

## Danfoss Vickers Vane Type Triple Pump Owner's Manual

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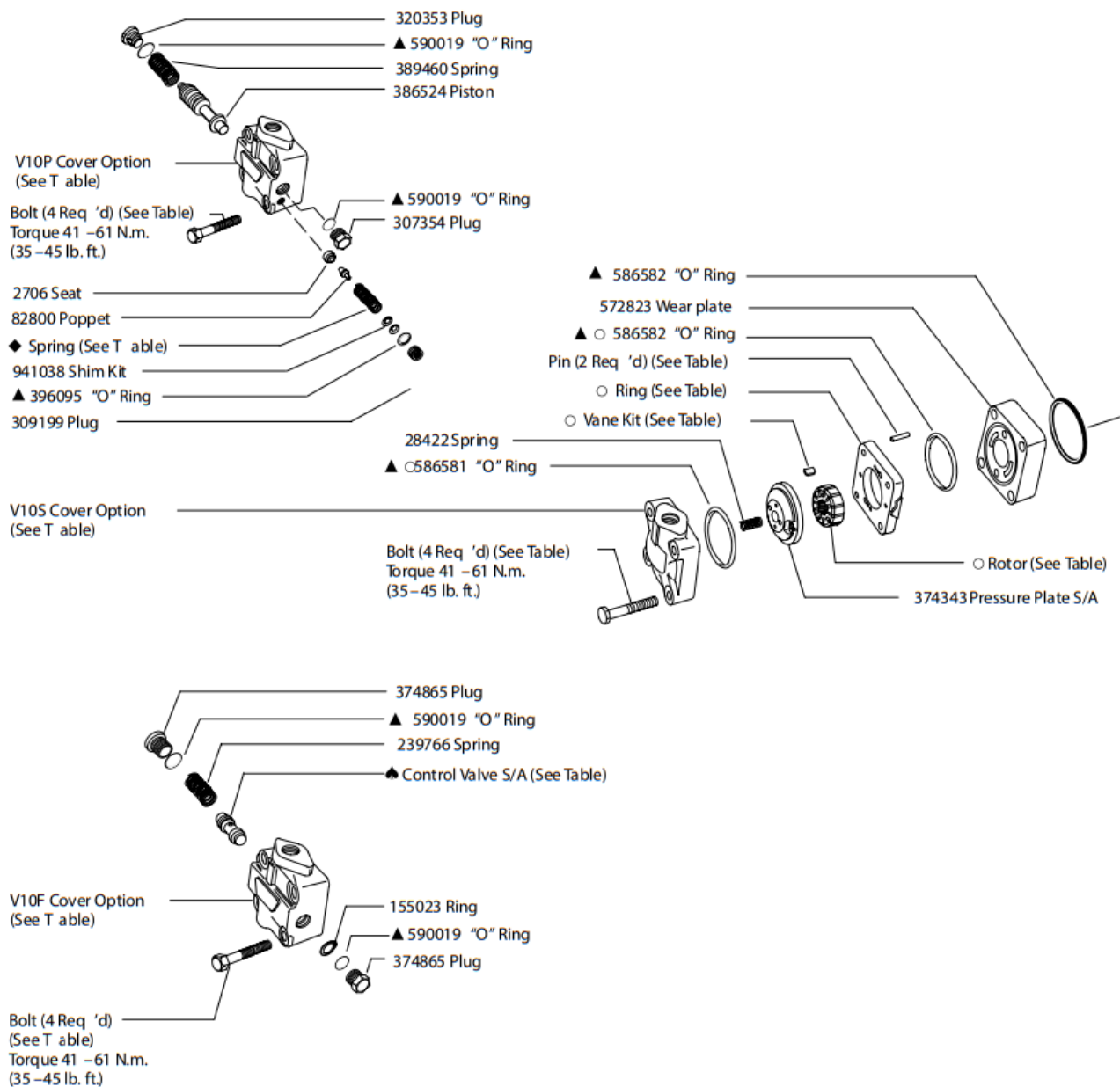
### Vickers Vane Type Triple Pump

#### 10. SAE rated capacity (V10 cover end cartridge)

USg pm	Rotor	Vane Kit (12 vanes)	Ring	Pin (V1 0S)	Pin (V10 F/V10P)	Bolt (V 10S)	Bolt (V1 0F)	Bolt (V10P)	Cartridge Kit
1	317681	923499	317674	2456	2456	11156	295344	295344	923471
2			317675						923470
3			317676						923496
4	351247	923500	317677	16662	16662	1278	432511	432511	923469
5			317678						923468
6	357286	923501	355641	179341	179341	432509	295346	295346	923497
7			331813						923498

## 9. V10 port connection

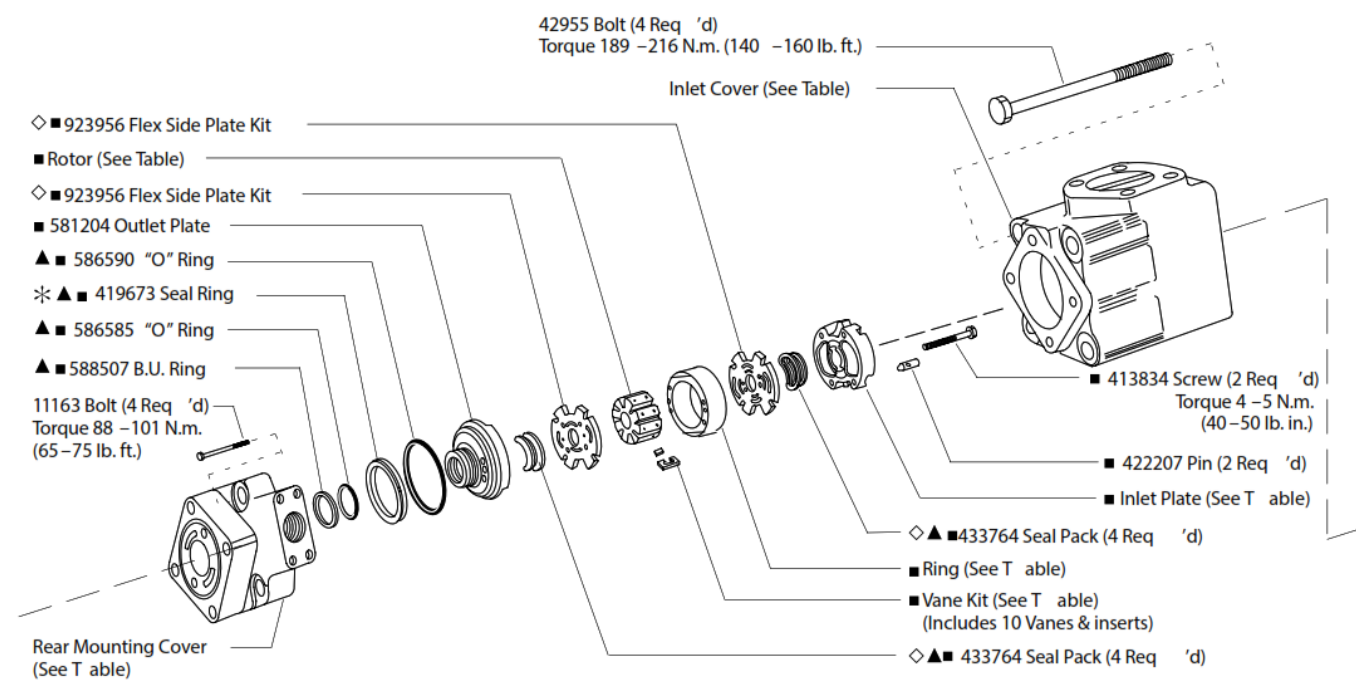
Code	V10S Cover V1	0F Cover V10	P Cover
P	372863	379543	
R	372864		
S	372865		
Y	377829		
T	_____	372851	
K			388262



## Pressure setting

V10P/V10F (Omit for V10S)

Code	Pressure setting V1 0P/V10F	◆ V10P Spring	♠ V10F control valve S/A
A	250 psi	252886	229613
B	500 psi	2280	233018
C	750 psi		232794
D	1000 psi	2282	232795
E	1250 psi		232796
F	1500 psi	2281	232797
G	1750 psi		232798
H	2000 psi		232799
J	2250 psi		233019
K	2500 psi		233020



## SAE rated capacity

(\*\*25 VQ center cartridge)

■ USgpm	■ Ring	■ Inlet Plate	■ Rotor	■ Vane Kit	■ F3 Cartridge Kit
12	326984	419080	270597	922710	581851
14	326985				581852
17	326986				581853
19	326987				581854
21	326988				581855

● Included in 35\*\* VQ shaft end cartridge kit.

■ Included in \*\*25 VQ center cartridge kit.

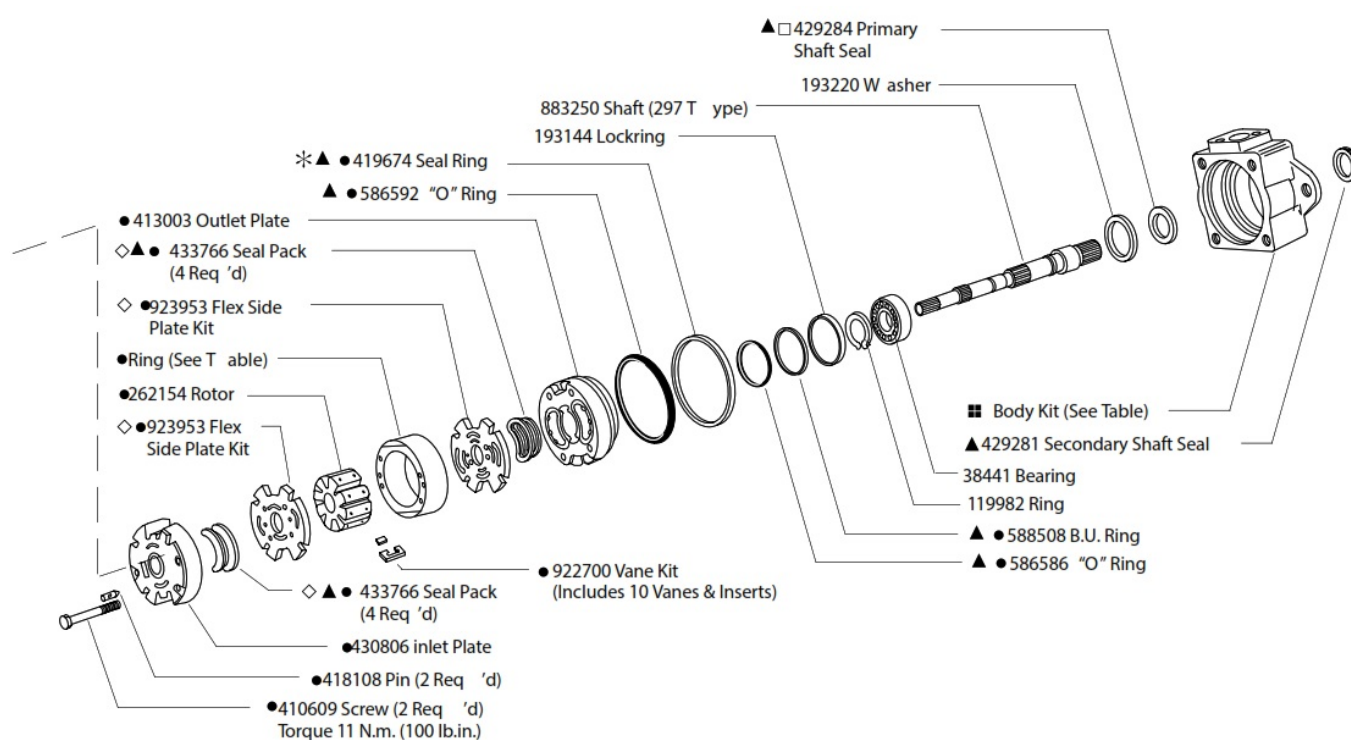
○ Included in V10 cover end cartridge kit.

▲ Included in seal kit 920170. (Kit contains F3 components & both shaft seals.)

◇ Included in flex side plate kit; bronze face of plate must be installed toward the rotor. Kit also contains four seal packs.

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

\* Install 419674 & 419673 sealing ring into body, then install cartridge kit.



## 6. SAE rated capacity (35\*\*VQ shaft end cartridge)

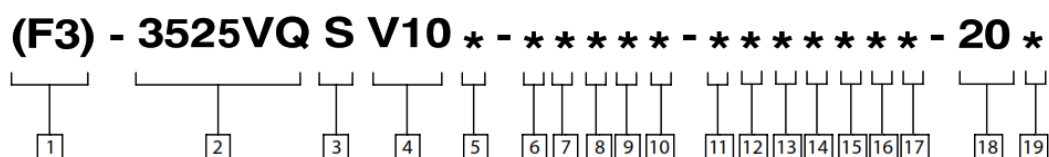
● USgpm	● Ring	● F3 Cart. Kit
21	394961	421582
25	319396	421583
30	319397	421584
35	319398	421585
38	319399	421586

## 7. Port connections

Connection Type	■ Body Kit	Inlet Cover	Rear Mounting Cover
A – 4 Bolt Flange (Inch)	02–136919	230189	581863
AM – 4 Bolt Flange (Metric)	02–136920	995239	995240

■ **NOTE:** Body kit includes body, ball, and plug. (Ball and plug not shown)

## Model Code



### 1. Special seals

F3 – Viton "O"Rings and shaft seals

### 2. Pump series designation

35\*\*VQ – Shaft end pump

\*\*25VQ – Center pump

### 3. Body mounting flange

S – SAE mounting per J –744 101 –2

### 4. Pump series designation

V10 cover end pump

### 5. V10 pump cover options

S – Standard cover

F – Flow control and relief cover

P – Priority valve and relief cover

### 6. SAE rated capacity (VQ shaft – end cartridge)

#### Code

21 – 21 USgpm

25 – 25 USgpm

30 – 30 USgpm

35 – 35 USgpm

38 – 38 USgpm

7. **VQ port connections** (inlet & outlet #1 & #2)

A – 4 bolt flange (inch threads)

AM – 4 bolt flange (metric threads)

8. **Rated capacity** (VQ center cartridge)

**Code**

12 – 12 USgpm

14 – 14 USgpm

17 – 17 USgpm

19 – 19 USgpm

21 – 21 USgpm

9. **V10 port connections**

V10S standard covers and outlet # 3

**Code**

S – .750 –16 Str. thd.

P – ½ " – NPT thd.

Y – .875 –14 Str. thd.

R – 1.062 –12 Str. thd.

V10F flow/relief control cover

Code	Outlet # 3	Tank port
T – .750	–16 Str. thd	.750 –16 Str. thd.
P – .750	–16 Str. thd.	½ " – NPT thd.

V10P priority control covers

Code	Primary port Str. Thd	Secondary port Str. thd.	Tank port Str. Thd
K	.5625 –18	.750 –16	.5625 –18

10. **SAE rated capacity** (V10 cover end cartridge)

**Code**

1 – 1 USgpm

2 – 2 USgpm

3 – 3 USgpm

4 – 4 USgpm

5 – 5 USgpm

6 – 6 USgpm

7 – 7 USgpm

11. **Shaft seal**

Blank – Single seal

S – Double seal

12. **Shaft type**

297 – All series

13. **Port orientation (Outlet #1)**

(Viewed from cover end of pump; refer to table on next page)

14. **Port orientation (Outlet #2)**

(Viewed from cover end of pump; refer to table on next page)

15. **Port orientation (Outlet #3 or primary outlet)**

(Viewed from cover end of pump; refer to table on next page)

16. **Controlled flow rate, V10F & V10P (Omit for standard cover)**

**Code**

3 – 3 USgpm

4 – 4 USgpm

5 – 5 USgpm

6 – 6 USgpm

7 – 7 USgpm

8 – 8 USgpm

17. **Relief valve pressure setting, V10F & V10P (Omit for standard cover)**

**Code**

A – 250 psi

B – 500 psi

C – 750 psi

D – 1000 psi

E – 1250 psi

F – 1500 psi

G – 1750 psi

H – 2000 psi

J – 2250 psi

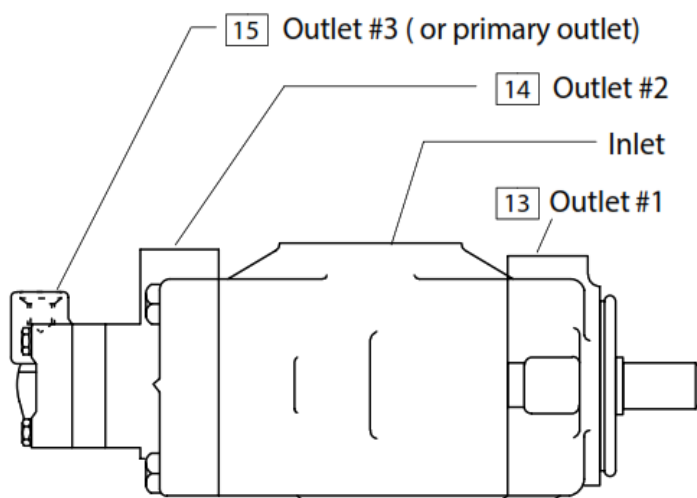
K – 2500 psi

18. **Design** (Subject to change)

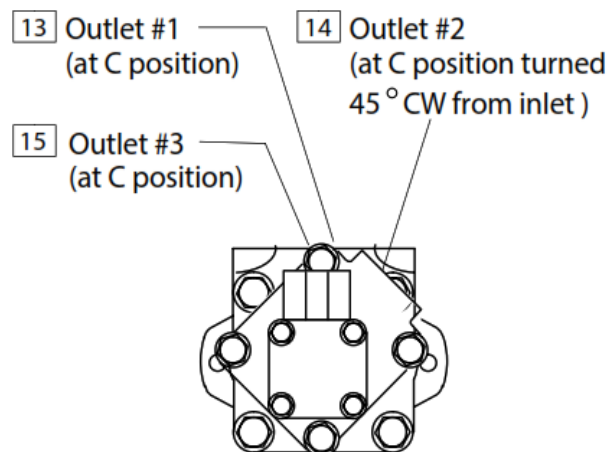
19. **Rotation** (Viewed from shaft end of pump)

L – Left hand for counterclockwise

R – Right hand for clockwise



Position view only



**NOTE**

V10 cover can be assembled in any of four positions refer to drawing M –2005 –S.

**NOTE**

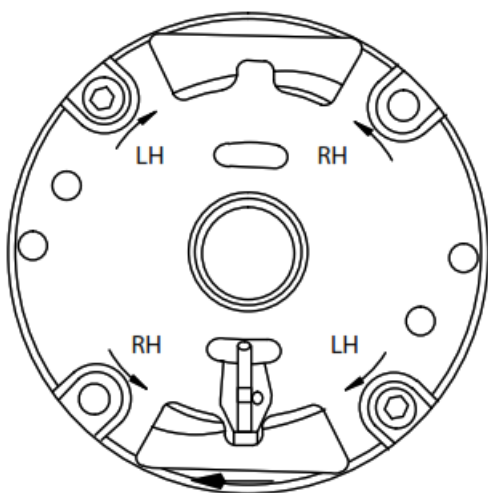
V10 cover can be assembled in any of four positions refer to drawing M –2005 –S.



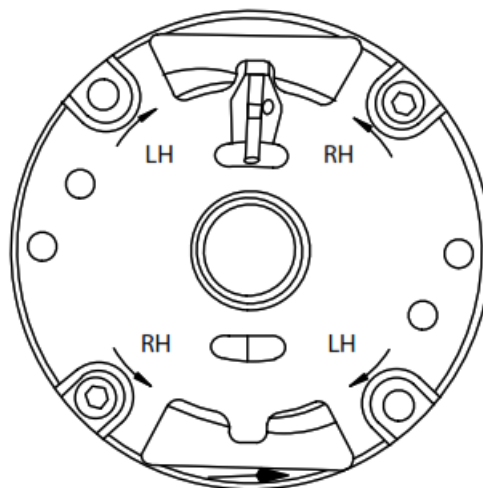
### 13. 14. 15. Port orientation cod (Viewed from cover end of pump)

Outlet	13 #1	14 #2	15 #3
Opposite inlet	A		A
135° CCW from inlet		A	
90° CCW from inlet	B		B
45° CCW from inlet		B	
Inline with inlet	C		C
45° CW from inlet		C	
90° CW from inlet	D		D
135° CW from inlet		D	

### Sharp Edges of Vane Must Lead in Direction of Rotatio



**Cover End Cartridge**  
**R. H. Rotation**



**Shaft End Cartridge**  
**R. H. 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.

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

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<b>Danfoss</b> <b>Power Solutions (US) Company</b> 2800 East 13th Street Ames, IA 50010, USA <b>Phone:</b> +1 515 239 6000	<b>Danfoss</b> <b>Power Solutions Trading (Shanghai) Co., Ltd.</b> Building #22, No. 1000 Jin Hai Rd Jin Qiao, Pudong New District Shanghai, China 201206 <b>Phone:</b> +86 21 2080 6201
<b>Danfoss</b> <b>Power Solutions GmbH &amp; Co. OHG</b> Krokamp 35 D-24539 Neumünster, Germany <b>Phone:</b> +49 4321 871 0	<b>Danfoss</b> <b>Power Solutions ApS</b> Nordborgvej 81 DK-6430 Nordborg, Denmark <b>Phone:</b> +45 7488 2222

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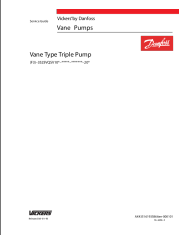
**VICKERS**

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## Documents / Resources

	<p><a href="#">Danfoss Vickers Vane Type Triple Pump</a> [pdf] Owner's Manual Vickers, Vane Type Triple Pump, Vickers Vane Type Triple Pump, Triple Pump, Pump</p>
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## References

-  [Daikin Sauer Danfoss - Home](#)
-  [Danfoss - Engineering Tomorrow | Danfoss](#)
-  [Hydro-Gear Drivetrain Solutions | Home](#)

Manuals+.