

Service Data

**Vickers®**

# Vane Pumps

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## Vane Type Double Pump

3525VQ Series –20 Design



Revised 10-01-89

I-3171-S

4 ● SAE rated capacity (3525VQ\*\* shaft end pump cartridge)

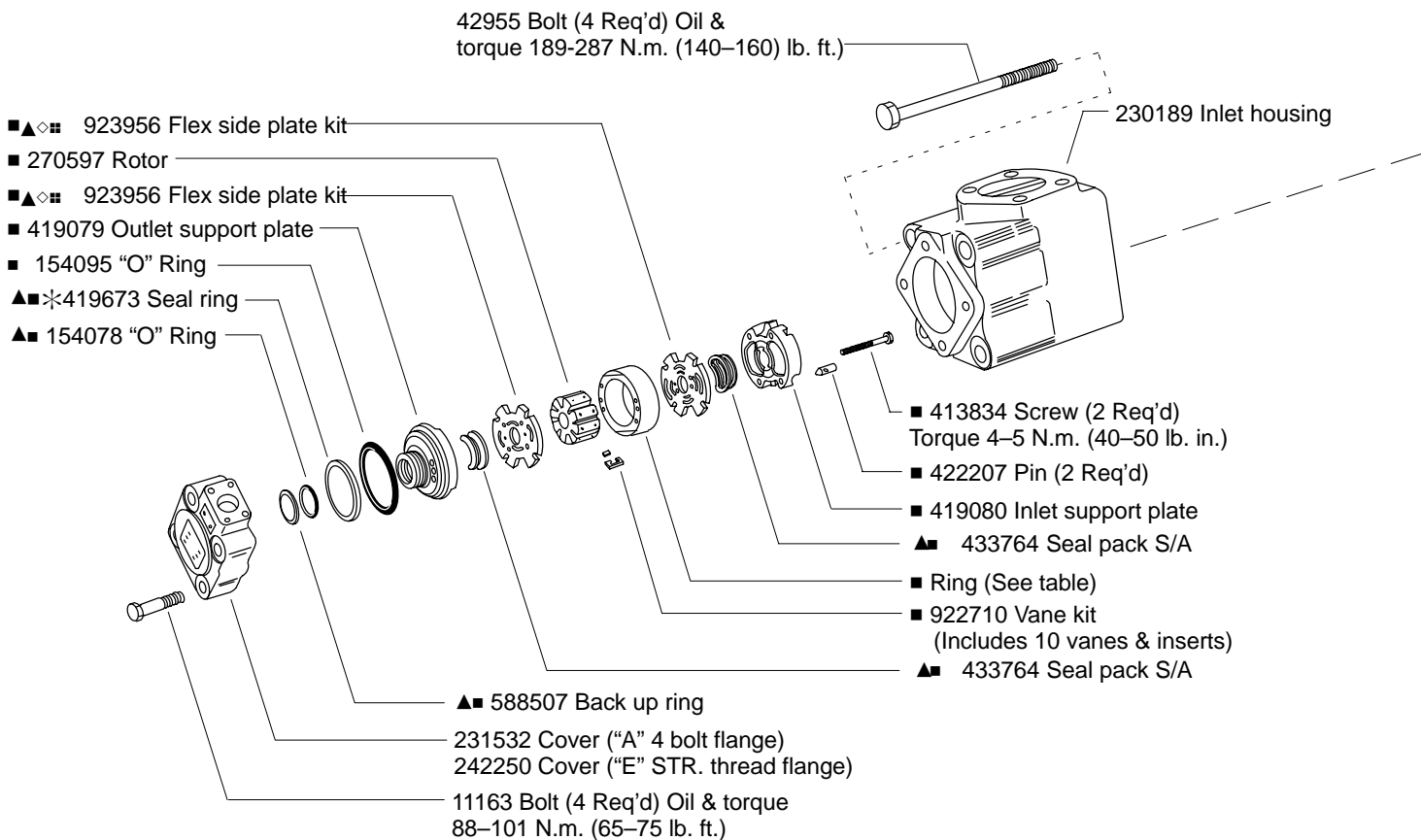
USgpm	● Ring	● STD. cartridge kit	● F3 cartridge kit
21	394961	413420	421582
25	319396	413421	421583
30	319397	413422	421584
35	319398	413418	421585
38	319399	413419	421586

6 SAE rated capacity (3525VQ \*\* \* \*\* ) cover end pump cartridge)

■ USgpm	■ Ring	■ STD. cartridge kit	■ F3 cartridge Kit
12	326984	421244	421576
14	326985	421235	421577
17	326986	421236	421578
19	326987	421237	421579
21	326988	421238	421580

\* NOTE

Install 419673 sealing ring into body, then install cartridge kit.



■ NOTE

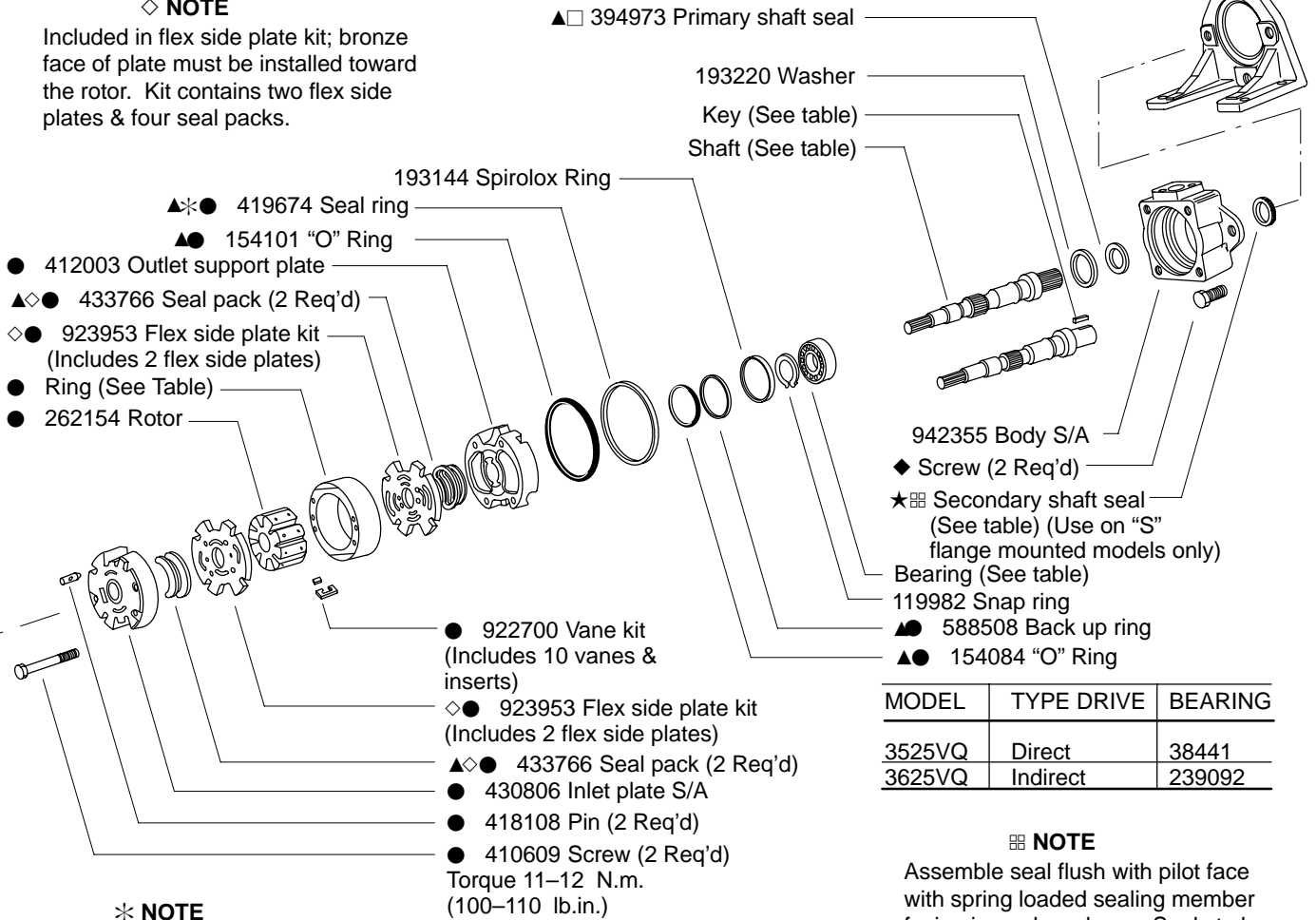
When ordered individually, flex side plate kit includes (4) F3 seal pak subassemblies.

- Included in 3525VQ shaft end cart. kit.
- Included in 3525VQ cover end cart. kit.
- ▲ Included in single shaft seal kit 920056 F3 equivalent shaft seal kit 920068
- ◆ Included in mounting kit FB-C-10

8 Shaft part number	Key part number	Secondary shaft seal	Shaft number	Shaft type
243448	88678	—	1	STR. keyed standard
243449	—	—	11	Spline
247019	—	—	19	Spline
285417	—	—	33	Spline
394036	393536	429281	86	STR. keyed heavy duty

**NOTE**  
Assemble seal with spring loaded sealing member towards bearing. Seals to be completely wetted with oil prior to assembly.

**NOTE**  
Included in flex side plate kit; bronze face of plate must be installed toward the rotor. Kit contains two flex side plates & four seal packs.

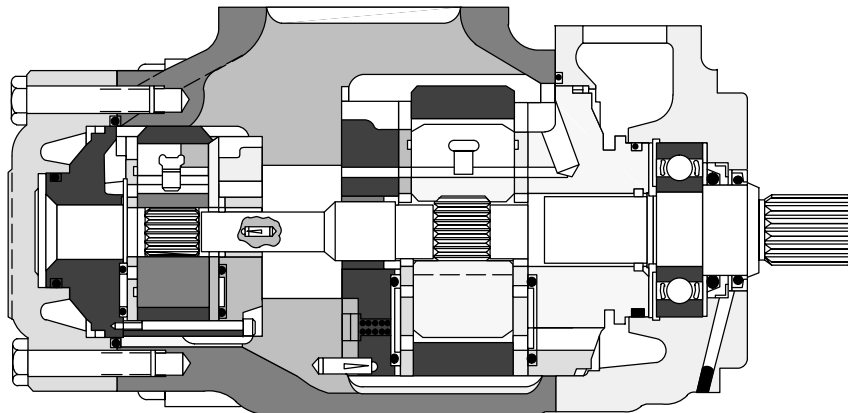


MODEL	TYPE DRIVE	BEARING
3525VQ	Direct	38441
3625VQ	Indirect	239092

**\* NOTE**  
Install 419674 sealing ring into body, then install cartridge kit.

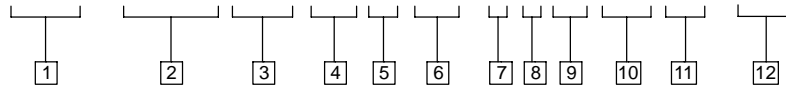
**NOTE**  
Assemble seal flush with pilot face with spring loaded sealing member facing inward as shown. Seals to be completely wetted with oil prior to assembly.

Typical cutaway view



# Model Code

**(F3) - 3\*25 VQ \*\* A \*\* -\* 1\*\* 20 (\*) - 28\***



**1** Viton seals  
(Omit if not required.)

**2** Series designation

3525VQ, Double Pump  
3625VQ, Double Pump

**3** Intra-vane pump

**4** US GPM capacity  
(Shaft end pump)

SAE rating 1200 rpm–100 psi (7 bar)

<b>21</b> – 21 USgpm	<b>35</b> – 35 USgpm
<b>25</b> – 25 USgpm	<b>38</b> – 38 USgpm
<b>30</b> – 30 USgpm	

**5** SAE port connections

Code	Inlet	Outlet #1	Outlet #2
<b>A</b> –	4 bolt flange	4 bolt flange	4 bolt flange
<b>E</b> –	4 bolt flange	4 bolt flange	SAE ST. THD.

**6** US GPM capacity  
(Cover end pump)

SAE rating 1200 rpm–100 psi (7 bar)

<b>12</b> – 12 USgpm	<b>19</b> – 19 USgpm
<b>14</b> – 14 USgpm	<b>21</b> – 21 USgpm
<b>17</b> – 17 USgpm	

**7** Mounting

**F** – Foot (Single shaft seal)  
**S** – Flange (Double shaft seal)  
**Omitted** – Flange, single shaft seal assembly

**8** Shaft type

**1**– Straight with square key standard  
**11**– Splined  
**19**– Splined  
**33**– Splined  
**86**– Straight with square key heavy duty

**9** Outlet port positions  
(Viewed from cover end of pump)

With # 1 outlet opposite inlet:  
**AA** – # 2 outlet – 135° CCW from inlet  
**AB** – # 2 outlet – 45° CCW from inlet  
**AC** – # 2 outlet – 45° CW from inlet  
**AD** – # 2 outlet – 135° CW from inlet

With # 1 outlet 90° CCW from inlet:  
**BA** – # 2 outlet – 135° CCW from inlet  
**BB** – # 2 outlet – 45° CCW from inlet  
**BC** – # 2 outlet – 45° CW from inlet  
**BD** – # 2 outlet – 135° CW from inlet

**9** Outlet port positions continued  
(Viewed from cover end of pump)

With # 1 outlet inline with inlet:  
**CA** – # 2 outlet – 135° CCW from inlet  
**CB** – # 2 outlet – 45° CCW from inlet  
**CC** – # 2 outlet – 45° CW from inlet  
**CD** – # 2 outlet – 135° CW from inlet

With # 1 outlet 90° CW from inlet:  
**DA** – # 2 outlet – 135° CCW from inlet  
**DB** – # 2 outlet – 45° CCW from inlet  
**DC** – # 2 outlet – 45° CW from inlet  
**DD** – # 2 outlet – 135° CW from inlet

**10** Design

**11** Rotation  
(Viewed from shaft end of pump)

**L** – Left hand (CCW rotation)  
**Omitted** – Right hand rotation

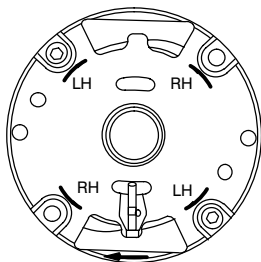
**12** Mounting

**282** – SAE 2-bolt mounting  
**283** – Foot mounting

## NOTE

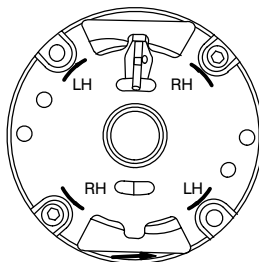
Standard right hand shaft rotation cartridges shown. Reverse for left hand rotation; refer to note.

Cover end cartridge R. H. Rotation



Sharp Edges of Vane Must Lead in Direction of Rotation

Shaft end cartridge R. H. Rotation



Sharp Edges of Vane Must Lead in Direction of Rotation

## NOTE

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