

Service Data

Vickers®

Vane Pumps



Vane Type Double Pump

4525VQ Series –20 Design

4 ● SAE rated capacity (4525VQ** shaft end pump cartridge)

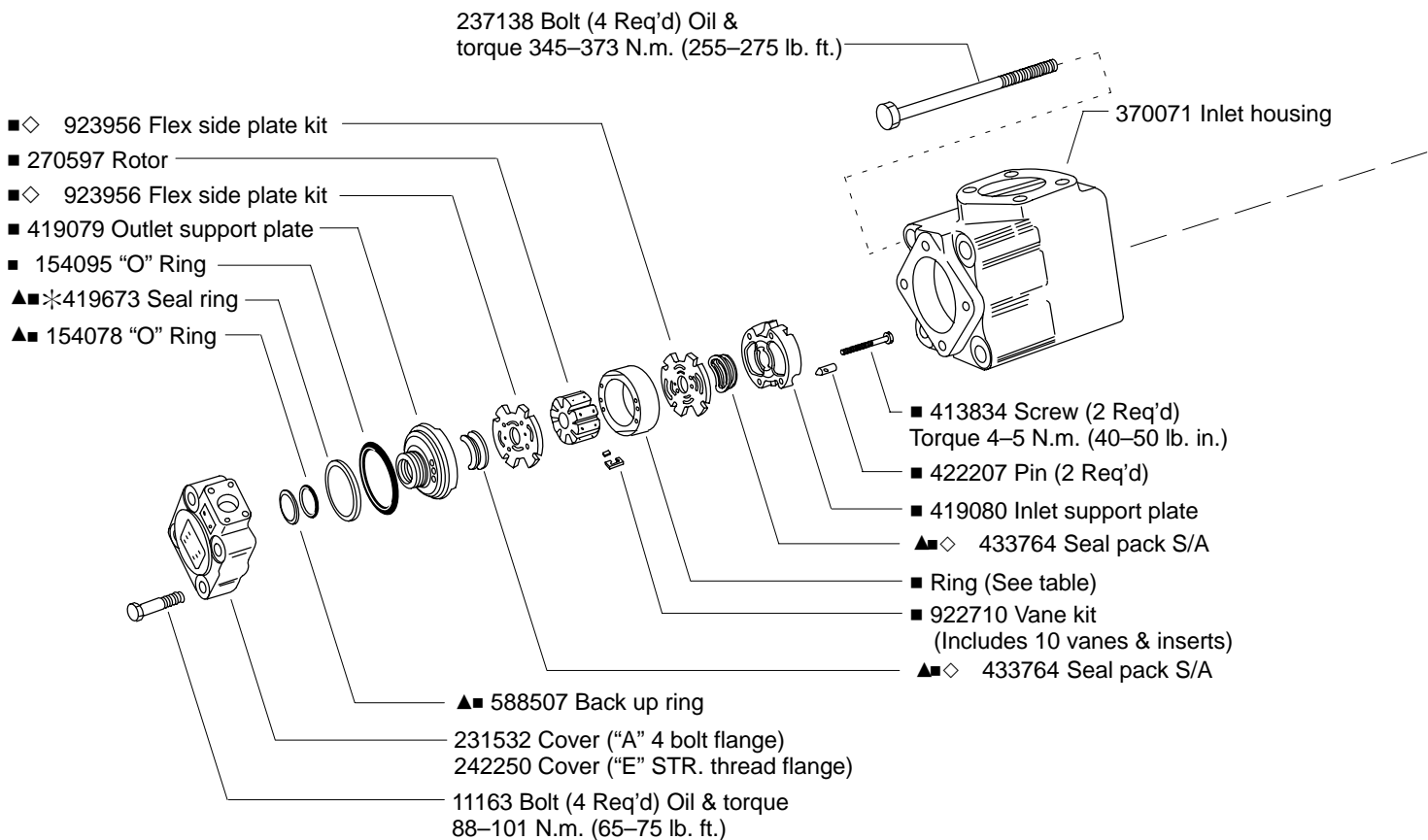
USgpm	● Ring	● STD. cartridge kit	● F3 cartridge kit
42	297510	416435	419511
47	297718	421234	421954
50	297502	416436	419510
57	306772	421233	421955
60	297503	416437	419509

6 SAE rated capacity (4525VQ ** * **) 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.



- Included in 4525VQ shaft end cart. kit.
- Included in 4525VQ cover end cart. kit.
- ▲ Included in single shaft seal kit 920068
- F3 equivalent shaft seal kit 920070
- ★ Included in double shaft seal kit 920069
- F3 equivalent shaft seal kit 920071
- ◆ Included in mounting kit FB-C-10

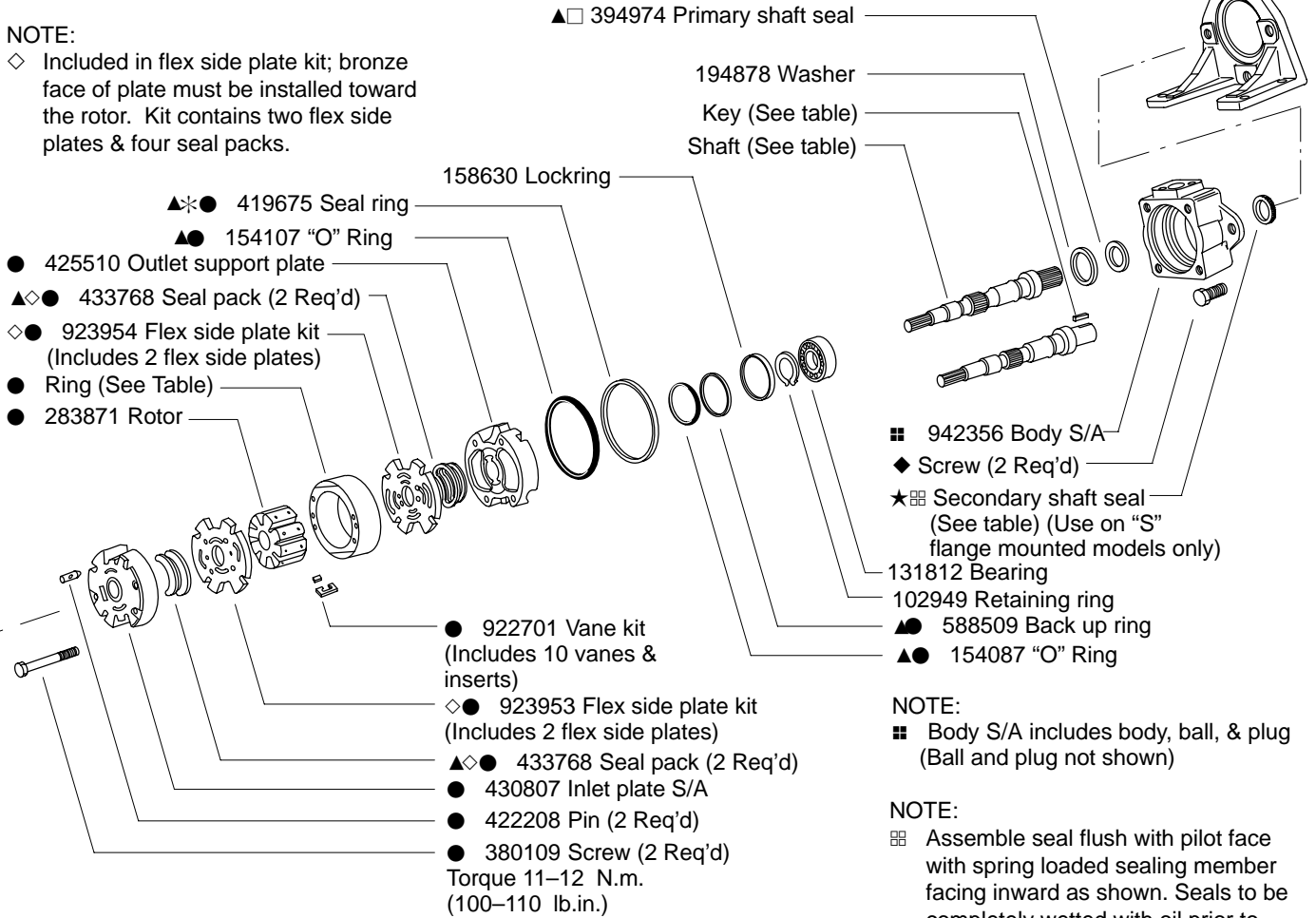
8 Shaft part number	Key part number	Secondary shaft seal	Shaft number	Shaft type
233524	217596	—	1	STR. keyed standard
233527	—	—	11	Spline
247102	—	—	19	Spline
361762	239751	—	86	STR. keyed heavy duty
413024	—	429282	114	Spline

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.



NOTE:

- Body S/A includes body, ball, & plug (Ball and plug not shown)

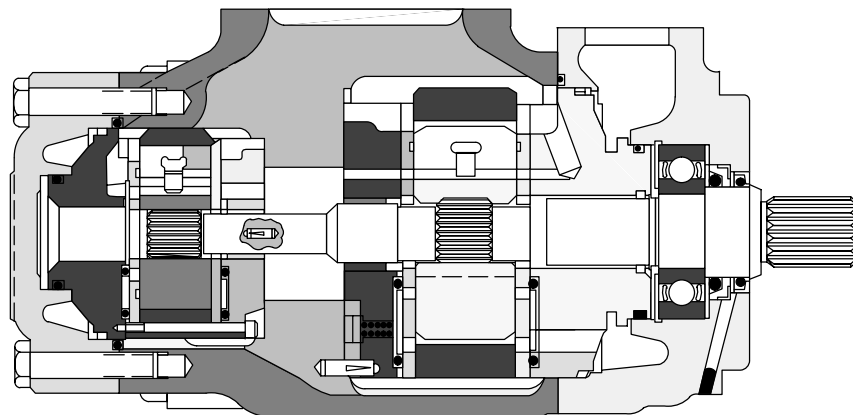
NOTE:

- 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.

NOTE:

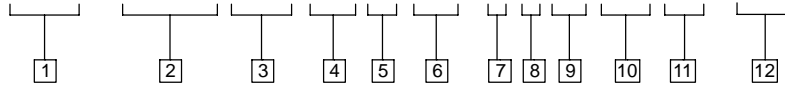
- * Install 419675 sealing ring into body, then install cartridge kit.

Typical cutaway view



Model Code

(F3) - 4525 VQ ** A ** -* 1 20 (*) - 28***



1 Viton seals
(Omit if not required)

2 Series designation

3 Intra-vane pump

4 US GPM capacity
(Shaft end pump)

SAE rating 1200 rpm–100 psi (7 bar)

42 – 42 USgpm	57 – 57 USgpm
47 – 47 USgpm	60 – 60 USgpm
50 – 50 USgpm	

5 SAE port connections

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

6 US GPM capacity
(Cover end pump)

SAE rating 1200 rpm–100 psi (7 bar)

12 – 12 USgpm	19 – 19 USgpm
14 – 14 USgpm	21 – 21 USgpm
17 – 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
86– Straight with square key heavy duty
114– Splined

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)

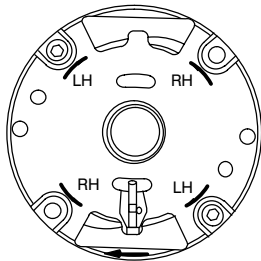
L – Left hand (CCW rotation)
Omitted – Right hand rotation

12 Mounting

282 – SAE 2-bolt mounting
283 – Foot mounting

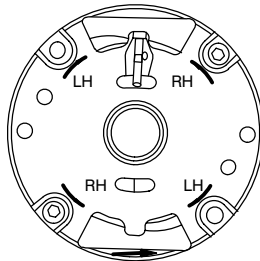
NOTE:
Standard right hand shaft rotation
cartridges shown. Reverse for left hand
rotation; refer to note.

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.