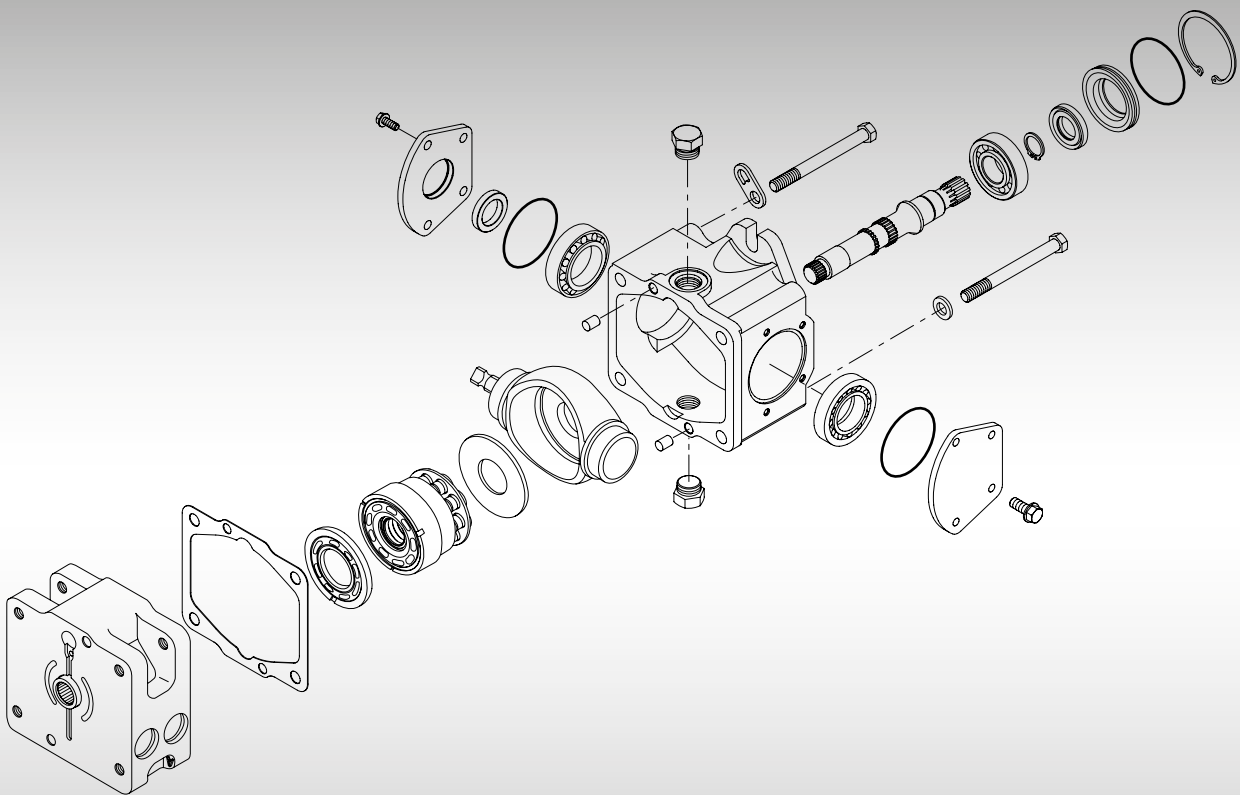




Parts Manual

M25 Axial Piston Tandem Pump Series 40







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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 Series 40, M25 variable displacement tandem pumps.

The parts listed include all parts which may be used when performing either "Minor Repairs", "Major Repairs" or "Conversions" on the Series 40, M25 tandem 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, U.S.A.

The first number (2 digits) indicates the year of manufacture. ("13" would indicate the unit was manufactured in 2013)

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 C01

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B	C01	96-21		4250102	Swashplate (SB-1996-010)	1
	"	91-07	96-20	4510126	Swashplate kit	1

All units using this order code with a date code of 91-07 and up to and including 96-20, must use part number "4510126". All units with a date code of 96-21 and newer must use part number "4250102".

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 Series 40 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 B02 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: 5000093 (9008000-0132), customers would order 9008000-0132 if ordering the part in the United States.)

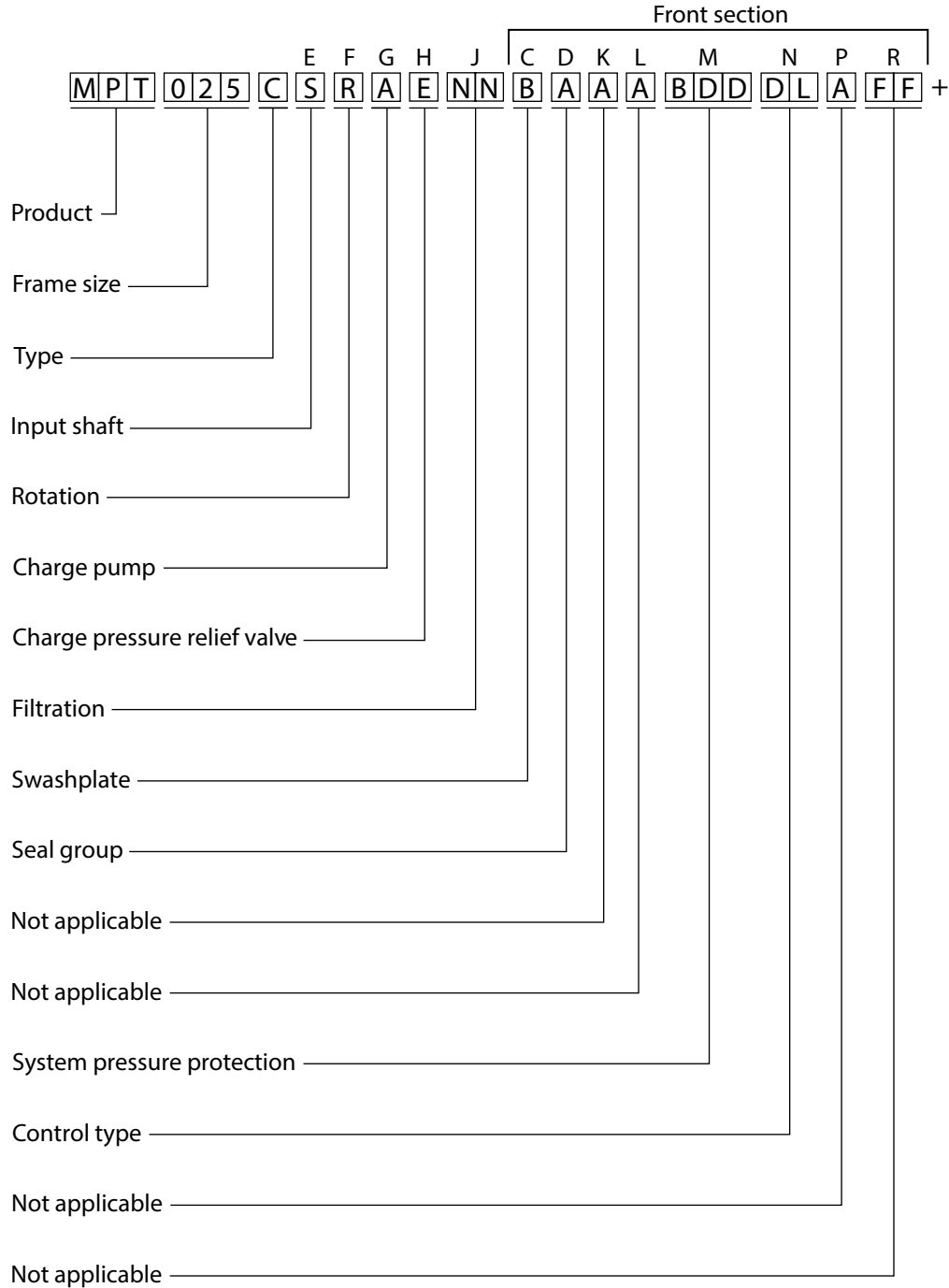
Example of a Part Identification

The nameplate on a Series 40 pump has an Order Code of MPT025C S R A E NN B A A A BDD DL A FF B C A A BDD DR A FF A 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 "S". (MPT025C **S** R A E NN B A A A BDD DL A FF B C A A BDD DR A FF A NNN)
- 2) Referring to the Service Parts List, find the shaft group. Next find the order code that relates to this unit, which is "S". The shaft is found to be item E01 and part number 4250001.

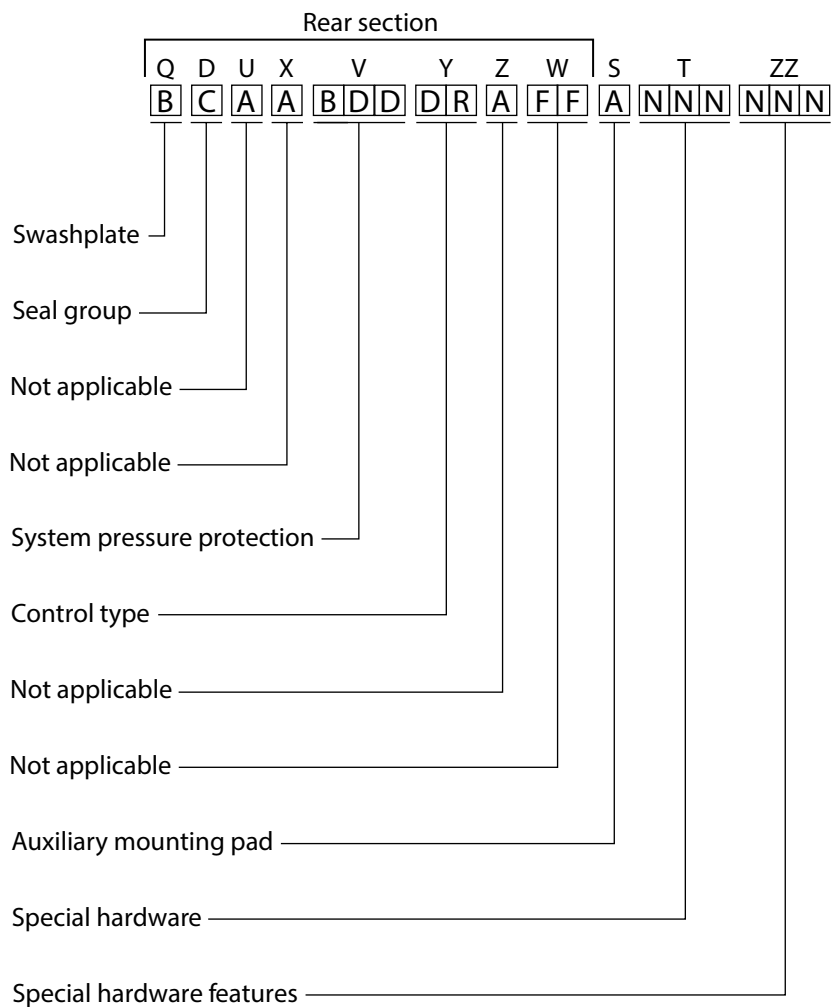


Order code



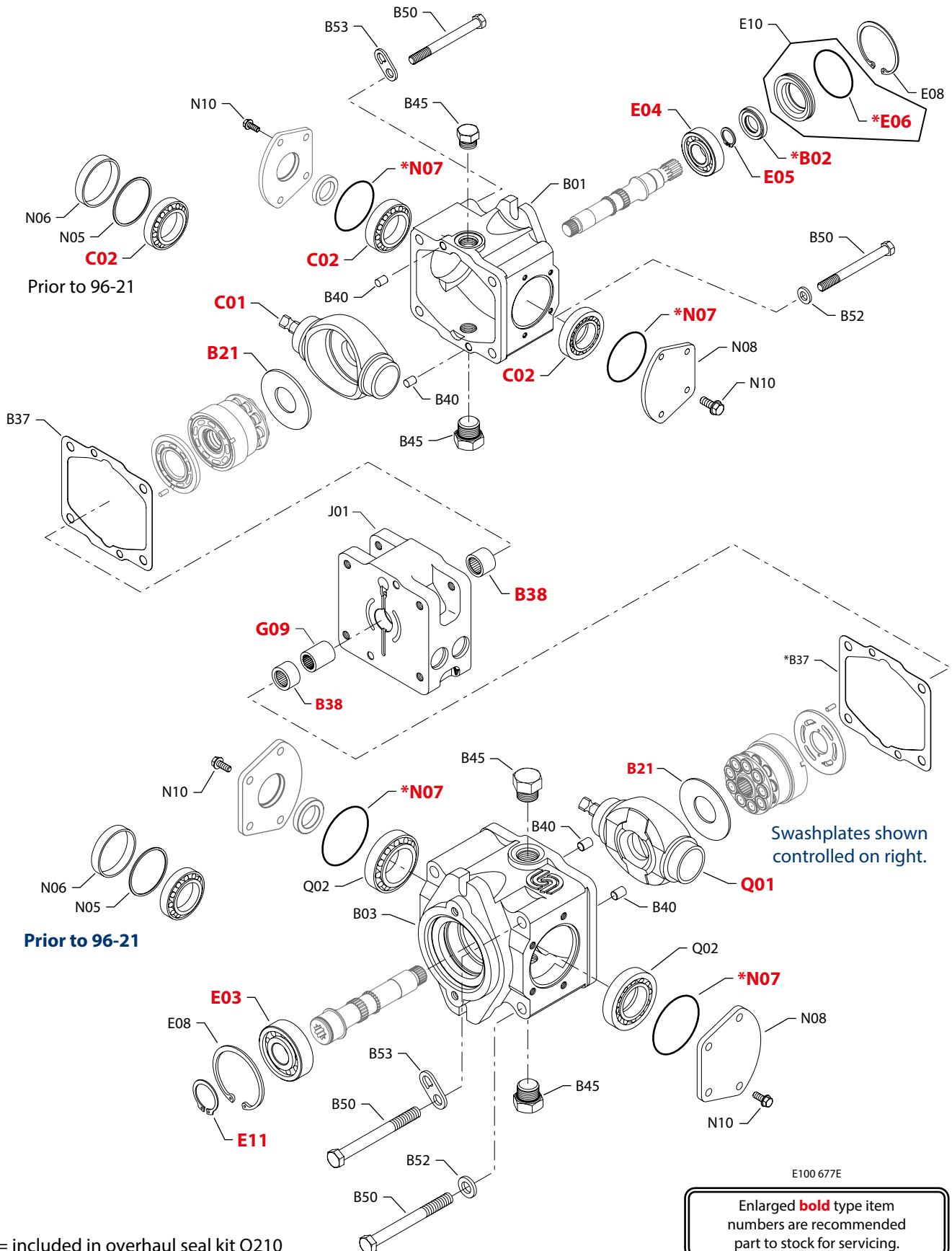


Order code





Variable displacement tandem pump



E100 677E

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

* = included in overhaul seal kit Q210


Variable displacement tandem pump
Common parts

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	B01	91-07		4250152	Housing	1
	B02	91-07		500748 (9008000-0132)	Lip seal	1
	B03	91-07		4250144	Housing	1
	B21	91-07		3103218	Thrust plate	2
	B37	91-07		4250003	End cap gasket	2
	B38	91-07		5000046	Needle bearing	2
	B40	91-07		001289 (9004800-3708)	Pin	4
	B45	91-07		001537 (9005100-8700)	Plug	4
	B50	91-07		9007200-4448	Screw	8
	B52	91-07		002337 (9009611-4778)	Washer	6
	B53	91-07		006999 (9800999)	Lifting bracket	2
	E03	91-07		9001315-0013	Ball bearing	1
	E04	91-07		374447 (9001310-0008)	Ball bearing	1
	E05	91-07		5000660	Retaining ring	1
	E06	91-07		505536 (9004100-0350)	O-ring	1
	E08	91-07		9006200-0256	Retaining ring	2
	E10	91-07		4250176	Seal carrier assembly	1
	E11	91-07		9006300-0119	Retaining ring	1
	G09	91-07		3102305	Coupling	1
	J01	91-07		4250158	Center section	1
	N07	91-07		9004300-1460	O-ring	4
	N08	91-07		4250027	Trunnion cover	2
	N10	97-41		001909 (9007200-3112)	Screw	16
	N10	91-07	97-40	516517 (9007276-0135)	Screw	16

Swashplate, front pump

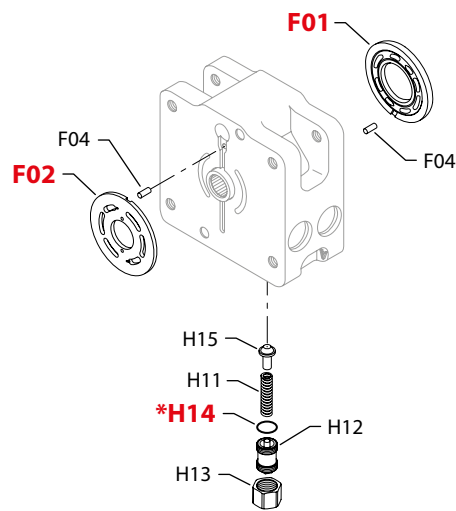
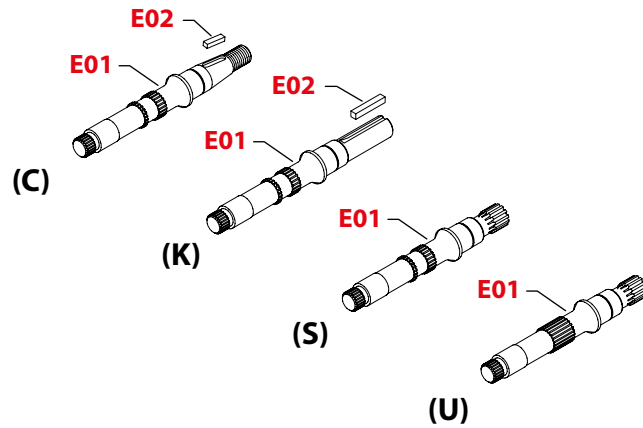
B	C01	96-21		4250102	Swashplate	1
	C01	91-07	96-20	4510126	Swashplate kit (SB-1996-010)	1
	C02	96-21		4800470	Tapered roller bearing	2
	C02	91-07	96-20	508996 (9001415-0006)	Tapered roller bearing (SB-1996-010)	2
	N05	91-07	96-20	4510026	Trunnion shim kit (SB-1996-010)	2
	N06	91-07	96-20	4250043	Spacer (SB-1996-010)	2

Swashplate, rear pump

B	Q01	96-21		4250102	Swashplate	1
	Q01	91-07	96-20	4510126	Swashplate kit (SB-1996-010)	1
	Q02	96-21		4800470	Tapered roller bearing	2
	Q02	91-07	96-20	508996 (9001415-0006)	Tapered roller bearing (SB-1996-010)	2
	N05	91-07	96-20	4510026	Trunnion shim kit (SB-1996-010)	2
	N06	91-07	96-20	4250043	Spacer (SB-1996-010)	2



Variable displacement tandem pump



(3, 5 & 6)

* = included in overhaul seal kit Q210

E100 678E

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


Variable displacement tandem pump
Input shaft

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
C	E01	91-07		4250164	Shaft, tapered (SB-2002-021)	1
	E02	02-35		5000664	Key, square (SB-2002-021)	1
	"	91-07	02-34	532432 (9003310-2514)	Key, woodruff	1
K	E01	91-07		4250013	Shaft, straight key	1
	E02	91-07		509647 (9003261-2524)	Key	1
S	E01	91-07		4250001	Shaft, 13 tooth spline	1
U	E01	97-19		4250131	Shaft, 13 tooth spline, keel holddown	1

Rotation

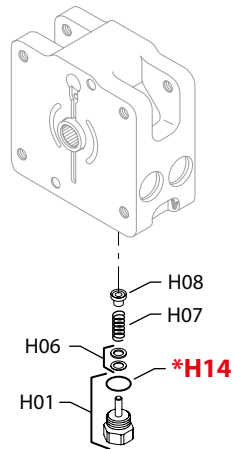
7	F01	99-14		4250086	Valve plate, CW, special	1
	F02	99-14		4250091	Valve plate, CCW, special	1
	F04	99-14		615260	Pin, slotted	2
L	F01	91-07		4250044	Valve plate, CCW	1
	F02	91-07		4250031	Valve plate, CW, special	1
	F04	91-07		016220 (9004800-1908)	Pin	2
R	F01	91-07		4250031	Valve plate, CW	1
	F02	91-07		4250044	Valve plate, CCW	1
	F04	91-07		016220 (9004800-1908)	Pin	2
W	F01	93-22		4250064	Valve plate, CW, quiet	1
	F02	93-22		4250076	Valve plate, CCW, quiet	1
	F04	93-22		016220 (9004800-1908)	Pin	2
Y	F01	93-22		4250076	Valve plate, CCW, quiet	1
	F02	93-22		4250064	Valve plate, CW, quiet	1
	F04	93-22		016220 (9004800-1908)	Pin	2

Charge pressure relief valve setting

3	H11	01-28		509152	Spring - 24 bar [350 psi]	1
	H12	01-28		502470	Adjuster	1
	H13	01-28		342709 (9003575-0101)	Nut	1
	H14	01-28		001149 (9004201-6200)	O-ring	1
	H15	01-28		342428 (8800449)	Poppet	1
5	H11	02-44		4800930	Spring - 14 bar [200 psi]	1
	H12	02-44		502470	Adjuster	1
	H13	02-44		342709 (9003575-0101)	Nut	1
	H14	02-44		001149 (9004201-6200)	O-ring	1
	H15	02-44		342428 (8800449)	Poppet	1
6	H11	02-44		4800176	Spring - 24 bar [350 psi]	1
	H12	02-44		502470	Adjuster	1
	H13	02-44		342709 (9003575-0101)	Nut	1
	H14	02-44		001149 (9004201-6200)	O-ring	1
	H15	02-44		342428 (8800449)	Poppet	1



Variable displacement tandem pump



(A, C, E, F,
G, H, J & R)

E100 679E

* = included in overhaul seal kit Q210

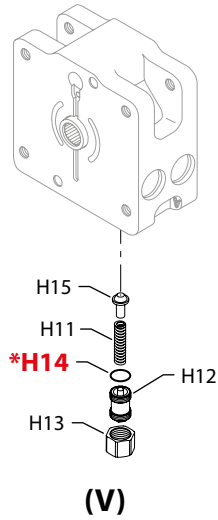
Enlarged **bold** type item numbers are recommended part to stock for servicing.


Variable displacement tandem pump
Charge pressure relief valve setting

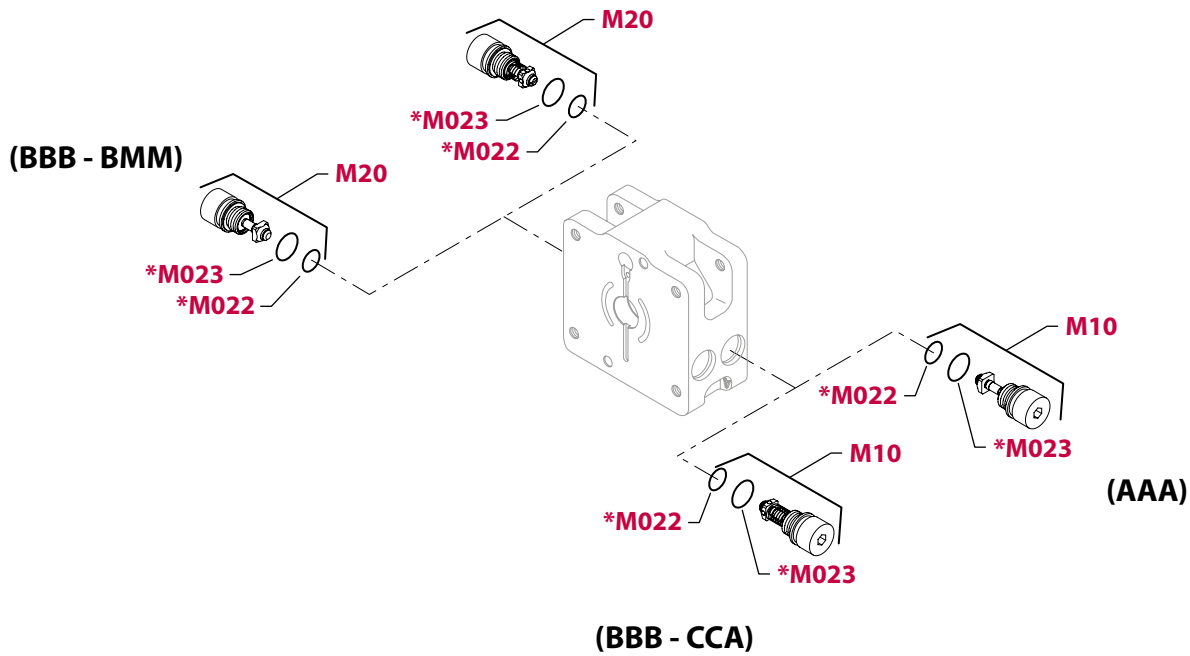
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A	H01	02-23		4800308	Plug - 16 bar [230 psi]	1
	H06	02-23		4510027	Shim kit	1
	H07	02-23		4800176	Spring	1
	H08	02-23		4800134	Charge relief poppet	1
	H14	02-23		001149 (9004201-6200)	O-ring	1
C	H01	94-15		4800308	Plug - 18 bar [260 psi]	1
	H06	94-15		4510027	Shim kit	1
	H07	94-15		4800176	Spring	1
	H08	94-15		4800134	Charge relief poppet	1
	H14	94-15		001149 (9004201-6200)	O-ring	1
E	H01	91-07		4800308	Plug - 11 bar [160 psi]	1
	H06	91-07		4510027	Shim kit	1
	H07	91-07		4800176	Spring	1
	H08	91-07		4800134	Charge relief poppet	1
	H14	91-07		001149 (9004201-6200)	O-ring	1
F	H01	91-07		4800308	Plug - 7.5 bar [110 psi]	1
	H06	91-07		4510027	Shim kit	1
	H07	91-07		4800149	Spring	1
	H08	91-07		4800134	Charge relief poppet	1
	H14	91-07		001149 (9004201-6200)	O-ring	1
G	H01	91-07		4800308	Plug - 14 bar [200 psi]	1
	H06	91-07		4510027	Shim kit	1
	H07	91-07		4800176	Spring	1
	H08	91-07		4800134	Charge relief poppet	1
	H14	91-07		001149 (9004201-6200)	O-ring	1
H	H01	95-06		4800308	Plug - 24 bar [350 psi]	1
	H06	95-06		4510027	Shim kit	1
	H07	95-06		11022448	Spring	1
	H08	95-06		4800134	Charge relief poppet	1
	H14	95-06		001149 (9004201-6200)	O-ring	1
J	H01	93-29		4800308	Plug - 22 bar [320 psi]	1
	H06	93-29		4510027	Shim kit	1
	H07	93-29		11022448	Spring	1
	H08	93-29		4800134	Charge relief poppet	1
	H14	93-29		001149 (9004201-6200)	O-ring	1
R	H01	92-11		4800308	Plug - 6.2 bar [90 psi]	1
	H06	92-11		4510027	Shim kit	1
	H07	92-11		4800714	Spring	1
	H08	92-11		4800134	Charge relief poppet	1
	H14	92-11		001149 (9004201-6200)	O-ring	1



Variable displacement tandem pump



(AAA, CBA & CCA)



E100 686E

* = included in overhaul seal kit Q210

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


Variable displacement tandem pump
Charge pressure relief valve setting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
V	H11	97-10		4800930	Spring - 14 bar [200 psi]	1
	H12	97-10		502470	Adjuster	1
	H13	97-10		342709 (9003575-0101)	Nut	1
	H14	97-10		001149 (9004201-6200)	O-ring	1
	H15	97-10		342428 (8800449)	Poppet	1

Common system pressure protection O-rings

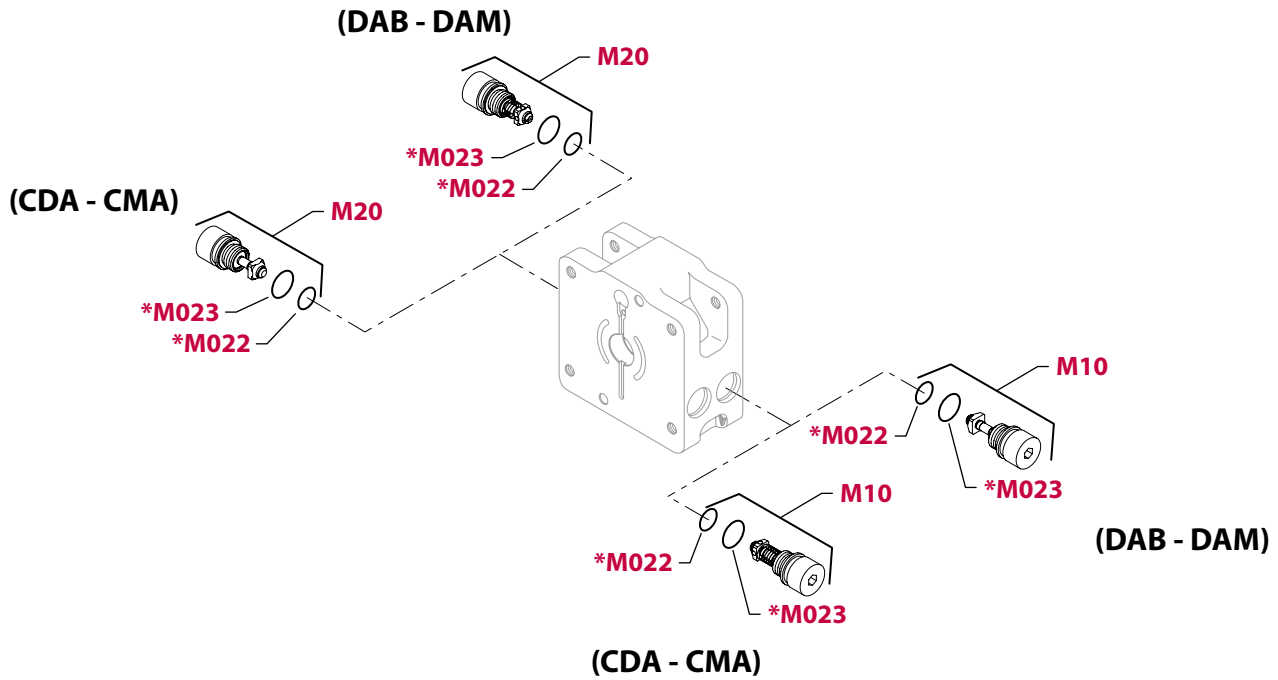
M022	91-07	001131 (9004201-5000)	O-ring	2
M023	91-07	504080 (9004100-2110)	O-ring	2

System pressure protection

AAA	M10	91-07	4350634	Check valve poppet assembly (SB-1996-014)	1
	M20	91-07	4350634	Check valve poppet assembly (SB-1996-014)	1
BBB	M10	91-07	4350643	SCR valve assembly, 175 bar [2528 psi] (SB-1996-014)	1
	M20	91-07	4350643	SCR valve assembly, 175 bar [2528 psi] (SB-1996-014)	1
BCC	M10	96-28	4350642	SCR valve assembly, 190 bar [2755 psi]	1
	M20	96-28	4350642	SCR valve assembly, 190 bar [2755 psi]	1
BDD	M10	91-07	4350641	SCR valve assembly, 210 bar [3045 psi] (SB-1996-014)	1
	M20	91-07	4350641	SCR valve assembly, 210 bar [3045 psi] (SB-1996-014)	1
BEE	M10	91-07	4350640	SCR valve assembly, 230 bar [3335 psi] (SB-1996-014)	1
	M20	91-07	4350640	SCR valve assembly, 230 bar [3335 psi] (SB-1996-014)	1
BFF	M10	91-07	4350639	SCR valve assembly, 250 bar [3625 psi] (SB-1996-014)	1
	M20	91-07	4350639	SCR valve assembly, 250 bar [3625 psi] (SB-1996-014)	1
BGF	M10	96-28	4350638	SCR valve assembly, 280 bar [4060 psi]	1
	M20	96-28	4350639	SCR valve assembly, 250 bar [3625 psi]	1
BGG	M10	91-07	4350638	SCR valve assembly, 280 bar [4060 psi] (SB-1996-014)	1
	M20	91-07	4350638	SCR valve assembly, 280 bar [4060 psi] (SB-1996-014)	1
BHH	M10	96-28	4350637	SCR valve assembly, 300 bar [4350 psi]	1
	M20	96-28	4350637	SCR valve assembly, 300 bar [4350 psi]	1
BJJ	M10	91-07	4350636	SCR valve assembly, 345 bar [5000 psi] (SB-1996-014)	1
	M20	91-07	4350636	SCR valve assembly, 345 bar [5000 psi] (SB-1996-014)	1
BMM	M10	91-07	4350635	SCR valve assembly, 140 bar [2030 psi] (SB-1996-014)	1
	M20	91-07	4350635	SCR valve assembly, 140 bar [2030 psi] (SB-1996-014)	1
CBA	M10	91-07	4350643	SCR valve assembly, 175 bar [2528 psi] (SB-1996-014)	1
	M20	91-07	4350634	Check valve poppet assembly (SB-1996-014)	1
CCA	M10	96-28	4350642	SCR valve assembly, 190 bar [2755 psi]	1
	M20	96-28	4350634	Check valve poppet assembly	1



Variable displacement tandem pump



E100 681E

* = included in overhaul seal kit Q210

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


Variable displacement tandem pump
Common system pressure protection O-rings

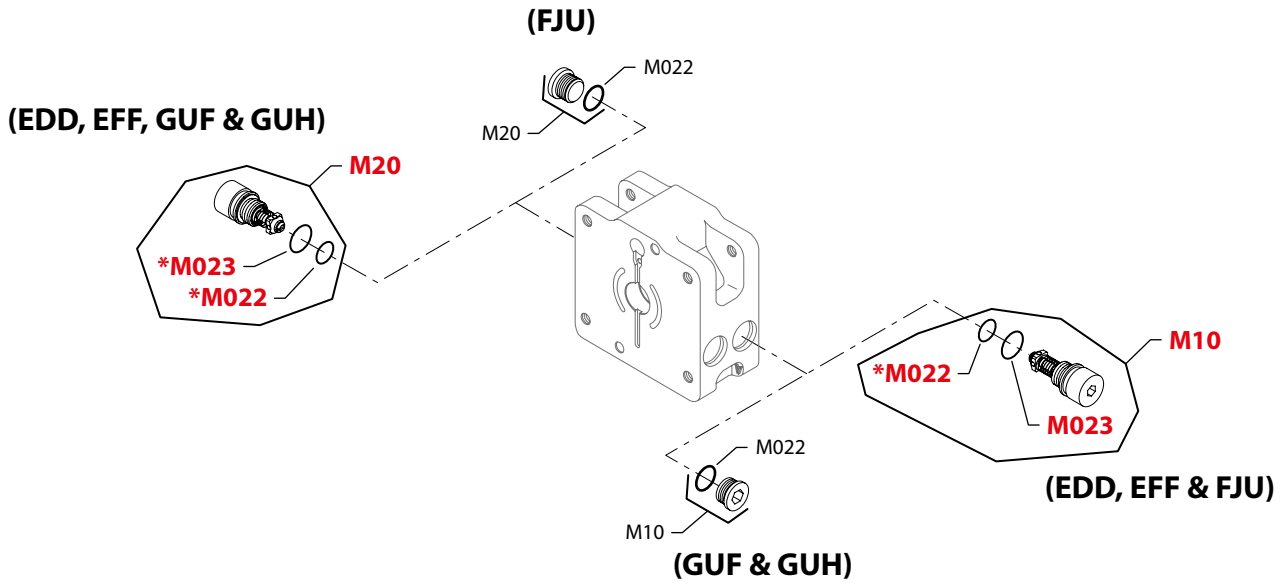
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	M022	91-07		001131 (9004201-5000)	O-ring	2
	M023	91-07		504080 (9004100-2110)	O-ring	2

System pressure protection

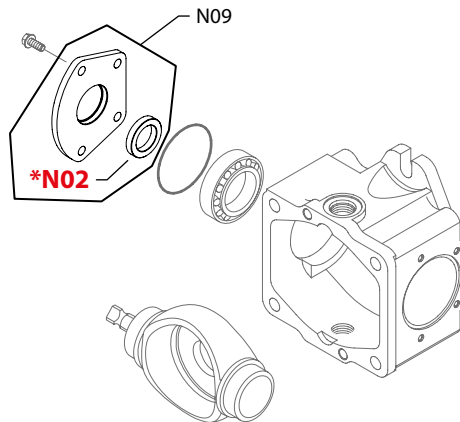
CDA	M10	96-28		4350641	SCR valve assembly, 210 bar [3045 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
CEA	M10	96-28		4350640	SCR valve assembly, 230 bar [3335 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
CFA	M10	96-28		4350639	SCR valve assembly, 250 bar [3625 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
CGA	M10	96-28		4350638	SCR valve assembly, 280 bar [4060 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
CHA	M10	96-28		4350637	SCR valve assembly, 300 bar [4350 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
CJA	M10	96-28		4350636	SCR valve assembly, 345 bar [5000 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
CMA	M10	96-28		4350635	SCR valve assembly, 140 bar [2030 psi]	1
	M20	96-28		4350634	Check valve poppet assembly	1
DAB	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350643	SCR valve assembly, 175 bar [2528 psi]	1
DAC	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350642	SCR valve assembly, 190 bar [2755 psi]	1
DAD	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350641	SCR valve assembly, 210 bar [3045 psi]	1
DAE	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350640	SCR valve assembly, 230 bar [3335 psi]	1
DAF	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350639	SCR valve assembly, 250 bar [3625 psi]	1
DAG	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350638	SCR valve assembly, 280 bar [4060 psi]	1
DAH	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350637	SCR valve assembly, 300 bar [4350 psi]	1
DAJ	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350636	SCR valve assembly, 345 bar [5000 psi]	1
DAM	M10	96-28		4350634	Check valve poppet assembly	1
	M20	96-28		4350635	SCR valve assembly, 140 bar [2030 psi]	1



Variable displacement tandem pump



Swashplate and cover shown controlled on right.



E100 682E

* = included in overhaul seal kit Q210

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


Variable displacement tandem pump
Common system pressure protection O-rings

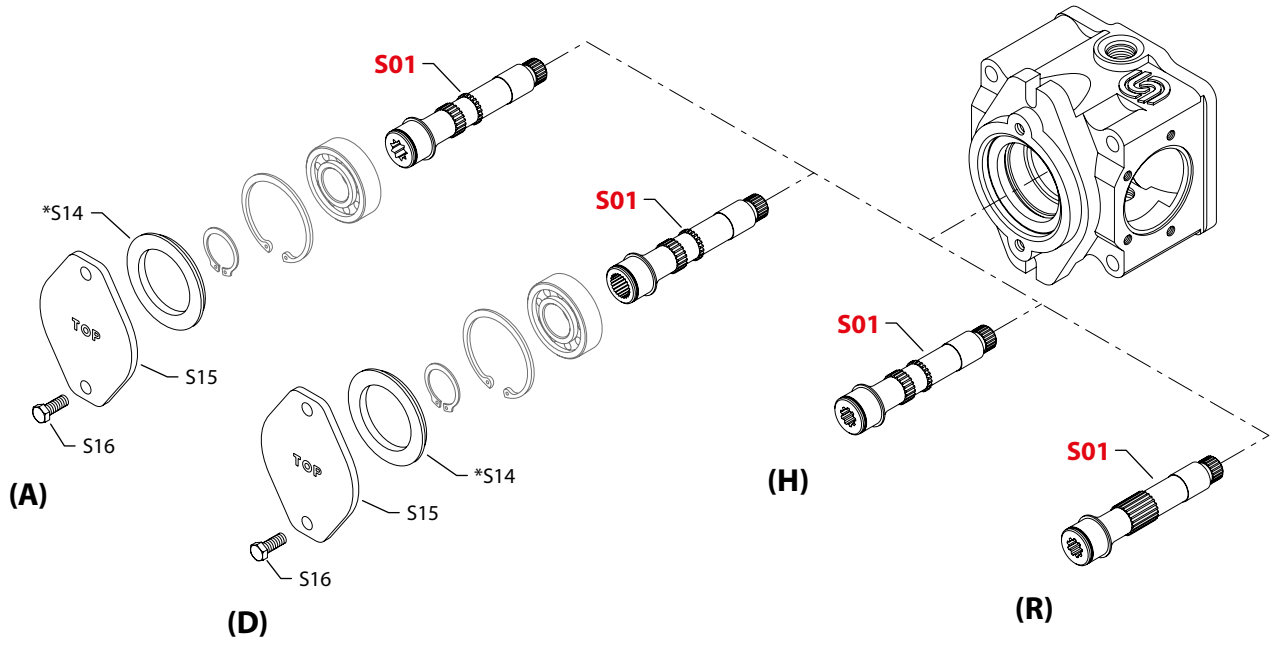
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
EDD	M10	99-23		4251266	SCR valve assy, 210 bar [3045 psi], high force spring	1
	M20	99-23		4251266	SCR valve assy, 210 bar [3045 psi], high force spring	1
	M022	99-23		001131 (9004201-5000)	O-ring	2
	M023	99-23		504080 (9004100-2110)	O-ring	2
EFF	M10	98-47		4250139	SCR valve assy, 250 bar [3625 psi], high force spring	1
	M20	98-47		4250139	SCR valve assy, 250 bar [3625 psi], high force spring	1
	M022	98-47		001131 (9004201-5000)	O-ring	2
	M023	98-47		504080 (9004100-2110)	O-ring	2
FJU	M10	03-41		4350636	SCR valve assembly, 345 bar [5000 psi]	1
	M20	03-41		9005110-7500	Plug assembly	1
	M022	03-41		001131 (9004201-5000)	O-ring	2
	M023	03-41		504080 (9004100-2110)	O-ring	1
GUF	M10	03-41		9005110-7500	Plug assembly	1
	M20	03-41		4350639	SCR valve assembly, 250 bar [3625 psi]	1
	M022	03-41		001131 (9004201-5000)	O-ring	2
	M023	03-41		504080 (9004100-2110)	O-ring	1
GUH	M10	03-41		9005110-7500	Plug assembly	1
	M20	03-41		4350637	SCR valve assembly, 300 bar [4350 psi]	1
	M022	03-41		001131 (9004201-5000)	O-ring	2
	M023	03-41		504080 (9004100-2110)	O-ring	1

Control

DL	N02	91-07		5000604	Lip seal (SB-2000-026)	1
	N09	91-07		4350732	Trunnion cover assembly, controlled on left side	1
DR	N02	91-07		5000604	Lip seal (SB-2000-026)	1
	N09	91-07		4350732	Trunnion cover assembly, controlled on right side	1



Variable displacement tandem pump



E103 424E

* = included in overhaul seal kit Q210

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



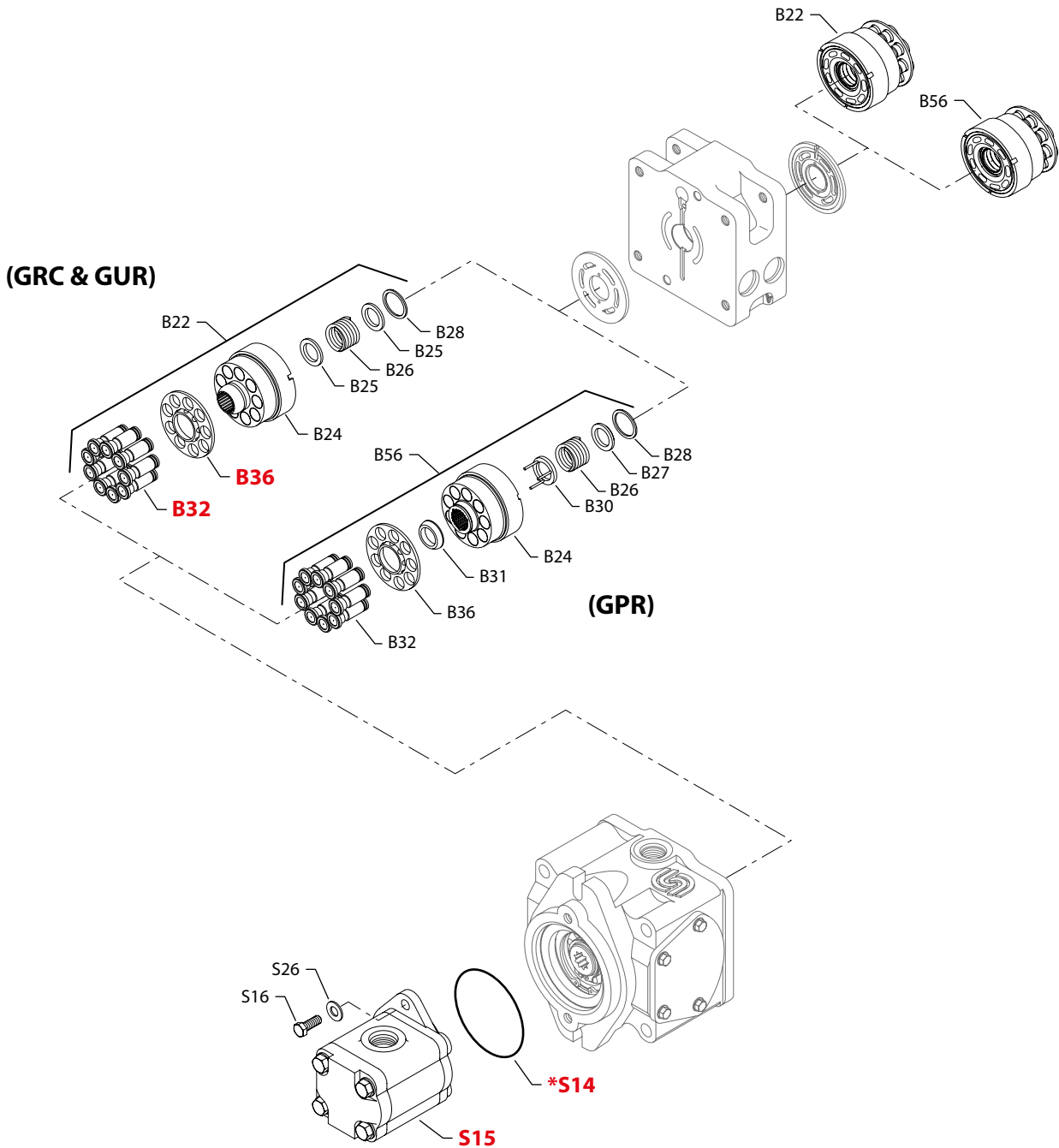
Variable displacement tandem pump

Auxiliary mounting

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A	S01	91-07		4250004	Shaft	1
	S14	91-07		4800482	A pad seal	1
	S15	91-07		4460586	Cover plate	1
	S16	91-07		049874 (9007200-3716)	Screw	2
D	S01	91-07		4250010	Shaft	1
	S14	91-07		4800482	A pad seal	1
	S15	91-07		4460586	Cover plate	1
	S16	91-07		049874 (9007200-3716)	Screw	2
H	S01	95-30		4250004	Shaft	1
R	S01	97-19		4250132	Shaft, keel hold down	1



Variable displacement tandem pump



This drawing shows a generic gear pump

E100 680E

* = included in overhaul seal kit Q210

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

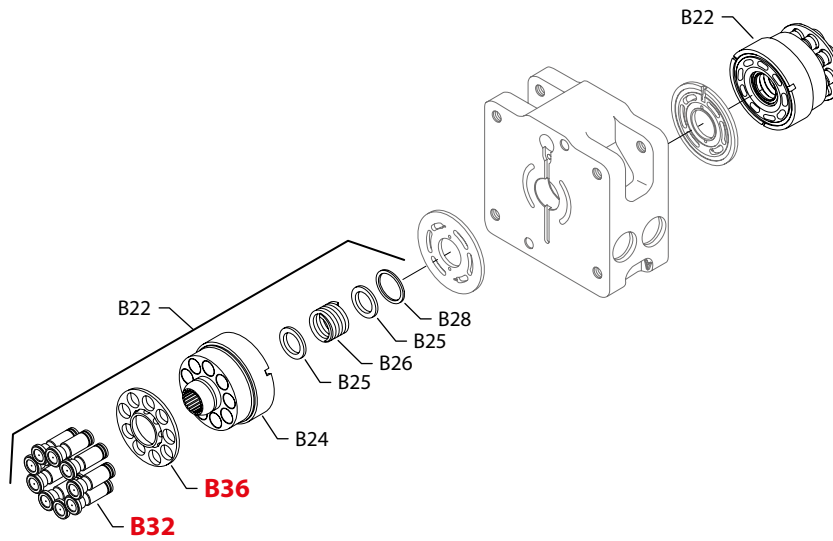

Variable displacement tandem pump
Special hardware

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
GPR	B56	97-19		4250119	Cylinder block kit with keel holddown	2
	B24	97-19		4250115	Cylinder block	2
	B26	97-19		3103199	Spring	2
	B27	97-19		5000455	Washer	2
	B28	97-19		5000462 (9006250-0131)	Retaining ring	2
	B30	97-19		4250121	Slipper holddown washer assembly	2
	B31	97-19		4250140	Slipper retainer guide	2
	B32	97-19		4250127	Piston assembly	18
	B36	97-19		4250117	Slipper retainer	2
	S14	97-19		5000373	O-ring	1
	S15	97-19		4700053 (00111.20.130.00)	Gear pump	1
	S16	97-19		019448 (9007300-3722)	Screw	2
	S26	97-19		002329 (9009610-4069)	Washer	2
	GRC	B22	98-23		4250062	Cylinder block kit
B24		98-23		4250095	Cylinder block	2
B25		98-23		9009625-0106	Washer	4
B26		98-23		3103199	Spring	2
B28		98-23		5000462 (9006250-0131)	Retaining ring	2
B32		98-23		4250127	Piston assembly	18
B36		98-23		3103197	Slipper retainer	2
S14		98-23		5000373	O-ring	1
S15		98-23		4700130 (00111.20.348.00)	Gear pump	1
S16		98-23		019448 (9007300-3722)	Screw	2
S26		98-23		002329 (9009610-4069)	Washer	2
GUR	B22	03-41		4250062	Cylinder block kit	2
	B24	03-41		4250095	Cylinder block	2
	B25	03-41		9009625-0106	Washer	4
	B26	03-41		3103199	Spring	2
	B28	03-41		5000462 (9006250-0131)	Retaining ring	2
	B32	03-41		4250127	Piston assembly	18
	B36	03-41		3103197	Slipper retainer	2
	S14	03-41		5000373	O-ring	1
	S15	03-41		163D70583	Gear pump	1
	S16	03-41		019448 (9007300-3722)	Screw	2
	S26	03-41		002329 (9009610-4069)	Washer	2



Variable displacement tandem pump

(NNA, NNB & NNN)



E103 425E

* = included in overhaul seal kit Q210

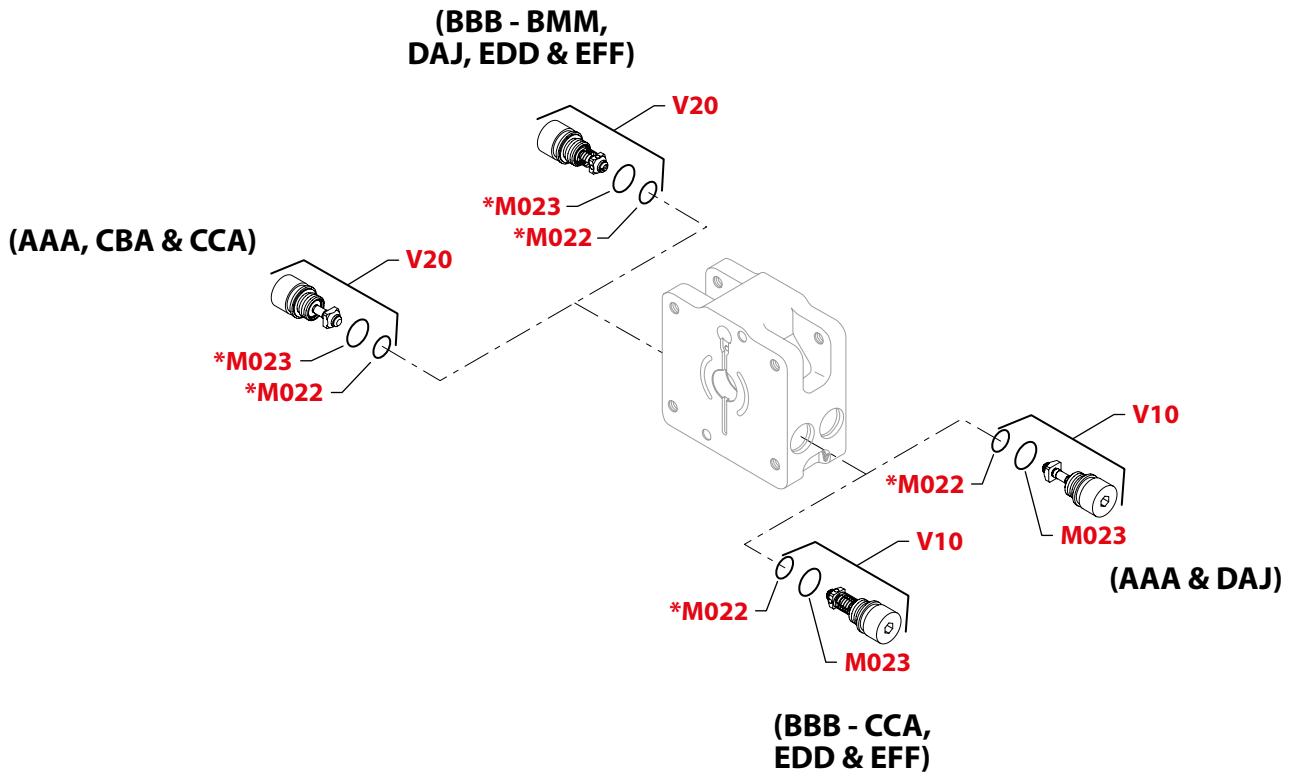
Enlarged **bold** type item numbers are recommended part to stock for servicing.


Variable displacement tandem pump
Special hardware

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
NNA	B22	91-07		4250062	Cylinder block kit	2
	B24	91-07		4250095	Cylinder block	2
	B25	91-07		9009625-0106	Washer	4
	B26	91-07		3103199	Spring	2
	B28	91-07		5000462 (9006250-0131)	Retaining ring	2
	B32	91-07		4250127	Piston assembly	18
	B36	91-07		3103197	Slipper retainer	2
NNB	B22	91-07		4250062	Cylinder block kit	2
	B24	91-07		4250095	Cylinder block	2
	B25	91-07		9009625-0106	Washer	4
	B26	91-07		3103199	Spring	2
	B28	91-07		5000462 (9006250-0131)	Retaining ring	2
	B32	91-07		4250127	Piston assembly	18
	B36	91-07		3103197	Slipper retainer	2
NNN	B22	91-07		4250062	Cylinder block kit	2
	B24	91-07		4250095	Cylinder block	2
	B25	91-07		9009625-0106	Washer	4
	B26	91-07		3103199	Spring	2
	B28	91-07		5000462 (9006250-0131)	Retaining ring	2
	B32	91-07		4250127	Piston assembly	18
	B36	91-07		3103197	Slipper retainer	2



Variable displacement tandem pump



E100 684E

* = included in overhaul seal kit Q210

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


Variable displacement tandem pump
Common system pressure protection O-rings

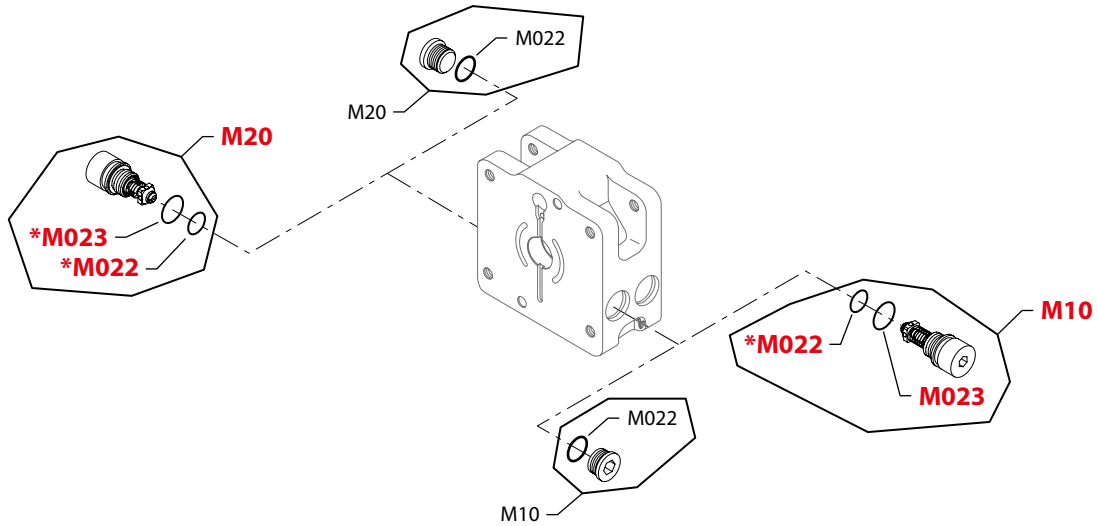
Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	M022	91-07		001131 (9004201-5000)	O-ring	2
	M023	91-07		504080 (9004100-2110)	O-ring	2

System pressure protection

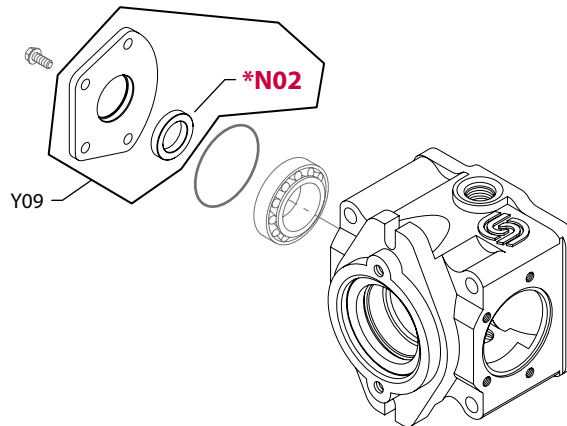
AAA	V10	91-07		4350634	Check valve poppet assembly (SB-1996-014)	1
	V20	91-07		4350634	Check valve poppet assembly (SB-1996-014)	1
BBB	V10	91-07		4350643	SCR valve assembly, 175 bar [2528 psi] (SB-1996-014)	1
	V20	91-07		4350643	SCR valve assembly, 175 bar [2528 psi] (SB-1996-014)	1
BCC	V10	96-28		4350642	SCR valve assembly, 190 bar [2755 psi]	1
	V20	96-28		4350642	SCR valve assembly, 190 bar [2755 psi]	1
BDD	V10	91-07		4350641	SCR valve assembly, 210 bar [3045 psi] (SB-1996-014)	1
	V20	91-07		4350641	SCR valve assembly, 210 bar [3045 psi] (SB-1996-014)	1
BEE	V10	91-07		4350640	SCR valve assembly, 230 bar [3335 psi] (SB-1996-014)	1
	V20	91-07		4350640	SCR valve assembly, 230 bar [3335 psi] (SB-1996-014)	1
BFF	V10	91-07		4350639	SCR valve assembly, 250 bar [3625 psi] (SB-1996-014)	1
	V20	91-07		4350639	SCR valve assembly, 250 bar [3625 psi] (SB-1996-014)	1
BGG	V10	91-07		4350638	SCR valve assembly, 280 bar [4060 psi] (SB-1996-014)	1
	V20	91-07		4350638	SCR valve assembly, 280 bar [4060 psi] (SB-1996-014)	1
BHH	V10	96-28		4350637	SCR valve assembly, 300 bar [4350 psi]	1
	V20	96-28		4350637	SCR valve assembly, 300 bar [4350 psi]	1
BJJ	V10	91-07		4350636	SCR valve assembly, 345 bar [5000 psi] (SB-1996-014)	1
	V20	91-07		4350636	SCR valve assembly, 345 bar [5000 psi] (SB-1996-014)	1
BMM	V10	91-07		4350635	SCR valve assembly, 140 bar [2030 psi] (SB-1996-014)	1
	V20	91-07		4350635	SCR valve assembly, 140 bar [2030 psi] (SB-1996-014)	1
CBA	V10	91-07		4350643	SCR valve assembly, 175 bar [2528 psi] (SB-1996-014)	1
	V20	91-07		4350634	Check valve poppet assembly (SB-1996-014)	1
CCA	V10	96-28		4350642	SCR valve assembly, 190 bar [2755 psi]	1
	V20	96-28		4350634	Check valve poppet assembly	1
DAJ	V10	96-28		4350634	Check valve poppet assembly	1
	V20	96-28		4350636	SCR valve assembly, 345 bar [5000 psi]	1
EDD	V10	99-23		4251266	SCR valve assy, 210 bar [3045 psi], high force spring	1
	V20	99-23		4251266	SCR valve assy, 210 bar [3045 psi], high force spring	1
EFF	V10	98-47		4250139	SCR valve assy, 250 bar [3625 psi], high force spring	1
	V20	98-47		4250139	SCR valve assy, 250 bar [3625 psi], high force spring	1



Variable displacement tandem pump



Cover shown
controlled on right.



E100 685E

* = included in overhaul seal kit Q210

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


Variable displacement tandem pump
System pressure protection

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
FFU	M022	03-41		001131 (9004201-5000)	O-ring	2
	M023	03-41		504080 (9004100-2110)	O-ring	1
	V10	03-41		4350639	SCR valve assembly, 250 bar [3625 psi]	1
	V20	03-41		9005110-7500	Plug assembly	1
FHU	M022	03-41		001131 (9004201-5000)	O-ring	2
	M023	03-41		504080 (9004100-2110)	O-ring	1
	V10	03-41		4350637	SCR valve assembly, 300 bar [4350 psi]	1
	V20	03-41		9005110-7500	Plug assembly	1
FJU	M022	03-41		001131 (9004201-5000)	O-ring	2
	M023	03-41		504080 (9004100-2110)	O-ring	1
	V10	03-41		4350636	SCR valve assembly, 345 bar [5000 psi]	1
	V20	03-41		9005110-7500	Plug assembly	1

Control

DL	N02	91-07		5000604	Lip seal (SB-2000-026)	1
	Y09	91-07		4350732	Trunnion cover assembly, controled on left side	1
DR	N02	91-07		5000604	Lip seal (SB-2000-026)	1
	Y09	91-07		4350732	Trunnion cover assembly, controled on right side	1

Overhaul seal kit

	Q210	91-07		4510016	Overhaul seal kit	1
	B02	91-07		500748 (9008000-0132)	Lip seal	1
	B37	91-07		4250003	End cap gasket	1
	E10A	91-07		505536 (9004100-0350)	O-ring	1
	H01A	91-07		001149 (9004201-6200)	O-ring	2
	M022	91-07		001131 (9004201-5000)	O-ring	2
	M023	91-07		504080 (9004100-2110)	O-ring	2
	N02	91-07		5000604	Lip seal	1
	N07	91-07		9004300-1460	O-ring	2
	S14	91-07		4800482	A pad seal	1
	S14	91-07		5000373	O-ring	1



Notes



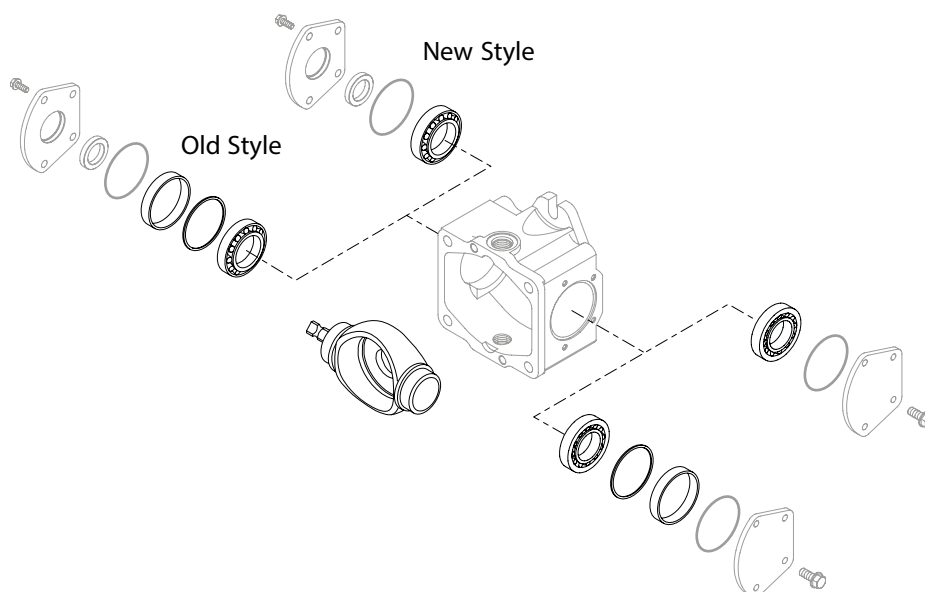
Service Bulletin: SB-1996-010

Products affected Series40 M25 PV's and PT's

Subject Change in swashplate shimming

Description As a product improvement, Sauer-Danfoss is eliminating the need to use spacers and shims to get the proper torque to turn on the variable swashplate. Due to a change in manufacturing tolerances, the stack-up of parts alone will provide the proper preload on the swashplate bearings. The items that changed to allow this to happen are the swashplate and trunnion bearings.

The old swashplate will become obsolete and serviced by a swashplate kit.



Models affected All M91-25xxx tandem pumps and all M25-2xxx single pumps.

Serial numbers This change became effective at serial number A-95-05-xxxxx.

Part numbers affected	Description	Old p/n	New p/n	Interchangeable	Old p/n status
	Trunnion bearing	9001415-0006	4800470	No	Serviceable
	Swashplate	4250040	4250102	Yes, in kit form only 4510126	Obsolete
	Trunnion shim	4510026	N/A	N/A	Serviceable
	Spacer	4250043	N/A	N/A	Serviceable

Parts disposition ■ Interchangeable in kit form only



Service Bulletin: SB-1996-014

Products affected

Series 40 M25, M35, and M44 PV's and PT's

Subject

Redesign of the retention method in the check valve and SCR assemblies

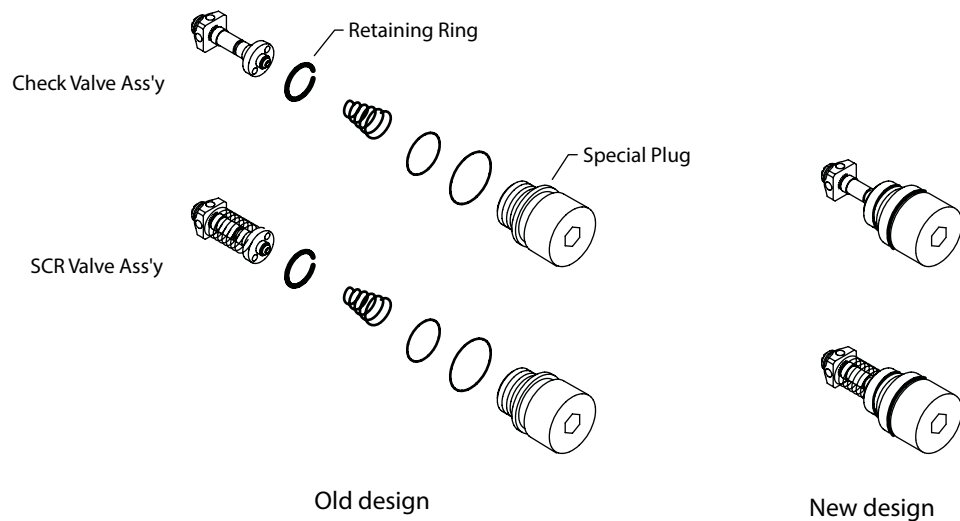
Description

As a product improvement Sauer-Danfoss is changing the retention method in the check valve assembly and SCR valve assembly. The old design allowed the check valve and SCR valve assemblies to be disassembled. However that retention method had the potential to hang up the valves on the retaining ring. The new design uses a different style retaining ring that will not hang up on the valve; however, it does not allow the assembly to be taken apart.

All new repairs, conversions, or purchases involving a check valve or SCR valve requires that the entire assembly be exchanged.

The new and old assemblies are totally interchangeable.

The special plug part number 4350182 and the internal retaining ring part number 4350183 will be obsoleted and no longer available as spare parts. See "PART NUMBERS AFFECTED" for detailed part number information.



Models affected

All series 40 M25, M35, and M44 single and tandem pumps

Serial numbers

The change will take place at serial number 96-40-xxxxx and later.


Service Bulletin: SB-1996-014
Part numbers affected

Description	Old part number	New part number	Relief valve set point
Poppet-check valve assy	3103348	4350634	N/A
SCR valve assembly	3103375-0140	4350635	140 bar [2030 psi]
SCR valve assembly	3103375-0175	4350643	175 bar [2528 psi]
SCR valve assembly	3103375-0190	4350642	190 bar [2755 psi]
SCR valve assembly	3103375-0210	4350641	210 bar [3045 psi]
SCR valve assembly	3103375-0230	4350640	230 bar [3335 psi]
SCR valve assembly	3103375-0250	4350639	250 bar [3625 psi]
SCR valve assembly	3103375-0260	4350644	260 bar [3770 psi]
SCR valve assembly	3103375-0280	4350638	280 bar [4060 psi]
SCR valve assembly	3103375-0300	4350637	300 bar [4350 psi]
SCR valve assembly	3103375-0325	4350645	325 bar [4712 psi]
SCR valve assembly	3103375-0345	4350636	345 bar [5000 psi]
SCR valve assembly	3103375-0415	4350646	415 bar [6020 psi]

Parts disposition

■ Interchangeable



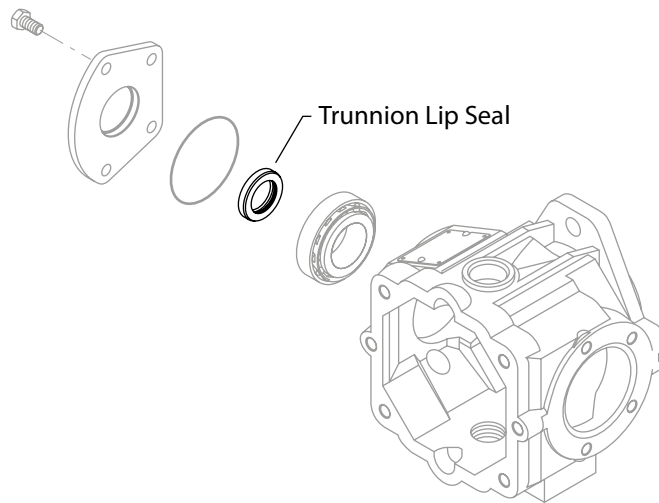
Service Bulletin: SB-2000-026

Products affected M25, M35, and M44 pumps and variable motors

Subject Trunnion seal change

Description As a product improvement, Sauer-Danfoss has made a design change to the trunnion seal on M25, M35, and M44 pumps and variable motors. The dust lip has been extended allowing more installation concentricity tolerance and hence is more forgiving during installation. As a result of this change, there will be fewer low hour trunnion seal failures caused by improper installation.

The new seal is interchangeable with the old seal. Sauer-Danfoss recommends that the seal be replaced when serving these units. The old seal (5000465) will remain available because it is used in other product lines.



Models affected M25, M35, and M44 pumps and variable motors

Serial numbers N/A

Part numbers affected

Description	Old part number	New part number
Trunnion seal	5000465	5000604

Parts disposition ■ Interchangeable

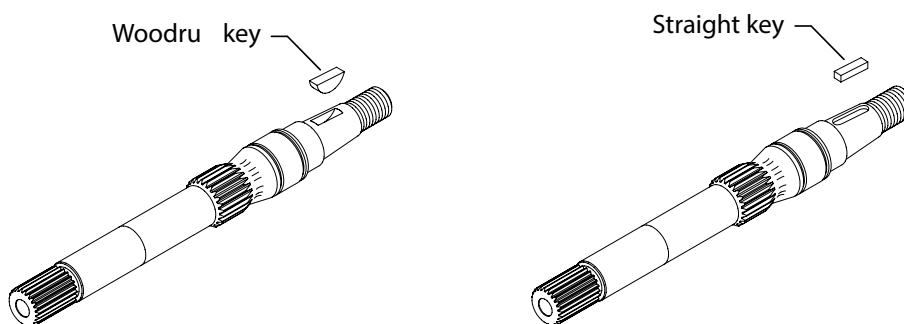


Service Bulletin: SB-2002-021

Products affected M25, M35, M44, M46, and LV pumps and motors

Subject Change from woodruff key to straight key on tapered shaft

Description Sauer-Danfoss will use a straight key rather than a woodruff key in tapered shafts on all Series 40 pumps and motors. Tapered shafts requiring a woodruff key are obsolete. The woodruff key, however, will remain available for service requirements. Customers requiring a replacement shaft need the straight key also.



Models affected Series 40: M25, M35, M44, M46, and LV models using tapered shafts.

Serial numbers This change becomes effective during the 2002 build year.

Part numbers affected

Old part number	New part number	Description
9003310-2514	-	Key-woodruff, .2480 x .875
-	5000664	Key-square, .250 x .750
4250012	4250164	Shaft-pump
4254500	4254568	Shaft-tapered, LV
4350390	4350805	Shaft-motor, fixed w/taper
4350432	4350791	Shaft-tandem, tapered
4460309	4461308	Shaft-pump, tapered/9T aux.
4461290	4461302	Shaft-pump, tapered/13T aux.
4460577	4461309	Shaft-motor, tapered
4460804	4461306	Shaft-MV, 13T/1" dia. 1.5" tapered
4460772	4461307	Shaft-tandem, tapered

Parts disposition ■ Interchangeable (if shaft and key are both replaced)



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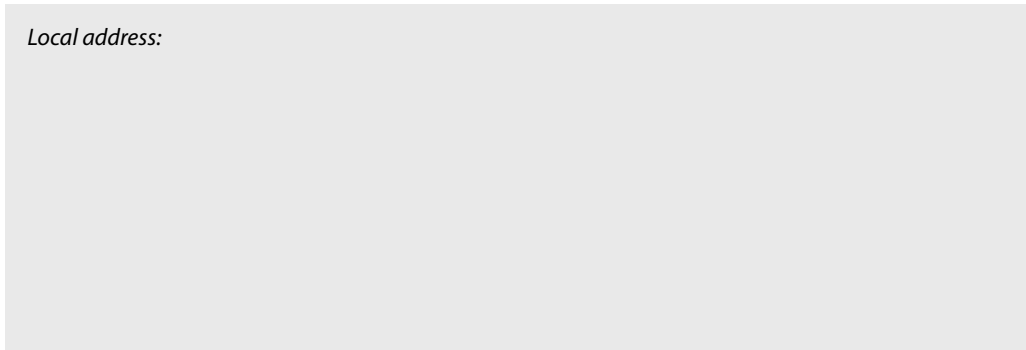
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