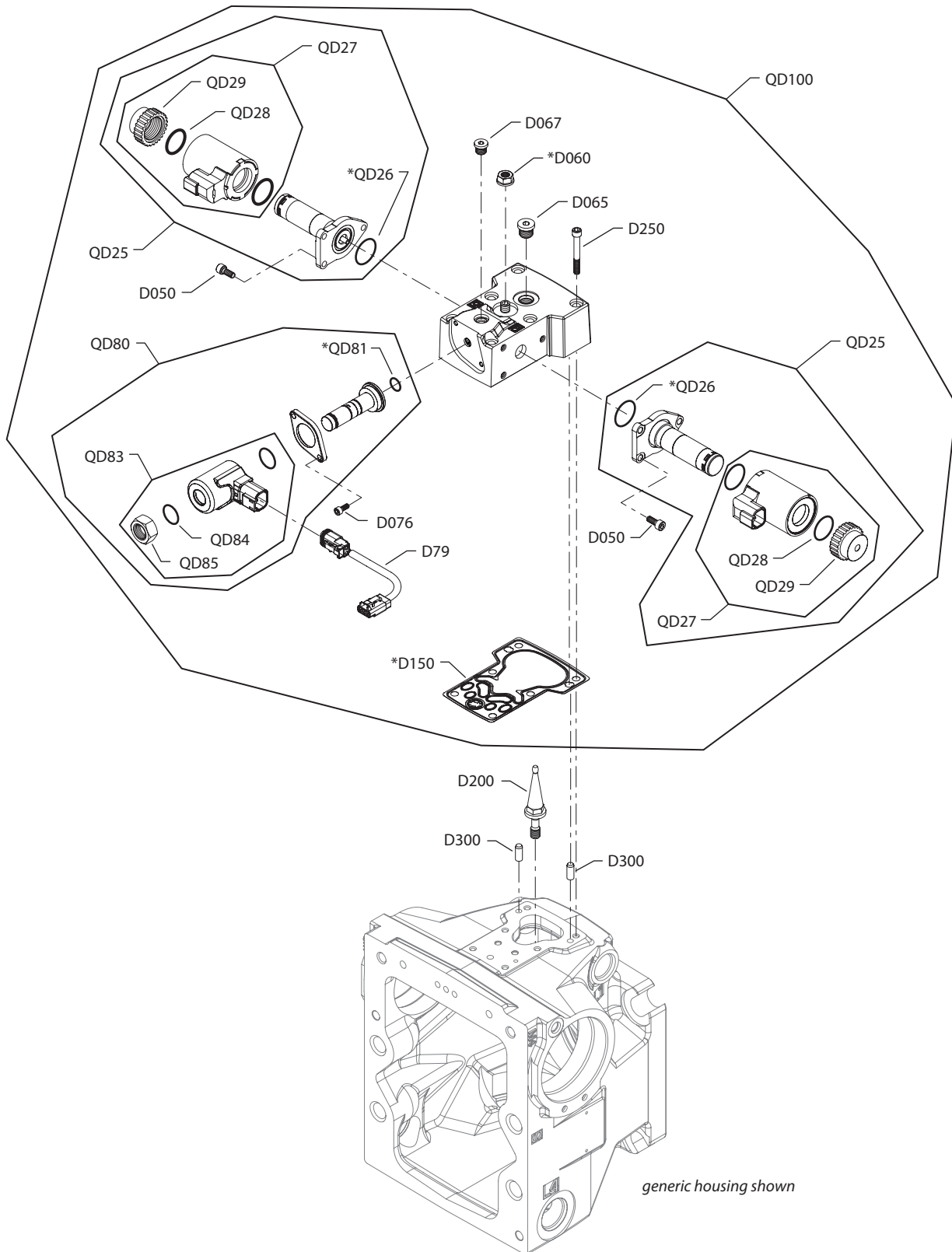
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
R1	D050	10-04		716860	Screw, M5 x 12	6
	D150	10-04		11173377	Control gasket (SB-2016-033)	1
	D200	16-21		141472	Screw, special	1
	D250	10-04		505038	Screw, M6 x 45	6
	D300	10-04		11036469	Dowel pin	2
	D450	16-21		11003097	Magnetic carrier	1
	D610	10-04		11000467	Plug assembly	2
	D611	10-04		11066774	O-ring	2
	D640	10-04		11105876	AC wiring harness	1
	D655	10-04		11084827	Blank, 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		11147940	Automotive control kit, 12v, manual override	1
	R2	D050	10-04		716860	Screw, M5 x 12
D150		10-04		11173377	Control gasket (SB-2016-033)	1
D200		16-21		141472	Screw, special	1
D250		10-04		505038	Screw, M6 x 45	6
D300		10-04		11036469	Dowel pin	2
D450		16-21		11003097	Magnetic carrier	1
D610		10-04		11000467	Plug assembly	2
D611		10-04		11066774	O-ring	2
D640		10-04		11105876	AC wiring harness	1
D655		10-04		11084827	Blank, connector DTM 06-3S	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		11147942	Automotive control kit, 24v, manual override	1



Variable displacement pump

(S6)



generic housing shown

E103 378E

* = included in overhaul seal kit Q210



Variable displacement pump

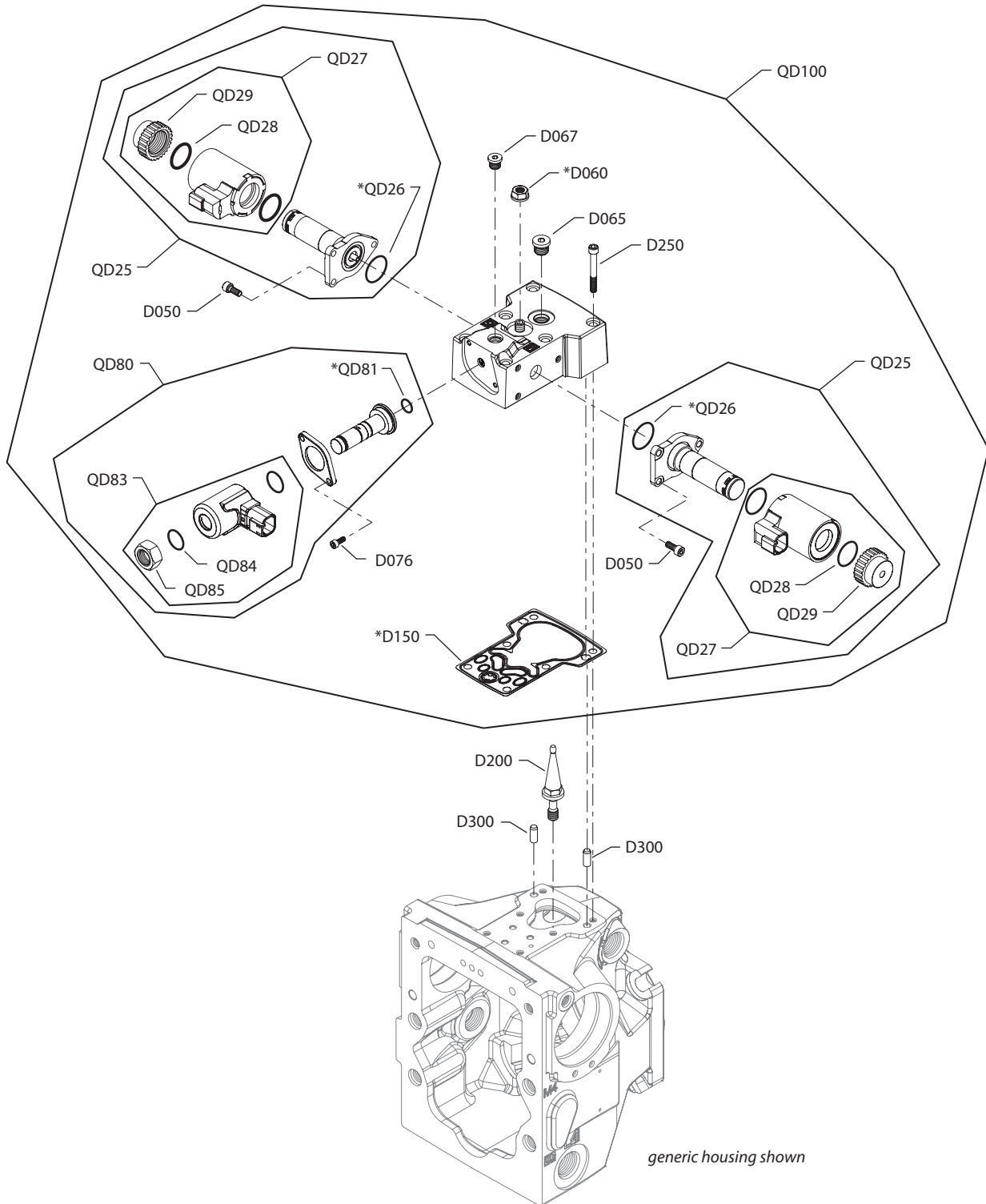
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
S6	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		140642	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 (SB-2016-033)	1
	D200	14-25		11148827	Swashplate feedback link	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



Variable displacement pump

(S7)



E103 356E

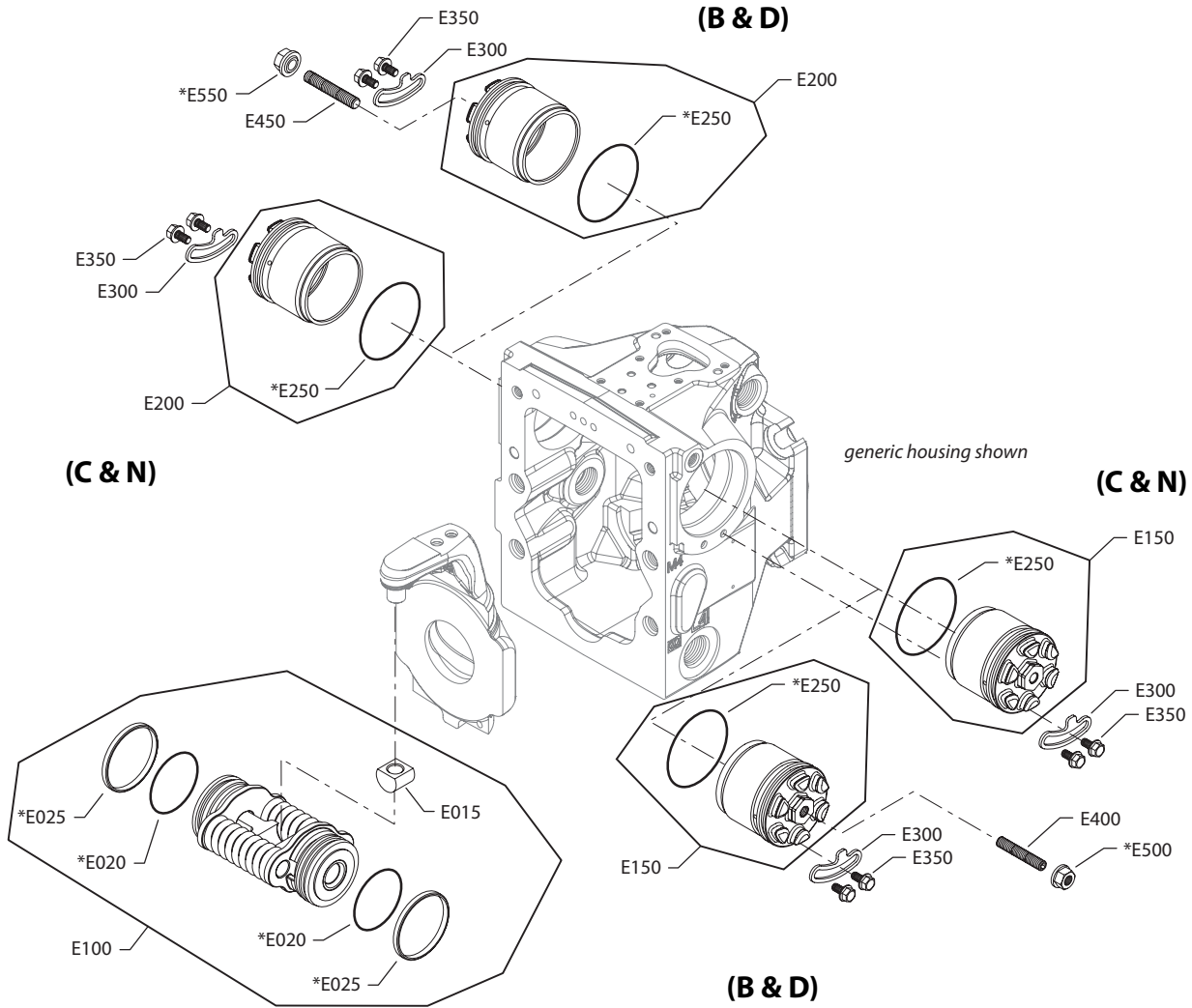
* = included in overhaul seal kit Q210


Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
S7	D050	14-31		716860	Screw, M5 x 12	6
	D060	14-31		612291 (9003508-0008)	Seal nut, M8	1
	D065	14-31		140642	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 (SB-2016-033)	1
	D200	14-31		11148827	Swashplate feedback link	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



Variable displacement pump



E100 997E

* = included in overhaul seal kit Q210



Variable displacement pump

Displacement limitation

Order Code	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 (SB-2009-046)	2
	E350	07-14		508438	Screw, M6 x 12	4

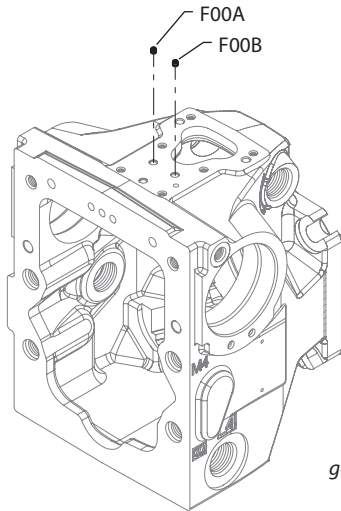
Displacement limitation

B	E100	07-14		140891	Servo piston assembly	1
	E150	07-14		11089779	Servo cylinder assembly (SB-2009-046)	1
	E200	07-14		11089779	Servo cylinder assembly (SB-2009-046)	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
	C	E100	07-14		11000808	Servo piston assembly w/nested spring
E150		07-14		11089749	Servo cylinder assembly (SB-2009-046)	1
E200		07-14		11089749	Servo cylinder assembly (SB-2009-046)	1
D	E100	07-14		11000808	Servo piston assembly w/nested spring	1
	E150	07-14		11089779	Servo cylinder assembly (SB-2009-046)	1
	E200	07-14		11089779	Servo cylinder assembly (SB-2009-046)	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
	N	E100	07-14		140891	Servo piston assembly
E150		07-14		11089749	Servo cylinder assembly (SB-2009-046)	1
E200		07-14		11089749	Servo cylinder assembly (SB-2009-046)	1



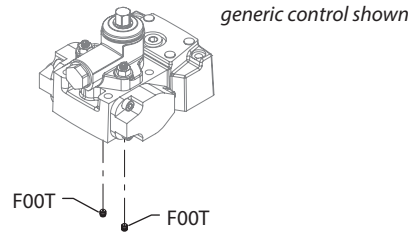
Variable displacement pump

(C1, C2 & C4)



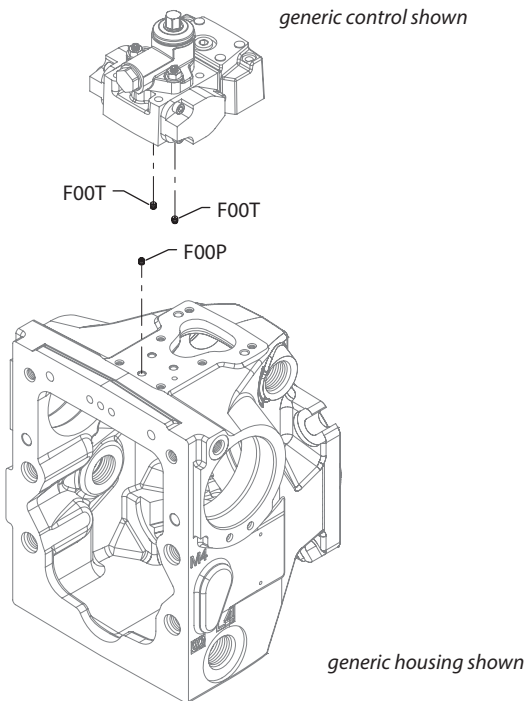
generic housing shown

(C6 & C7)



generic control shown

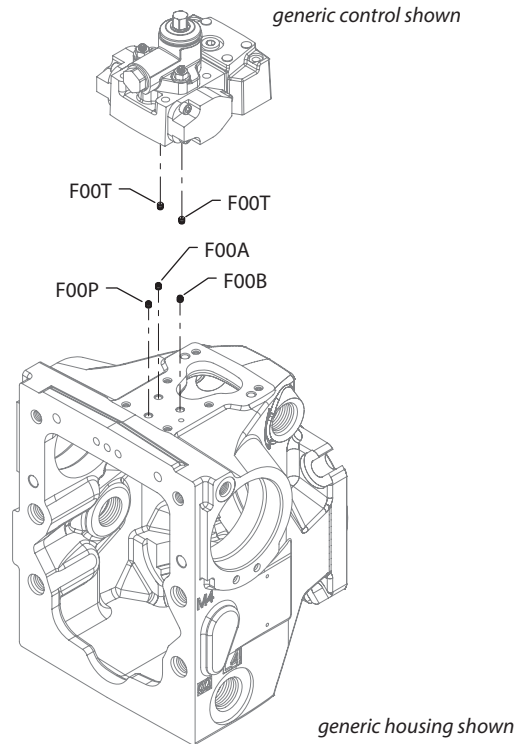
(C8, C9, D1, D2, D3 & D6)



generic control shown

generic housing shown

(D4 & D5)



generic control shown

generic housing shown

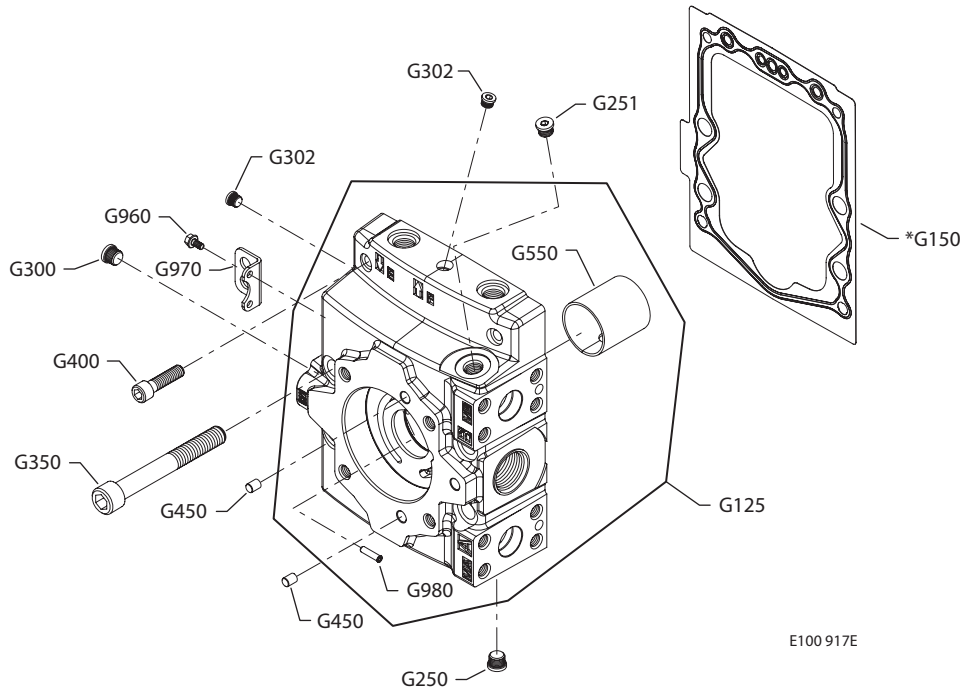

Variable displacement pump
Orifice

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	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
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
C3				No parts		
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
C6	F00T	14-44		11151734	Orifice, 1.0 M6 x 0.75 mm	2
C7	F00T	14-44		140754	Orifice, 1.3, M6 x 0.75 mm	2
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
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
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
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
D3	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
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
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
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



Variable displacement pump

(D3 & D6)



E100 917E

* = included in overhaul seal kit Q210

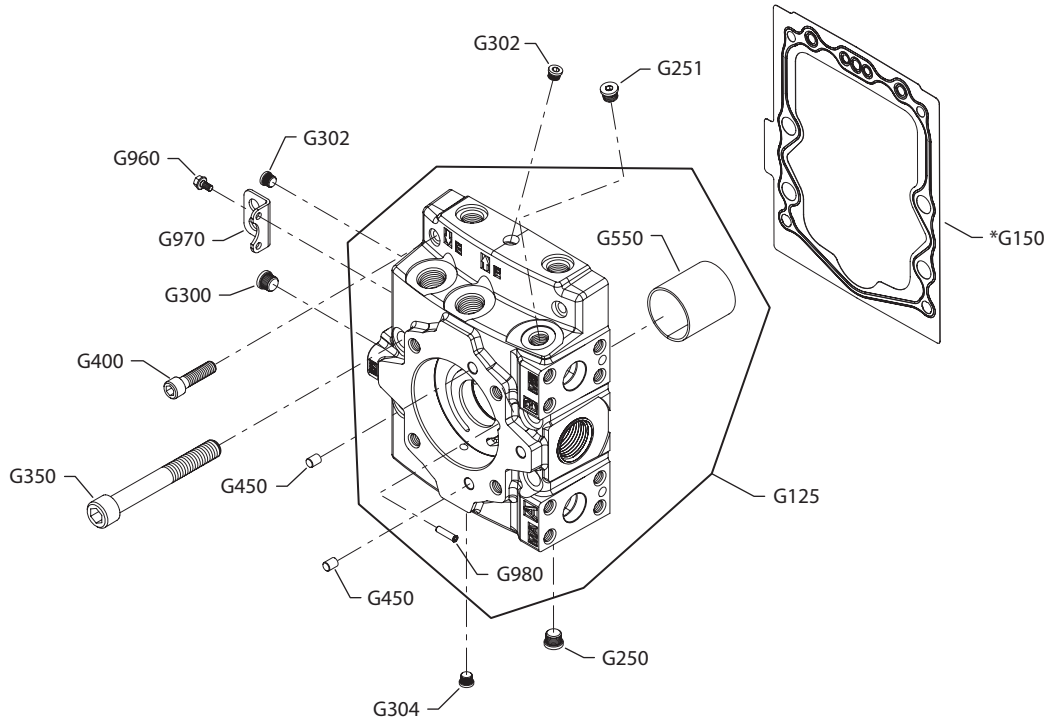

Variable displacement pump
End cap

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D3	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	2
	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)	1
	G960	07-14		508438	Screw	2
	G970	07-14		4460311	Lifting bracket	1
	G980	07-14		11000229	Lubrication orifice	1
	D6	G125	07-14		11003565	End cap assembly, CW
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	2
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)	1
G960		07-14		508438	Screw	2
G970		07-14		4460311	Lifting bracket	1
G980		07-14		11000229	Lubrication orifice	1

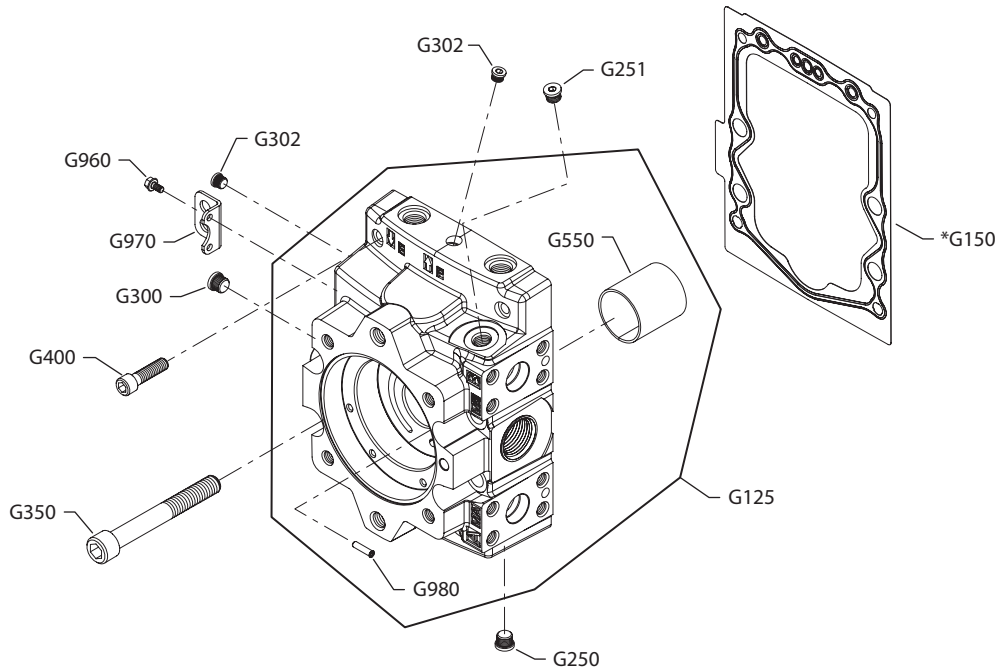


Variable displacement pump

(D8)



(F4)



E100 918E

* = included in overhaul seal kit Q210



Variable displacement pump

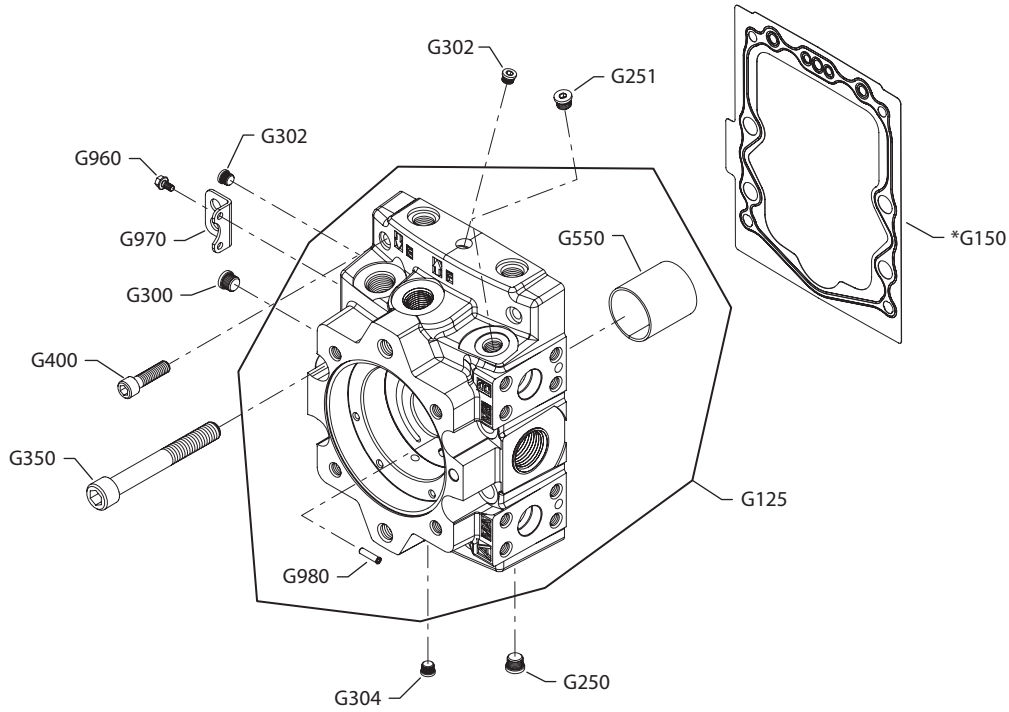
End cap

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D8	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	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
	G450	07-14		9004800-3708	Dowel pin	2
	G550	07-14		11087822	Journal bearing (SB-2012-009)	1
	G960	07-14		508438	Screw	2
	G970	07-14		4460311	Lifting bracket	1
	G980	07-14		11000229	Lubrication orifice	1
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	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 (SB-2012-009)	1
	G960	07-14		508438	Screw	2
	G970	07-14		4460311	Lifting bracket	1
	G980	07-14		11000229	Lubrication orifice	1

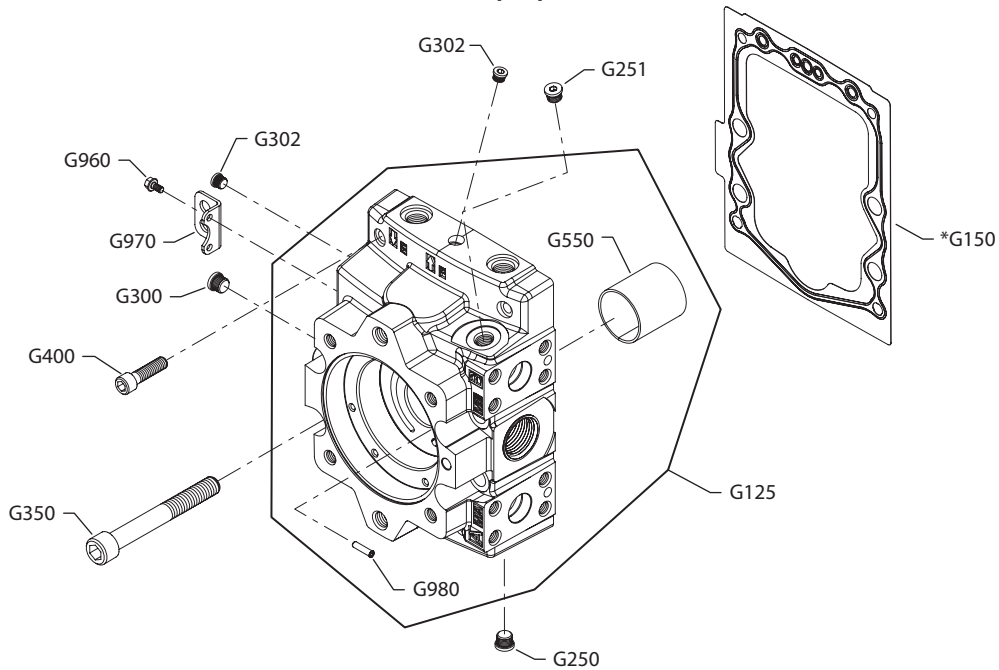


Variable displacement pump

(F5)



(F6)



E100 919E

* = included in overhaul seal kit Q210



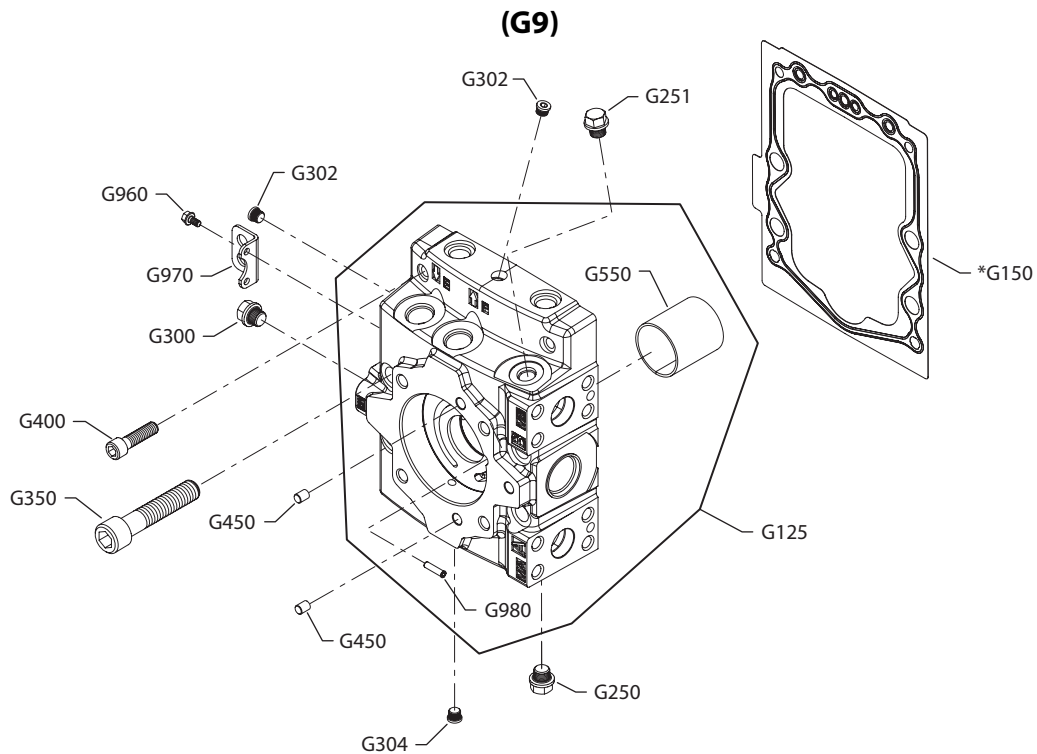
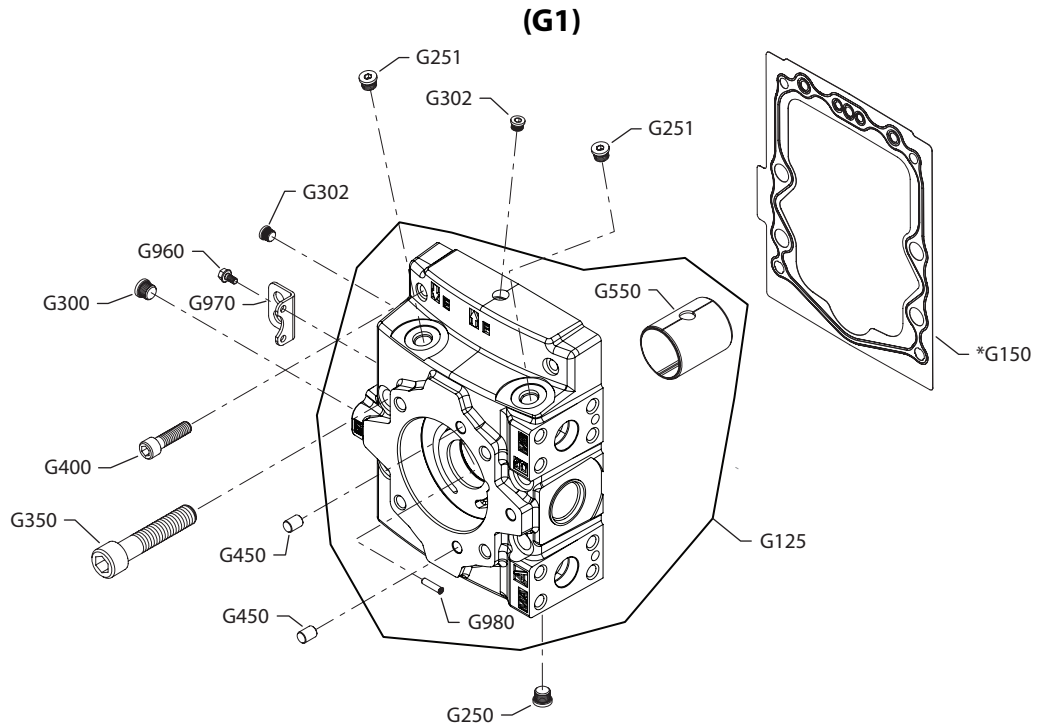
Variable displacement pump

End cap

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F5	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 (SB-2012-009)	1
	G960	07-14		508438	Screw	2
	G970	07-14		4460311	Lifting bracket	1
	G980	07-14		11000229	Lubrication orifice	1
	F6	G125	07-14		11003568	End cap assembly, CW, SAE C
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 (SB-2012-009)	1
G960		07-14		508438	Screw	2
G970		07-14		4460311	Lifting bracket	1
G980		07-14		11000229	Lubrication orifice	1



Variable displacement pump



E101 970E

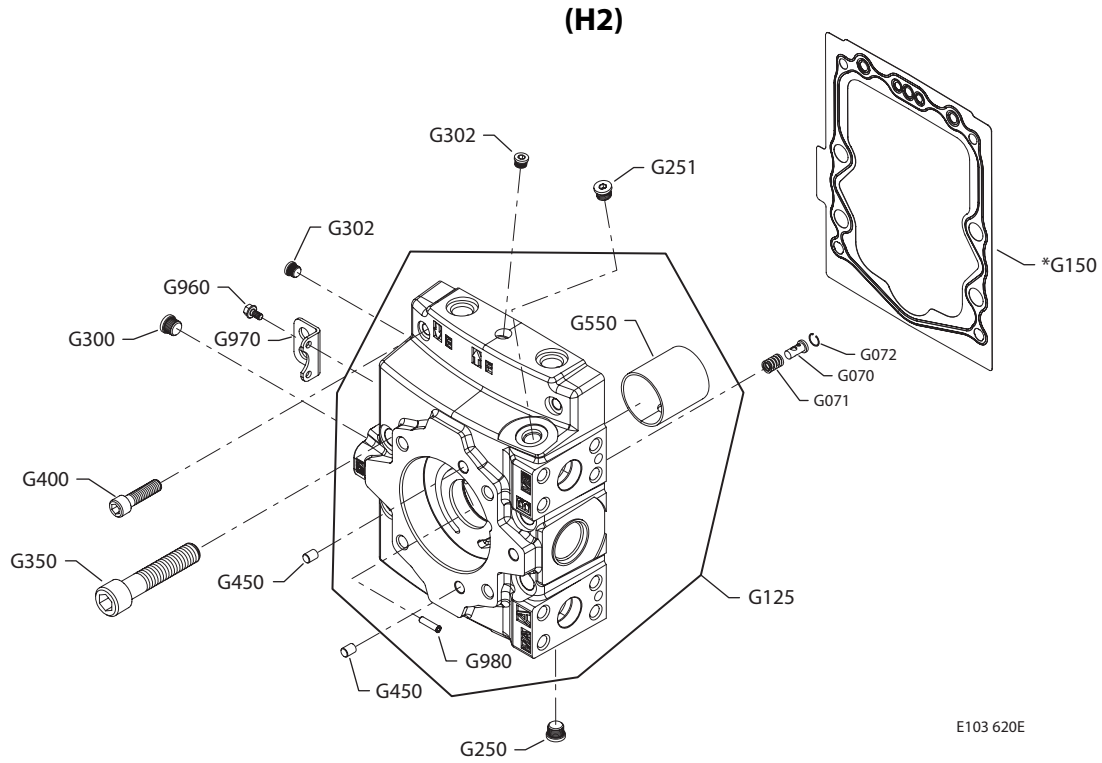
* = included in overhaul seal kit Q210


Variable displacement pump
End cap

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G1	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	2
	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)	1
	G960	10-41		508438	Screw	2
	G970	10-41		4460311	Lifting bracket	1
	G980	10-41		11000229	Lubrication orifice	1
	G9	G125	07-14		11003573	End cap assembly, CCW
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	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
G450		07-14		9004800-3708	Dowel pin	2
G550		07-14		11087822	Journal bearing (SB-2012-009)	1
G960		07-14		508438	Screw	2
G970		07-14		4460311	Lifting bracket	1
G980		07-14		11000229	Lubrication orifice	1



Variable displacement pump



E103 620E

* = included in overhaul seal kit Q210



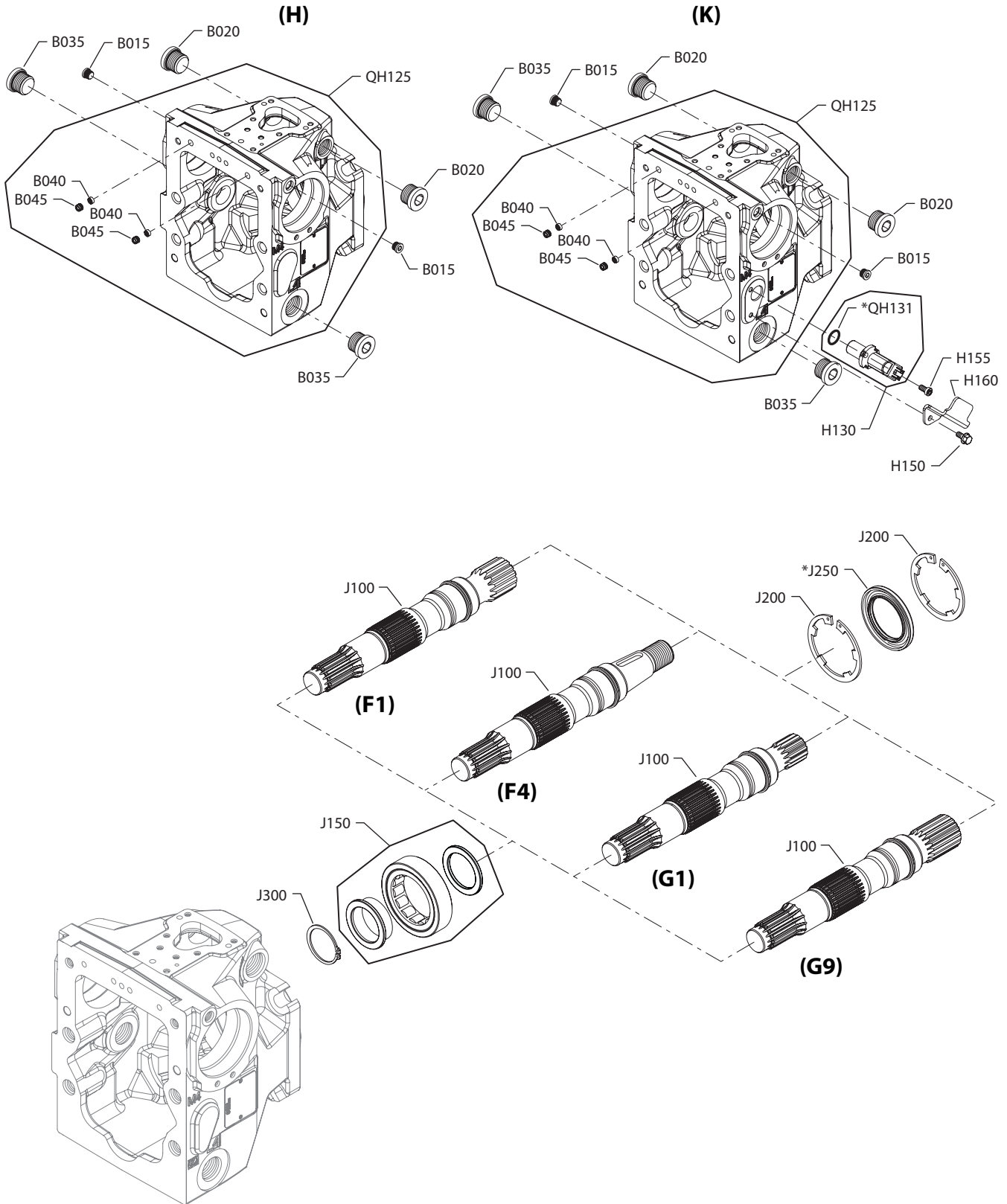
Variable displacement pump

End cap

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
H2	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	2
	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 (SB-2012-009)	1
	G960	13-42		508438	Screw, M6 x 12	2
	G970	13-42		4460311	Lifting bracket	1
	G980	13-42		11000229	Lubrication orifice	1



Variable displacement pump



E100 920E

* = included in overhaul seal kit Q210


Variable displacement pump
Housing

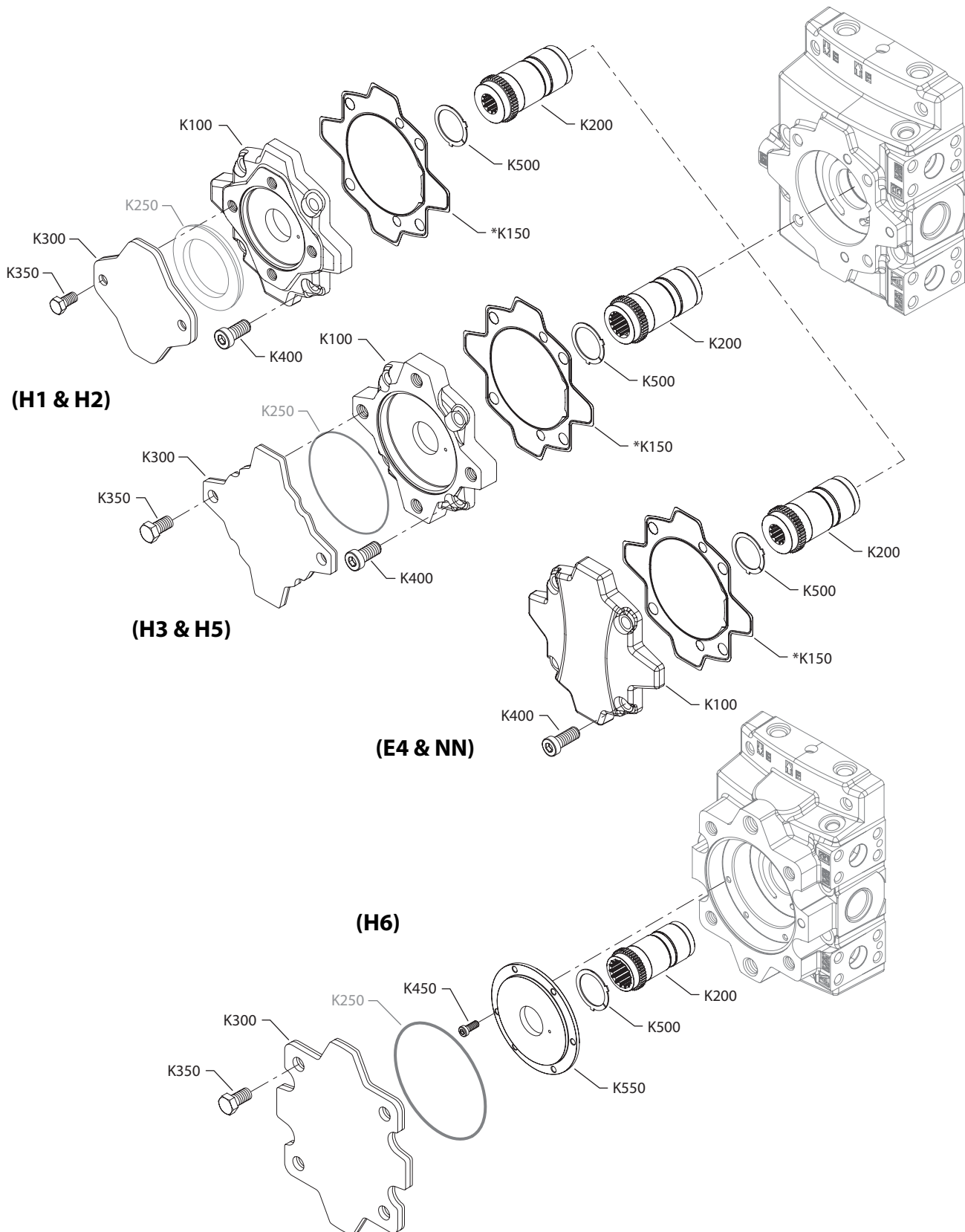
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
H	B015	07-14		140642 (9005110-4400)	Plug assembly	2
	B020	07-14		315325 (9005110-8700)	Plug assembly	2
	B035	07-14		664524 (9005110-9000)	Plug assembly	2
	B040	07-14		140967	Screen, 8 mm, 125 micron	2
	B045	09-25		11062684	Screen retainer (SB-2009-068)	2
	QH125	07-14		11005071	Housing assembly, H1P078	1
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 (SB-2009-068)	2
	H150	07-14		508438	Screw	1
	H155	07-14		376749	Screw	1
	H160	07-14		11025029	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

F1	J100	07-14		11112175	Shaft, 21 tooth spline, 16/32 pitch (SB-2012-015)	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
F4	J100	07-29		11112177	Shaft, tapered (SB-2012-015)	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
G1	J100	07-14		11112174	Shaft, 14 tooth spline, 12/24 pitch (SB-2012-015)	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
G9	J100	07-14		11112176	Shaft, 23 tooth spline, 16/32 pitch (SB-2012-015)	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



Variable displacement pump



E100 921E

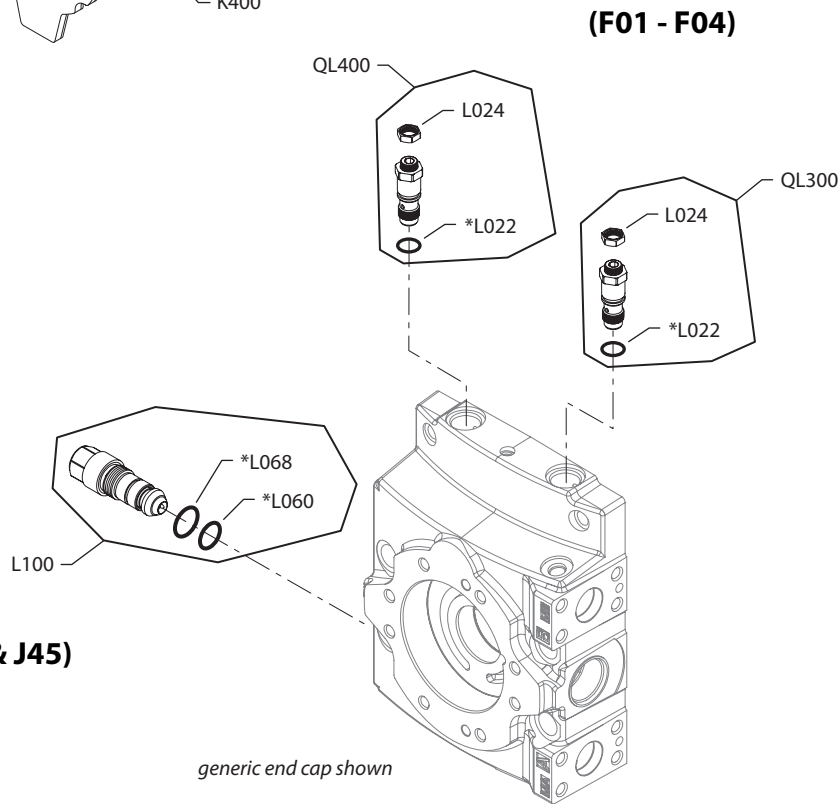
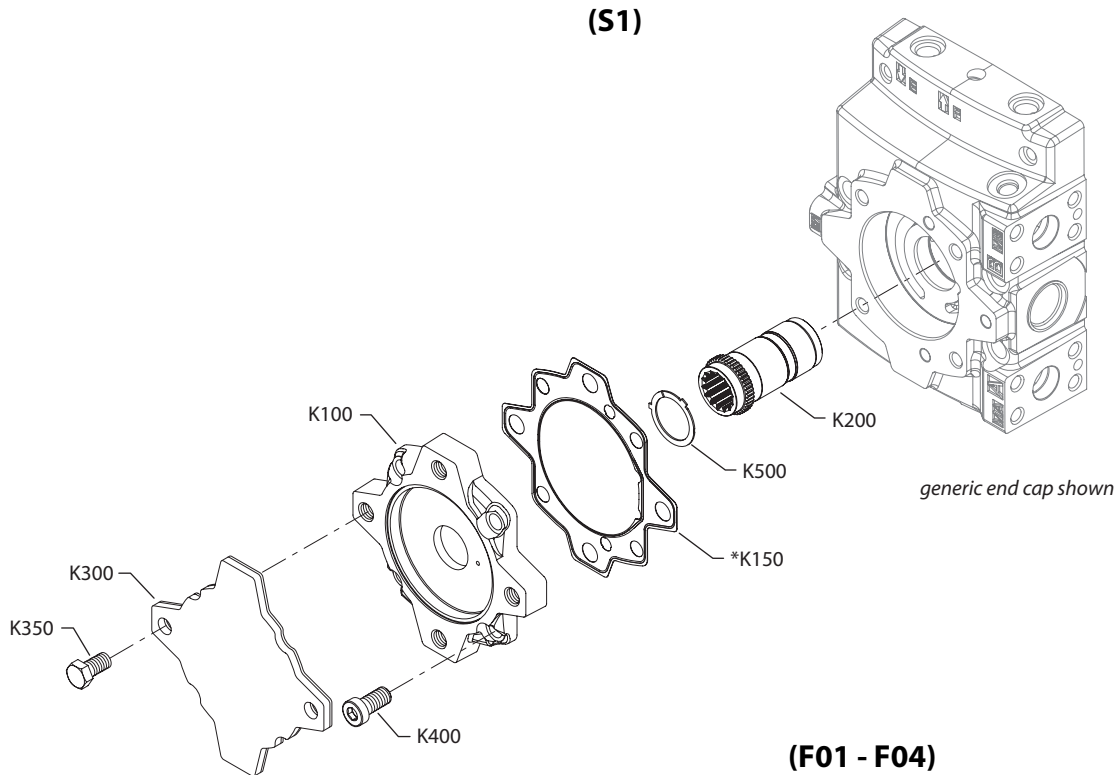
* = included in overhaul seal kit Q210


Variable displacement pump
Auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
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 (SB-2008-038)	1
	K300	07-14		11017125	Flange cover (SB-2008-038)	1
	K350	07-14		370247	Screw	2
	K400	07-14		11000819	Screw	4
	K500	07-14		141105	Thrust washer	1
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 (SB-2008-038)	1
	K300	07-14		11017125	Flange cover (SB-2008-038)	1
	K350	07-14		370247	Screw	2
	K400	07-14		11000819	Screw	4
	K500	07-14		141105	Thrust washer	1
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 (SB-2008-038)	1
	K300	07-14		11023746	Flange cover (SB-2008-038)	1
	K350	07-14		509528	Screw	2
	K400	07-14		11000819	Screw	4
	K500	07-14		141105	Thrust washer	1
H5	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 (SB-2008-038)	1
	K300	07-14		11023746	Flange cover (SB-2008-038)	1
	K350	07-14		509528	Screw	2
	K400	07-14		11000819	Screw	4
	K500	07-14		141105	Thrust washer	1
H6	K200	07-14		141268	Coupling, 14 tooth, 12/24 pitch	1
	K250	07-14	08-35	056739 (9004104-1580)	O-ring (SB-2008-038)	1
	K300	07-14		11023750	Flange cover (SB-2008-038)	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
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



Variable displacement pump



(F01 - F04 & J45)


Variable displacement pump
Auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
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

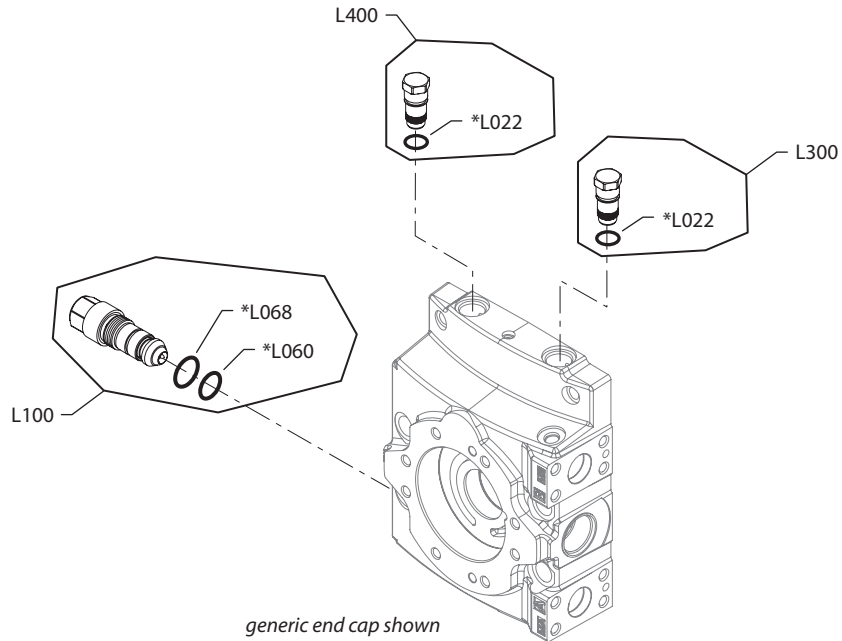
High pressure setting, port A

all	L060	07-14		141109	O-ring	1
	L068	07-14		11052215	O-ring	1
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
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
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
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
J45	L100	13-14		11049131	High pressure relief valve, 450 bar	1



Variable displacement pump

(K18 - K42)



E103 394E

* = included in overhaul seal kit Q210

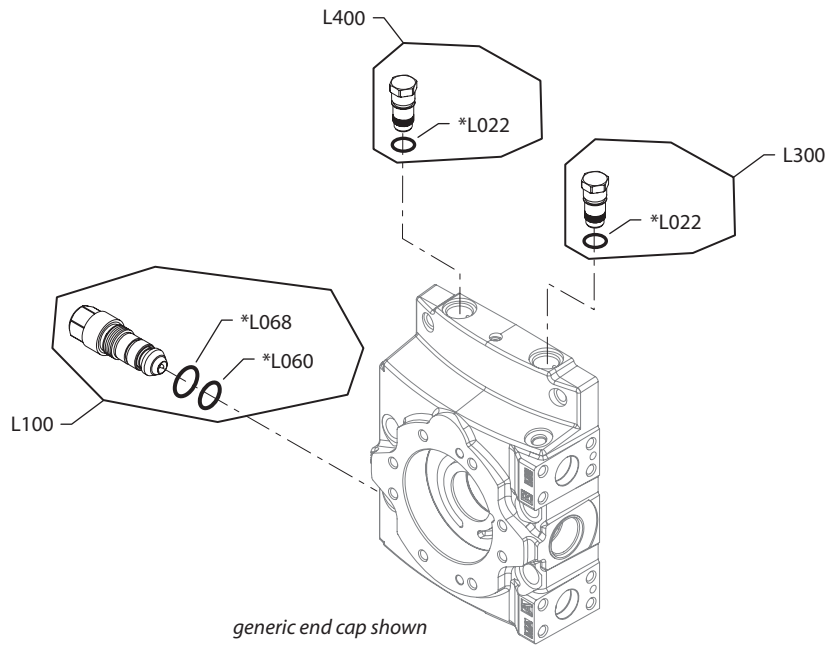

Variable displacement pump
High pressure setting, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	07-14		041152	O-ring	1
	L060	07-14		141109	O-ring	1
	L068	07-14		11052215	O-ring	1
K18	L100	07-14		11049120	High pressure relief valve, 180 bar	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
K20	L100	07-14		11049121	High pressure relief valve, 200 bar	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
K23	L100	07-14		11049122	High pressure relief valve, 230 bar	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
K25	L100	07-14		11049123	High pressure relief valve, 250 bar	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
K28	L100	07-14		11049124	High pressure relief valve, 280 bar	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
K30	L100	07-14		11049125	High pressure relief valve, 300 bar	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
K33	L100	07-14		11049126	High pressure relief valve, 330 bar	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
K35	L100	07-14		11049127	High pressure relief valve, 350 bar	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
K38	L100	07-14		11049128	High pressure relief valve, 380 bar	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
K40	L100	07-14		11049129	High pressure relief valve, 400 bar	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
K42	L100	07-14		11049130	High pressure relief valve, 420 bar	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
K43	L100	07-14		11049132	High pressure relief valve, 480 bar	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

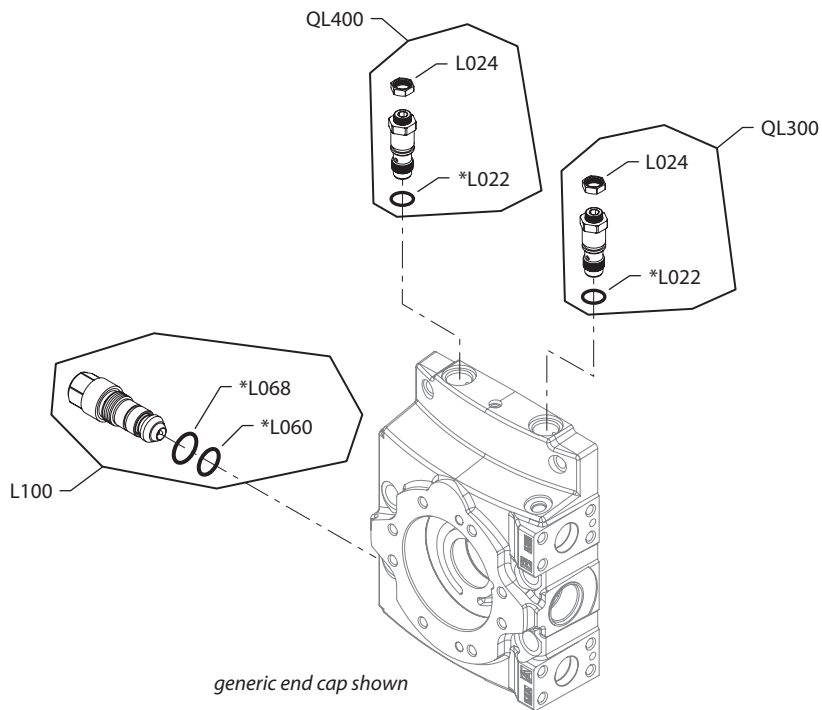


Variable displacement pump

(K45 - K48)



(L15 - L33)



E100 922E

* = included in overhaul seal kit Q210

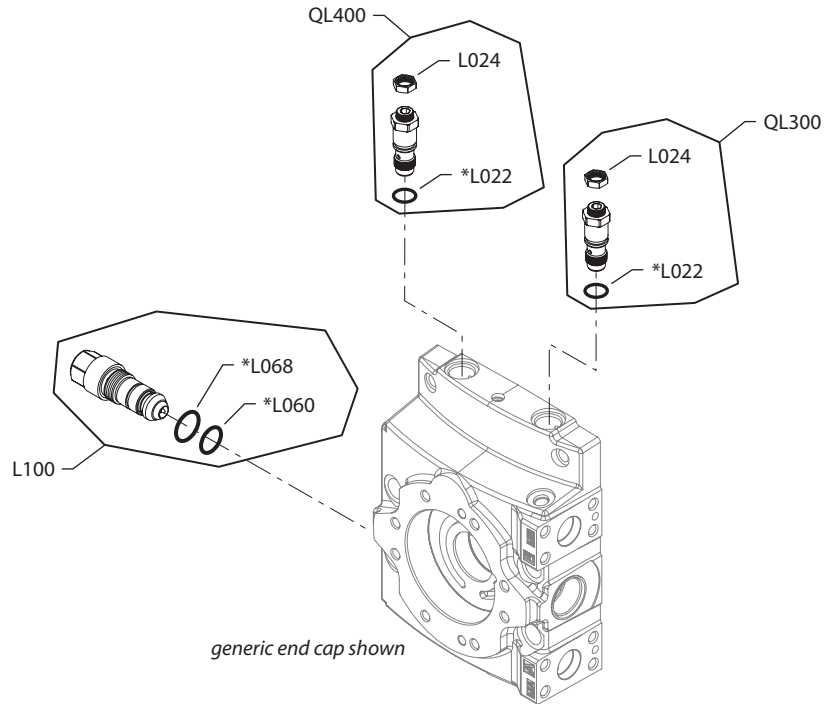

Variable displacement pump
High pressure setting, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	07-14		041152	O-ring	1
	L060	07-14		141109	O-ring	1
	L068	07-14		11052215	O-ring	1
K45	L100	07-14		11049131	High pressure relief valve, 450 bar	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
K48	L100	07-14		11049132	High pressure relief valve, 480 bar	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
L15	L024	07-14		11054668	Nut	1
	L100	07-14		11049121	High pressure relief valve, 200 bar	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
L18	L024	07-14		11054668	Nut	1
	L100	07-14		11049122	High pressure relief valve, 230 bar	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
L20	L024	07-14		11054668	Nut	1
	L100	07-14		11049123	High pressure relief valve, 250 bar	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
L23	L024	07-14		11054668	Nut	1
	L100	07-14		11049124	High pressure relief valve, 280 bar	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
L25	L024	07-14		11054668	Nut	1
	L100	07-14		11049125	High pressure relief valve, 300 bar	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
L28	L024	07-14		11054668	Nut	1
	L100	07-14		11049126	High pressure relief valve, 330 bar	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
L30 & L31	L024	07-14		11054668	Nut	1
	L100	07-14		11049127	High pressure relief valve, 350 bar	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
L33	L024	07-14		11054668	Nut	1
	L100	07-14		11049128	High pressure relief valve, 380 bar	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



Variable displacement pump

(L35 -L48)



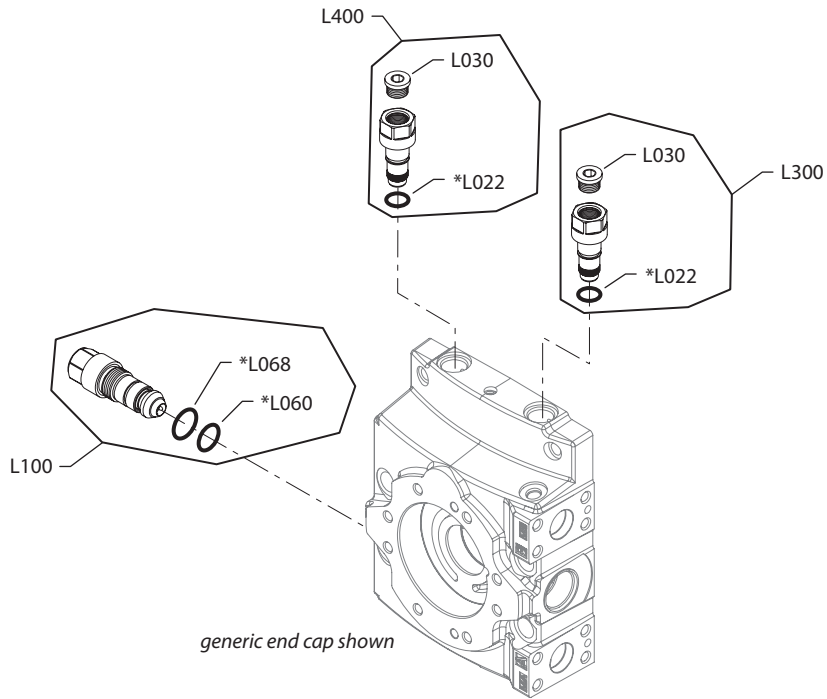

Variable displacement pump
High pressure setting, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	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
L35	L100	07-14		11049129	High pressure relief valve, 400 bar	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
L38	L100	07-14		11049130	High pressure relief valve, 420 bar	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
L40	L100	07-14		11049131	High pressure relief valve, 450 bar	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
L41	L100	07-14		11049131	High pressure relief valve, 450 bar	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
L42	L100	07-14		11049131	High pressure relief valve, 450 bar	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
L43	L100	07-14		11049132	High pressure relief valve, 480 bar	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
L44	L100	07-14		11049132	High pressure relief valve, 480 bar	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
L45	L100	07-14		11049132	High pressure relief valve, 480 bar	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
L46	L100	07-14		11049133	High pressure relief valve, 510 bar	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
L47	L100	07-14		11049133	High pressure relief valve, 510 bar	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
L48	L100	07-14		11049133	High pressure relief valve, 510 bar	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

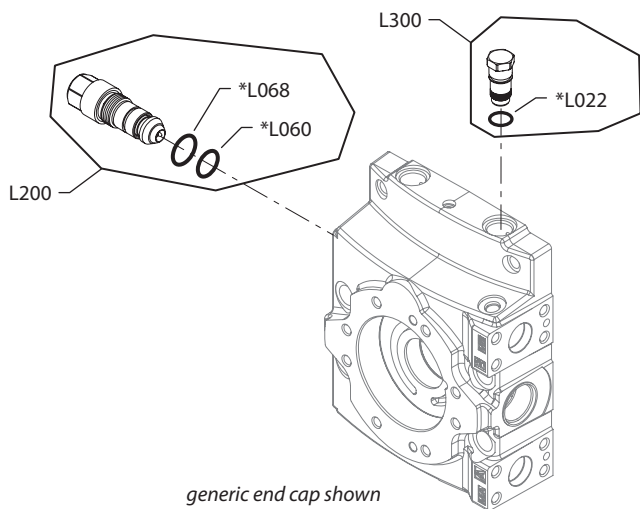


Variable displacement pump

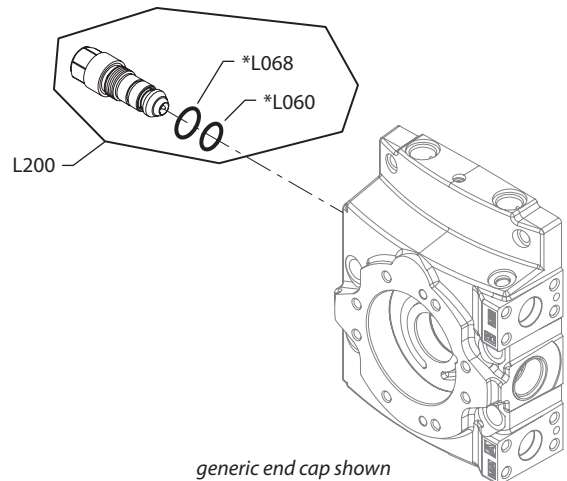
(S45)



(F01 - F04)



(J45)



E103 395E

* = included in overhaul seal kit Q210



Variable displacement pump

High pressure setting, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
S45	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

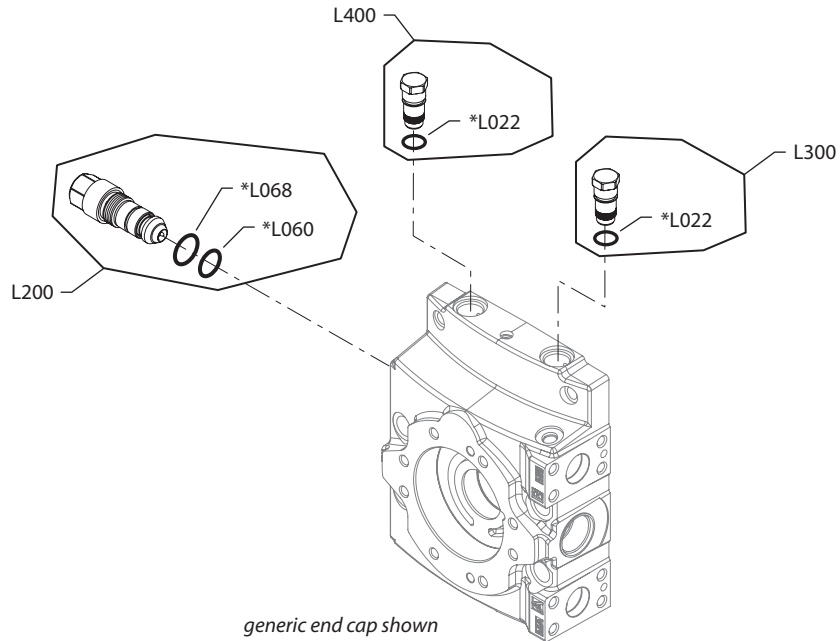
High pressure setting, port B

F01	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
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
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
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
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



Variable displacement pump

(K18 - K43)



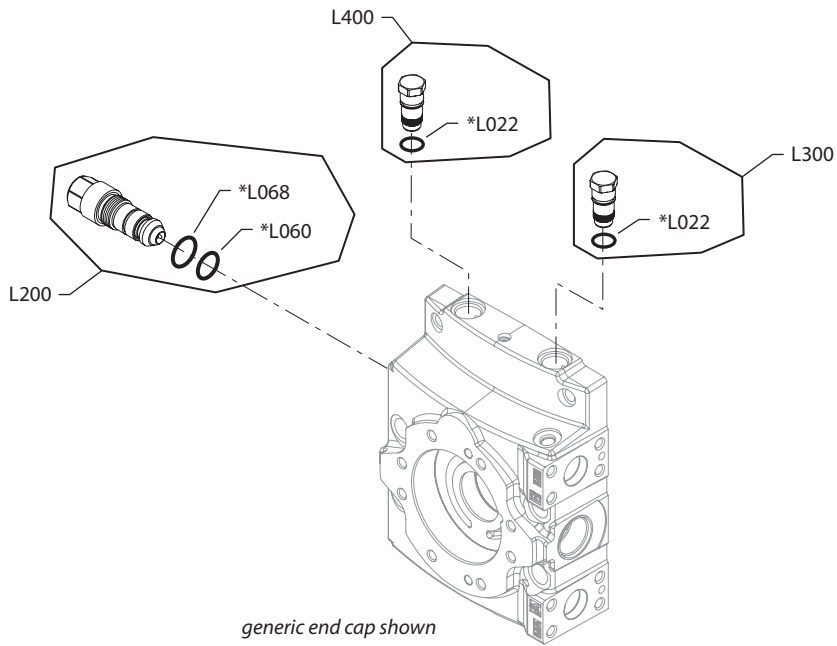

Variable displacement pump
High pressure setting, port B

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	07-14		504207	O-ring	1
	L060	07-14		365023	O-ring	1
	L068	07-14		11052201	O-ring	1
K18	L200	07-14		11049120	High pressure relief valve, 180 bar	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
K20	L200	07-14		11049121	High pressure relief valve, 200 bar	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
K23	L200	07-14		11049122	High pressure relief valve, 230 bar	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
K25	L200	07-14		11049123	High pressure relief valve, 250 bar	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
K28	L200	07-14		11049124	High pressure relief valve, 280 bar	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
K30	L200	07-14		11049125	High pressure relief valve, 300 bar	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
K33	L200	07-14		11049126	High pressure relief valve, 330 bar	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
K35	L200	07-14		11049127	High pressure relief valve, 350 bar	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
K38	L200	07-14		11049128	High pressure relief valve, 380 bar	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
K40	L200	07-14		11049129	High pressure relief valve, 400 bar	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
K42	L200	07-14		11049130	High pressure relief valve, 420 bar	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
K43	L200	07-14		11166242	High pressure relief valve, 430 bar	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

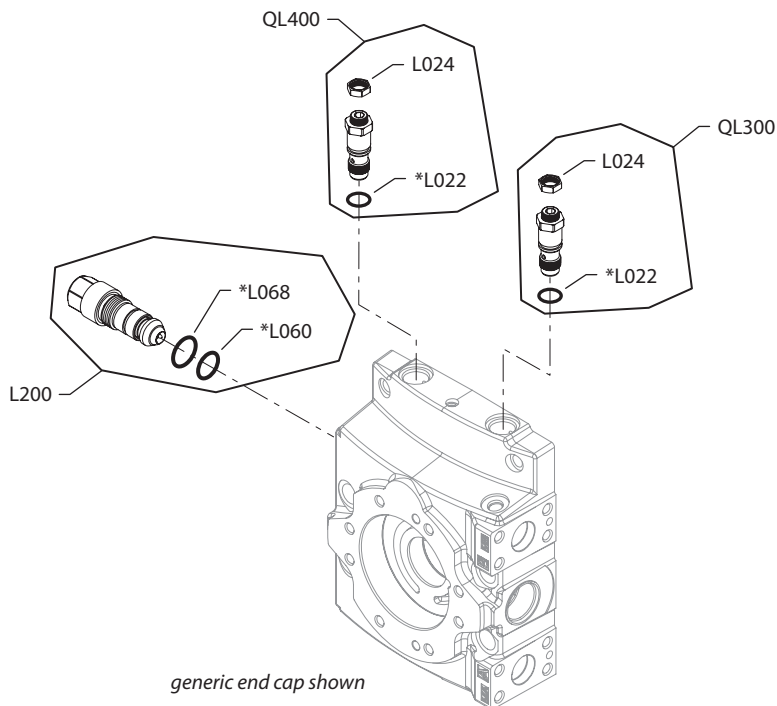


Variable displacement pump

(K45 & K48)



(L15 -L31)



E101 967E

* = included in overhaul seal kit Q210

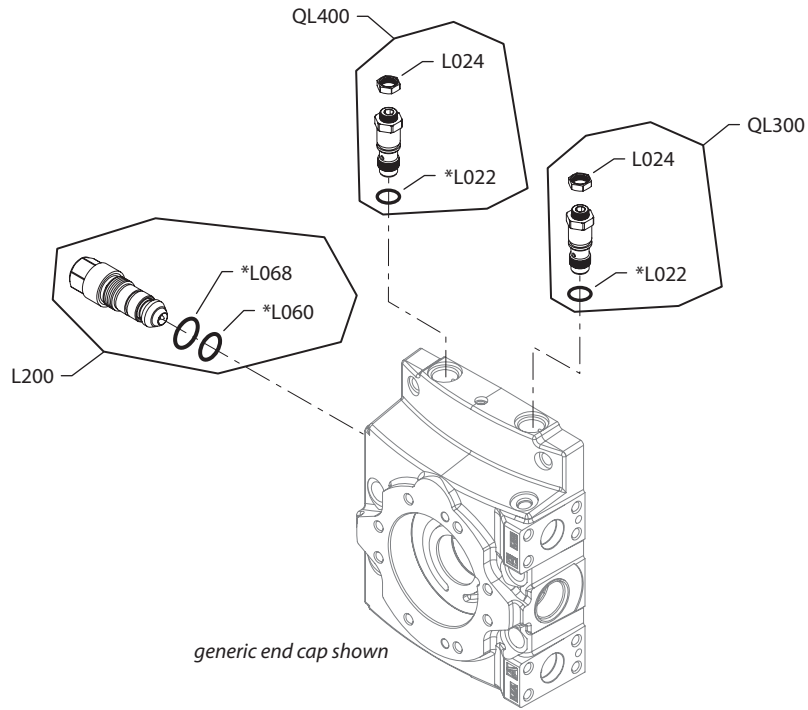

Variable displacement pump
High pressure setting, port B

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	07-14		041152	O-ring	1
	L060	07-14		365023	O-ring	1
	L068	07-14		11052201	O-ring	1
K45	L200	07-14		11049131	High pressure relief valve, 450 bar	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
K48	L200	07-14		11049132	High pressure relief valve, 480 bar	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
L15	L024	07-14		11054668	Nut	1
	L200	07-14		11049121	High pressure relief valve, 200 bar	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
L18	L024	07-14		11054668	Nut	1
	L200	07-14		11049122	High pressure relief valve, 230 bar	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
L20	L024	07-14		11054668	Nut	1
	L200	07-14		11049123	High pressure relief valve, 250 bar	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
L23	L024	07-14		11054668	Nut	1
	L200	07-14		11049124	High pressure relief valve, 280 bar	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
L25	L024	07-14		11054668	Nut	1
	L200	07-14		11049125	High pressure relief valve, 300 bar	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
L28	L024	07-14		11054668	Nut	1
	L200	07-14		11049126	High pressure relief valve, 330 bar	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
L30	L024	07-14		11054668	Nut	1
	L200	07-14		11049127	High pressure relief valve, 350 bar	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
L31	L024	07-14		11054668	Nut	1
	L200	07-14		11049128	High pressure relief valve, 350 bar	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



Variable displacement pump

(L33 - L45)





Variable displacement pump

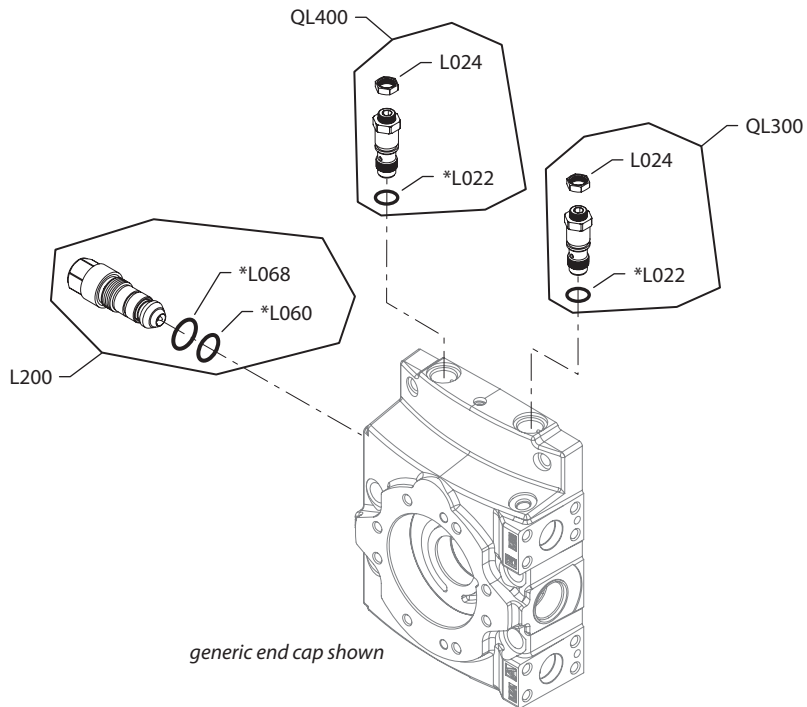
High pressure setting, port B

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	07-14		041152	O-ring	1
	L060	07-14		365023	O-ring	1
	L068	07-14		11052201	O-ring	1
L33	L024	07-14		11054668	Nut	1
	L200	07-14		11049128	High pressure relief valve, 380 bar	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
L35	L024	07-14		11054668	Nut	1
	L200	07-14		11049129	High pressure relief valve, 400 bar	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
L38	L024	07-14		11054668	Nut	1
	L200	07-14		11049130	High pressure relief valve, 420 bar	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
L40	L024	07-14		11054668	Nut	1
	L200	07-14		11049131	High pressure relief valve, 450 bar	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
L41	L024	07-14		11054668	Nut	1
	L200	07-14		11049131	High pressure relief valve, 450 bar	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
L42	L024	07-14		11054668	Nut	1
	L200	07-14		11049131	High pressure relief valve, 450 bar	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
L43	L024	07-14		11054668	Nut	1
	L200	07-14		11049132	High pressure relief valve, 480 bar	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
L44	L024	07-14		11054668	Nut	1
	L200	07-14		11049132	High pressure relief valve, 480 bar	1
	QL300	07-14		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	07-14		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L45	L024	07-14		11054668	Nut	1
	L200	07-14		11049132	High pressure relief valve, 480 bar	1
	QL300	07-14		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	07-14		11050482	Pressure limiter, adjustable, CCW rotation pump	1

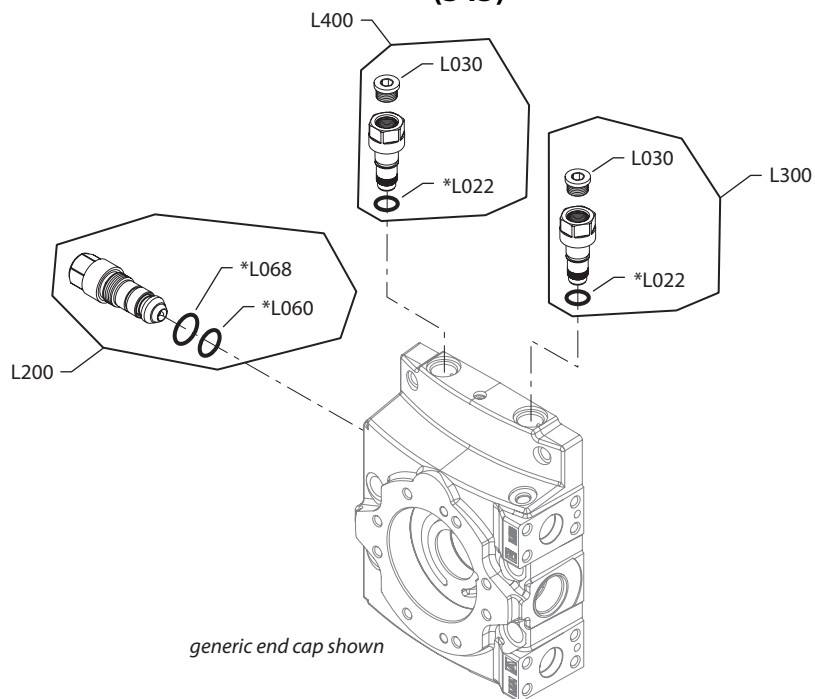


Variable displacement pump

(L47 - L48)



(S45)



E101 909E

* = included in overhaul seal kit Q210



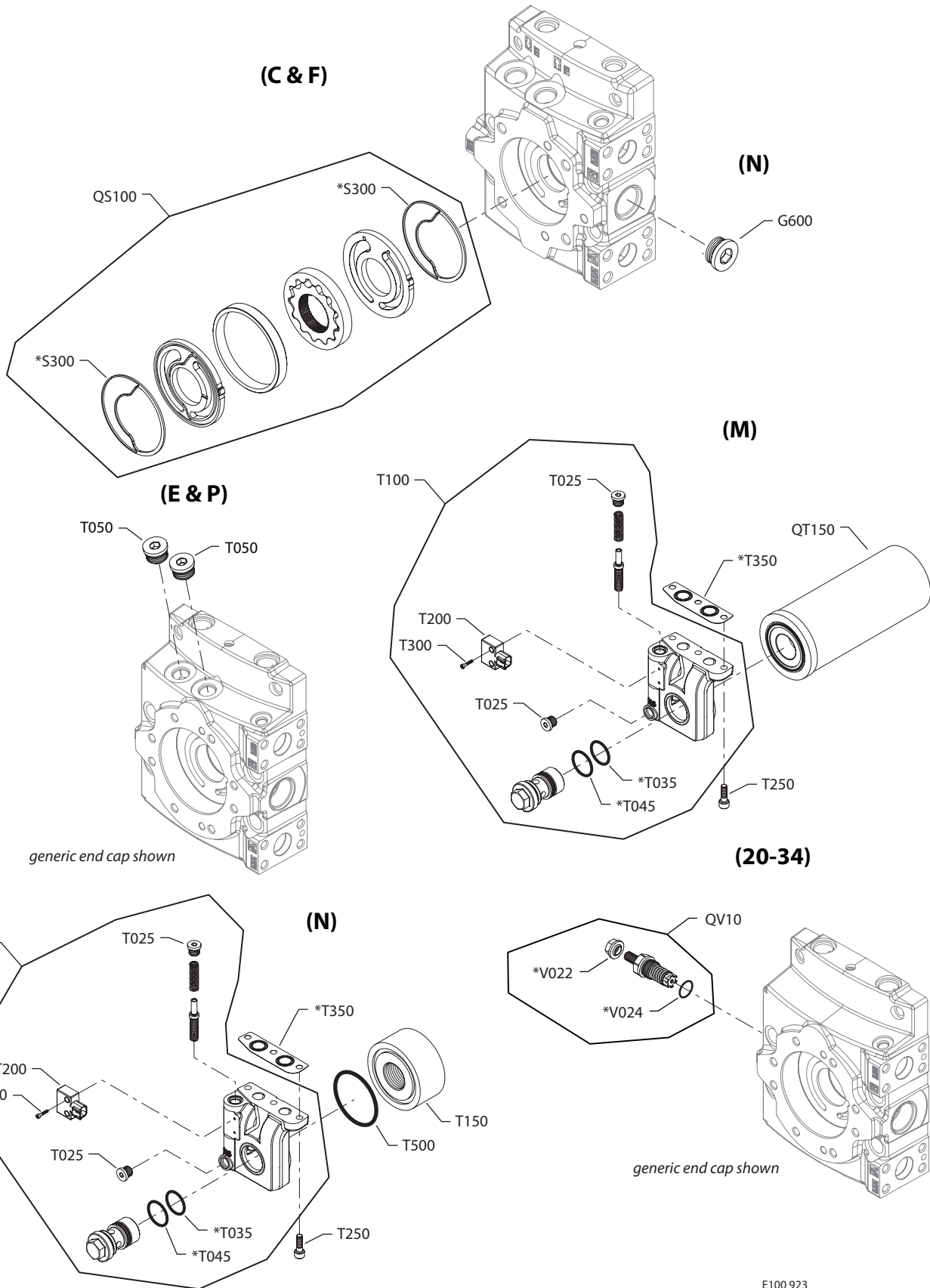
Variable displacement pump

High pressure setting, port B

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	07-14		041152	O-ring	1
	L060	07-14		365023	O-ring	1
	L068	07-14		11052201	O-ring	1
L46	L024	07-14		11054668	Nut	1
	L200	07-14		11049133	High pressure relief valve, 510 bar	1
	QL300	07-14		11050482	Pressure limiter, adjustable,CW rotation pump	1
	QL400	07-14		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L47	L024	07-14		11054668	Nut	1
	L200	07-14		11049133	High pressure relief valve, 510 bar	1
	QL300	07-14		11050482	Pressure limiter, adjustable,CW rotation pump	1
	QL400	07-14		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L48	L024	07-14		11054668	Nut	1
	L200	07-14		11049133	High pressure relief valve, 510 bar	1
	QL300	07-14		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	07-14		11050482	Pressure limiter, adjustable, CCW rotation pump	1
S45	L030	15-05		140644	Plug assembly	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



Variable displacement pump



E100 923

* = included in overhaul seal kit Q210


Variable displacement pump
Charge pump

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C	QS100	07-14		11008684	Charge pump kit, 17 cc	1
	S300	07-14		11126777	Seal ring (SB-2013-019)	2
F	QS100	07-14		11008685	Charge pump kit, 14 cc	1
	S300	07-14		11126777	Seal ring (SB-2013-019)	2
N	G600	07-14		320002 (9005110-9200)	Plug assembly	1

Filtration

E	T050	07-14		315325 (9005110-8700)	Plug assembly	2
L		07-14		None		
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
	N	T025	09-27		141269	Plug assembly
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
P	T050	07-14		315325 (9005110-8700)	Plug assembly	2

Charge pressure relief

20-22	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
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


Variable displacement pump
Overhaul seal kit

Order Code	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



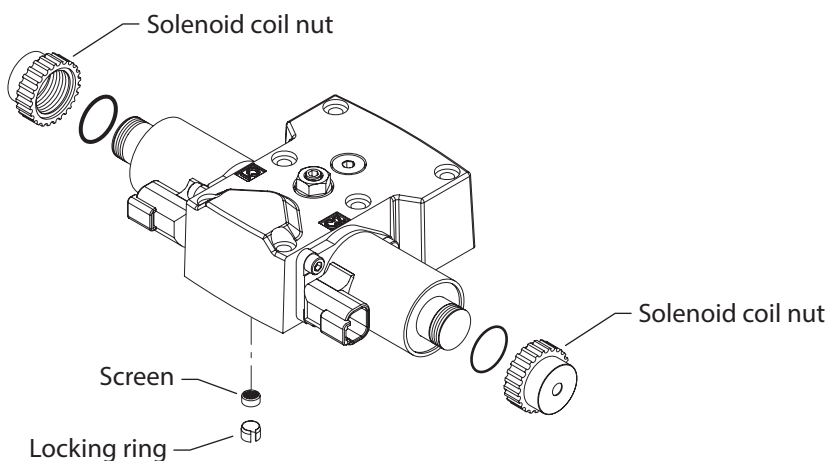
Service Bulletin: SB-2012-014

Products affected H1 pumps

Subject Control solenoid nut and screen locking ring

Description As a product improvement, Sauer-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

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

Description	Part number
Locking ring	11012505

Parts disposition

- Interchangeable
- Use parts in stock

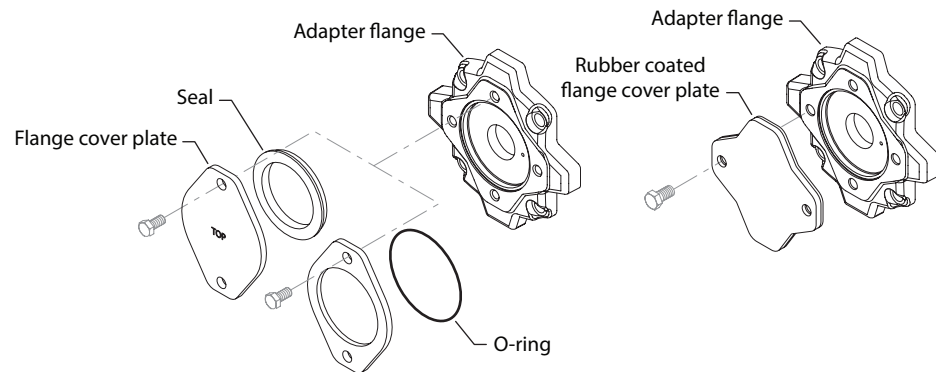


Service Bulletin: SB-2008-038

Products affected H1 pumps

Subject Rubber coated auxiliary flange cover

Description Sauer-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 53 cc	A	Cover plate	4460586	11017125
		Seal	4800482	
78 cc	A	Cover plate	9802336	11017125
		O-ring	9004104-1520	
147 and 165 cc	A	Cover plate	9802336	11017125
		O-ring	9004104-1520	
45 and 53 cc	B	Cover plate	8801059	11023746
		Seal	8801061	
78 cc	B	Cover plate	4460370	11023746
		O-ring	9004104-1540	
147 and 165 cc	B	Cover plate	4460370	11023747
		O-ring	9004104-1540	
78 cc	C	Cover plate	8800406	11023750
		O-ring	9004104-1580	
147 and 165 cc	C	Cover plate	8800406	11023748
		O-ring	9004104-1580	
147 and 165 cc	D	Cover plate	338400	11023751
		O-ring	726927	

Parts disposition ■ Interchangeable



Service Bulletin: SB-2008-040

Products affected

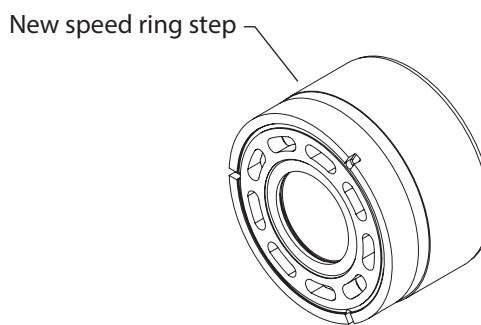
H1 78, 115 and 130 cc pumps

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.



Models affected

All H1 78, 115 and 130 cc 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 oarts in stock
- Order replacement parts
- Revise existing part orders



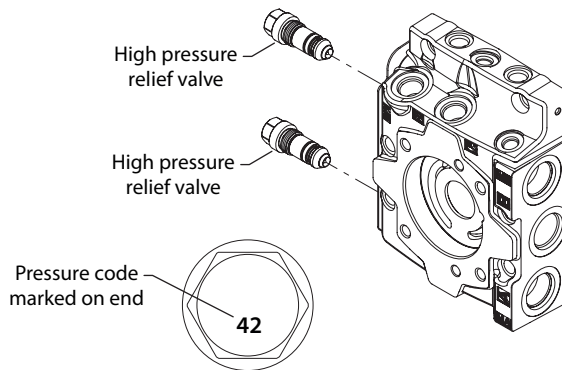
Service Bulletin: SB-2009-007

Products affected H1 45 thru 100 cc pumps

Subject High pressure relief valve

Description As a continuous improvement, Sauer-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 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
11006819	11049125	300 bar
11006814	11049121	200 bar
11006818	11049124	280 bar

Parts disposition ■ Interchangeable

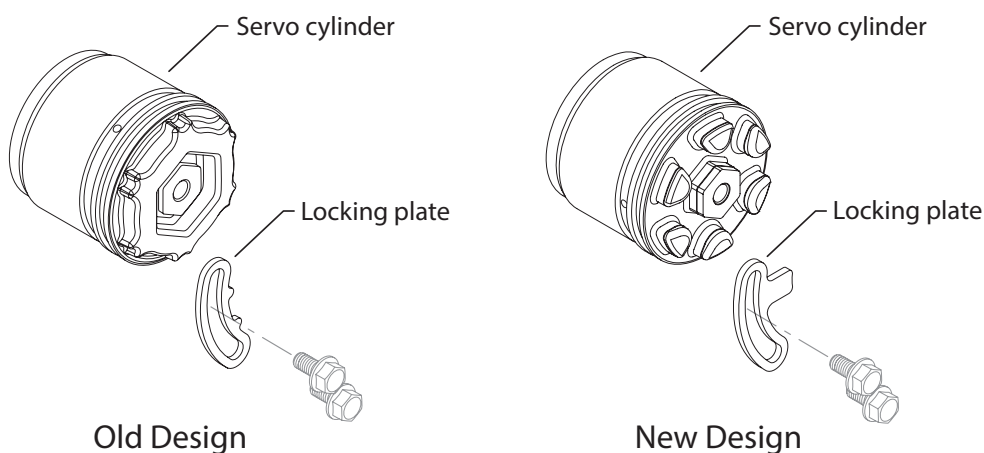


Service Bulletin: SB-2009-046

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

Subject Servo cylinder and locking plate design change

Description As a product improvement, Sauer-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 and 165cc pumps.

Serial numbers This change became effective at serial number:

78 cc pumps	N-10-29-xxxxx (21 July 2010)
115/130 cc pumps	N-10-35-xxxxx (30 August 2010)
147/165 cc pumps	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

Parts disposition ■ Interchangeable - only if both parts are replaced together



Service Bulletin: SB-2009-068

Products affected

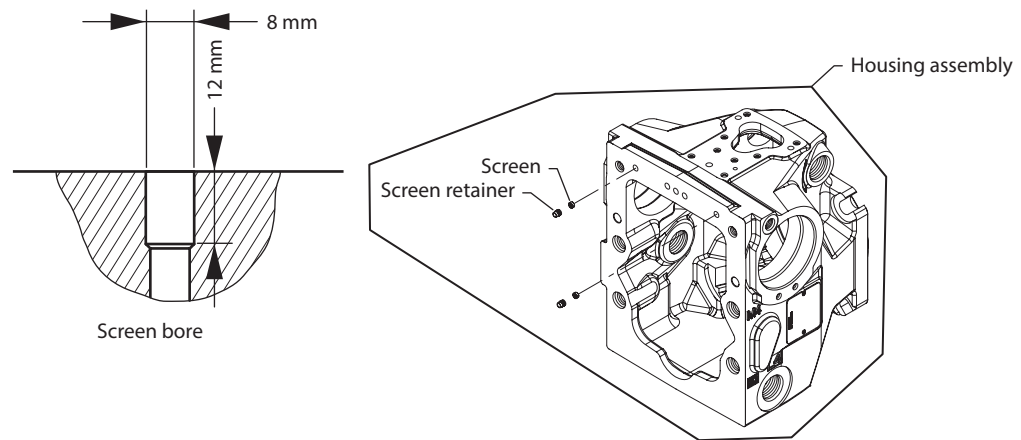
H1 78, 115/130 and 147/165 cc pumps

Subject

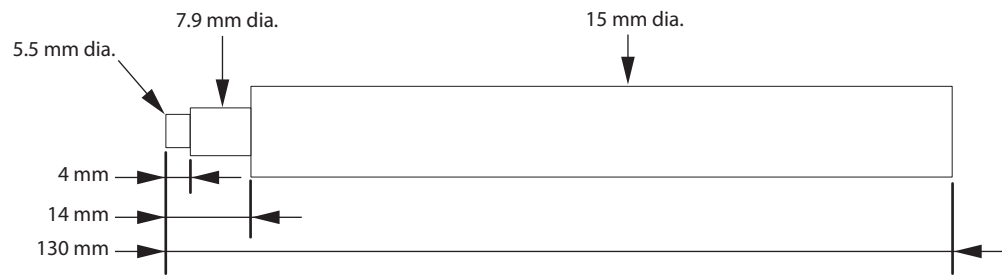
Change to the design of servo screen retention in pump housing.

Description

Sauer-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.



Installation tool





Service Bulletin: SB-2009-068

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

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
- 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 drian 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 oarts in stock
- Order replacement parts
- Rework housing parts in stock
- Revise existing part orders

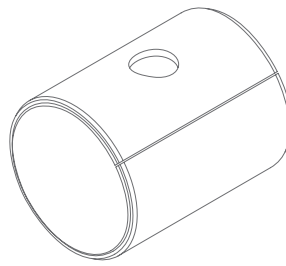


Service Bulletin: SB-2012-009

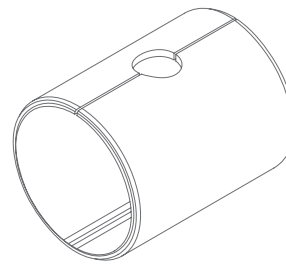
Products affected H1 069/078 and 089/100 cc pumps

Subject Journal bearing design change

Description As a product improvement and part commonality between models, Sauer-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

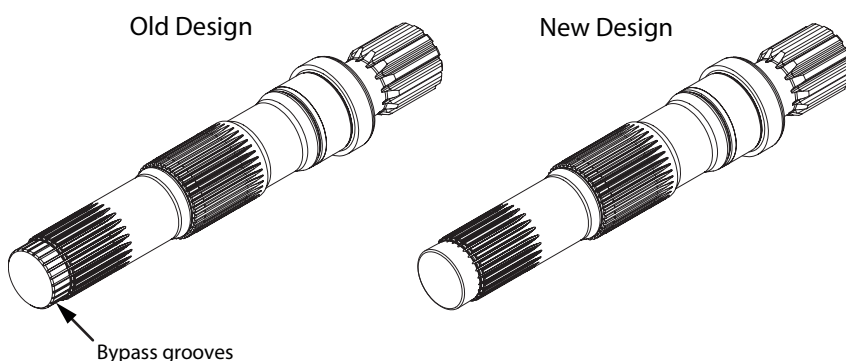


Service Bulletin: SB-2012-015

Products affected H1 78 cc pumps

Subject Shaft change

Description Sauer-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	Affectivity 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 Bulletin: SB-2012-038

Products affected

H1 78 cc pumps

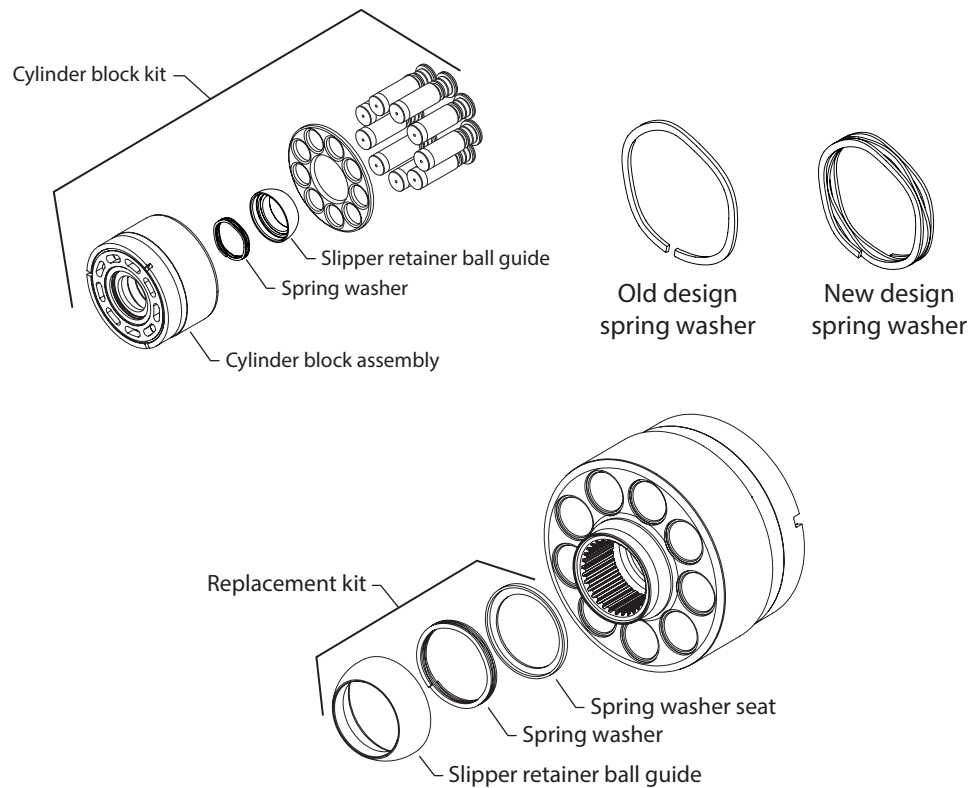
Subject

Cylinder block spring washer change

Description

As a product improvement, the cylinder block kit on H1 078cc pumps has been redesigned. The cylinder block, spring washer and slipper retainer ball guide have been changed.

The new parts are not interchangeable with the old parts, and the old parts are no longer available. The cylinder block kit part number has not changed. If an old cylinder block is needed, a new cylinder block kit must be used. If an old spring washer or slipper retainer ball guide is needed, the replacement kit must be used. Replacement kit includes a spring washer seat, which is necessary when using with an old cylinder block.



Models affected

H1 78cc pumps

Serial numbers

This change became effective at serial number N-11-41-xxxxx. (10 October 2012)

Part numbers affected

Description	Old part number	Replacement kit
Slipper retainer ball guide	140769	11091044
Spring washer	140775	11091044
Cylinder block kit, 78cc	140768/P	no change
Cylinder block kit, 78cc, speed ring	11011746	no change

Parts disposition

- Non-interchangeable
- Use parts in stock

Service Bulletin: SB-2013-003
Products affected

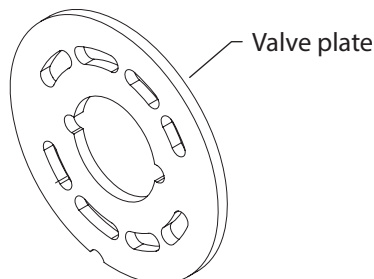
H1 pumps

Subject

Valve plate change

Description

As part of continuing product improvement efforts, Sauer-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 thru 165cc pumps.

Serial numbers

see table below

Part numbers affected

Description	Old part number	New part number	Affectivity 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)
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

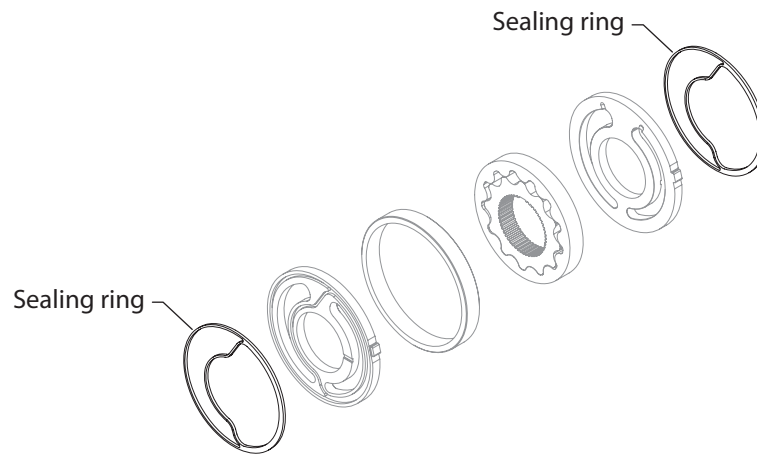


Service Bulletin: SB-2013-019

Products affected H1 pumps

Subject Charge pump seal

Description As a product improvement, Sauer-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

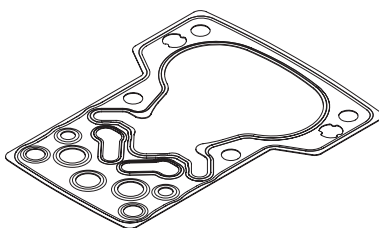


Service Bulletin: SB-2016-033

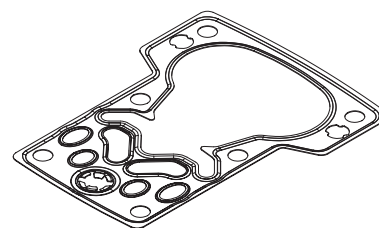
Products affected H1 pumps and tandems, MP1 and M46 control kits

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 and 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 - may substitute new for old



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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 4444

Danfoss Power Solutions
Building #22, No. 1000 Jin Hai Rd
Jin Qiao, Pudong New District
Shanghai, China 201206
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