Single Vane Type Pump

20V-**A(F)-**-22-*
# Vane Type Single Pumps

## Service Data

### 20V—**A(F)—**—22—*

<table>
<thead>
<tr>
<th>Model</th>
<th>Outlet Plate S/A</th>
<th>Rotor</th>
<th>Vane Kit</th>
<th>Inlet Plate</th>
<th>Ring</th>
<th>Cart Kit</th>
<th>F3 Cart Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>20V5</td>
<td>451453</td>
<td>402690</td>
<td>02-136720</td>
<td>584383</td>
<td>333624</td>
<td>02-102518</td>
<td>02-102523</td>
</tr>
<tr>
<td>20V8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>333825</td>
<td>02-102519</td>
<td>02-102524</td>
</tr>
<tr>
<td>20V11</td>
<td></td>
<td>403539</td>
<td></td>
<td></td>
<td>333626</td>
<td>02-102520</td>
<td>02-102525</td>
</tr>
<tr>
<td>20V12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>353901</td>
<td>02-102521</td>
<td>02-102526</td>
</tr>
<tr>
<td>20V14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>353902</td>
<td>02-102522</td>
<td>02-102527</td>
</tr>
</tbody>
</table>

### Notes:
- **●** 154026 "O" Ring
- **●** 588506 Back-up Ring
- Outlet Cover (See Table)
- 1296 Bolt (4 Req’d)
- Oil & Torque 54—68 N.m. (40—50 lb. ft.)
- **●** 154909 “O” Ring
- **●** 419672 Sealing Ring
- **△** 394976 Shaft Seal
- 370084 Washer
- Key (See Table)
- 1704 Bearing
- 98653 Retaining Ring
- 109975 Lock Ring
- **△** 199491 Foot Bracket (Optional)

### Assemble:
- Assemble seal with spring loaded sealing member towards bearing. Seals to be completely wetted with oil prior to assembly.
- ⚠️ Install 419672 sealing ring into body, then install cartridge kit.

### Models:
- **Model** | **Outlet Cover** | **Body S/A** | **Included Cartridge Kit** | **Included Seal Kit** | **Included Foot Bracket Kit**
- 20V**A**  | 250824          | 02-102335    | Included in cartridge kit  | F3 equivalent seal kit 981322 | Included in foot bracket kit FB-B-10
- 20V**C**  | 252504          | 02-102335    | Included in cartridge kit  |                        | Included in foot bracket kit FB-B-10

---

Rev. 11/97

I—3195—S
Model Code

(F3) - 20V - * * A (F) - * * - 22 - *

1 Special seals

2 Series designation
20V — 18 to 36 cm³/r (1.1 to 2.2 in³/r)

3 Geometric displacement
(Rated capacity (USgpm) at
1200 rpm, 6.9 bar (100 psi)

<table>
<thead>
<tr>
<th>Code</th>
<th>cm³/r</th>
<th>in³/r</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>18</td>
<td>1.10</td>
</tr>
<tr>
<td>8</td>
<td>27</td>
<td>1.67</td>
</tr>
<tr>
<td>11</td>
<td>36</td>
<td>2.22</td>
</tr>
<tr>
<td>12</td>
<td>40</td>
<td>2.47</td>
</tr>
<tr>
<td>14</td>
<td>45</td>
<td>2.78</td>
</tr>
</tbody>
</table>

4 Port connections

<table>
<thead>
<tr>
<th>Code</th>
<th>Inlet</th>
<th>Outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4 bolt flg.</td>
<td>4 bolt flg.</td>
</tr>
<tr>
<td>C</td>
<td>4 bolt flg.</td>
<td>Str. thd.</td>
</tr>
</tbody>
</table>

5 Mounting
F — Foot mounting
Omit — Flange mounting

6 Shaft
1 — Straight keyed
151 — “B” Spline

7 Outlet positions
(Viewed from cover end of pump)
A — Opposite inlet port
B — 90° CCW from inlet
C — Inline with inlet
D — 90° CW from inlet

8 Design

9 Rotation
(Viewed from shaft end of pump)
L — Left hand for counterclockwise
R — Right hand for clockwise

NOTE
To reverse cartridge kit rotation, remove the two screws and reverse the location of the inlet support plate and outlet support plate. Re—install the two screws hand tight. Use pump cover to align all sections of the cartridge. Carefully remove the cover and tighten the screws.

NOTE
When ordering spare cartridge parts, it is recommended they be obtained in cartridge kits. Kits are assembled and tested by Vickers for either right or left hand rotation. If left hand rotation is required, it should be specified on part order by adding suffix “L” to cartridge kit number.

NOTE
For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or cleaner. OFP, OFR, and OFRS series filters are recommended.

Sharp Edges of Vane Must
Lead in Direction of Rotation

L.H. Rotation  R.H. Rotation