

ENGINEERING
TOMORROW



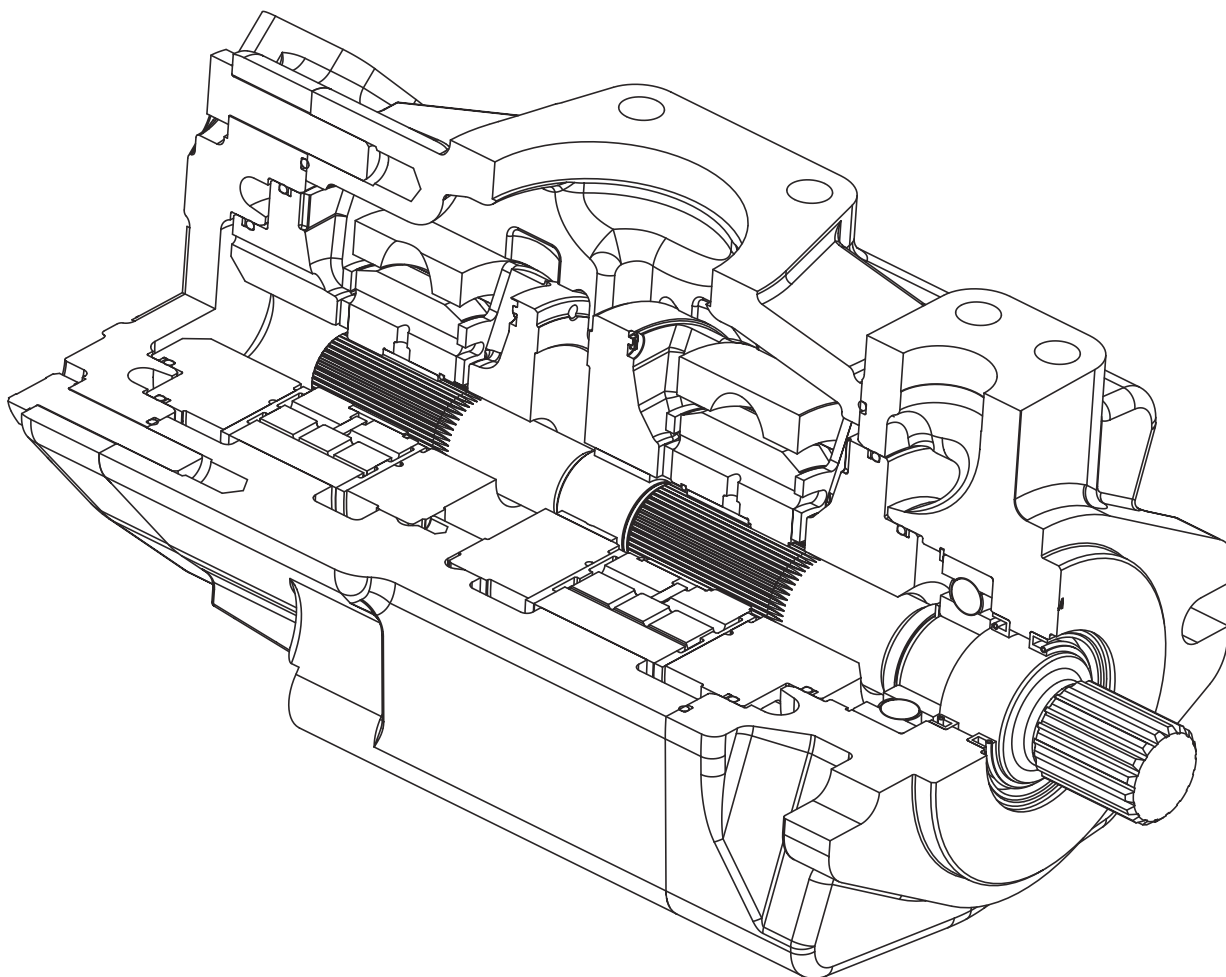
Vickers® by Danfoss

**High Pressure, High Performance
Double Vane Pumps**

Parts and Service Manual

AX438767758865en-000101

VMQ24535S Series
– 32 Design



VICKERS®

High Pressure,
High Performance
Double Vane Pump
VMQ24535S Series
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Note Lubricate all parts and seals with a thin coat of oil at assembly.

- Included in Cartridge Kit (see table 1)
- ▲ 02-334562 STD Seal Kit, Single Shaft Seal or 02-334563 VitonSeal Kit, Single Shaft Seal.
- △ 02-334645 STD Seal Kit, Double Shaft Seal or 02-334646 VitonSeal Kit, Double Shaft Seal.
- * With double and triple pumps, the orientation of the kits is such that the kit rotation is a reverse of the pump rotation. See tables X1 and X2 for the correct kit rotation relative to the pump rotation.

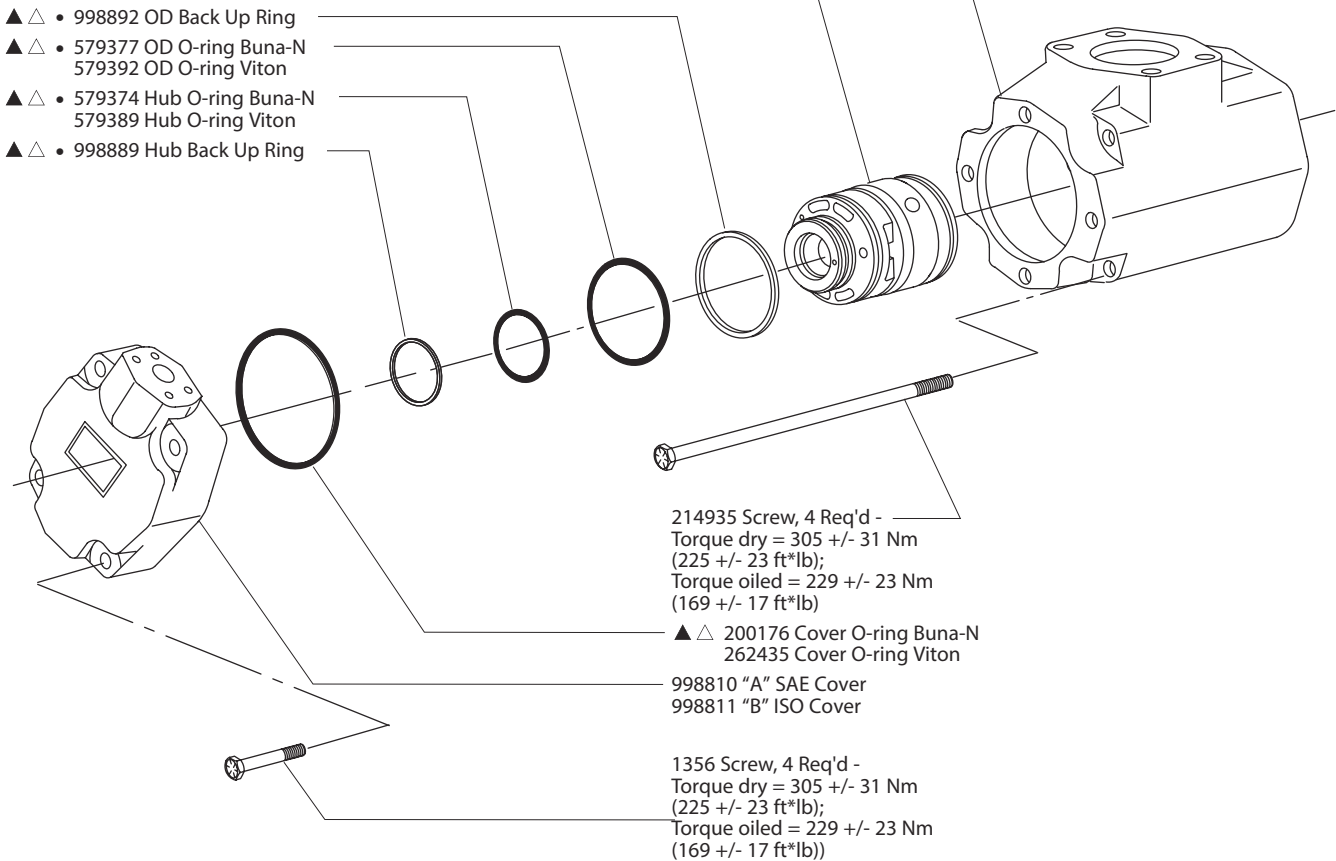


TABLE X1

Cartridge Kit Rotation for Right Hand Rotation Pump

R= Right Hand Rotation		L=Left Hand Rotation	
PUMP ROTATION	SHAFT END KIT ROTATION	CENTER KIT ROTATION	COVER END KIT ROTATION
Double (R)	(R)	-	(L)

*Notes: - A right hand rotation pump has the shaft turning clockwise when viewed from the input shaft end
- When ordering a right hand rotation kit, the part number will not have a suffix.

TABLE X2

Cartridge Kit Rotation for Left Hand Rotation Pump

R= Right Hand Rotation		L=Left Hand Rotation	
PUMP ROTATION	SHAFT END KIT ROTATION	CENTER KIT ROTATION	COVER END KIT ROTATION
Double (L)	(L)	-	(R)

*Notes: - A left hand rotation pump has the shaft turning counterclockwise when viewed from the input shaft end
- When ordering a left hand rotation kit, the part number will have a suffix of '-L'

▲ △ • 998890 Hub Back Up Ring

▲ △ • 579375 Hub O-ring Buna-N
579390 Hub O-ring Viton

▲ △ • 579385 OD O-ring Buna-N
579398 OD O-ring Viton

▲ △ • 998893 OD Back Up Ring

Cartridge Kit (see table 4)

Outlet Body (see table 3)

△ 913981 Shaft Seal Viton
(double shaft seal only)

Key (see table 2)

▲ △ 200181 Body O-ring Buna-N
262440 Body O-ring Viton

209890 Internal Spiralox

117507 External Snap Ring

1738 Bearing

▲ △ 197412 Shaft Seal Buna-N
913981 Shaft Seal Viton

Shaft (see table 2)

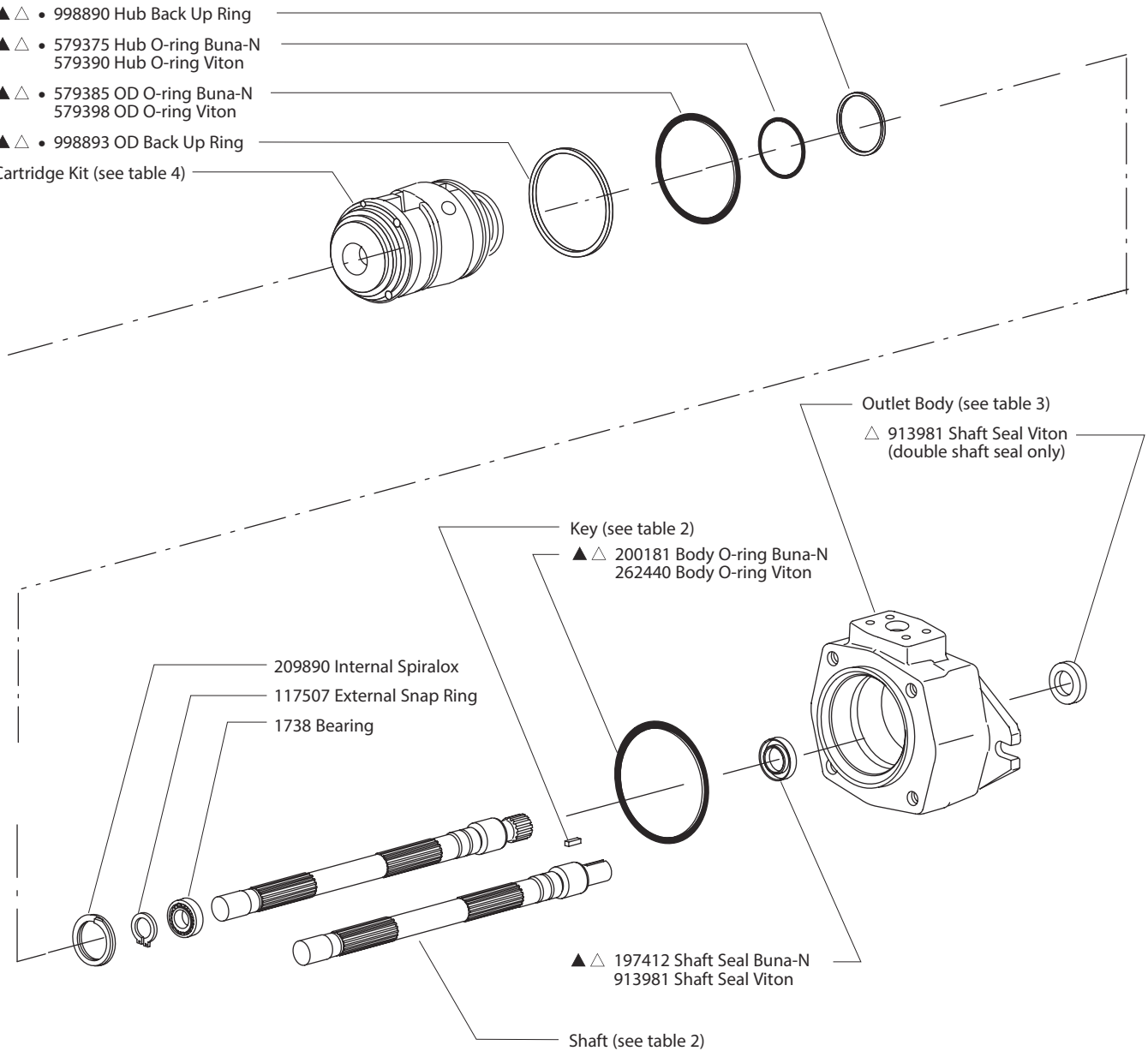


TABLE 1

MODEL CODE COVER END	* • CARTRIDGE KIT (BUNA-N)	* • CARTRIDGE KIT (VITON®)
VMQ24535S***090	02-465685	02-465692
VMQ24535S***100	02-465686	02-465693
VMQ24535S***112	02-465687	02-465694
VMQ24535S***125	02-465688	02-465695
VMQ24535S***135	02-465689	02-465696
VMQ24535S***140	02-465690	02-465697
VMQ24535S***158	02-465691	02-465698

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TABLE 2

MODEL CODE	30TH DESIGN SHAFT	31ST & 32ND DESIGN SHAFT	KEY
VMQ24535S-***-***-**-01	934220	4993358-001	928542
VMQ24535S-***-***-**-02	934221	4993359-001	—
VMQ24535S-***-***-**-03	934222	4993360-001	928547
VMQ24535S-***-***-**-04	—	—	—
VMQ24535S-***-***-**-05	934223	4993361-001	928543
VMQ24535S-***-***-**-06	934224	4993362-001	—
VMQ24535S-***-***-**-09	937225	4993374-001	—

TABLE 3

OUTLET BODY				
Flange Mounting Style	Single Shaft Seal Inch Port Threads	Metric Port Threads	Double Shaft Seal Inch Port Threads	Metric Port Threads
SAE B	4993341-001	4993342-001	4993343-001	4993344-001
ISO 100	—	4993346-001	—	4993345-001

TABLE 4

MODEL CODE SHAFT END	* • CARTRIDGE KIT (BUNA-N)	* • CARTRIDGE KIT (VITON®)
VMQ24535S140***	02-346970	02-346971
VMQ24535S160***	02-346968	02-346969
VMQ24535S180***	02-346966	02-346967
VMQ24535S195***	02-346964	02-346965
VMQ24535S215***	02-346962	02-346963

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VMQ2  **  **  S  ***  ***  *  0  **  00  *  *  *  *  *  *  *  *  00  *  0  32
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1 2 3 4 Series designation		16 Front flange mounting style		20 21 Output shaft coupling		27 Shaft Seal	
VMQ2 – Vane pump double series		B – SAE C 2-bolt 127,00 (5.000) x 12,4 (0.49) pilot 17,6 (0.69) slots on 181,0 (7.13) bolt circle		00 – None (standard double pump)		A – Single, primary B – Double, secondary (spring side out) Recommended for wet mount applications	
5 6 Frame size (front section)		D – ISO 3019/2 125A2HW 2-bolt 125,00 (4.921) x 9,2 (0.36) pilot 18,1 (0.71) slots on 180,0 (7.09) bolt circle		22 Inlet port type		28 Seal Type	
45 – 140-215 cm ³ /r (8.54-13.12 in ³ /r)				A – SAE J518 4-split flange B – ISO 6162 4-bolt flange		N – Buna-N V – Viton W – Buna-N with Viton shaft seal(s)	
7 8 Frame size (rear section)				23 Front outlet port type		29 Shaft rotation	
35 – 90-158 cm ³ /r (5.49-9.64 in ³ /r)				A – SAE J518 4-bolt flange B – ISO 6162 4-bolt flange		Viewed from shaft end of pump L – Left Hand (CCW) R – Right Hand (CW)	
9 Pump type		17 Adapter flange		24 Rear outlet port type		30 31 Special features	
S – Standard		0 – None (standard double pump)		A – SAE J518 4-bolt flange B – ISO 6162 4-bolt flange		00 – None	
10 11 12 Displacement (front section)		18 19 Input shaft type*		25 Front outlet port position		32 Paint	
Frame size 45 140 – 140 cm ³ /r (8.54 in ³ /r) 160 – 160 cm ³ /r (9.76 in ³ /r) 180 – 180 cm ³ /r (10.98 in ³ /r) 195 – 195 cm ³ /r (11.89 in ³ /r) 215 – 215 cm ³ /r (13.12 in ³ /r)		01 – SAE J744 keyed Frame size 45: 38,10 (1.500)		Viewed from cover end of pump A – Opposite inlet port B – 90° CCW to inlet port C – In-Line with front inlet port D – 90° CW to inlet port		O – None A – Blue	
13 14 15 Displacement (rear section)		02 – SAE J744 splined Frame size 45: C-C		26 Rear outlet port position		33 Customer identification	
Frame size 35 090 – 90 cm ³ /r (5.49 in ³ /r) 100 – 100 cm ³ /r (6.10 in ³ /r) 112 – 112 cm ³ /r (6.83 in ³ /r) 125 – 125 cm ³ /r (7.63 in ³ /r) 135 – 135 cm ³ /r (8.24 in ³ /r) 140 – 140 cm ³ /r (8.54 in ³ /r) 158 – 158 cm ³ /r (9.64 in ³ /r)		03 – ISO 3019/2 keyed Frame size 45: 40,00 (1.575)		Viewed from cover end of pump A – 135° CCW to inlet port B – 45° CCW to inlet port C – 45° CW to inlet port D – 135° CW to inlet port		O – None	
		05 – SAE J744 keyed Frame size 45: 44,45 (1.750)				34 35 Design code	
		06 – SAE J744 splined Frame size 45: D				32 – 32 design Installation dimensions remain unchanged for design numbers 30 to 39 inclusive.	
		09 – SAE J744 Spline Frame size 45: C					

* Verify shaft torque ratings meet or exceed input torque requirements

Products we offer:

- Cartridge valves
- DCV directional control valves
- Electric converters
- Electric machines
- Electric motors
- Gear motors
- Gear pumps
- Hydraulic integrated circuits (HICs)
- Hydrostatic motors
- Hydrostatic pumps
- Orbital motors
- PLUS+1® controllers
- PLUS+1® displays
- PLUS+1® joysticks and pedals
- PLUS+1® operator interfaces
- PLUS+1® sensors
- PLUS+1® software
- PLUS+1® software services, support and training
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- PVG proportional valves
- Steering components and systems
- Telematics

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