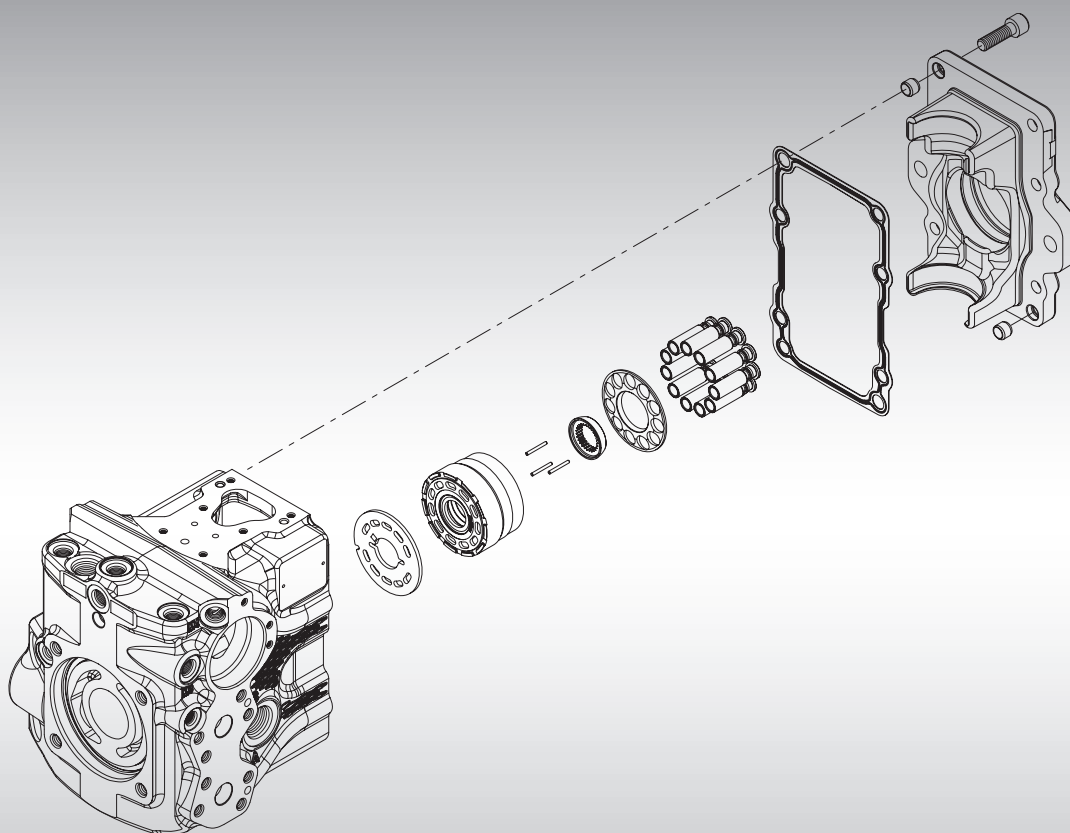




Parts Manual

MP1 38 & 45cc

Axial Piston Closed Circuit 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 MP1 38 and 45cc variable displacement pumps.

The parts listed include all parts which may be used when performing either "Minor Repairs", "Major Repairs" or "Conversions" on the MP1 38 and 45cc pump.

Nameplate

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

Model Code

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

Model Number

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

Serial Number

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

The letter code indicates the location of original manufacture (assembly). "A" indicates the unit was originally assembled in Ames, Iowa.

The first number (2 digits) indicates the year of manufacture. ("08" would indicate the unit was manufactured in 2008)

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 MP1 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 MP1 pump has an Order Code of MP1-P-38R-AM-NNN-MA9-C1-F-G4-S-D19-D-175-175-NN-N-16-C1-RAE-C08-NNNN. 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 "G4". (MP1-P-38R-AM-NNN-MA9-C1-F-**G4**-S-D19-D-175-175-NN-N-16-C1-RAE-C08-NNNN)

2) Referring to the Service Parts List, find the shaft group. Next find the order code that relates to this unit, which is "G4". The shaft is found to be item J100 and part number 11150727.

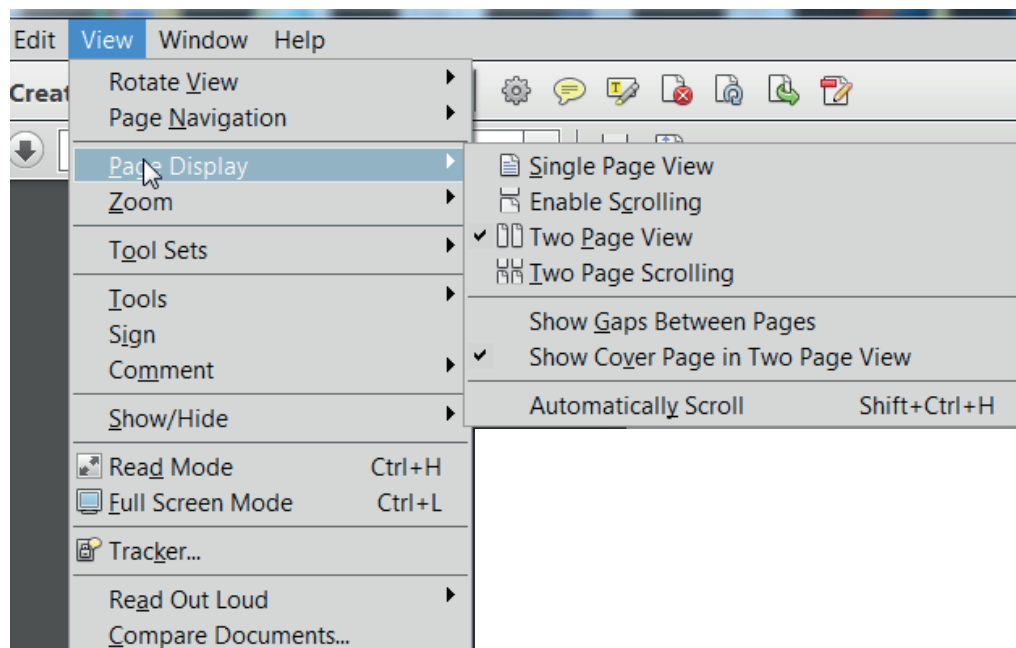


Adobe Acrobat 2-page viewing

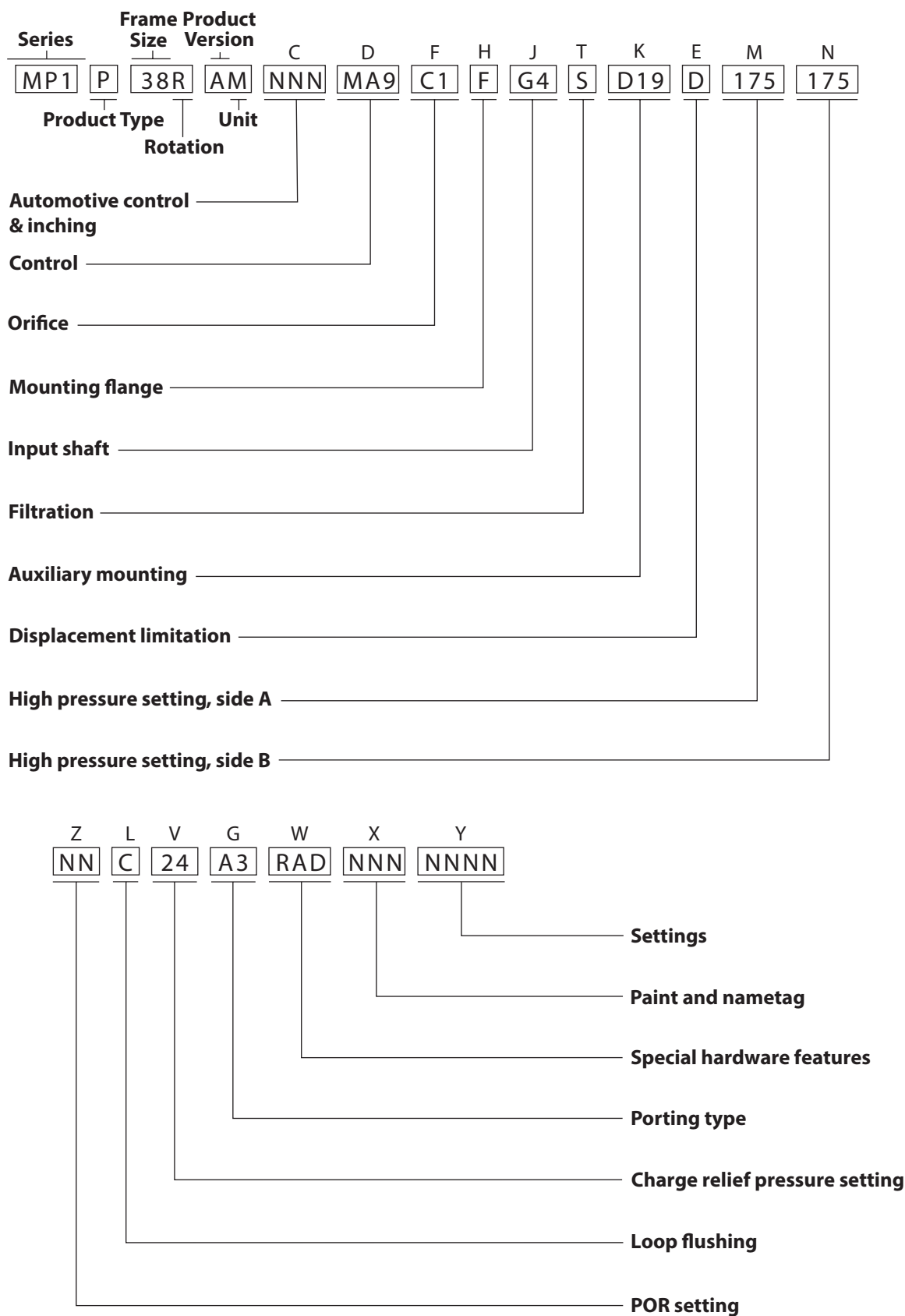
Adobe Acrobat 2-page viewing

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

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

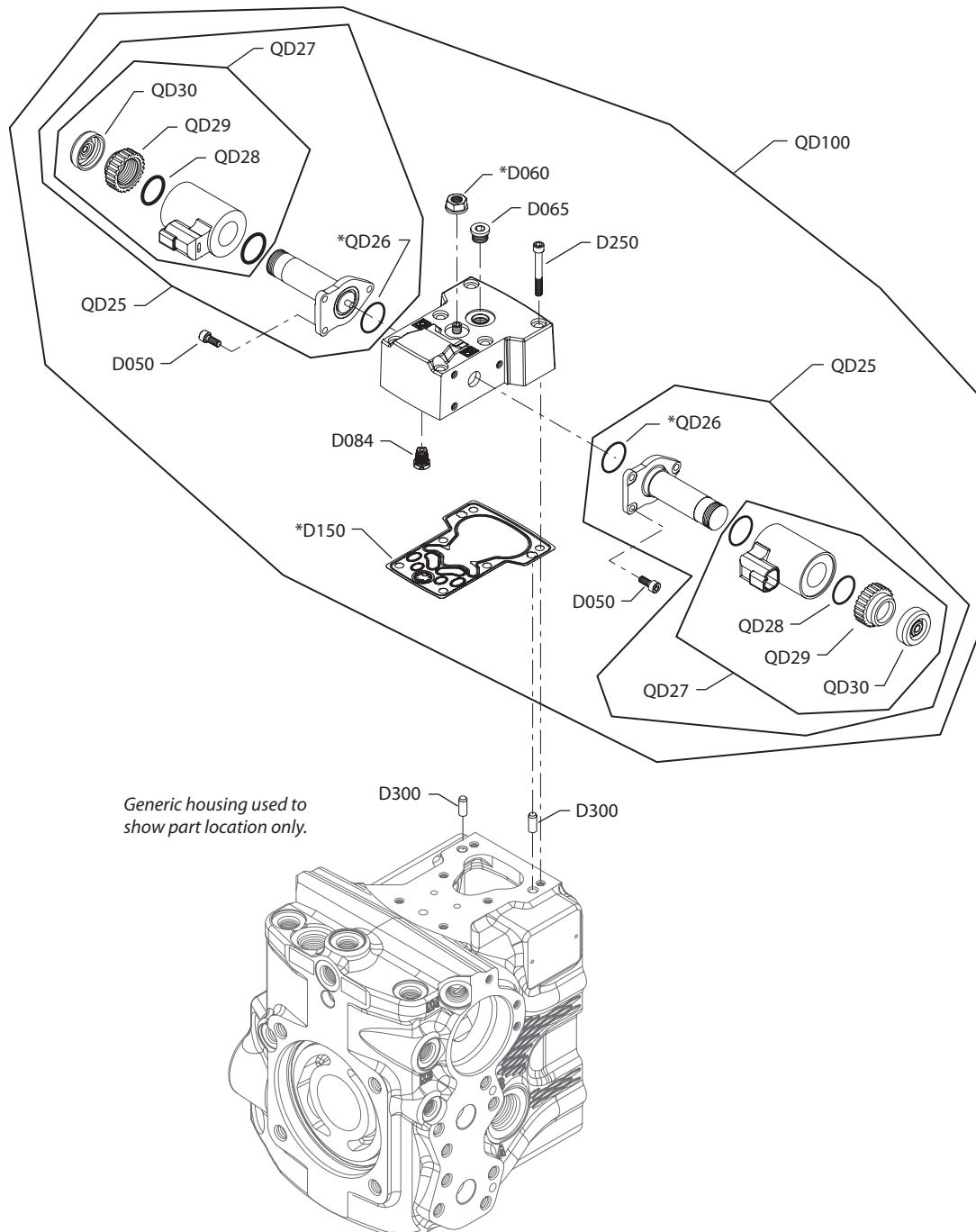


Order code





(MA4 & MA5)

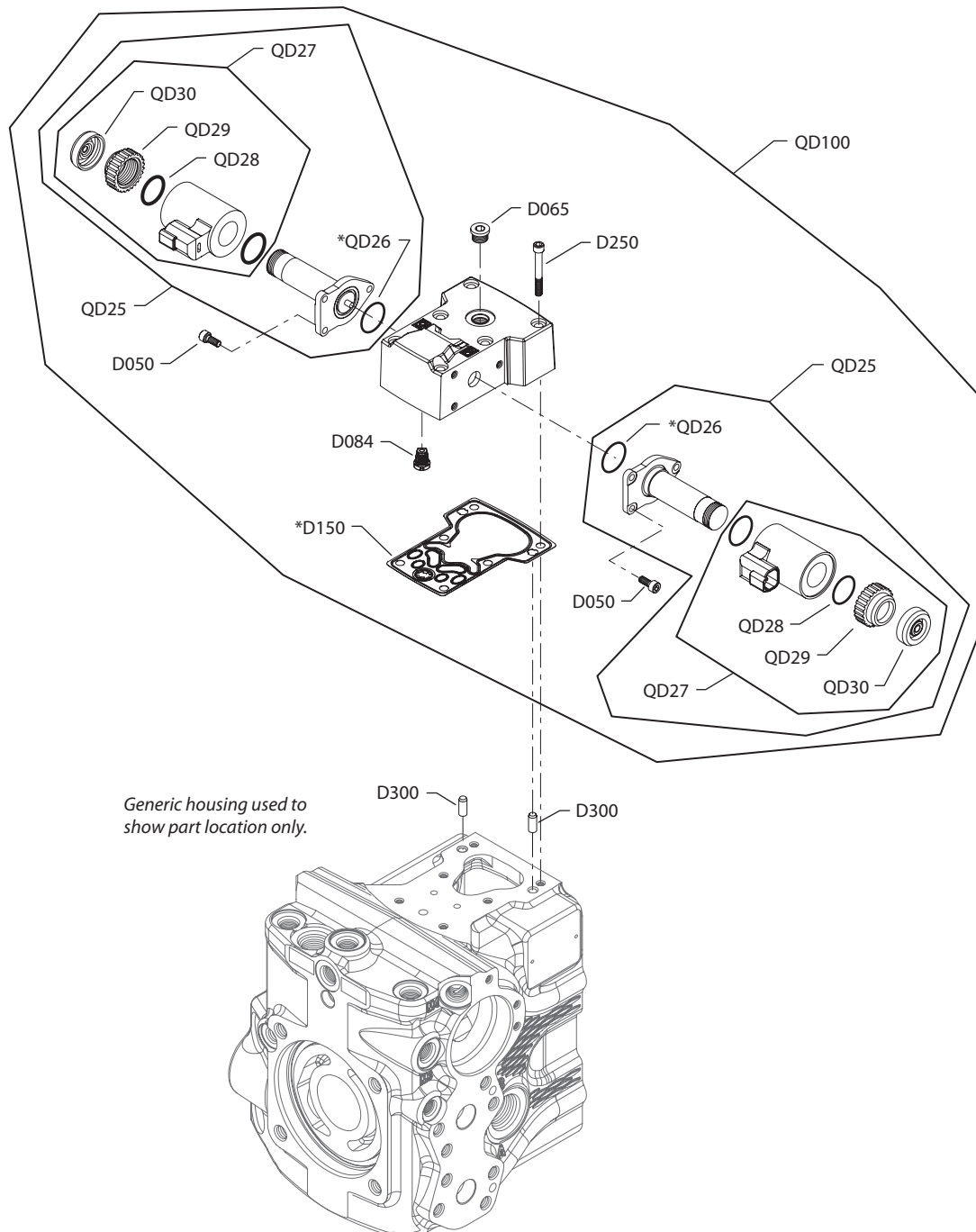


Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
MA4	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D065	16-32		52000572	Plug assembly, M12	1
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140750	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004749	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11170081	EDC kit, 12V, high gain spool, manual override, metric	1
MA5	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D065	16-32		5000572	Plug assembly, M12	1
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140751	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004750	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11170082	EDC kit, 24V, high gain spool, manual override, metric	1



(MA9 & MB1)

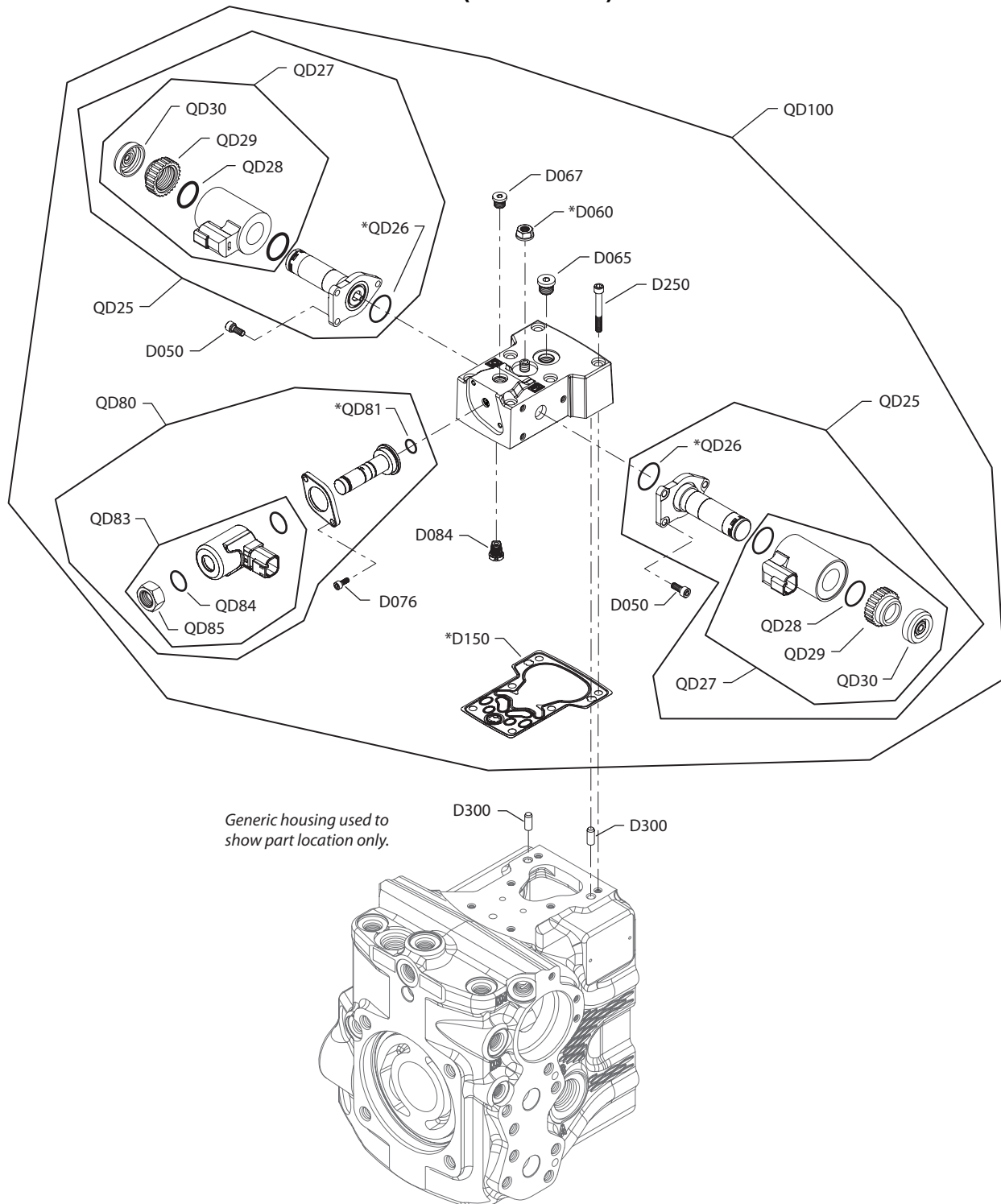



Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
MA9	D050	16-32		716860	Screw, M5 x 12	6
	D065	16-32		5000572	Plug assembly, M12	1
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		141301	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11005222	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004749	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11170086	FNR kit, 12V, manual override, metric	1
MB1	D050	16-32		716860	Screw, M5 x 12	6
	D065	16-32		5000572	Plug assembly, M12	1
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		141313	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11005223	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004750	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11170087	FNR kit, 24V, manual override, metric	1



(MG8 & MH1)

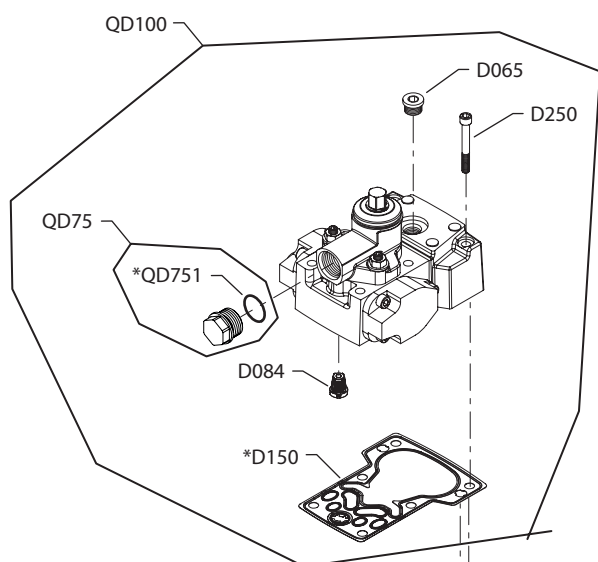


Control

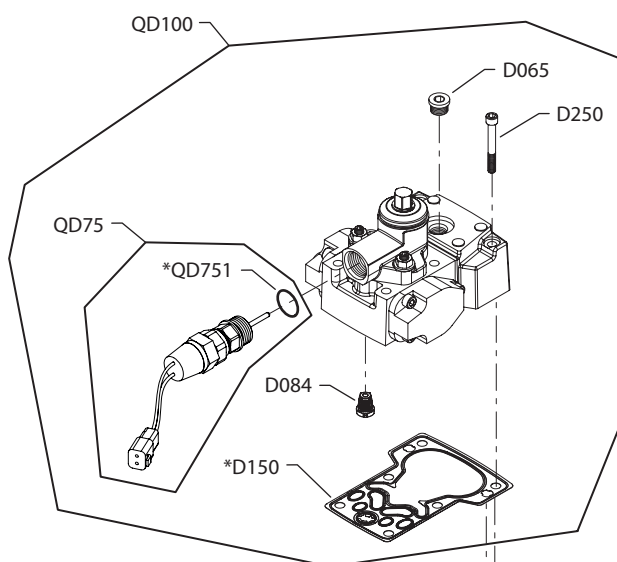
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
MG8	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291	Seal nut, M8	1
	D065	16-32		5000572	Plug assembly, M12	1
	D067	16-32		5000572	Plug assembly, M12	1
	D076	16-32		067694	Screw, M4 x 10	2
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140750	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004749	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD80	16-32		11129914	Solenoid valve, 12v	1
	QD81	16-32		11152257	O-ring	1
	QD83	16-32		11147301	Coil kit, 12v	1
	QD84	16-32		11140393	O-ring	1
	QD85	16-32		11140394	Coil nut	1
	QD100	16-32		11170083	EDC kit, 12V, manual override, CCO, metric	1
MH1	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291	Seal nut, M8	1
	D065	16-32		5000572	Plug assembly, M12	1
	D067	16-32		5000572	Plug assembly, M12	1
	D076	16-32		067694	Screw, M4 x 10	2
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140751	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004750	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD80	16-32		11129915	Solenoid valve, 24v	1
	QD81	16-32		11152257	O-ring	1
	QD83	16-32		11147332	Coil kit, 24v	1
	QD84	16-32		11140393	O-ring	1
	QD85	16-32		11140394	Coil nut	1
	QD100	16-32		11170085	EDC kit, 24V, manual override, CCO, metric	1



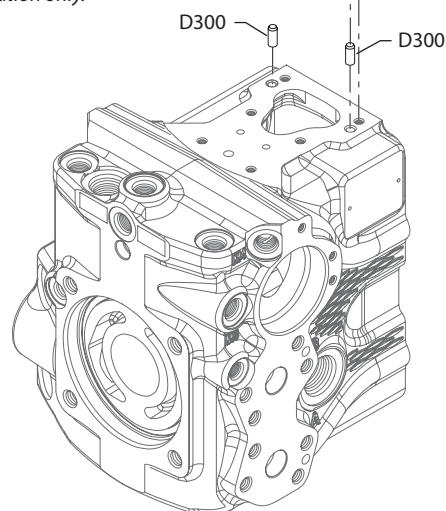
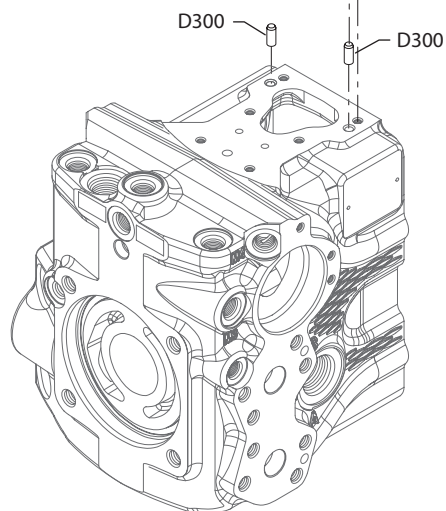
(MM1)



(MM2)



Generic housing used to show part location only.



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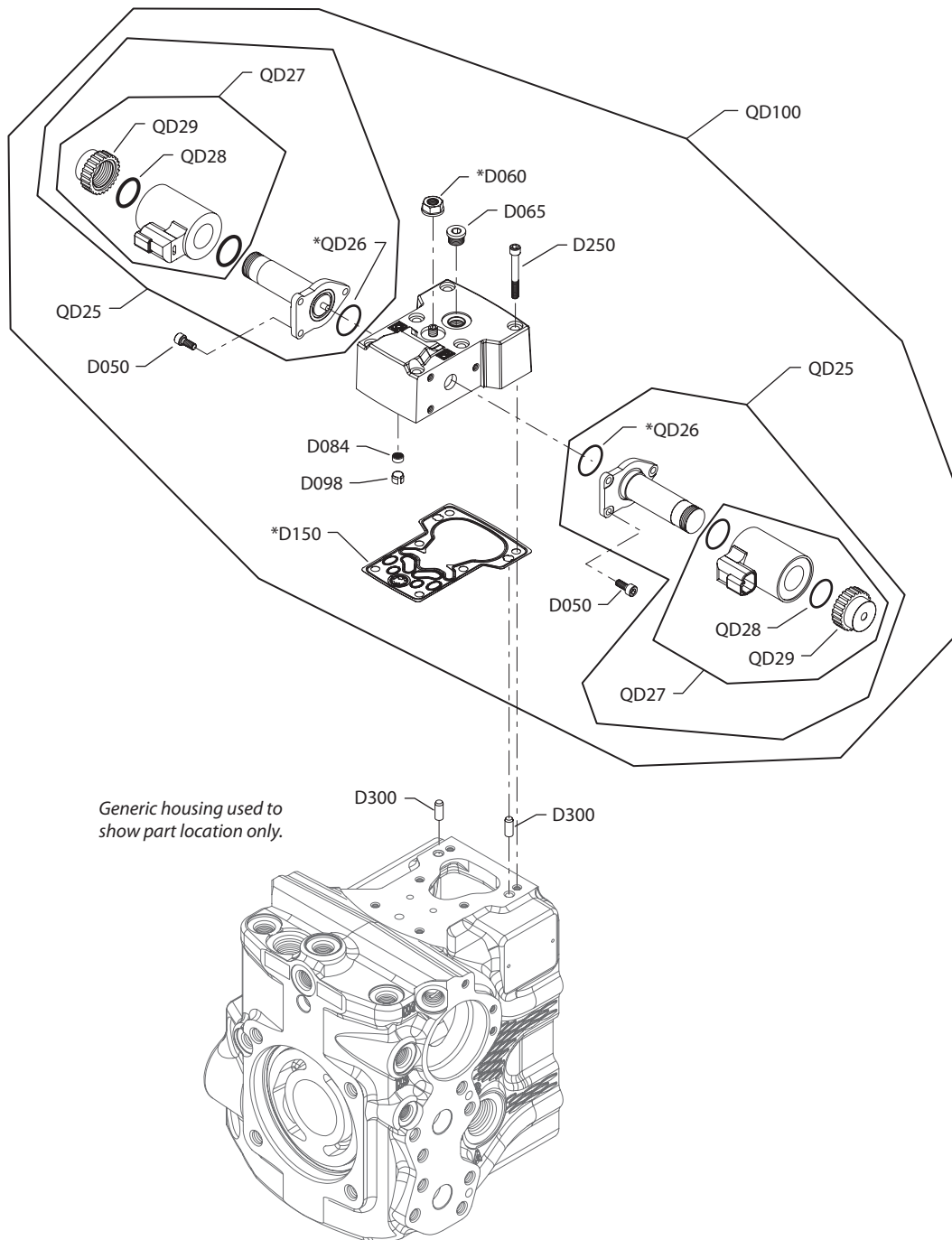
* = included in overhaul seal kit Q210


Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
MM1	D065	16-32		5000572	Plug assembly, M12	1
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD75	16-32		11119332	Spring seat assembly	1
	QD100	16-32		11170088	MDC kit	1
	QD751	16-32		001131 (9004201-5000)	O-ring	1
MM2	D065	16-32		5000572	Plug assembly, M12	1
	D084	16-32		11167361	Screen gap, 165 micron	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD75	16-32		11126847	Spring seat/neutral start switch assembly	1
	QD100	16-32		11170089	MDC kit with neutral start switch, metric	1
	QD751	16-32		001131 (9004201-5000)	O-ring	1



(SA2 & SA3)

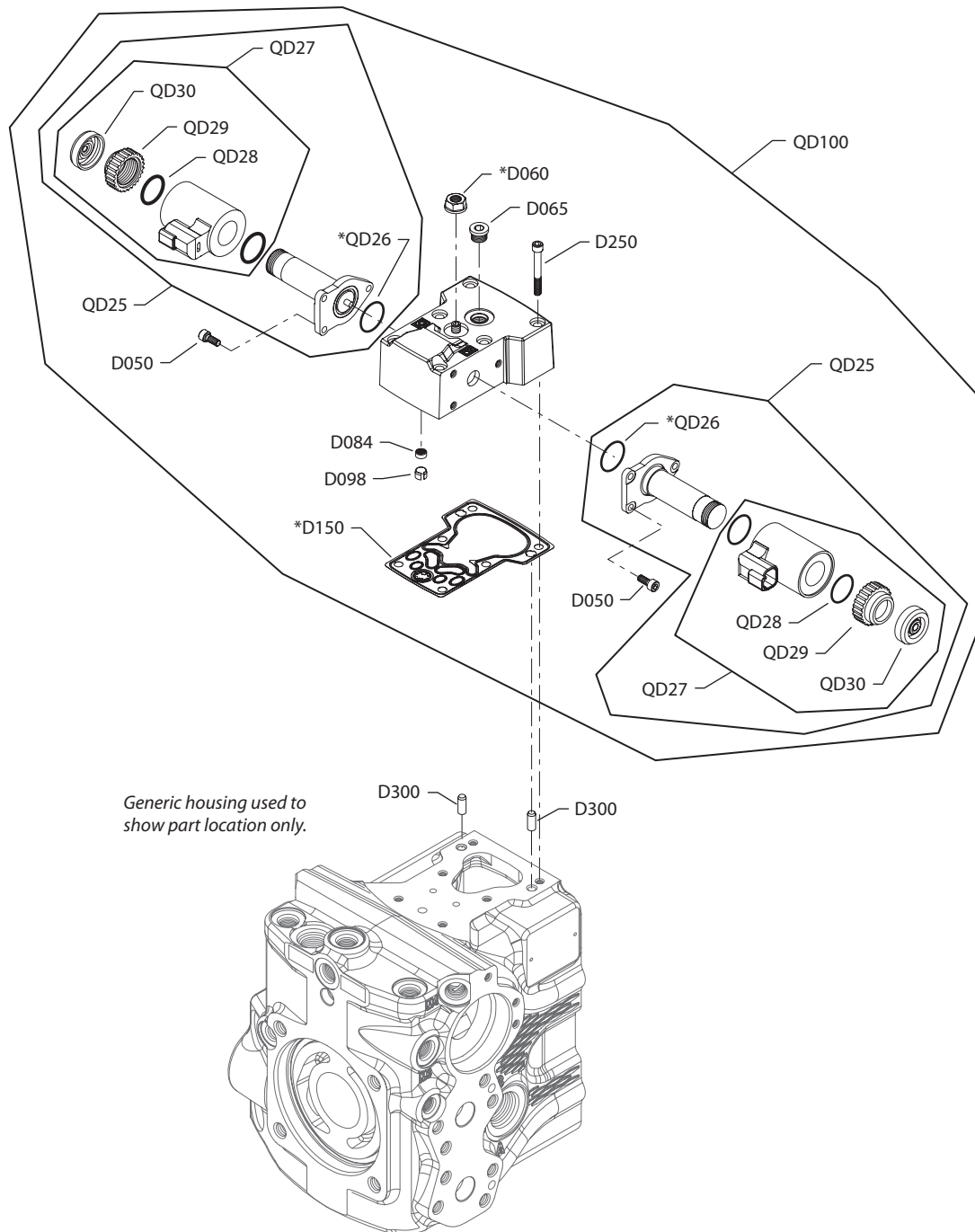



Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
SA2	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D065	16-32		140642	Plug assembly, SAE	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		11012457	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11028018	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11027046	Coil nut	2
	QD100	16-32		11019680	EDC kit, 12V	1
SA3	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D065	16-32		140642	Plug assembly, SAE	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		11012459	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11028019	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11028024	Coil nut	2
	QD100	16-32		11019681	EDC kit, 24V	1



(SA4 & SA5)

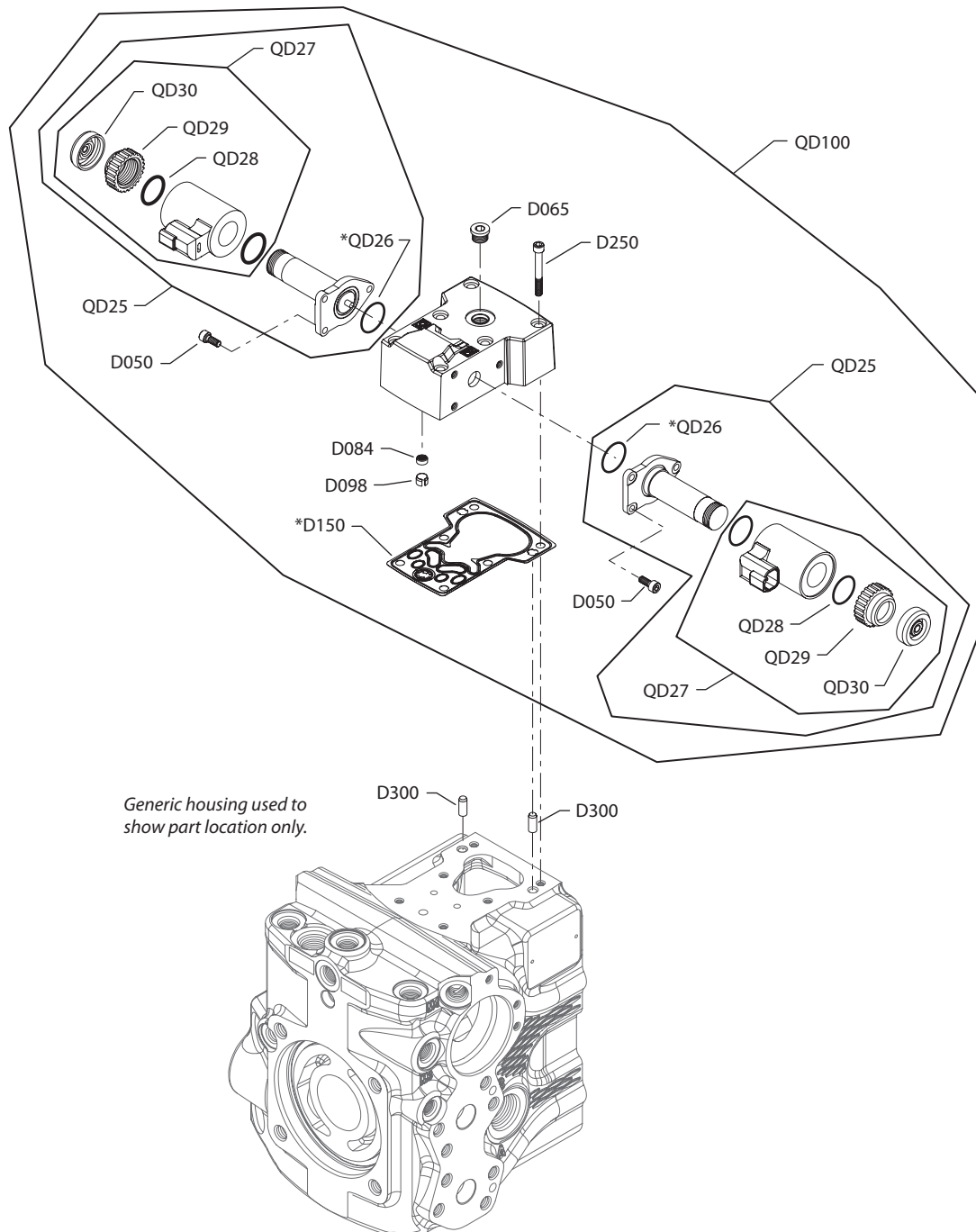



Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
SA4	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D065	16-32		140642	Plug assembly, SAE	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140750	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004749	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11019732	EDC kit, 12V, high gain spool, manual override	1
SA5	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D065	16-32		140642	Plug assembly, SAE	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140751	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004750	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11019733	EDC kit, 24V, high gain spool, manual override	1



(SA9 & SB1)

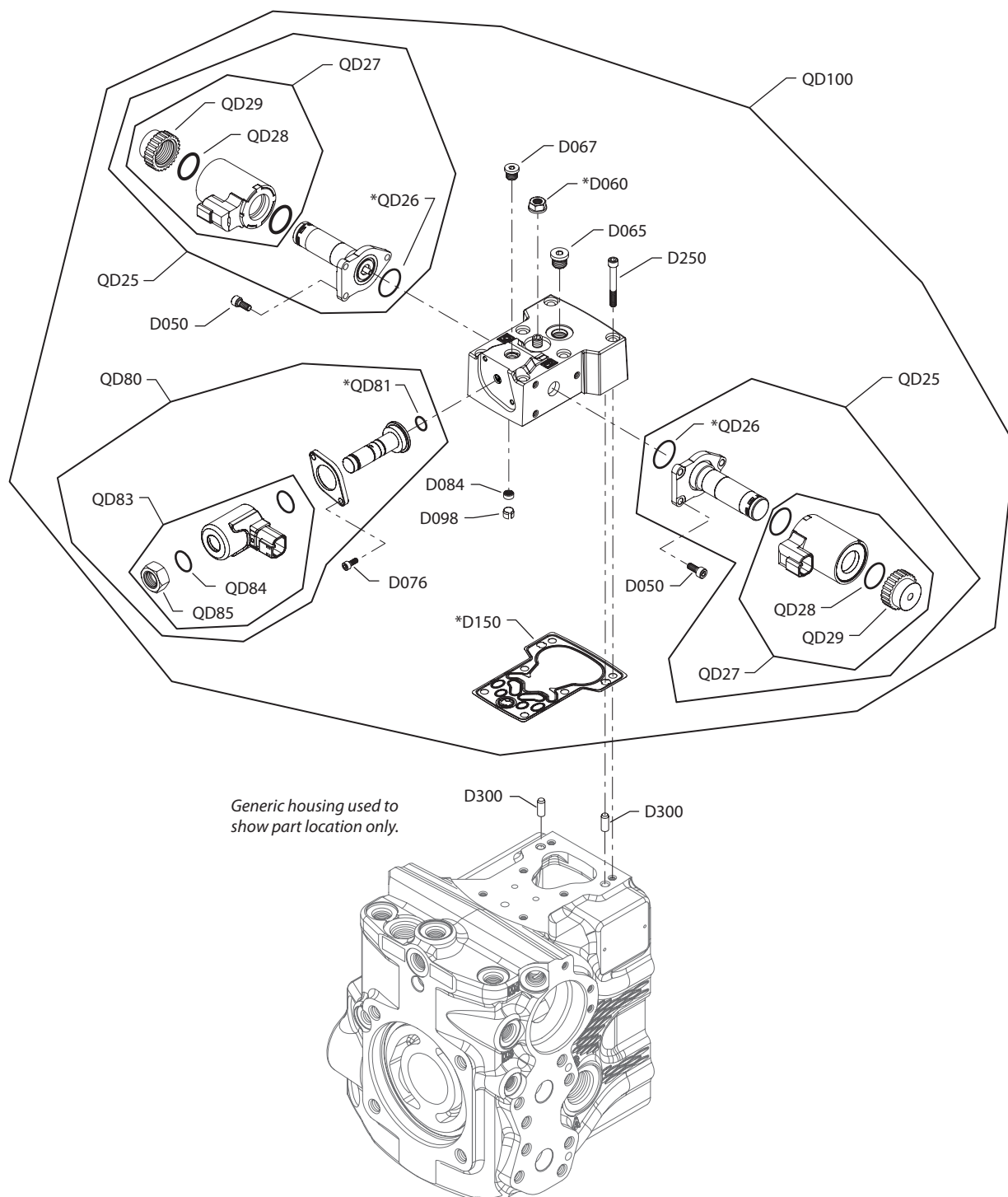



Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
SA9	D050	16-32		716860	Screw, M5 x 12	6
	D065	16-32		140642	Plug assembly, M12	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		141301	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11005222	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004749	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11025905	FNR kit, 12V, manual override, metric	1
SB1	D050	16-32		716860	Screw, M5 x 12	6
	D065	16-32		140642	Plug assembly, M12	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		141313	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11005223	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004750	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD100	16-32		11025906	FNR kit, 24V, manual override, metric	1



(SE7 & SE8)



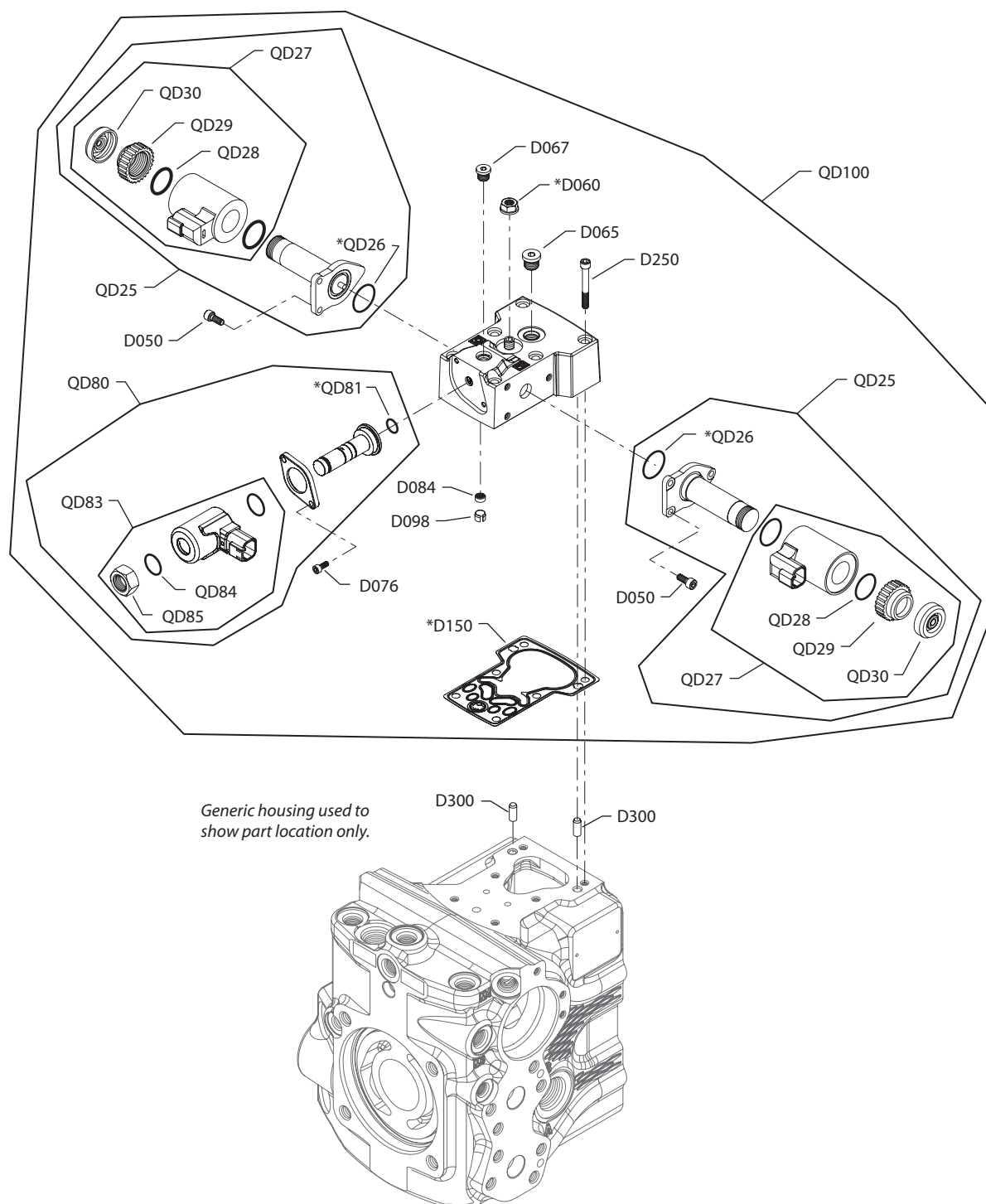
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* = included in overhaul seal kit Q210

Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
SE7	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291	Seal nut, M8	1
	D065	16-32		140642	Plug assembly, M12	1
	D067	16-32		140642	Plug assembly	1
	D076	16-32		067694	Screw, M4 x 10	2
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		11012457	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11028018	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11027046	Coil nut	2
	QD80	16-32		11129914	Solenoid valve, 12v	1
	QD81	16-32		11152257	O-ring	1
	QD83	16-32		11147301	Coil kit, 12v	1
	QD84	16-32		11140393	O-ring	1
	QD85	16-32		11140394	Coil nut	1
	QD100	16-32		11147471	EDC kit, 12V, CCO	1
SE8	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291	Seal nut, M8	1
	D065	16-32		140642	Plug assembly, M12	1
	D067	16-32		140642	Plug assembly	1
	D076	16-32		067694	Screw, M4 x 10	2
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		11012459	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11028019	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11028024	Coil nut	2
	QD80	16-32		11129915	Solenoid valve, 24v	1
	QD81	16-32		11152257	O-ring	1
	QD83	16-32		11147332	Coil kit, 24v	1
	QD84	16-32		11140393	O-ring	1
	QD85	16-32		11140394	Coil nut	1
	QD100	16-32		11147472	EDC kit, 24V, CCO	1

(SG8 & SH1)



E103 521E

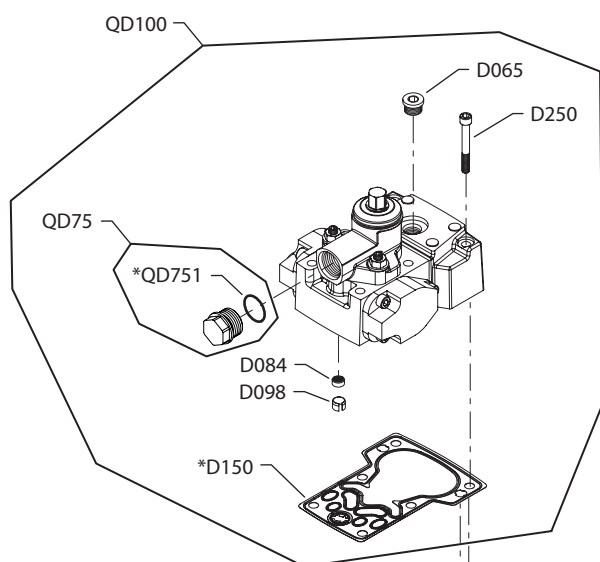
* = included in overhaul seal kit Q210

Control

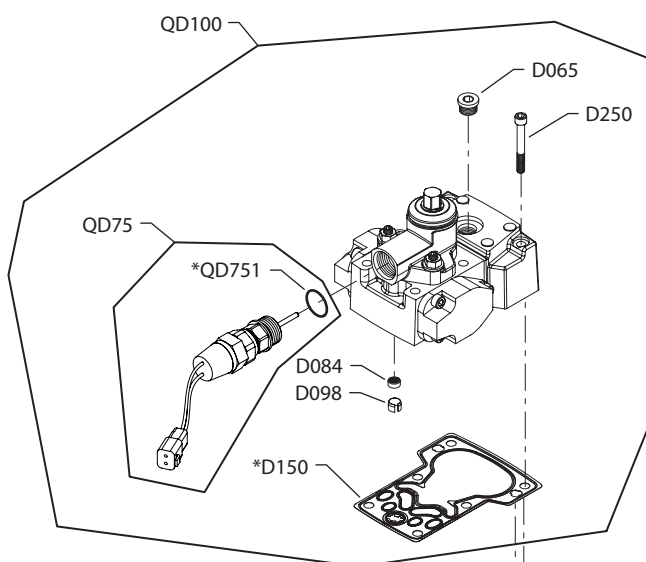
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
SG8	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291	Seal nut, M8	1
	D065	16-32		140642	Plug assembly	1
	D067	16-32		140642	Plug assembly	1
	D076	16-32		067694	Screw, M4 x 10	2
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140750	Proportional solenoid, 12v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004698	Coil kit, 12v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004749	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD80	16-32		11129914	Solenoid valve, 12v	1
	QD81	16-32		11152257	O-ring	1
	QD83	16-32		11147301	Coil kit, 12v	1
	QD84	16-32		11140393	O-ring	1
	QD85	16-32		11140394	Coil nut	1
	QD100	16-32		11155365	EDC kit, 12V, manual override, CCO	1
SH1	D050	16-32		716860	Screw, M5 x 12	6
	D060	16-32		612291	Seal nut, M8	1
	D065	16-32		140642	Plug assembly	1
	D067	16-32		140642	Plug assembly	1
	D076	16-32		067694	Screw, M4 x 10	2
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD25	16-32		140751	Proportional solenoid, 24v	2
	QD26	16-32		11001952	O-ring	2
	QD27	16-32		11004700	Coil kit, 24v, Deutsch connector	2
	QD28	16-32		063172	O-ring	2
	QD29	16-32		11004750	Coil nut	2
	QD30	16-32		11027883	Cap	2
	QD80	16-32		11129915	Solenoid valve, 24v	1
	QD81	16-32		11152257	O-ring	1
	QD83	16-32		11147332	Coil kit, 24v	1
	QD84	16-32		11140393	O-ring	1
	QD85	16-32		11140394	Coil nut	1
	QD100	16-32		11170084	EDC kit, 24V, manual override, CCO	1



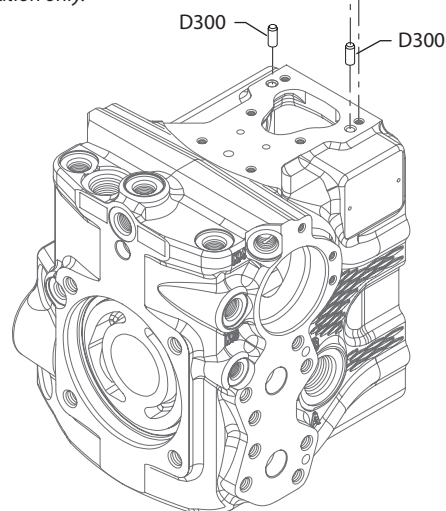
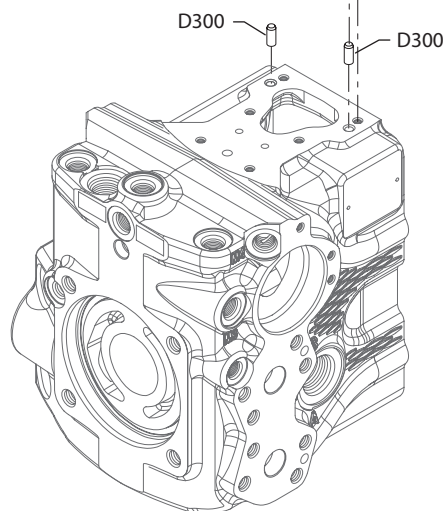
(SM1)



(SM2)



Generic housing used to show part location only.

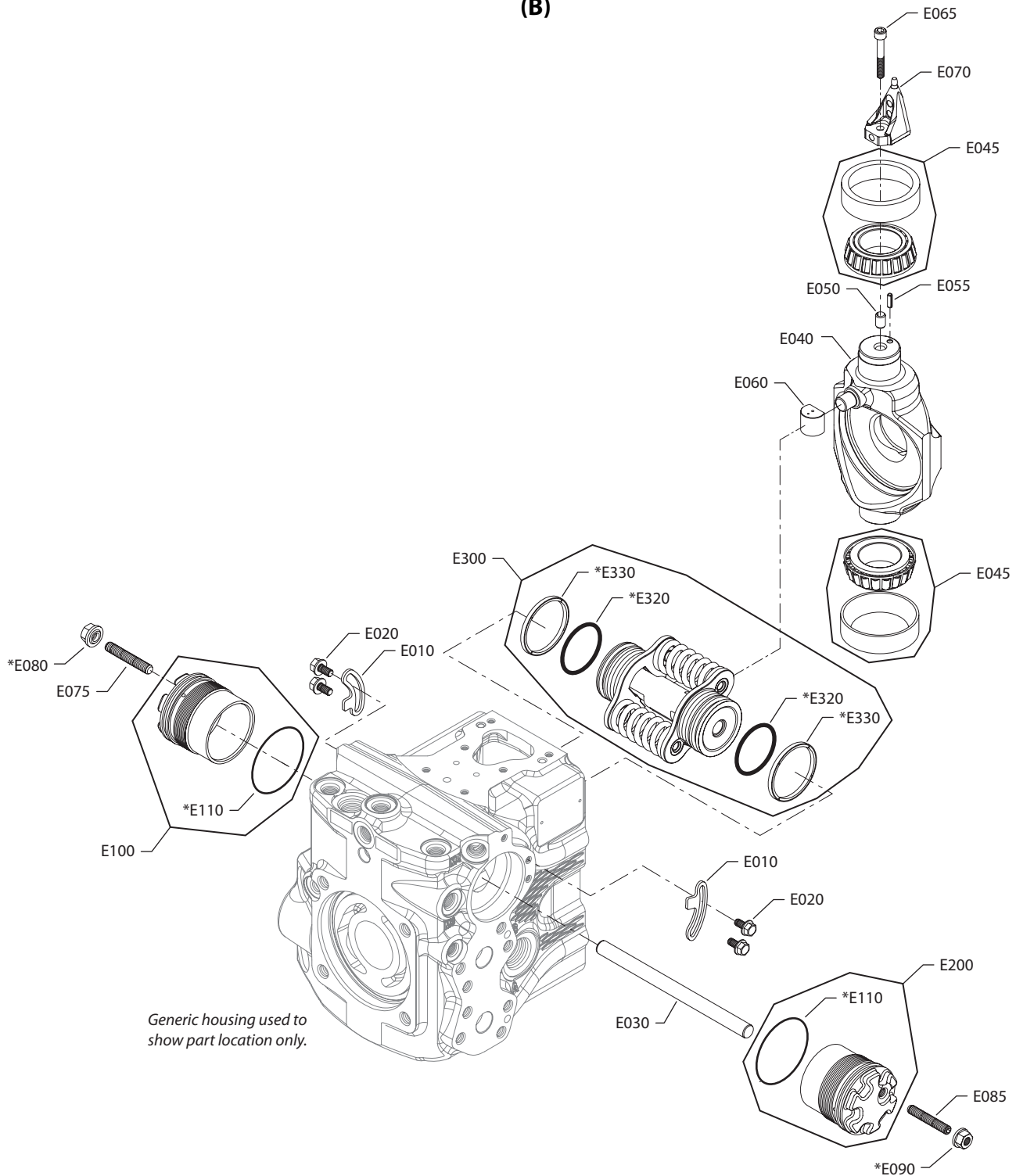



Control

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
SM1	D065	16-32		140642	Plug assembly	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD75	16-32		11119332	Spring seat assembly	1
	QD100	16-32		11141225	MDC kit	1
	QD751	16-32		001131 (9004201-5000)	O-ring	1
SM2	D065	16-32		140642	Plug assembly	1
	D084	16-32		140967	Screen, 8mm 125 micron	1
	D098	16-32		11012505	Locking ring	1
	D150	16-32		11173377	Control gasket	1
	D250	16-32		505038	Screw, M6 x 45	6
	D300	16-32		310979	Dowel pin	2
	QD75	16-32		11126847	Spring seat/neutral start switch assembly	1
	QD100	16-32		11141236	MDC kit with neutral start switch	1
	QD751	16-32		001131 (9004201-5000)	O-ring	1



(B)



E103 442E

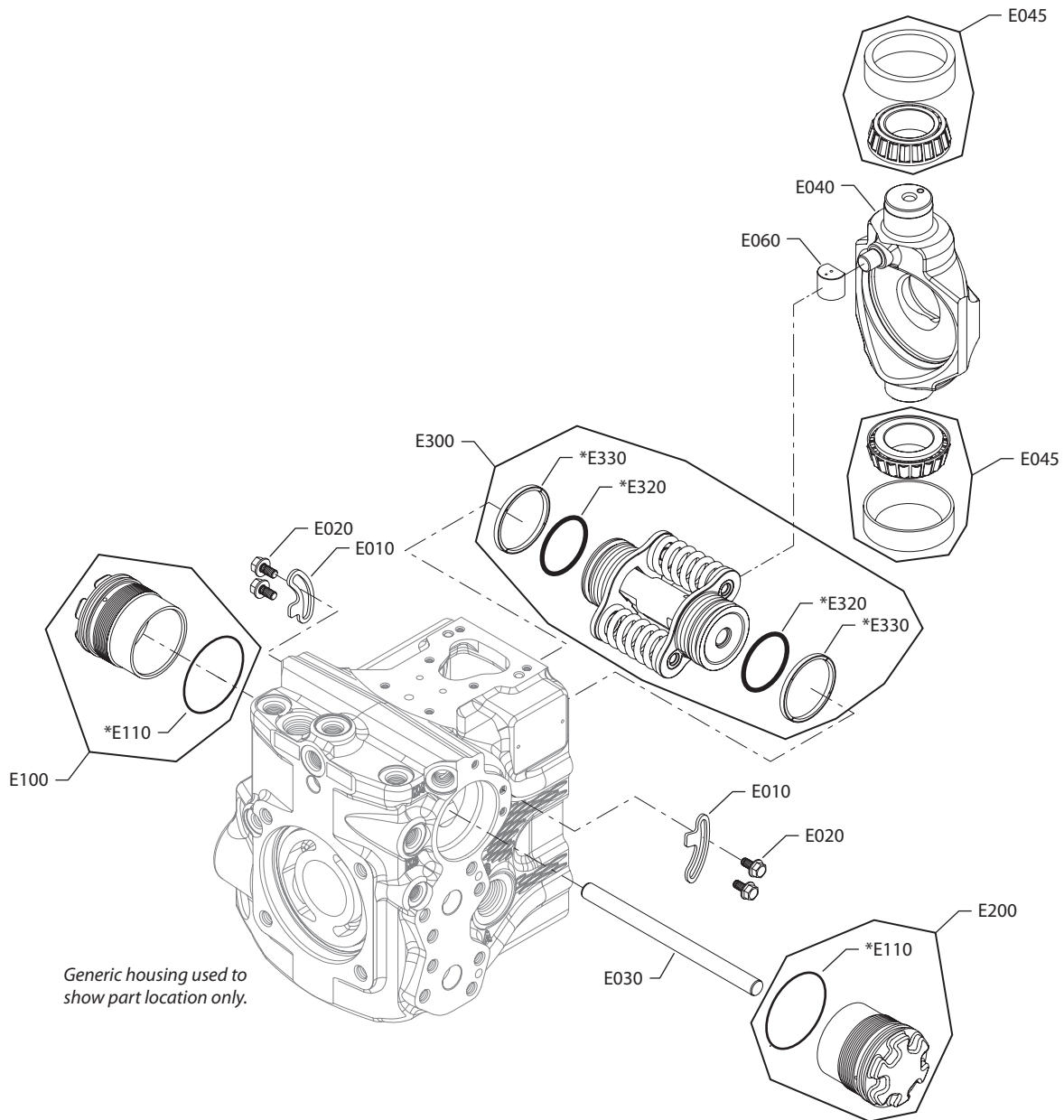
* = included in overhaul seal kit Q210


Displacement limitation

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B	E010	16-32		11157170	Locking plate	2
	E020	16-32		508438	Screw, M6 x 12	4
	E030	16-32		11150891	Servo piston guide rod	1
	E040	16-32		11150343	Swashplate	1
	E045	16-32		4800470	Roller bearing	2
	E050	16-32		11160523	Bushing	1
	E055	16-32		9004700-1508	Slotted pin	1
	E060	16-32		11152843	Slider block	1
	E065	16-32		508994	Screw, M6 x 35	1
	E070	16-32		11149295	Swashplate feedback link	1
	E075	16-32		528711	Set screw, M8 x 45	1
	E080	16-32		505412 (9003509-0008)	Seal nut, M8	1
	E085	16-32		528711	Set screw, M8 x 45	1
	E090	16-32		505412 (9003509-0008)	Seal nut, M8	1
	E100	16-32		11165019	Servo cylinder assembly	1
	E110	16-32		5000709	O-ring	2
	E200	16-32		11165019	Servo cylinder assembly	1
	E300	16-32		11164461	Servo piston assembly	1
	E320	16-32		9004100-2230	O-ring	2
	E330	16-32		11164998	Piston ring	2



(C)



E103 443E

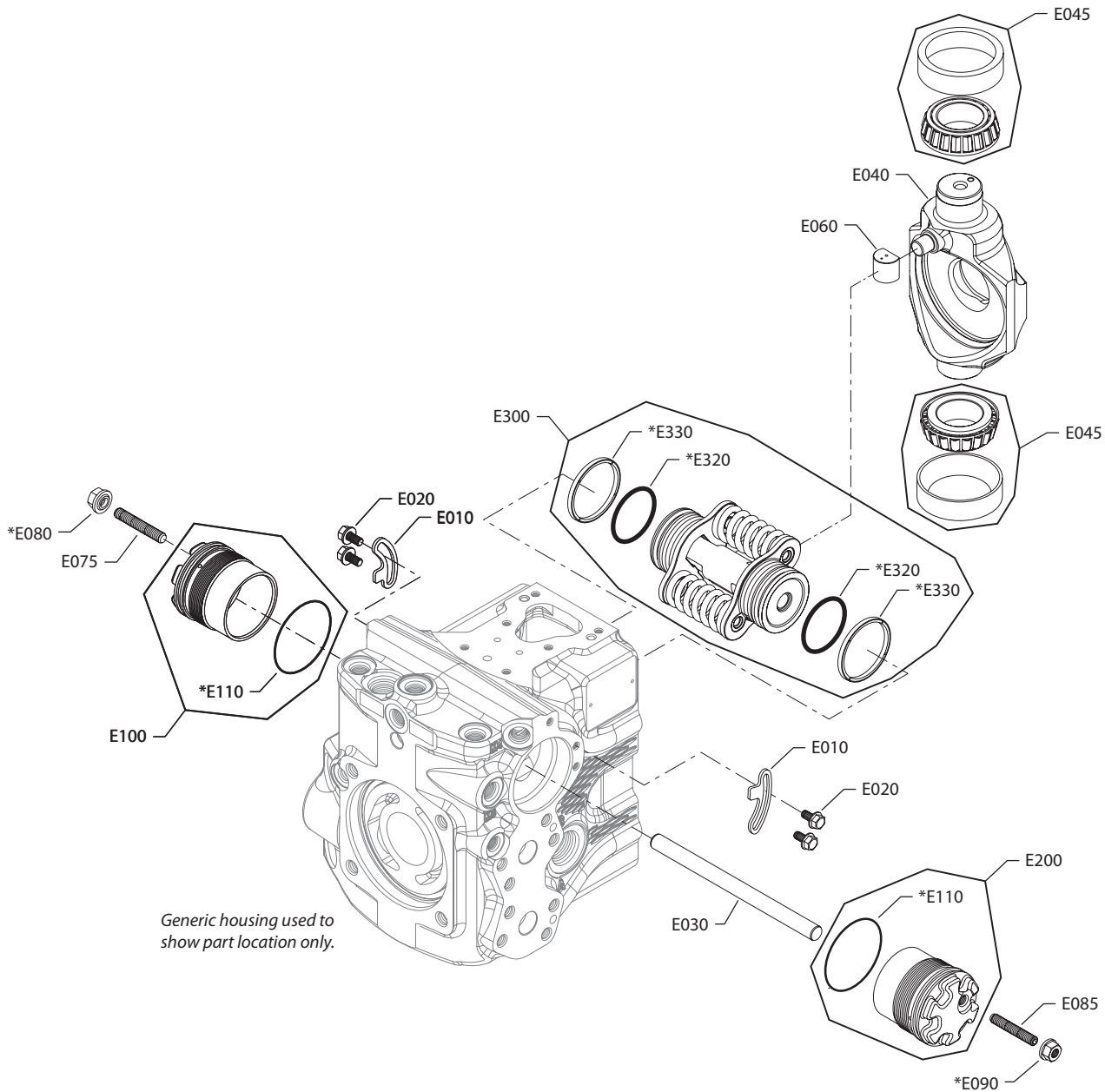
* = included in overhaul seal kit Q210


Displacement limitation

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C	E010	16-32		11157170	Locking plate	2
	E020	16-32		508438	Screw, M6 x 12	4
	E030	16-32		11150891	Servo piston guide rod	1
	E040	16-32		11150343	Swashplate	1
	E045	16-32		4800470	Roller bearing	2
	E060	16-32		11152843	Slider block	1
	E100	16-32		11165017	Servo cylinder assembly	1
	E110	16-32		5000709	O-ring	2
	E200	16-32		11165017	Servo cylinder assembly	1
	E300	16-32		11164465	Servo piston assembly, nested springs	1
	E320	16-32		9004100-2230	O-ring	2
	E330	16-32		11164998	Piston ring	2



(D)



E103 444E

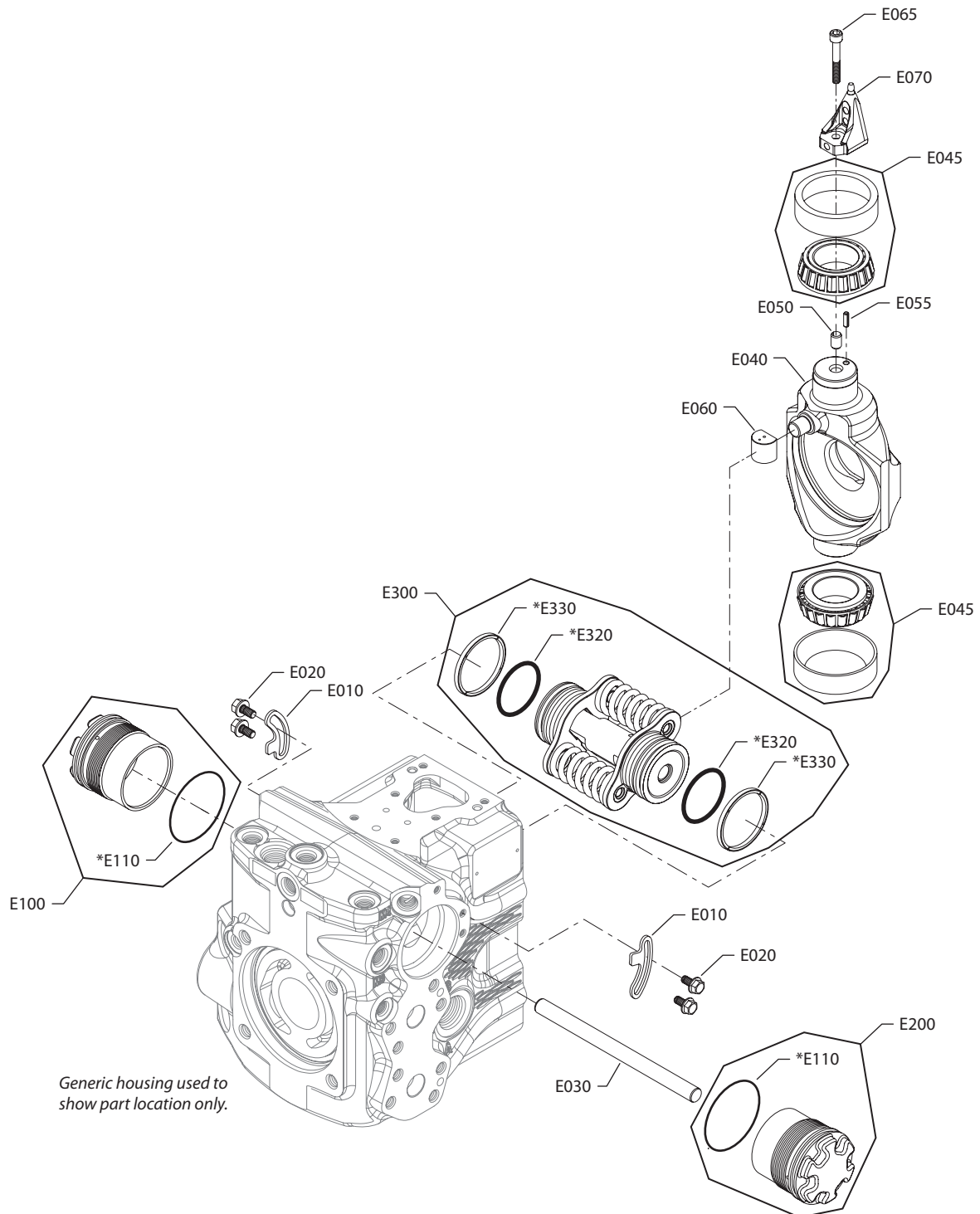
* = included in overhaul seal kit Q210


Displacement limitation

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D	E010	16-32		11157170	Locking plate	2
	E020	16-32		508438	Screw, M6 x 12	4
	E030	16-32		11150891	Servo piston guide rod	1
	E040	16-32		11150343	Swashplate	1
	E045	16-32		4800470	Roller bearing	2
	E060	16-32		11152843	Slider block	1
	E075	16-32		528711	Set screw, M8 x 45	1
	E080	16-32		505412 (9003509-0008)	Seal nut, M8	1
	E085	16-32		528711	Set screw, M8 x 45	1
	E090	16-32		505412 (9003509-0008)	Seal nut, M8	1
	E100	16-32		11165019	Servo cylinder assembly	1
	E110	16-32		5000709	O-ring	2
	E200	16-32		11165019	Servo cylinder assembly	1
	E300	16-32		11164465	Servo piston assembly, nested springs	1
	E320	16-32		9004100-2230	O-ring	2
	E330	16-32		11164998	Piston ring	2



(N)



E103 445E

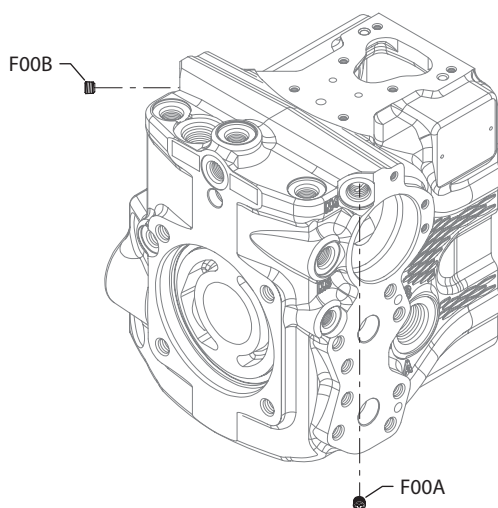
* = included in overhaul seal kit Q210


Displacement limitation

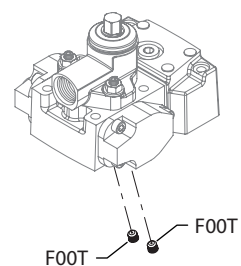
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N	E010	16-32		11157170	Locking plate	2
	E020	16-32		508438	Screw, M6 x 12	4
	E030	16-32		11150891	Servo piston guide rod	1
	E040	16-32		11150343	Swashplate	1
	E045	16-32		4800470	Roller bearing	2
	E050	16-32		11160523	Bushing	1
	E055	16-32		9004700-1508	Slotted pin	1
	E060	16-32		11152843	Slider block	1
	E065	16-32		508994	Screw, M6 x 35	1
	E070	16-32		11149295	Swashplate feedback link	1
	E100	16-32		11165017	Servo cylinder assembly	1
	E110	16-32		5000709	O-ring	2
	E200	16-32		11165017	Servo cylinder assembly	1
	E300	16-32		11164461	Servo piston assembly	1
	E320	16-32		9004100-2230	O-ring	2
	E330	16-32		11164998	Piston ring	2



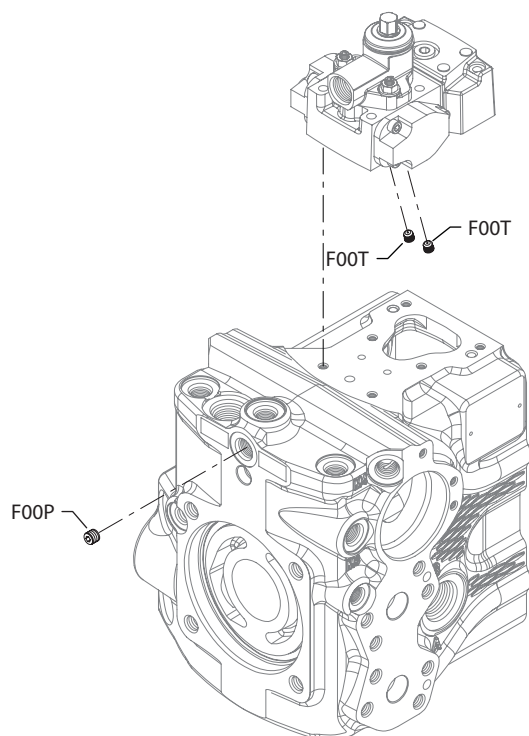
(C1, C2 & C4)



(C6 & C7)

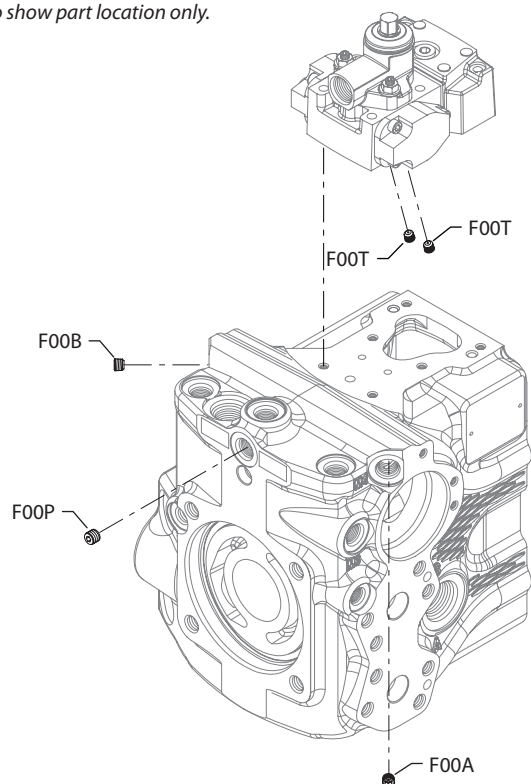


(C8, C9, D1, D2 & D3)



*Generic housings and controls
used to show part location only.*

(D4 & D5)

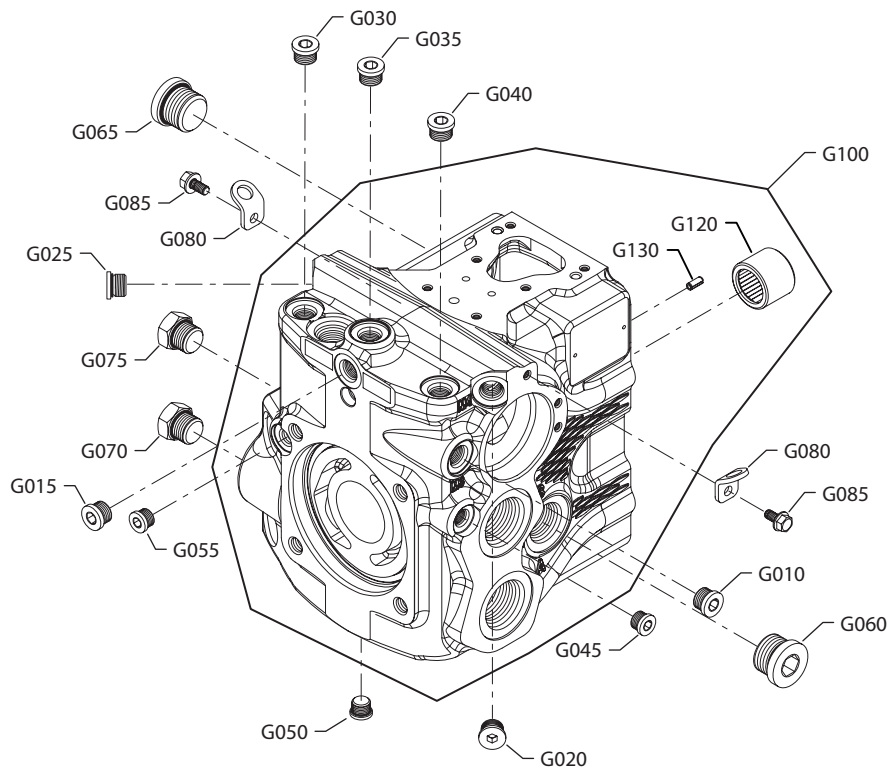



Orifice

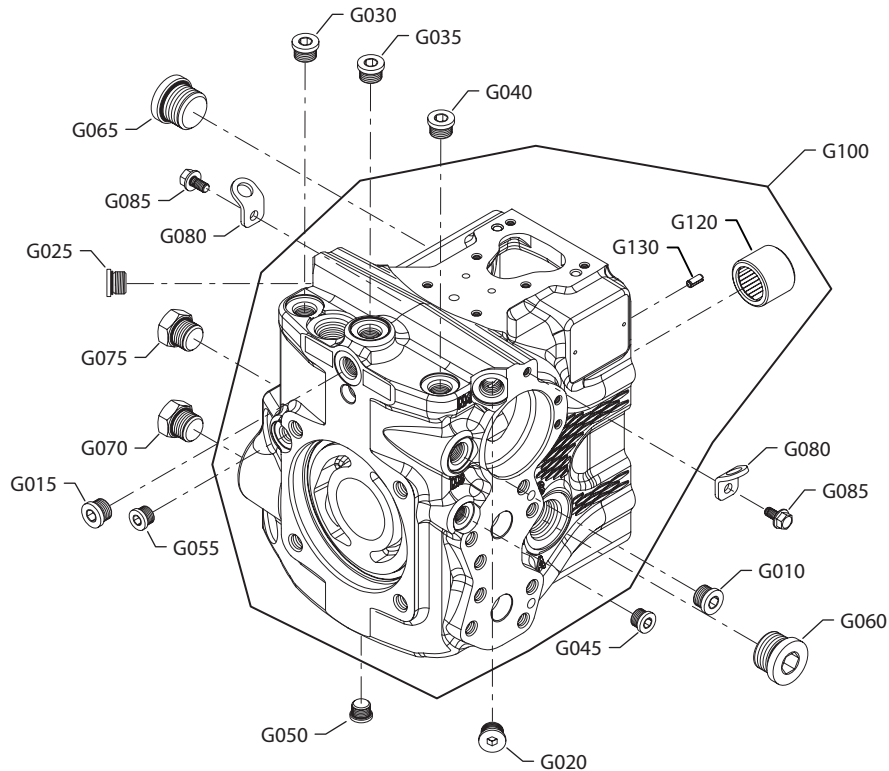
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	F00A	16-32		11182692	Orifice, 0.8mm	1
	F00B	16-32		11182692	Orifice, 0.8mm	1
C2	F00A	16-32		11167433	Orifice, 1.3mm	1
	F00B	16-32		11167433	Orifice, 1.3mm	1
C3				none		
C4	F00A	16-32		11167421	Orifice, 1.0mm	1
	F00B	16-32		11167421	Orifice, 1.0mm	1
C6	F00T	16-32		11151734	Orifice, 1.0mm, M6	2
C7	F00T	16-32		140754	Orifice, 1.3mm, M6	2
C8	F00P	16-32		11177220	Orifice, 0.8mm, 1/8-27	1
	F00T	16-32		11151733	Orifice, 0.6mm, M6	2
C9	F00P	16-32		11160290	Orifice, 0.8mm, 1/8-27	1
	F00T	16-32		11151733	Orifice, 0.6mm, M6	2
D1	F00P	16-32		11160290	Orifice, 1.0mm, 1/8-27	1
	F00T	16-32		140611	Orifice, 0.8mm, M6	2
D2	F00P	16-32		11160291	Orifice, 1.3mm, 1/8-27	1
	F00T	16-32		140611	Orifice, 0.8mm, M6	2
D3	F00P	16-32		11160291	Orifice, 1.3mm, 1/8-27	1
	F00T	16-32		11151734	Orifice, 1.0mm, M6	2
D4	F00A	16-32		11167433	Orifice, 1.3mm	1
	F00B	16-32		11167433	Orifice, 1.3mm	1
	F00P	16-32		11160291	Orifice, 1.3mm, 1/8-27	1
	F00T	16-32		11151734	Orifice, 1.0mm, M6	2
D5	F00A	16-32		11182692	Orifice, 0.8mm	1
	F00B	16-32		11182692	Orifice, 0.8mm	1
	F00P	16-32		11176799	Orifice, 0.6mm, 1/8-27	1
	F00T	16-32		11151733	Orifice, 0.6mm, M6	2



(A1)



(B1)

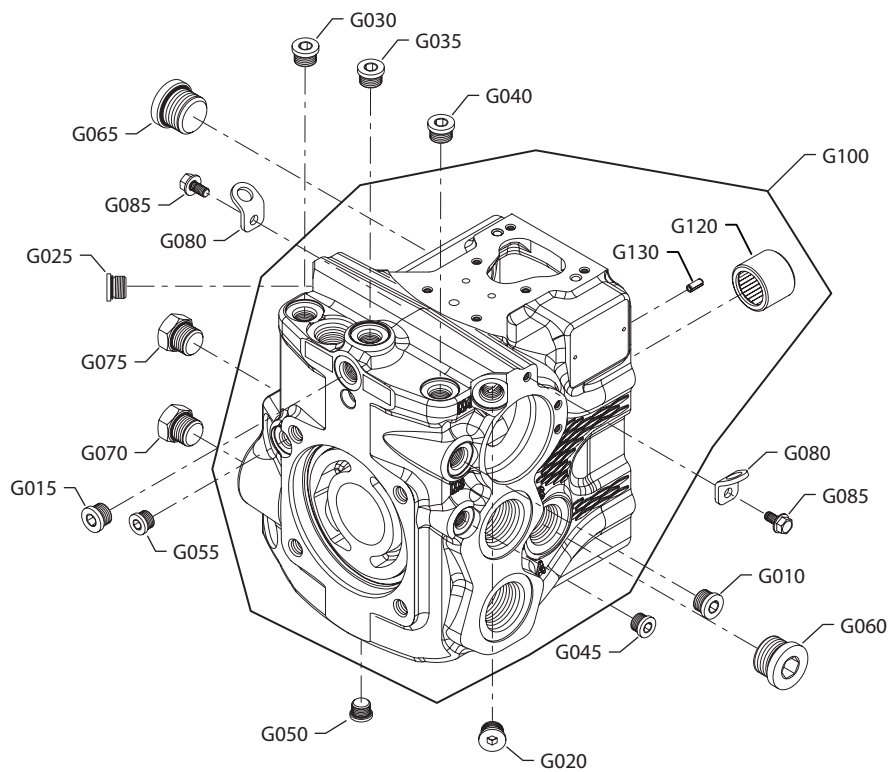



System port type

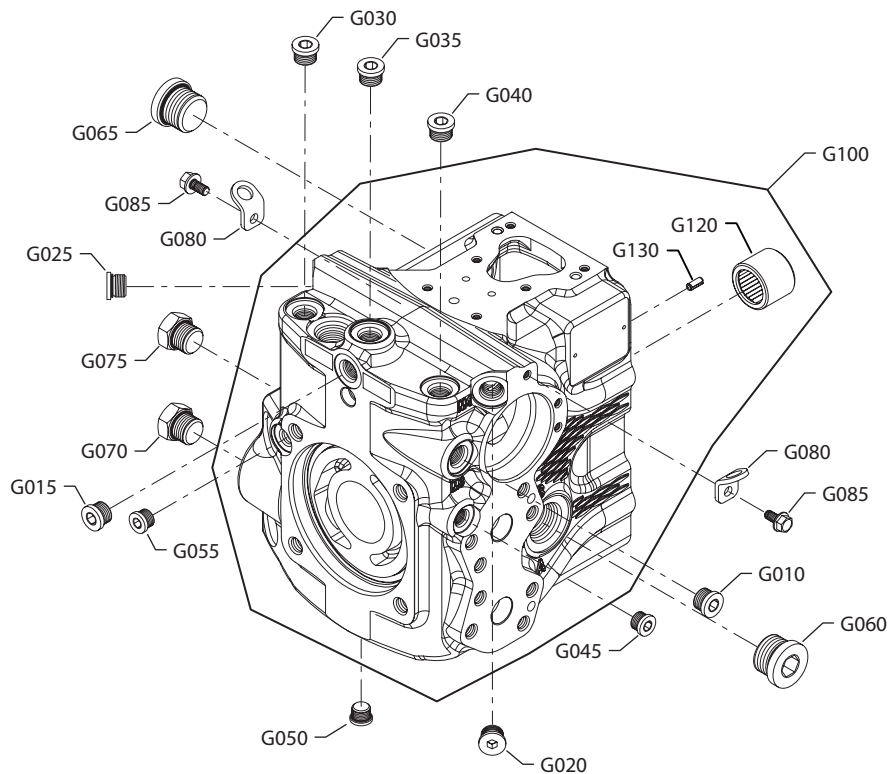
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A1	G010	16-32		140644 (9005110-5600)	Plug assembly	1
	G015	16-32		140644 (9005110-5600)	Plug assembly	1
	G020	16-32		140644 (9005110-5600)	Plug assembly	1
	G025	16-32		140644 (9005110-5600)	Plug assembly	1
	G030	16-32		140644 (9005110-5600)	Plug assembly	1
	G035	16-32		140644 (9005110-5600)	Plug assembly	1
	G040	16-32		140644 (9005110-5600)	Plug assembly	1
	G045	16-32		327007 (9005110-4400)	Plug assembly	1
	G050	16-32		327007 (9005110-4400)	Plug assembly	1
	G055	16-32		327007 (9005110-4400)	Plug assembly	1
	G060	16-32		664524 (9005110-9000)	Plug assembly	1
	G065	16-32		664524 (9005110-9000)	Plug assembly	1
	G070	16-32		001529 (9005100-7500)	Plug assembly	1
	G075	16-32		001529 (9005100-7500)	Plug assembly	1
	G080	16-32		4800754	Lifting bracket	2
	G085	16-32		508438	Screw, M6 x 12	2
	G100	16-32		11165969	Housing assembly	1
	G120	16-32		9001465-0015	Needle bearing	1
	G130	16-32		9004700-1907	Slotted pin	1
B1	G010	16-32		140644 (9005110-5600)	Plug assembly	1
	G015	16-32		140644 (9005110-5600)	Plug assembly	1
	G020	16-32		140644 (9005110-5600)	Plug assembly	1
	G025	16-32		140644 (9005110-5600)	Plug assembly	1
	G030	16-32		140644 (9005110-5600)	Plug assembly	1
	G035	16-32		140644 (9005110-5600)	Plug assembly	1
	G040	16-32		140644 (9005110-5600)	Plug assembly	1
	G045	16-32		327007 (9005110-4400)	Plug assembly	1
	G050	16-32		327007 (9005110-4400)	Plug assembly	1
	G055	16-32		327007 (9005110-4400)	Plug assembly	1
	G060	16-32		664524 (9005110-9000)	Plug assembly	1
	G065	16-32		664524 (9005110-9000)	Plug assembly	1
	G070	16-32		001529 (9005100-7500)	Plug assembly	1
	G075	16-32		001529 (9005100-7500)	Plug assembly	1
	G080	16-32		4800754	Lifting bracket	2
	G085	16-32		508438	Screw, M6 x 12	2
	G100	16-32		11165970	Housing assembly	1
	G120	16-32		9001465-0015	Needle bearing	1
	G130	16-32		9004700-1907	Slotted pin	1



(C1)

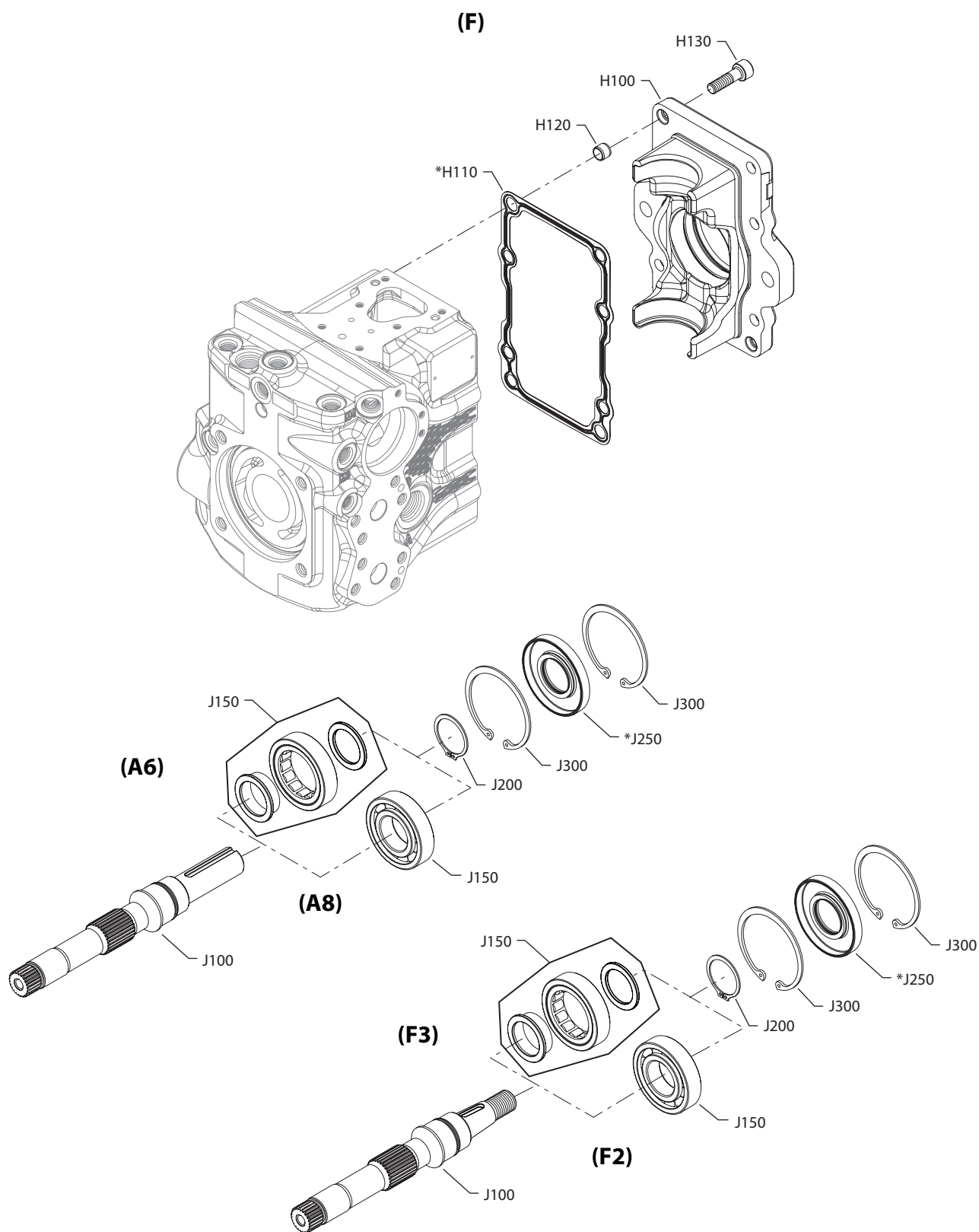


(D1)




System port type

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C1	G010	16-32		5000438	Plug assembly, M14	1
	G015	16-32		5000438	Plug assembly, M14	1
	G020	16-32		5000438	Plug assembly, M14	1
	G025	16-32		5000438	Plug assembly, M14	1
	G030	16-32		5000438	Plug assembly, M14	1
	G035	16-32		5000438	Plug assembly, M14	1
	G040	16-32		5000438	Plug assembly, M14	1
	G045	16-32		5000571	Plug assembly, M10	1
	G050	16-32		5000571	Plug assembly, M10	1
	G055	16-32		5000571	Plug assembly, M10	1
	G060	16-32		11134927	Plug assembly, M27	1
	G065	16-32		11134927	Plug assembly, M27	1
	G070	16-32		11164223	Plug assembly, M18	1
	G075	16-32		11164223	Plug assembly, M18	1
	G080	16-32		4800754	Lifting bracket	2
	G085	16-32		508438	Screw, M6 x 12	2
	G100	16-32		11165971	Housing assembly, metric	1
	G120	16-32		9001465-0015	Needle bearing	1
	G130	16-32		9004700-1907	Slotted pin	1
D1	G010	16-32		5000438	Plug assembly, M14	1
	G015	16-32		5000438	Plug assembly, M14	1
	G020	16-32		5000438	Plug assembly, M14	1
	G025	16-32		5000438	Plug assembly, M14	1
	G030	16-32		5000438	Plug assembly, M14	1
	G035	16-32		5000438	Plug assembly, M14	1
	G040	16-32		5000438	Plug assembly, M14	1
	G045	16-32		5000571	Plug assembly, M10	1
	G050	16-32		5000571	Plug assembly, M10	1
	G055	16-32		5000571	Plug assembly, M10	1
	G060	16-32		11134927	Plug assembly, M27	1
	G065	16-32		11134927	Plug assembly, M27	1
	G070	16-32		11164223	Plug assembly, M18	1
	G075	16-32		11164223	Plug assembly, M18	1
	G080	16-32		4800754	Lifting bracket	2
	G085	16-32		508438	Screw, M6 x 12	2
	G100	16-32		11165972	Housing assembly, metric	1
	G120	16-32		9001465-0015	Needle bearing	1
	G130	16-32		9004700-1907	Slotted pin	1

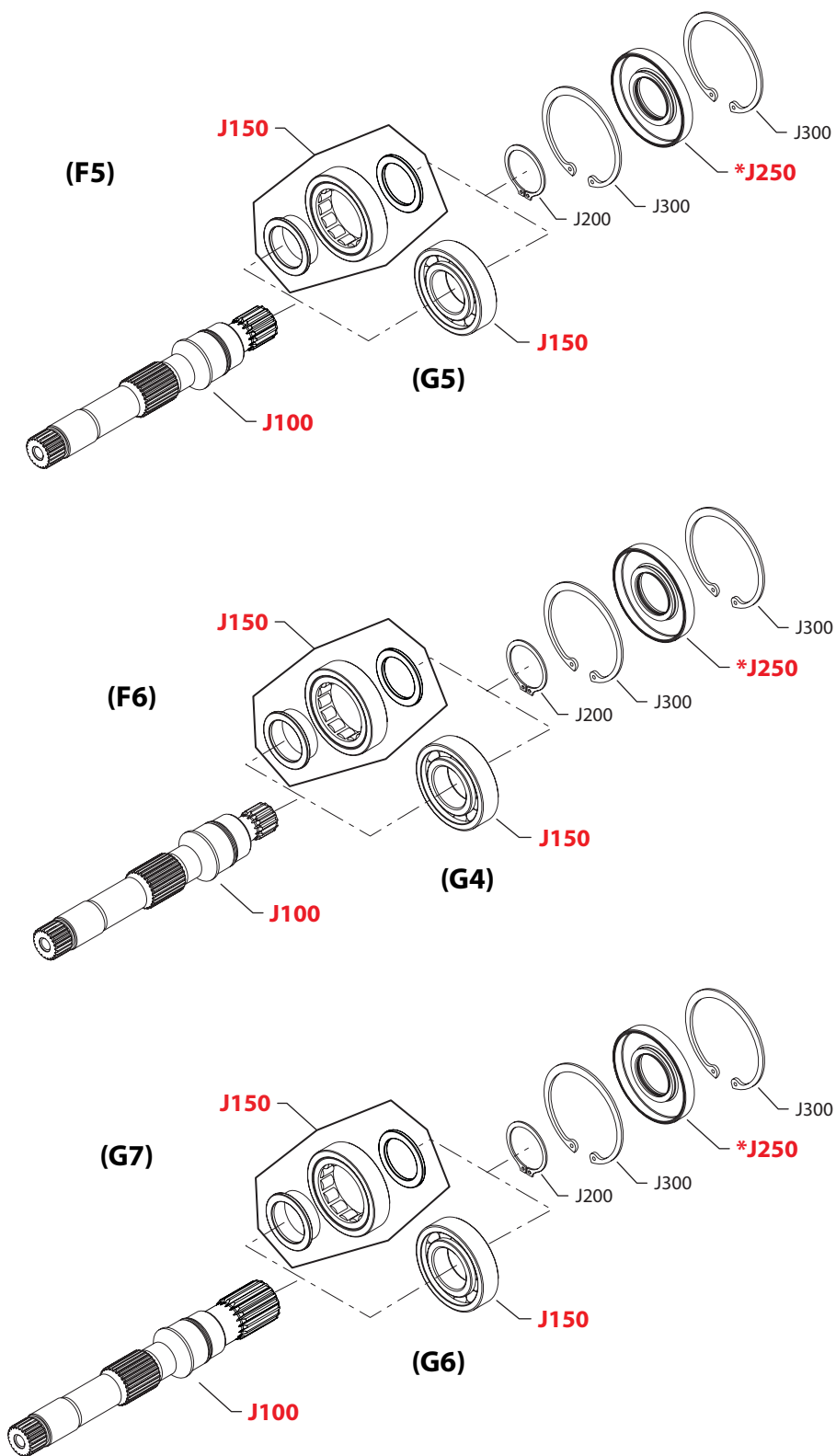



Mounting flange

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F	H100	16-32		11150146	Front cover	1
	H110	16-32		11157168	Front cover gasket	1
	H120	16-32		4400090	Hollow dowel locator	2
	H130	16-32		11158929	Screw, M10 x 35	8

Shaft

A6	J100	16-32		11150730	Shaft, straight key	1
	J150	16-32		357616	Roller bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
A8	J100	16-32		11150730	Shaft, straight key	1
	J150	16-32		11060400	Ball bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
F2	J100	16-32		11169590	Shaft, tapered	1
	J150	16-32		11060400	Ball bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
F3	J100	16-32		11169590	Shaft, tapered	1
	J150	16-32		357616	Roller bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2



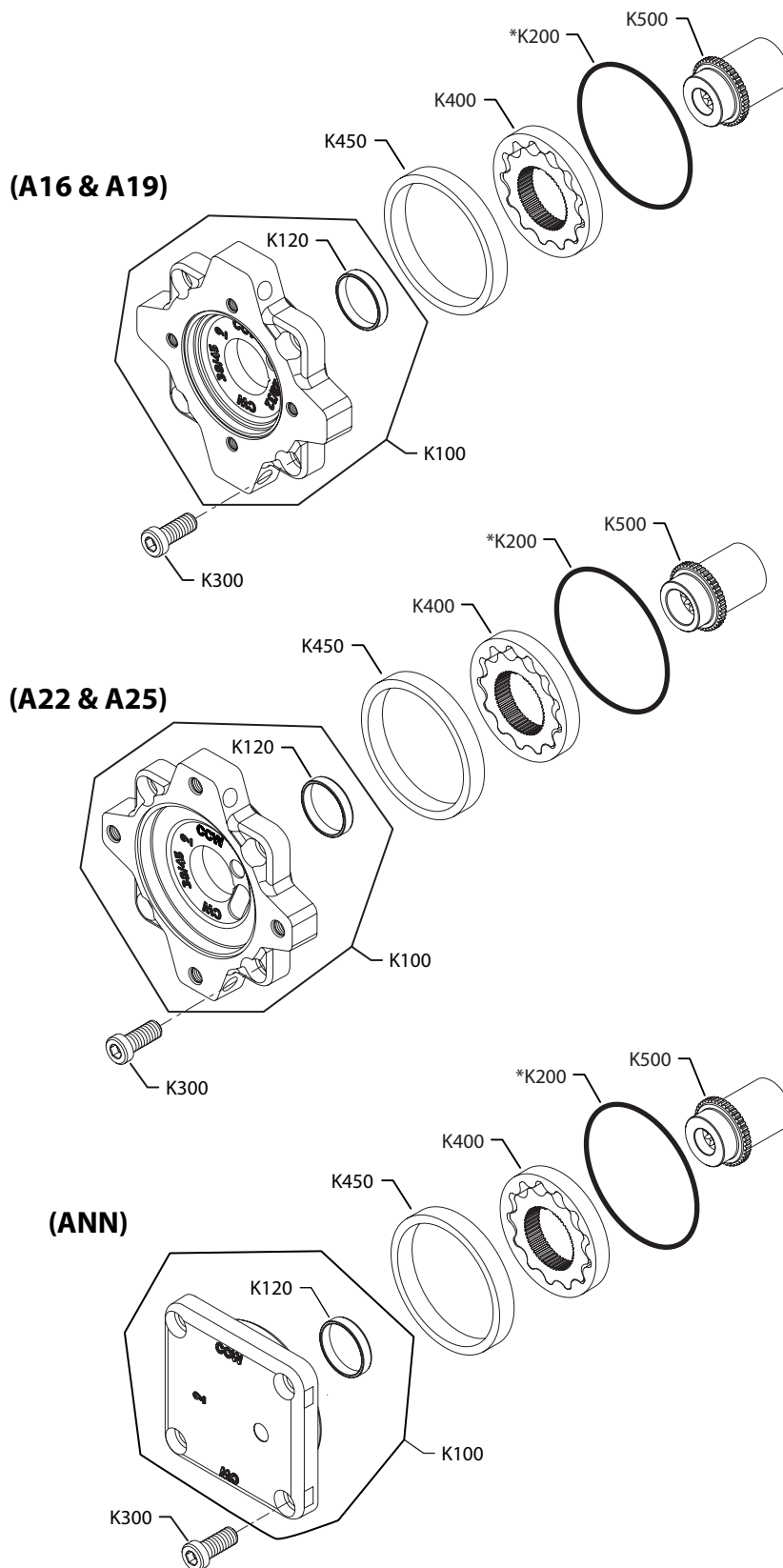
E103 449E

* = included in overhaul seal kit Q210

Enlarged **bold** type item numbers are recommended part to stock for servicing.


Shaft

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F5	J100	16-32		11150728	Shaft, 15 tooth	1
	J150	16-32		357616	Roller bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
F6	J100	16-32		11150727	Shaft, 13 tooth	1
	J150	16-32		357616	Roller bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
G4	J100	16-32		11150727	Shaft, 13 tooth	1
	J150	16-32		11060400	Ball bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
G5	J100	16-32		11150728	Shaft, 15 tooth	1
	J150	16-32		11060400	Ball bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
G6	J100	16-32		11169483	Shaft, 19 tooth	1
	J150	16-32		11060400	Ball bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2
G7	J100	16-32		11169483	Shaft, 19 tooth	1
	J150	16-32		357616	Roller bearing	1
	J200	16-32		9006300-0137	Retaining ring	1
	J250	16-32		11103135	Lip seal	1
	J300	16-32		9006200-0281	Retaining ring	2

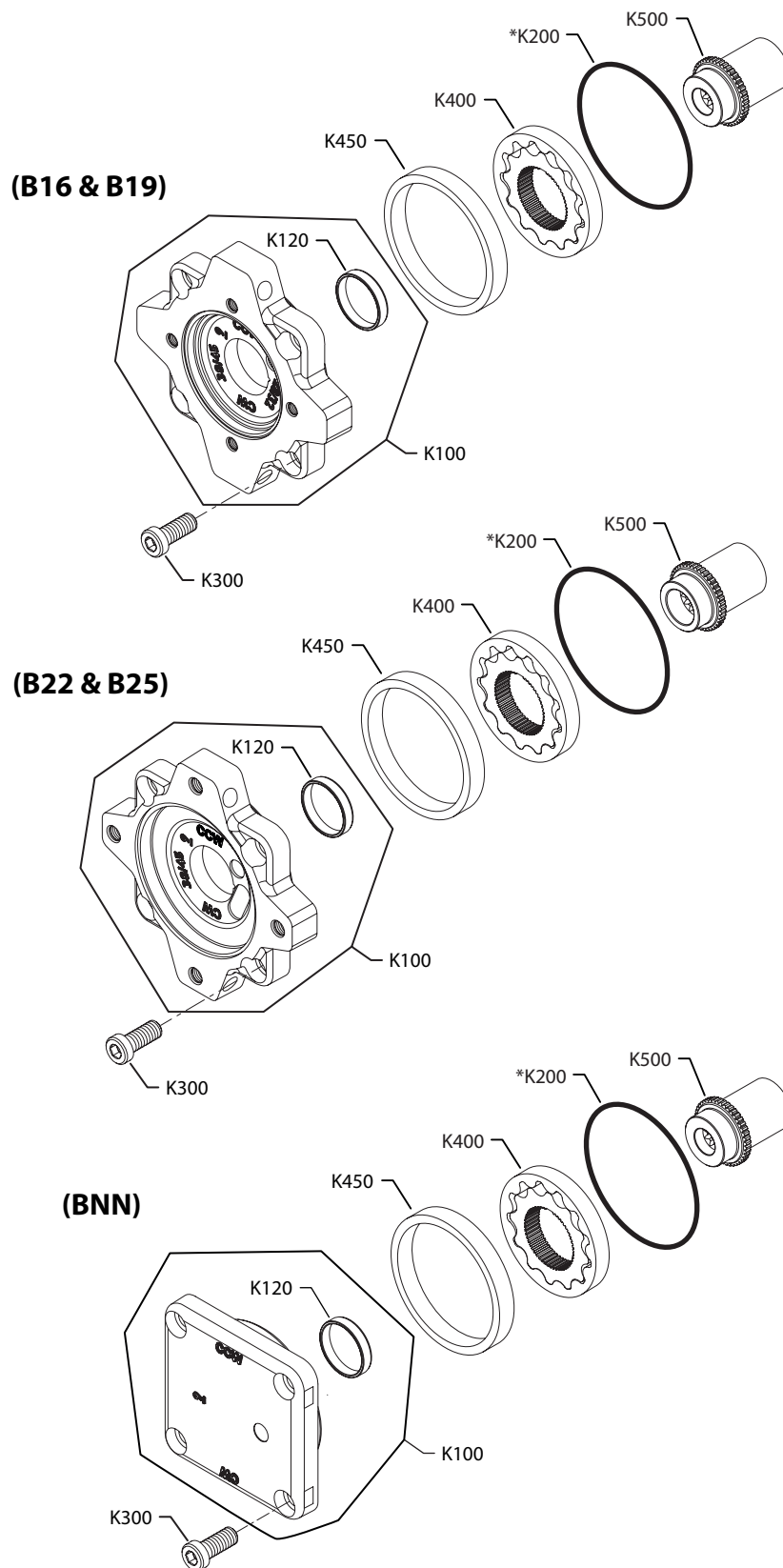


E103 450E

* = included in overhaul seal kit Q210

Charge pump and auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A16	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
A19	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151244	Coupling, 11 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
A22	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151245	Coupling, 13 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
A25	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151246	Coupling, 15 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
ANN	K100	16-32		11166271	Charge pump cover assembly, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1

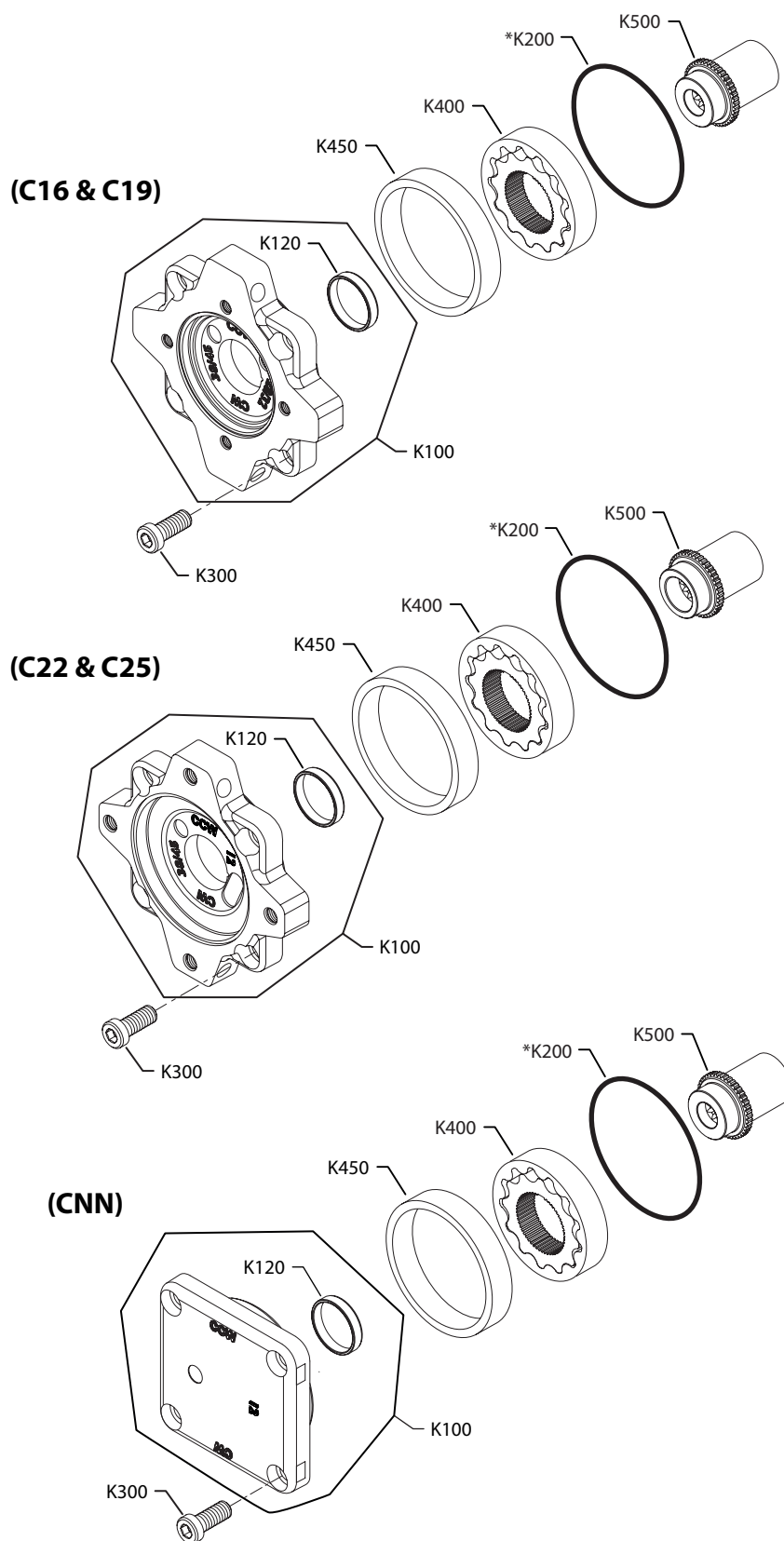


E103 450E

* = included in overhaul seal kit Q210

Charge pump and auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B16	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
B19	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151244	Coupling, 11 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
B22	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151245	Coupling, 13 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
B25	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151246	Coupling, 15 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
BNN	K100	16-32		11166271	Charge pump cover assembly, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11155777	Gerotor assembly, 9cc	1
	K450	16-32		11171571	Gerotor ring, 9cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1

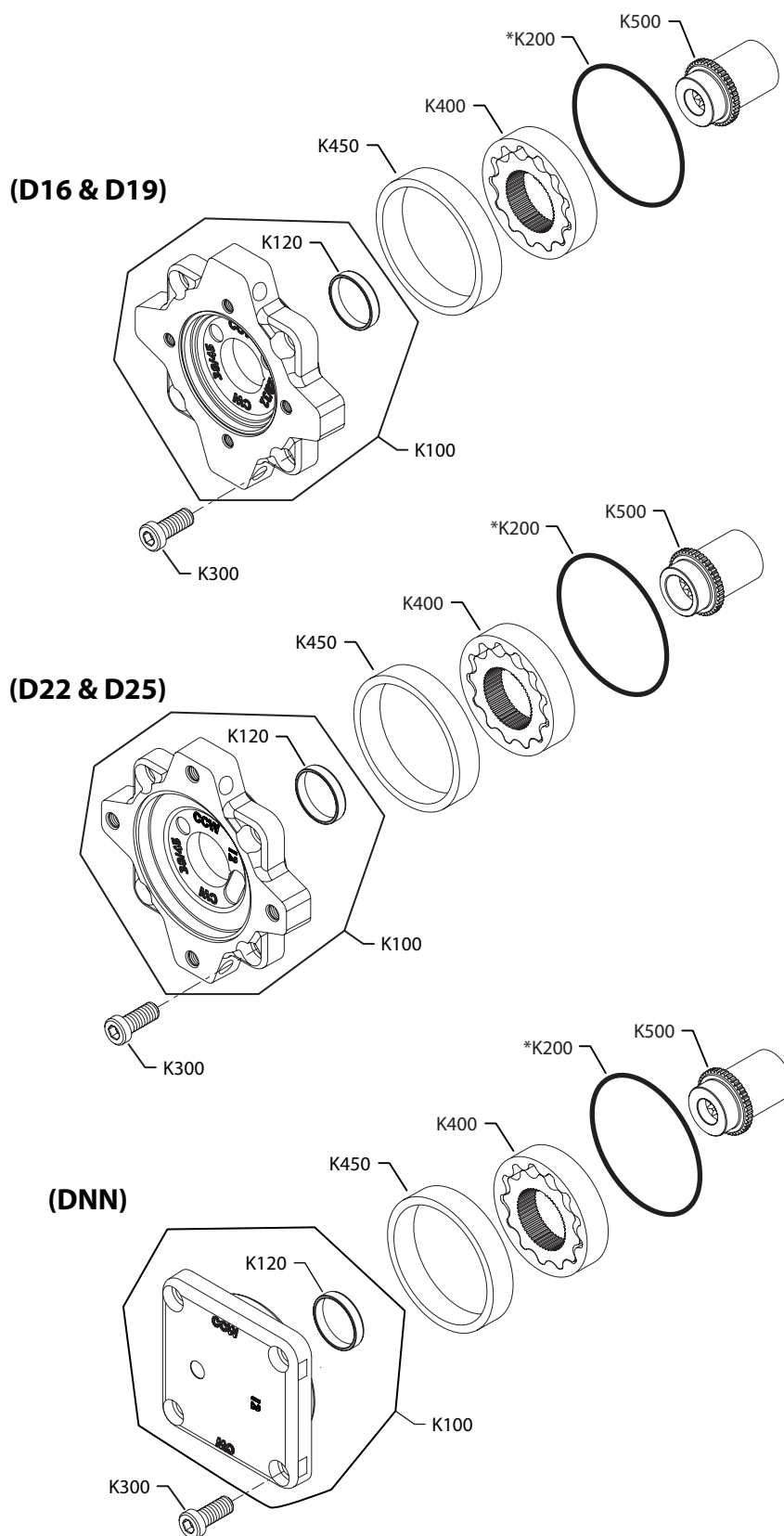


E103 456E

* = included in overhaul seal kit Q210

Charge pump and auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C16	K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
C19	K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151244	Coupling, 11 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
C22	K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151245	Coupling, 13 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
C25	K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151246	Coupling, 15 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
CNN	K100	16-32		11166274	Charge pump cover assembly, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1



E103 456E

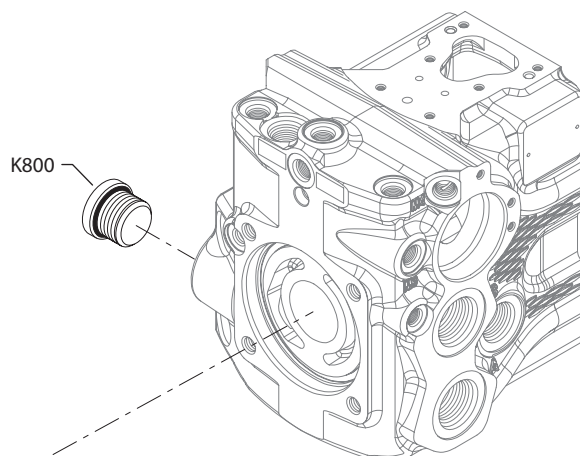
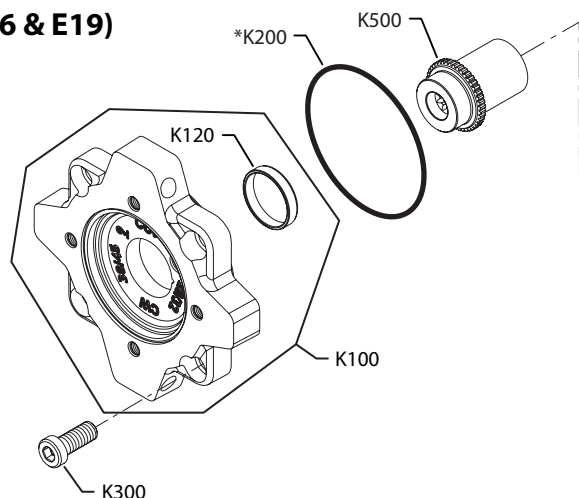
* = included in overhaul seal kit Q210

Charge pump and auxiliary mounting

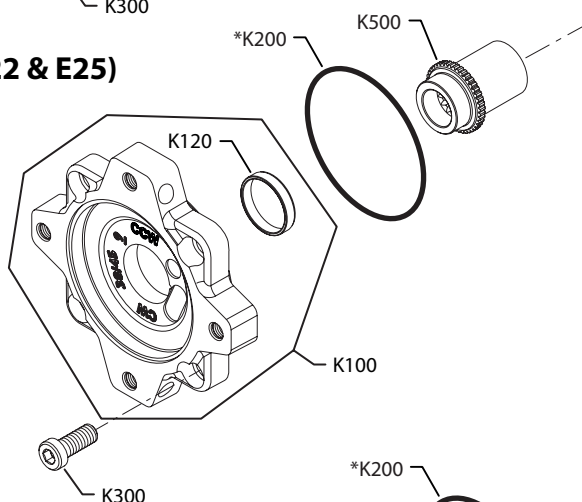
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
D16	K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
D19	K100	16-32		11166272	Adaptor assembly, A pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151244	Coupling, 11 tooth	1
	K600	16-32		11017125	Adapter cover	1
	K700	16-32		370247	Screw, M10 x 20	2
D22	K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151245	Coupling, 13 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
D25	K100	16-32		11166273	Adaptor assembly, B pad, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151246	Coupling, 15 tooth	1
	K600	16-32		11023746	Adapter cover	1
	K700	16-32		5000760	Screw, M12 x 20	2
DNN	K100	16-32		11166274	Charge pump cover assembly, 12cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K400	16-32		11077232	Gerotor assembly, 12cc	1
	K450	16-32		141595	Gerotor ring, 12cc	1
	K500	16-32		11151243	Coupling, 9 tooth	1



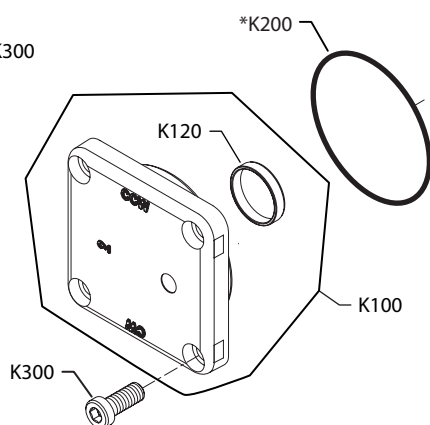
(E16 & E19)



(E22 & E25)

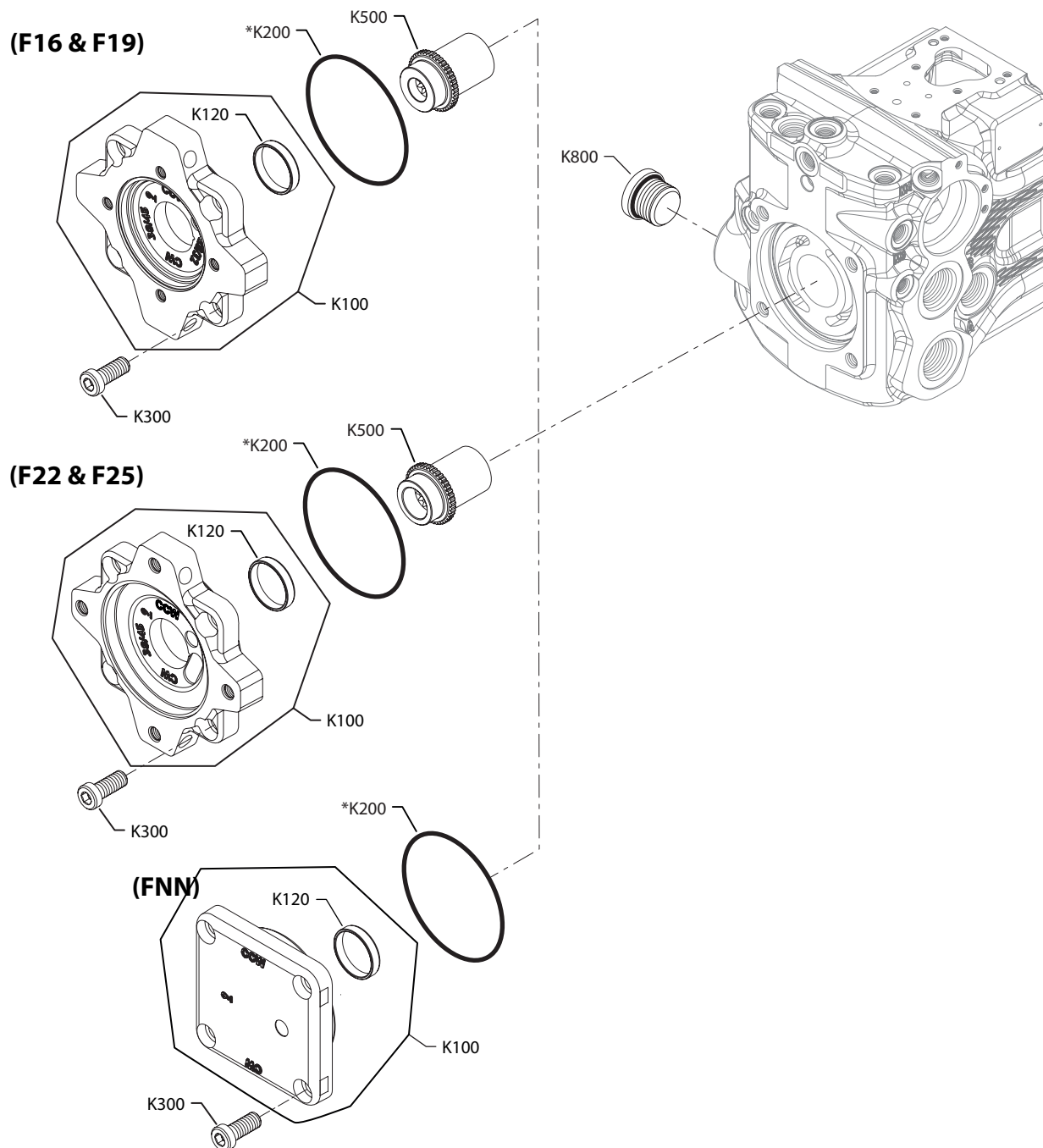


(ENN)




Charge pump and auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E16	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151243	Coupling, 9 tooth	1
	K800	16-32		9005110-9200	Plug assembly	1
E19	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151244	Coupling, 11 tooth	1
	K800	16-32		9005110-9200	Plug assembly	1
E22	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151245	Coupling, 13 tooth	1
	K800	16-32		9005110-9200	Plug assembly	1
E25	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151246	Coupling, 15 tooth	1
	K800	16-32		9005110-9200	Plug assembly	1
ENN	K100	16-32		11166271	Charge pump cover assembly, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K800	16-32		9005110-9200	Plug assembly	1

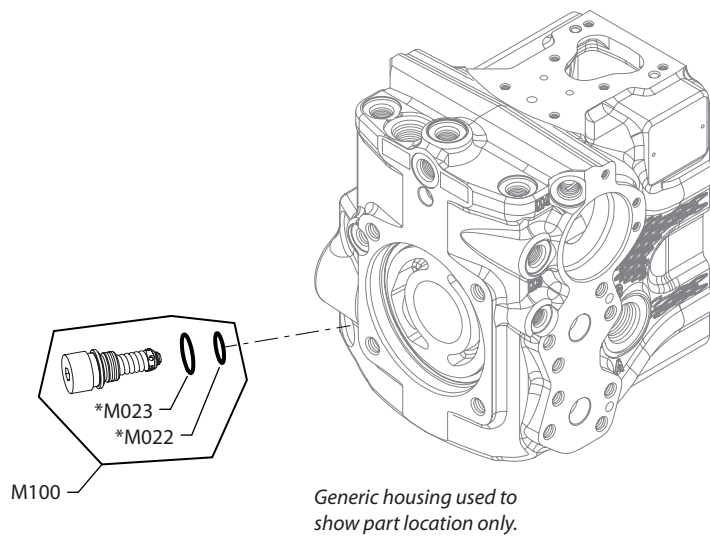



Charge pump and auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
F16	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151243	Coupling, 9 tooth	1
	K800	16-32		11164204	Plug assembly, M33	1
F19	K100	16-32		11166265	Adaptor assembly, A pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151244	Coupling, 11 tooth	1
	K800	16-32		11164204	Plug assembly, M33	1
F22	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151245	Coupling, 13 tooth	1
	K800	16-32		11164204	Plug assembly, M33	1
F25	K100	16-32		11166270	Adaptor assembly, B pad, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K500	16-32		11151246	Coupling, 15 tooth	1
	K800	16-32		11164204	Plug assembly, M33	1
FNN	K100	16-32		11166271	Charge pump cover assembly, 9cc	1
	K120	16-32		4700027	Journal bearing	1
	K200	16-32		11174741	O-ring	1
	K300	16-32		11000819	Screw, M12 x 25	4
	K800	16-32		11164204	Plug assembly, M33	1



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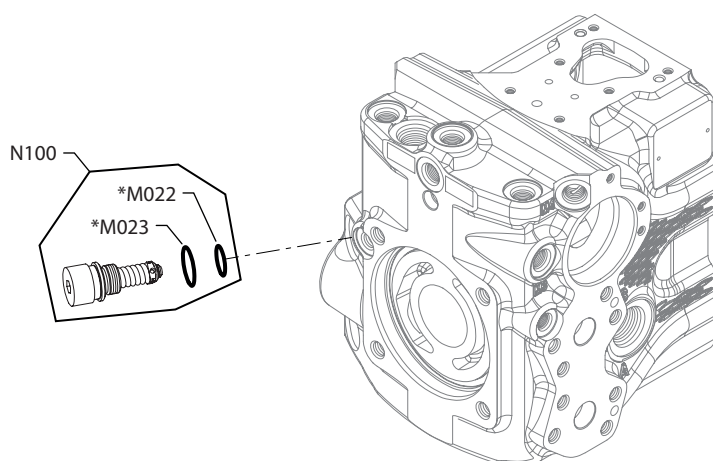



System protection, port A

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	M022	16-32		001131 (9004201-5000)	O-ring	1
	M023	16-32		9004100-2110	O-ring	1
140	M100	16-32		4350635	SCR valve assembly, 140 bar [2030 psi]	1
175	M100	16-32		4350643	SCR valve assembly, 175 bar [2538 psi]	1
190	M100	16-32		4350642	SCR valve assembly, 190 bar [2755 psi]	1
210	M100	16-32		4350641	SCR valve assembly, 210 bar [3045 psi]	1
230	M100	16-32		4350640	SCR valve assembly, 230 bar [3335 psi]	1
250	M100	16-32		4350639	SCR valve assembly, 250 bar [3625 psi]	1
260	M100	16-32		4350644	SCR valve assembly, 260 bar [3770 psi]	1
280	M100	16-32		4350638	SCR valve assembly, 280 bar [4060 psi]	1
300	M100	16-32		4350637	SCR valve assembly, 300 bar [4350 psi]	1
325	M100	16-32		4350645	SCR valve assembly, 325 bar [4712 psi]	1
345	M100	16-32		4350636	SCR valve assembly, 345 bar [5000 psi]	1
360	M100	16-32		4440239	SCR valve assembly, 360 bar [5220 psi]	1
385	M100	16-32		4350694	SCR valve assembly, 385 bar [5580 psi]	1



(140 - 385)



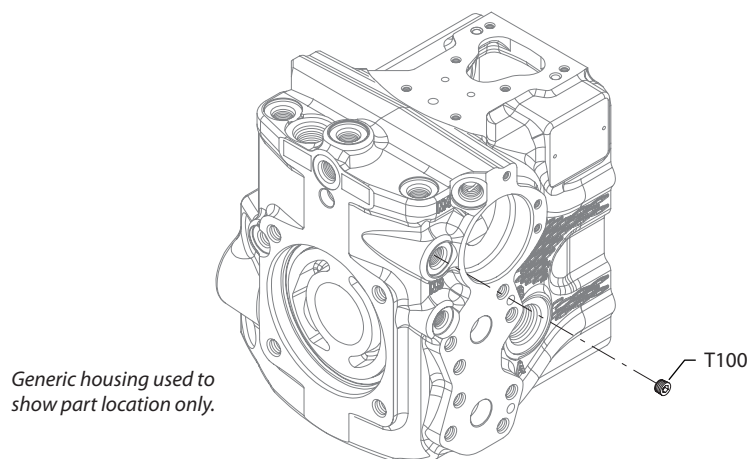
*Generic housing used to
show part location only.*


System protection, port B

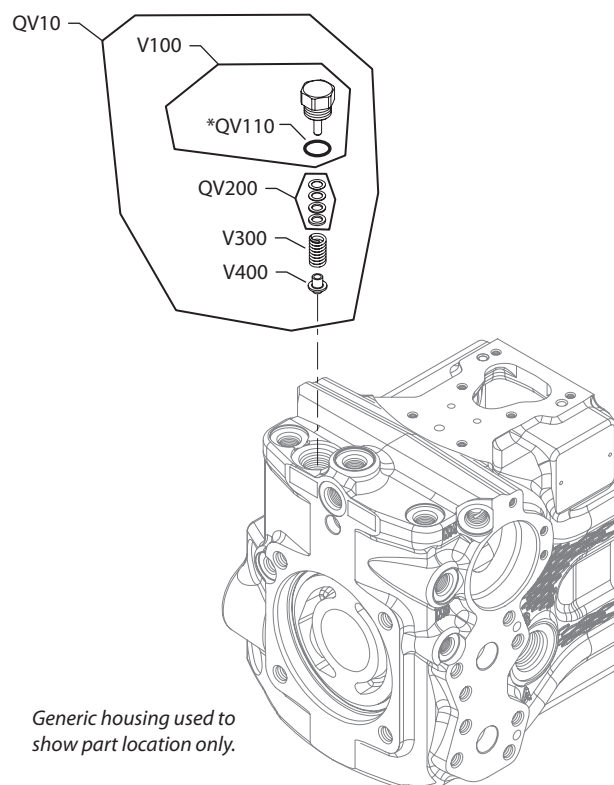
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	M022	16-32		001131 (9004201-5000)	O-ring	1
	M023	16-32		9004100-2110	O-ring	1
140	N100	16-32		4350635	SCR valve assembly, 140 bar [2030 psi]	1
175	N100	16-32		4350643	SCR valve assembly, 175 bar [2538 psi]	1
190	N100	16-32		4350642	SCR valve assembly, 190 bar [2755 psi]	1
210	N100	16-32		4350641	SCR valve assembly, 210 bar [3045 psi]	1
230	N100	16-32		4350640	SCR valve assembly, 230 bar [3335 psi]	1
250	N100	16-32		4350639	SCR valve assembly, 250 bar [3625 psi]	1
260	N100	16-32		4350644	SCR valve assembly, 260 bar [3770 psi]	1
280	N100	16-32		4350638	SCR valve assembly, 280 bar [4060 psi]	1
300	N100	16-32		4350637	SCR valve assembly, 300 bar [4350 psi]	1
325	N100	16-32		4350645	SCR valve assembly, 325 bar [4712 psi]	1
345	N100	16-32		4350636	SCR valve assembly, 345 bar [5000 psi]	1
360	N100	16-32		4440239	SCR valve assembly, 360 bar [5220 psi]	1
385	N100	16-32		4350694	SCR valve assembly, 385 bar [5580 psi]	1



(E & R)



(10 - 28)



E103 454E

* = included in overhaul seal kit Q210


Filtration

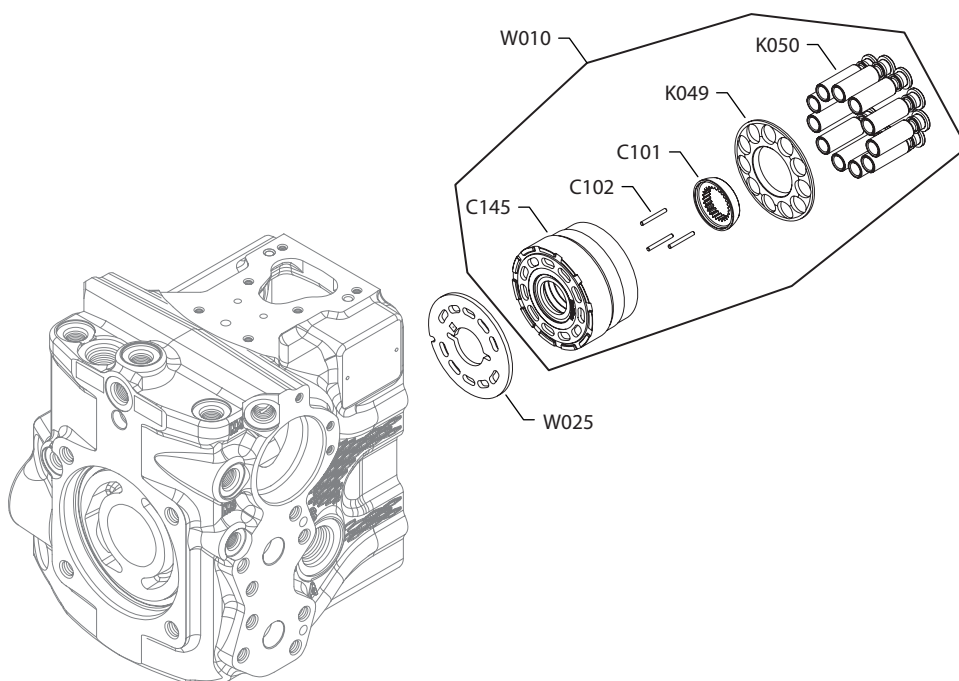
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
E	T100	16-32		11151778	Pipe plug w/sealant	1
R	T100	16-32		11151778	Pipe plug w/sealant	1
S				None		

Charge pressure relief

10-12	QV10	16-32		11182130	Charge relief valve kit, 10-12 bar	1
	QV110	16-32		001149 (9004201-6200)	O-ring	1
	QV200	16-32		4510027	Shim kit	1
	V100	16-32		4800308	Plug assembly	1
	V300	16-32		4800714	Spring	1
	V400	16-32		1200359	Poppet	1
14-28	QV10	16-32		4510402	Charge relief valve kit, 14-28 bar	1
	QV110	16-32		001149 (9004201-6200)	O-ring	1
	QV200	16-32		4510027	Shim kit	1
	V100	16-32		4800308	Plug assembly	1
	V300	16-32		4800176	Spring	1
	V400	16-32		1200359	Poppet	1



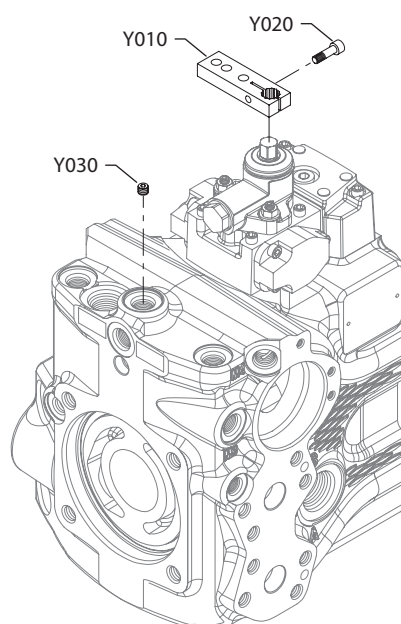
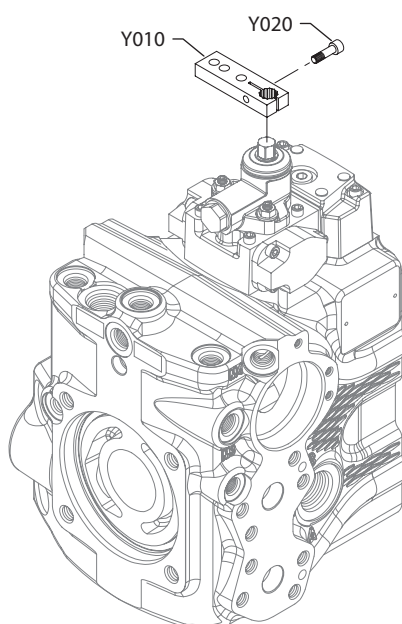
(LAE, LAF, RAE & RAF)



(M00A, M090, & M095)

Generic housing and control
used to show part location only.

(M00B)




Special Hardware

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
LAE	C101	16-32		11175544	Slipper retainer guide	1
	C102	16-32		4700091	Slipper hold down pin	3
	C145	16-32		11162482	Cylinder block assembly, 38cc	1
	K049	16-32		11171949	Slipper retainer	1
	K050	16-32		11162333	Piston assembly, 38cc	11
	W010	16-32		11162484	Cylinder block kit, 38cc	1
	W025	16-32		11154966	Valve plate, CCW	1
LAF	C101	16-32		11175544	Slipper retainer guide	1
	C102	16-32		4700091	Slipper hold down pin	3
	C145	16-32		11144729	Cylinder block assembly, 45cc	1
	K049	16-32		11171949	Slipper retainer	1
	K050	16-32		11144746	Piston assembly, 45cc	11
	W010	16-32		11144727	Cylinder block kit, 45cc	1
	W025	16-32		11154966	Valve plate, CCW	1
RAE	C101	16-32		11175544	Slipper retainer guide	1
	C102	16-32		4700091	Slipper hold down pin	3
	C145	16-32		11162482	Cylinder block assembly, 38cc	1
	K049	16-32		11171949	Slipper retainer	1
	K050	16-32		11162333	Piston assembly, 38cc	11
	W010	16-32		11162484	Cylinder block kit, 38cc	1
	W025	16-32		11154965	Valve plate, CW	1
RAF	C101	16-32		11175544	Slipper retainer guide	1
	C102	16-32		4700091	Slipper hold down pin	3
	C145	16-32		11144729	Cylinder block assembly, 45cc	1
	K049	16-32		11171949	Slipper retainer	1
	K050	16-32		11144746	Piston assembly, 45cc	11
	W010	16-32		11144727	Cylinder block kit, 45cc	1
	W025	16-32		11154965	Valve plate, CW	1

Settings

M00A	Y010	16-32	11113513	Control handle	1
	Y020	16-32	11173701	Screw, M6 x 20	1
M00B	Y010	16-32	11113513	Control handle	1
	Y020	16-32	11173701	Screw, M6 x 20	1
	Y030	16-32	11151778	Pipe plug	1
M090	Y010	16-32	11113513	Control handle	1
	Y020	16-32	11173701	Screw, M6 x 20	1
M095	Y010	16-32	11113513	Control handle	1
	Y020	16-32	11173701	Screw, M6 x 20	1


Overhaul seal kit

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	Q210	16-32		11170024	Overhaul seal kit, MP1P38/45	1
	D060	16-32		612291 (9003508-0008)	Seal nut, M8	1
	D150	16-32		11173377	Control gasket	1
	E080	16-32		505412 (9003509-0008)	Seal nut, M8	1
	E090	16-32		505412 (9003509-0008)	Seal nut, M8	1
	E110	16-32		5000709	O-ring	2
	E320	16-32		9004100-2230	O-ring	2
	E330	16-32		11164998	Piston seal ring	2
	H110	16-32		11157168	Front cover gasket	1
	J250	16-32		11103135	Lip seal	1
	K200	16-32		9004100-2400	O-ring	1
	M022	16-32		001131 (9004201-5000)	O-ring	2
	M023	16-32		9004100-2110	O-ring	2
	QD26	16-32		11001952	O-ring	2
	QD751	16-32		001131 (9004201-5000)	O-ring	1
	QD81	16-32		11152257	O-ring	1
	QV110	16-32		001149 (9004201-6200)	O-ring	1

**Notes**



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