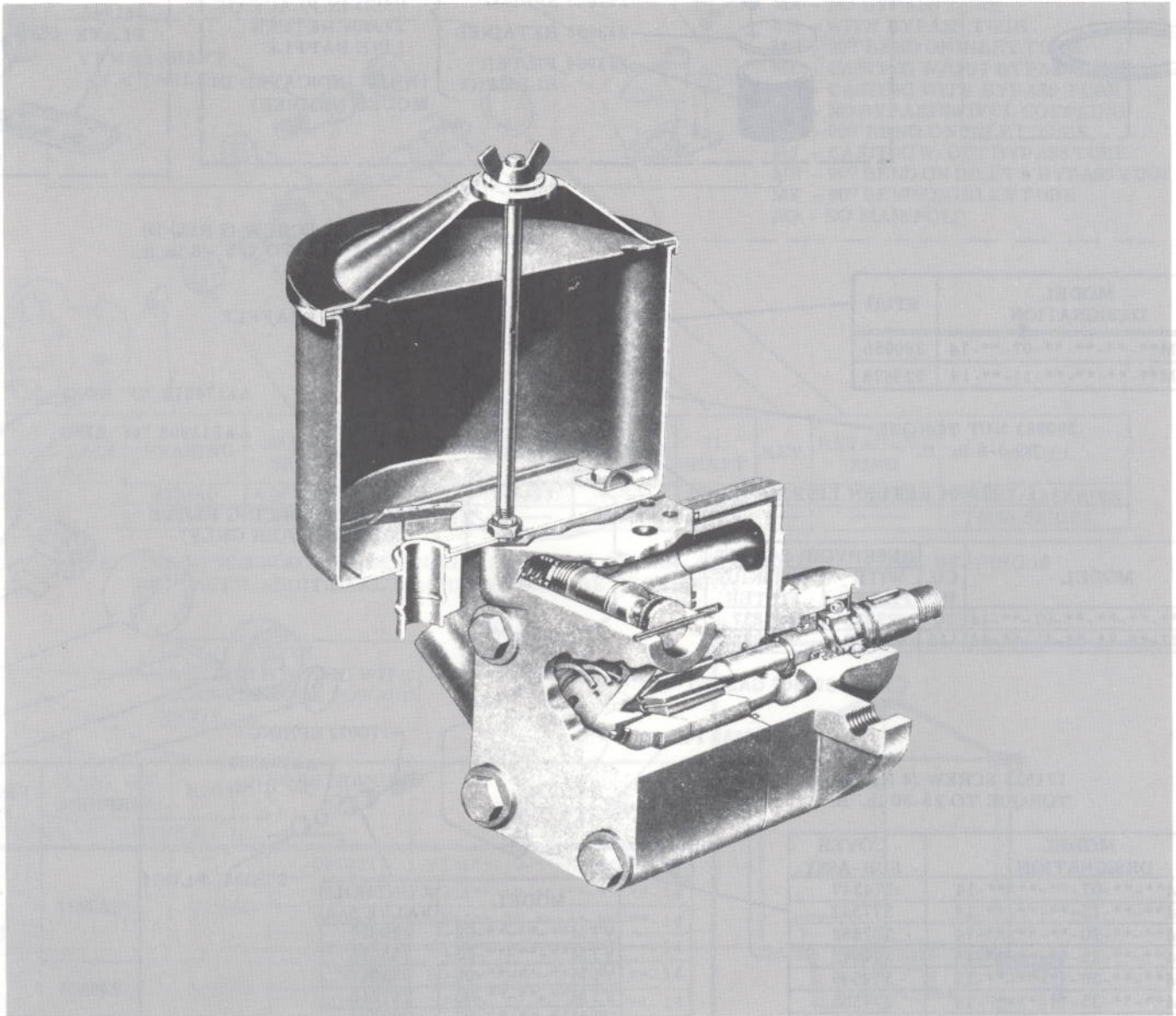


# Power Steering Pump

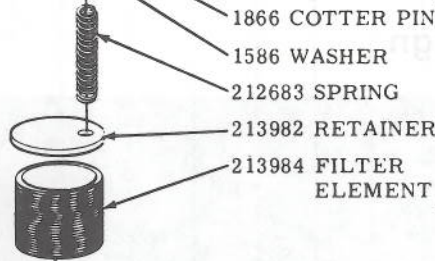
VTM27/28/42 Series -14 Design



Vickers Incorporated  
A TRINOVA Company  
5445 Corporate Drive  
P. O. Box 302  
Troy, Michigan 48007-0302  
U.S.A.

| GASKET | COVER S/A | WING NUT | LOCK WASHER | WASHER | MODEL               |
|--------|-----------|----------|-------------|--------|---------------------|
| 291439 | 314269    | 109609   | 294050      | 233037 | VTM**-**-**-07**-14 |
| 142521 | 375095    |          |             | 308075 | VTM**-**-**-11**-14 |

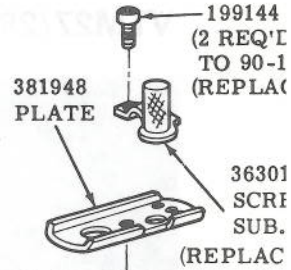
### FILTER PARTS



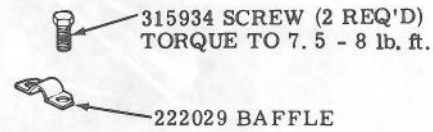
(OPTIONAL)  
USED IN PLACE OF  
279804 RETURN  
LINE BAFFLE  
(WHEN INDICATED IN  
MODEL NUMBER)

### INLET STRAIN

(OPTIONAL PARTS USE  
"S" IS INDICATED IN  
NUMBER)



| MODEL DESIGNATION   | STUD   |
|---------------------|--------|
| VTM**-**-**-07**-14 | 280956 |
| VTM**-**-**-11**-14 | 229678 |



289283 NUT TORQUE  
TO 6-8 lb. ft.

279804 RETURN LINE BAFFLE

| MODEL               | CU. IN. | RESERVOIR S/A KIT |                |
|---------------------|---------|-------------------|----------------|
|                     |         | WITH FILTER       | WITHOUT FILTER |
| VTM**-**-**-07**-14 | 70      | 923839            | 923837         |
| VTM**-**-**-11**-14 | 115     | 923840            | 923838         |

▲▲291667 GASKET

171523 SCREW (4 REQ'D)  
TORQUE TO 25-30 lb. ft.

32559 PIN

381948 REINFORCING PLATE  
(07 RESERVOIR ONLY)

▲▲174619 "O" RING  
▲▲213998 "O" RING

170072 SPRING

▲▲199390 "O" RING

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          |

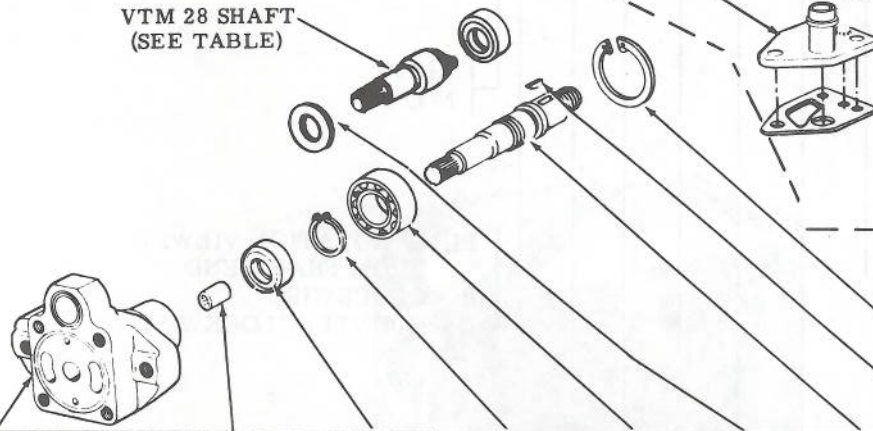
| MODEL        | CONTROL VALVE S/A |
|--------------|-------------------|
| VTM**-**-02- | 229613            |
| VTM**-**-03- | 255515            |
| VTM**-**-05- | 233018            |
| VTM**-**-06- | 247615            |
| VTM**-**-07- | 232794            |
| VTM**-**-08- | 397339            |
| VTM**-**-10-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

| SPRING | PRESSURE PLATE |
|--------|----------------|
| 289281 | 276396         |
| 245507 |                |

# MANIFOLD PARTS

| MODEL                     | MANIFOLD KIT | MANIFOLD S/A | PLUG | WASHER | SCREW (3)<br>TORQUE TO<br>90-100 lb.in. | GASKET |
|---------------------------|--------------|--------------|------|--------|---|--------|
| VTM**-**-**-**--MA--**-14 | 923844       | 280955       |      |        |   |        |
| VTM**-**-**-**--MB--**-14 | 923845       | 280954       | —    |        | 199144                                  | 275260 |
| VTM**-**-**-**--MD--**-14 | 923846       | 281409       |      |        |   |        |
| VTM**-**-**-**--ME--**-14 | 923847       | 275276       | 7075 |        | 315939                                  | 283556 |
| VTM**-**-**-**--MF--**-14 |              | 283905       |      | 28931  |   |        |
| VTM**-**-**-**--MG--**-14 |              | 293026       |      |        | 199144                                  | 275260 |
| VTM**-**-**-**--MH--**-14 |              | 292457       |      |        | 315939                                  | 292458 |
| VTM**-**-**-**--MJ--**-14 |              | 344082       |      |        |   | 344086 |
| VTM**-**-**-**--MR--**-14 |              | 413689       |      |        | 199144                                  | 275260 |
| VTM**-**-**-**--MS--**-14 |              |              |      |        |   | 283556 |
| VTM**-**-**-**--NO--**-14 |              |              |      |        |   |        |

VTM 28 SHAFT  
(SEE TABLE)



- 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<br>(INCLUDES BALL<br>& BEARING) | BEARING | SHAFT<br>SEAL | RETAINING<br>RING | BEARING | WASHER | #1<br>SHAFT | KEY  | RETAINING<br>RING | MODEL           |
|--|---------|---------------|-------------------|---------|--------|-------------|------|-------------------|-----------------|
| 923951                                       | 222440  | ▲ 263585      | 193732            | 148423  | —      | 250455      | 1606 | 172376            | VTM27/42 SERIES |
| 308048                                       | 184408  | Δ 188323      | —                 | —       | 307569 | 307597      | —    | —                 | VTM28 SERIES    |

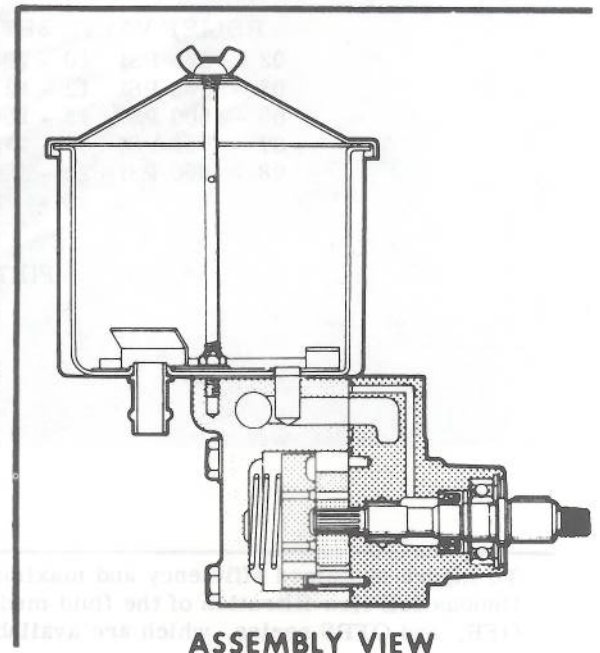
NOTE: THE VTM28 BODY S/A BEARING IS MACHINED TO SIZE AT ASSEMBLY. IF THE BEARING IS REPLACED, ADDITIONAL MACHINING WILL BE NECESSARY.

NOTE  
ASSEMBLE ROTOR WITH  
COUNTER BORE TOWARD  
BODY

| RING   | VANE KIT<br>(10 VANES) | ROTOR  | CARTRIDGE<br>KIT | MODEL<br>DESIGNATION |
|--------|------------------------|--------|------------------|----------------------|
| 296594 | 912139                 | 213860 | 923087           | VTM**-10-**-**-**-14 |
| 296595 |                        |        | 923088           | VTM**-15-**-**-**-14 |
| 296596 |                        |        | 923089           | VTM**-20-**-**-**-14 |
| 296597 |                        |        | 923090           | VTM**-40-**-**-**-14 |
| 296598 | 922594                 | 213859 | 923091           | VTM**-50-**-**-**-14 |
| 296599 |                        |        | 923092           | VTM**-60-**-**-**-14 |

Δ INCLUDED  
IN 923086 VTM28  
SEAL KIT.

▲ INCLUDED IN  
VTM27 & VTM42  
SEAL KIT 922904



ASSEMBLY VIEW

# MODEL CODE BREAKDOWN

VTM \*\*. \*\*. \*\*. \*\*. (F) (S) \*\*. \*1-14-S\*\*

VANE TYPE |

MOBILE APPLICATION |

SERIES |

27  
28  
42

CAPACITY |

10 - 1.0 US G. P. M.  
15 - 1.5 US G. P. M.  
20 - 2.0 US G. P. M.  
40 - 4.0 US G. P. M.  
50 - 5.0 US G. P. M.  
60 - 6.0 US G. P. M.

CONTROLLED FLOW (1500 RPM @ 100 PSI) |

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

RELIEF VALVE SETTING |

|              |               |
|--------------|---------------|
| 02 - 250 PSI | 10 - 1000 PSI |
| 03 - 300 PSI | 12 - 1250 PSI |
| 05 - 500 PSI | 15 - 1500 PSI |
| 07 - 750 PSI | 17 - 1750 PSI |
| 08 - 850 PSI | 20 - 2000 PSI |
|              | 35 - 350 PSI  |

FILTER PARTS |

INLET SCREEN |

SPECIAL FEATURES

DESIGN

SHAFT NO. 1

PUMP ROTATION VIEWED FROM SHAFT END  
R - CLOCKWISE  
L - COUNTERCLOCKWISE

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° ON INLET TUBE  
MJ - CAST MANIFOLD - NO BYPASS TUBE  
MR - MANIFOLD - 90° BEND ON INLET AND BYPASS TUBE  
MS - MANIFOLD - 90° BEND ON INLET TUBE  
NO - SHIPPING CLOSURE

To insure sustained efficiency and maximum trouble free life of this precision equipment, initial and continuous full flow filtration of the fluid medium is essential. Select and apply filters from the Vickers OFP, OFR, and OFRS series, which are available in 3, 10, and 25 micrometre filtration ratings.

Litho in U. S. A.