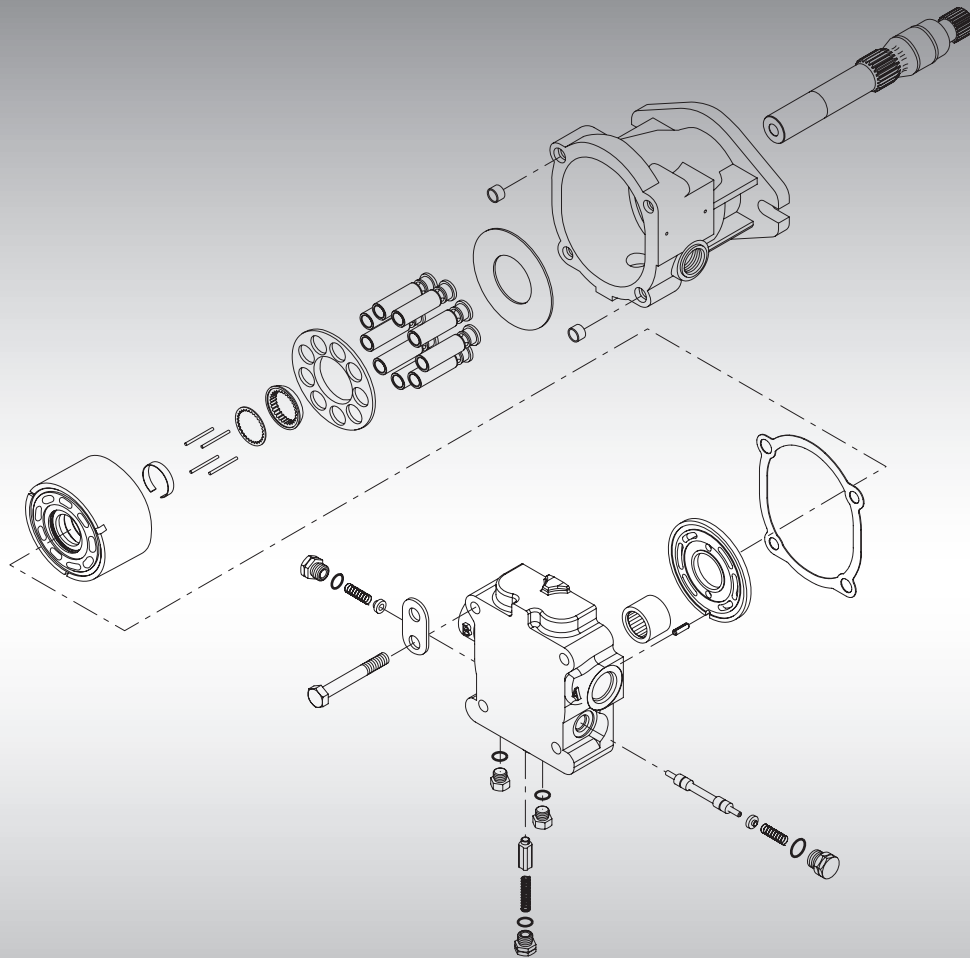




Parts Manual

# Series 40 MMF035D and MMV035D Axial Piston Motors







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General information

**Service parts identification**

Use this information and procedure to identify the module group, item number, manufacture date, part number, and part name of the parts included in the Series 40, M35 fixed and variable displacement motors. Use the parts listed when performing minor repairs, major repairs, or conversions on the Series 40: M35 motors.

**Nameplate**

Each unit has a nameplate affixed to its housing. The nameplate includes this information:

**Model Code**

The Sauer-Danfoss model code defines the specific unit. Use it when ordering parts to service this product.

**Model Number**

The manufacturing factory uses Sauer-Danfoss' model number. On repeat orders, order a complete unit by the model number.

**Serial Number**

The Sauer-Danfoss serial number identifies the manufacture date and unit sequence in the build. The serial number also identifies the unit's warranty time period.

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

The first number (2 digits) indicates the year of manufacture. (01 indicates the unit was manufactured in 2001).

The second number (2 digits) indicates the calendar week of manufacture.

The third number (5 digits) is a sequential number that identifies a specific unit.





General information

**Date code**

The date code is 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 different part numbers. Find the date code of your unit on the nameplate to determine the service part number you need to order.

EXAMPLE: The service part desired is Item D02.

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
N	D02	02-48		5000664	Square key (SB-2002-021)	1
	D02	96-32	02-47	532 (9003310-2514)	Woodruff key	1

All units using this order code with a date code of 96-32, up to and including 02-47, must use part number 9003310-2514. All units with a date code of 02-48, and newer, must use part number 5000664.

**Service bulletins**

A Service Bulletin Number (SB-\_\_\_\_-\_\_\_\_) may follow the part name of the part you desire. Read that Service Bulletin before ordering that part. The information contained in these Service Bulletins, as of the print date, are at the end of this manual. Service Bulletins contain more detailed information such as interchangeability, what additional parts are involved, and so forth. We suggest 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 shaft lip seal, Item C01, has the same item number on all motors.)

A part number that has another number following in parentheses makes this a world-wide manual. The first number is sold in Germany. The number, in parentheses, is sold in the United States. (Example: 701912 (9008000-0121); customers order 9008000-0121 if ordering the part in the United States.)

**Example of a part identification**

The nameplate on a Series 40 motor has an Order Code of MMF035D A F A A B NNN. Do this to determine the part number of the drive shaft used on this motor:

- 1) Referring to the input shaft module in the Order Code (see page 7), the output shaft option for this motor is identified by the code **F**. (MMF035D A **F** A A B NNN)
- 2) Referring to the Service Parts List, find the shaft group.
- 3) Find the order code that relates to this unit, which is **F**.
- 4) The shaft is Item D01.
- 5) The part number 4350427.

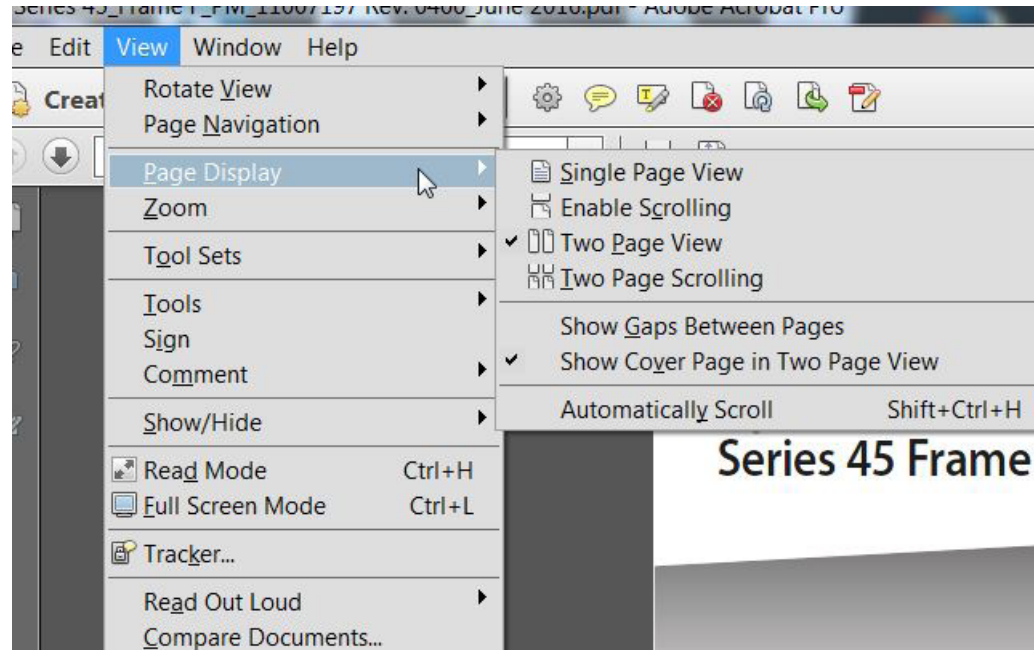


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### Adobe Acrobat 2-page viewing

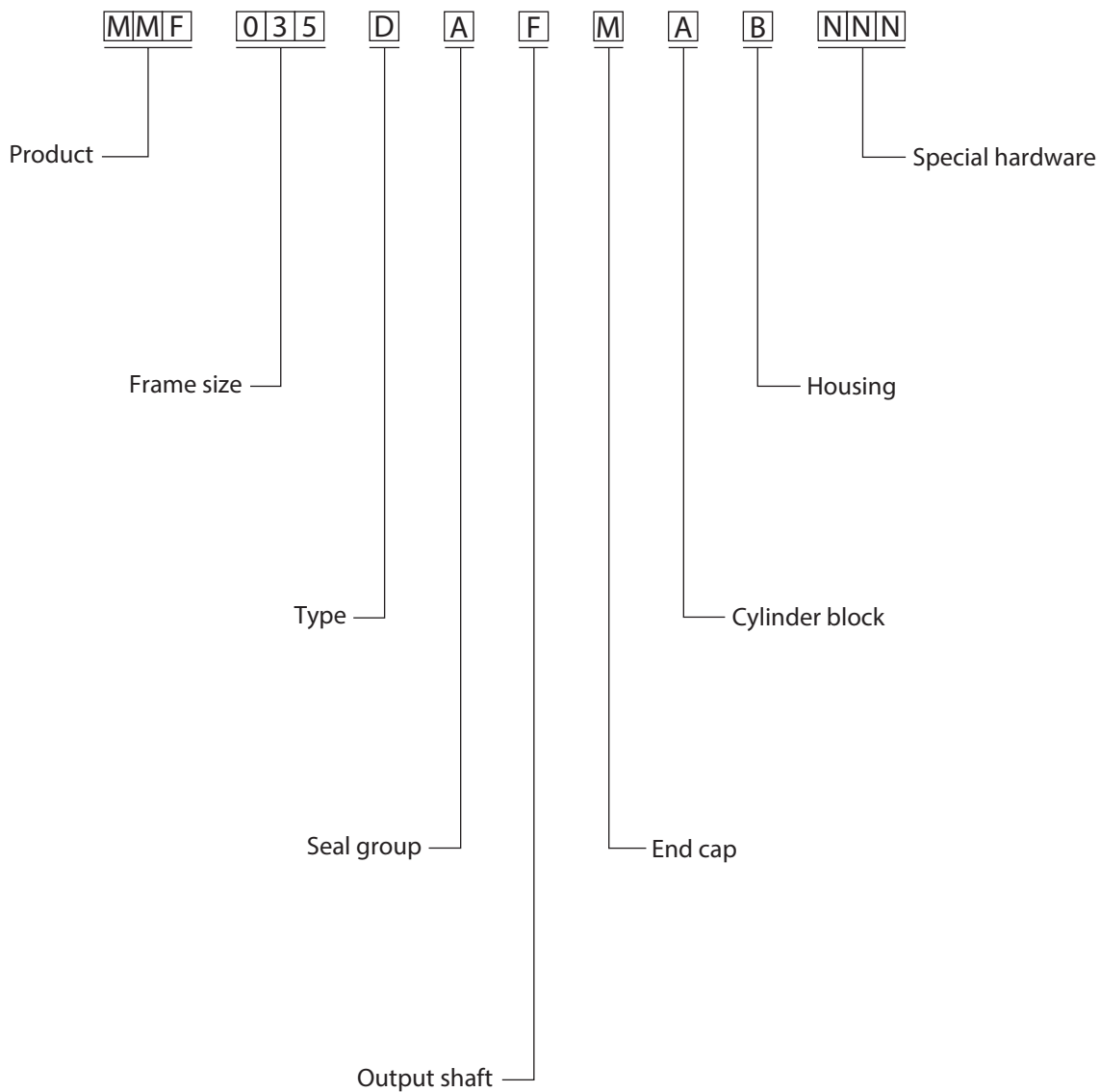
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2. Select "View" --> "Page Display" --> "Two Page View"
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Order code

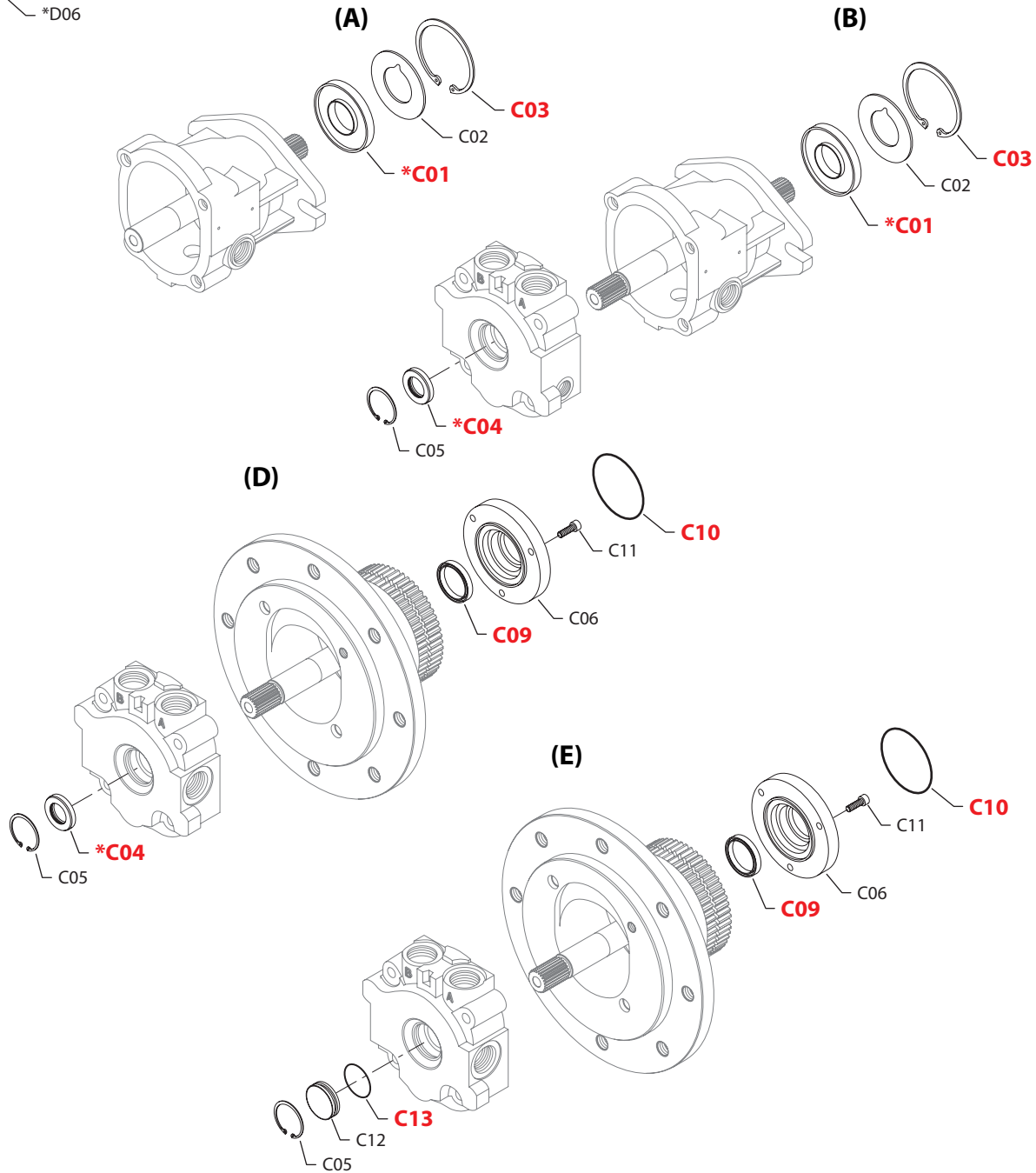
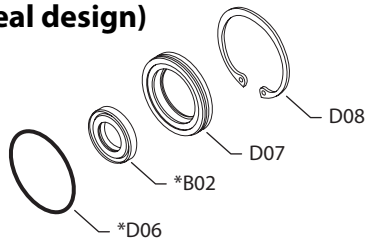


P100 647E



Fixed displacement motor

(MMF035C seal design)



\* = included in overhaul seal kit Q210

E100 602E  
Enlarged **bold** type item numbers are recommended part to stock for servicing.



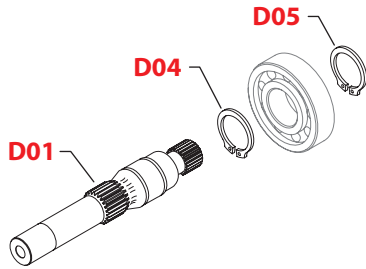

**Fixed displacement motor**
**Shaft seal**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
MMF035C	B02	88-04	99-15	9008000-0131	Lip seal	1
	D06	88-09	99-15	9004100-1460	O-ring	1
	D07	88-47	99-15	4350190	Seal carrier	1
	D08	88-39	99-15	9006200-0300	Retaining ring	1
A	C01	96-24		11103135	Lip seal	1
	C02	96-24		11083729	Support washer	1
	C03	96-24		9006200-0281	Retaining ring	1
B	C01	96-24		11103135	Lip seal	1
	C02	96-24		11083729	Support washer	1
	C03	96-24		9006200-0281	Retaining ring	1
	C04	96-24		5000465	Lip seal	1
	C05	96-24		9006200-0156	Retaining ring	1
D	C04	00-32		5000465	Lip seal	1
	C05	00-32		9006200-0156	Retaining ring	1
	C06	00-32		4350277	Seal carrier	1
	C09	00-32		9008000-0131	Lip seal	1
	C10	00-32		9004301-2320	O-ring	1
	C11	00-32		913954 (9007315-0604)	Screw	3
E	C05	00-31	08-50	9006200-0156	Retaining ring	1
	C06	00-31	08-50	4350277	Seal carrier	1
	C09	00-31	08-50	9008000-0131	Lip seal	1
	C10	00-31	08-50	9004301-2320	O-ring	1
	C11	00-31	08-50	913954 (9007315-0604)	Screw	3
	C12	00-31	08-50	4350096	End cap plug	1
	C13	00-31	08-50	9004100-0280	O-ring	1

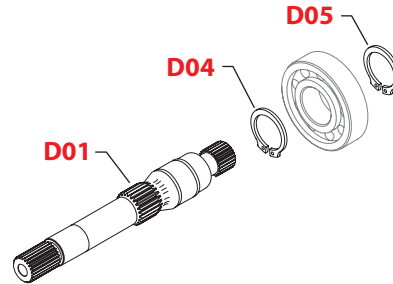


Fixed displacement motor

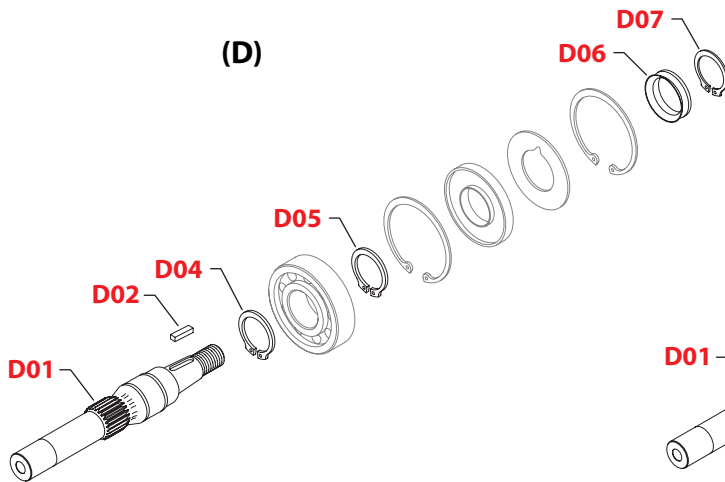
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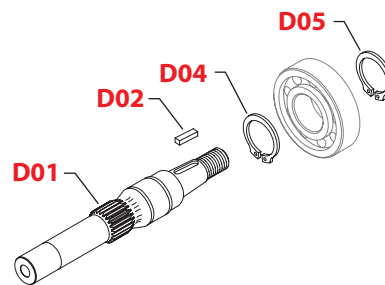
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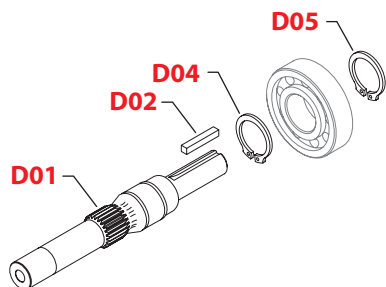
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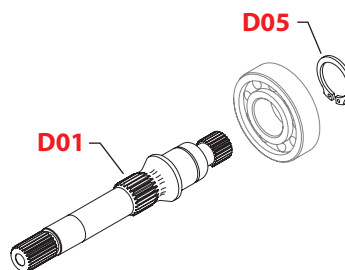
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(6 & S)



(X)



E100 603E

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

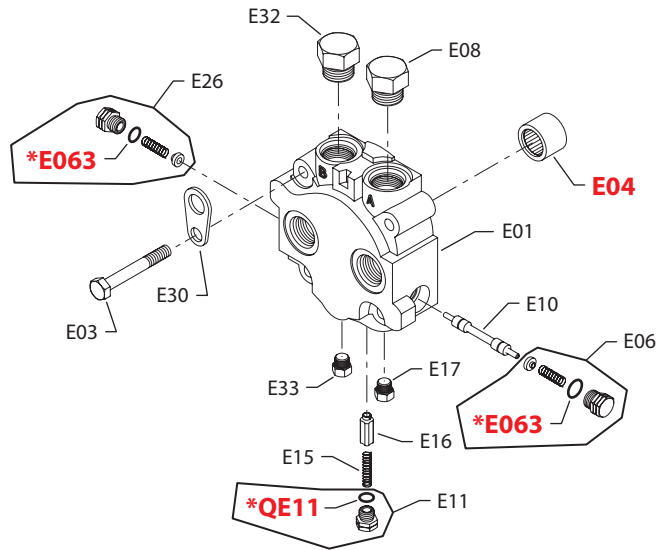

**Fixed displacement motor**
**Shaft**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
6	D01	04-04		4350843	Shaft, straight keyed, 1.125 dia.	1
	D02	04-04		9003261-3116	Key	1
	D04	04-04		9006300-0137	Retaining ring	1
	D05	04-04		9006300-0137	Retaining ring	1
A	D01	95-42		4350428	Shaft, 13-tooth spline/no auxiliary	1
	D04	95-42		9006300-0137	Retaining ring	1
	D05	95-42		9006300-0137	Retaining ring	1
C	D01	95-42		4350430	Shaft, 13-tooth spline/13-tooth auxiliary	1
	D04	95-42		9006300-0137	Retaining ring	1
	D05	95-42		9006300-0137	Retaining ring	1
D	D01	10-27		11083002	Shaft, taper/ no auxiliary	1
	D02	10-27		5000664	Square key (SB-2002-021)	1
	D04	10-27		9006300-0137	Retaining ring	1
	D05	10-27		9006300-0137	Retaining ring	1
	D06	10-27		11083450	Dust seal	1
	D07	10-27		5000365	Retaining ring	1
	F	D01	95-42		4350427	Shaft, 15-tooth spline/no auxiliary
	D04	95-42		9006300-0137	Retaining ring	1
	D05	95-42		9006300-0137	Retaining ring	1
L	D01	96-27		4350653	Shaft, 13-tooth spline with M8 tapped hole	1
	D04	96-27		9006300-0137	Retaining ring	1
	D05	96-27		9006300-0137	Retaining ring	1
N	D01	96-27		4350805	Shaft, tapered (SB-2002-021)	1
	D02	96-27		5000664	Square key (SB-2002-021)	1
	D02	96-27	02-47	9003310-2514	Woodruff key	1
	D04	96-27		9006300-0137	Retaining ring	1
	D05	96-27		9006300-0137	Retaining ring	1
	S	D01	95-42		4350429	Shaft, straight keyed, .875 dia.
	D02	95-42		9003261-2524	Key	1
	D04	95-42		9006300-0137	Retaining ring	1
	D05	95-42		9006300-0137	Retaining ring	1
X	D01	00-32		4350319	Shaft, 23-tooth spline/20-tooth auxiliary	1
	D05	00-32		9006325-0118	Retaining ring	1

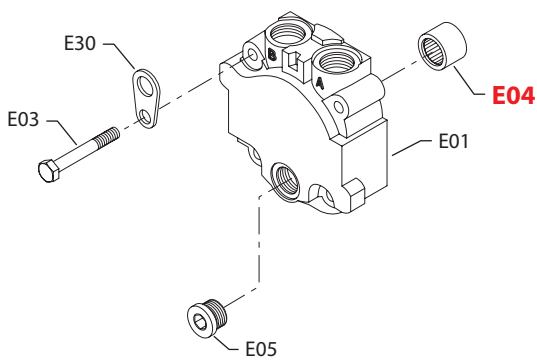


Fixed displacement motor

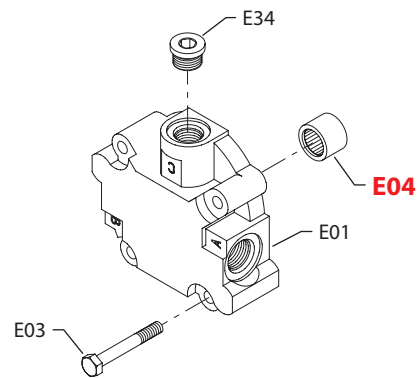
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E100 604E

\* = included in overhaul seal kit Q210

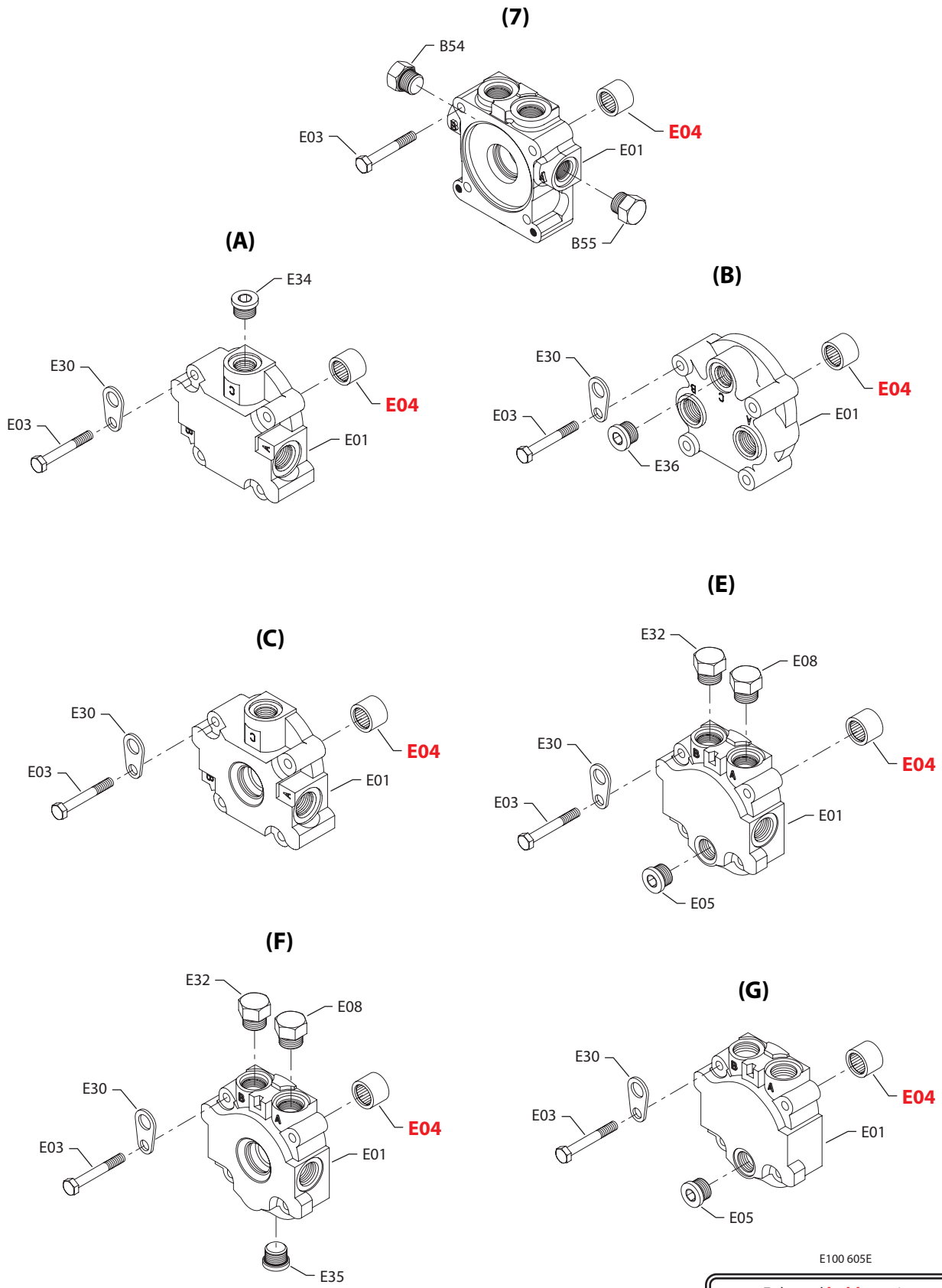
Enlarged **bold** type item numbers are recommended part to stock for servicing.


**Fixed displacement motor**
**End cap**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
1	E01	96-47		11041070	End cap, axial ports w/loop flushing	1
	E03	96-47		9007210-1015	Screw	4
	E04	96-47		9001465-0015	Needle bearing	1
	E06	96-47		4800912	Plug/spring assembly	1
	E08	96-47		664524 (9005110-9000)	Plug assembly	1
	E10	96-47		8800550	Spool	1
	E11	96-47		4800280	Plug assembly	1
	E15	96-47		768853	Spring	1
	E16	96-47		4800396	Poppet	1
	E17	96-47		001511 (9005100-4400)	Plug assembly	1
	E26	96-47		4800912	Plug/spring assembly	1
	E30	96-47		11138846	Lifting bracket	1
	E32	96-47		664524 (9005110-9000)	Plug assembly	1
	E33	96-47		001511 (9005100-4400)	Plug assembly	1
	E063	96-47		085043 (9004201-3700)	O-ring	2
	QE11	96-47		015818 (9004201-3100)	O-ring	1
	2	E01	96-47		11041070	End cap, axial ports w/loop flushing
E03		96-47		9007210-1015	Screw	4
E04		96-47		9001465-0015	Needle bearing	1
E06		96-47		4800912	Plug/spring assembly	1
E08		96-47		664524 (9005110-9000)	Plug assembly	1
E10		96-47		8800550	Spool	1
E11		96-47		4800280	Plug assembly	1
E15		96-47		768853	Spring	1
E16		96-47		1733723	Poppet	1
E17		96-47		001511 (9005100-4400)	Plug assembly	1
E26		96-47		4800912	Plug/spring assembly	1
E30		96-47		11138846	Lifting bracket	1
E32		96-47		664524 (9005110-9000)	Plug assembly	1
E33		96-47		001511 (9005100-4400)	Plug assembly	1
E063		96-47		085043 (9004201-3700)	O-ring	2
QE11		96-47		015818 (9004201-3100)	O-ring	1
3		E01	98-49	10-26	4350418	End cap, twin ports
	E03	98-49	10-26	9007210-1015	Screw	4
	E04	98-49	10-26	9001465-0015	Needle bearing	1
	E05	98-49	10-26	315325 (9005110-8700)	Plug assembly	1
	E30	98-49	10-26	11138846	Lifting bracket	1
	4	E01	99-07		4350278	End cap, radial ports
E03		99-07		9007210-1015	Screw	4
E04		99-07		9001465-0015	Needle bearing	1
E34		99-07		315325 (9005110-8700)	Plug assembly	1



Fixed displacement motor



E100 605E

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

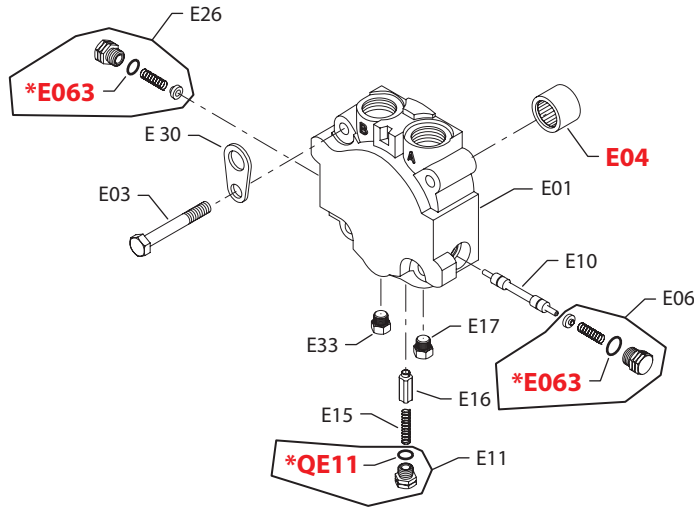

**Fixed displacement motor**
**End cap**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
7	B54	99-07		315325 (9005100-8700)	Plug assembly	1
	B55	99-07		315325 (9005100-8700)	Plug assembly	1
	E01	99-07		4350760	End cap, twin ports, auxiliary drive	1
	E03	99-07		9007510-3734	Screw	4
	E04	99-07		9001465-0018	Needle bearing	1
A	E01	95-48		4350278	End cap, radial ports	1
	E03	95-48		9007210-1015	Screw	4
	E04	95-48		9001465-0015	Needle bearing	1
	E30	95-48		11138846	Lifting bracket	1
	E34	95-48		315325 (9005110-8700)	Plug assembly	1
B	E01	95-48		4350165	End cap, axial ports	1
	E03	95-48		307686 (9007210-1017)	Screw	4
	E04	95-48		9001465-0015	Needle bearing	1
	E30	95-48		11138846	Lifting bracket	1
	E36	95-48		315325 (9005110-8700)	Plug assembly	1
C	E01	95-48		4350288	End cap, radial ports, thru shaft	1
	E03	95-48		9007210-1015	Screw	4
	E04	95-48		9001465-0015	Needle bearing	1
	E30	95-48		11138846	Lifting bracket	1
	E34	95-48		315325 (9005110-8700)	Plug assembly	1
E	E01	95-42		4350409	End cap, radial ports	1
	E03	95-42		9007210-1015	Screw	4
	E04	95-42		9001465-0015	Needle bearing	1
	E05	95-42		315325 (9005110-8700)	Plug assembly	1
	E08	95-42		664524 (9005110-9000)	Plug assembly	1
	E30	95-42		11138846	Lifting bracket	1
	E32	95-42		664524 (9005110-9000)	Plug assembly	1
F	E01	95-42		4350408	End cap, radial ports	1
	E03	95-42		9007210-1015	Screw	4
	E04	95-42		9001465-0015	Needle bearing	1
	E08	95-42		664524 (9005110-9000)	Plug assembly	1
	E30	95-42		11138846	Lifting bracket	1
	E32	95-42		664524 (9005110-9000)	Plug assembly	1
	E35	95-42		315325 (9005110-8700)	Plug assembly	1
G	E01	95-42		4350418	End cap, twin ports	1
	E03	95-42		9007210-1015	Screw	4
	E04	95-42		9001465-0015	Needle bearing	1
	E05	95-42		315325 (9005110-8700)	Plug assembly	1
	E30	95-42		11138846	Lifting bracket	1

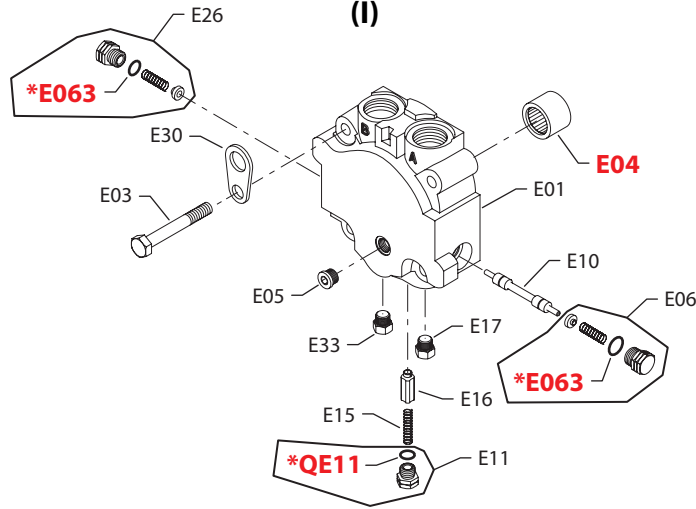


Fixed displacement motor

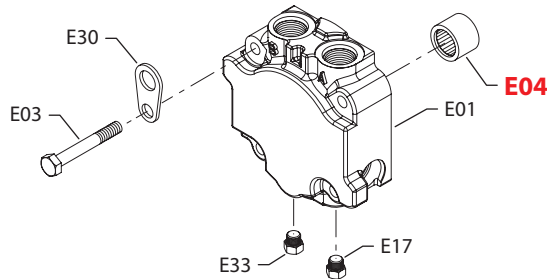
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(K)



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\* = included in overhaul seal kit Q210

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



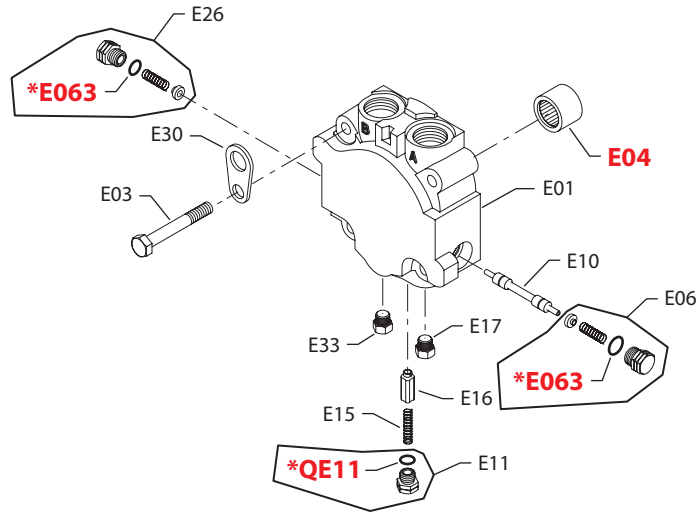

**Fixed displacement motor**
**End cap**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
H	E01	96-14		11041069	End cap, twin ports w/loop flushing	1
	E03	96-14		9007210-1015	Screw	4
	E04	96-14		9001465-0015	Needle bearing	1
	E06	96-14		4800912	Plug/spring assembly	1
	E10	96-14		8800550	Spool	1
	E11	96-14		4800280	Plug assembly	1
	E15	96-14		768853	Spring	1
	E16	96-14		4800397	Poppet	1
	E17	96-14		001511 (9005100-4400)	Plug assembly	1
	E26	96-14		4800912	Plug/spring assembly	1
	E30	96-14		11138846	Lifting bracket	1
	E33	96-14		001511 (9005100-4400)	Plug assembly	1
	E063	96-14		085043 (9004201-3700)	O-ring	2
	QE11	96-14		015818 (9004201-3100)	O-ring	1
I	E01	13-22		11130791	End cap, axial ports w/loop flushing	1
	E03	13-22		9007210-1015	Screw	4
	E04	13-22		9001465-0015	Needle bearing	1
	E05	13-22		9005110-5600	Plug assembly	1
	E06	13-22		4800912	Plug/spring assembly	1
	E10	13-22		8800550	Spool	1
	E11	13-22		4800280	Plug assembly	1
	E15	13-22		768853	Spring	1
	E16	13-22		4800397	Poppet	1
	E17	13-22		001511 (9005100-4400)	Plug assembly	1
	E26	13-22		4800912	Plug/spring assembly	1
	E30	13-22		11138846	Lifting bracket	1
	E33	13-22		001511 (9005100-4400)	Plug assembly	1
	E063	13-22		085043 (9004201-3700)	O-ring	2
QE11	13-22		015818 (9004201-3100)	O-ring	1	
K	E01	13-09		11120757	End cap, twin ports	1
	E03	13-09		9007210-1015	Screw	4
	E04	13-09		9001465-0015	Needle bearing	1
	E17	13-09		001511 (9005100-4400)	Plug assembly	1
	E30	13-09		11138846	Lifting bracket	1
	E33	13-09		001511 (9005100-4400)	Plug assembly	1

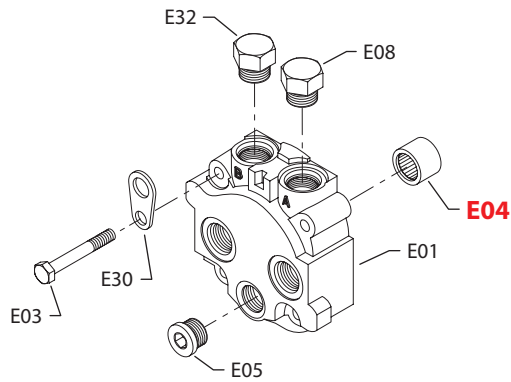


Fixed displacement motor

(M & Y)



(U)



E100 607E

\* = included in overhaul seal kit Q210

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

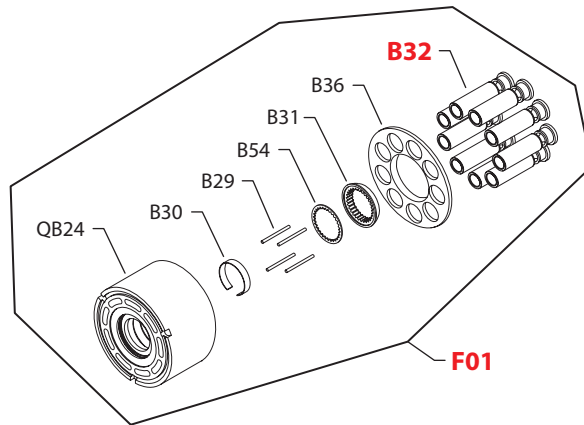

**Fixed displacement motor**
**End cap**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
M	E01	95-42		11041069	End cap, twin ports w/loop flushing	1
	E03	95-42		9007210-1015	Screw	4
	E04	95-42		9001465-0015	Needle bearing	1
	E06	95-42		4800912	Plug/spring assembly	1
	E10	95-42		8800550	Spool	1
	E11	95-42		4800280	Plug assembly	1
	E15	95-42		768853	Spring	1
	E16	95-42		4800396	Poppet	1
	E17	95-42		001511 (9005100-4400)	Plug assembly	1
	E26	95-42		4800912	Plug/spring assembly	1
	E30	95-42		11138846	Lifting bracket	1
	E33	95-42		001511 (9005100-4400)	Plug assembly	1
	E063	95-42		085043 (9004201-3700)	O-ring	2
	QE11	95-42		015818 (9004201-3100)	O-ring	1
U	E01	95-42		4350407	End cap, axial ports	1
	E03	95-42		9007210-1015	Screw	4
	E04	95-42		9001465-0015	Needle bearing	1
	E05	95-42		315325 (9005110-8700)	Plug assembly	1
	E08	95-42		664524 (9005110-9000)	Plug assembly	1
	E30	95-42		11138846	Lifting bracket	1
	E32	95-42		664524 (9005110-9000)	Plug assembly	1
	Y	E01	96-14		11041069	End cap, twin ports w/loop flushing
E03		96-14		9007210-1015	Screw	4
E04		96-14		9001465-0015	Needle bearing	1
E06		96-14		4800912	Plug/spring assembly	1
E10		96-14		8800550	Spool	1
E11		96-14		4800280	Plug assembly	1
E15		96-14		768853	Spring	1
E16		96-14		1733723	Poppet	1
E17		96-14		001511 (9005100-4400)	Plug assembly	1
E26		96-14		4800912	Plug/spring assembly	1
E30		96-14		11138846	Lifting bracket	1
E33		96-14		001511 (9005100-4400)	Plug assembly	1
E063		96-14		085043 (9004201-3700)	O-ring	2
QE11		96-14		015818 (9004201-3100)	O-ring	1

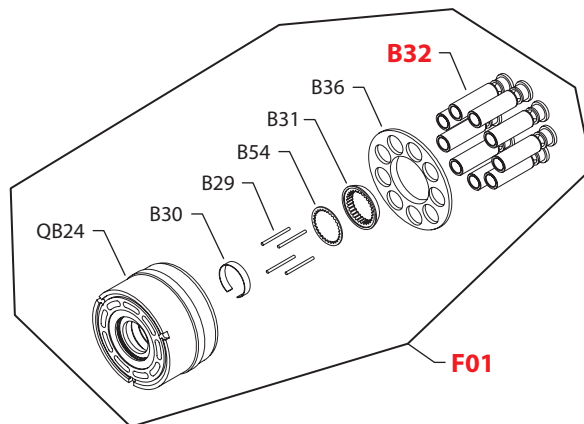


Fixed displacement motor

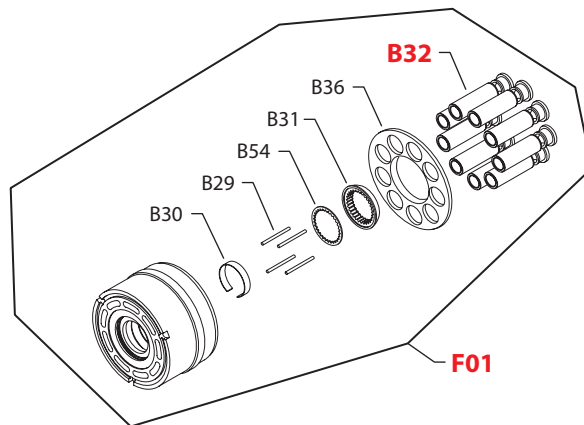
(A)



(C)



(D)



E100 510E

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

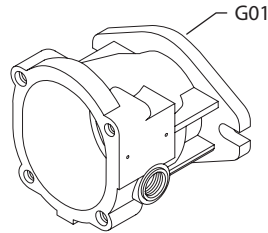

**Fixed displacement motor**
**Cylinder block**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
A	F01	95-42		4350291	Cylinder block kit	1
	B29	95-42		9004875-0109	Holddown pin	4
	B30	95-42		4350048	Holddown pin retainer	1
	B31	95-42		4350186	Slipper retainer guide	1
	B32	95-42		4350253	Piston assembly	9
	B36	95-42		4350185	Slipper retainer	1
	B54	95-42		4350187	Thrust washer	1
	QB24	95-42		4350100	Cylinder block assembly	1
	C	F01	95-42		4350422	Cylinder block kit, w/magnetic speed ring
B29		95-42		9004875-0109	Holddown pin	4
B30		95-42		4350048	Holddown pin retainer	1
B31		95-42		4350186	Slipper retainer guide	1
B32		95-42		4350253	Piston assembly	9
B36		95-42		4350185	Slipper retainer	1
B54		95-42		4350187	Thrust washer	1
QB24		95-42		11178866	Cylinder block assembly w/speed ring	1
D		F01	00-24	08-50	4350773	Cylinder block kit, w/pulse speed ring
	B29	00-24	08-50	9004875-0109	Holddown pin	4
	B30	00-24	08-50	4350048	Holddown pin retainer	1
	B31	00-24	08-50	4350186	Slipper retainer guide	1
	B32	00-24	08-50	4350253	Piston assembly	9
	B36	00-24	08-50	4350185	Slipper retainer	1
	B54	00-24	08-50	4350187	Thrust washer	1

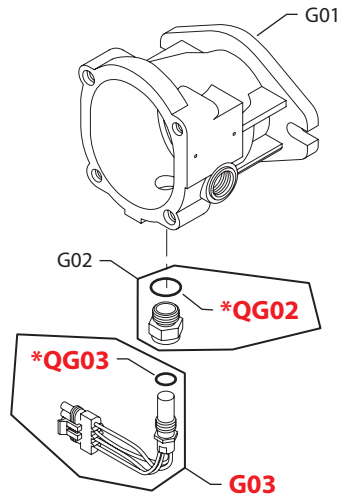


Fixed displacement motor

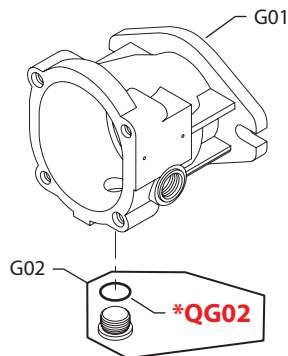
**(B)**



**(D, F, K, N, P & T)**



**(G, S & U)**



E100 608E

\* = included in overhaul seal kit Q210

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

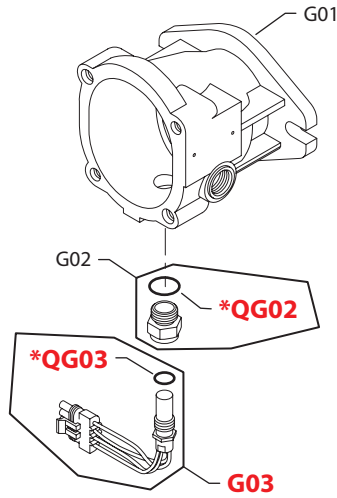

**Fixed displacement motor**
**Housing**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
B	G01	95-42		4350351	Fixed motor housing	1
D	G01	95-42		4350420	Fixed motor housing w/speed sensor port	1
	G02	95-42		4800432	Adapter assembly	1
	G03	95-42		KPPG13408	Speed sensor	1
	QG02	95-42		001149 (9004201-6200)	O-ring	1
	QG03	95-42		085043 (9004201-3700)	O-ring	1
F	G01	99-17		4350420	Fixed motor housing w/speed sensor port	1
	G02	99-17		4800432	Adapter assembly	1
	G03	99-17		KPPG156	Speed sensor	1
	QG02	99-17		001149 (9004201-6200)	O-ring	1
	QG03	99-17		085043 (9004201-3700)	O-ring	1
G	G01	98-28		4350420	Fixed motor housing w/speed sensor port	1
	G02	98-28		9005110-8700	Plug assembly	1
	QG02	98-28		001149 (9004201-6200)	O-ring	1
K	G01	99-08		4350420	Fixed motor housing w/speed sensor port	1
	G02	99-08		4800432	Adapter assembly	1
	G03	99-08		KPPG16511	Speed sensor	1
	QG02	99-08		001149 (9004201-6200)	O-ring	1
	QG03	99-08		085043 (9004201-3700)	O-ring	1
N	G01	07-30		4350420	Fixed motor housing w/speed sensor port	1
	G02	07-30		4800432	Adapter assembly	1
	G03	07-30		KPPG16008	Speed sensor	1
	QG02	07-30		001149 (9004201-6200)	O-ring	1
	QG03	07-30		085043 (9004201-3700)	O-ring	1
P	G01	01-09		4350420	Fixed motor housing w/speed sensor port	1
	G02	01-09		4800432	Adapter assembly	1
	G03	01-09		KPPG16408	Speed sensor	1
	QG02	01-09		001149 (9004201-6200)	O-ring	1
	QG03	01-09		085043 (9004201-3700)	O-ring	1
S	G01	02-40		4350797	Fixed motor housing w/speed sensor port	1
	G02	02-40		9005110-8700	Plug assembly	1
	QG02	02-40		001149 (9004201-6200)	O-ring	1
T	G01	07-30		4350420	Fixed motor housing w/speed sensor port	1
	G02	07-30		4800432	Adapter assembly	1
	G03	07-30		KPPG16708	Speed sensor	1
	QG02	07-30		001149 (9004201-6200)	O-ring	1
	QG03	07-30		085043 (9004201-3700)	O-ring	1
U	G01	04-04		4350842	Fixed motor housing, 33/41cc	1
	G02	04-04		9005110-8700	Plug assembly	1
	QG02	04-04		001149 (9004201-6200)	O-ring	1

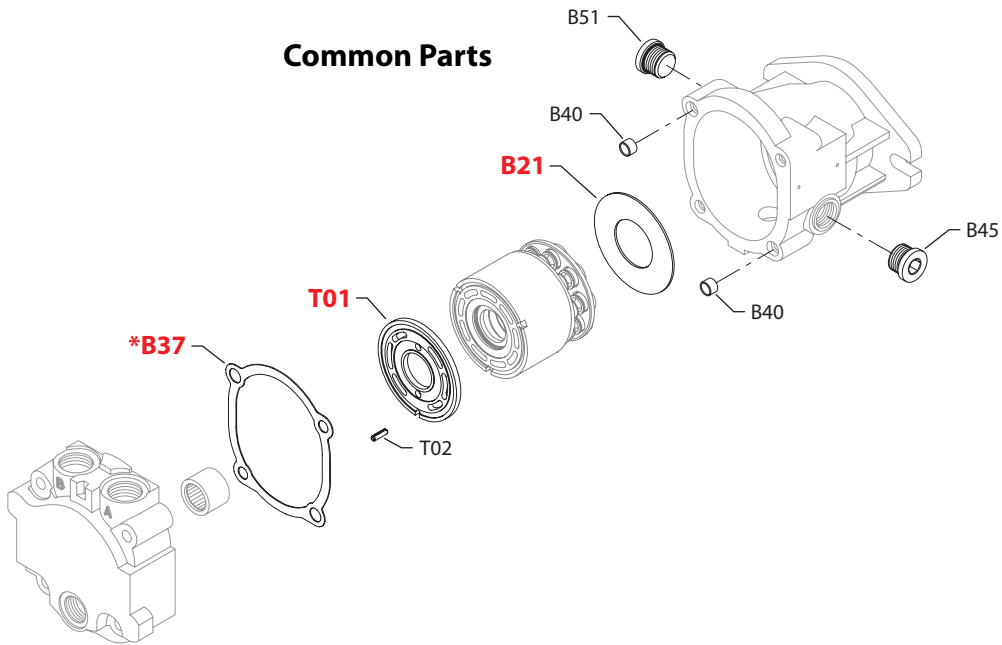


Fixed displacement motor

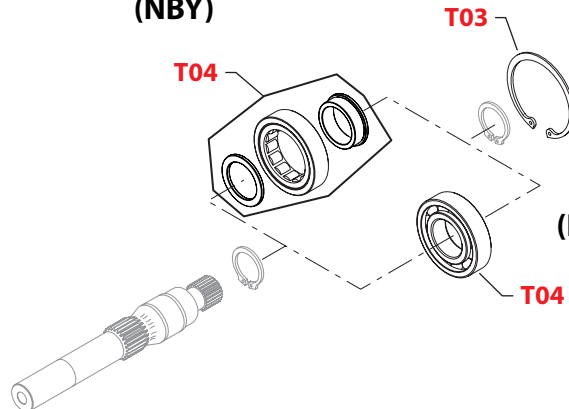
(V)



Common Parts



(NBY)



(NBC, NBJ & NBO)

\* = included in overhaul seal kit Q210

E100 512E

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




**Fixed displacement motor**
**Housing**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
V	G01	09-31		4350797	Fixed motor housing w/speed sensor port	1
	G02	09-31		4800432	Adapter assembly	1
	G03	09-31		KPPG13408	Speed sensor	1
	QG02	09-31		001149 (9004201-6200)	O-ring	1
	QG03	09-31		085043 (9004201-3700)	O-ring	1

**Common parts**

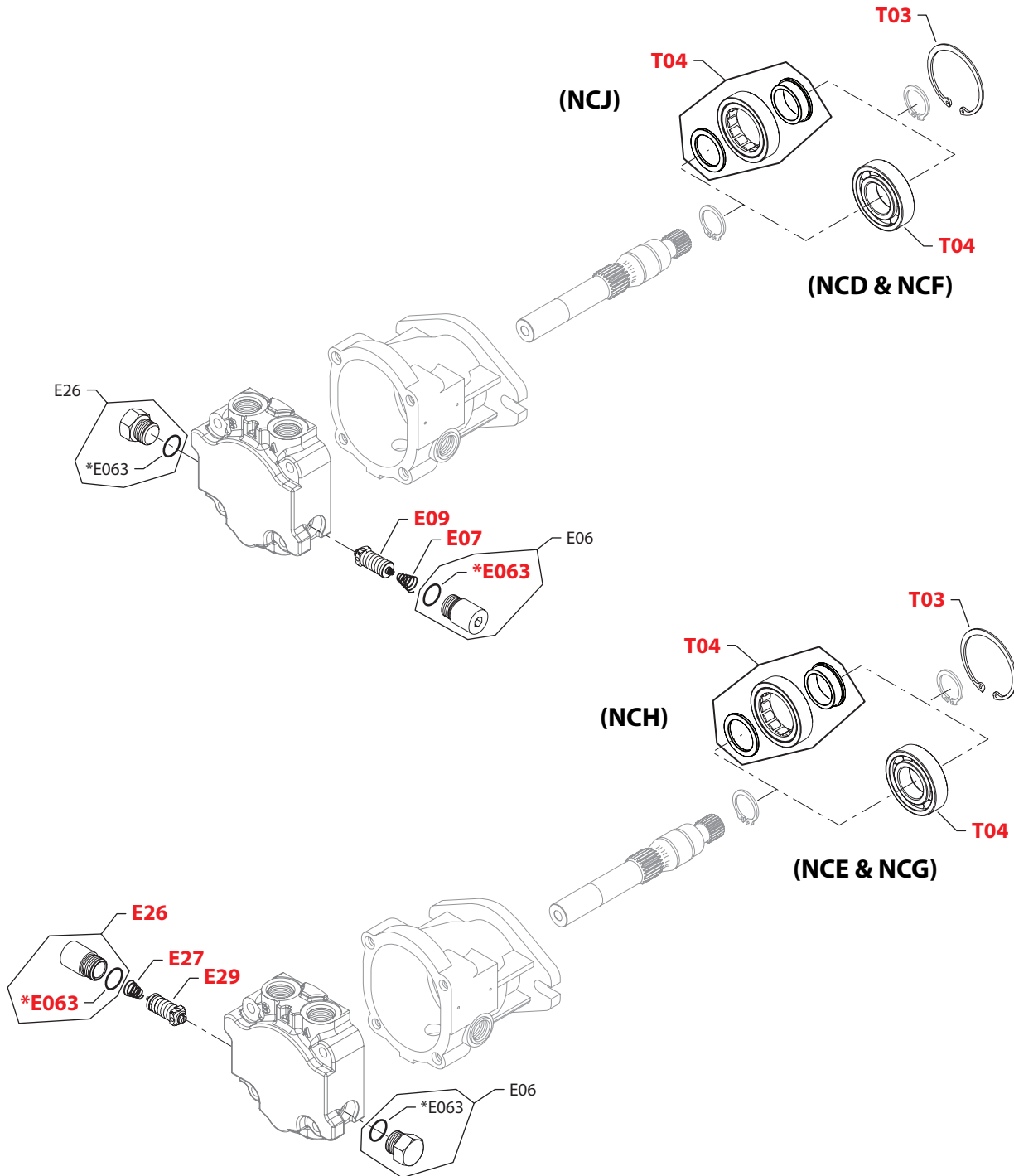
	B21	95-42		4350148	Thrust plate	1
	B37	95-42		4350089	End cap gasket	1
	B40	95-42		9004875-0100	Spring pin	2
	B45	95-42		315325 (9005110-8700)	Plug assembly	1
	B51	95-42		315325 (9005110-8700)	Plug assembly	1
	T01	95-42		4350754	Motor valve plate (SB-1999-058)	1
	T02	95-42		9004700-1910	Slotted pin	1

**Special hardware**

NBC	T03	14-05		9006200-0281	Retaining ring	1
	T04	14-05		5000731	Ball bearing	1
NBJ	T03	06-10		9006200-0281	Retaining ring	1
	T04	06-10		5000731	Ball bearing	1
NBO	T03	12-13		9006200-0281	Retaining ring	1
	T04	12-13		5000731	Ball bearing	1
NBY	T03	12-36		9006200-0281	Retaining ring	1
	T04	12-36		357616	Roller bearing	1



Fixed displacement motor



\* = included in overhaul seal kit Q210

E103 490E

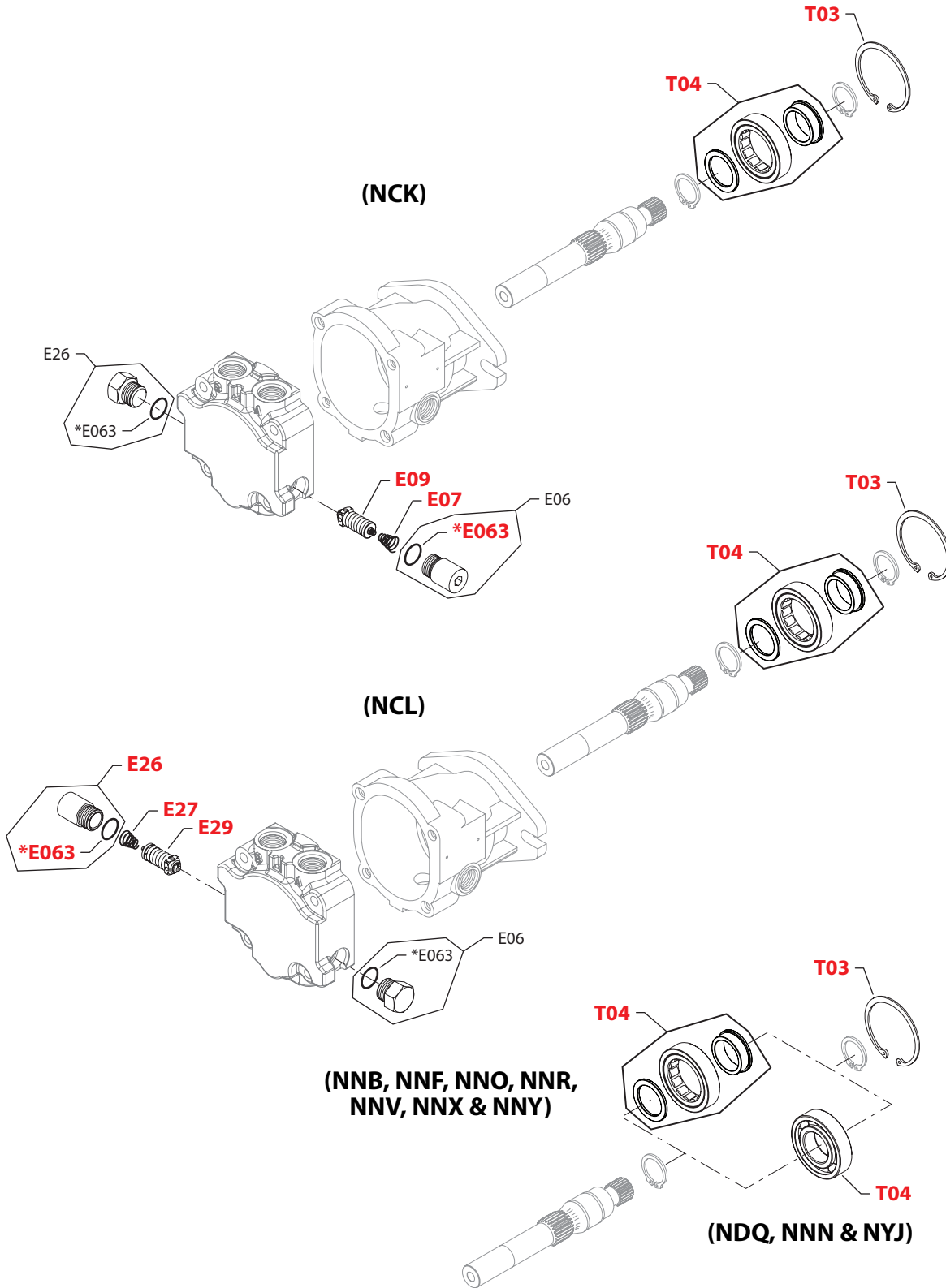
Enlarged **bold** type item numbers are recommended part to stock for servicing.


**Fixed displacement motor**
**Special hardware**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
NCD	E06	13-09		11126727	SCR plug assembly	1
	E07	13-09		4800661	Spring	1
	E09	13-09		3103375-0345	SCR valve, 345 bar	1
	E26	13-09		9005110-7500	Plug assembly	1
	E063	13-09		001131 (9004201-5000)	O-ring	2
	T03	13-09		9006200-0281	Retaining ring	1
	T04	13-09		5000731	Ball bearing	1
	NCE	E06	13-09		9005110-7500	Plug assembly
E26		13-09		11126727	SCR plug assembly	1
E27		13-09		4800661	Spring	1
E29		13-09		3103375-0345	SCR valve, 345 bar	1
E063		13-09		001131 (9004201-5000)	O-ring	2
T03		13-09		9006200-0281	Retaining ring	1
T04		13-09		5000731	Ball bearing	1
NCF		E06	13-09		11126727	SCR plug assembly
	E07	13-09		4800661	Spring	1
	E09	13-09		3103375-0280	SCR valve, 280 bar	1
	E26	13-09		9005110-7500	Plug assembly	1
	E063	13-09		001131 (9004201-5000)	O-ring	2
	T03	13-09		9006200-0281	Retaining ring	1
	T04	13-09		5000731	Ball bearing	1
	NCG	E06	13-09		9005110-7500	Plug assembly
E26		13-09		11126727	SCR plug assembly	1
E27		13-09		4800661	Spring	1
E29		13-09		3103375-0280	SCR valve, 280 bar	1
E063		13-09		001131 (9004201-5000)	O-ring	2
T03		13-09		9006200-0281	Retaining ring	1
T04		13-09		5000731	Ball bearing	1
NCH		E06	14-15		9005110-7500	Plug assembly
	E26	14-15		11126727	SCR plug assembly	1
	E27	14-15		4800661	Spring	1
	E29	14-15		3103375-0280	SCR valve, 280 bar	1
	E063	14-15		001131 (9004201-5000)	O-ring	2
	T03	14-15		9006200-0281	Retaining ring	1
	T04	13-09		357616	Roller bearing	1
	NCJ	E06	14-46		11126727	SCR plug assembly
E07		14-46		4800661	Spring	1
E09		14-46		3103375-0280	SCR valve, 280 bar	1
E26		14-46		9005110-7500	Plug assembly	1
E063		14-46		001131 (9004201-5000)	O-ring	2
T03		14-46		9006200-0281	Retaining ring	1
T04		14-46		357616	Roller bearing	1



Fixed displacement motor



E103 491E

\* = included in overhaul seal kit Q210

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


**Fixed displacement motor**
**Special hardware**

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
NCK	E06	14-46		11126727	SCR plug assembly	1
	E07	14-46		4800661	Spring	1
	E09	14-46		3103375-0345	SCR valve, 345 bar	1
	E26	14-46		9005110-7500	Plug assembly	1
	E063	14-46		001131 (9004201-5000)	O-ring	1
	T03	14-46		9006200-0281	Retaining ring	1
	T04	14-46		357616	Roller bearing	1
	NCL	E06	14-46		9005110-7500	Plug assembly
E26		14-46		11126727	SCR plug assembly	1
E27		14-46		4800661	Spring	1
E29		14-46		3103375-0345	SCR valve, 345 bar	1
T03		14-46		9006200-0281	Retaining ring	1
T04		14-46		357616	Roller bearing	1
NDQ		T03	13-09		9006200-0281	Retaining ring
	T04	13-09		5000731	Ball bearing	1
NNB	T03	06-10		9006200-0281	Retaining ring	1
	T04	06-10		357616	Roller bearing	1
NNF	T03	10-24		9006200-0281	Retaining ring	1
	T04	10-24		357616	Roller bearing	1
NNN	T03	95-42		9006200-0281	Retaining ring	1
	T04	95-42		5000731	Ball bearing	1
NNO	T03	06-10		9006200-0281	Retaining ring	1
	T04	06-10		357616	Roller bearing (SB-1998-008)	1
NNR	T03	95-42		9006200-0281	Retaining ring	1
	T04	95-42		357616	Roller bearing (SB-1998-008)	1
NNV	T03	96-44	11-12	9006200-0281	Retaining ring	1
	T04	96-44	11-12	357616	Roller bearing (SB-1998-008)	1
NNX	T04	00-32		9001365-0007	Roller bearing	1
NNY	T03	06-10		9006200-0281	Retaining ring	1
	T04	06-10		357616	Roller bearing (SB-1998-008)	1
NYJ	T03	06-16		9006200-0281	Retaining ring	1
	T04	06-16		5000731	Ball bearing	1



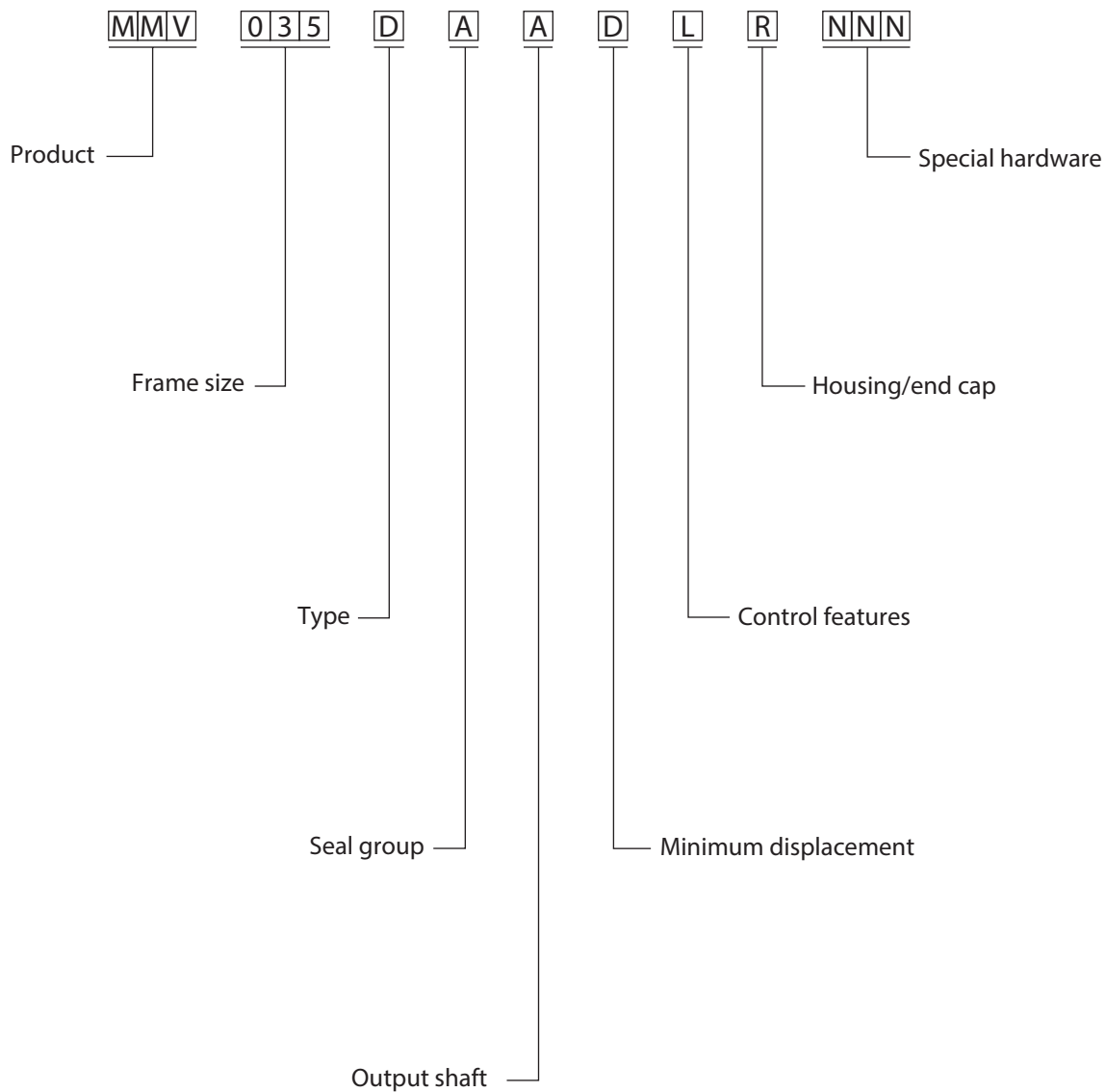
Fixed displacement motor

Overhaul seal kit

Order Code	Item	Date Begin	Date End	Part Number	Part Name	Qty. per Model/Kit
	Q210	95-42		11114238	Overhaul seal kit, MMF035/44D	1
	B02	88-04	99-15	9008000-0131	Lip seal (MMF035C design)	1
	B37	95-42		4350089	End cap gasket	1
	C01	95-42		11103135	Lip seal	1
	C04	95-42		5000465	Lip seal	1
	D06	88-04	99-15	9004100-1460	O-ring, 2.612 x .103, nitrile, 70D (MMF035C design)	1
	E063	95-42		085043 (9004201-3700)	O-ring, .468 x .078, nitrile, 90D	2
	E063	95-42		001131 (9004201-5000)	O-ring, .644 x .087, nitrile, 90D	2
	QE11	95-42		015818 (9004201-3100)	O-ring, .414 x .072, nitrile, 90D	1
	QG02	95-42		085043 (9004201-6200)	O-ring, .755 x .097, nitrile, 90D	1
	QG03	95-42		085043 (9004201-3700)	O-ring, .468 x .078, nitrile, 90D	1



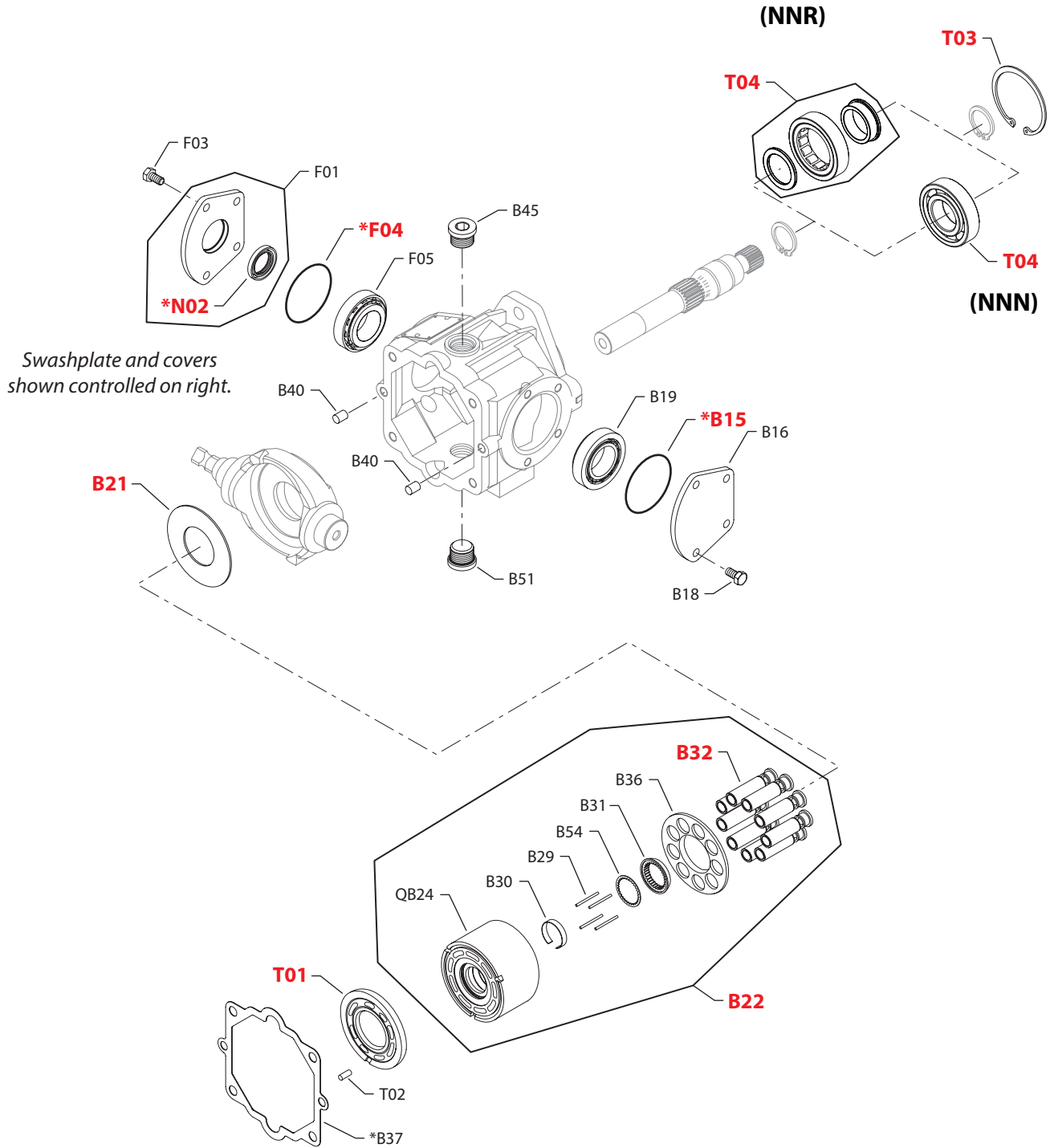
Order code



P100 648E



Variable displacement motor



E100 515E

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




**Variable displacement motor**
**Common parts**

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
	B15	95-42		9004300-1460	O-ring	1
	B16	95-42		4250027	Trunnion cover	1
	B18	95-42		378083 (9007210-0804)	Screw	4
	B19	95-42		4800470	Bearing kit	1
	B21	95-42		4350148	Thrust plate	1
	B22	95-42		4350291	Cylinder block kit	1
	B29	95-42		9004875-0109	Holddown pin	4
	B30	95-42		4350048	Holddown pin retainer	1
	B31	95-42		4350186	Slipper retainer guide	1
	B32	95-42		4350253	Piston assembly	9
	B36	95-42		4350185	Slipper retainer	1
	B37	95-42		4350145	End cap gasket	1
	B40	95-42		5000529	Pin (SB-1998-092)	2
	B45	95-42		664524 (9005110-9000)	Plug assembly	1
	B51	95-42		664524 (9005110-9000)	Plug assembly	1
	B54	95-42		4350187	Thrust washer	1
	F01	95-42		4350732	Trunnion cover assembly	1
	F03	95-42		378083 (9007210-0804)	Screw	4
	F04	95-42		9004300-1460	O-ring	1
	F05	95-42		4800470	Bearing kit	1
	N02	95-42		5000604	Lip seal (SB-2000-026)	1
	QB24	95-42		4350100	Cylinder block assembly	1
	T01	95-42		4350754	Valve plate (SB-1999-058)	1
	T02	95-42		9004700-1910	Slotted pin	1

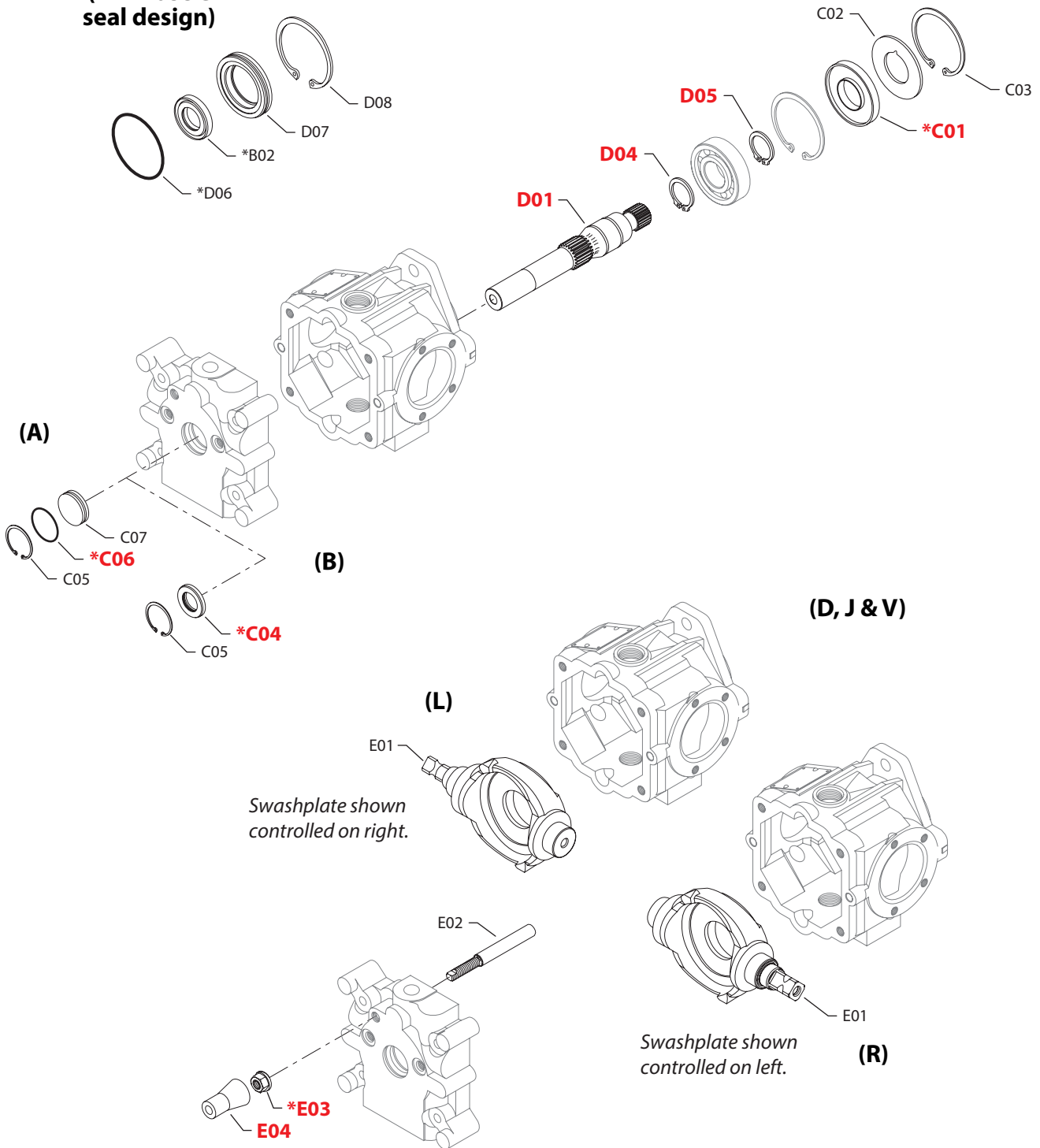
**Special hardware**

NNN	T03	95-42		9006200-0281	Retaining ring	1
	T04	95-42		5000731	Ball bearing	1
NNR	T03	95-42		9006200-0281	Retaining ring	1
	T04	95-42		357616	Roller bearing (SB-1998-008)	1



Variable displacement motor

(MMV035C seal design)



E100 610E

\* = included in overhaul seal kit Q210

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


**Variable displacement motor**
**Shaft seal**

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
MMV035C	B02	88-04	99-15	9008000-0131	Lip seal	1
	D06	88-09	99-15	9004100-1460	O-ring	1
	D07	88-47	99-15	4350190	Seal carrier	1
	D08	88-39	99-15	9006200-0300	Retaining ring	1
A	C01	95-42		5000689	Lip seal	1
	C02	95-42		11083729	Support washer	1
	C03	95-42		9006200-0281	Retaining ring	1
	C05	95-42		9006200-0156	Retaining ring	1
	C06	95-42		9004100-0280	O-ring	1
	C07	95-42		4350096	End cap plug	1
	B	C01	95-42	08-33	5000689	Lip seal
C02		95-42	08-33	11083729	Support washer	1
C03		95-42	08-33	9006200-0281	Retaining ring	1
C04		95-42	08-33	5000465	Lip seal	1
C05		95-42	08-33	9006200-0156	Retaining ring	1

**Shaft**

A	D01	95-42		4350393	Shaft, 13-tooth spline	1
	D04	95-42		9006300-0137	Retaining ring	1
	D05	95-42		9006300-0137	Retaining ring	1

**Swashplate/minimum displacement**

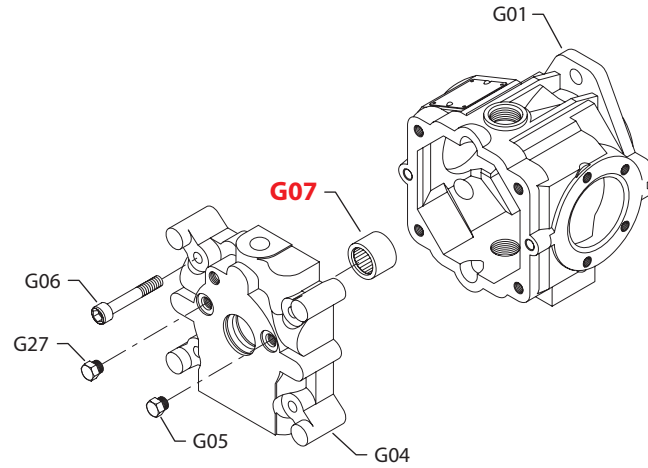
D	E01	95-42		11166719	Swashplate	
	E02	95-42		4350092	Swashplate stop, set at 6°	1
	E03	95-42		076042 (9003509-0012)	Seal nut, M12	1
	E04	95-42		750679	Plastic cap	1
J	E01	96-02		11166719	Swashplate	
	E02	96-02		4350092	Swashplate stop, set at 13°	1
	E03	96-02		076042 (9003509-0012)	Seal nut, M12	1
	E04	96-02		750679	Plastic cap	1
V	E01	98-31		4350383	Swashplate, 15.8mm trunnion	1
	E02	98-31		4350092	Swashplate stop, set at 6°	1
	E03	98-31		076042 (9003509-0012)	Seal nut, M12	1
	E04	98-31		750679	Plastic cap	1

**Control features**

L	Swashplate control shaft on left side
R	Swashplate control shaft on right side



Variable displacement motor



E100 611E

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


**Variable displacement motor**
**Housing/end cap**

Order code	Item	Date begin	Date end	Part number	Part name	Qty. per model/kit
R	G01	95-42		4350350	Variable motor housing	1
	G04	95-42		4350404	End cap	1
	G05	95-42		046151 (9005100-5600)	Plug assembly	1
	G06	95-42		9007314-1012	Screw	4
	G07	95-42		9001465-0015	Needle bearing	1
	G27	95-42		046151 (9005100-5600)	Plug assembly	1
	W	G01	95-42	08-33	4350350	Variable motor housing
G04		95-42	08-33	4350404	End cap	1
G05		95-42	08-33	046151 (9005100-5600)	Plug assembly	1
G06		95-42	08-33	9007314-1012	Screw	4
G07		95-42	08-33	9001465-0015	Needle bearing	1
G27		95-42	08-33	046151 (9005100-5600)	Plug assembly	1

**Overhaul seal kit**

	Q210	95-42		4510148	Overhaul seal kit, MMV035/44D	1
	B02	88-04	99-15	9008000-0131	Lip seal (MMV035C design)	1
	B15	95-42		9004300-1460	O-ring, 2.612 x .099, nitrile, 70D	1
	B37	95-42		4350145	End cap gasket	1
	C01	95-42		5000689	Lip seal	1
	C04	95-42		5000465	Lip seal	1
	C06	95-42		9004100-0280	O-ring, 1.364 x .070, nitrile, 70D	1
	D06	88-09	99-15	9004100-1460	O-ring, 2.612 x .103, nitrile, 70D (MMV035C design)	1
	E03	95-42		076042 (9003509-0012)	Seal nut, M12	1
	F04	95-42		9004300-1460	O-ring, 2.612 x .099, nitrile, 70D	1
	N02	95-42		5000604	Lip seal (SB-2000-026)	1



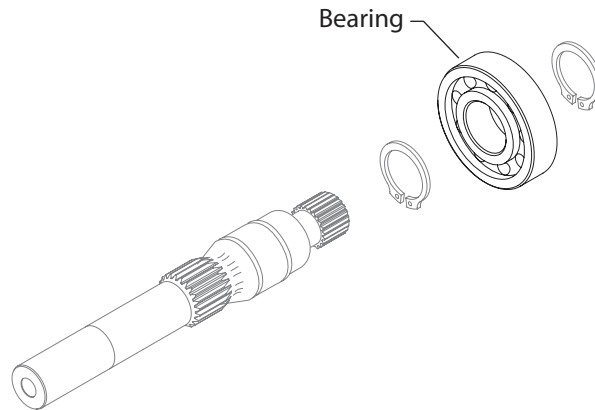
**Service Bulletin: SB-1998-008**

**Products affected** Series 40: M35 and M44 motors

**Subject** Shaft bearing in high capacity special hardware option

**Description** As a product improvement, Sauer-Danfoss changed the roller bearing Series 40: M35 and M44 motors equipped with the high capacity special hardware option. This change allows for motors equipped with this option to withstand a greater thrust load.

The new bearing is interchangeable with the old bearing.



<b>Models affected</b>	M35 motors	M44 motors	
	4353025	4353049	4443026
	4353033	4353052	4443028
	4353034	4353053	4443029
	4353042	4353055	4443032
	4353043	4354027	

**Serial numbers** This change became effective at serial number A-98-06-xxxx.

**Part numbers affected**

Item description	Old part number	New part number
Roller bearing	5000461	357616

**Parts disposition** ■ Interchangeable



Service Bulletin: SB-1998-092

**Products affected**

Series 40: M35 and M44 variable motors, variable pumps, and tandem pumps

**Subject**

Housing to end cap dowel pin change

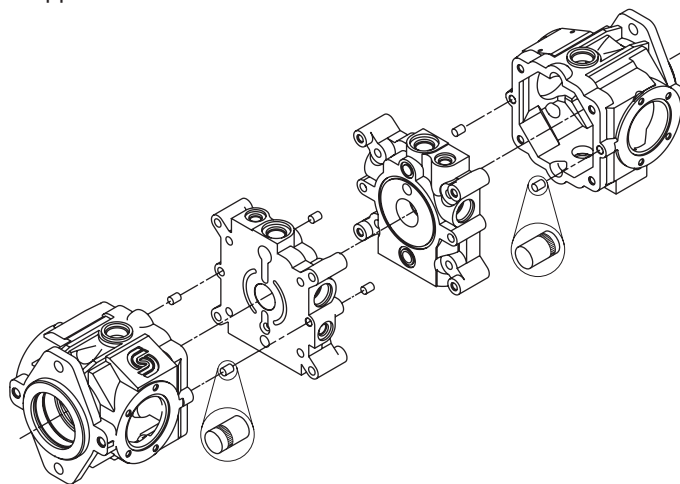
**Description**

Sauer-Danfoss introduced a design improvement to the dowel pins that align the variable housing and end cap for the Series 40: M35 and M44 variable motors, variable pumps, and tandem variable pumps.

Each variable motor and variable pump assembly uses two dowel pins to align the end cap to the pump housing. The assembly is designed so the dowel pin is installed in the variable housing before the end cap is positioned on the assembly. The tandem variable pump uses the same dowel pin to align the two halves of the tandem pump assembly. Previously, a slip fit existed between the holes in the variable housing and the pin.

The design of the dowel pin changed to incorporate a knurled section on the pin. The fit between the dowel pin and the pilot hole in the variable housing changed to a slight interference fit. This change improves the serviceability of the motor and pump assembly, by reducing the potential for the pins to dislodge from the housing when servicing the product.

To help identify this change, we have a new dowel pin part number. The new pin is completely interchangeable with the old pin. The old pin remains available as a service item, since it is in a variety of Sauer-Danfoss applications.



**Models affected**

M35-4xxx, 4354xxx and 4444xxx variable displacement motors  
 M35-2xxx, 4352xxx and 4442xxx variable displacement pumps  
 M91-35xxx, 4355xxx and 4445xxx tandem pumps

**Serial numbers**

This change became effective at serial number A-99-10-xxxxx

**Part numbers affected**

Old dowel pin	New dowel pin
5000529	9004800-3708

**Parts disposition**

- Interchangeable
- Use parts in stock



**Service Bulletin: SB-1999-058**

**Products affected** Series 40: M25 fixed and U-style, M35, M44, and M46 fixed and variable motors

**Subject** Valve plate change

**Description** As a product improvement, Sauer-Danfoss modified the finish on Series 40 motor valve plates. This change improves the plate’s ability to develop and retain a suitable oil film, especially at initial start-up.

New part numbers for all Series 40 motor valve plates identify this change. This is an interchangeable change. The old part numbers are obsolete. They are no longer available as a service part.

**Models affected** Series 40: M25 fixed motors and M25 motor sections within M25 U-style transmissions

Series 40: M35 and M44 fixed motors

Series 40: M46 fixed and variable motors

**Serial numbers** This change became effective at serial number A-99-34-xxxxx for all Series 40 M25 fixed motors and M25 motor sections of U-style transmissions.

This change became effective at serial number K-00-18-xxxxx for all Series 40 M35 and M44 fixed motors and all M46 fixed and variable motors

**Part numbers affected**

Frame size	Item description	Old part number	New part number
M25	Motor valve plate	4250073	4250143
M35 and M44	Square key	4350159	4350754
M46	Motor valve plate	4460119	4461105

**Parts disposition** ■ Interchangeable





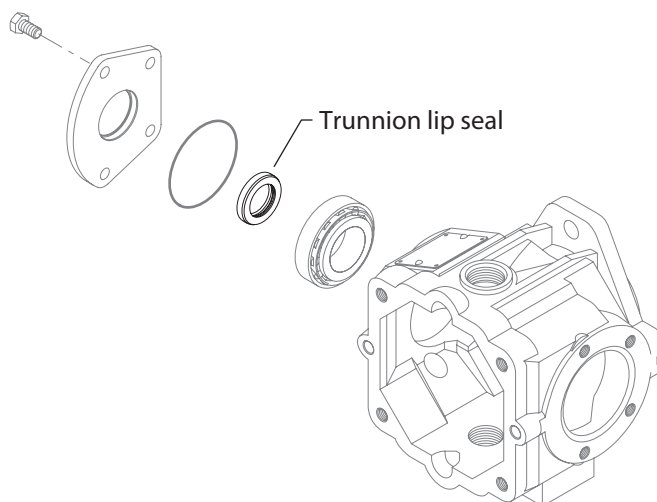
Service Bulletin: SB-2000-26A

**Products affected** Series 40: M25, M35, and M44 pumps and variable motors

**Subject** Trunnion seal change

**Description** As a product improvement, Sauer-Danfoss made a design change to the trunnion seal on Series 40: M25, M35, and M44 pumps and variable motors. The dust lip is extended, allowing more installation concentricity tolerance, and more forgiving during installation. Now 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 servicing these units. The old seal (5000465) remains available as it is in other Sauer-Danfoss product lines.



**Models affected** Series 40: M25, M35 and M44 pumps and variable motors

**Serial numbers** This change became effective at serial number K-00-46-xxxxx

**Part numbers affected**

Item description	Old part number	New part number
Trunnion seal	5000465	5000604

**Parts disposition** ■ Interchangeable



**Service Bulletin: SB-2002-021**

**Products affected**

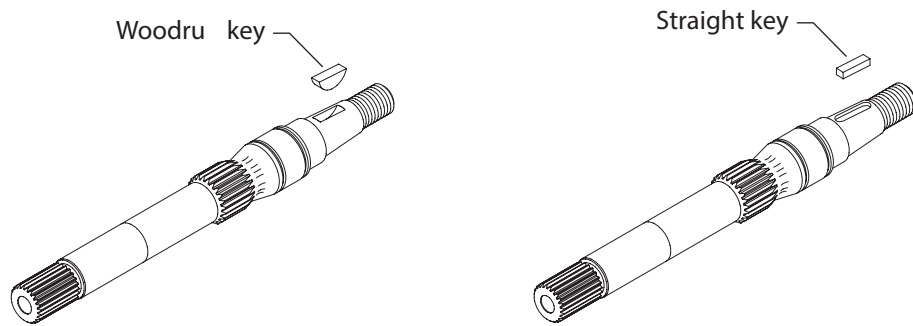
Series 40: M25, M35, M44, M46, and LV pumps and motors

**Subject**

Change from woodruff key to straight key on tapered shaft

**Description**

Sauer-Danfoss uses 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, remains available for service requirements. Customers requiring a replacement shaft need the straight key.



**Models affected**

Series 40: M25, M35, M44, M46, and LV pumps and motors using tapered shafts

**Serial numbers**

This change will become effective during the 2002 build year.

**Part numbers affected**

Old part number	New part number	Description
9003310-2514	-	Key-woodruff, .248 x .875
-	5000664	Key-square, .250 x .750
4250012	4250164	Shaft, tapered
4254500	4254568	Shaft, tapered
4350390	4350805	Shaft, tapered
4350432	4350791	Shaft, tapered
4460309	4461308	Shaft, tapered/9t. aux.
4461290	4461302	Shaft, tapered/13t. aux.
4460577	4461309	Shaft, tapered
4460804	4461306	Shaft, 13-tooth/tapered aux.
4460772	4461307	Shaft, tapered

**Parts disposition**

- Interchangeable if shaft and key are both replaced
- Use parts in stock
- Scrap new parts and apply for credit



**Service Bulletin: SB-2005-015**

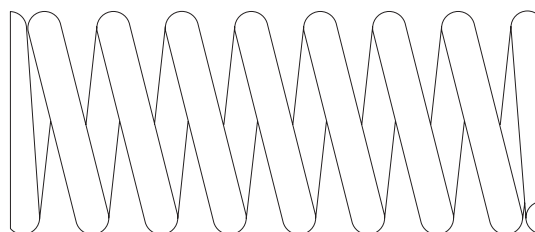
**Products affected** Series 40 fixed motors with loop flushing option (M25, M35, M44)

**Subject** Loop flush return spring.

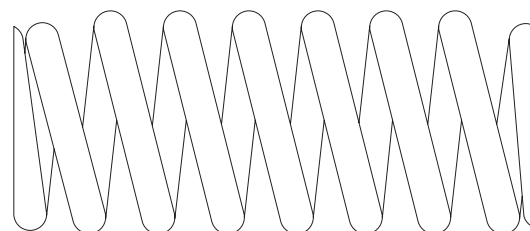
**Description** As a product improvement aimed at reducing assembly risk and increasing quality, Sauer-Danfoss is making the following change to series 40 fixed motors with loop flushing option (M25, M35, M44): Spring-helical compression (Old P/N 4800225) will change to spring-helical compression (New P/N 4800887). This change will be visually detectable as that the ends of the new spring will be tapered smaller allowing it to snap onto the spring guide (P/N 512257) holding the two parts together.

All parts are completely interchangeable in fit and function.

From: 4800225



To: 4800887



**Models affected** All series 40 fixed motors with loop flushing option (M25, M35, M44)

**Serial numbers** Change will go into effect starting: K-06-03-XXXXX

**Part numbers affected**

Old part number	New part number	Description
4800225	4800887	Spring

**Parts disposition** ■ Interchangeable



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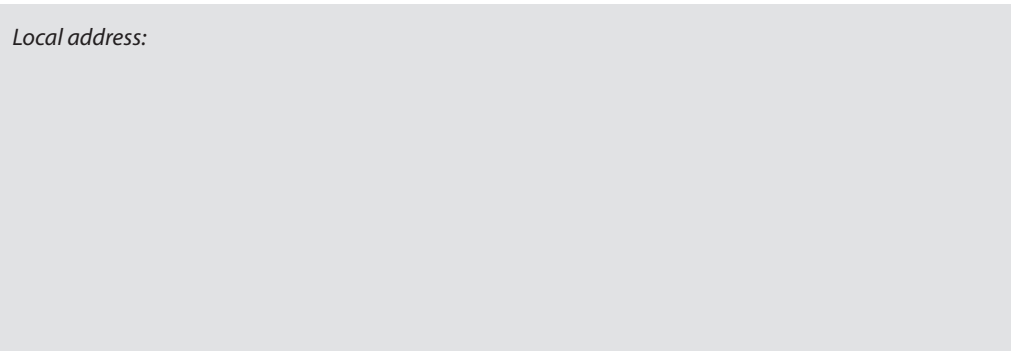
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