Double Thru-drive Vane Pumps

4525VQT Series (-20 Design)
- Wipe O. D. of seal with oil before pressing into body. Install seal with spring sealing member facing bearing. Apply grease to seal I. D. before installing shaft.

- 923954 Flex-plate Kit. Install bronze faces toward rotor.

- 283871 Rotor

- 922701 Vane Kit

- ▲ 394974 Shaft Seal
- 194878 Washer
- 913576 Shaft (A models)
- 913671 Shaft (B and BP models)
- 131812 Bearing.

- ▲ 429282 Secondary Shaft Seal. Install flush with pilot face.

- 102949 Snap Ring
- 158630 Spirolox Ring
- ▲ 588509 Back-up Ring
- ▲ 154087 “O” Ring
- ▲ 419675 Sealing Ring. Install into cover before installation of cartridge kit.
- ▲ 154107 “O” Ring
- ▲ 425510 Outlet Support Plate

- □ Included in standard seal kit. See table for standard and F3 kits.

- □ Included in cartridge kit. See table.

- ◆ Included in coupling kit. See table.

- ☆ Included in adapter kit. See table. "O" ring in adapter kit is 262413 (F3).

- ● Included in spacer kit (BP models only).

<table>
<thead>
<tr>
<th>Model</th>
<th>Inlet Body</th>
<th>Outlet Cover</th>
<th>Outlet Body S/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>4525VQT*S**A</td>
<td>370071</td>
<td>913259</td>
<td>02-136923</td>
</tr>
<tr>
<td>4525VQT*S**AM</td>
<td>875778</td>
<td>913582</td>
<td>02-136924</td>
</tr>
</tbody>
</table>

NOTE: Parts prefixed with symbols are available only in kits.
Model Code

(F3) - 4525 VQT * S - ** A * ** (S) - 2 297 ** (x) - 20 *

1  F3 – Viton seals
   Omit if not required.

2  Series designation
   4525VQT

3  Thru-drive (rear) 2-bolt mounting flange
   A – SAE “A” flange
   B – SAE “B” adapter flange
   BP – SAE “B” flange with spacer for Vickers
       PVE12, 19, or 21 pump

4  Front mounting flange
   S – SAE J-744 (127-2)

5  Geometric displacement, front end pump
   Code = SAE rating (USgpm) at
   1200 rpm and 6.9 bar (100 psi)
   Code cm³/r in³/r
   12 40  2.45
   14 45  2.77
   17 55  3.37
   21 68  4.12

6  Port connections
   A – SAE 4-bolt flange
   AM – Metric 4-bolt flange (Flange pads stamped “M” for metric threads)

7  Geometric displacement, rear end pump
   Code = SAE rating (USgpm) at
   1200 rpm and 6.9 bar (100 psi)
   Code cm³/r in³/r
   12 40  2.45
   14 45  2.77
   17 55  3.37
   21 68  4.12

8  Shaft seal assembly
   S – Double seal
   – Omit for single seal.

9  Thru-drive coupling
   2 – With spline for tandem pump

10 Shaft
    297 – Splined “C” size per SAE J744C.
    32-4 per SAE J744 Oct 83

11 Port position
   (Viewed from rear end of pump)
   With no. 1 outlet opposite inlet
   AA – No. 2 outlet 135° CCW from inlet
   AB – No. 2 outlet 45° CCW from inlet
   AC – No. 2 outlet 45° CW from inlet
   AD – No. 2 outlet 135° CW from inlet
   With no. 1 outlet 90° CCW from inlet
   BA – No. 2 outlet 135° CCW from inlet
   BB – No. 2 outlet 45° CCW from inlet
   BC – No. 2 outlet 45° CW from inlet
   BD – No. 2 outlet 135° CW from inlet

12 Thru-drive (rear) mounting flange position
   (Viewed from rear end of pump)
   A – In line with no. 2 outlet port
   B – 90° from no. 2 outlet port
   – Omit for 4525VQTA models.

13 Design

14 Rotation
   (Viewed from front end of pump)
   L – Left hand (counterclockwise)
   R – Right hand (clockwise)

Standard right-hand shaft rotation cartridges are shown at right. To
reverse rotation, remove two screws
and reverse the location of the inlet
and outlet support plates. Re-align
all sections of the cartridge, then
re-install and hand-tighten the two
screws. Tighten screws to
recommended torque.

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

Sharp edge of vane must lead in direction of rotation.

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