

Service Data

Vickers®

Piston Pumps



Variable Displacement Piston Pumps with Pressure Compensator

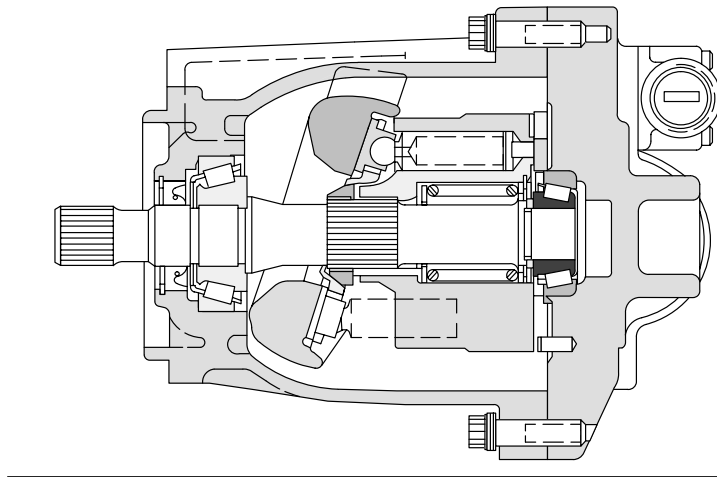
PVE19/21-B2*-*-41-C*-12/13/20/30**

C**, CG & CV** Compensator

(Shown for right hand shaft rotation.
Rotate 180° for left hand shaft rotation.)

NOTE

The "C**VP(C)**B" compensator may be ordered as a complete factory tested part by ordering part number shown in table below.



398071 Plug Torque 40-50 lb.in.

Included in	
▲ Seal Kit Piston Pump	02-348242
Bearing Spacer Kit	942401
Shim Kit	923938

▲ 262331 O-Ring

⊖ ▲ 913451 Gasket

● 185638 Retaining Ring

234204 Seat

10358 Screw
(4 req'd)
Torque
60-70 lb. in.

◆ 17077 Wire

◆ 239157 Seal

Model	Body	Spool	Spring	O-Ring	Back-up Ring	Plug	Compensator S/A Kit
PVE19-C21-12	934147	241717	239371	262335	-	241621	02-348245
PVE21-C19-12							02-348244
PVE**-CG-30	932966	937406	417649		997049	412940	02-348243
PVE**-CV11-20		278711					02-348246

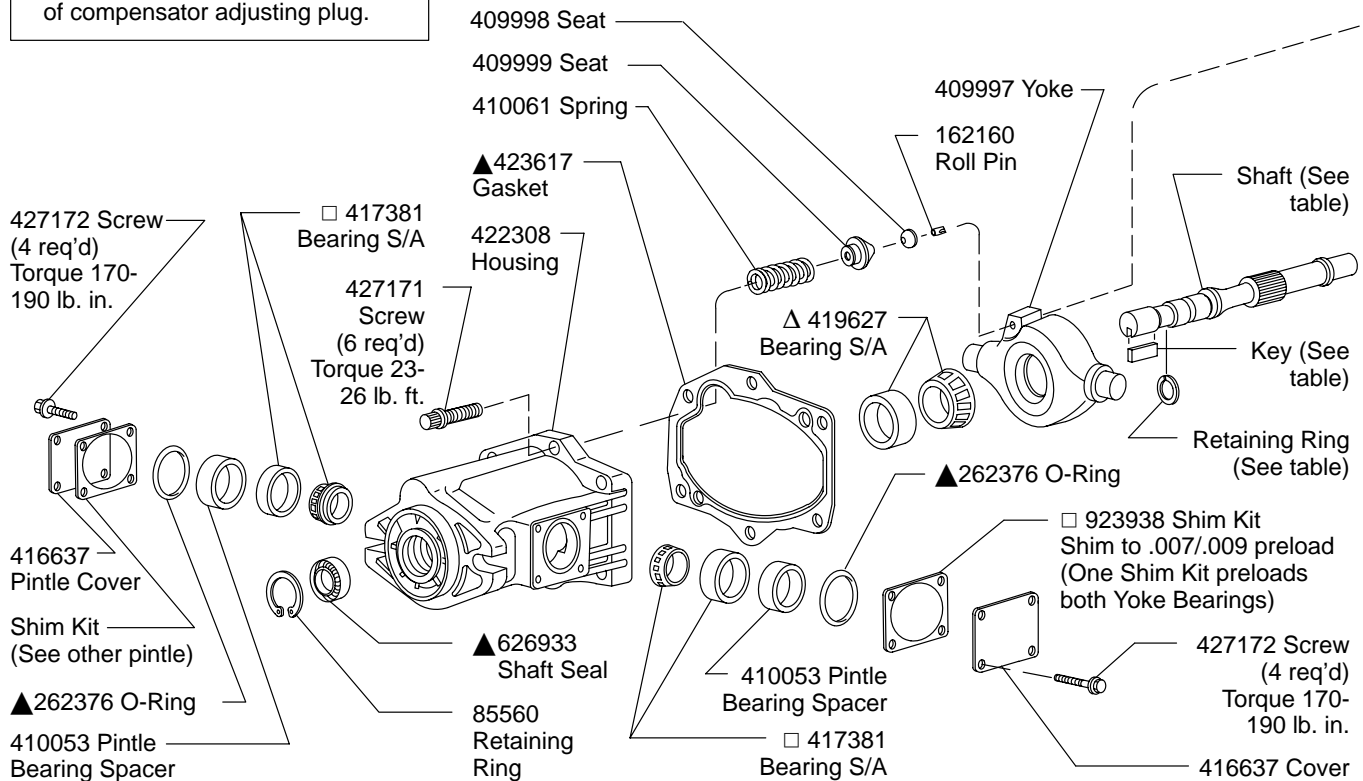
■ Included in Rotating Group S/A



⊖ CAUTION

Position gasket with small end of teardrop hole pointing in direction of compensator adjusting plug.

Model	Retaining Ring	Key	Shaft	Type
PVE**-1	112531	58303	428883	Keyed
PVE**-2	-	-	423415	Splined
PVE**-9	-	-	424544	



427172 Screw
(4 req'd)
Torque 170-190 lb. in.

□ 417381 Bearing S/A

427171 Screw
(6 req'd)
Torque 23-26 lb. ft.

▲ 423617 Gasket

422308 Housing

Δ 419627 Bearing S/A

409997 Yoke
162160 Roll Pin

Shaft (See table)

Key (See table)

Retaining Ring (See table)

416637 Pintle Cover

Shim Kit (See other pintle)

▲ 262376 O-Ring

410053 Pintle Bearing Spacer

▲ 626933 Shaft Seal

85560 Retaining Ring

410053 Pintle Bearing Spacer
□ 417381 Bearing S/A

▲ 262376 O-Ring

□ 923938 Shim Kit
Shim to .007/.009 preload
(One Shim Kit preloads both Yoke Bearings)

427172 Screw
(4 req'd)
Torque 170-190 lb. in.

416637 Cover

C**VP(C)**B Compensator

(Shown for right hand shaft rotation.
Rotate 180° for left hand shaft rotation.
See table below for "C**VP(C)**B" S/A
part number.)

398071 Plug (2 req'd)
Torque 40-50 lb. in.

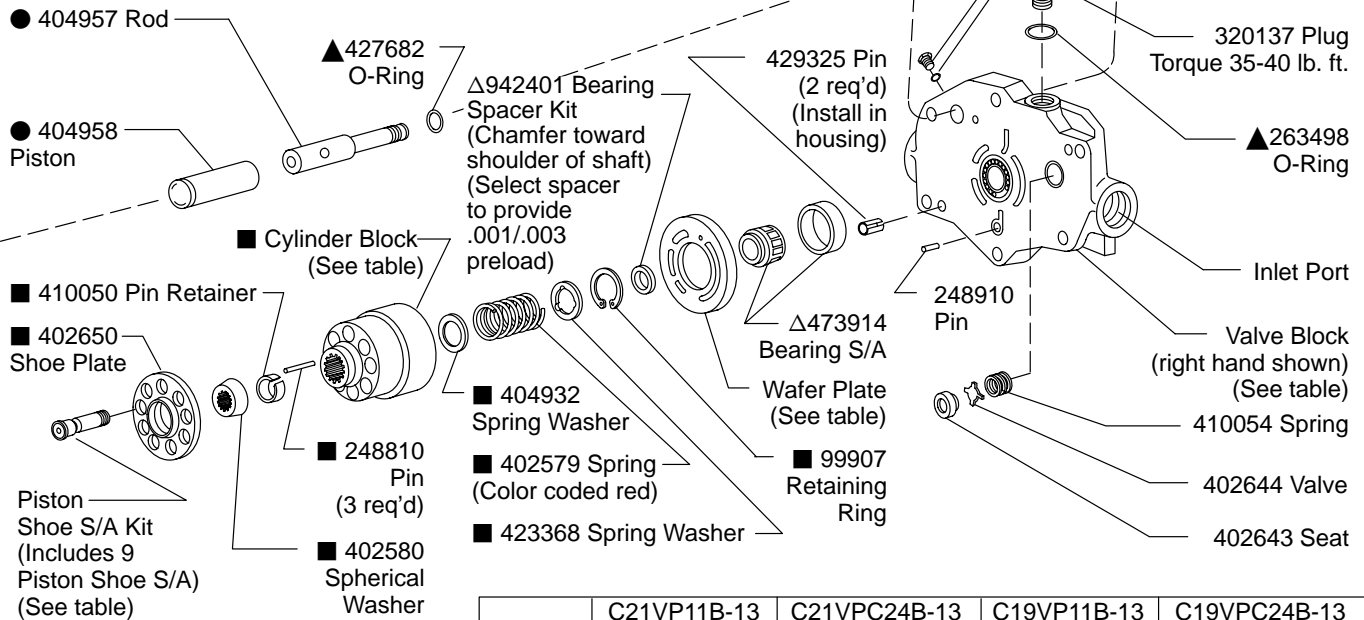
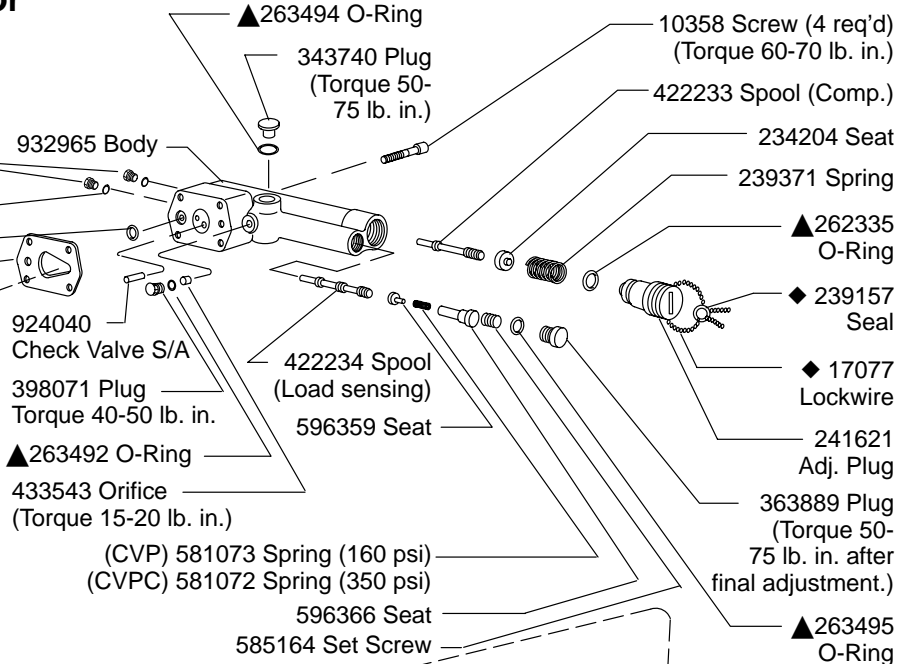
▲ 263492 O-Ring (2 req'd)

▲ 262331 O-Ring

⊖▲ 913451 Gasket

◆ Assembly Note

Adjust compensator, then drill thru
with a 01089 drill. Insert lockwire
thru seal, then compress seal with
a suitable tool.



	C21VP11B-13	C21VPC24B-13	C19VP11B-13	C19VPC24B-13
Model	S/A Kit	S/A Kit	S/A Kit	S/A Kit
PVE19	02-347532	02-347530	-	-
PVE21	-	-	02-347531	02-347529

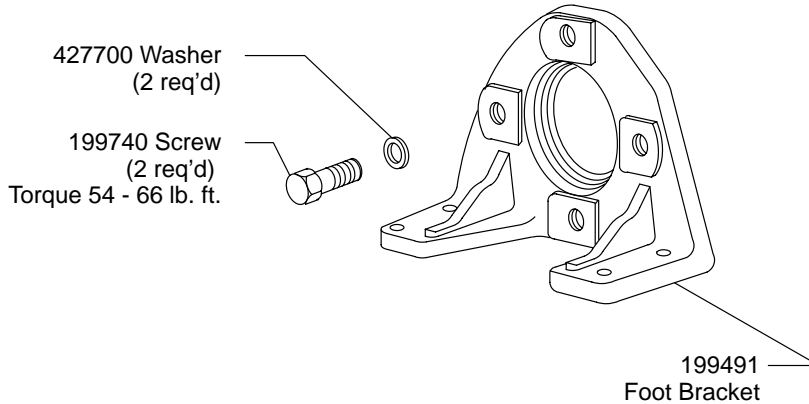
Model	Rotation Viewed from Shaft End	STE Valve Block	STS Valve Block	Wafer Plate	■ Cylinder Block	■ Piston Shoe S/A Includes 9 Piston Shoe S/A	■ Rotating Group
PVE19-R	C/Wise	933017	933002	425412		923939	923948
PVE19-L	CC/Wise	933007	933016	425415	426454		
PVE21-R	C/Wise	933017	933002	425413	418215	923946	923947
PVE21-L	CC/Wise	933007	933016	425416			

● Included in 02-328397 Compensator Piston & Rod S/A Kit

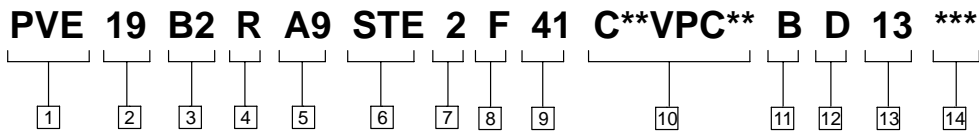
□ Included in 923987 Yoke Bearing Kit

Δ Included in 923988 Shaft Bearing Kit

Model Code



Note
To convert flange model to foot bracket model, order FB-B-10 (Assembly 422583).



1 Model Series

PVE - Pump, variable displacement, inline piston unit

2 Flow Rating @ 1800 rpm

19 - 19 USgpm
21 - 21 USgpm

3 Mounting Flange

B2 - SAE B 2 bolt flange

4 Shaft Rotation (viewed from shaft end)

R - Right hand (clockwise)
L - Left hand (counterclockwise)

5 Thru Drive

Blank - None
B26 - Female SAE "B" 2 bolt flange w/26 tooth thru shaft
A11 - Female SAE "A" 2 bolt flange w/11 tooth thru shaft
A9 - Female SAE "A" 2 bolt flange w/9 tooth thru shaft

6 Port Configuration

STE - SAE tube end port
MTE - Metric tube end port
STS - SAE tube side port
MTS - Metric tube side port
SFE - SAE flange end port
MFE - Metric flange end port
SFS - SAE flange side port (A9, A11 only)
MFS - Metric flange side port (A9, A11 only)

7 Input Shaft

1 - SAE BB 1.00 dia. straight keyed
2 - SAE BB splined 15T, 16/32 flat root, side fit
8 - Tapered key, SAE B (torque limited)
9 - SAE B splined 13T
13 - SAE BB tapered key
16 - SAE B .875 dia. straight keyed (torque limited)
28 - 28 tooth splined

8 Seals

F - Fluorocarbon (standard)
N - No shaft seal

9 Pump Design

10 Control Type and Design

C** - Pressure compensator
PVE19: 20-207 bar (300-3000 psi)
Standard setting is "C21".
Indicating 207 bar (3000 psi).
Range is 02-21 in tens of bar.
PVE21: 20-186 bar (300-2700 psi).
Standard setting is "C19".
Indicating 186 bar (2700 psi).

CVP11** - Load sensing w/"C" type pressure limiter. Load sense set at 11 bar (160 psi) standard.
Range 11-17 bar

10 Control Type and Design

CVPC24** - Load sensing with "C" type pressure limiter. Load sense set at 24 bar (350 psi) option. Range 17-31 bar
CVPD41** - Load sensing with "C" type pressure limiter. Load sense set at 41 bar (600 psi) option. Range 31-41 bar
CG** - Remote control pressure compensator (same as C**)
CD - Electric dual range compensator
UV - Unloading valve
CA** - Pressure compensator. Standard setting, 7 in tens of bar. (max. 70 bar) Range 02-07 (300-1000 psi) (** = pres. setting in tens of bar.)

11 Control Bleed Down

Blank - For C, CV, CA, CG, CD
B - Bleed down orifice
P - Plug, no orifice

$\left. \begin{matrix} C^{**}VP^{**} \\ C^{**}VPC^{**} \\ C^{**}VPD^{**} \end{matrix} \right\}$

12 Control Option

Blank - W/o max. adjust. stop (standard)
D - Max. adjustable stop (not available on thru drive pumps)

13 Control Design

14 Special feature Suffix

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 20/18/15 or cleaner. Selections from Vickers OFP, OFR and OFRS series are recommended.