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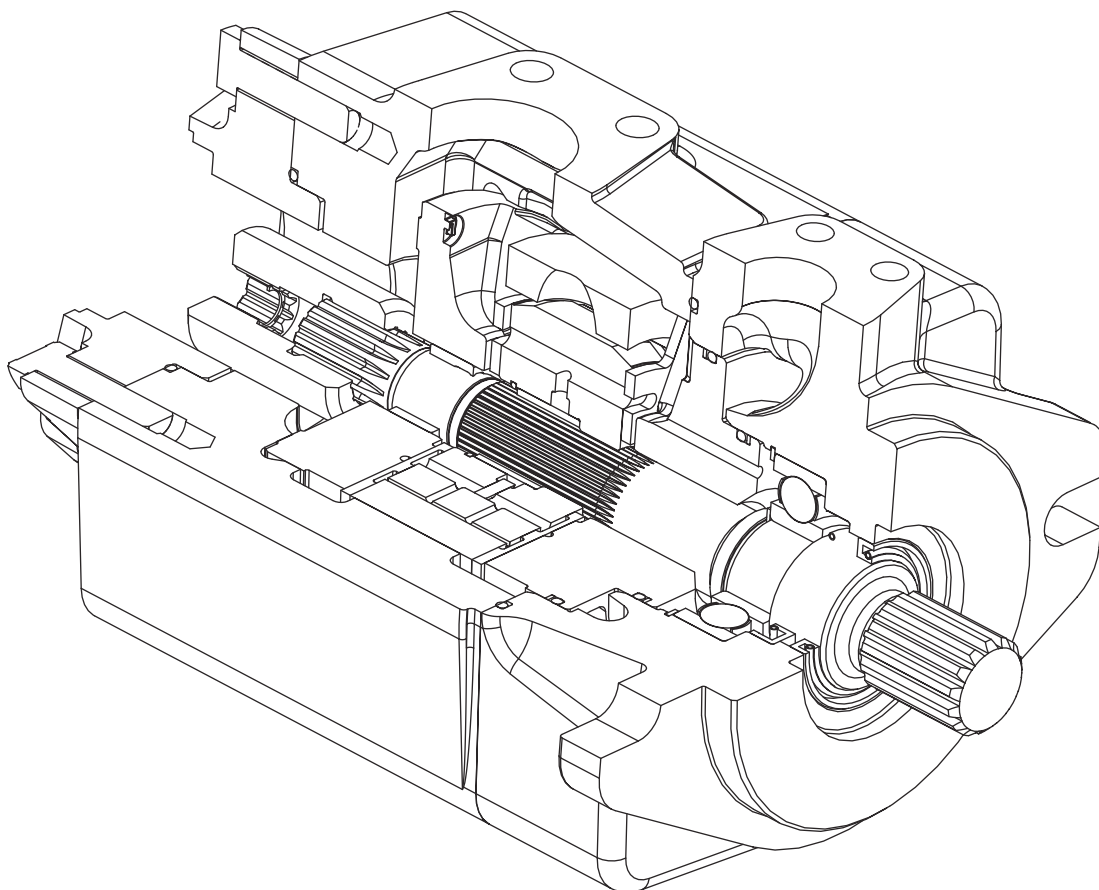
Vickers[®] by Danfoss

High Pressure, High Performance Vane Pumps

Parts and Service Manual

AX438767534860en-000101

VMQ145T Series
– 32 Design



VICKERS[®]

Note Lubricate all parts and seals with a thin coat of oil at assembly.

- Included in Cartridge Kit (see table 4)
- ▲ Included in 02-334700 Buna-N Seal Kit, Single Shaft Seal or 02-334701 VitonSeal Kit, Single Shaft Seal.
- △ Included in 02-334702 Buna-N Seal Kit, Double Shaft Seal or 02-334703 VitonSeal Kit, Double Shaft Seal.
- * See Table X1 and X2 for Kit Rotation Information

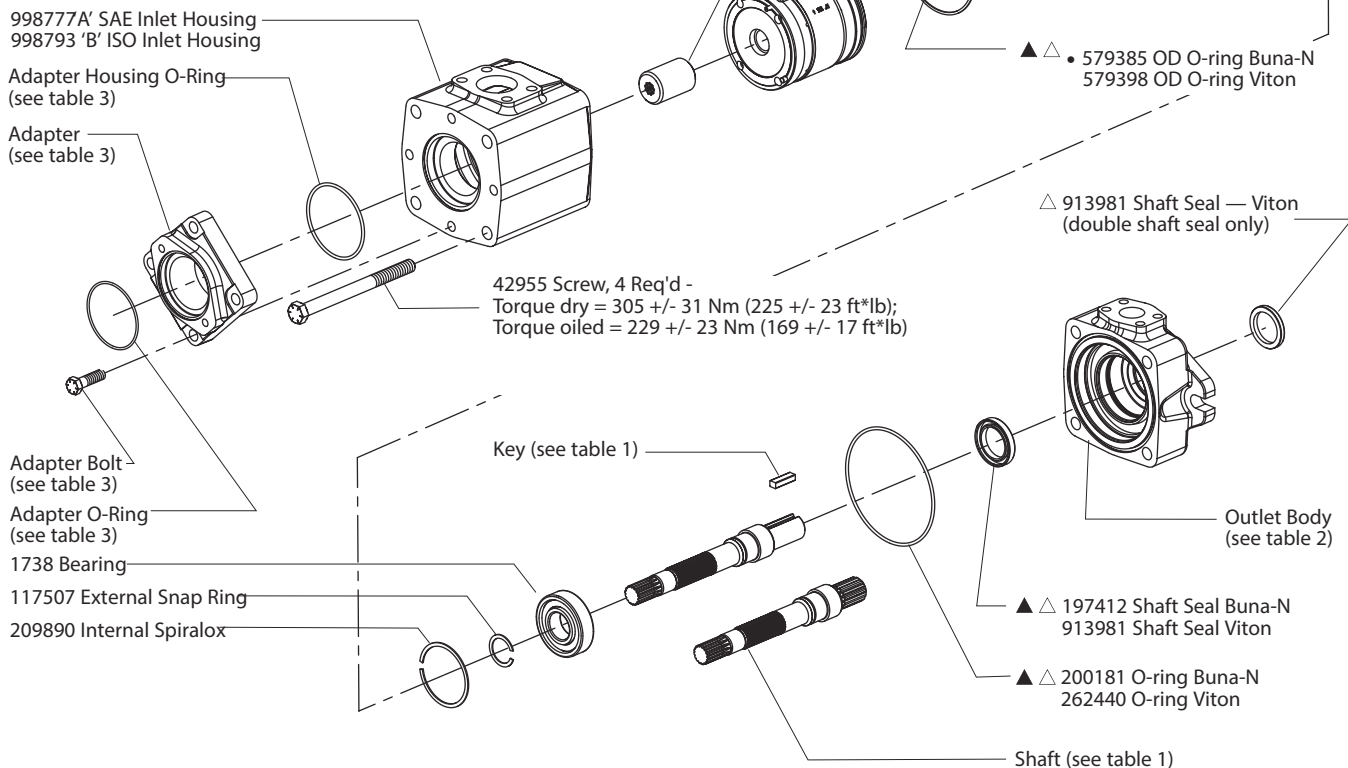


TABLE X1

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
Single & Thru (R)	(R)	-	-

- *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
Single & Thru (L)	(L)	-	-

- *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'

TABLE 3

MODEL CODE THRU DRIVE COMPONENTS	OUTLET SPLINE SIZE	ADAPTER MOUNTING		ADAPTER/ HOUSING O-RING			MOUNTING PAD O-RING		COUPLING DRY	ADAPTER BOLT TORQUE NM (FT .LB)		
		PAD SIZE	ADAPTER	BUNA N	VITON	BUNA N	VITON	ASSEMBLY		OILED		
VMQ145T-***-***-16	SAE A	SAE A	937081	200159	262418	353409	576601	02-315059	1315	153±16 (113±11)	115±12 (85±9)	
VMQ145T-***-***-22	SAE B	SAE B	998588	200159	262418	375422	401525	02-315058	1315	153±16 (113±11)	115±12 (85±9)	
VMQ145T-***-***-25	SAE B-B	SAE B	998588	200159	262418	375422	401525	02-315057	1315	153±16 (113±11)	115±12 (85±9)	
VMQ145T-***-***-32	SAE C	SAE C	998589	200159	262418	312092	353264	02-315056	298168	305±31(225±23)(169±17)	115±12 (85±9)	

TABLE 1

MODEL CODE	30TH DESIGN SHAFT	31ST & 32ND DESIGN SHAFT	KEY
VMQ145T-***-***-01	937122	4993368-001	928542
VMQ145T-***-***-02	937123	4993369-001	—
VMQ145T-***-***-03	937124	4993370-001	928547
VMQ145T-***-***-04	—	—	928565
VMQ145T-***-***-05	937125	4993371-001	928543
VMQ145T-***-***-06	937126	4993372-001	—

TABLE 2

OUTLET BODY				
Flange Mounting Style	SINGLE SHAFT SEAL Inch Port Threads	Metric Port Threads	DOUBLE SHAFT SEAL Inch Port Threads	Metric Port Threads
SAE C	4993341-001	4993342-001	4993343-001	4993344-001
ISO 125	—	4993346-001	—	4993345-001

TABLE 4

MODEL CODE	* • CARTRIDGE KIT (BUNA-N)	* • CARTRIDGE KIT (VITON ')
VMQ145*140	02-346970	02-346971
VMQ145*160	02-346968	02-346969
VMQ145*180	02-346966	02-346967
VMQ145*195	02-346964	02-346965
VMQ145*215	02-346962	02-346963

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VMQ1  ** * *** * * ** ** * * * * * 00 * 0 32
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1 2 3 4	Series designation	12	Rear mounting flange and orientation	15 16	Output shaft coupling	21	Seal type
VMQ1 – Vane pump single series			Viewed from adapter end of pump	Thru-drive units, model code		N – Buna N	
5 6	Frame size			7 = T		V – Viton	
45 –	140-215 cm ³ /r (8.54-13.12 in ³ /r)	SAE A		16 –	SAE J744 16-4 A-spline shaft	W – Buna N with Viton shaft seal(s)	
7	Pump type	A –	In-line with mounting flange	22 –	SAE J744 22-4 B-spline shaft		
T –	Thru-drive (Options at model codes 12 and 15 16 must be specified for thru-drive units)	B –	90° to mounting flange	25 –	SAE J744 25-4 B-B-spline shaft		
		SAE B		32 –	SAE J744 32-4 C-spline shaft (frame sizes 35 & 45 only)		
8 9 10	Displacement	E –	In-line with mounting flange				
Frame size 45		F –	90° to mounting flange	17	Inlet port type	23 24	Special features
140 –	140 cm ³ /r (8.54 in ³ /r)	SAE C		A –	SAE J518 4-bolt split flange	00 –	None
160 –	160 cm ³ /r (9.76 in ³ /r)	L –	45° CCW to mounting flange	B –	ISO 6162 4-bolt split flange	25	Paint
180 –	180 cm ³ /r (10.98 in ³ /r)	M –	45° CW to mounting flange			0 –	None
195 –	195 cm ³ /r (11.89 in ³ /r)			18	Outlet port type	A –	Blue
215 –	215 cm ³ /r (13.12 in ³ /r)			B –	ISO 6162 4-bolt flange		
11	Front flange mounting style	13 14	Input shaft type*	19	Outlet port position	26	Customer identification
B –	SAE C 2-bolt	01 –	SAE J744 keyed		Viewed from adapter end of pump	0 –	None
	127,00 (5.000) x 12,4 (0.49) pilot		Frame size 45:	A –	Opposite inlet port	27 28	Design code
	17,6 (0.69) slots on	02 –	SAE J744 splined	B –	90° CCW to inlet port	32 –	32 design
	181,0 (7.13) bolt circle		Frame size 45:	C –	In-line with inlet port		Installation dimensions remain unchanged for design numbers 30 to 39 inclusive.
D –	ISO 3019/2 125A2HW 2-bolt	03 –	ISO 3019/2 keyed	D –	90° CW to inlet port		
	125,00 (4.921) x 9,2 (0.36) pilot		Frame size 45:				
	18,1 (0.71) slots on	05 –	SAE J744 keyed				
	180,0 (7.09) bolt circle		Frame size 45:	20	Shaft seal		
		06 –	SAE J744 splined	A –	Single, primary		
			Frame size 45: D	B –	Double, secondary (spring side out) Recommended for wet mount applications		
		09 –	SAE J744 splined				
			Frame size 45: C (Not available on thru-drive units)				

* Verify shaft torque ratings meet or exceed input torque requirements

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