

Service Data

Vickers®  
**Steering**

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# Power Steering Pump

VTM27/28/42 Series -14 Design



Revised 04/01/97

M-2052-S

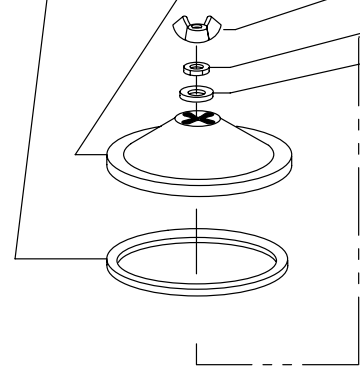
Gasket	Cover S/A	Wing Nut	Lock Washer	Washer	Model
291439	314269	109609	294050	233037	VTM**-**-**-07**-**-14
142521	375095			308075	VTM**-**-**-11**-**-14

**Inlet Strainer**  
(Optional parts used when "S" is indicated in model number)

199144 Screw (2 req'd) Torque to 90-100 lb. ft. (Replaces 315934)

363014 Screen S/A (Replaces 222029)

381948 Plate



**Filter Parts**

1866 Cotter Pin (Optional)

1586 Washer (Optional)

212683 Spring (Optional)

213982 Retainer (When indicated in Model Number)

213984 Filter Element (When indicated in Model Number)

Model Designation	Stud
VTM**-**-**-07**-**-14	280956
VTM**-**-**-11**-**-14	229678

315934 Screw (2 req'd) Torque to 7.5-8 lb. ft.

289283 Nut Torque to 6-8 lb. ft.

279804 Return Line Baffle

381948 Reinforcing Plate (07 Reservoir only)

222029 Baffle

**Note**  
Assemble rotor with counterbore toward body.

Model	Reservoir S/A Kit		
	Cu. In.	With Filter	Without Filter
VTM**-**-**-07**-**-14	70	923839	923837
VTM**-**-**-11**-**-14	115	923840	823838

291667 Gasket

32559 Pin

171523 Screw (4 req'd) Torque to 25-30 lb. ft.

213998 "O" Ring (See table)

174619 "O" Ring (See table)

Spring (See table)

Pressure Plate (See table)

Ring (See table)

Vane Kit (10 Vanes) (See table)

Rotor (See table)

Pin (2 req'd) (See table)

199390 "O" Ring (See table)

375094 Plug

Model Designation	Cover Sub. Assy.
VTM**-**-07**-**-14	574347
VTM**-**-15**-**-14	377547
VTM**-**-20**-**-14	377552
VTM**-**-25**-**-14	377548
VTM**-**-30**-**-14	377549
VTM**-**-35**-**-14	377555
VTM**-**-40**-**-14	377553
VTM**-**-45**-**-14	377550
VTM**-**-50**-**-14	379063
VTM**-**-55**-**-14	377554
VTM**-**-60**-**-14	379064
VTM**-**-65**-**-14	377551
VTM**-**-75**-**-14	379062

170072 Spring

Model	Control Valve S/A
VTM**-**-02	229613
VTM**-**-03	255515
VTM**-**-05	233018
VTM**-**-06	247615
VTM**-**-07	232794
VTM**-**-08	397339
VTM**-**-10	232795
VTM**-**-12	232796
VTM**-**-15	232797
VTM**-**-17	232798
VTM**-**-20	232799
VTM**-**-35	284220

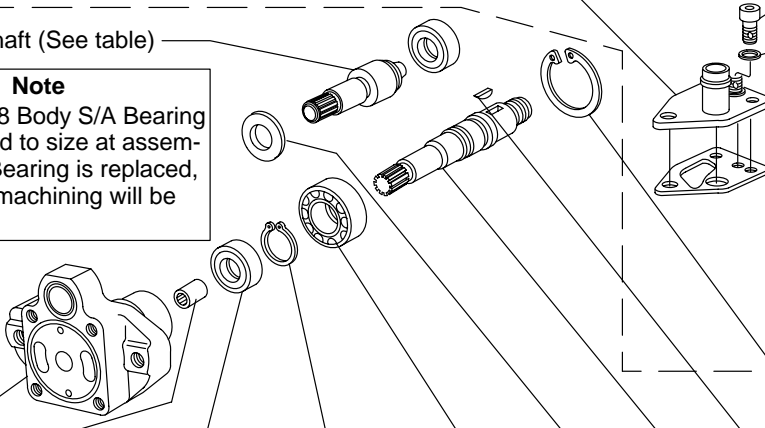
**Manifold Parts**

Model	Manifold Kit	Manifold S/A	Plug	Screw (3) Torque to 90-100 lb. in.	Washer	Gasket
VTM**-**-**-MA**-**-14	923844	280955	—	199144	28931	275260
VTM**-**-**-MB**-**-14	923845	280954				
VTM**-**-**-MD**-**-14	923846	281409	7075	315939		
VTM**-**-**-ME**-**-14	923847	275276				
VTM**-**-**-MF**-**-14	—	283905	—	199144		
VTM**-**-**-MG**-**-14		293026				
VTM**-**-**-MH**-**-14	—	292457	—	315939		
VTM**-**-**-MJ**-**-14		344082				
VTM**-**-**-MR**-**-14	—	413689	—	199144		
VTM**-**-**-MS**-**-14		—				
VTM**-**-**-NO**-**-14	—	—	—	—	—	283556

VTM 28 Shaft (See table)

**Note**

The VTM28 Body S/A Bearing is machined to size at assembly. If the Bearing is replaced, additional machining will be necessary.



- MA** - No Bypass Tube
- MB** - With Bypass Tube
- MD** - 90° Bend on Inlet Tube
- ME** - Casting W/Out Bypass Tube
- MF** - Casting with Bypass Tube
- MG** - No Bypass Swivel Coupling
- MH** - 90° Bend on Inlet Tube
- MJ** - Casting w/Out Bypass Tube
- MR** - 90° Bend on Inlet & Bypass Tube
- MS** - 90° Bend on Inlet Tube
- NO** - No Manifold

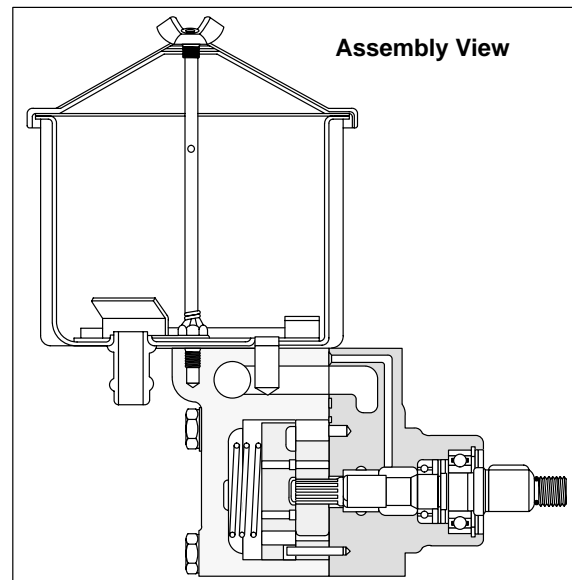
Body S/A Kit (Includes Ball & Bearing)	Bearing	Shaft Seal	Retaining Ring	Bearing	Washer	#1 Shaft	Key	Retaining Ring	Model
923951	222440	▲ 263585	193732	148423	—	250455	1606	172376	VTM27/42 Series
308048	184408	△ 188323	—	—	307569	307597	—	—	VTM28 Series

Spring	Pressure Plate	Pin (2 req'd)	Ring	Vane Kit (10 Vanes)	Rotor	Cartridge Kit	Model Designation	
289281	276396	217308	296594	912139	213860	923087	VTM**-10**-**-**-14	
			296595			923088	VTM**-15**-**-**-14	
			296596			923089	VTM**-20**-**-**-14	
245507		154364	—	296597	922594	213859	923090	VTM**-40**-**-**-14
				296598			923091	VTM**-50**-**-**-14
				296599			923092	VTM**-60**-**-**-14

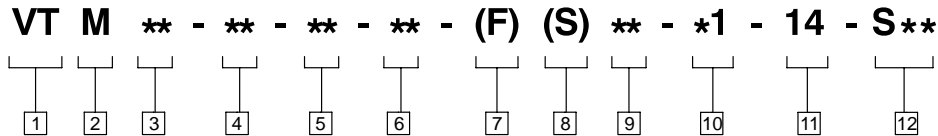
△ Included in 923086 VTM28 Seal Kit

▲ Included in VTM27 & VTM42 Seal Kit 922904

See **Overhaul Manual M-2050-S** for maintenance information.



# Model Code



**1 Vane Type**

**2 Mobil Application**

**Series**

27  
28  
42

**3 Capacity**

10 - 1.0 US GPM  
15 - 1.5 US GPM  
20 - 2.0 US GPM  
40 - 4.0 US GPM  
50 - 5.0 US GPM  
60 - 6.0 US GPM

**4 Controlled Flow  
(1500 RPM @ 100 PSI)**

07 - 0.7 US GPM  
15 - 1.5 US GPM  
20 - 2.0 US GPM  
25 - 2.5 US GPM  
30 - 3.0 US GPM  
35 - 3.5 US GPM  
40 - 4.0 US GPM  
45 - 4.5 US GPM  
50 - 5.0 US GPM  
55 - 5.5 US GPM  
60 - 6.0 US GPM  
65 - 6.5 US GPM  
75 - 7.5 US GPM

**5 Relief Valve Setting**

02 - 250 PSI  
03 - 300 PSI  
05 - 500 PSI  
07 - 750 PSI  
08 - 850 PSI  
10 - 1000 PSI  
12 - 1250 PSI  
15 - 1500 PSI  
17 - 1750 PSI  
20 - 2000 PSI  
35 - 3500 PSI

**6 Filter Parts**

**7 Inlet Screen**

**8 Reservoir or Manifold**

07 - 70 Cu. In. Reservoir  
11 - 115 Cu. In. Reservoir  
MA - Manifold with no bypass tube  
MB - Manifold with bypass tube  
MD - Manifold - 90° bend on inlet tube  
ME - Cast manifold with no bypass tube  
MF - Cast manifold with bypass tube  
MG - Manifold - no bypass swivel coupling  
MH - Manifold - 90° bend on inlet tube  
MJ - Cast manifold with no bypass tube  
MR - Manifold - 90° bend on inlet and bypass tube  
MS - Manifold - 90° bend on inlet tube  
NO - Shipping closure

**9 Pump Rotation**

(Viewed from Shaft End)

R - Clockwise  
L - Counterclockwise

**10 Shaft No. 1**

**11 Design**

**12 Special Features**

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 18/15 or cleaner. Selections from Eaton OFP, OFR, and OFRS series are recommended.