$\mathsf{Vickers}^{ exttt{ iny R}}$ 

**Service Data** 

## **Vane Pumps**



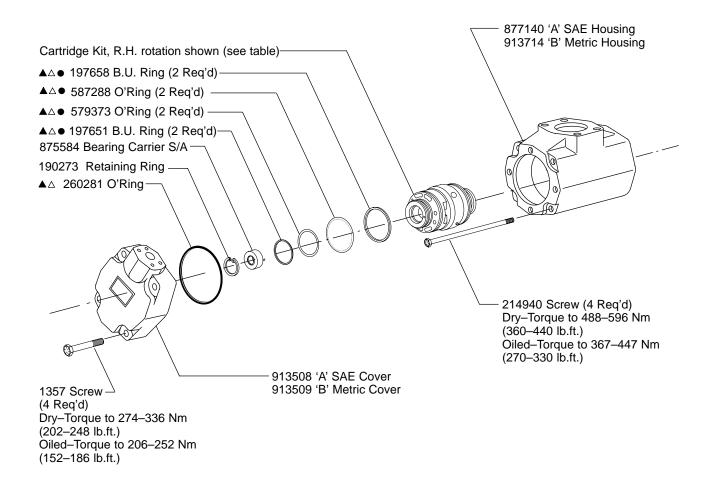
# **High Pressure, High Performance Double Vane Pump**

4525VPF Series -21 Design



To reverse Cartridge rotation remove Retaining Ring and Bearing Carrier S/A. Install Bearing Carrier S/A and Retaining Ring in opposite end of Cartridge and reinstall Cartridge facing in opposite direction. For R.H. rotation the end of the Cartridge with screw heads showing will be installed toward the cover end. For L.H. rotation the end of the Cartridge with screw heads showing will be installed toward the showing will be installed toward the shaft end.

| Model Code<br>(Cover End) | ●Cartridge Kit<br>Standard | ● Cartridge Kit<br>Viton® |  |  |
|---------------------------|----------------------------|---------------------------|--|--|
| 4525VPF-**-010            | 02-319101                  | 02-319102                 |  |  |
| 4525VPF-**-016            | 02-319103                  | 02-319104                 |  |  |
| 4525VPF-**-025            | 02-319105                  | 02-319106                 |  |  |
| 4525VPF-**-032            | 02-319107                  | 02-319108                 |  |  |
| 4525VPF-**-040            | 02-319109                  | 02–319110                 |  |  |
| 4525VPF-**-050            | 02–319111                  | 02–379112                 |  |  |
| 4525VPF-**-063            | 02–319113                  | 02–319114                 |  |  |
| 4525VPF-**-071            | 02-319115                  | 02–319116                 |  |  |
| 4525VPF-**-080            | 02–319117                  | 02–319118                 |  |  |



Parts prefixed with symbols are available only in kits.

- ▲ Available in 02-160546 Std Seal Kit, Single Shaft Seal or 02-160547 Viton® Seal Kit, Single Shaft Seal only.
- △ Available in 02-160548 Std Seal Kit, Double Shaft Seal or 02-160549 Viton® Seal Kit, Double Shaft Seal only.
- ★ Included in Flange Kits (see table).
- Included in Cartridge Kits (see table).
  Viton® is a registered trademark of the

E.I. DuPont Co.

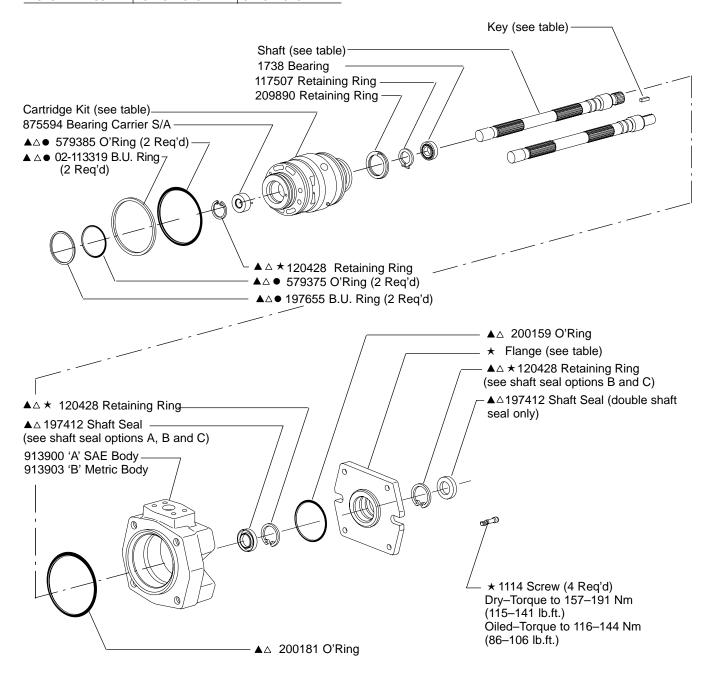
NOTE: Lubricate all parts and seals with a thin coat of oil at assembly.

#### **Shaft Seal Options**

- **A** Primary seal only: spring loaded sealing member facing inward.
- **B** Primary and secondary seals: primary seal with spring loaded sealing member facing inward and secondary seal with spring loaded sealing member facing outward.
- **C** Primary and secondary seals: both with spring loaded sealing member facing inward.

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| Model Code<br>(Shaft End) | Cartridge Kit  Standard | Cartridge Kit  Viton® |
|---------------------------|-------------------------|-----------------------|
| 4525VPF-140-***           | 02–322069               | 02-322070             |
| 4525VPF-160-***           | 02-322071               | 02-322072             |
| 4525VPF-180-***           | 02-322073               | 02-322074             |
| 4525VPF-195-***           | 02-322075               | 02-322076             |



|                        | ★ Flange Kit      |                   |
|------------------------|-------------------|-------------------|
| Flange Type            | Single Shaft Seal | Double Shaft Seal |
| SAE J744-127-2 (SAE C) | 02-142497         | 02–142501         |
| ISO 3019/2-125A2HW     | 02–142498         | 02–142502         |
| SAE J744 152-2 (SAE D) | 02-142499         | 02–142503         |
| ISO 3019/2-160A2HW     | 02-142500         | 02-14250          |

| Model Code          | Shaft  | Key    |
|---------------------|--------|--------|
| 4525VPF-***-**-*-01 | 928535 | 928542 |
| 4525VPF-***-**-*-02 | 928536 | _      |
| 4525VPF-***-**-*-03 | 928537 | 928547 |
| 4525VPF-***-**-*-05 | 928557 | 928543 |
| 4525VPF-***-**-*-06 | 877138 | _      |

#### Series designation (frame size)

4525VPF - 150 to 275 cm<sup>3</sup>/r  $(9.15 \text{ to } 16.78 \text{ in}^3/\text{r})$ 

### Displacement – front section

 $140 - 140 \text{ cm}^3/\text{r} (8.54 \text{ in}^3/\text{r})$ 

 $160 - 160 \text{ cm}^3/\text{r} (9.76 \text{ in}^3/\text{r})$ 

 $180 - 180 \text{ cm}^3/\text{r} (10.98 \text{ in}^3/\text{r})$ 

 $195 - 195 \text{ cm}^3/\text{r} (11.90 \text{ in}^3/\text{r})$ 

#### 3 Displacement - rear section

010  $-10 \text{ cm}^3/\text{r} (0.61 \text{ in}^3/\text{r})$ 

016  $-16 \text{ cm}^3/\text{r} (0.97 \text{ in}^3/\text{r})$ 

 $025 - 25 \text{ cm}^3/\text{r} (1.52 \text{ in}^3/\text{r})$ 

032  $-32 \text{ cm}^3/\text{r} (1.95 \text{ in}^3/\text{r})$ 

040  $-40 \text{ cm}^3/\text{r} (2.44 \text{ in}^3/\text{r})$ 

050  $-50 \text{ cm}^3/\text{r} (3.05 \text{ in}^3/\text{r})$ 

063 -63 cm<sup>3</sup>/r (3.84 in<sup>3</sup>/r

071 -71 cm<sup>3</sup>/r (4.33 in<sup>3</sup>/r)

 $080 -80 \text{ cm}^3/\text{r} (4.88 \text{ in}^3/\text{r})$ 

#### 4 Port connection

A - SAE 4-bolt flange

B - Metric 4-bolt flange

#### 5 Flange mounting style

A - SAE J744 127-2 (SAE C)

B - ISO 3019/2 125A2HW

C - SAE J744 152-2 (SAE D)

D - ISO 3019/2 160A2HW

#### 6 Shaft

01 - SAE J744 32-1 (1.25 in keyed shaft)

02 - SAE J744 32-4 (C splined shaft)

03 - ISO 3019/2 E32N (32mm keyed shaft)

05 - SAE J744 38-1 (1.50 in keyed shaft)

06 - SAE J744 38-4 (C-C splined shaft)

#### 7 Shaft seal

A - Single, primary (spring side in)

B - Double, secondary (spring side

C - Double, secondary (spring side in)

#### 8 Seal type

N - Standard, Buna N

V - Viton®

W - Buna N with Viton® shaft seal(s)

#### 9 Outlet port no. 1 position (viewed from cover end)

A - Opposite inlet port

B - 90° counterclockwise from inlet port

C - Inline with inlet port

D - 90° clockwise from inlet port

#### 10 Outlet port no. 2 position (viewed from cover end)

A - 135° counterclockwise from inlet port

B - 45° counterclockwise from inlet port

C - 45° clockwise from inlet port

D - 135° clockwise from inlet port

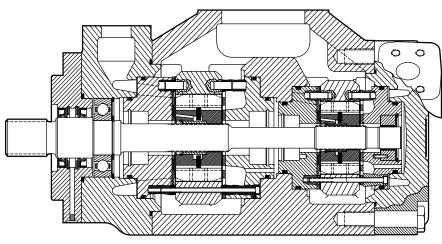
#### 11 Design

#### 12 Rotation (viewed from shaft end)

R - Right hand (clockwise)

L - Left hand (counterclockwise)

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Typical sectional view

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