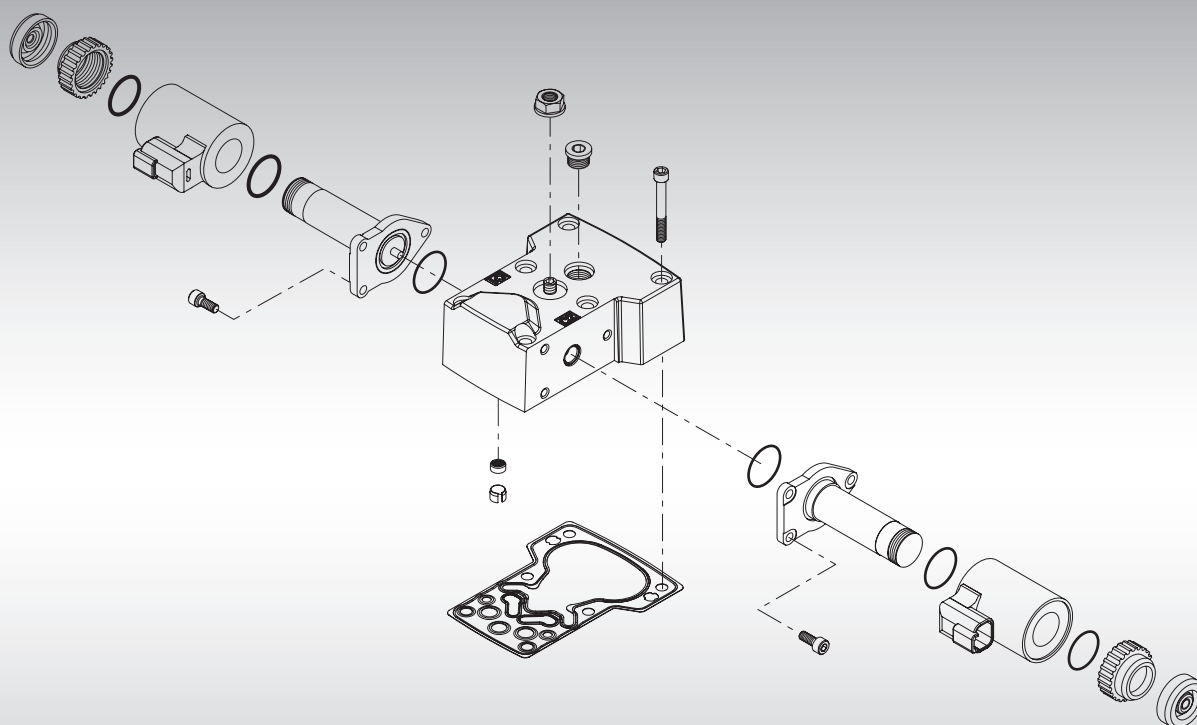




Parts Manual

H1P 89 & 100cc 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 89 and 100cc 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 89 and 100cc 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 H1P89R A A2 C2 N D8 H G9 H2 L 45 L 45 M P 24 PN NNN 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 "G9". (H1P89R A A2 C2 N D8 H G9 H2 L 45 L 45 M P 24 PN NNN NNN)

2) Referring to the Service Parts List, find the shaft group. Next find the order code that relates to this unit, which is "G9". The shaft is found to be item J100 and part number 11112180.

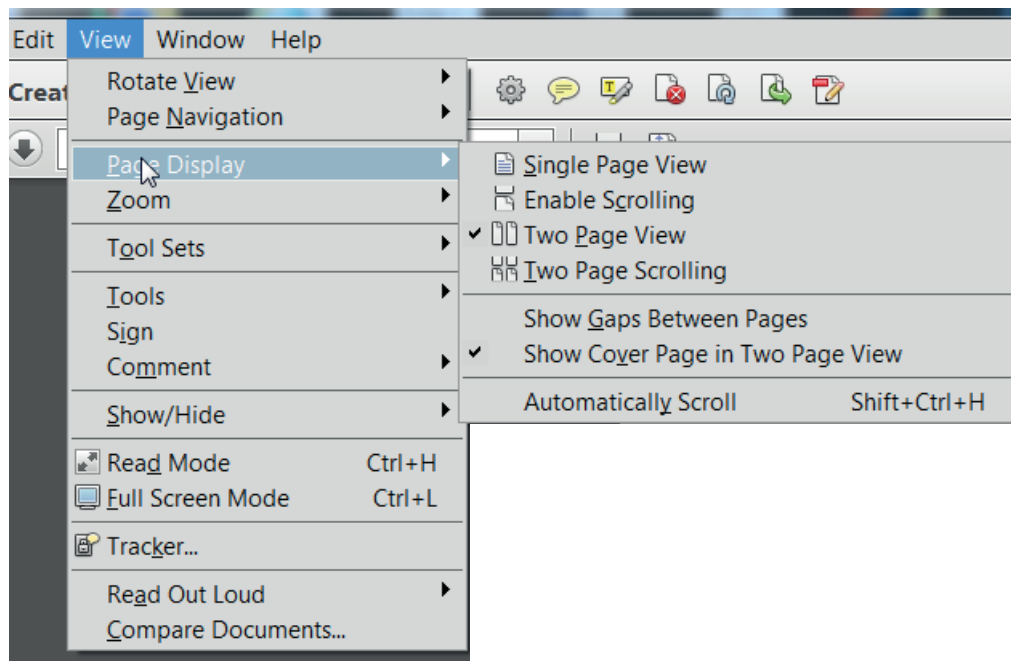


Adobe Acrobat 2-page viewing

Adobe Acrobat 2-page viewing

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

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

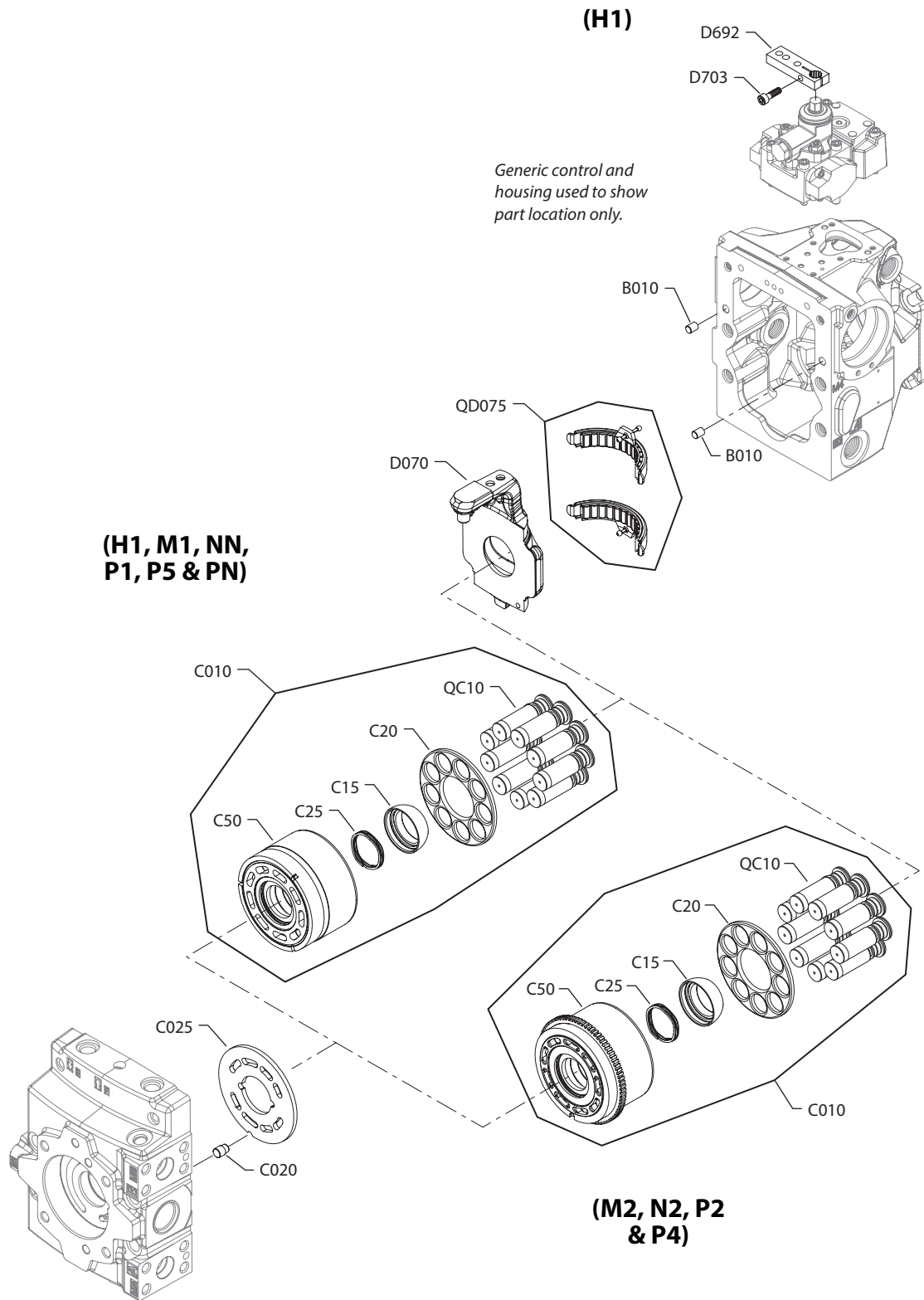


Order code

Series	Product Type	Frame Size	Product Version	Port Configuration	D	F	E	G	H	J	K	M	N	S	T	V	W	X	Y	
H1	P	089	R	A	A	A2	C2	N	D8	H	G9	H2	L45	L45	M	P	24	PN	NNN	NNN
					Rotation															
					Control															
					Orifice															
					Displacement limitation															
					End cap															
					Mounting flange															
					Input shaft															
					Auxiliary mounting															
					High pressure setting, port A															
					High pressure setting, port B															
					Charge pump															
					Filtration															
					Charge relief pressure setting															
					Special hardware features															
					Paint and nametag															
					Settings															

P107 991E

Variable displacement pump



Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Common parts

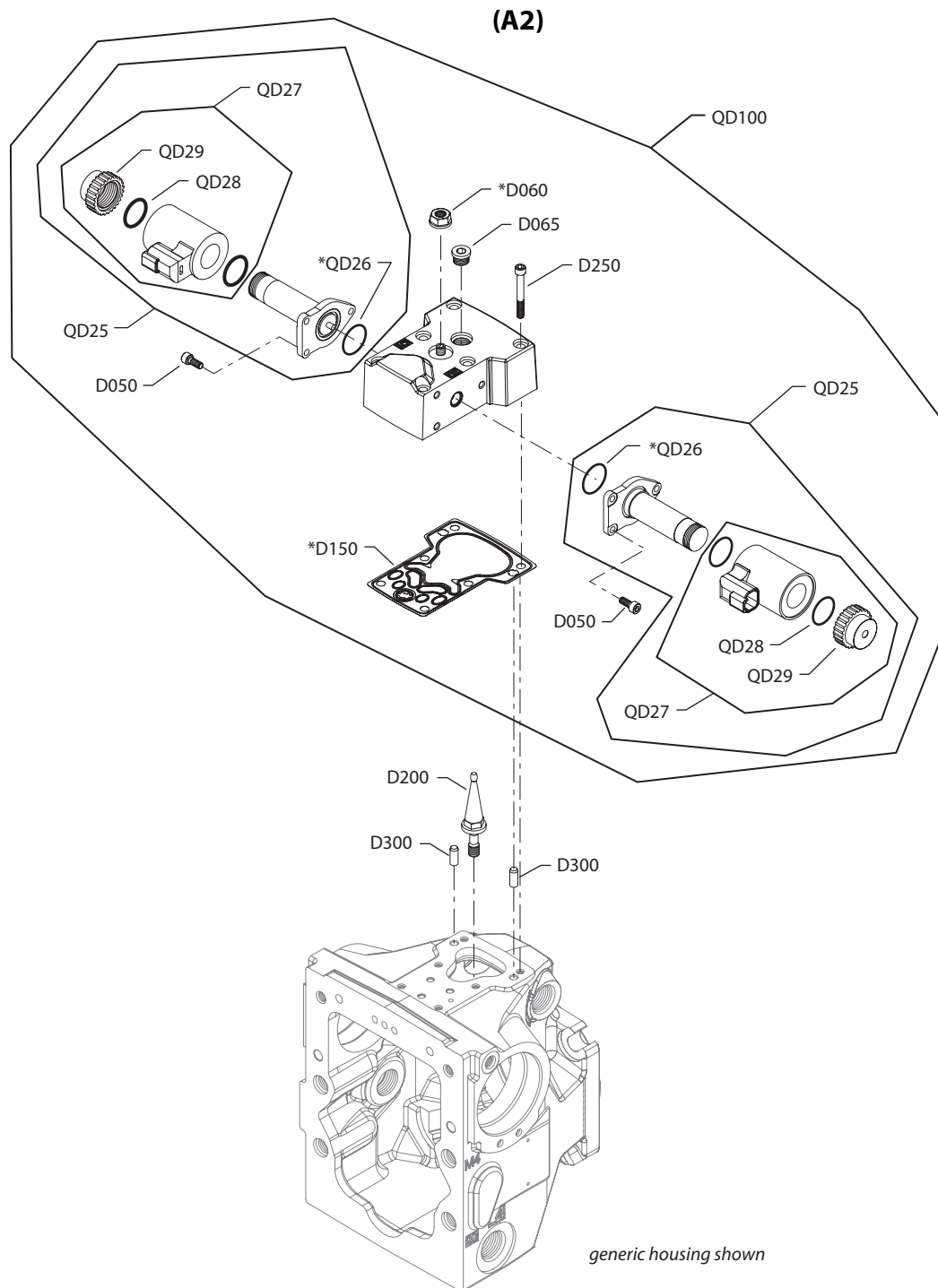
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	B010	09-27		9004800-3708	Dowel pin	2
	C020	09-27		141128	Valve plate pin, CCW	1
	C020	09-27		141126	Valve plate pin, CW	1
	C15	09-27		11121503	Slipper retainer ball guide	1
	C20	09-27		11008582	Slipper retainer	1
	C25	09-27		11175203	Spring washer	1
	D070	09-27		11085338	Swashplate	1
	QC10	09-27		11039954	Slipper/piston kit, 89 cc	1
	QC10	09-27		11039961	Slipper/piston kit, 100 cc	1
	QD075	09-27		11039955	Swashplate bearing kit	1

Special hardware

M5	Replaced with option PN for pumps with EDC or FNR control, and replaced with option P1 for pump with NFPE control					
H1	C010	13-28		11008816	Cylinder block kit, 89 cc	1
	C010	13-28		11008576	Cylinder block kit, 100 cc	1
	C025	13-28		11125568	Valve plate, CCW	1
	C025	13-28		11125566	Valve plate, CW	1
	C50	13-28		11124486	Cylinder block, 89 cc	1
	C50	13-28		11124488	Cylinder block, 100 cc	1
	D692	13-28		11113513	Control handle	1
	D703	13-28		041160 (9007314-0605)	Screw, M6 x 20	1
M1 & P1	C010	09-51		11008816	Cylinder block kit, 89 cc	1
	C010	09-51		11008576	Cylinder block kit, 100 cc	1
	C025	09-51		11125565	Valve plate, CCW (SB-2013-003)	1
	C025	09-51		11125567	Valve plate, CW (SB-2013-003)	1
	C50	09-51		11124486	Cylinder block, 89 cc	1
	C50	09-51		11124488	Cylinder block, 100 cc	1
M2, N2, P2	C010	09-51		11040198	Cylinder block kit with speed ring, 89 cc	1
	C010	09-51		11040203	Cylinder block kit with speed ring, 100 cc	1
	C025	09-51		11125565	Valve plate, CCW (SB-2013-003)	1
	C025	09-51		11125567	Valve plate, CW (SB-2013-003)	1
	C50	09-51		11124487	Cylinder block with speed ring, 89 cc	1
	C50	09-51		11124489	Cylinder block with speed ring, 100 cc	1
P4	C010	10-37		11040198	Cylinder block kit with speed ring, 89 cc	1
	C010	09-51		11040203	Cylinder block kit with speed ring, 100 cc	1
	C025	09-51		11125568	Valve plate, CCW (SB-2013-003)	1
	C025	09-51		11125566	Valve plate, CW (SB-2013-003)	1
	C50	09-51		11124487	Cylinder block with speed ring, 89 cc	1
	C50	09-51		11124489	Cylinder block with speed ring, 100 cc	1
NN & PN	C010	09-51		11008816	Cylinder block kit, 89 cc	1
	C010	09-51		11008576	Cylinder block kit, 100 cc	1
	C025	09-51		11125568	Valve plate, CCW (SB-2013-003)	1
	C025	09-51		11125566	Valve plate, CW (SB-2013-003)	1
	C50	09-51		11124486	Cylinder block, 89 cc	1
	C50	09-51		11124488	Cylinder block, 100 cc	1



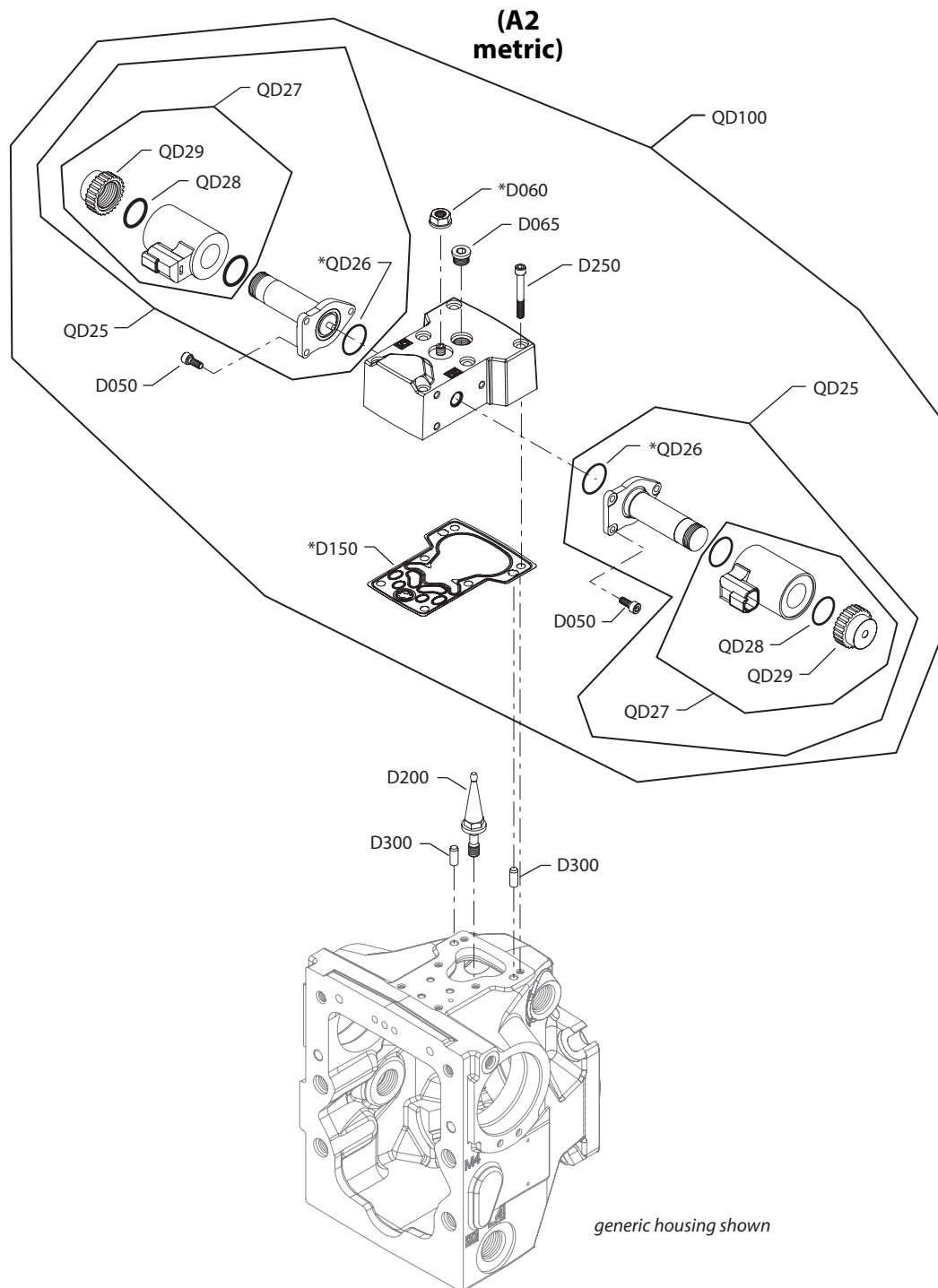
Variable displacement pump



Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A2	D050	09-27		716860	Screw, M5 x 12	6
	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D065	09-27		140642	Plug assembly	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		11148827	Swashplate feedback link	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		11012457	Proportional solenoid, 12V	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11028018	Coil kit, 12V, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11027046	Coil nut	2
	QD100	09-27		11019680	EDC kit, 12V, Deutsch connector, fast	1

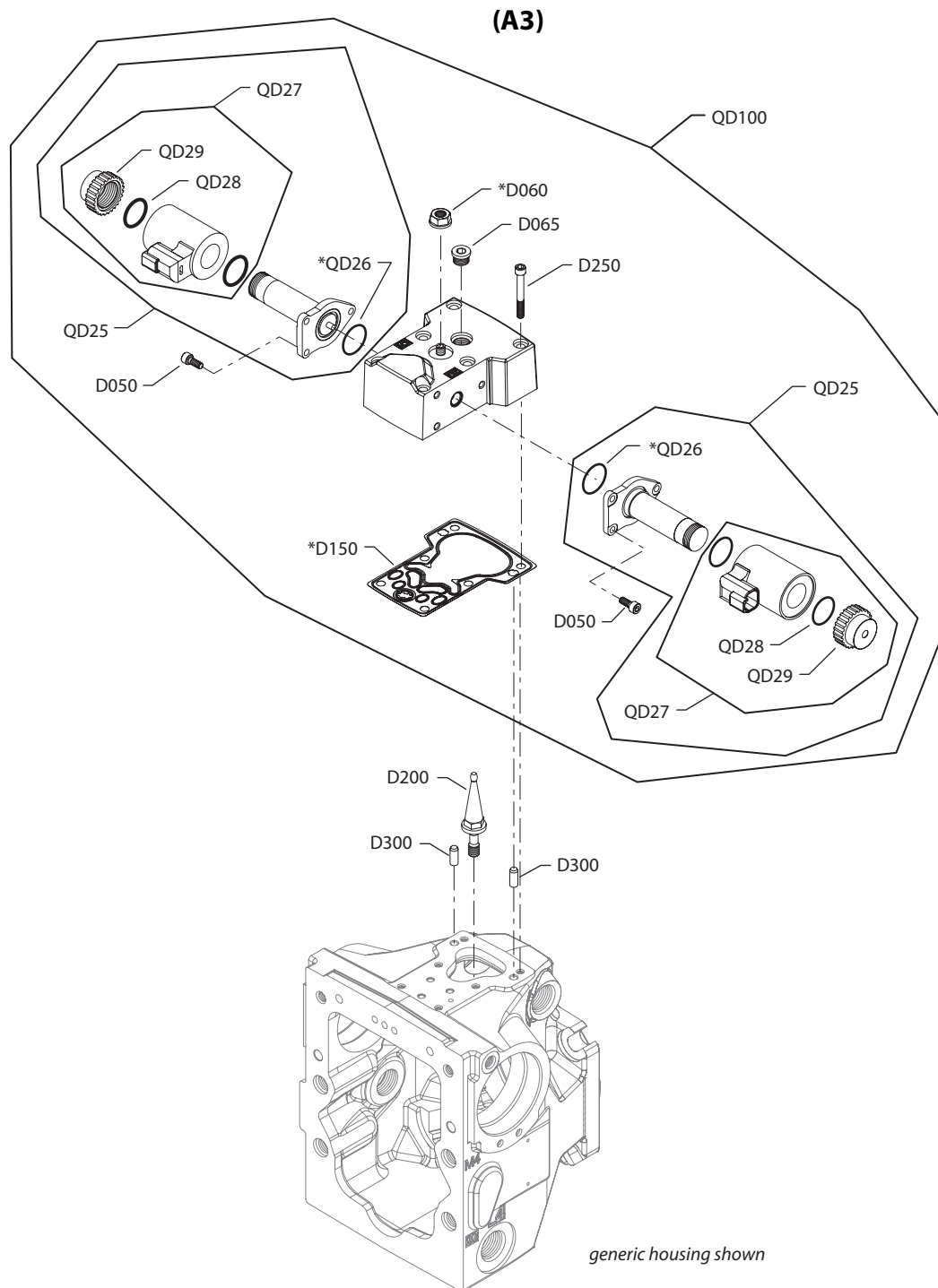
Variable displacement pump



Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A2	D050	09-27		716860	Screw, M5 x 12	6
(metric)	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D065	09-27		5000572	Plug assembly, M12	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		11148827	Swashplate feedback link	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		11012457	Proportional solenoid, 12V	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11028018	Coil kit, 12V, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11027046	Coil nut	2
	QD100	09-27		11173918	EDC kit, metric, 12V, Deutsch connector, fast	1

Variable displacement pump

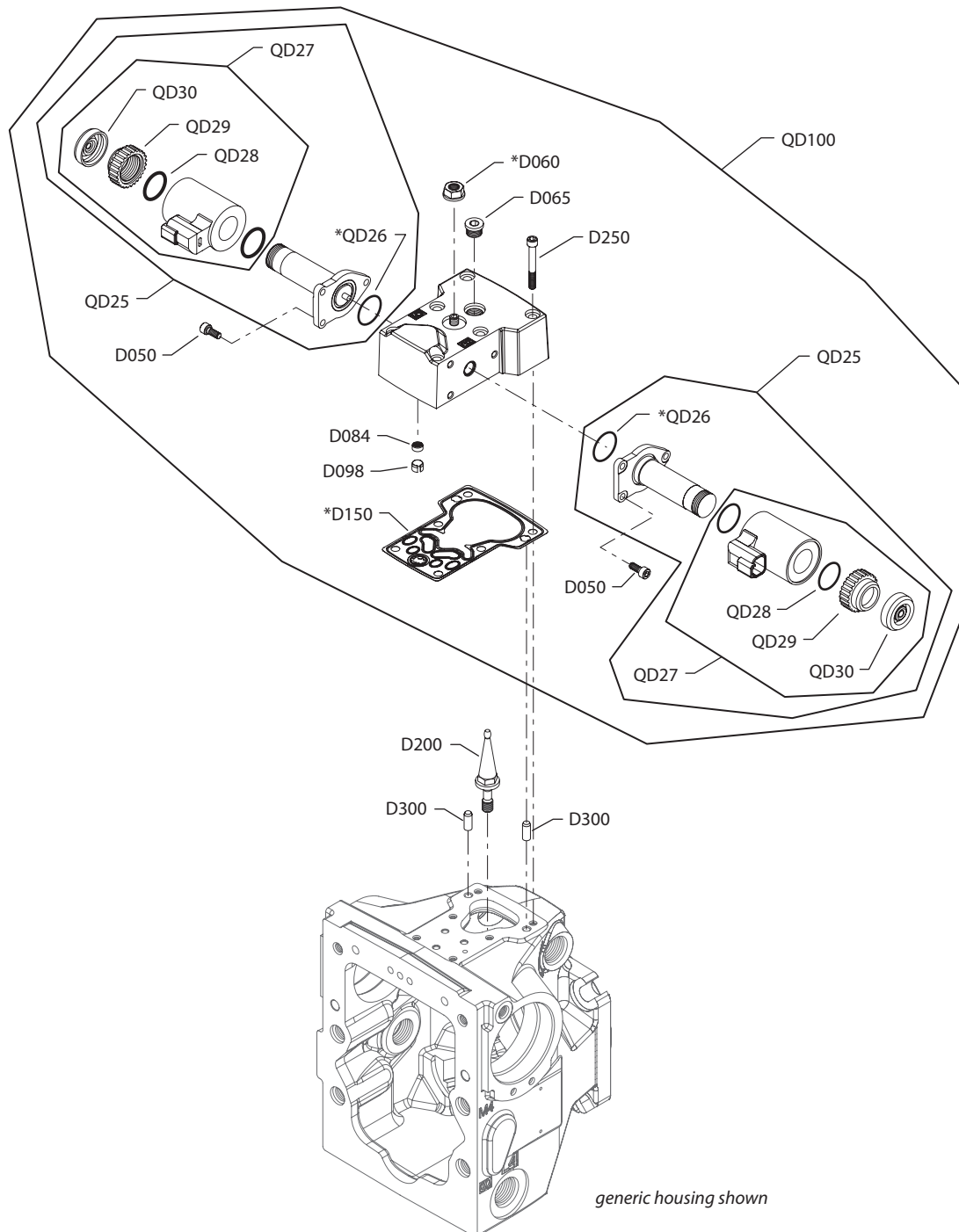


Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A3	D050	09-27		716860	Screw, M5 x 12	6
	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D065	09-27		140642	Plug assembly	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		11148827	Swashplate feedback link	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		11012459	Coil kit, 24V, Deutsch connector	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11028019	Coil kit, 24V, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11028024	Coil nut	2
	QD100	09-27		11019681	EDC kit, 24V, Deutsch connector, fast	1

Variable displacement pump

(A4 & A5)



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* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Control

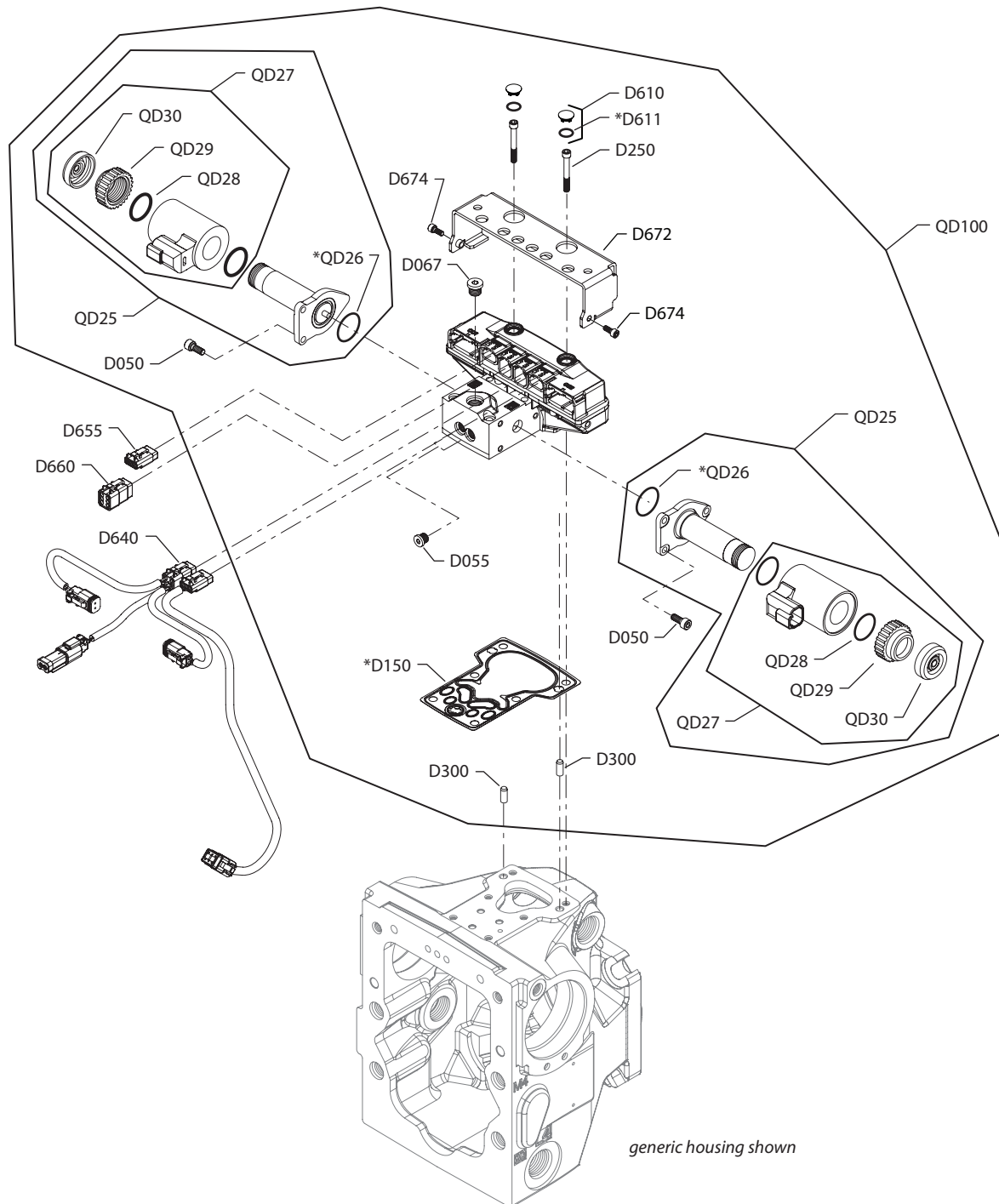
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A4	D050	09-27		716860	Screw, M5 x 12	6
	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D065	09-27		140642	Plug	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		11148827	Swashplate feedback link	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		140750	Proportional solenoid, 12v	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11004749	Coil nut	2
	QD30	09-27		11027883	Cap	2
	QD100	09-27		11019732	EDC kit, 12V, high gain spool, manual override	1
A5	D050	09-27		716860	Screw Screw, M5 x 12	6
	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D065	09-27		140642	Plug	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		11148827	Swashplate feedback link	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		140751	Proportional solenoid, 24v	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11004750	Coil nut	2
	QD30	09-27		11027883	Cap	2
	QD100	09-27		11019733	EDC kit, 24V, high gain spool, manual override	1

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)



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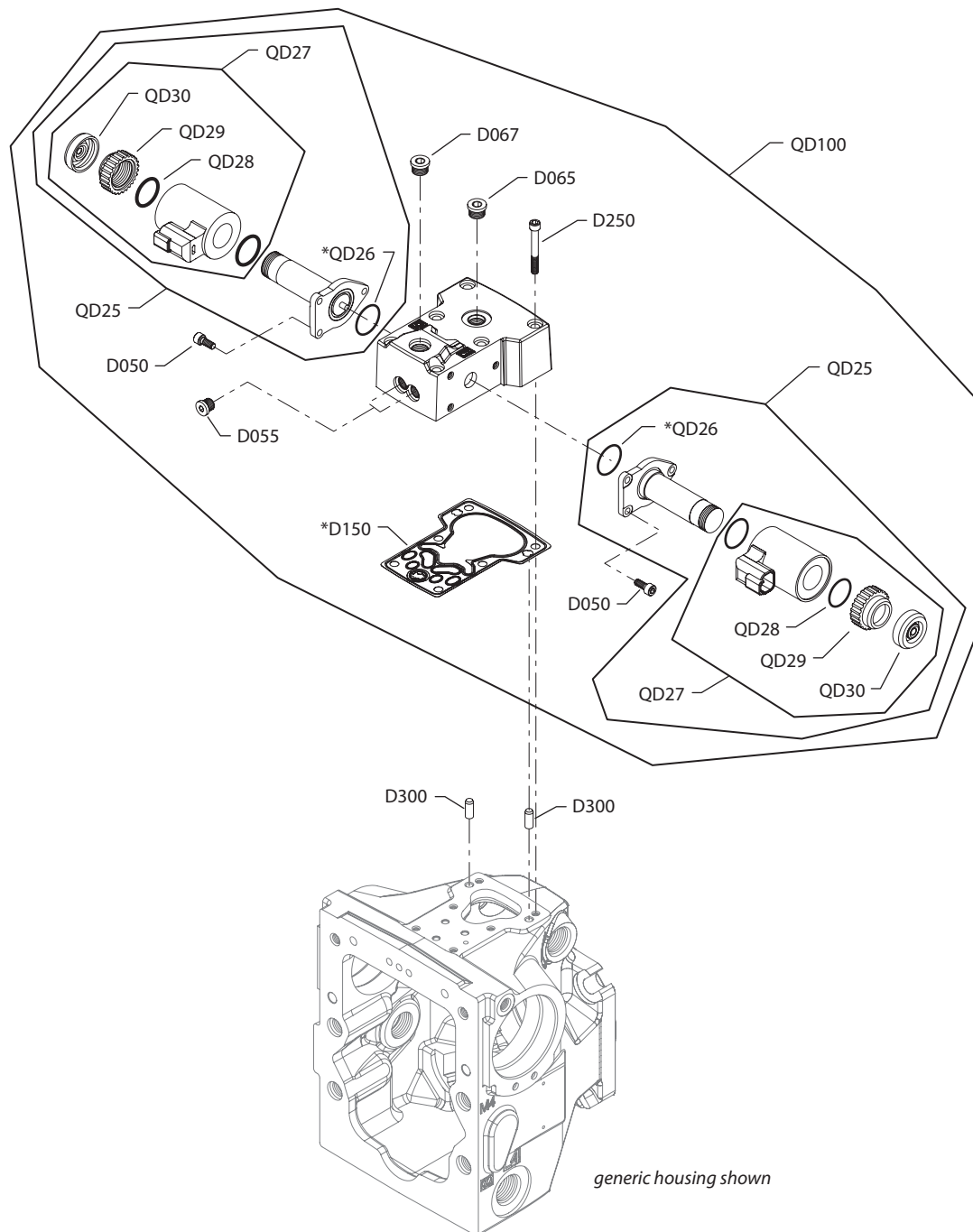
* = included in overhaul seal kit Q210

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

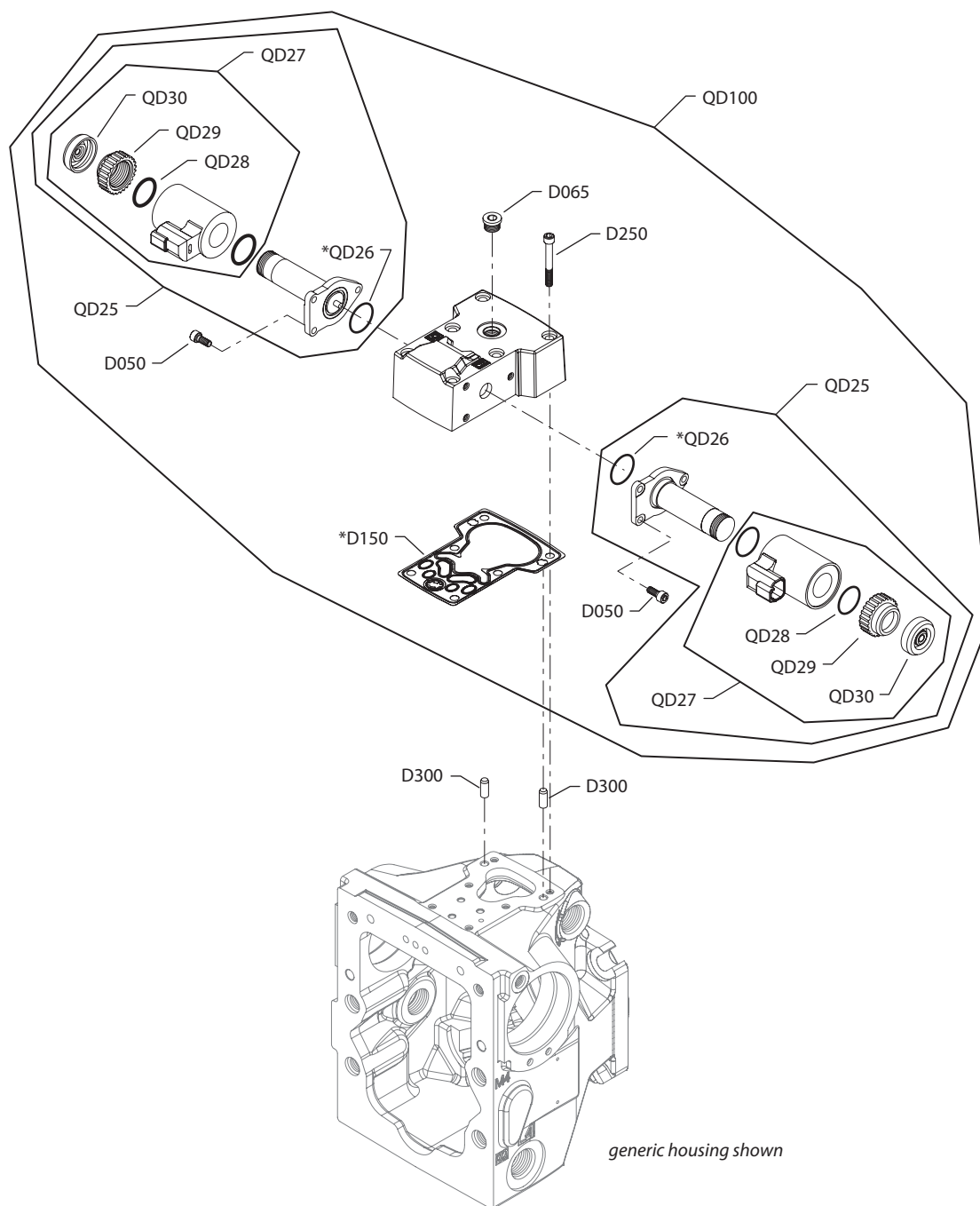
Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A8	D050	09-27		716860	Screw, M5 x 12	6
	D055	09-27		11040532	Plug assembly	2
	D065	09-27		140642	Plug	1
	D067	09-27		140642	Plug	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		140750	Proportional solenoid, 12v, Deutsch connector	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11004749	Coil nut	2
	QD30	09-27		11027883	Cap	2
	QD100	09-27		11015803	NFPE control kit, 12V, manual override, Deutsch conn.	1



Variable displacement pump

(A9 & B1)



E101 735E

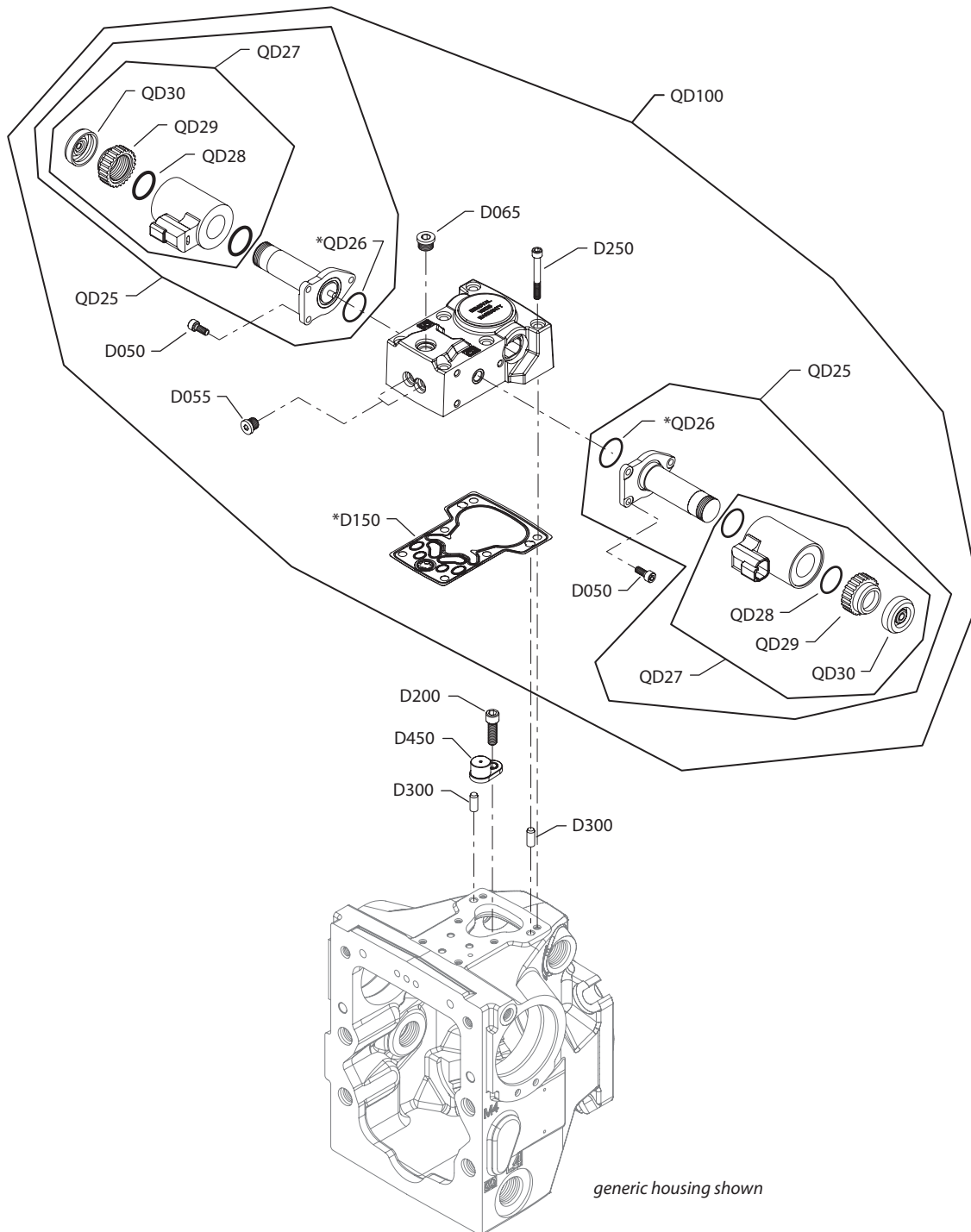
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A9	D050	09-27		716860	Screw, M5 x 12	6
	D065	09-27		140642	Plug assembly	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		141301	Proportional solenoid, 12v, Deutsch connector	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11005222	Coil kit, 12v, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11004749	Coil nut	2
	QD30	09-27		11027883	Cap	2
	QD100	09-27		11025905	FNR control kit, 12v, manual override, Deutsch conn.	1
B1	D050	09-27		716860	Screw, M5 x 12	6
	D065	09-27		140642	Plug assembly	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		141313	Proportional solenoid, 24v, Deutsch connector	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11005223	Coil kit, 24v, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11004750	Coil nut	2
	QD30	09-27		11027883	Cap	2
	QD100	09-27		11025906	FNR control kit, 24v, manual override, Deutsch conn.	1

Variable displacement pump

(B5)



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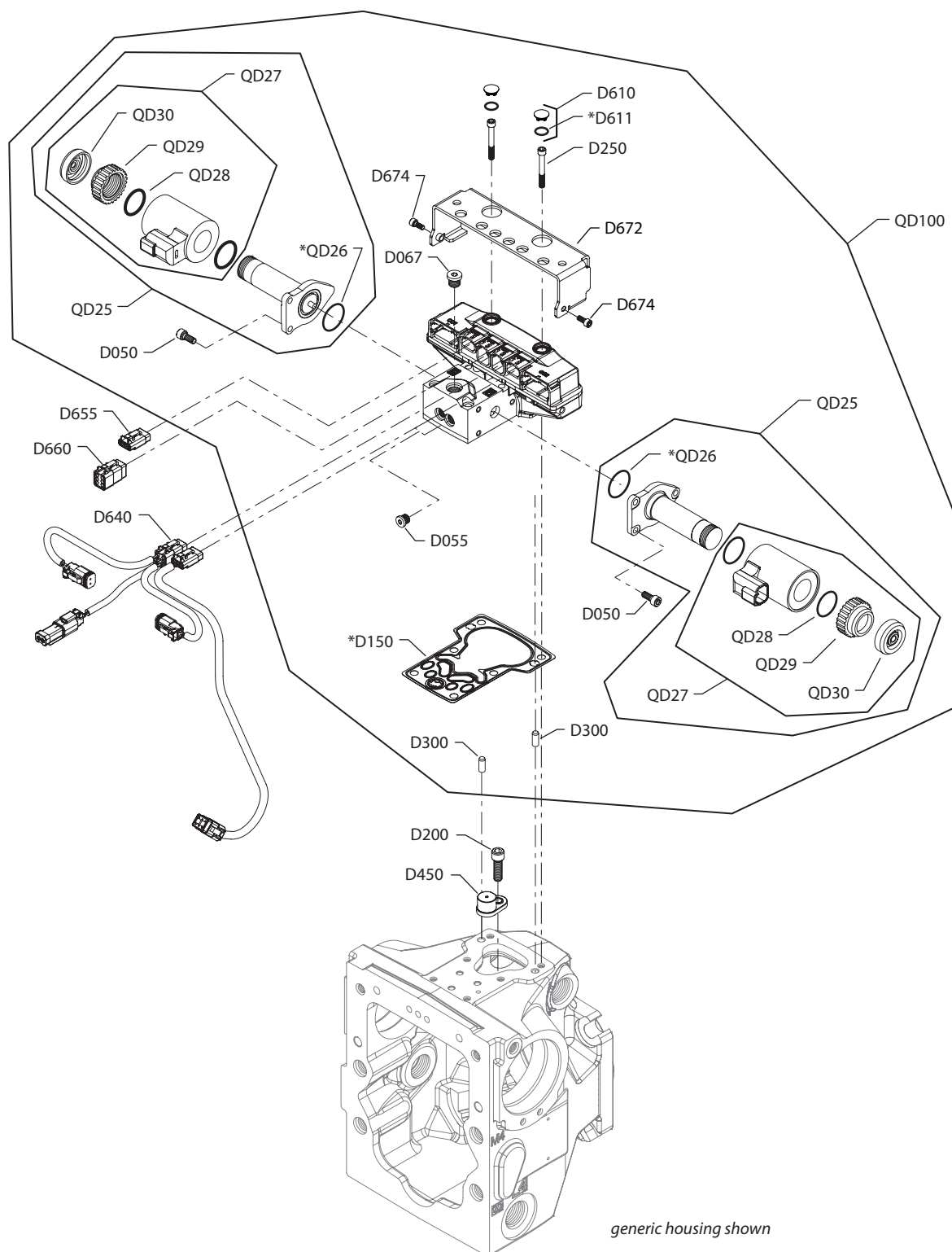
* = included in overhaul seal kit Q210

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)



E101 758E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

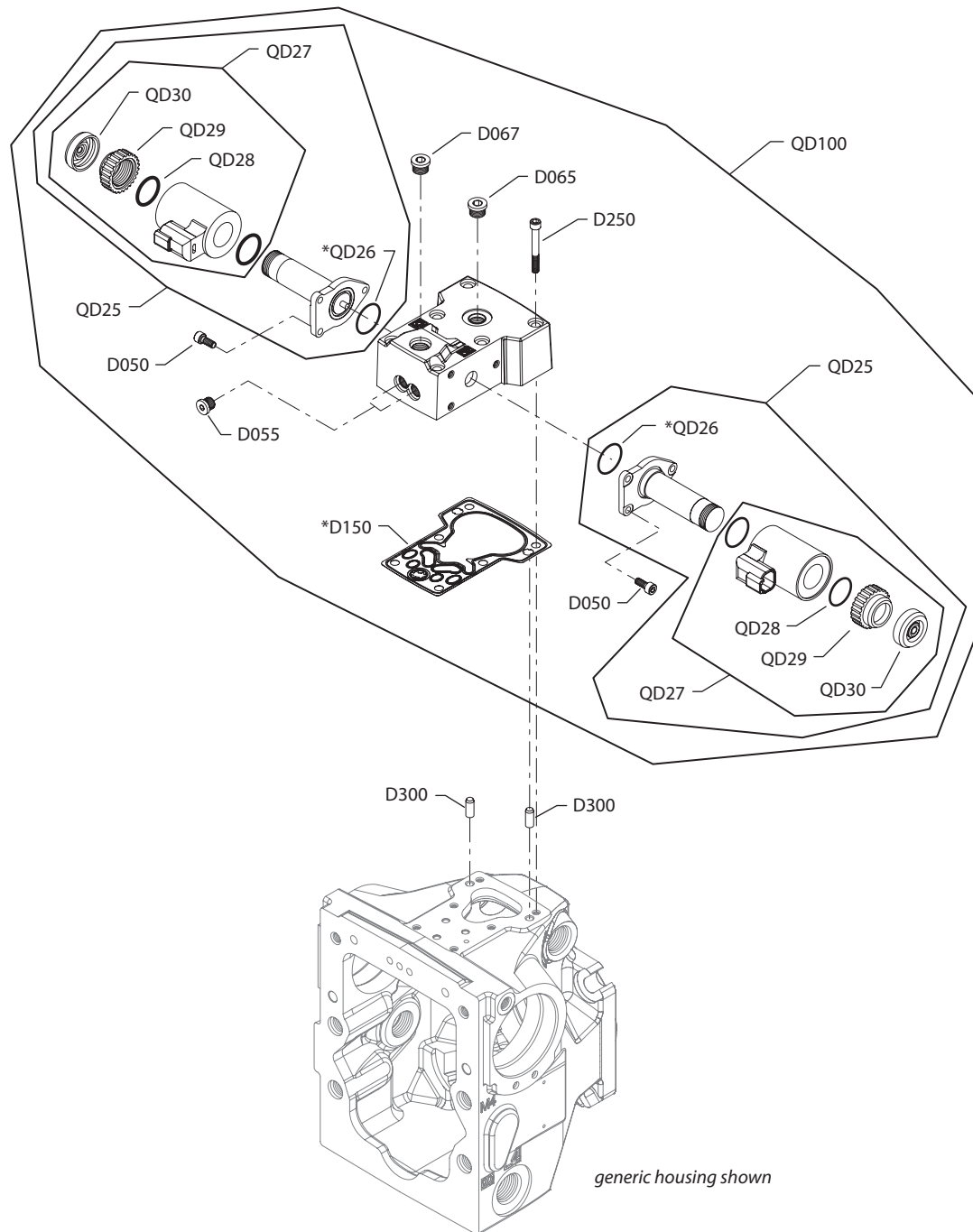
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B7	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
	D200	10-14		141472	Screw, special	1
	D250	10-14		505038	Screw, M6 x 45	6
	D300	10-14		11036469	Dowel pin	2
	D450	10-14		11003097	Magnet carrier	1
	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		11065119	Automotive control kit, 12v, manual override	1



Variable displacement pump

(B8)



E100 900E

* = included in overhaul seal kit Q210

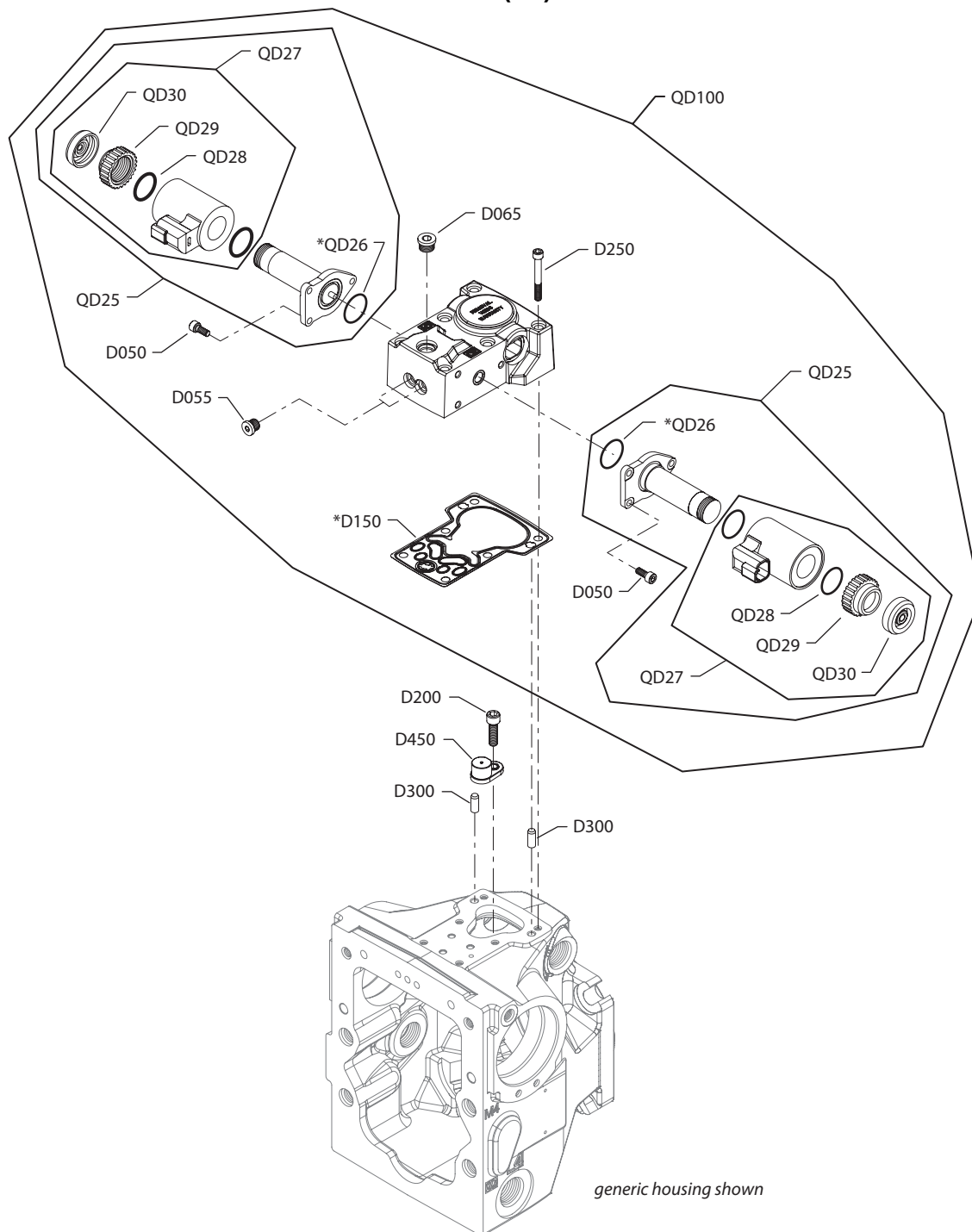
Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B8	D050	08-10		716860	Screw, M5 x 12	6
	D055	08-10		11040532	Plug assembly	2
	D065	08-10		140642	Plug assembly	1
	D067	08-10		140642	Plug assembly	1
	D150	08-10		11173377	Control gasket (SB-2016-033)	1
	D250	08-10		505038	Screw, M6 x 45	6
	D300	08-10		310979	Dowel pin	2
	QD25	08-10		140751	Proportional solenoid, 24v, Deutsch connector	2
	QD26	08-10		11001952	O-ring	2
	QD27	08-10		1104700	Coil kit, 24v, Deutsch connector	2
	QD28	08-10		063172	O-ring	2
	QD29	08-10		11004750	Coil nut	2
	QD30	08-10		11027883	Cap	2
	QD100	08-10		11025904	NFPE control kit, 24v, manual override, Deutsch conn.	1



Variable displacement pump

(B9)



E101 911E

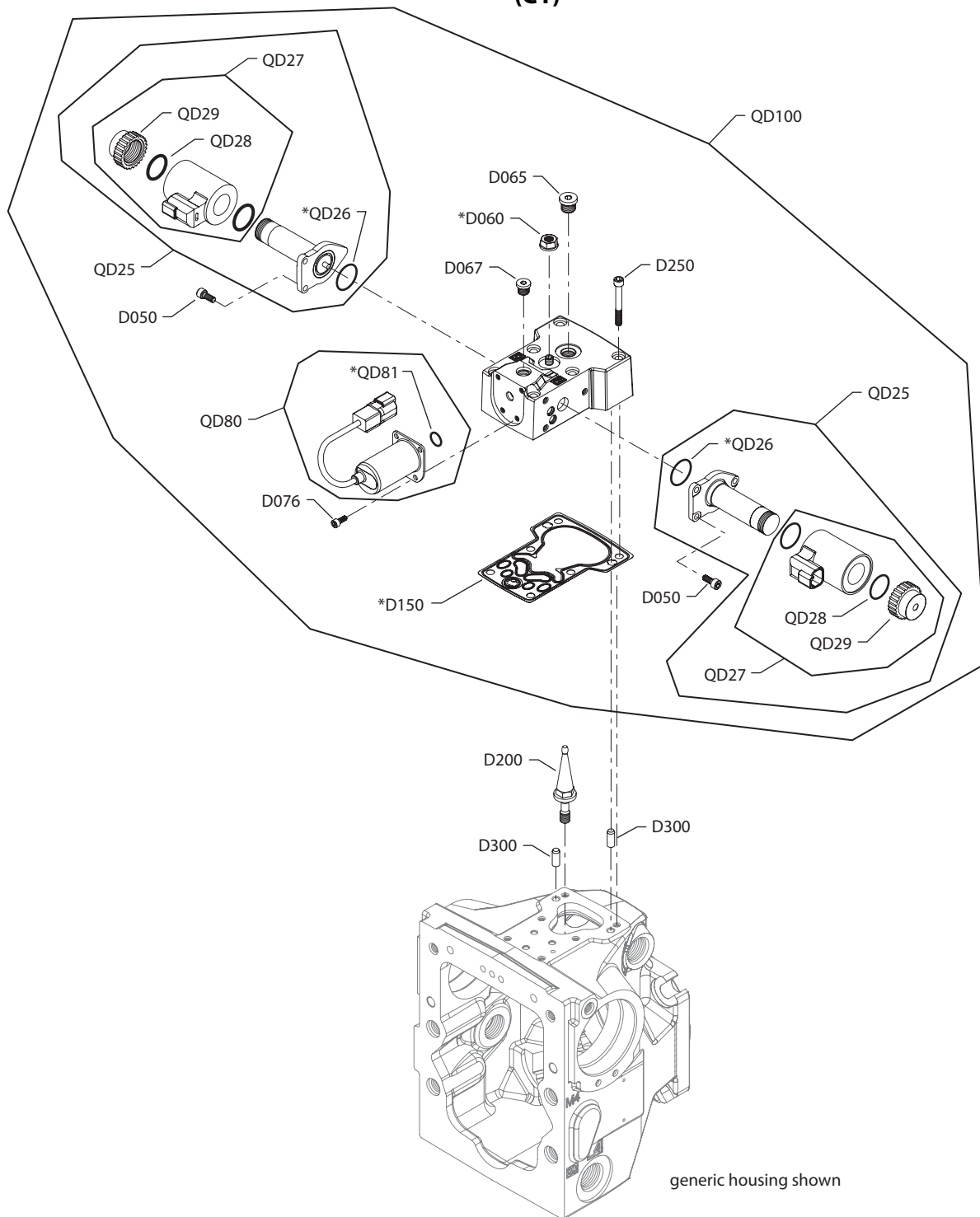
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B9	D050	09-27		716860	Screw	6
	D055	09-27		11040532	Plug assembly	2
	D067	09-27		140642	Plug assembly	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		141472	Screw	1
	D250	09-27		505038	Screw	6
	D300	09-27		310979	Dowel pin	2
	D450	09-27		11003097	Magnet carrier	1
	QD25	09-27		140751	Proportional solenoid, 24v, Deutsch connector	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		1104700	Coil kit, 24v, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11004750	Coil nut	2
	QD30	09-27		11027883	Cap	2
	QD100	09-27		11050137	NFPE control kit,, 24V, manual override	1

Variable displacement pump

(C1)



E100 913E

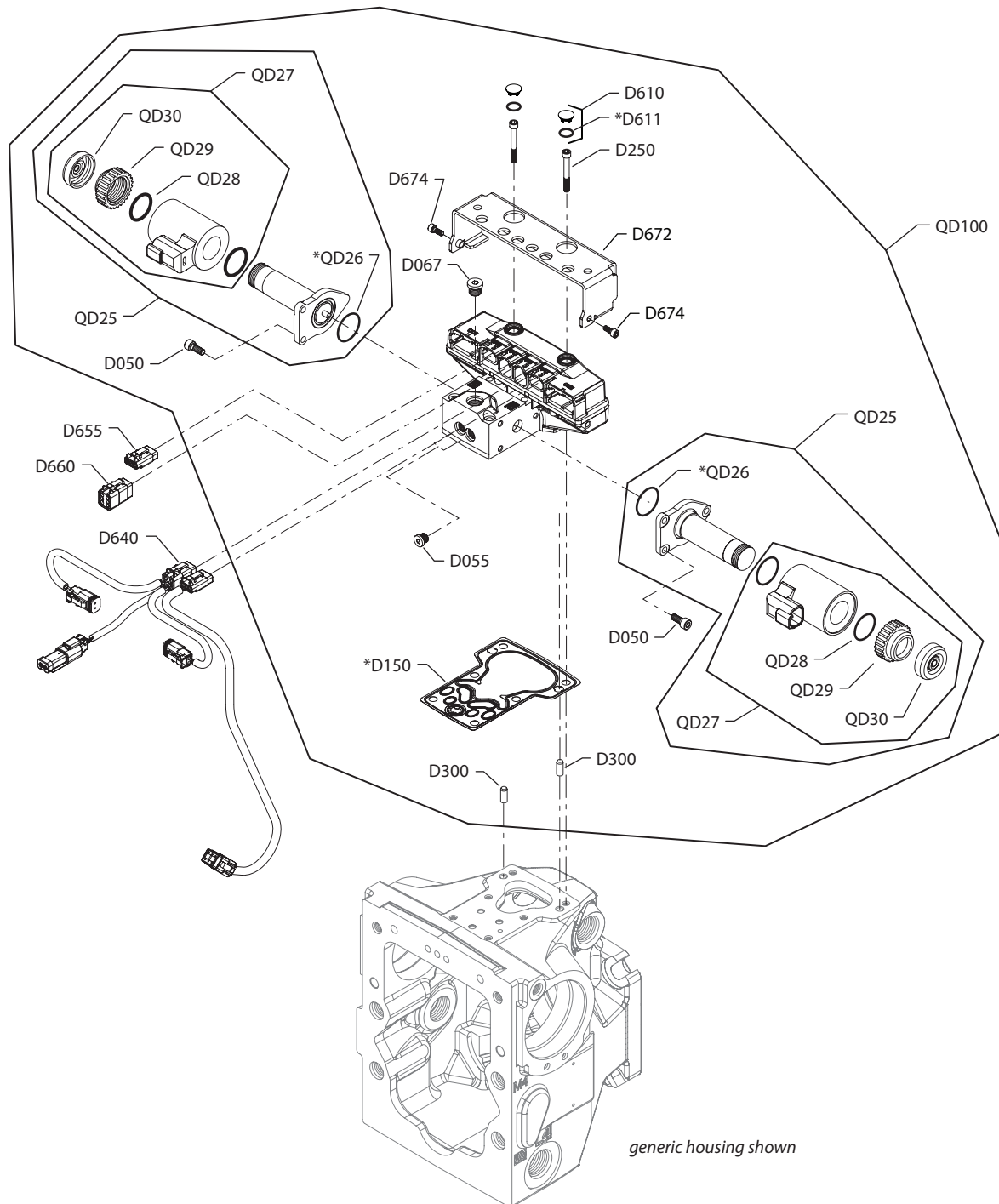
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	D050	08-10	12-52	716860	Screw	6
	D060	08-10	12-52	612291 (9003508-0008)	Seal nut	1
	D065	08-10	12-52	140642	Plug assembly	1
	D067	08-10	12-52	11040532	Plug assembly	1
	D076	08-10	12-52	346957	Screw, M4 x 8	4
	D150	08-10	12-52	11173377	Control gasket (SB-2016-033)	1
	D200	08-10	12-52	11148827	Swashplate feedback link	1
	D250	08-10	12-52	505038	Screw	6
	D300	08-10	12-52	310979	Dowel pin	2
	QD25	08-10	12-52	11012459	Proportional solenoid, 24V, Deutsch connector	2
	QD26	08-10	12-52	11001952	O-ring	2
	QD27	08-10	12-52	11028019	Coil kit, 24V, Deutsch connector	2
	QD28	08-10	12-52	063172	O-ring	2
	QD29	08-10	12-52	11028024	Coil nut	2
	QD80	08-10	12-52	11015979	Solenoid, 24V	1
	QD81	08-10	12-52	11059551	O-ring	1
	QD100	08-10	12-52	11147472	EDC kit, 24V, high gain spool, control override	1

Variable displacement pump

(C2)



E101 757E

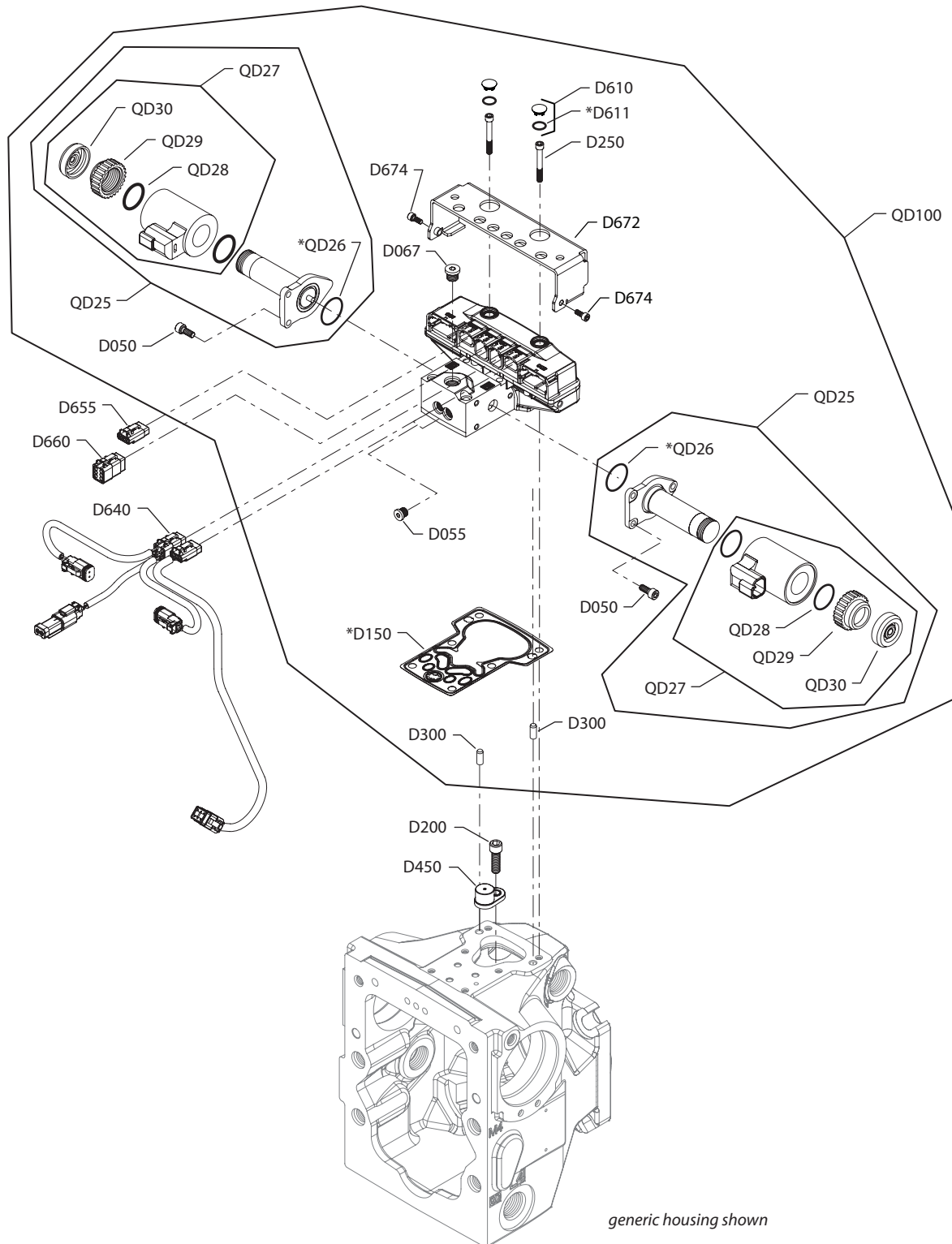
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C2	D050	10-14		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		140751	Proportional solenoid, 24 volt	2
	QD26	10-14		11001952	O-ring	2
	QD27	10-14		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	10-14		063172	O-ring	2
	QD29	10-14		11004750	Coil nut	2
	QD30	10-14		11027883	Cap	2
	QD100	10-14		11065120	Automotive control kit, 24v, manual override	1

Variable displacement pump

(C3)



generic housing shown

E101 758E

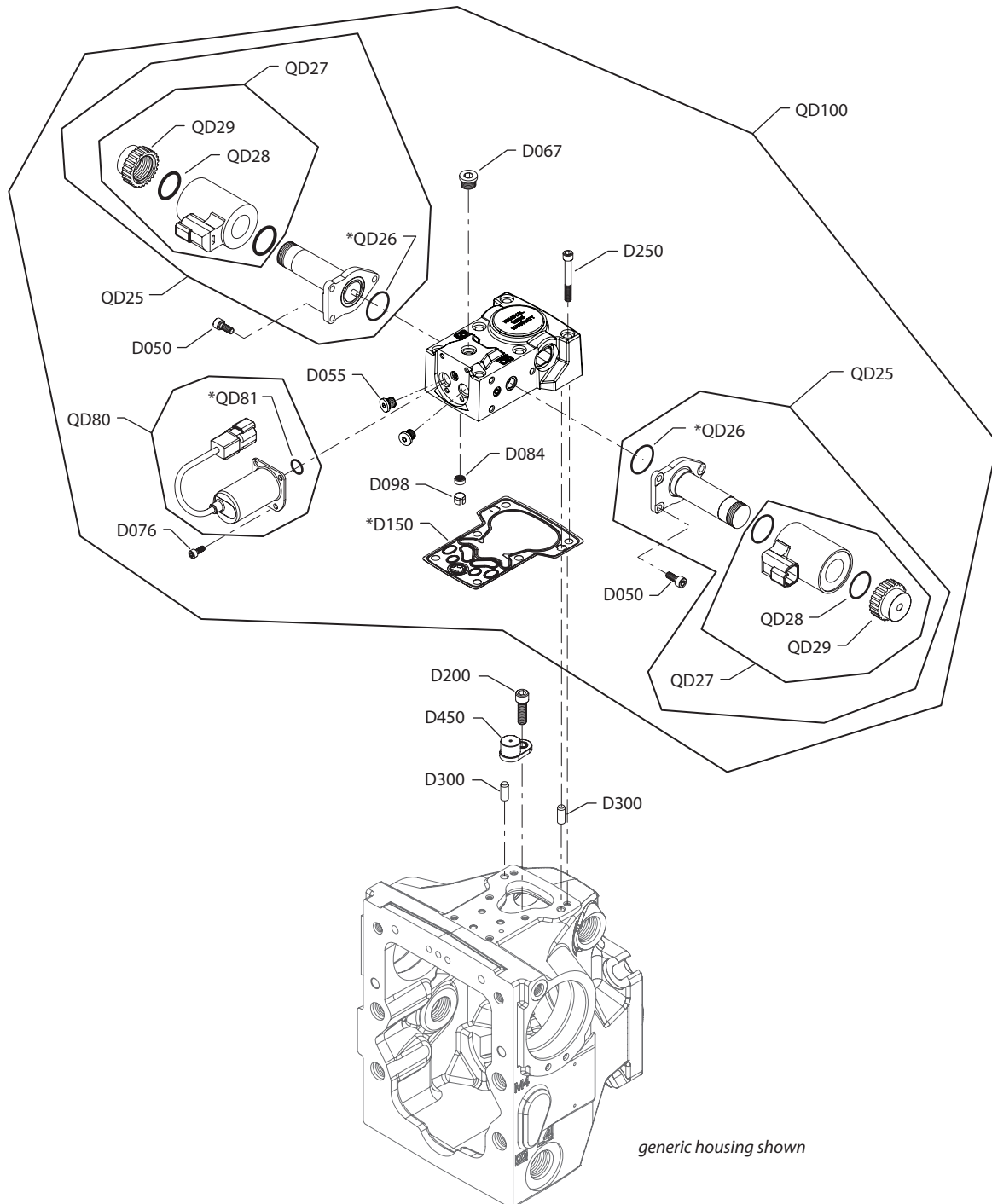
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C3	D050	10-14		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
	D200	10-14		141472	Screw, special	1
	D250	10-14		505038	Screw, M6 x 45	6
	D300	10-14		11036469	Dowel pin	2
	D450	10-14		11003097	Magnet carrier	1
	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		140751	Proportional solenoid, 24 volt	2
	QD26	10-14		11001952	O-ring	2
	QD27	10-14		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	10-14		063172	O-ring	2
	QD29	10-14		11004750	Coil nut	2
	QD30	10-14		11027883	Cap	2
	QD100	10-14		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

(C9 & D1)



* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

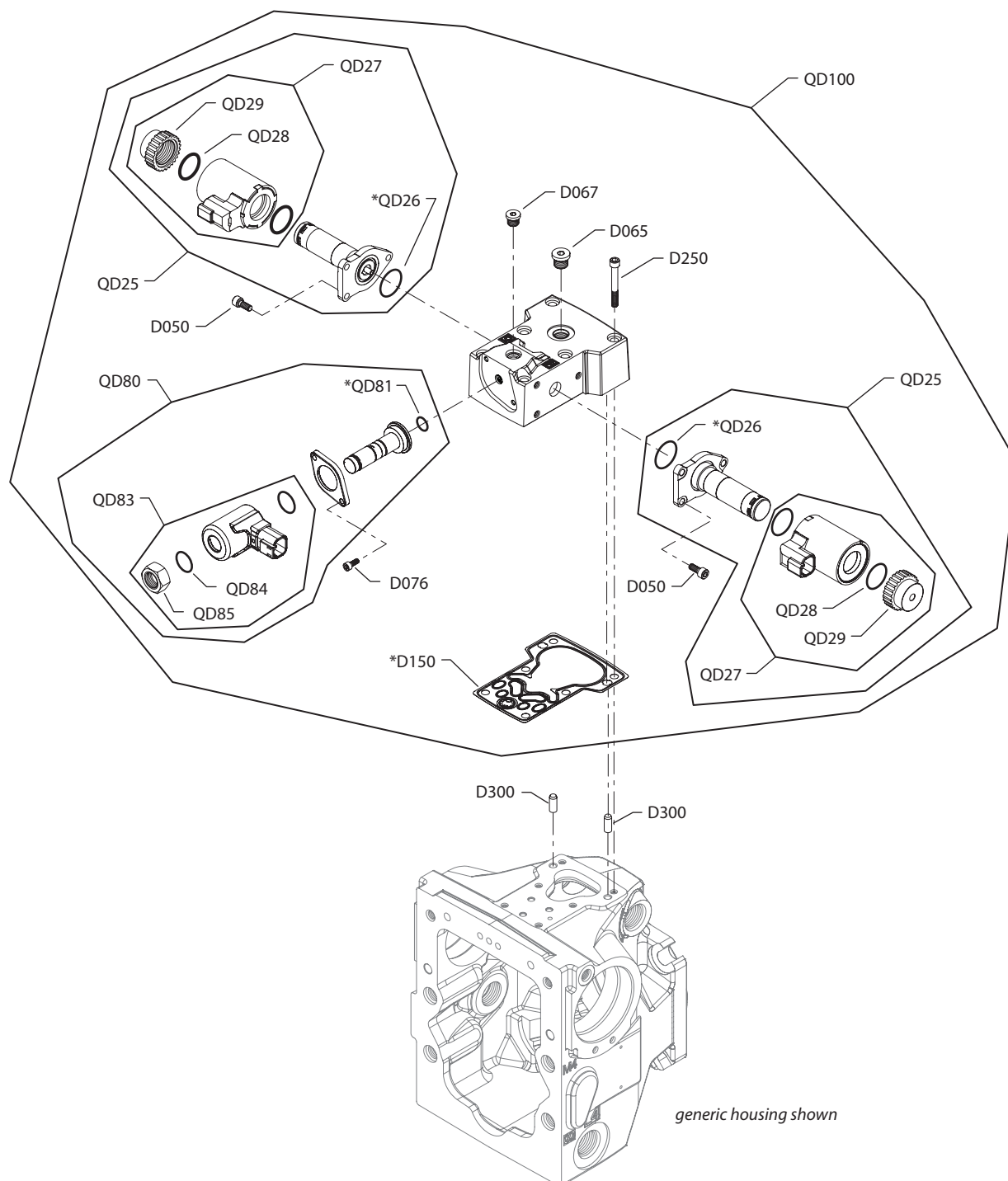
Variable displacement pump

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 06-35	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 06-35	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

(E2 & E3)



E103 384E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

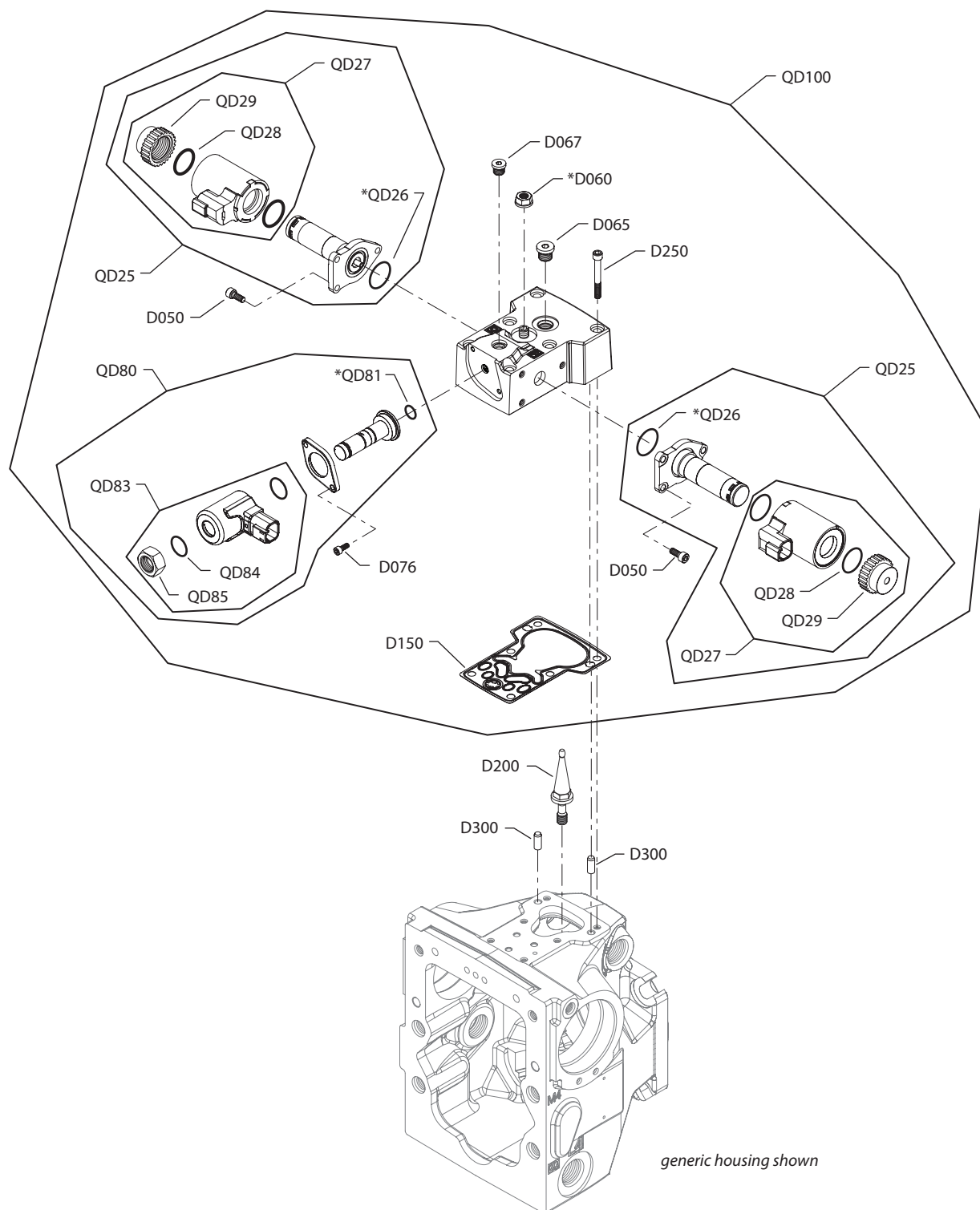
Variable displacement pump

Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E2	D050	13-45	16-50	716860	Screw M5 x 12	6
	D065	13-45	16-50	140642	Plug assembly	2
	D067	13-45	16-50	140642	Plug assembly	1
	D076	13-45	16-50	067694	Screw, M4 x 10	2
	D150	13-45	16-50	11173377	Control gasket (SB-2016-033)	1
	D250	13-45	16-50	505038	Screw, M6 x45	6
	D300	13-45	16-50	310979	Dowel pin	2
	QD25	13-45	16-50	11012457	Proportional solenoid, 12V	2
	QD26	13-45	16-50	11001952	O-ring	2
	QD27	13-45	16-50	11028018	Coil kit, 12V, Deutsch connector	2
	QD28	13-45	16-50	063172	O-ring	2
	QD29	13-45	16-50	11027046	Coil nut	2
	QD80	13-45	16-50	11129914	Solenoid, 12V, Deutsch connector	1
	QD81	13-45	16-50	11152257	O-ring	1
	QD83	13-45	16-50	11147301	Coil kit, 12V, Deutsch connector	1
	QD84	13-45	16-50	11140393	O-ring	1
	QD85	13-45	16-50	11140394	Nut	1
	QD100	13-45	16-50	11145115	NFPE kit, 12V, high gain spool, control override	1
E3	D050	13-45	16-50	716860	Screw M5 x 12	6
	D065	13-45	16-50	140642	Plug assembly	2
	D067	13-45	16-50	140642	Plug assembly	1
	D076	13-45	16-50	067694	Screw, M4 x 10	2
	D150	13-45	16-50	11173377	Control gasket (SB-2016-033)	1
	D250	13-45	16-50	505038	Screw, M6 x45	6
	D300	13-45	16-50	310979	Dowel pin	2
	QD25	13-45	16-50	11012459	Proportional solenoid, 24V	2
	QD26	13-45	16-50	11001952	O-ring	2
	QD27	13-45	16-50	11028019	Coil kit, 24V, Deutsch connector	2
	QD28	13-45	16-50	063172	O-ring	2
	QD29	13-45	16-50	11027046	Coil nut	2
	QD80	13-45	16-50	11129915	Solenoid, 24V, Deutsch connector	1
	QD81	13-45	16-50	11152257	O-ring	1
	QD83	13-45	16-50	11147332	Coil kit, 24V, Deutsch connector	1
	QD84	13-45	16-50	11140393	O-ring	1
	QD85	13-45	16-50	11140394	Nut	1
	QD100	13-45	16-50	11145116	NFPE kit, 24V, high gain spool, control override	1

Variable displacement pump

(E5 & E6)



E103 422E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

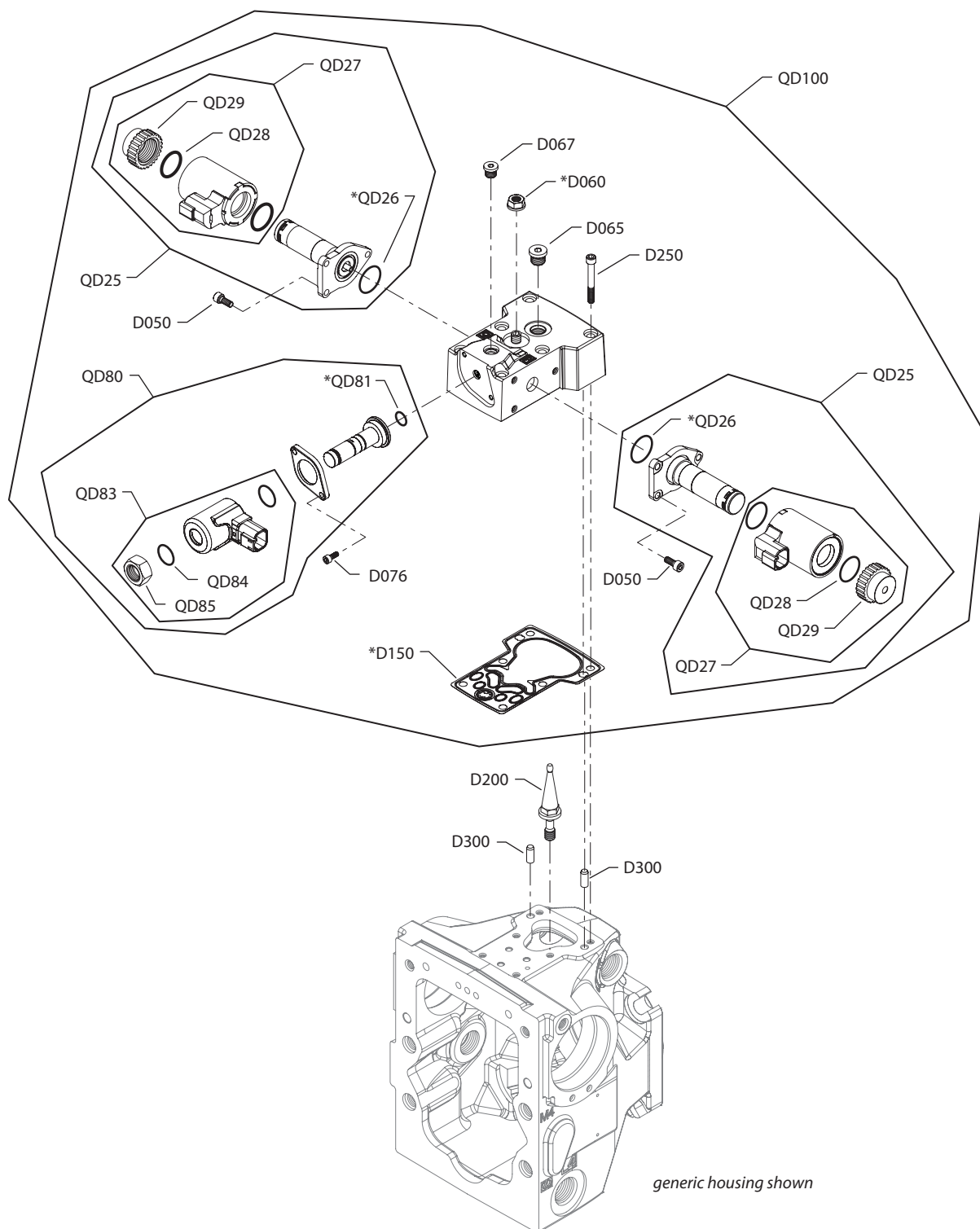
Variable displacement pump

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

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

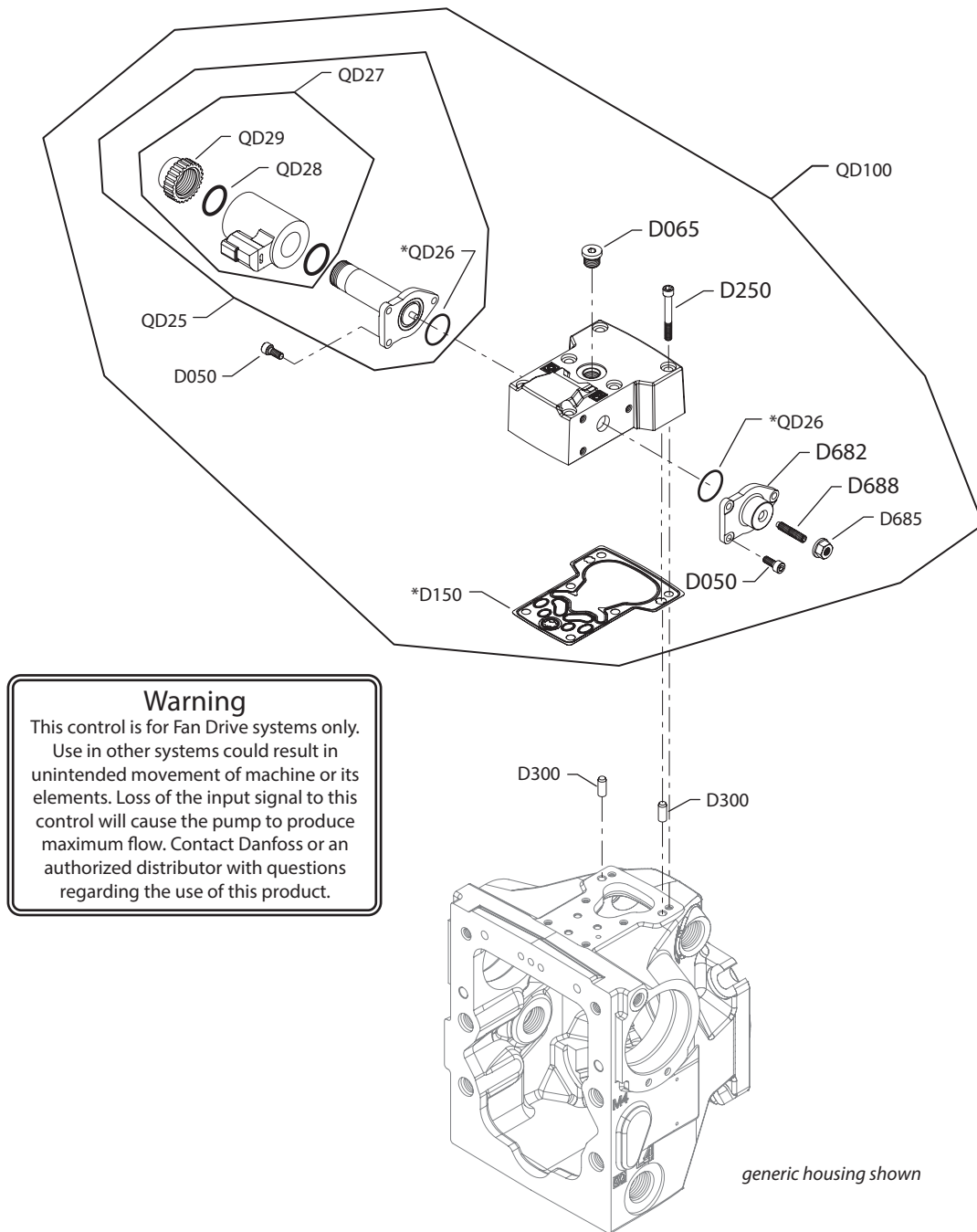
Variable displacement pump

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

(F1 & F2)



Parts Manual

H1P 89 & 100cc Variable Displacement Pump

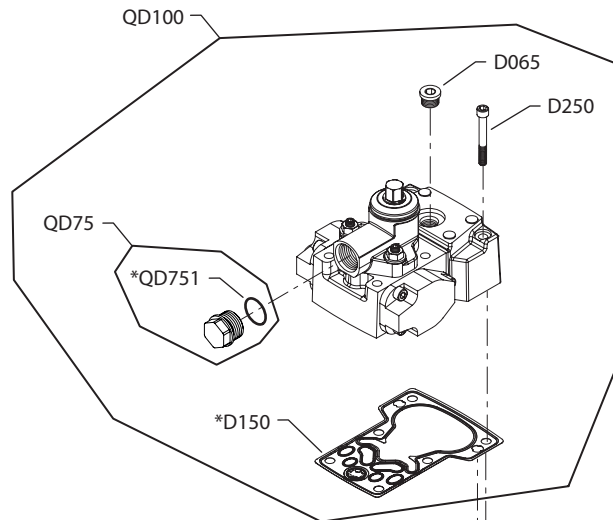
Variable displacement pump

Control

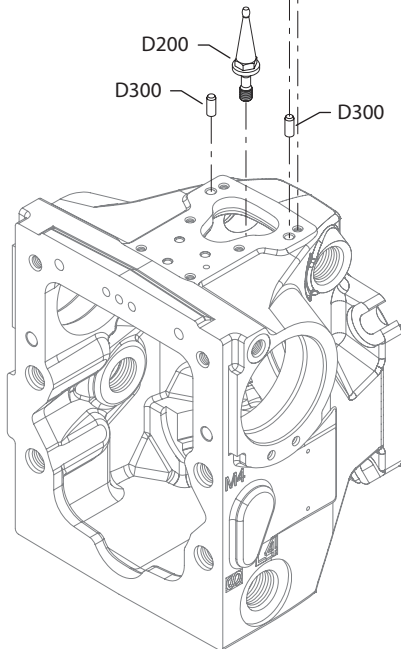
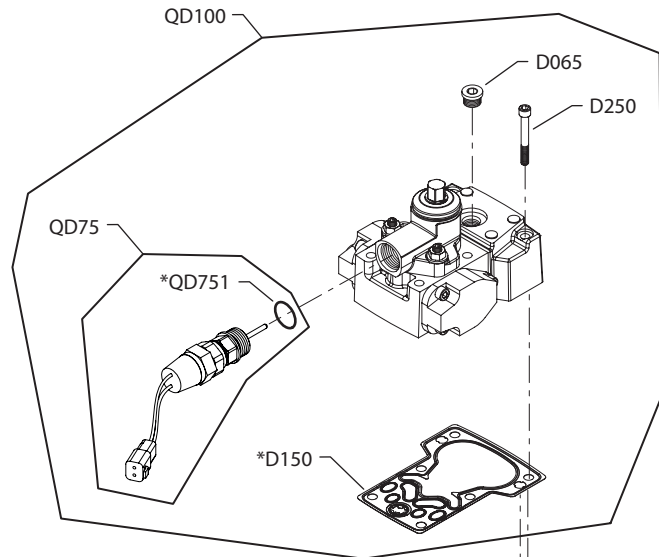
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F1	D050	12-33		716860	Screw, M5 x 12	6
	D065	12-33		140642	Plug assembly	1
	D150	12-33		11173377	Control gasket (SB-2016-033)	1
	D250	12-33		505038	Screw, M6 x 45	6
	D300	12-33		310979	Dowel pin	2
	D682	12-33		11079441	Flange	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	6
	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

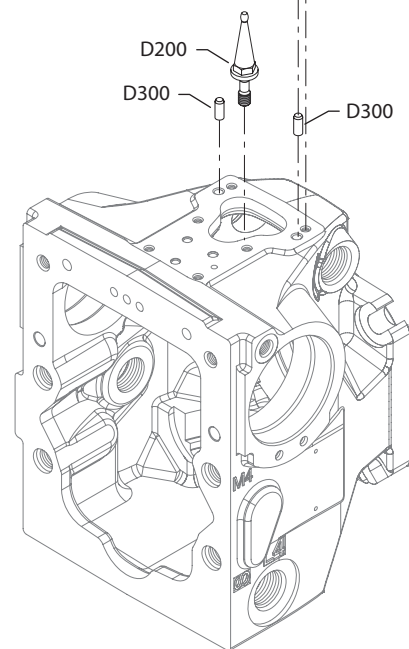
(M1)



(M2)



generic housing shown



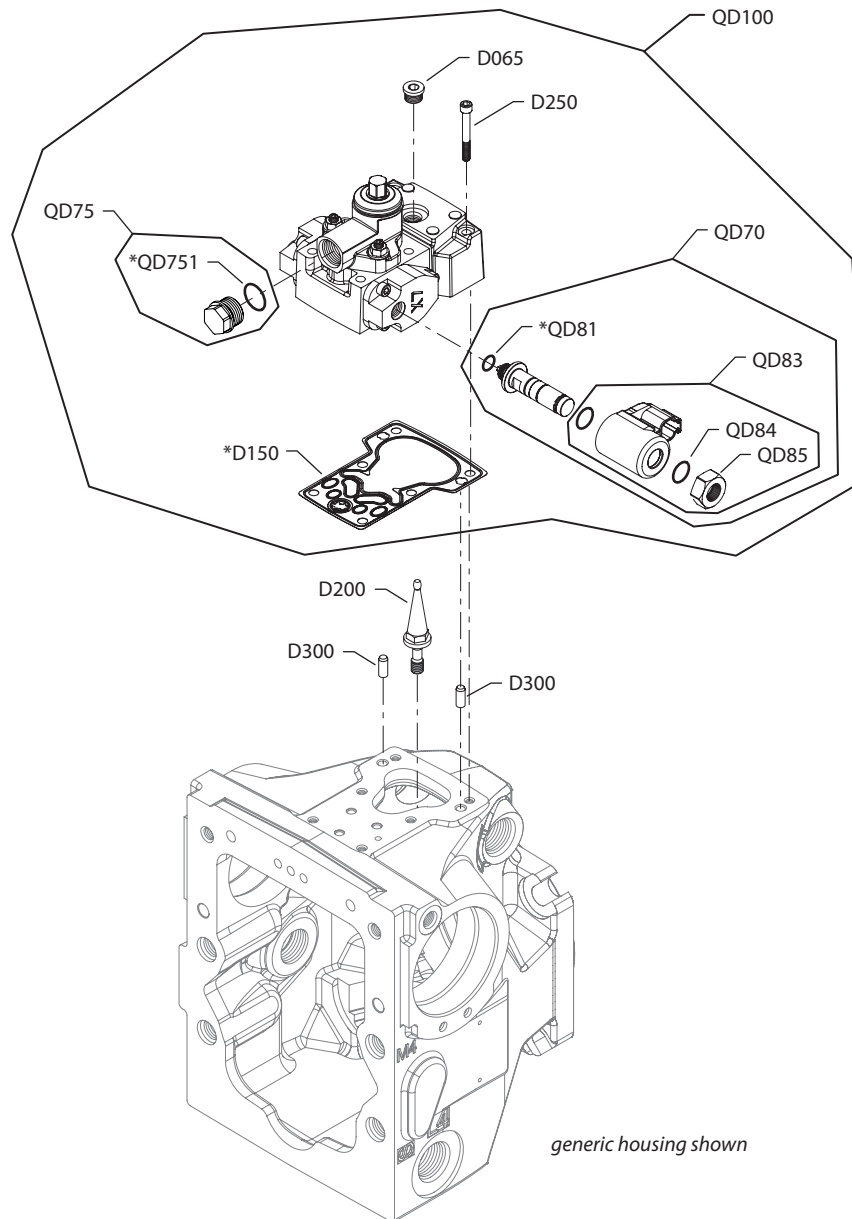
Variable displacement pump
Control

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	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		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

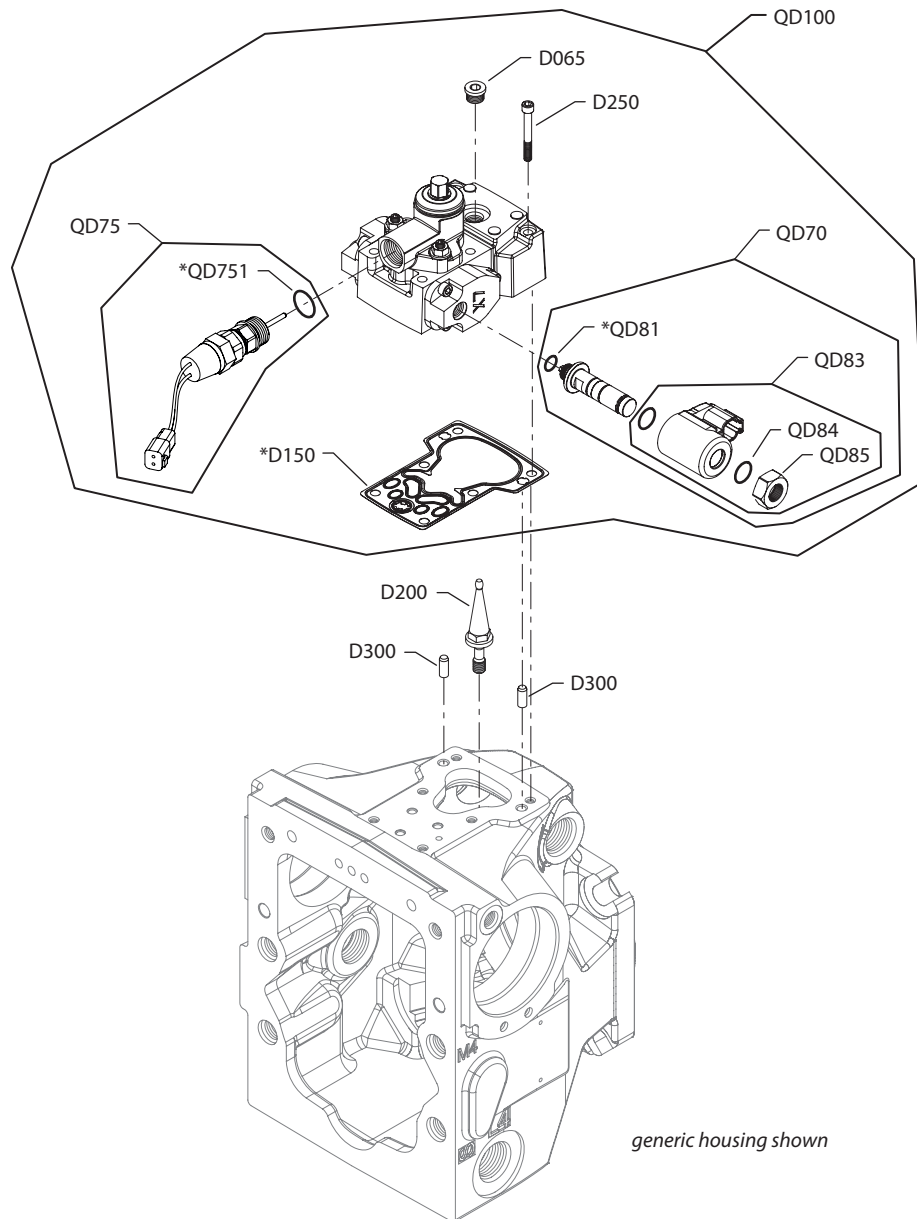
* = included in overhaul seal kit Q210

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)



Parts Manual

H1P 89 & 100cc Variable Displacement Pump

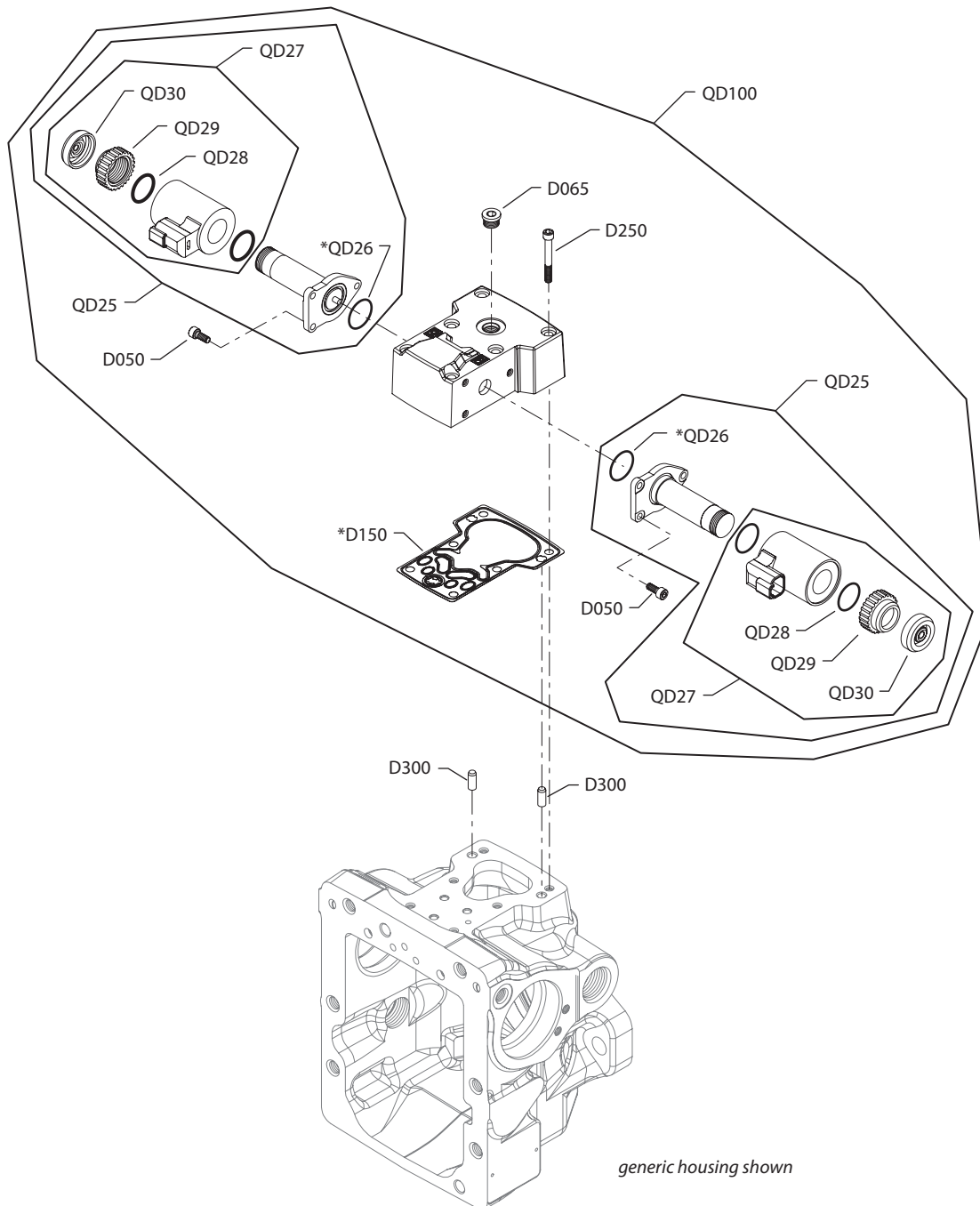
Variable displacement pump

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	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		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)



E101 703E

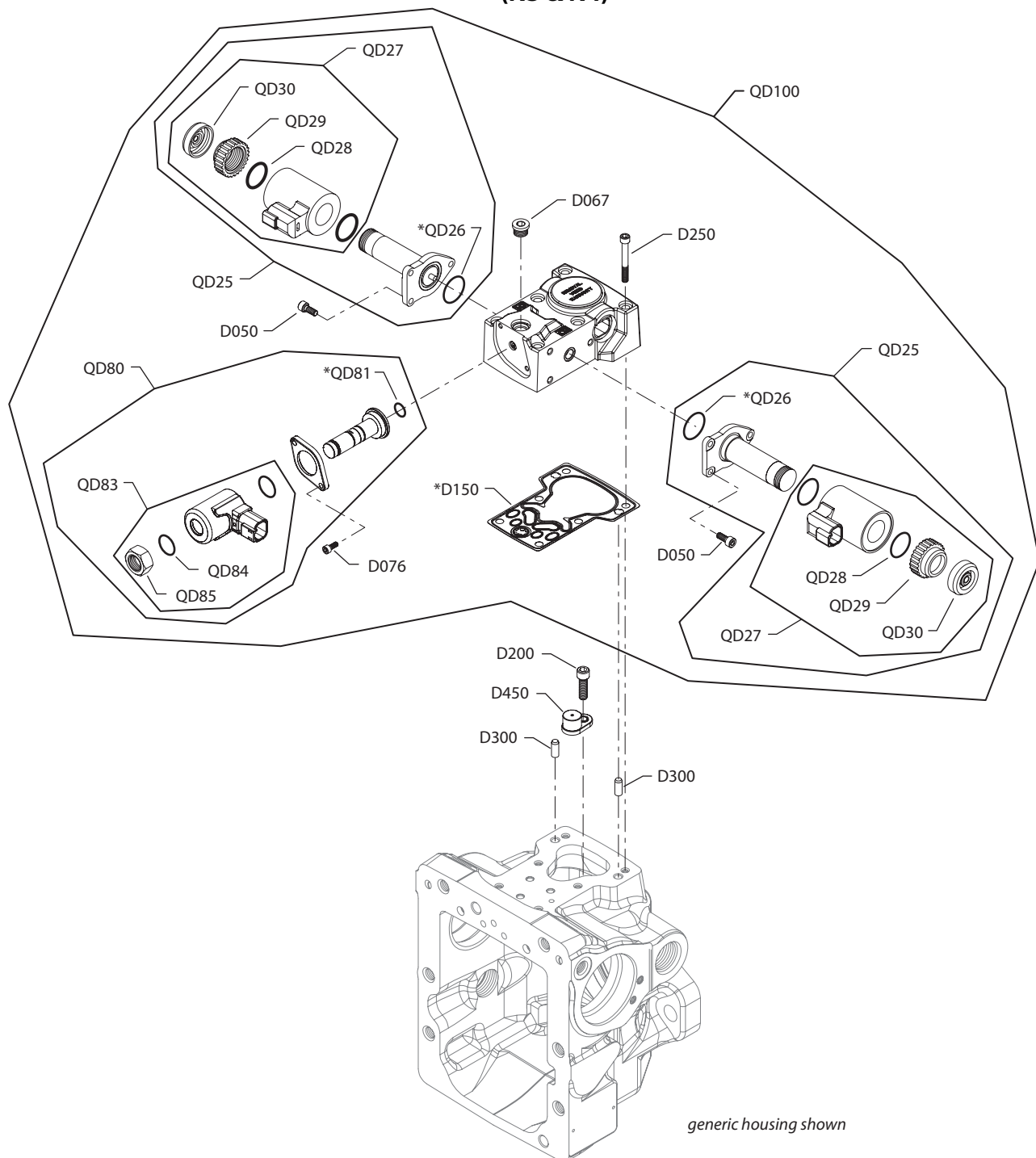
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N1	D050	16-30		716860	Screw, M5 x 12	6
	D065	16-30		140642	Plug assembly	1
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	QD25	16-30		140750	Proportional solenoid, 12v, Deutsch connector	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147921	NFPE control kit, 12v, manual override, Deutsch conn.	1
N2	D050	16-30		716860	Screw, M5 x 12	6
	D065	16-30		140642	Plug assembly	1
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	QD25	16-30		140751	Proportional solenoid, 24v, Deutsch connector	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147925	NFPE control kit, 24v, manual override, Deutsch conn.	1

Variable displacement pump

(N3 & N4)



E103 608E

* = included in overhaul seal kit Q210

Parts Manual

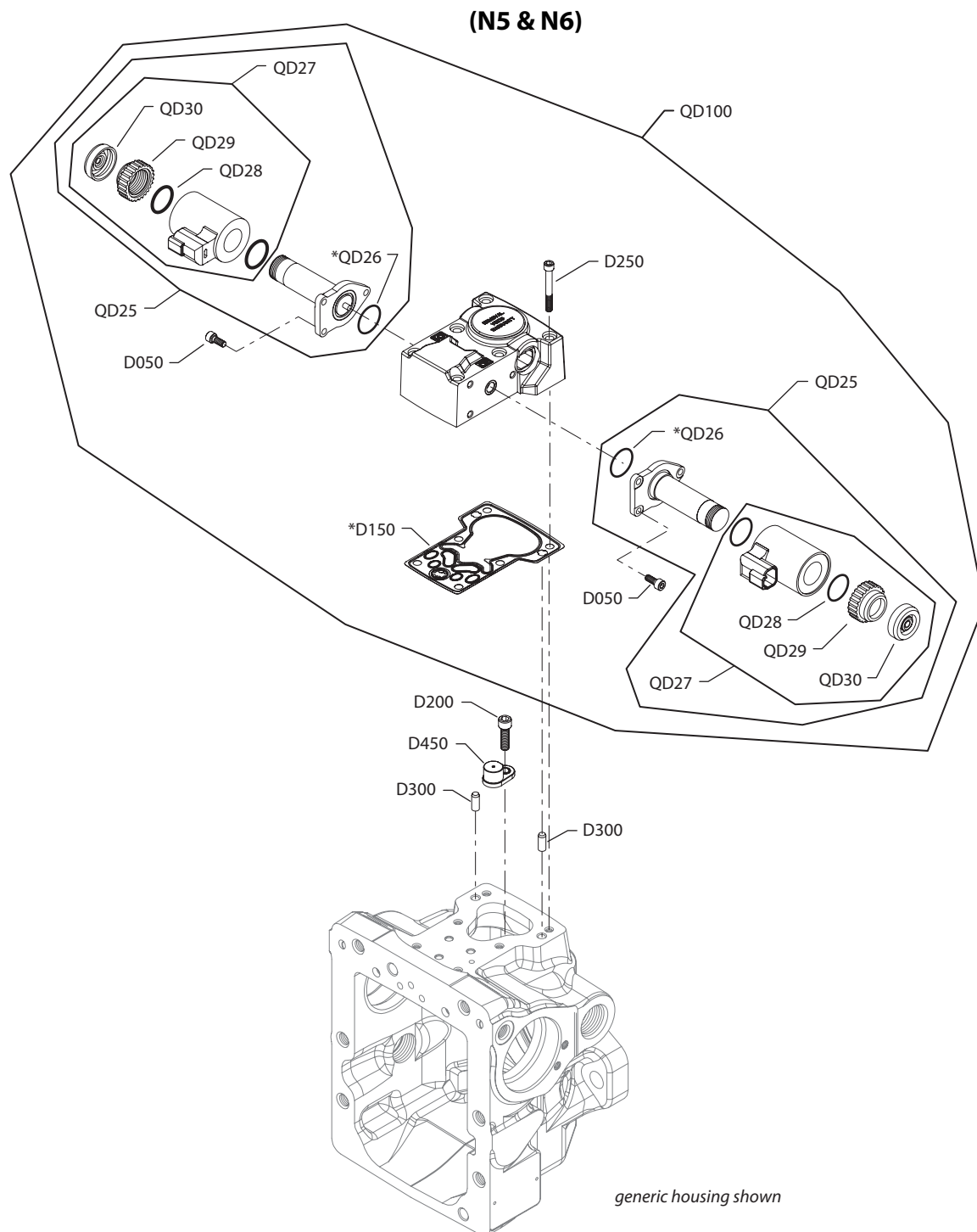
H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N3	D050	16-30		716860	Screw, M5 x 12	6
	D067	16-30		140642	Plug assembly	1
	D076	16-30		067694	Screw, M4 x 10	2
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	QD25	16-30		140750	Proportional solenoid, 12v	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD80	16-30		11129914	Solenoid, 12V, Deutsch connector	1
	QD81	16-30		11152257	O-ring	1
	QD83	16-30		11147301	Coil kit, 12V, Deutsch connector	1
	QD84	16-30		11140393	O-ring	1
	QD85	16-30		11140394	Nut	1
	QD100	16-30		11147920	NFPE control kit, 12v, CCO	1
N4	D050	16-30		716860	Screw, M5 x 12	6
	D067	16-30		140642	Plug assembly	1
	D076	16-30		067694	Screw, M4 x 10	2
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	QD25	16-30		140751	Proportional solenoid, 24v	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD80	16-30		11129915	Solenoid, 24V, Deutsch connector	1
	QD81	16-30		11152257	O-ring	1
	QD83	16-30		11147332	Coil kit, 24V, Deutsch connector	1
	QD84	16-30		11140393	O-ring	1
	QD85	16-30		11140394	Nut	1
	QD100	16-30		11147924	NFPE control kit, 24v, CCO	1

Variable displacement pump

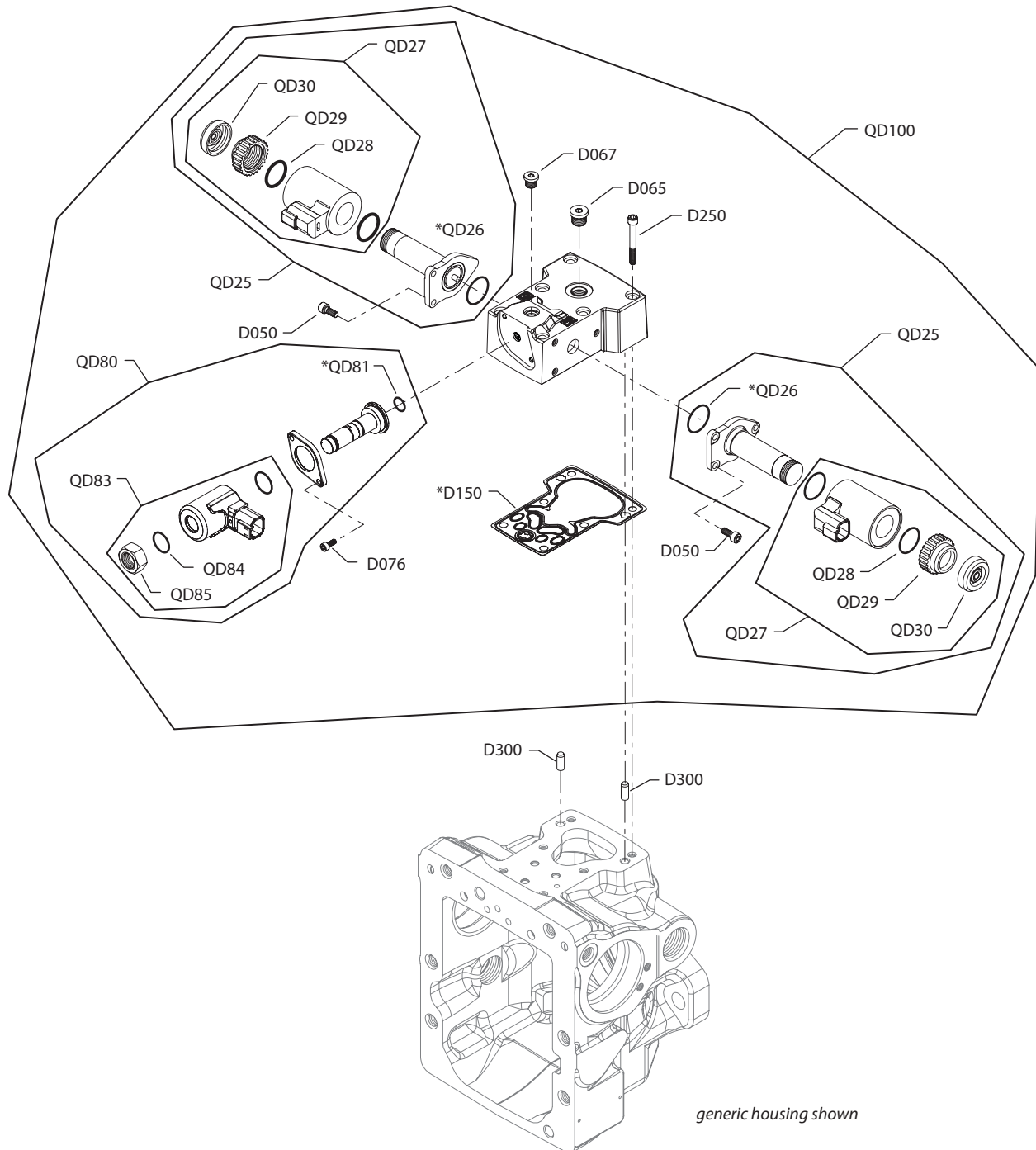


Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N5	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	QD25	16-30		140750	Proportional solenoid, 12v	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147918	NFPE control kit, 12v, manual override	1
N6	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	QD25	16-30		140751	Proportional solenoid, 24v	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147922	NFPE control kit, 24v, manual override	1

Variable displacement pump

(N7 & N8)



E103 610E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

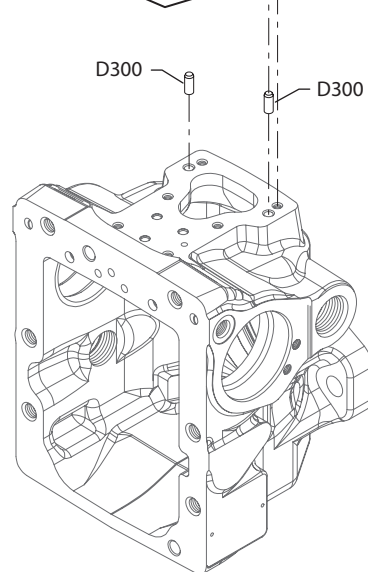
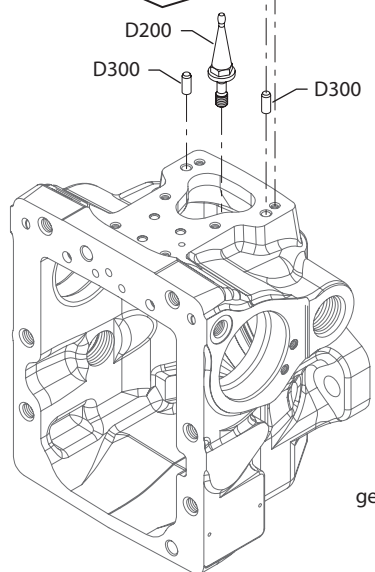
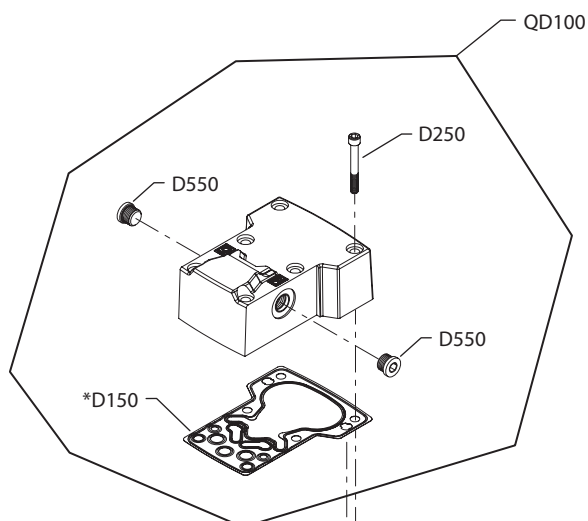
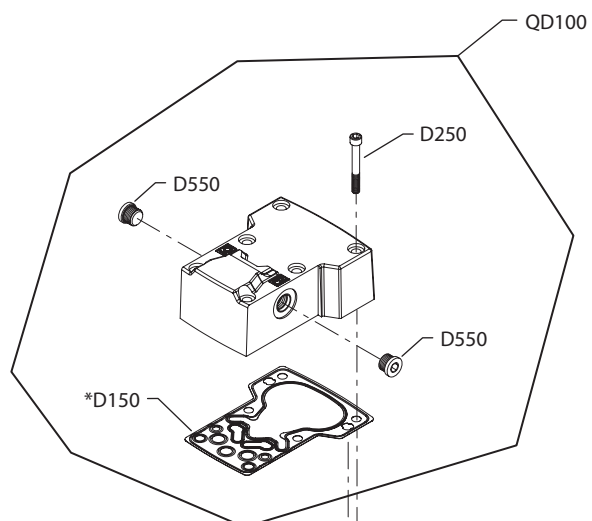
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N7	D050	16-30		716860	Screw, M5 x 12	6
	D067	16-30		140642	Plug assembly	1
	D076	16-30		067694	Screw, M4 x 10	2
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	QD25	16-30		140750	Proportional solenoid, 12v	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD80	16-30		11129914	Solenoid, 12V, Deutsch connector	1
	QD81	16-30		11152257	O-ring	1
	QD83	16-30		11147301	Coil kit, 12V, Deutsch connector	1
	QD84	16-30		11140393	O-ring	1
	QD85	16-30		11140394	Nut	1
	QD100	16-30		11147919	NFPE control kit, 12v, CCO	1
N8	D050	16-30		716860	Screw, M5 x 12	6
	D067	16-30		140642	Plug assembly	1
	D076	16-30		067694	Screw, M4 x 10	2
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		310979	Dowel pin	2
	QD25	16-30		140751	Proportional solenoid, 24v	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD80	16-30		11129915	Solenoid, 24V, Deutsch connector	1
	QD81	16-30		11152257	O-ring	1
	QD83	16-30		11147332	Coil kit, 24V, Deutsch connector	1
	QD84	16-30		11140393	O-ring	1
	QD85	16-30		11140394	Nut	1
	QD100	16-30		11147923	NFPE control kit, 24v, CCO	1

Variable displacement pump

(ND)

(NN)



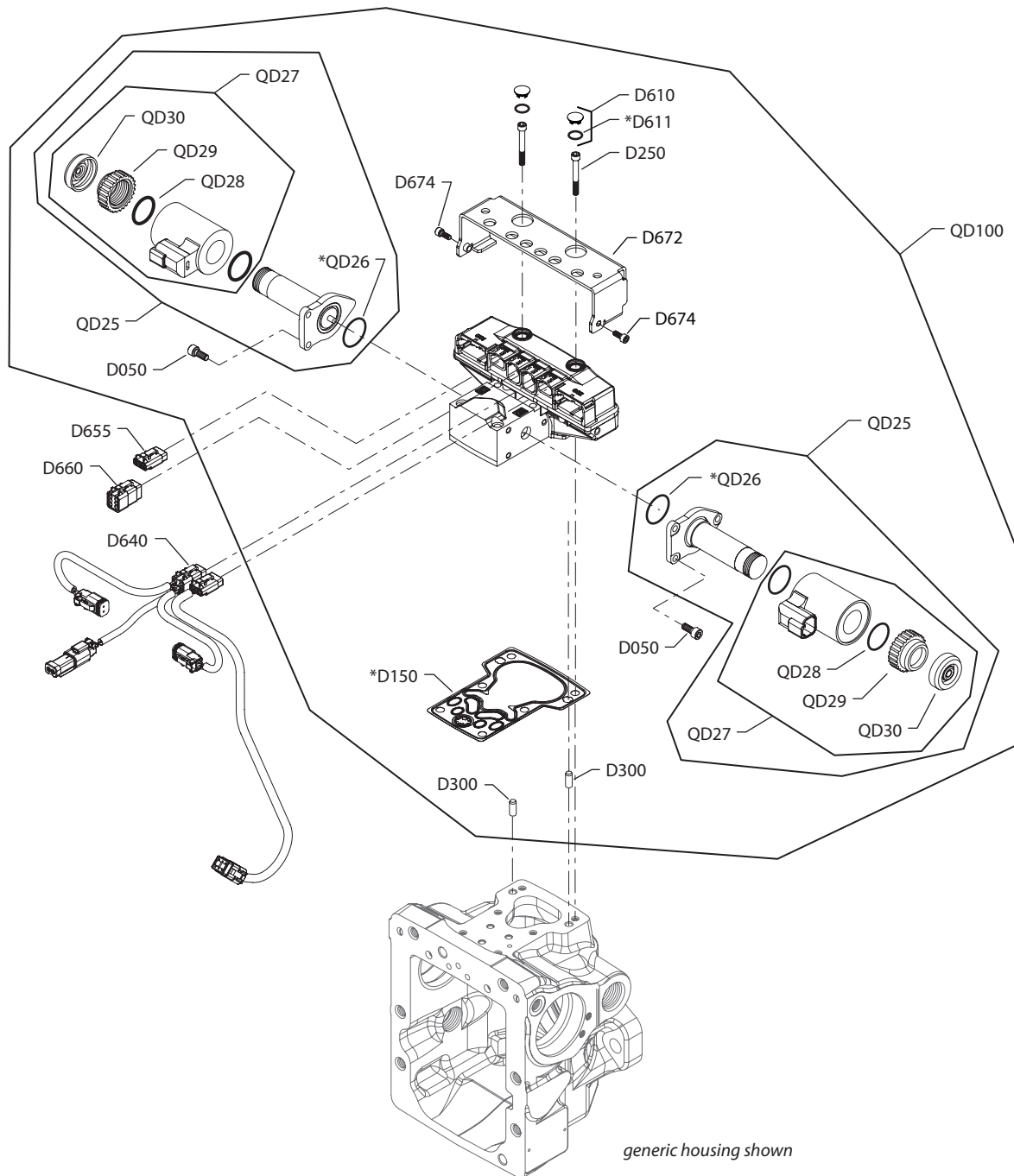
generic housing shown


Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
ND	D150	16-02		11173377	Control gasket (SB-2016-033)	1
	D200	16-02		11148827	Swashplate feedback link	1
	D250	16-02		505038	Screw, M6 x 45	6
	D300	16-02		310979	Dowel pin	2
	D550	16-02		140644	Plug assembly	2
	QD100	16-02		11121984	Control cover kit	1
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

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
P6	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		11036469	Dowel pin	2
	D610	16-30		11000467	Plug assembly	2
	D611	16-30		11066774	O-ring	2
	D640	16-30		11023348	AC wiring harness	1
	D655	16-30		11084827	Blank, connector DTM 06-3S	1
	D660	16-30		11084822	Blank, connector DTM 06-6S	1
	D672	16-30		11151875	Protection	1
	D674	16-30		716860	Screw, M5 x 12	2
	QD25	16-30		140750	Proportional solenoid, 12 volt	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147941	Automotive control kit, 12v, manual override	1
P7	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		11036469	Dowel pin	2
	D610	16-30		11000467	Plug assembly	2
	D611	16-30		11066774	O-ring	2
	D640	16-30		11023348	AC wiring harness	1
	D655	16-30		11084827	Blank, connector DTM 06-3S	1
	D660	16-30		11084822	Blank, connector DTM 06-6S	1
	D672	16-30		11151875	Protection	1
	D674	16-30		716860	Screw, M5 x 12	2
	QD25	16-30		140751	Proportional solenoid, 24 volt	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147943	Automotive control kit, 24v, manual override	1

(P8 & P9)



* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

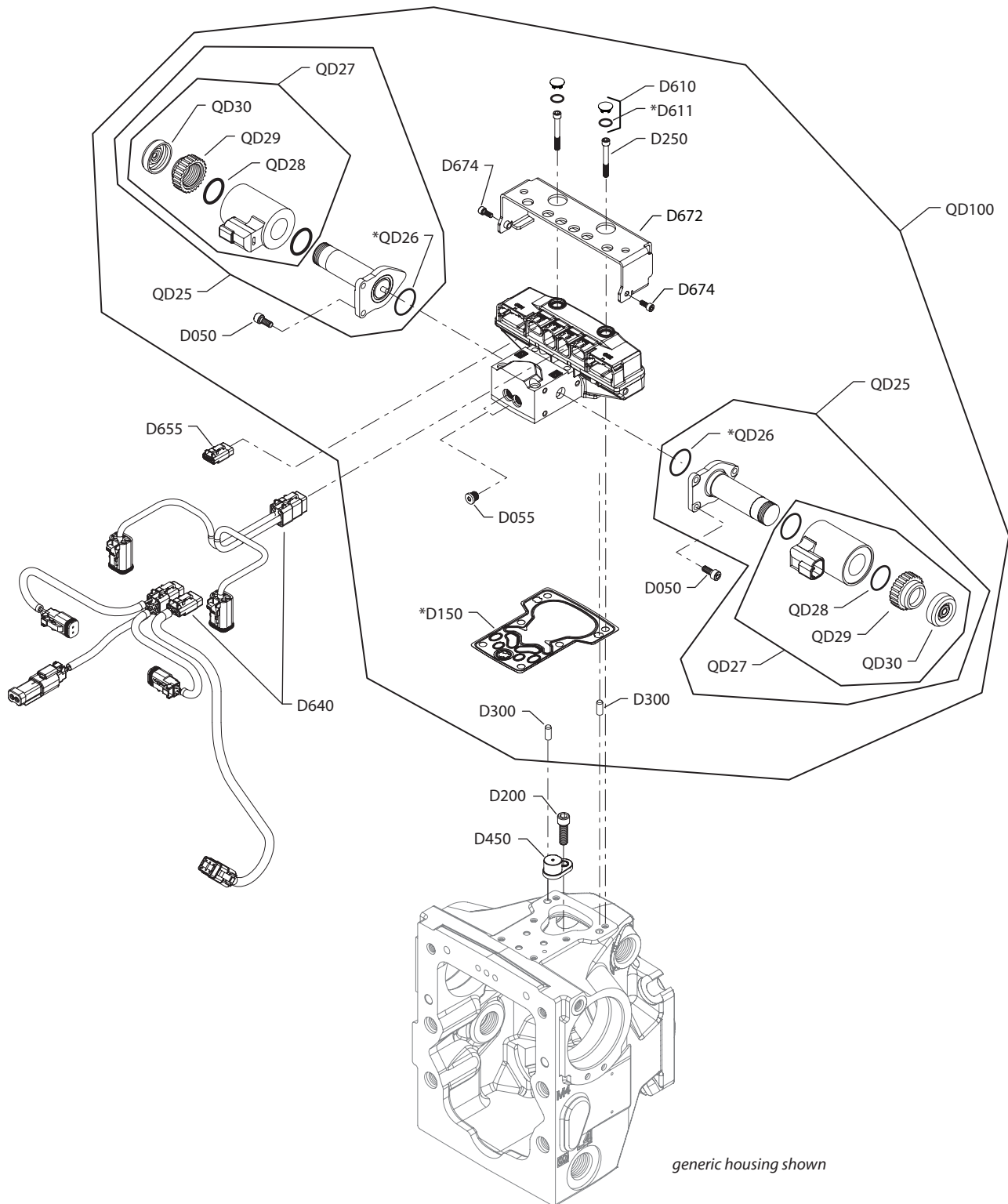
Variable displacement pump

Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
P8	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		11036469	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	D610	16-30		11000467	Plug assembly	2
	D611	16-30		11066774	O-ring	2
	D640	16-30		11023348	AC wiring harness	1
	D655	16-30		11084827	Blank, connector DTM 06-3S	1
	D660	16-30		11084822	Blank, connector DTM 06-6S	1
	D672	16-30		11151875	Protection	1
	D674	16-30		716860	Screw, M5 x 12	2
	QD25	16-30		140750	Proportional solenoid, 12 volt	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147940	Automotive control kit, 12v, manual override	1
P9	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		11036469	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	D610	16-30		11000467	Plug assembly	2
	D611	16-30		11066774	O-ring	2
	D640	16-30		11023348	AC wiring harness	1
	D655	16-30		11084827	Blank, connector DTM 06-3S	1
	D660	16-30		11084822	Blank, connector DTM 06-6S	1
	D672	16-30		11151875	Protection	1
	D674	16-30		716860	Screw, M5 x 12	2
	QD25	16-30		140751	Proportional solenoid, 24 volt	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147942	Automotive control kit, 24v, manual override	1

Variable displacement pump

(R1 & R2)



E103 619E

* = included in overhaul seal kit Q210

Parts Manual

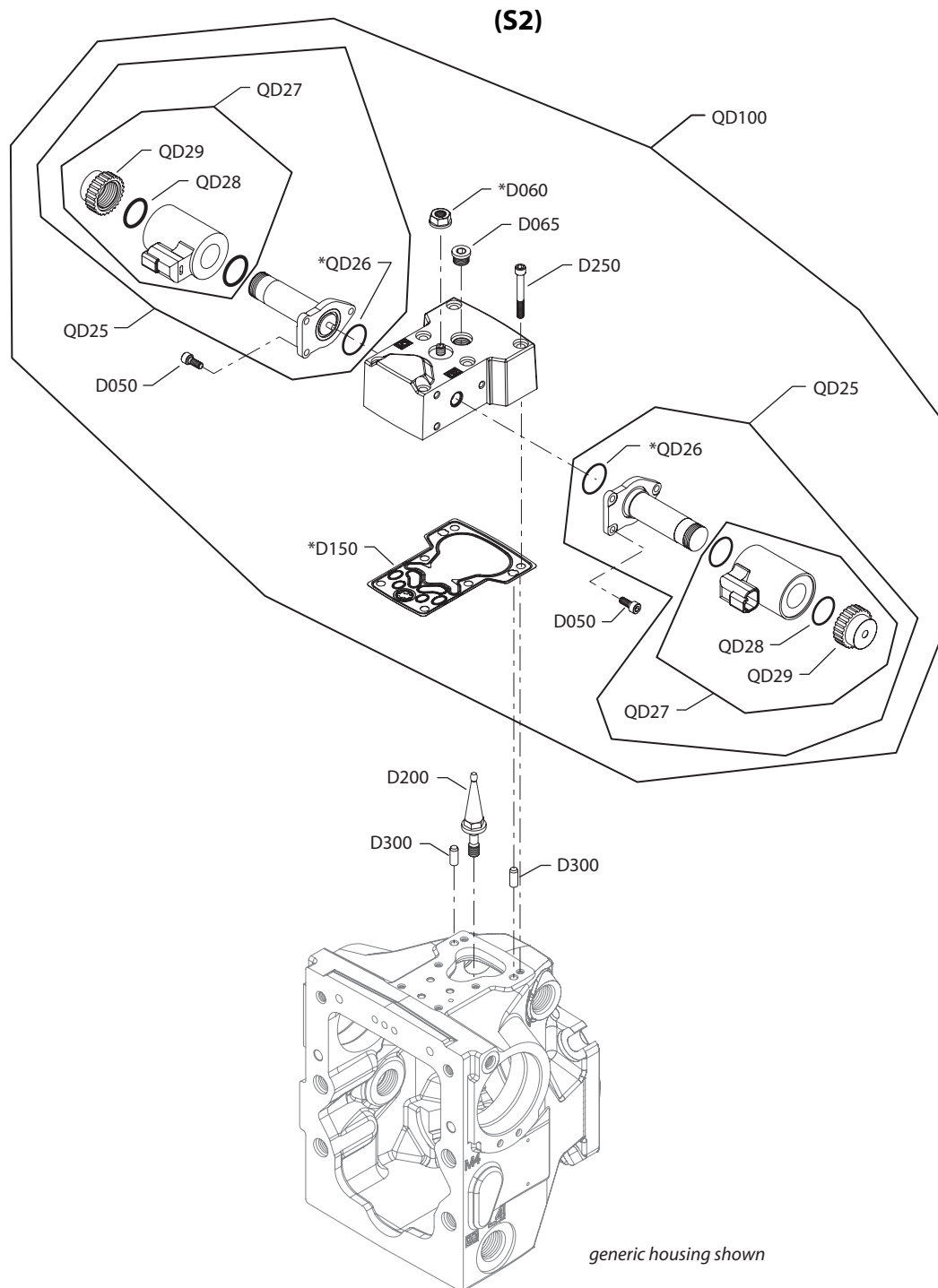
H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
R1	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		11036469	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	D610	16-30		11000467	Plug assembly	2
	D611	16-30		11066774	O-ring	2
	D640	16-30		11105876	AC wiring harness	1
	D655	16-30		11084827	Blank, connector DTM 06-3S	1
	D672	16-30		11151875	Protection	1
	D674	16-30		716860	Screw, M5 x 12	2
	QD25	16-30		140750	Proportional solenoid, 12 volt	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004749	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147940	Automotive control kit, 12v, manual override	1
R2	D050	16-30		716860	Screw, M5 x 12	6
	D150	16-30		11173377	Control gasket (SB-2016-033)	1
	D200	16-30		141472	Screw, special	1
	D250	16-30		505038	Screw, M6 x 45	6
	D300	16-30		11036469	Dowel pin	2
	D450	16-30		11003097	Magnetic carrier	1
	D610	16-30		11000467	Plug assembly	2
	D611	16-30		11066774	O-ring	2
	D640	16-30		11105876	AC wiring harness	1
	D655	16-30		11084827	Blank, connector DTM 06-3S	1
	D672	16-30		11151875	Protection	1
	D674	16-30		716860	Screw, M5 x 12	2
	QD25	16-30		140751	Proportional solenoid, 24 volt	2
	QD26	16-30		11001952	O-ring	2
	QD27	16-30		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-30		063172	O-ring	2
	QD29	16-30		11004750	Coil nut	2
	QD30	16-30		11027883	Cap	2
	QD100	16-30		11147942	Automotive control kit, 24v, manual override	1

Variable displacement pump



E100 912E

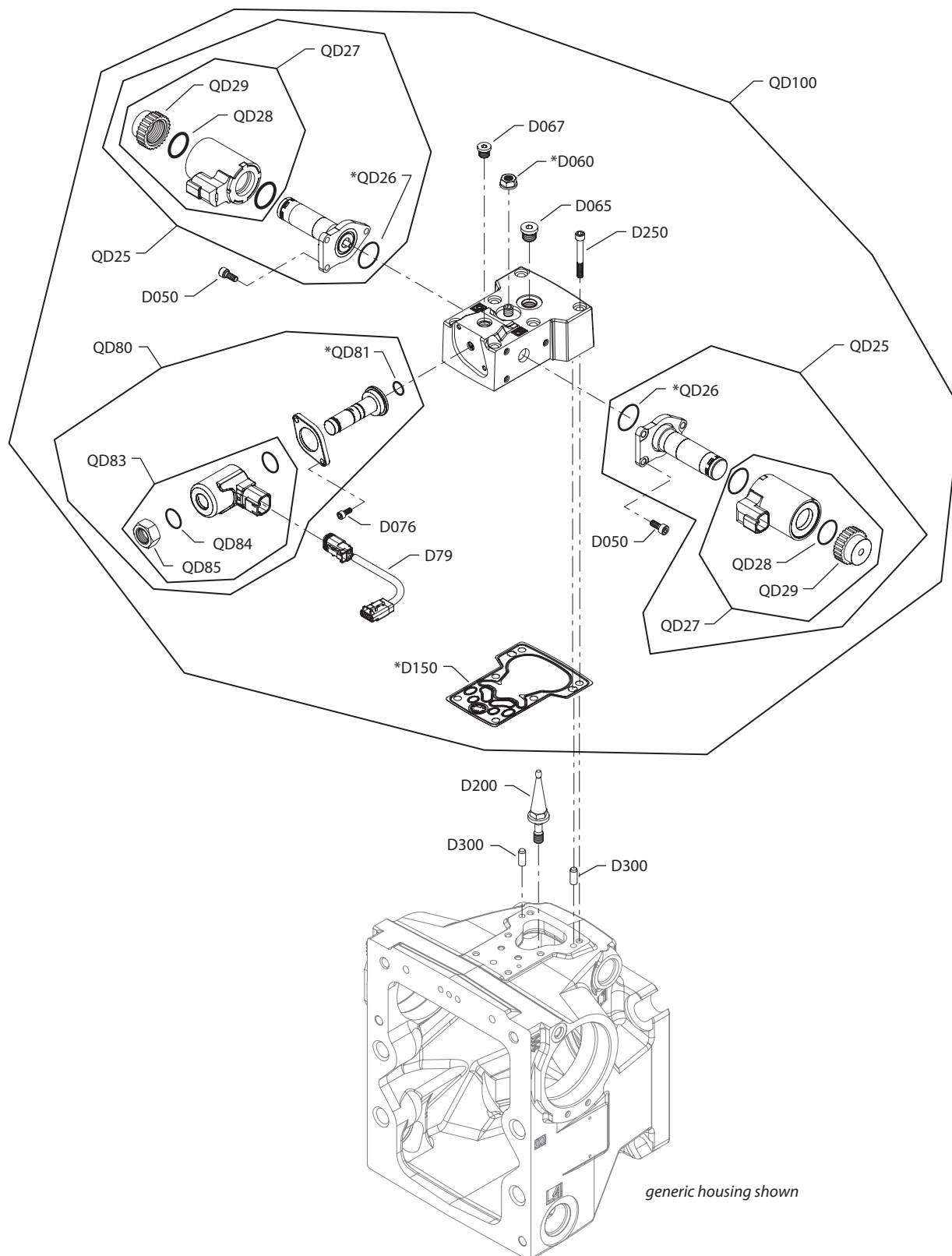
* = included in overhaul seal kit Q210

Variable displacement pump
Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
S2	D050	09-27		716860	Screw, M5 x 12	6
	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D065	09-27		140642	Plug assembly	1
	D150	09-27		11173377	Control gasket (SB-2016-033)	1
	D200	09-27		11148827	Swashplate feedback link	1
	D250	09-27		505038	Screw, M6 x 45	6
	D300	09-27		310979	Dowel pin	2
	QD25	09-27		11012457	Proportional solenoid, 12V	2
	QD26	09-27		11001952	O-ring	2
	QD27	09-27		11028018	Coil kit, 12V, Deutsch connector	2
	QD28	09-27		063172	O-ring	2
	QD29	09-27		11027046	Coil nut	2
	QD100	09-27		11170371	EDC kit, 12V, Deutsch connector, fast	1

Variable displacement pump

(S6)



E103 378E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

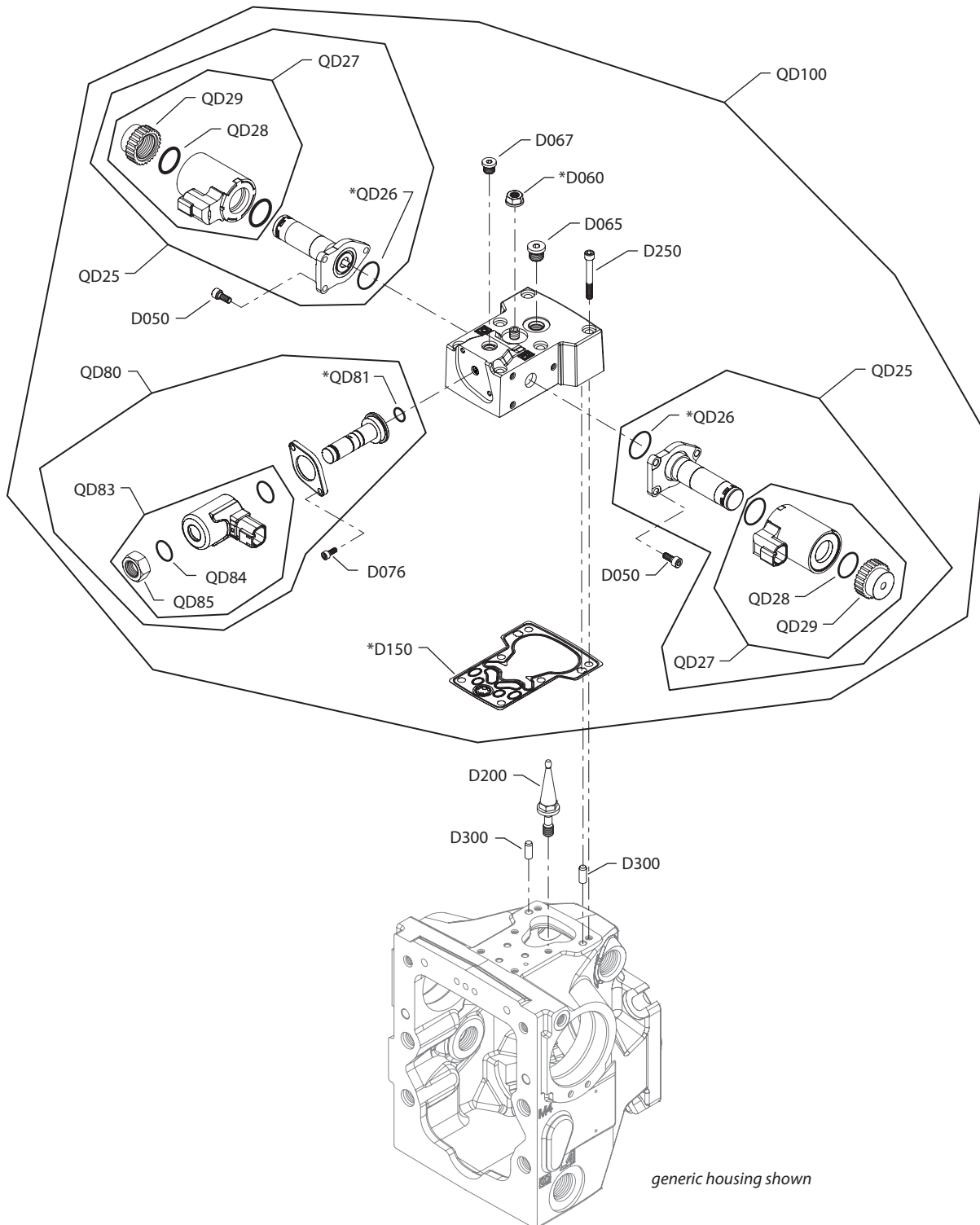
Variable displacement pump

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		140879	Control gasket	1
	D200	14-25		140724	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)



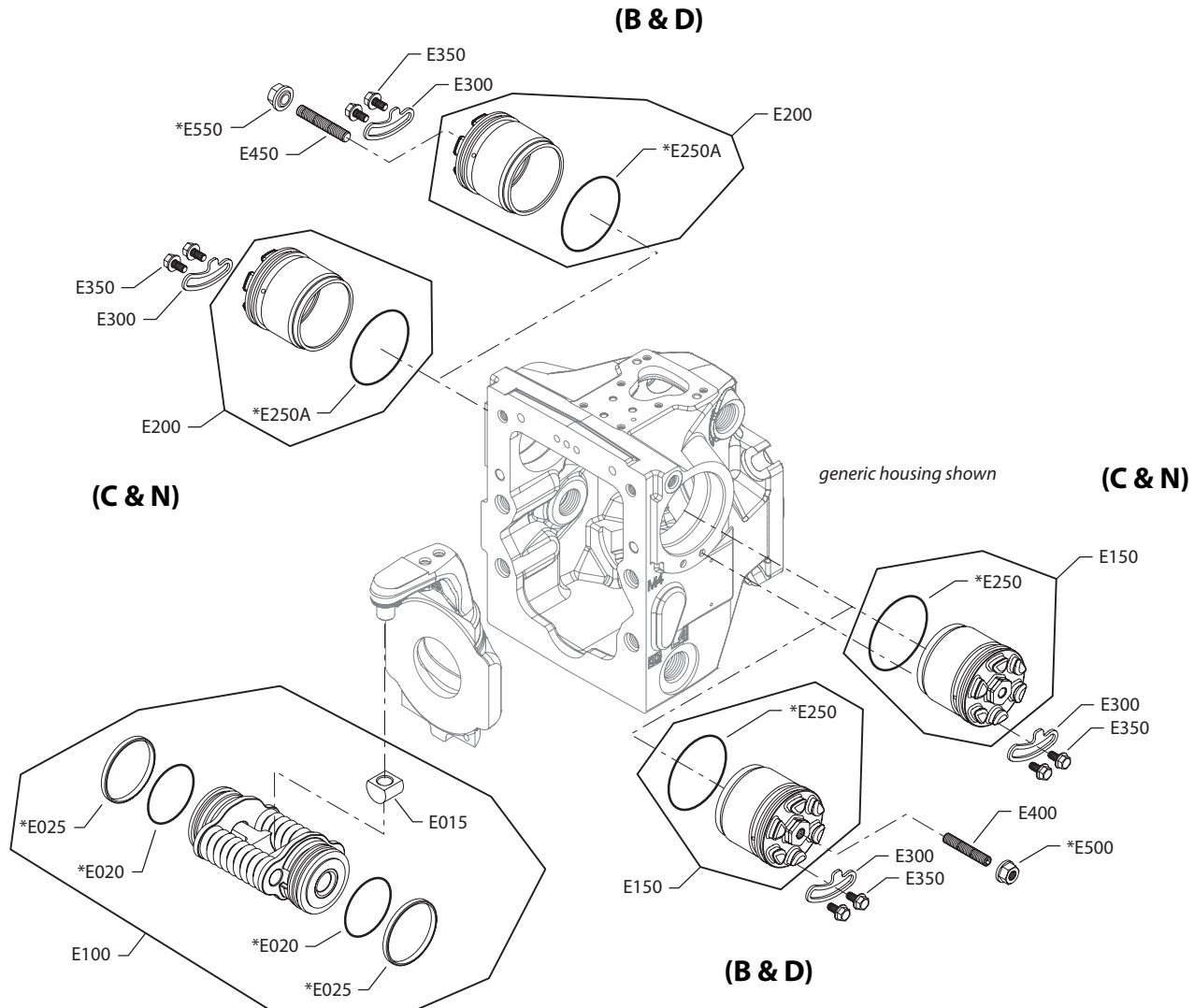
E103 356E

* = 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

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

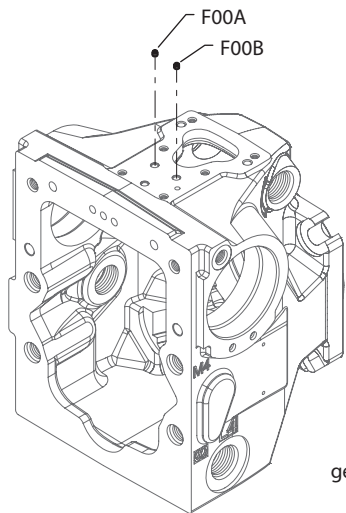
Variable displacement pump

Displacement limitation

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B	E100	09-27		11008551	Servo piston assembly	1
	E015	09-27		11141990	Slider block	1
	E020	09-27		11075555	O-ring	2
	E025	09-27		11075554	Piston seal ring	2
	E150	09-27		11089750	Servo cylinder assembly	1
	E200	09-27		11089750	Servo cylinder assembly	1
	E250	09-27		012187	O-ring	2
	E300	09-27		11033382	Locking plate	2
	E350	09-27		508438	Screw, M6 x 12	4
	E400	09-27		749556	Set screw, M10 x 80	1
	E450	09-27		749556	Set screw, M10 x 80	1
	E500	09-27		042432	Seal nut, M10	1
	E550	09-27		042432	Seal nut, M10	1
C	E100	09-27		11008614	Servo piston assembly, nested springs	1
	E015	09-27		11141990	Slider block	1
	E020	09-27		11075555	O-ring	2
	E025	09-27		11075554	Piston seal ring	2
	E150	09-27		11089751	Servo cylinder assembly	1
	E200	09-27		11089751	Servo cylinder assembly	1
	E250	09-27		012187	O-ring	2
	E300	09-27		11033382	Locking plate	2
	E350	09-27		508438	Screw, M6 x 12	4
D	E100	09-27		11008614	Servo piston assembly, nested springs	1
	E015	09-27		11141990	Slider block	1
	E020	09-27		11075555	O-ring	2
	E025	09-27		11075554	Piston seal ring	2
	E150	09-27		11089750	Servo cylinder assembly	1
	E200	09-27		11089750	Servo cylinder assembly	1
	E250	09-27		012187	O-ring	2
	E300	09-27		11033382	Locking plate	2
	E350	09-27		508438	Screw, M6 x 12	4
	E400	09-27		749556	Set screw, M10 x 80	1
	E450	09-27		749556	Set screw, M10 x 80	1
	E500	09-27		042432	Seal nut, M10	1
	E550	09-27		042432	Seal nut, M10	1
N	E100	09-27		11008551	Servo piston assembly	1
	E015	09-27		11141990	Slider block	1
	E020	09-27		11075555	O-ring	2
	E025	09-27		11075554	Piston seal ring	2
	E150	09-27		11089751	Servo cylinder assembly	1
	E200	09-27		11089751	Servo cylinder assembly	1
	E250	09-27		012187	O-ring	2
	E300	09-27		11033382	Locking plate	2
	E350	09-27		508438	Screw	4

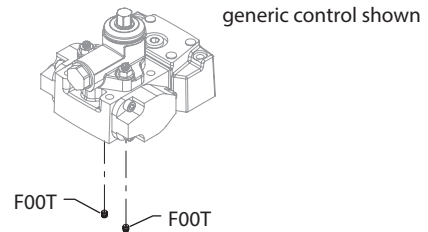
Variable displacement pump

(C1, C2, C4, C5 & D7)



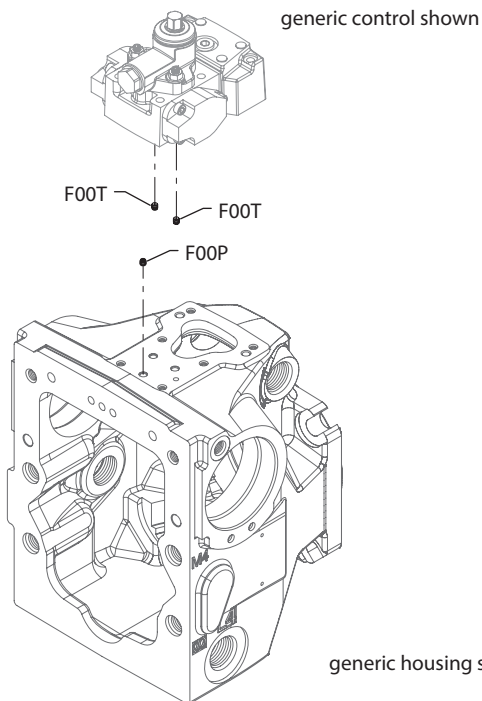
generic housing shown

(C6 & C7)



generic control shown

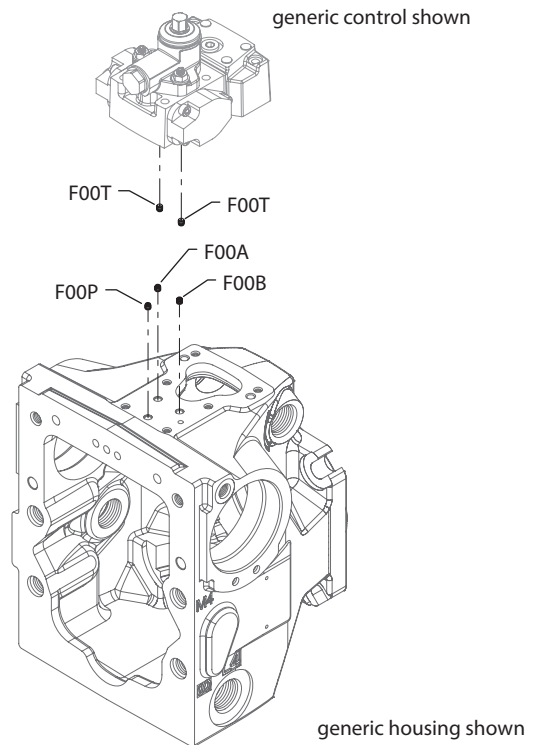
(D1, D2, D3 & D6)



generic control shown

generic housing shown

(D4)



generic control shown

generic housing shown

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

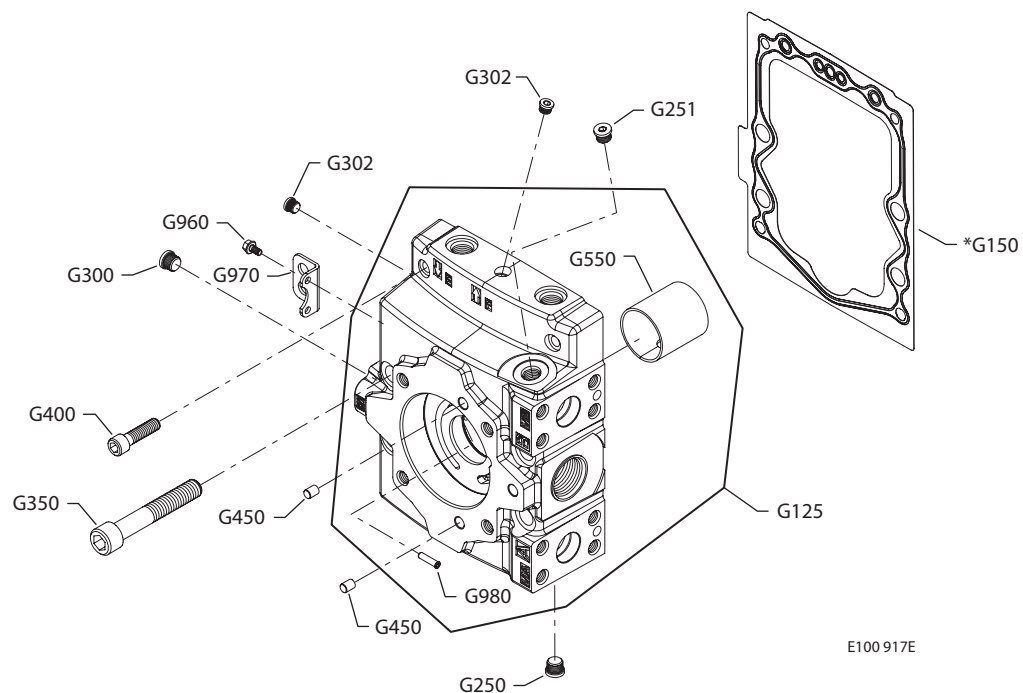
Orifice

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	F00A	09-27		140611	Orifice, 0.8, M6 x 0.75 mm	1
	F00B	09-27		140611	Orifice, 0.8, M6 x 0.75 mm	1
C2	F00A	09-27		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00B	09-27		140754	Orifice, 1.3, M6 x 0.75 mm	1
C3				No parts		
C4	F00A	14-01		140757	Orifice, 1.8, M6 x 0.75 mm	1
	F00B	14-01		140757	Orifice, 1.8, M6 x 0.75 mm	1
C5	F00A	14-01		140759	Orifice, 2.5, M6 x 0.75 mm	1
	F00B	14-01		140759	Orifice, 2.5, M6 x 0.75 mm	1
C6	F00T	14-01		11151734	Orifice, 1.0 M6 x 0.75 mm	2
C7	F00T	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	2
D1	F00P	14-01		11151734	Orifice, 1.0 M6 x 0.75 mm	1
	F00T	14-01		140611	Orifice, 0.8 M6 x 0.75 mm	2
D2	F00P	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00T	14-01		140611	Orifice, 0.8 M6 x 0.75 mm	2
D3	F00P	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00T	14-01		11151734	Orifice, 1.0 M6 x 0.75 mm	2
D4	F00A	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00B	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00P	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00T	14-01		11151734	Orifice, 1.0 M6 x 0.75 mm	2
D6	F00P	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	1
	F00T	14-01		140754	Orifice, 1.3, M6 x 0.75 mm	2
D7	F00A	14-01		11168268	Orifice, 3.0, M6 x 0.75 mm	1
	F00B	14-01		11168268	Orifice, 3.0, M6 x 0.75 mm	1



Variable displacement pump

(D3 & D6)



* = included in overhaul seal kit Q210

Parts Manual

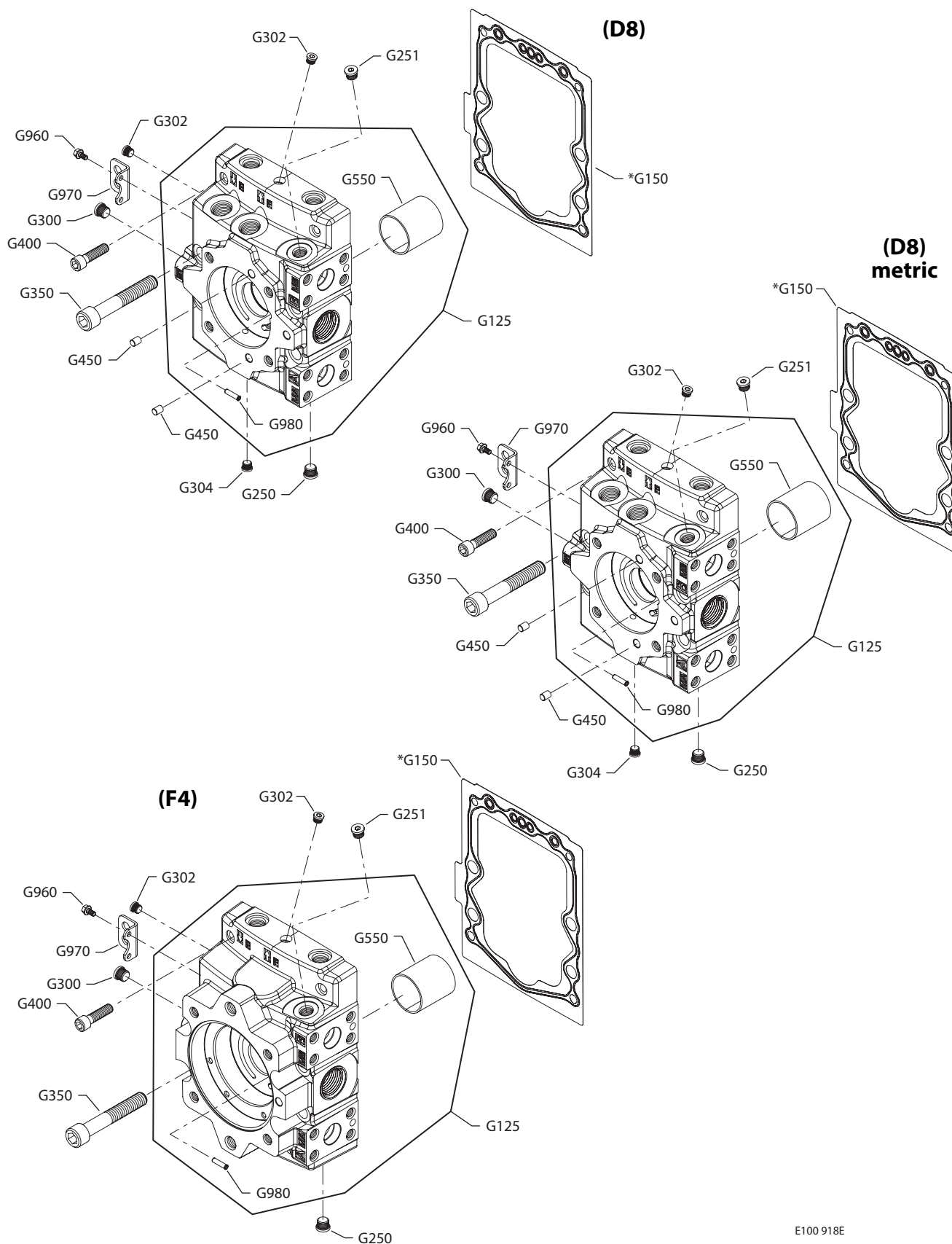
H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

End cap

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D3	QG125	09-27		11011634	End cap assembly, CW	1
	QG125	09-27		11011640	End cap assembly, CCW	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		140644	Plug assembly	1
	G251	09-27		140644	Plug assembly	1
	G300	09-27		140644	Plug assembly	1
	G302	09-27		11040532	Plug assembly	2
	G350	09-27		519508	Screw	4
	G400	09-27		147900	Screw	2
	G450	09-27		9004800-3708	Dowel pin	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G650	09-27		8800565	Lifting bracket	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1
D6	QG125	09-27		11011635	End cap assembly, CW	1
	QG125	09-27		11011641	End cap assembly, CCW	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		140644	Plug assembly	1
	G251	09-27		140644	Plug assembly	1
	G300	09-27		140644	Plug assembly	1
	G302	09-27		11040532	Plug assembly	2
	G350	09-27		519508	Screw	4
	G400	09-27		147900	Screw	2
	G450	09-27		9004800-3708	Dowel pin	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G650	09-27		8800565	Lifting bracket	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1

Variable displacement pump



E100 918E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

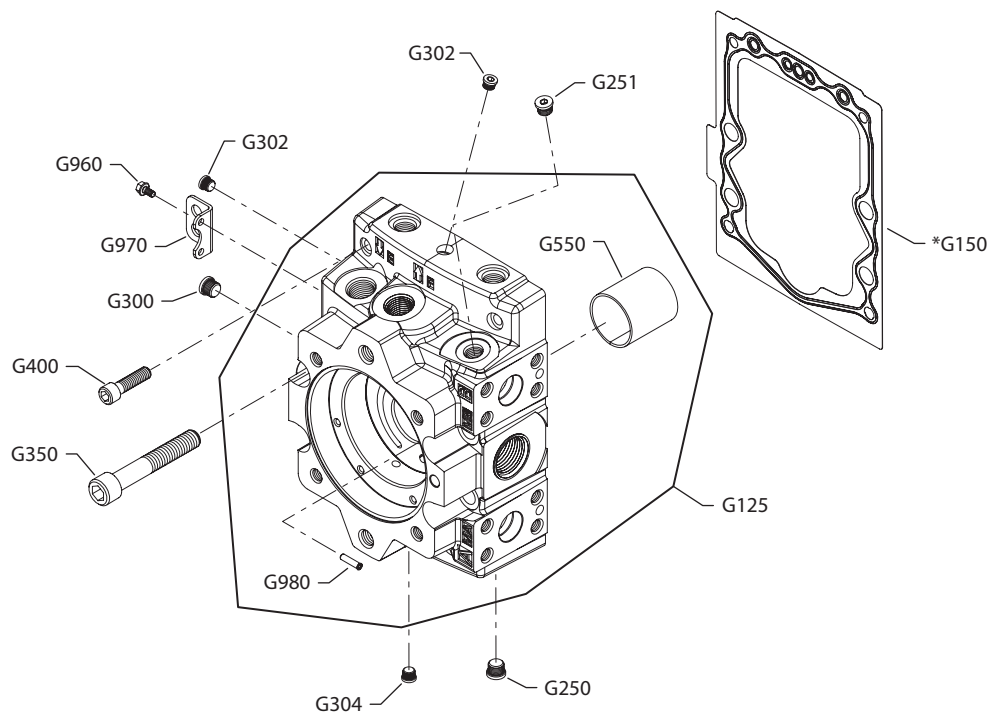
Variable displacement pump

End cap

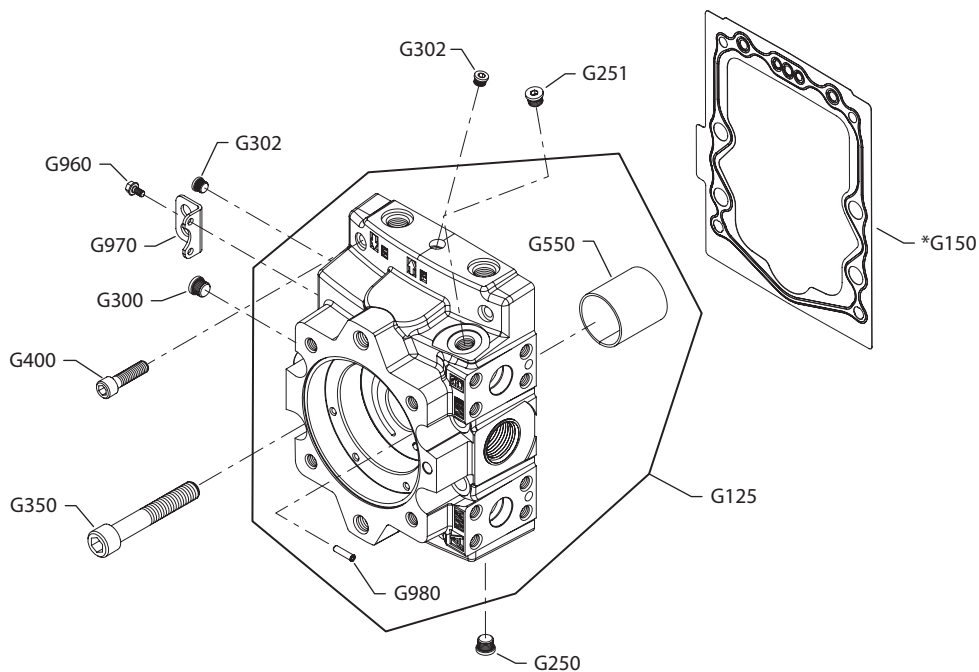
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D8	QG125	09-27		11011636	End cap assembly, CW	1
	QG125	09-27		11011642	End cap assembly, CCW	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		140644	Plug assembly	1
	G251	09-27		140644	Plug assembly	1
	G300	09-27		140644	Plug assembly	1
	G302	09-27		11040532	Plug assembly	2
	G304	09-27		11040532	Plug assembly	1
	G350	09-27		519508	Screw, M16 x 100	4
	G400	09-27		147900	Screw, M10 x 45	2
	G450	09-27		9004800-3708	Dowel pin	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1
D8 (metric)	QG125	09-27		11011636	End cap assembly, CW	1
	QG125	09-27		11173913	End cap assembly, CCW, metric	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		11178808	Plug assembly, M14	1
	G251	09-27		11178808	Plug assembly, M14	1
	G300	09-27		11178808	Plug assembly, M14	1
	G302	09-27		11040532	Plug assembly	1
	G304	09-27		11040532	Plug assembly	1
	G350	09-27		5000676	Screw, M16 x 130	4
	G400	09-27		147900	Screw, M10 x 45	2
	G450	09-27		9004800-3708	Dowel pin	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1
F4	QG125	09-27		11011637	End cap assembly, CW, SAE C	1
	QG125	09-27		11011643	End cap assembly, CCW, SAE C	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		140644	Plug assembly	1
	G251	09-27		140644	Plug assembly	1
	G300	09-27		140644	Plug assembly	1
	G302	09-27		11040532	Plug assembly	2
	G350	09-27		519508	Screw	4
	G400	09-27		147900	Screw	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1

Variable displacement pump

(F5)



(F6)



E100 919E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

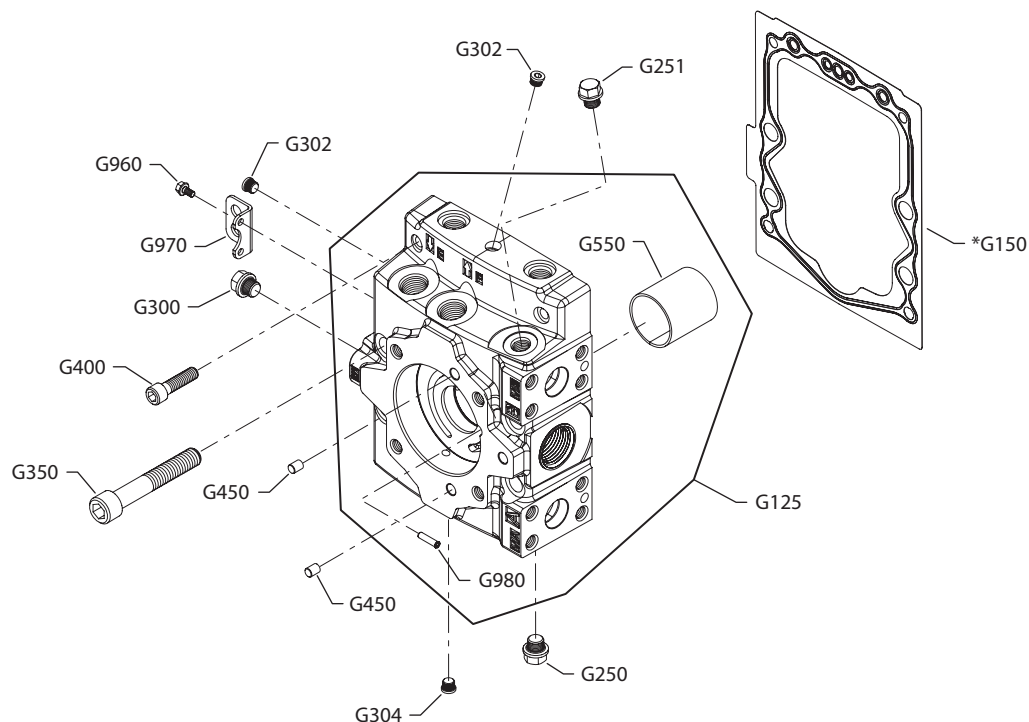
Variable displacement pump

End cap

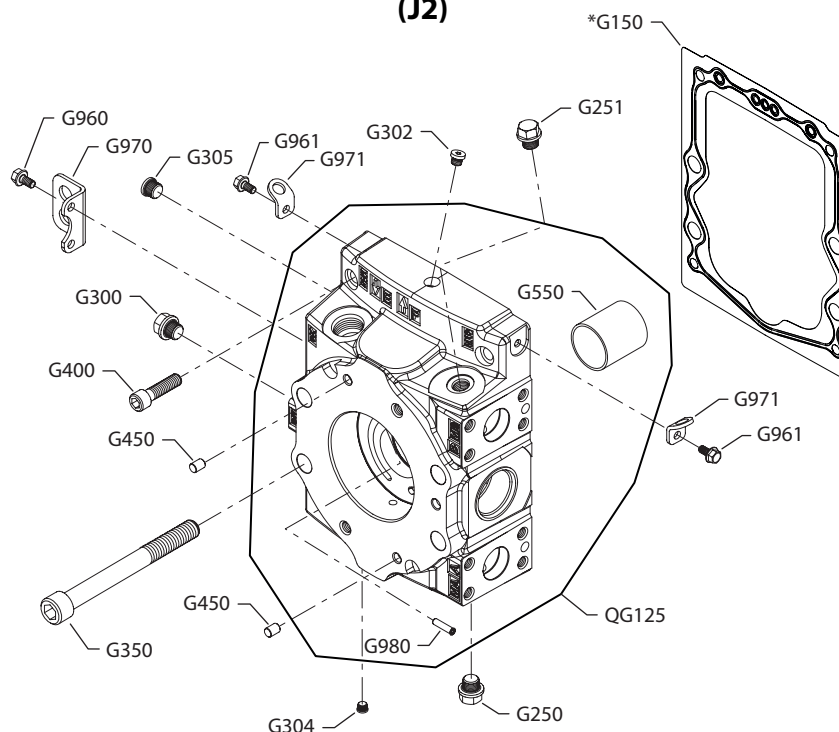
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F5	QG125	09-27		11011638	End cap assembly, CW, SAE C	1
	QG125	09-27		11011644	End cap assembly, CCW, SAE C	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		140644	Plug assembly	1
	G251	09-27		140644	Plug assembly	1
	G300	09-27		140644	Plug assembly	1
	G302	09-27		11040532	Plug assembly	2
	G304	09-27		11040532	Plug assembly	1
	G350	09-27		519508	Screw, M16 x 100	4
	G400	09-27		147900	Screw, M10 x 45	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1
F6	QG125	09-27		11011639	End cap assembly, CW, SAE C	1
	QG125	09-27		11011645	End cap assembly, CCW, SAE C	1
	G150	09-27		11011646	End cap gasket	1
	G250	09-27		140644	Plug assembly	1
	G251	09-27		140644	Plug assembly	1
	G300	09-27		140644	Plug assembly	1
	G302	09-27		11040532	Plug assembly	2
	G350	09-27		519508	Screw, M16 x 100	4
	G400	09-27		147900	Screw, M10 x 45	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1

Variable displacement pump

(G9)



(J2)



E103 385E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

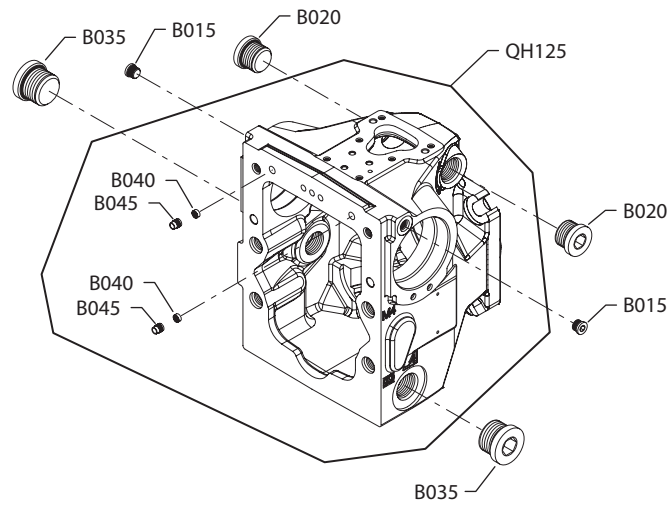
Variable displacement pump

End cap

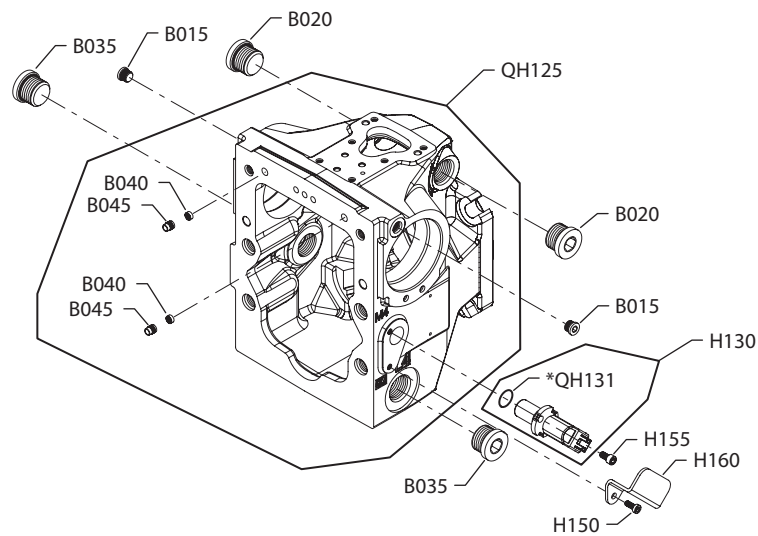
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
G9	QG125	09-27		11011636	End cap assembly, CW	1
	G150	09-27		11011646	End cap gasket	1
	G250	14-12		11147119	Plug assembly, special	1
	G251	14-12		11147119	Plug assembly, special	1
	G300	14-12		11147119	Plug assembly, special	1
	G302	09-27		11040532	Plug assembly	2
	G304	09-27		11040532	Plug assembly	1
	G350	09-27		519508	Screw, M16 x 100	4
	G400	09-27		147900	Screw, M10 x 45	2
	G450	09-27		9004800-3708	Dowel pin	2
	G550	09-27		11087822	Journal bearing (SB-2012-009)	1
	G960	09-27		508438	Screw	2
	G970	09-27		4460311	Lifting bracket	1
	G980	09-27		11000229	Lubrication orifice	1
J2	G125	14-12		11130745	End cap assembly, CW	1
	G150	14-12		11011646	End cap gasket	1
	G250	14-12		11147119	Plug assembly, special	1
	G251	14-12		11147119	Plug assembly, special	1
	G300	14-12		11147119	Plug assembly, special	1
	G302	14-12		11040532	Plug assembly	1
	G304	14-12		11040532	Plug assembly	1
	G305	14-12		140644	Plug assembly	1
	G350	14-12		5000676	Screw, M16 x 130	4
	G400	14-12		147900	Screw, M10 x 45	2
	G450	14-12		9004800-3708	Pin	2
	G550	14-12		11087822	Journal bearing	1
	G960	14-12		508438	Screw, M6 x 12	2
	G961	14-12		508438	Screw, M6 x 12	2
	G970	14-12		4460311	Lifting bracket	1
	G971	14-12		4800754	Lifting bracket	2
	G980	14-12		11000229	Lubrication orifice	1

Variable displacement pump

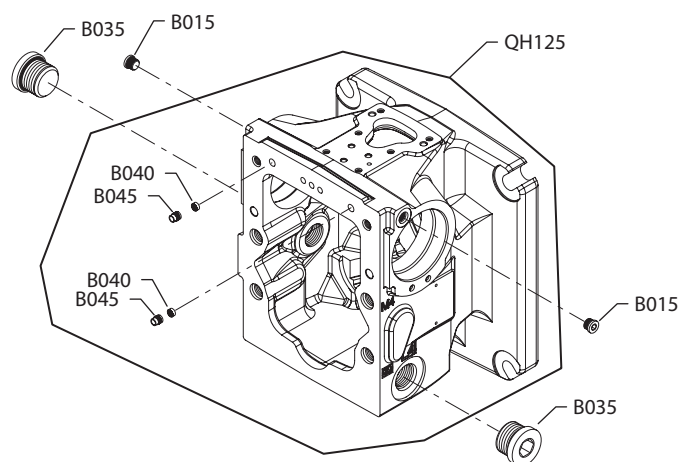
(H)



(K)



(M)



E100 998E

* = included in overhaul seal kit Q210

Parts Manual

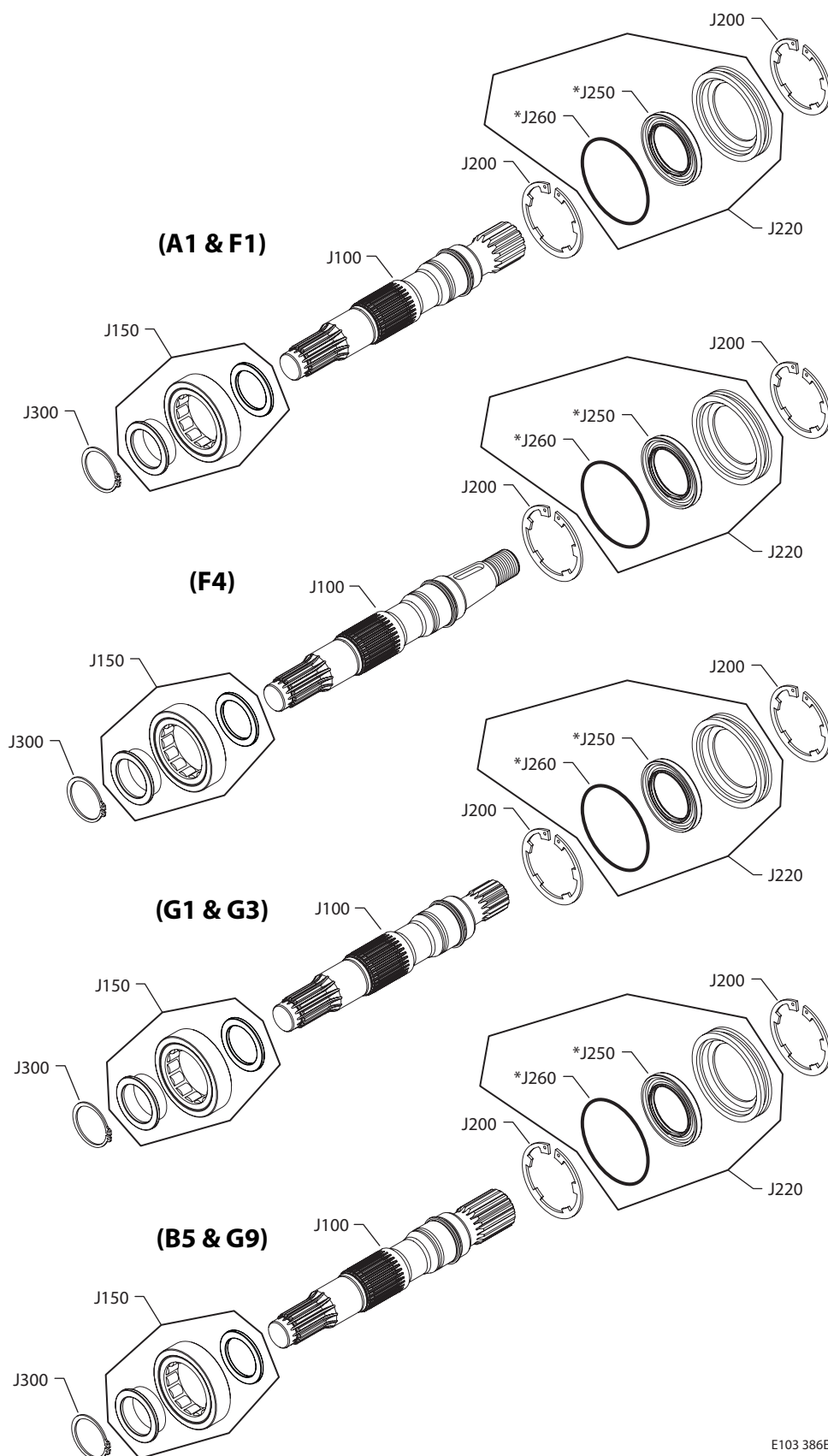
H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Housing

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
H	B015	09-27		140642	Plug assembly	2
	B020	09-27		664524 (9005110-9000)	Plug assembly	2
	B035	09-27		664524 (9005110-9000)	Plug assembly	2
	B040	09-27		140967	Screen	2
	B045	09-27		11062684	Screen retainer	2
	QH125	09-27		11008602	Housing assembly, H1P089-100	1
H (metric)	B015	09-27		5000572	Plug assembly, M12	2
	B020	09-27		11178807	Plug assembly, M27	2
	B035	09-27		11178807	Plug assembly, M27	2
	B040	09-27		140967	Screen	2
	B045	09-27		11062684	Screen retainer	2
	QH125	09-27		11173939	Housing assembly, H1P089-100, metric	1
K	B015	09-27		140642	Plug assembly	2
	B020	09-27		664524 (9005110-9000)	Plug assembly	2
	B035	09-27		664524 (9005110-9000)	Plug assembly	2
	B040	09-27		140967	Screen	2
	B045	09-27		11062684	Screen retainer	2
	H130	09-27		149055	Speed sensor assembly	1
	H150	09-27		508438	Screw, hex flange head	1
	H155	09-27		376749	Screw, socket head	1
	H160	09-27		11025029	Speed sensor protector	1
	QH125	09-27		11036030	Housing assembly, H1P089-100, speed sensing	1
	QH131	09-27		11013397	O-ring	1
M	B015	09-27		140642	Plug assembly	2
	B035	09-27		664524 (9005110-9000)	Plug assembly	2
	B040	09-27		140967	Screen	2
	B045	09-27		11062684	Screen retainer	2
	QH125	09-27		11131859	Housing assembly, H1P089-100	1

Variable displacement pump



E103 386E

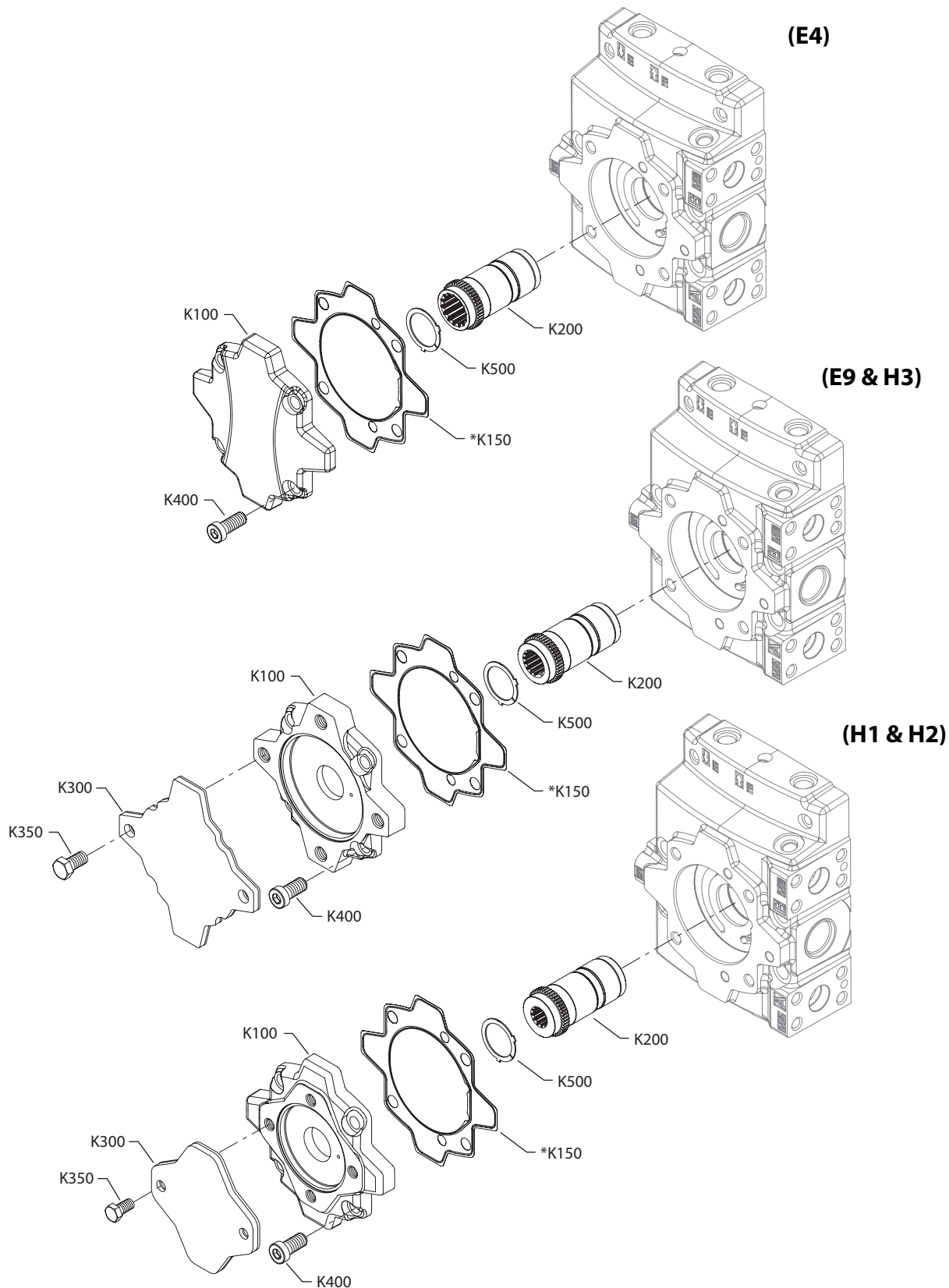
* = included in overhaul seal kit Q210

Variable displacement pump
Shaft

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	J150	13-13		11056147	Roller bearing	1
	J200	13-13		11056148	Retaining ring	2
	J220	13-13		11043910	Shaft seal carrier assembly	1
	J250	13-13		140911	Lip seal	1
	J260	13-13		11043926	O-ring	1
	J300	13-13		11040337	Retaining ring	1
A1	J100	13-13		11129592	Shaft, 17 tooth spline, 12/24 pitch	1
B5	J100	17-09		11186768	Shaft, 23 tooth spline, 16/32 pitch	1
F1	J100	09-27		11112179	Shaft, 21 tooth spline, 16/32 pitch (SB-2012-014)	1
F4	J100	09-27		11112181	Shaft, tapered (SB-2012-014)	1
G1	J100	09-27		11112178	Shaft, 14 tooth spline, 12/24 pitch (SB-2012-014)	1
G3	J100	14-02		11142964	Shaft, 13 tooth spline, 8/16 pitch	1
G9	J100	09-27		11112180	Shaft, 23 tooth spline, 16/32 pitch (SB-2012-014)	1



Variable displacement pump



E100 921E

* = included in overhaul seal kit Q210

Parts Manual

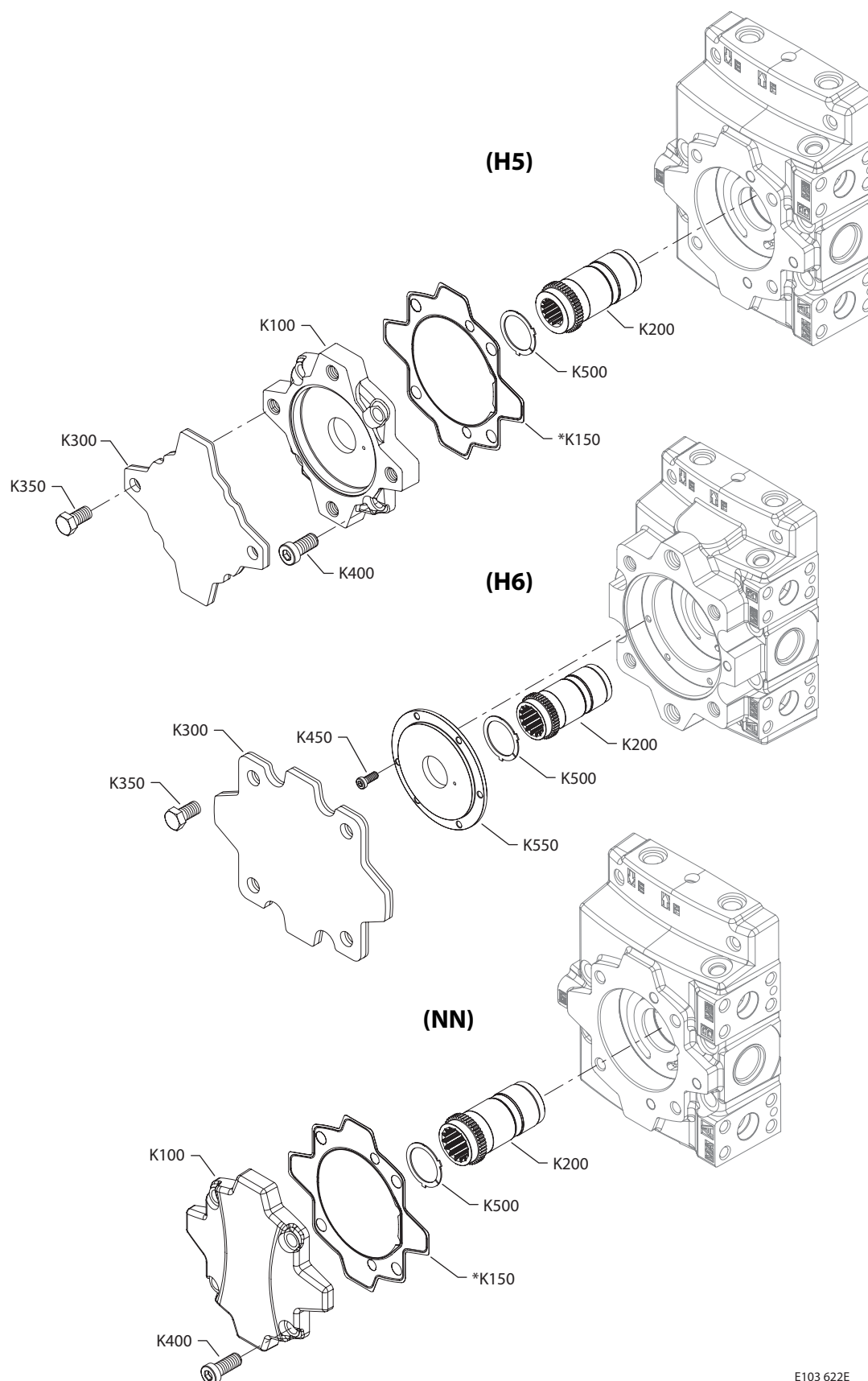
H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E4	K100	13-21		11135390	Adapter flange, NN special	1
	K150	13-21		11029873	Adapter seal	1
	K200	13-21		11011457	Charge pump shaft, 14 tooth, 12/24 pitch	1
	K400	13-21		11000819	Screw, M12 x 25	4
	K500	13-21		141105	Thrust washer	1
E9	K100	15-26		141240	Adapter flange, SAE B	1
	K150	15-26		11029873	Adapter seal	1
	K200	15-26		11011458	Charge pump shaft, 11 tooth, 16/32 pitch	1
	K300	15-26		11023746	Flange cover	1
	K350	15-26		509528	Screw, M12 x 20	2
	K400	15-26		11000819	Screw, M12 x 25	4
	K500	15-26		141105	Thrust washer	1
G1	K100	09-27		11167451	Adapter flange, 32 degree	1
	K150	09-27		11167589	Adapter seal, 32 degree	1
	K200	09-27		11011457	Charge pump shaft, 14 tooth, 12/24 pitch	1
	K300	09-27		11137046	Flange cover	1
	K350	09-27		509528	Screw, M12 x 20	2
	K400	09-27		11000819	Screw, M12 x 25	4
	K500	09-27		141105	Thrust washer	1
H1	K100	09-27		140927	Adapter flange, SAE A	1
	K150	09-27		11029873	Adapter seal	1
	K200	09-27		11011458	Charge pump shaft, 11 tooth, 16/32 pitch	1
	K300	09-27		11017125	Flange cover	1
	K350	09-27		370247	Screw, M10 x 20	2
	K400	09-27		11000819	Screw, M12 x 25	4
	K500	09-27		141105	Thrust washer	1
H2	K100	09-27		140927	Adapter flange, SAE A	1
	K150	09-27		11029873	Adapter seal	1
	K200	09-27		11011460	Charge pump shaft, 9 tooth, 16/32 pitch	1
	K300	09-27		11017125	Flange cover	1
	K350	09-27		370247	Screw, M10 x 20	2
	K400	09-27		11000819	Screw, M12 x 25	4
	K500	09-27		141105	Thrust washer	1
H3	K100	09-27		141240	Adapter flange, SAE B	1
	K150	09-27		11029873	Adapter seal	1
	K200	09-27		11011461	Charge pump shaft, 13 tooth, 16/32 pitch	1
	K300	09-27		11023746	Flange cover	1
	K350	09-27		509528	Screw, M12 x 20	2
	K400	09-27		11000819	Screw, M12 x 25	4
	K500	09-27		141105	Thrust washer	1

Variable displacement pump



E103 622E

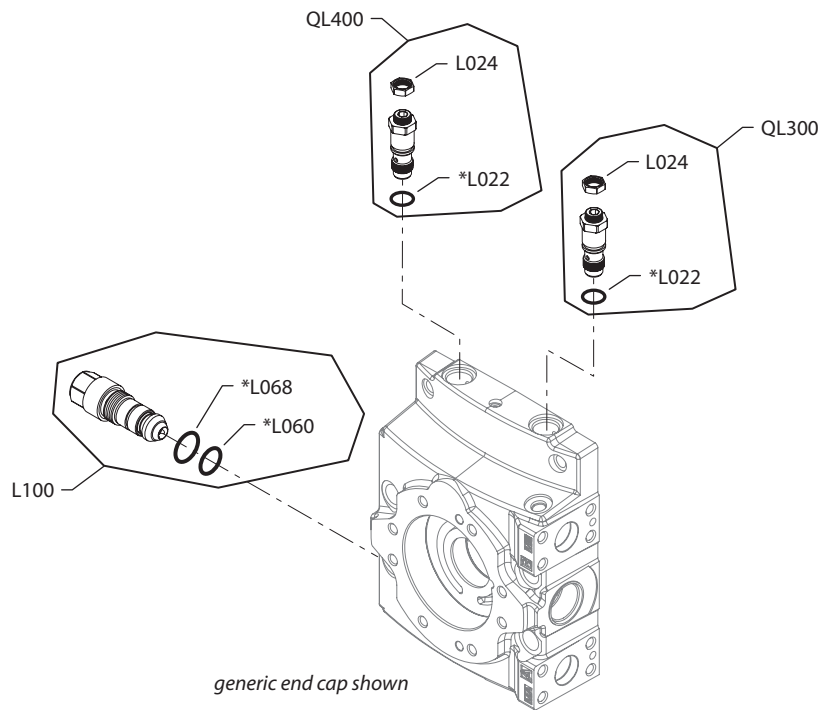
* = included in overhaul seal kit Q210

Variable displacement pump
Auxiliary mounting

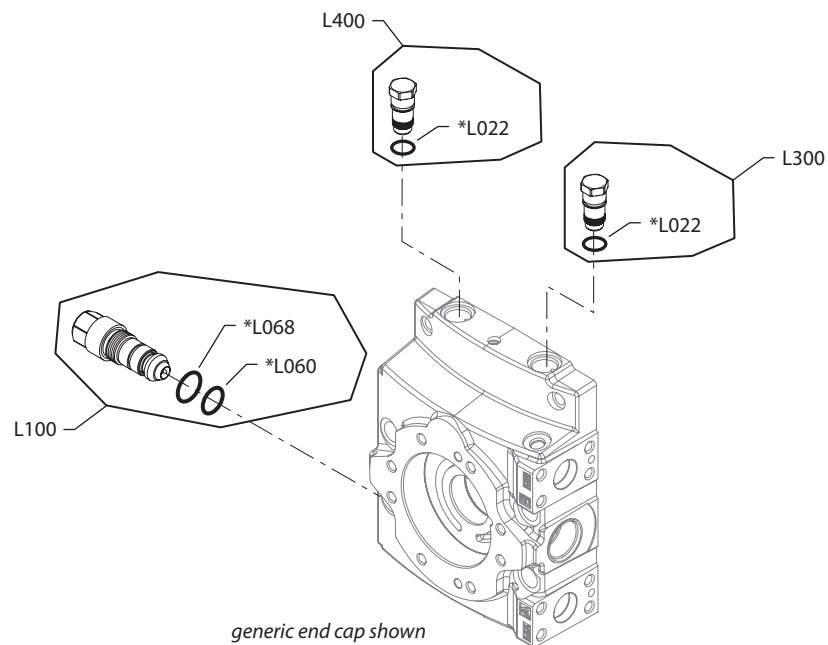
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
H5	K100	09-27		141240	Adapter flange, SAE B	1
	K150	09-27		11029873	Adapter seal	1
	K200	09-27		11011462	Charge pump shaft, 15 tooth, 16/32 pitch	1
	K300	09-27		11023746	Flange cover	1
	K350	09-27		509528	Screw, M12 x 20	2
	K400	09-27		11000819	Screw, M12 x 25	4
	K500	09-27		141105	Thrust washer	1
H6	K200	09-27		11011457	Coupling, 14 tooth, 12/24 pitch	1
	K300	09-27		11023750	Flange cover	1
	K350	09-27		509528	Screw, M12 x 20	4
	K450	09-27		376749	Screw, M6 x 12	6
	K500	09-27		141105	Thrust washer	1
	K550	09-27		11149453	Charge pump cover	1
NN	K100	09-27		141249	Adapter flange, no pad	1
	K150	09-27		11029873	Adapter seal	1
	K200	09-27		11011457	Charge pump shaft, 14 tooth, 12/24 pitch	1
	K400	09-27		11000819	Screw, M12 x 25	4
	K500	09-27		141105	Thrust washer	1

Variable displacement pump

(F01 - F08)



(K18 - K28)



Parts Manual

H1P 89 & 100cc Variable Displacement Pump

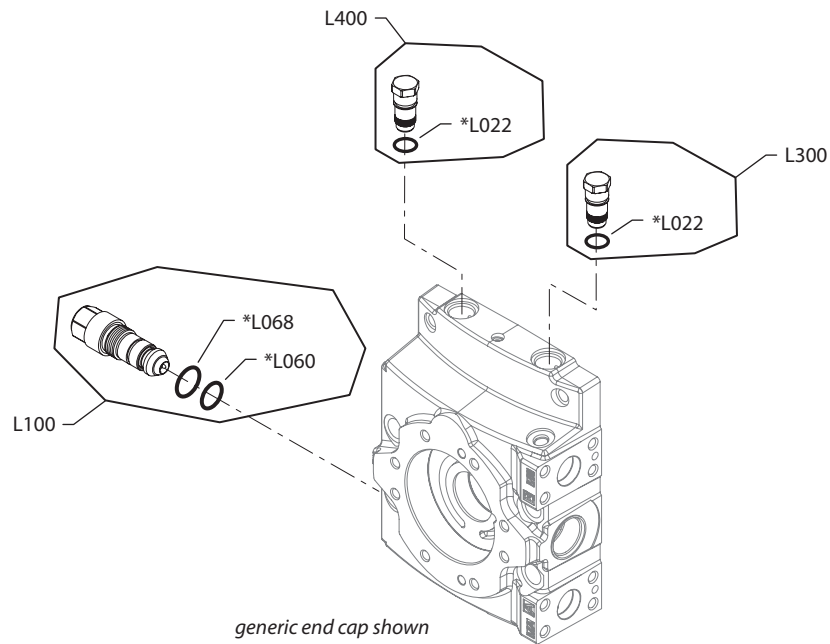
Variable displacement pump

High pressure setting, port A

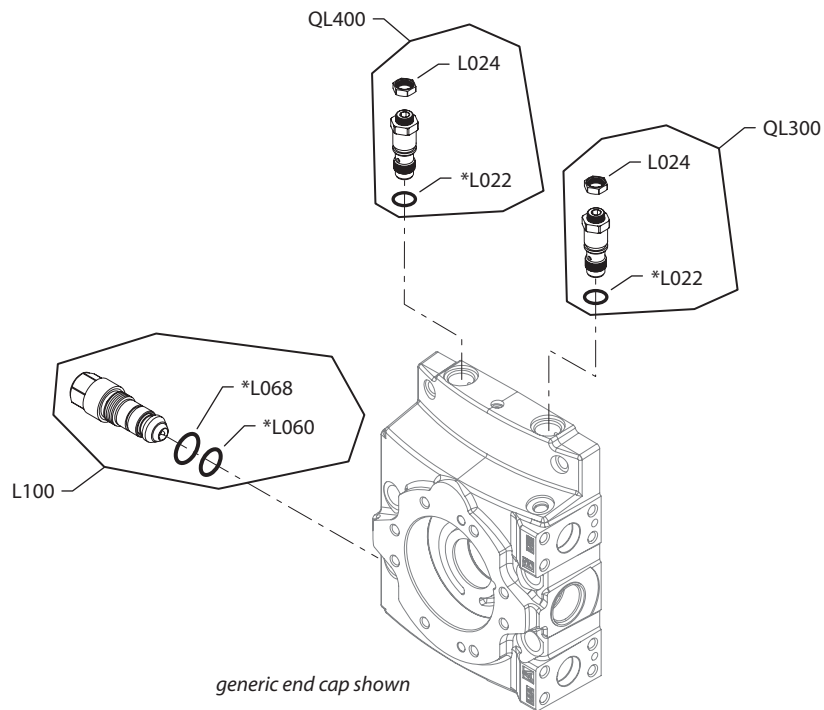
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		041152	O-ring	1
	L060	09-27		141109	O-ring	1
	L068	09-27		11052215	O-ring	1
F01	L024	13-14		11054668	Nut	1
	L100	13-14		11049123	High pressure relief valve, 250 bar	1
	QL300	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
F02	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	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	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
F08	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
K18	L100	09-27		11049120	High pressure relief valve, 180 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K20	L100	09-27		11049121	High pressure relief valve, 200 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K23	L100	09-27		11049122	High pressure relief valve, 230 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K25	L100	09-27		11049123	High pressure relief valve, 250 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K28	L100	09-27		11049124	High pressure relief valve, 280 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1

Variable displacement pump

(K30 - K48)



(L15 - L20)



E100 922E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

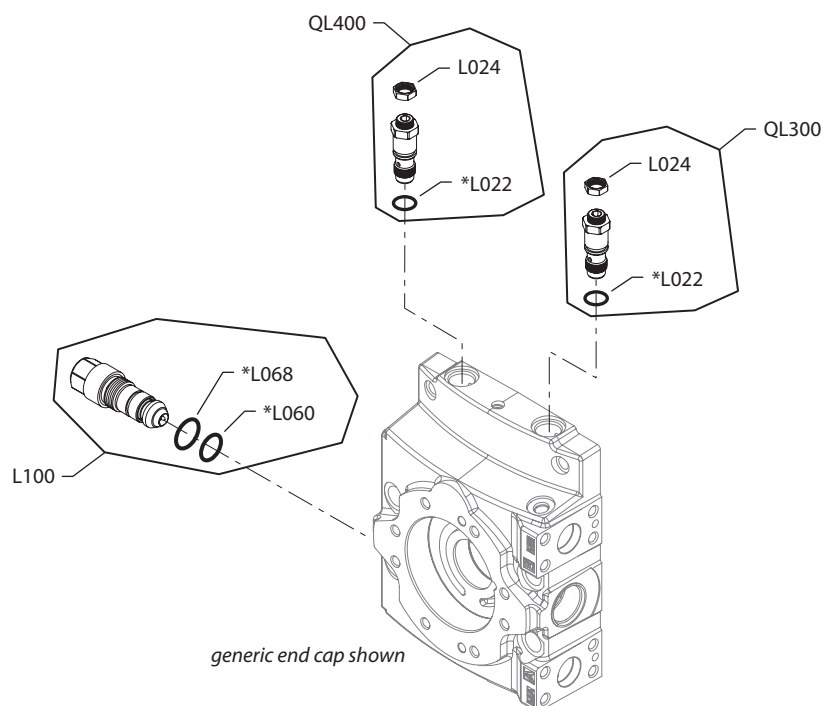
High pressure setting, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		041152	O-ring	1
	L060	09-27		141109	O-ring	1
	L068	09-27		11052215	O-ring	1
K30	L100	09-27		11049125	High pressure relief valve, 300 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K33	L100	09-27		11049126	High pressure relief valve, 330 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K35	L100	09-27		11049127	High pressure relief valve, 350 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K38	L100	09-27		11049128	High pressure relief valve, 380 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K40	L100	09-27		11049129	High pressure relief valve, 400 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K42	L100	09-27		11049130	High pressure relief valve, 420 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K45	L100	09-27		11049131	High pressure relief valve, 450 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
K48	L100	09-27		11049132	High pressure relief valve, 480 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
L15	L024	09-27		11054668	Nut	1
	L100	09-27		11049121	High pressure relief valve, 200 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L18	L024	09-27		11054668	Nut	1
	L100	09-27		11049122	High pressure relief valve, 230 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L20	L024	09-27		11054668	Nut	1
	L100	09-27		11049123	High pressure relief valve, 250 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1



Variable displacement pump

(L23 -L43)



E101 906E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

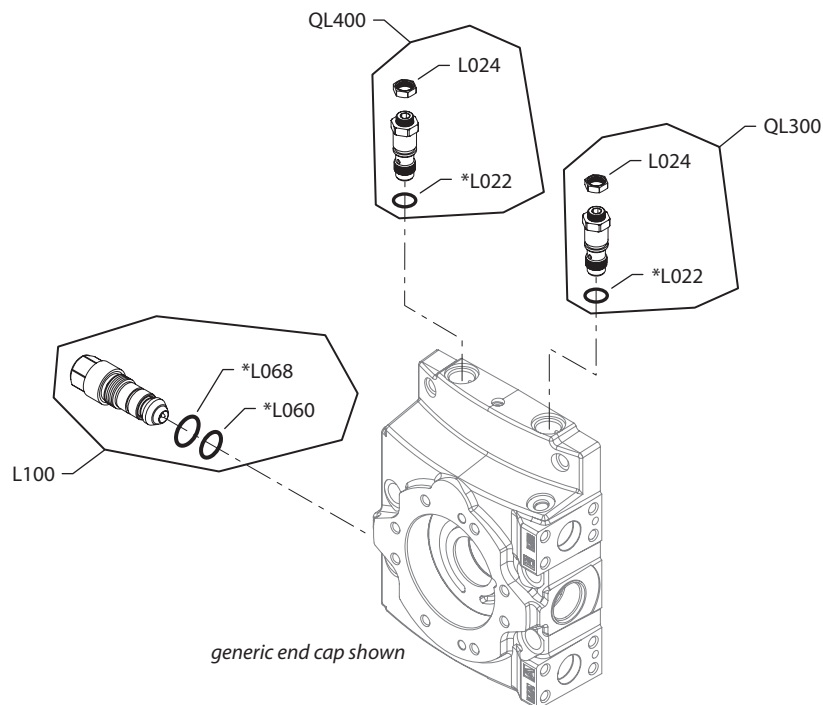
High pressure setting, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		041152	O-ring	1
	L024	09-27		11054668	Nut	1
	L060	09-27		365023	O-ring	1
	L068	09-27		11052201	O-ring	1
L23	L024	09-27		11054668	Nut	1
	L100	09-27		11049124	High pressure relief valve, 280 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L25	L100	09-27		11049125	High pressure relief valve, 300 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L28	L100	09-27		11049126	High pressure relief valve, 330 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L30	L100	09-27		11049127	High pressure relief valve, 350 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L33	L100	09-27		11049128	High pressure relief valve, 380 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L35	L100	09-27		11049129	High pressure relief valve, 400 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L38	L100	09-27		11049130	High pressure relief valve, 420 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L40	L100	09-27		11049131	High pressure relief valve, 450 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L41	L100	09-27		11049131	High pressure relief valve, 450 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L42	L100	09-27		11049131	High pressure relief valve, 450 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
L43	L100	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1



Variable displacement pump

(L44 - L48 & L4G)

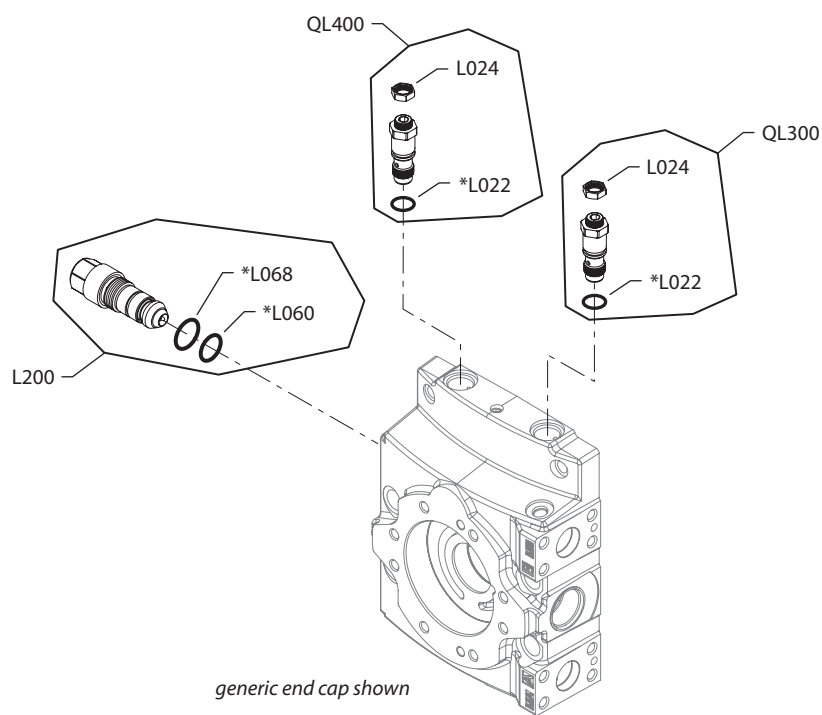


Variable displacement pump
High pressure setting, port A

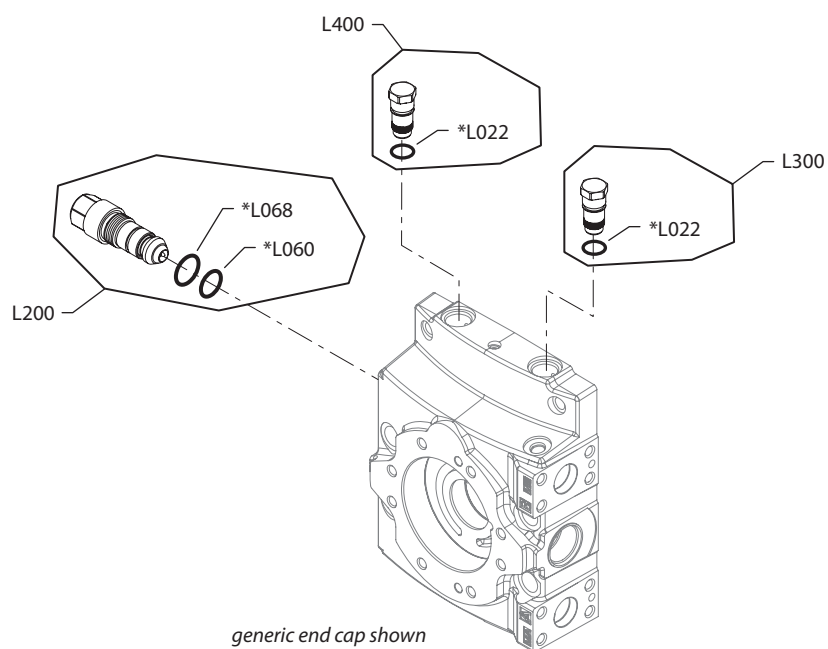
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		041152	O-ring	1
	L024	09-27		11054668	Nut	1
	L060	09-27		365023	O-ring	1
	L068	09-27		11052201	O-ring	1
L44	L100	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
L45	L100	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
L46	L100	09-27		11049133	High pressure relief valve, 510 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
L47	L100	09-27		11049133	High pressure relief valve, 510 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
L48	L100	09-27		11049133	High pressure relief valve, 510 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
L4G	L100	14-15		11049132	High pressure relief valve, 480 bar	1
	QL300	14-15		11050482	Pressure limiter, adjustable, CCW rotation pump	1
	QL400	14-15		11050482	Pressure limiter, adjustable, CW rotation pump	1

Variable displacement pump

(F01 - F08)



(K18 - K28)



E100 745E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

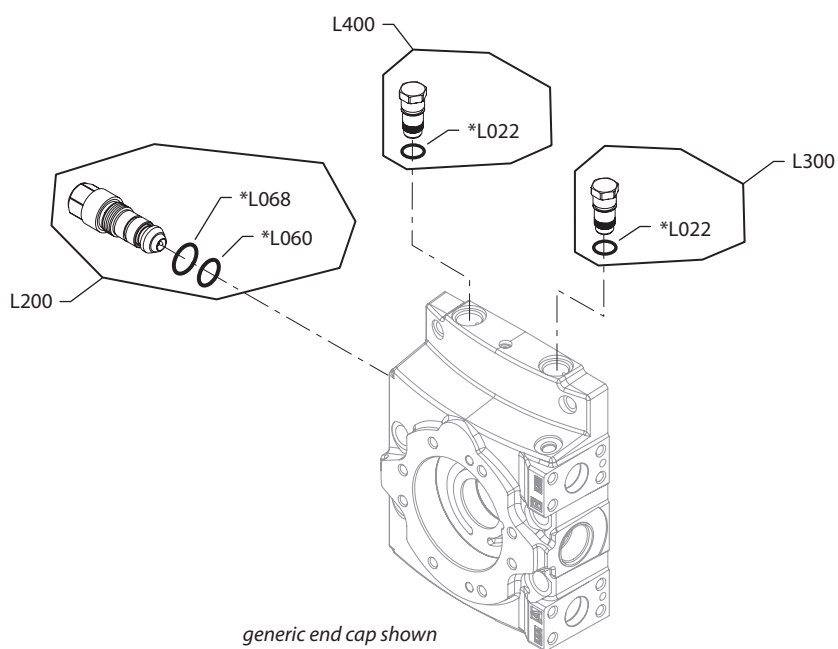
Variable displacement pump

High pressure setting, port B

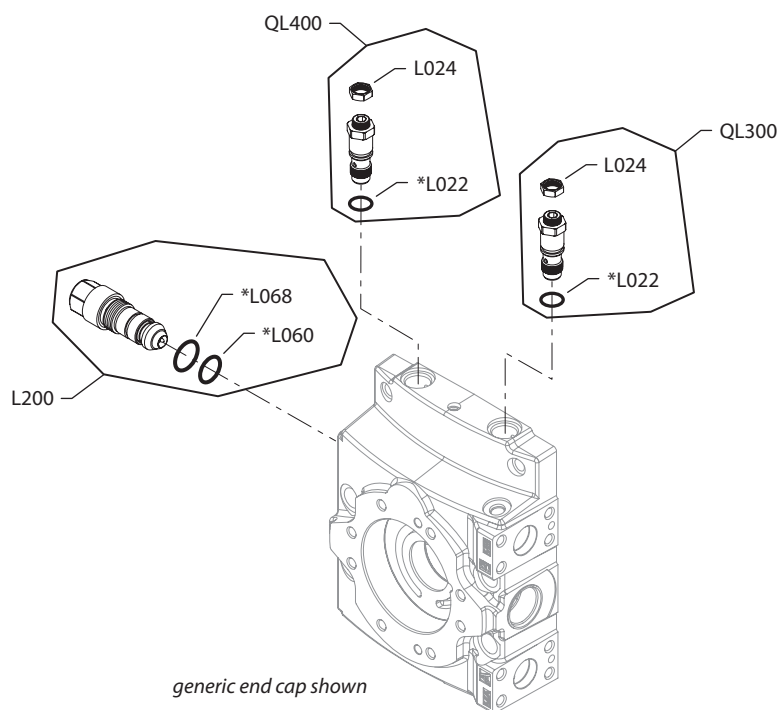
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		504207	O-ring	1
	L060	09-27		365023	O-ring	1
	L068	09-27		11052201	O-ring	1
F01	L024	13-14		11054668	Nut	1
	L200	13-14		11049123	High pressure relief valve, 250 bar	1
	QL300	13-14		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	13-14		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
F02	L024	13-14		11054668	Nut	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	L024	13-14		11054668	Nut	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	L024	13-14		11054668	Nut	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
F08	L024	13-14		11054668	Nut	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
K18	L200	09-27		11049120	High pressure relief valve, 180 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K20	L200	09-27		11049121	High pressure relief valve, 200 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K23	L200	09-27		11049122	High pressure relief valve, 230 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K25	L200	09-27		11049123	High pressure relief valve, 250 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K28	L200	09-27		11049124	High pressure relief valve, 280 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1

Variable displacement pump

(K30- K48)



(L15 - L20)



Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

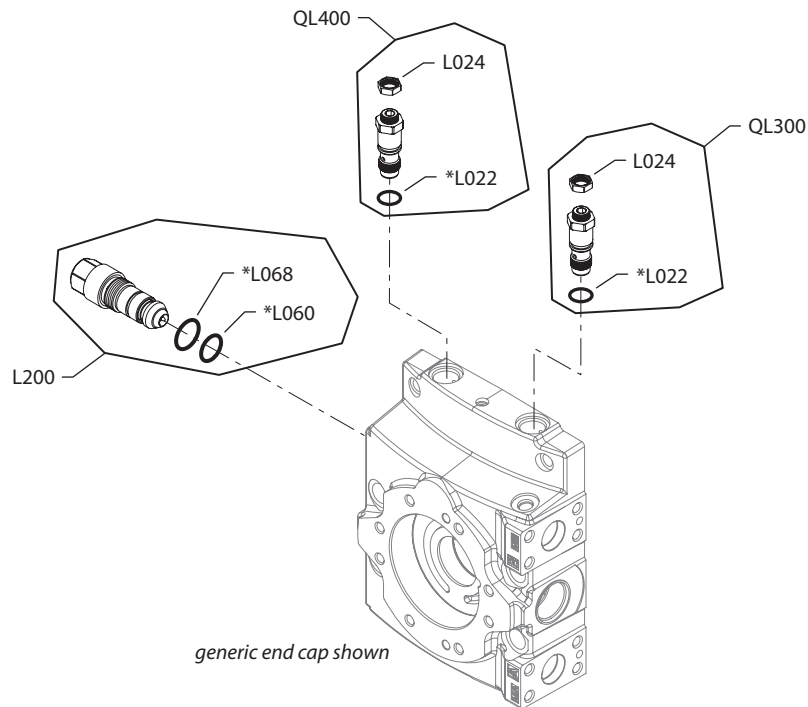
High pressure setting, port B

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		504207	O-ring	1
	L060	09-27		365023	O-ring	1
	L068	09-27		11052201	O-ring	1
K30	L200	09-27		11049125	High pressure relief valve, 300 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K33	L200	09-27		11049126	High pressure relief valve, 330 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K35	L200	09-27		11049127	High pressure relief valve, 350 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K38	L200	09-27		11049128	High pressure relief valve, 380 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K40	L200	09-27		11049129	High pressure relief valve, 400 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K42	L200	09-27		11049130	High pressure relief valve, 420 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K45	L200	09-27		11049131	High pressure relief valve, 450 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
K48	L200	09-27		11049132	High pressure relief valve, 480 bar	1
	L300	09-27		11002291	Pressure limiter plug assembly, CW rotation pump	1
	L400	09-27		11002291	Pressure limiter plug assembly, CCW rotation pump	1
L15	L024	09-27		11054668	Nut	1
	L200	09-27		11049121	High pressure relief valve, 200 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L18	L024	09-27		11054668	Nut	1
	L200	09-27		11049122	High pressure relief valve, 230 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L20	L024	09-27		11054668	Nut	1
	L200	09-27		11049123	High pressure relief valve, 250 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1



Variable displacement pump

(L23 -L43)



Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

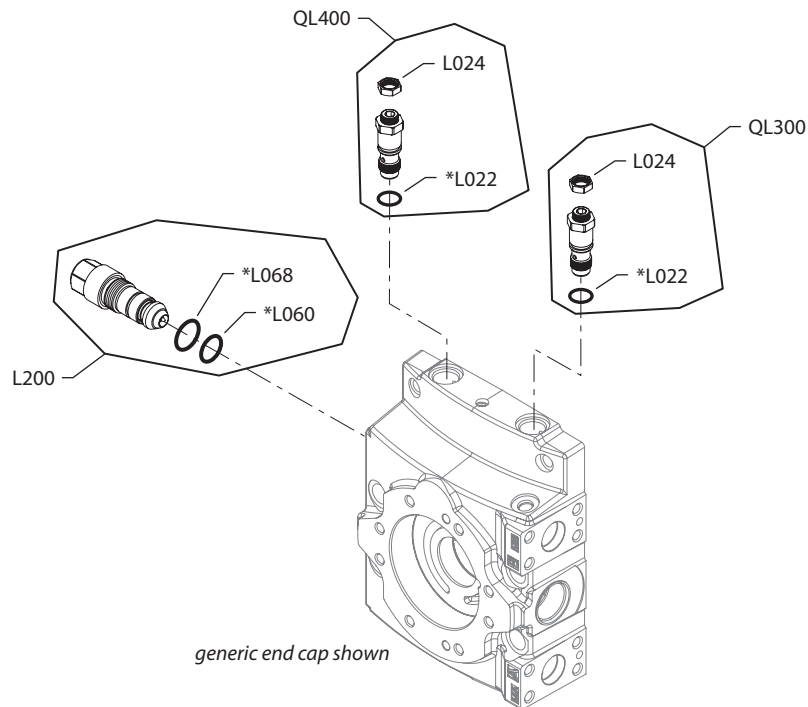
High pressure setting, port B

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
all	L022	09-27		041152	O-ring	1
	L024	09-27		11054668	Nut	1
	L060	09-27		365023	O-ring	1
	L068	09-27		11052201	O-ring	1
L23	L200	09-27		11049124	High pressure relief valve, 280 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L25	L200	09-27		11049125	High pressure relief valve, 300 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L28	L200	09-27		11049126	High pressure relief valve, 330 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L30	L200	09-27		11049127	High pressure relief valve, 350 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L33	L200	09-27		11049128	High pressure relief valve, 380 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L35	L200	09-27		11049129	High pressure relief valve, 400 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L38	L200	09-27		11049130	High pressure relief valve, 420 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L40	L200	09-27		11049131	High pressure relief valve, 450 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L41	L200	09-27		11049131	High pressure relief valve, 450 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L42	L200	09-27		11049131	High pressure relief valve, 450 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1
L43	L200	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter kit, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter kit, adjustable, CCW rotation pump	1



Variable displacement pump

(L44 - L48 & L4G)



E101 908E

* = included in overhaul seal kit Q210

Parts Manual

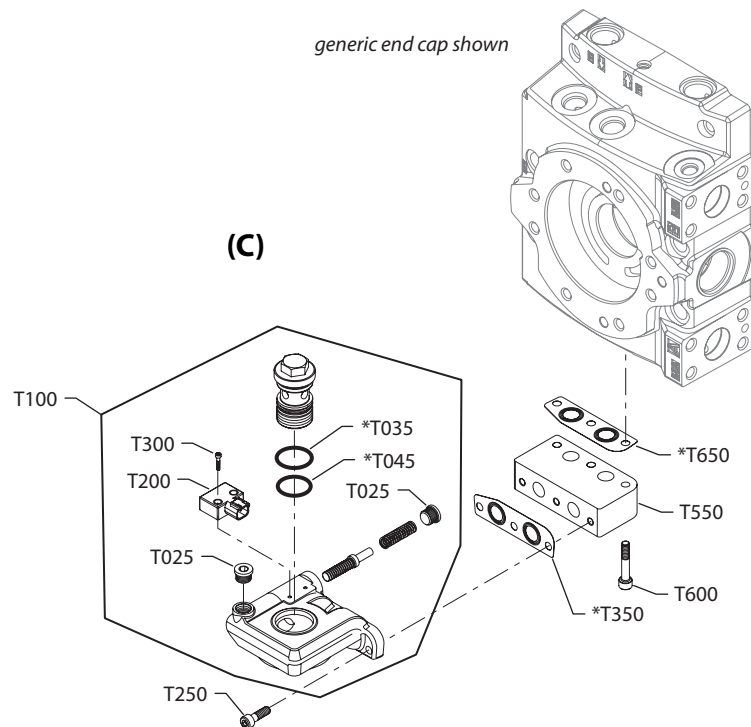
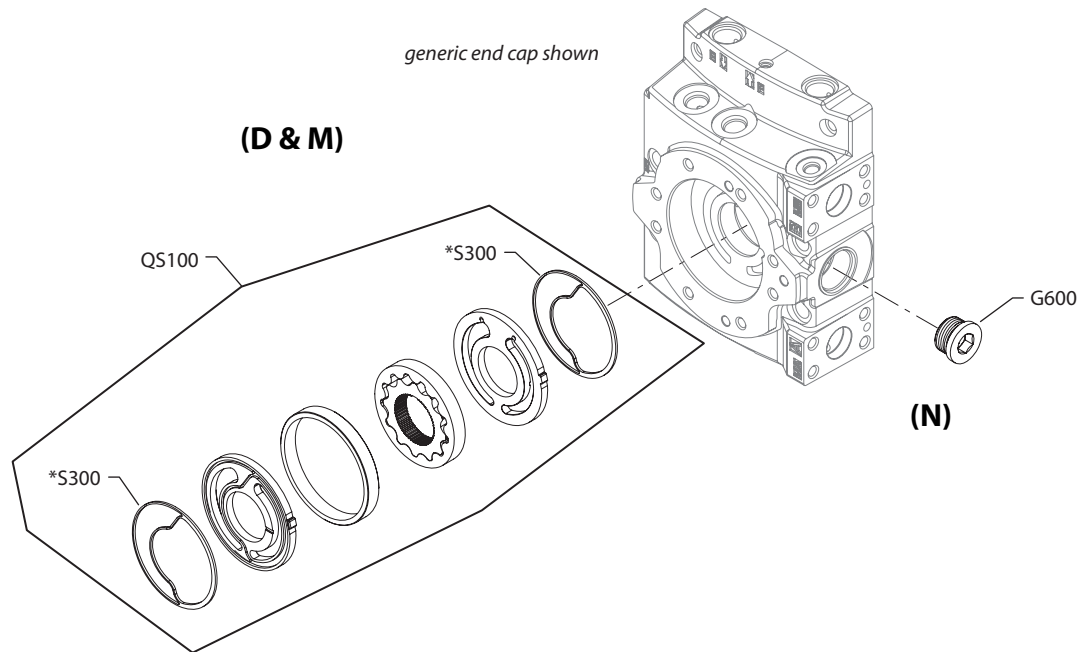
H1P 89 & 100cc Variable Displacement Pump

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	09-27		041152	O-ring	1
	L024	09-27		11054668	Nut	1
	L060	09-27		365023	O-ring	1
	L068	09-27		11052201	O-ring	1
L44	L200	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L45	L200	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L46	L200	09-27		11049133	High pressure relief valve, 510 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L47	L200	09-27		11049133	High pressure relief valve, 510 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L48	L200	09-27		11049133	High pressure relief valve, 510 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1
L4G	L200	09-27		11049132	High pressure relief valve, 480 bar	1
	QL300	09-27		11050482	Pressure limiter, adjustable, CW rotation pump	1
	QL400	09-27		11050482	Pressure limiter, adjustable, CCW rotation pump	1

Variable displacement pump



E101 597E

* = included in overhaul seal kit Q210

Parts Manual H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Charge pump

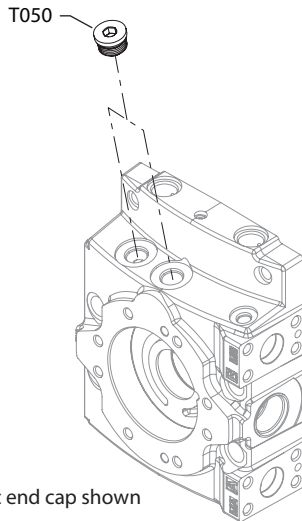
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D	QS100	09-27		11040272	Charge pump kit, 20 cc	1
	S300	09-27		11126777	Seal ring (SB-2013-019)	2
M	QS100	09-27		11040273	Charge pump kit, 24 cc	1
	S300	09-27		11126777	Seal ring (SB-2013-019)	2
N	G600	09-27		676734 (9005110-9500)	Plug assembly	1

Filtration

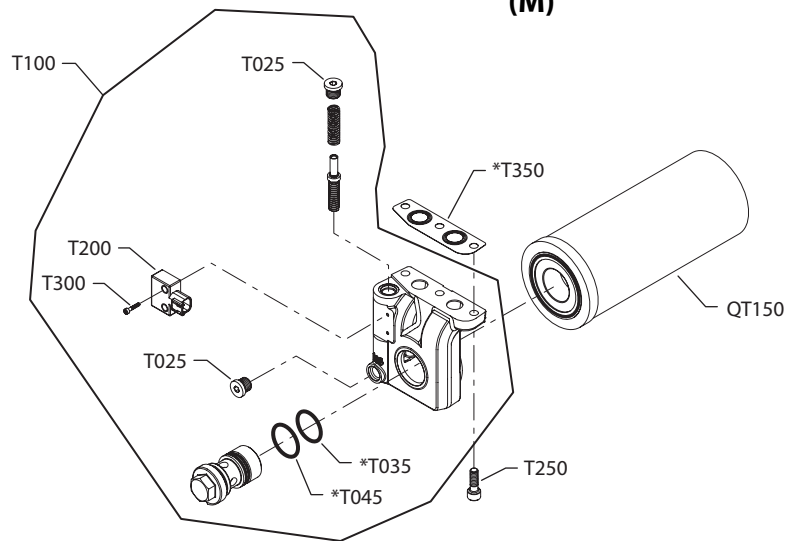
C	T025	09-27	13-32	141269	Plug assembly	2
	T035	09-27	13-32	761148 (9004100-0260)	O-ring	1
	T045	09-27	13-32	314500 (9004100-1250)	O-ring	1
	T100	09-27	13-32	140736	Pressure filter adapter assembly	1
	T200	09-27	13-32	11031852	Filtration sensor	1
	T250	09-27	13-32	11128665	Screw, M8 x 25	3
	T300	09-27	13-32	140560	Screw, M3 x 16	2
	T350	09-27	13-32	140737	Filter adapter gasket	1
	T500	09-27	13-32	000943 (9004100-2300)	O-ring	1
	T550	09-27	13-32	11008273	Adapter plate	1
	T600	09-27	13-32	376624	Screw	3
	T650	09-27	13-32	140737	Filter adapter gasket	1

Variable displacement pump

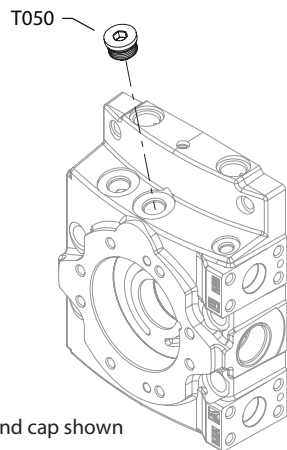
(E & P)



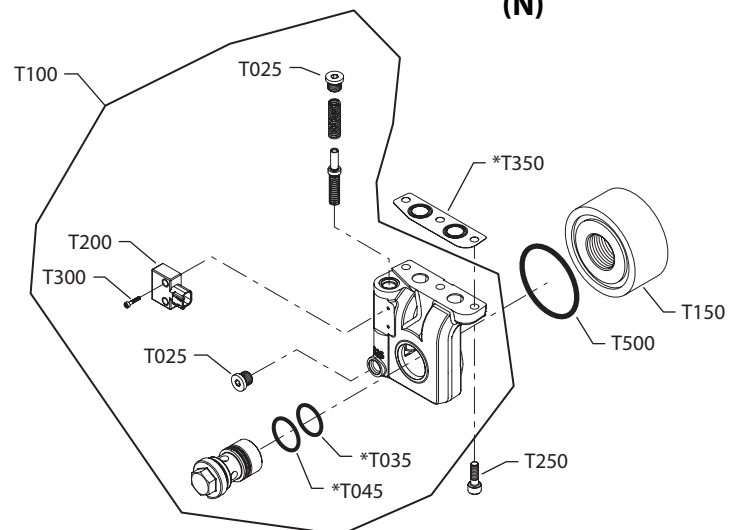
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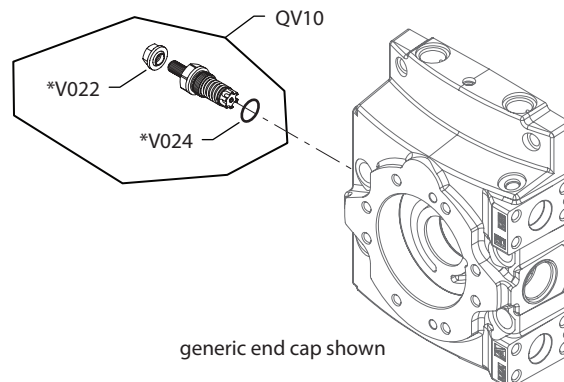
(G)



(N)



(20 & 34)



E103 387E

* = included in overhaul seal kit Q210

Parts Manual

H1P 89 & 100cc Variable Displacement Pump

Variable displacement pump

Filtration

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E	T050	09-43		315325 (9005110-8700)	Plug assembly	2
G	T050	14-30		315325 (9005110-8700)	Plug assembly	1
L		09-27		None		
M	QT150	09-27		11004918	Filter assembly	1
	T025	09-27		141269	Plug assembly	2
	T035	09-27		761148 (9004100-0260)	O-ring	1
	T045	09-27		314500 (9004100-1250)	O-ring	1
	T100	09-27		140736	Pressure filter adapter assembly	1
	T200	09-27		11031852	Filtration sensor (SB-2007-052)	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
N	T025	09-27		141269	Plug assembly	2
	T035	09-27		761148 (9004100-0260)	O-ring	1
	T045	09-27		314500 (9004100-1250)	O-ring	1
	T100	09-27		140736	Pressure filter adapter assembly	1
	T150	09-27		11008261	Cover	1
	T200	09-27		11031852	Filtration sensor (SB-2007-052)	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	09-27		315325 (9005110-8700)	Plug assembly	2
P (metric)	T050	16-08		11178809	Plug assembly, M22	2

Charge pressure relief

18-22	QV10	16-33		11137578	Charge relief valve kit (SB-2017-018)	1
	QV10	09-27	16-32	11004711	Charge relief valve kit	1
	V022	16-33		066159	Seal nut, M12 (SB-2017-018)	1
	V022	09-27	16-32	612291 (9003508-0008)	Seal nut	1
	V024	09-27		001149 (9004201-6200)	O-ring	1
24-34	QV10	16-33		11137578	Charge relief valve kit (SB-2017-018)	1
	QV10	09-27	16-32	11017127	Charge relief valve kit	1
	V022	16-33		066159	Seal nut, M12 (SB-2017-018)	1
	V022	09-27	16-32	612291 (9003508-0008)	Seal nut	1
	V024	09-27		001149 (9004201-6200)	O-ring	1

Parts Manual H1P 89 & 100cc Variable Displacement Pump



Variable displacement pump

Overhaul seal kit

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	Q210	09-27		11178087	Overhaul seal kit, H1P089-100	1
	D060	09-27		612291 (9003508-0008)	Seal nut, M8	1
	D150	09-27		11173377	Control gasket	1
	D611	09-27		11066774	O-ring, 10.82 x 1.78, red	2
	E020	09-27		11075555	O-ring, 56.87 x 1.78, nitrile	2
	E025	09-27		11075554	Piston seal ring	2
	E250	09-27		012187	O-ring, 71.12 x 2.62, viton	2
	E500	09-27		042432	Seal nut, M10	1
	E550	09-27		042432	Seal nut, M10	1
	G150	09-27		11011646	End cap gasket	1
	J250	09-27		140911	Lip seal	1
	J260	09-27		11043926	O-ring, 78.97 x 3.53, viton	1
	K150	09-27		11029873	Adapter seal	1
	L022	09-27		041152	O-ring, 12.00 x 2.00, nitrile	2
	L060	09-27		141109	O-ring, 16.00 x 1.50, viton	2
	L068	09-27		11052215	O-ring, 19.30 x 2.40, nitrile	2
	QD26	09-27		11001952	O-ring, 18.00 x 1.50, viton	2
	QD81	09-27		11059551	O-ring, 9.50 X 1.78, viton	1
	QD81	09-27		11152257	O-ring,	1
	QD751	09-27		001131	O-ring, 16.36 x 2.21, nitrile	1
	QH131	09-27		11013397	O-ring, 15.60 x 1.78, viton	1
	S300	09-27		11126777	Seal ring	2
	T035	09-27		761148 (9004100-0260)	O-ring, 31.47 x 1.78, nitrile	1
	T045	09-27		314500 (9004100-1250)	O-ring, 32.99 x 2.62, nitrile	1
	T350	09-27		140737	Filter adapter gasket	1
	T650	09-27		140737	Filter adapter gasket	1
	V022	16-33		066159	Seal nut, M12	1
	V022	09-27	16-32	612291 (9003508-0008)	Seal nut, M8	1
	V024	09-27		001149 (9004201-6200)	O-ring, 19.18 x 2.46, nitrile	1

Products affected

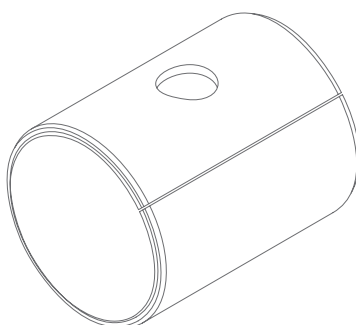
H1 069/078 and 089/100 cc pumps

Subject

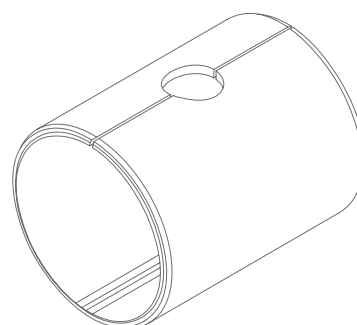
Journal bearing design change

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-2012-014

Products affected

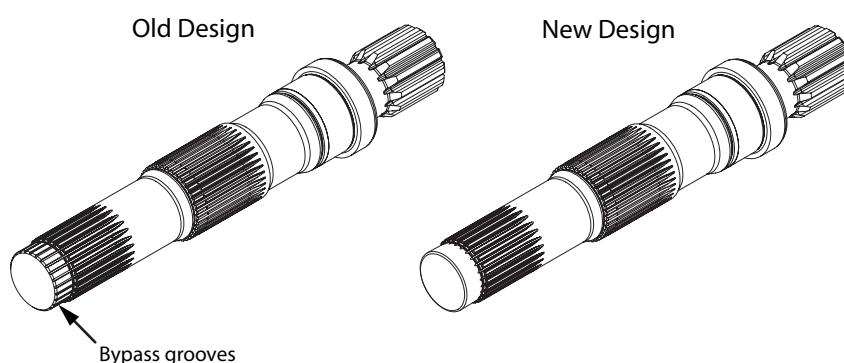
H1 89-100 cc pumps

Subject

Shaft change

Description

Sauer-Danfoss has removed the bypass on the end of the shaft on H1 089/100cc 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 89 – 100cc pumps

Serial numbers

See below

Part numbers affected

Description	Old part number	New part number	Affectivity date
Shaft, 21T (F1)	11011436	11112179	N12-43-xxxxx (22 Oct 2012)
Shaft, tapered (F4)	11021928	11112181	N12-40-xxxxx (01 Oct 2012)
Shaft, 14T (G1)	11011437	11112178	N12-43-xxxxx (25 Oct 2012)
Shaft, 23T (G9)	11011438	11112180	N12-36-xxxxx (05 Sep 2012)

Parts disposition

- Non-interchangeable
- Use parts in stock

Service Bulletin: SB-2013-003
Products affected

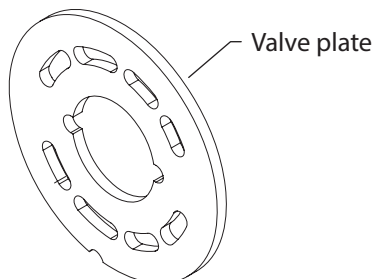
H1 pumps

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

- Non-interchangeable
- Use parts in stock

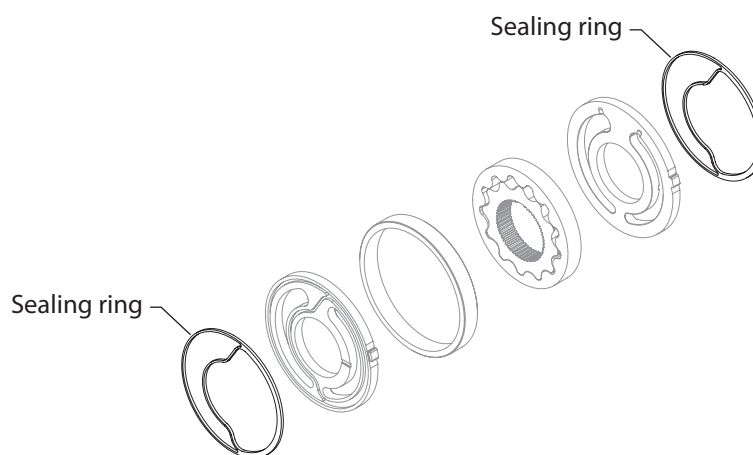


Service Bulletin: SB-2013-019

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

Products affected

H1 pumps and tandems, MP1 and M46 control kits

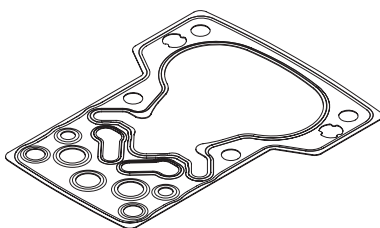
Subject

Control Gasket

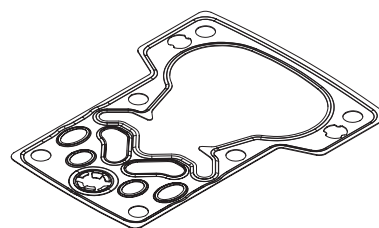
Description

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

Service Bulletin: SB-2017-018
Products affected

H1 089/100 pumps

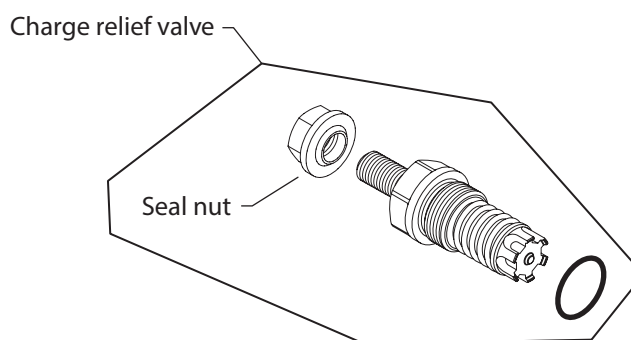
Subject

Charge relief valve

Description

A design change has been made to the charge pressure relief valve on all 115/130cc H1 pumps. The charge relief poppet drain hole has been relocated to the side and the adjusting set screw and seal lock nut have changed from M8 to M12 threading.

The charge relief valve cavity in the end caps changed July 1, 2016. As a result, the old charge relief can be used with old or new design end caps. The new charge relief valve can only be used with the new end cap design. Components within the assemblies are not interchangeable.


Models affected

H1 089/100cc pumps

Serial numbers

The STD end cap change became effective at serial number N-16-33-xxxxx (16 Aug 2016)

The charge relief change became effective at serial number N-16-50-xxxxx (20 Dec 2016)

Part numbers affected

Description	Old part number	New part number
Charge pressure relief valve kit 18-22 bar	11004711	11137578
Charge pressure relief valve kit 24-34 bar	11017127	11137579
Seal nut	612291 (9003508-0008)	066159

Parts disposition

- Non-interchangeable - refer to Description of this bulletin
- Scrap used parts

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