

Piston Pumps



PVQ141 Piston Pumps – 40 Design

PVQ200 and PVQ700 Families

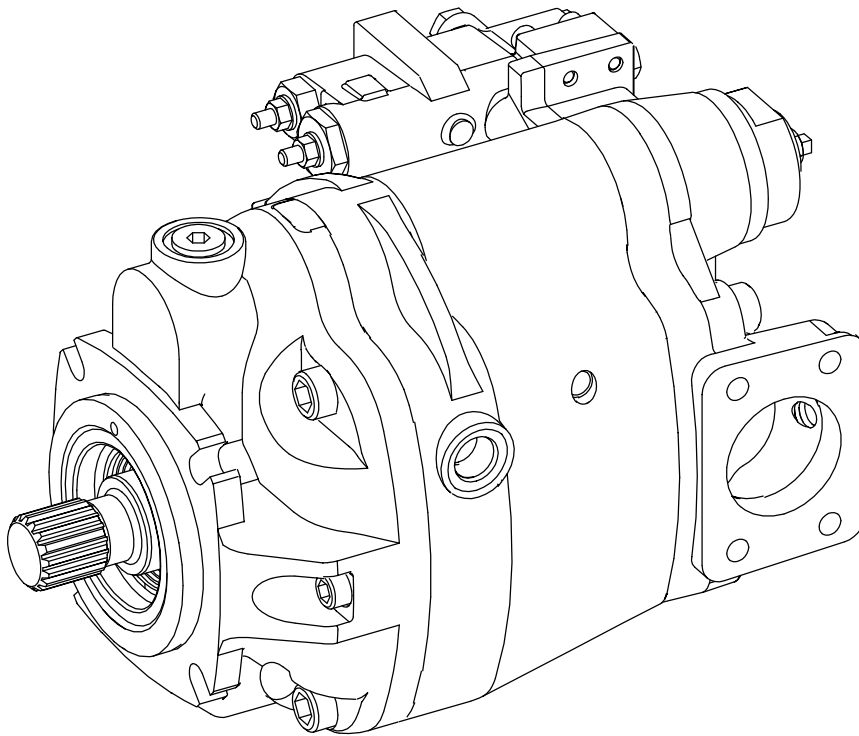


TABLE 1 – CONTROL KIT

Model designation	13
PVQ141****_*_*_*_*-40-C**	02-346262
PVQ141****_*_*_*_*-40-CM**	-
PVQ141****_*_*F**_*-40-C**VC**P	02-346264
PVQ141****_*_*F**_*-40-CM**VC**P	-
PVQ141****_*_*F**_*-40-C**VC**B	02-346266
PVQ141****_*_*F**_*-40-CM**VC**B	-
PVQ141****_*_*M**_*-40-C**VC**P	02-346268
PVQ141****_*_*M**_*-40-CM**VC**P	-
PVQ141****_*_*M**_*-40-C**VC**B	-
PVQ141****_*_*M**_*-40-CM**VC**B	-
PVQ141****_*_*F**_*-40-C**V**P	02-346263
PVQ141****_*_*F**_*-40-CM**V**P	-
PVQ141****_*_*F**_*-40-C**V**B	02-346265
PVQ141****_*_*F**_*-40-CM**V**B	-
PVQ141****_*_*M**_*-40-C**V**P	02-346267
PVQ141****_*_*M**_*-40-CM**V**P	-
PVQ141****_*_*M**_*-40-C**V**B	-
PVQ141****_*_*M**_*-40-CM**V**B	-

TABLE 2 – VALVE BLOCK (NON THRU DRIVE)

Model designation	11
PVQ141**R-*_-NFS	933096
PVQ141**R-*_-NMS	934499
PVQ141**L-*_-NFS	934289
PVQ141**L-*_-NMS	934504
PVQ141**R-*_-NFE	934413
PVQ141**R-*_-NME	934498
PVQ141**L-*_-NFE	934502
PVQ141**L-*_-NME	934503

TABLE 3 – VALVE PLATE

Model designation	21
PVQ141*ER	937169
PVQ141*MR	934292
PVQ141*EL	937170
PVQ141*ML	937171

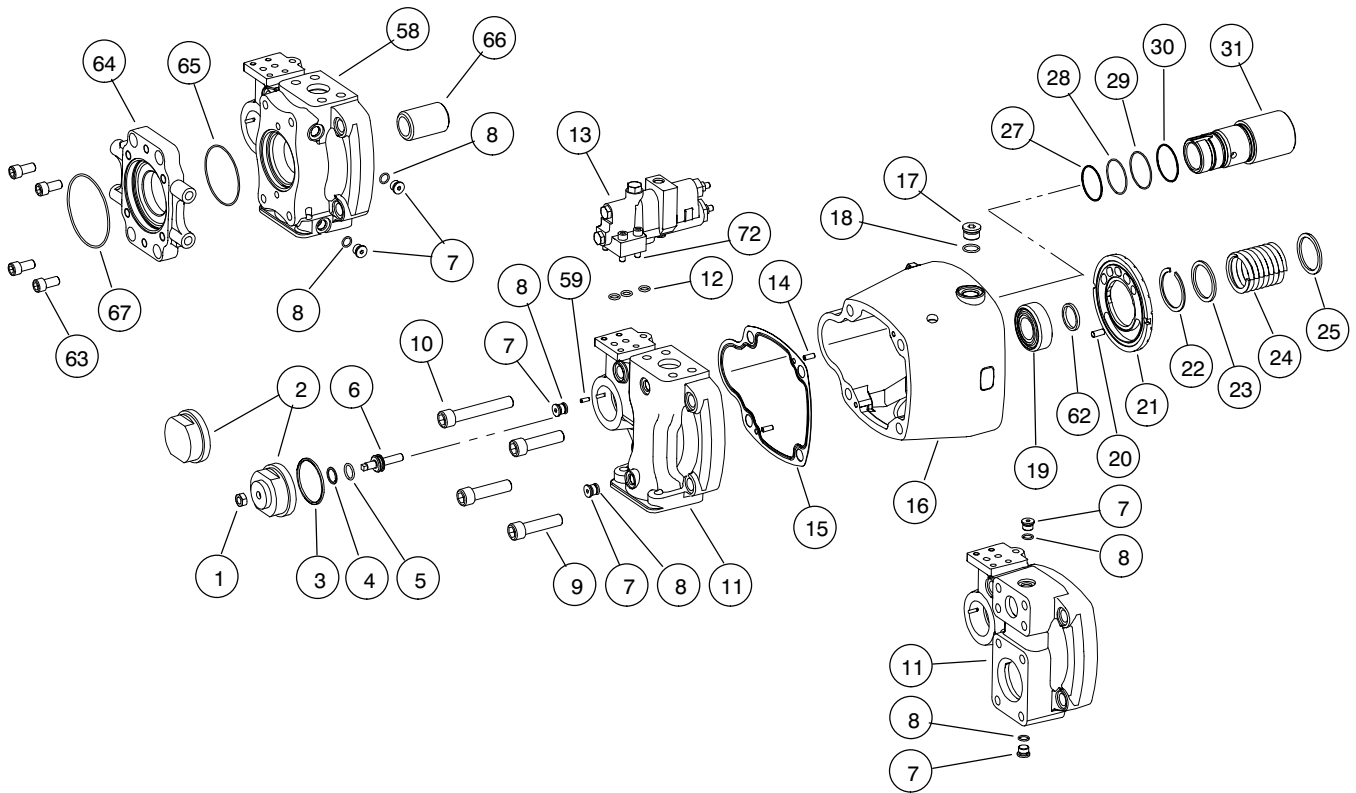


TABLE 4 – HOUSING, DRAIN PLUGS AND O-RINGS

Model designation	16	17	18
PVQ141****_*_*_*F	933093	320137	396100
PVQ141****_*_*_*M	934566	737300	932751

TABLE 5 – COUPLING

Model designation	66
PVQ141***_*_*-A9	877039
PVQ141***_*_*-B13	877040
PVQ141***_*_*-B15	877044
PVQ141***_*_*-C14	877045
PVQ141***_*_*-C17	877046

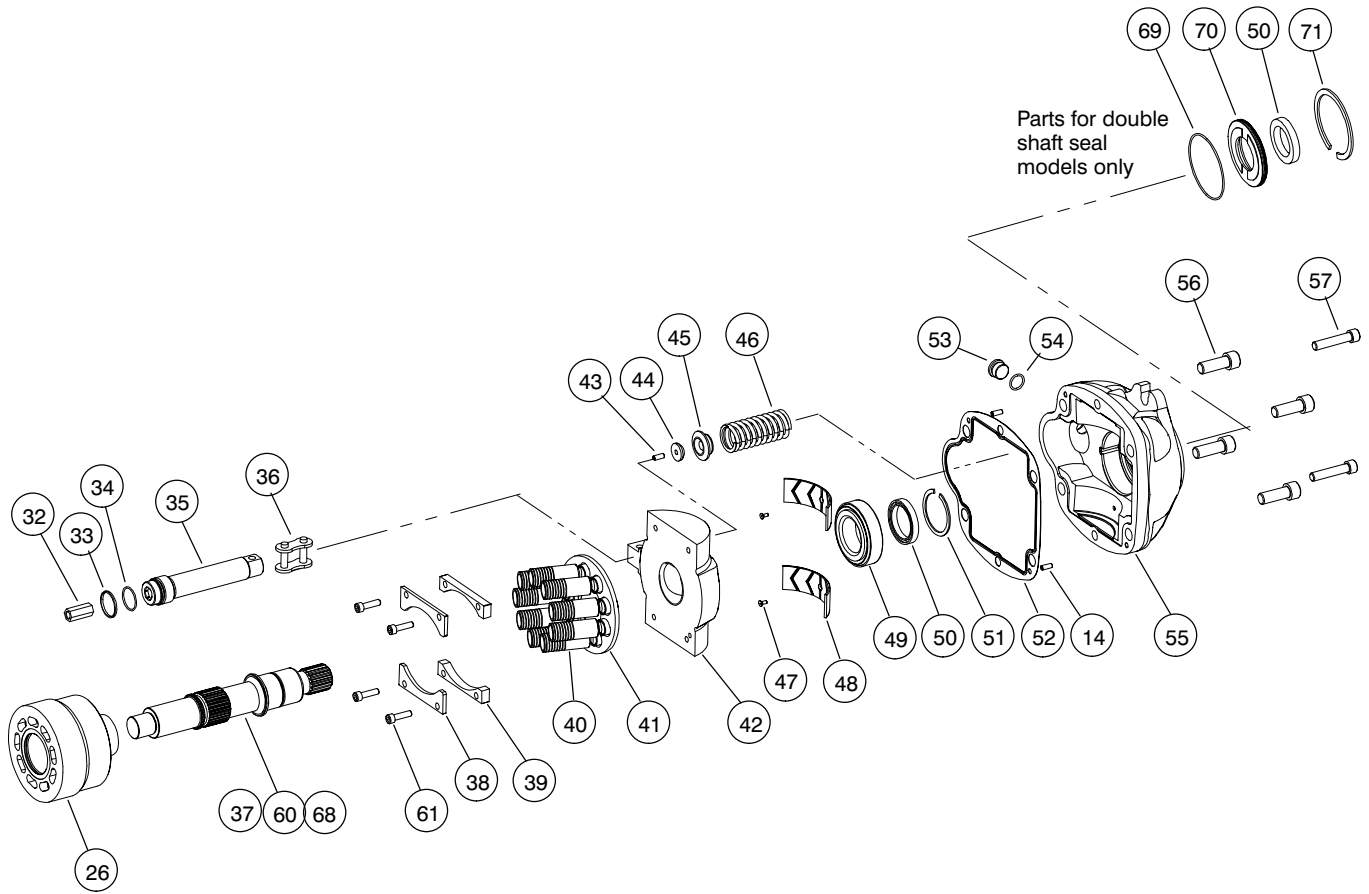


TABLE 6 – MOUNTING FLANGE

Model designation	(55)
PVQ141C2**-*F**S	934520
PVQ141C2**-*F**D	934522
PVQ141MC2**-*M**S	934525
PVQ141MC2**-*M**D	934527
PVQ141C4**-*F**S	933091
PVQ141C4**-*F**D	934404
PVQ141C4**-*M**S	934558
PVQ141C4**-*M**D	934562
PVQ141MC4**-*M**S	934554
PVQ141MC4**-*M**D	934556
PVQ141D4**-*F**S	934282
PVQ141D4**-*F**D	934571
PVQ141D4**-*M**S	934560
PVQ141D4**-*M**D	934564
PVQ141MD4**-*M**S	934555
PVQ141MD4**-*M**D	934565

TABLE 7 – THRU DRIVE VALVE BLOCK, ADAPTER, AND O-RINGS

Model designation	(58)	(64)	(65)	(67)
PVQ141***R**-*A*FS	934284	None	576601	None
PVQ141***R**-*B*FS	934284	934296	576601	401525
PVQ141***R**-*C*FS	934284	934298	576601	353264
PVQ141***R**-*A*MS	934500	None	943809	None
PVQ141***R**-*B*MS	934500	934567	943809	401525
PVQ141***R**-*C*MS	934500	934569	943809	353264
PVQ141***R**-*MA*MS	934501	None	943809	None
PVQ141***R**-*MB*MS	934501	934568	943809	943810
PVQ141***R**-*MC*MS	934501	934570	943809	943811
PVQ141***L**-*A*FS	934505	None	576601	None
PVQ141***L**-*B*FS	934505	934296	576601	401525
PVQ141***L**-*C*FS	934505	934298	576601	353264
PVQ141***L**-*A*MS	934506	None	576601	None
PVQ141***L**-*B*MS	934506	934567	576601	401525
PVQ141***L**-*C*MS	934506	934569	576601	353264
PVQ141***L**-*MA*MS	934507	None	943809	None
PVQ141***L**-*MB*MS	934507	934568	943809	943810
PVQ141***L**-*MC*MS	934507	934570	943809	943811

TABLE 8 – SHAFT/KEY

Model designation	(37)	(60)	(68)
PVQ141****-*_****_1	934463	934469	114516
PVQ141****-*_****_2	934420	934471	140282
PVQ141****-*_****_3	934464	934470	-
PVQ141****-*_****_4	933098	934295	-
PVQ141****-*_****_5	934462	934472	633260
PVQ141****-*_****_6	934285	934321	-
PVQ141****-*_****_N1	934465	934473	928546
PVQ141****-*_****_N2	934467	934475	928547

Item	Part no.	Description
1	470681	Jam nut
2	934488	Cap (S stop)
	933077	Cap (F stop)
3	933080	▲ O-ring
4	197593	▲ Backup ring
5	262355	▲ O-ring
6	934474	Adjustment screw
7	315932 (2)	SAE plug
	937297 (2)	ISO plug
8	396096 (5)	▲ SAE O-ring
	932747 (2)	▲ ISO O-ring
9	473827	Screw
10	473833	Screw
11	See table 2	Valve block (non thru drive)
12	177969 (3)	▲○ O-ring
13	See table 1	Control kit
14	179339 (4)	Pin
15	933087	▲ Gasket
16	See table 4	Housing
17	See table 4 (2)	Drain plug
18	See table 4 (2)	▲ O-ring
19	02-328957	■ Bearing
20	248935	Pin
21	See table 3	Valve plate
22	135066	● Retaining ring
23	581104	● Washer
24	626111	● Spring
25	417667	● Washer
26	937030	● Cylinder block
27	937267	▲ Backup ring
28	335656	▲ O-ring
29	513423	▲ O-ring
30	937268	▲ Backup ring
31	933076	Sleeve
32	934466	Hex. stop
33	933078	▲ Sealing ring
34	262362	▲ O-ring
35	933049	Piston
36	934026	■ Chain link
37	See table 8	Shaft (non thru drive)
38	526758 (2)	● Limiter
39	526757 (2)	● Spacer
40	02-306332 (9)	● Piston & shoe S/A
41	928776	● Shoe cage
42	933089	* Yoke
43	179339	* Pin
44	933071	* Seat
45	933081	Guide
46	933079	Spring
47	690339 (2)	* Screw
48	933095 (2)	* Saddle bearing
49	388206	■ Bearing
50	864200	▲△ Shaft seal
51	194030	▲△ Retaining ring
52	933088	▲ Gasket
53	320137	SAE plug
	937300	ISO plug
54	396100	▲ SAE O-ring
	932751	▲ ISO O-ring
55	See table 6	Flange
56	473823 (4)	Screw
57	473807 (2)	Screw
58	See table 7	Valve block (thru drive)
59	248867	Pin
60	See table 8	Shaft (thru drive)
61	473764 (4)	● Screw
62	924082	■ Shaft spacer kit
63	473800	Screw
64	See table 7	Adapter
65	See table 7	▲ Valve block o-ring
66	See table 5	Coupling
67	See table 7	▲ Adapter o-ring
68	See table 8	Shaft key
69	576601	△ O-ring
70	934403	Seal sleeve
71	191187	▲△ Retaining ring
72	473765 (4)	○ Screw

Item	Torque values
1	24–30 Nm (17–22 ft-lb)
2	236–265 Nm (174–195 ft-lb)
7	29–32 Nm (21–23 ft-lb)
9	57–315 Nm (190–232 ft-lb)
10	257–315 Nm (190–232 ft-lb)
17	75–83 Nm (55–61 ft-lb)
47	3,6–4,4 Nm (2,6–3,2 ft-lb)
53	75–83 Nm (55–61 ft-lb)
56	257–315 Nm (190–232 ft-lb)
57	103–127 Nm (76–94 ft-lb)
61	31–37 Nm (23–27 ft-lb)
63	103–127 Nm (76–94 ft-lb)
72	31–37 Nm (23–27 ft-lb)

○ Available in control kit, table 1.

▲ Available in seal kit 02-346168.

● Available in rotating group kit 02-322898.

* Available in yoke and saddle bearing kit 02-346170.

■ Available in shaft bearing kit 02-346171.

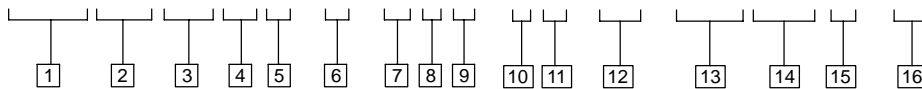
△ Available in single shaft seal kit 02-346173.
Equivalent double shaft seal kit 02-346174.

■ Warning: Use Vickers authorized chain link only. Cotter pins on industry standard chain link will fail.

■ Use to to shim as required to obtain 0,01 to 0,10 mm (0.00039 to 0.0039 in.) axial shaft end play.

Model Code

PVQ 141 C2 E R - S - N F S - 1 S - 40 - C23 V11 B - 31



1 Pump series

2 Maximum geometric displacement

141 cm³/r (8.6 in³/r)

3 Mounting flange

C2 – SAE J744-127-2 (C, 2-bolt)
 MC2 – ISO 3019/2-125A2HW
 C4 – SAE J744-127-4 (C, 4-bolt)
 MC4 – ISO 3019/2-125B4HW
 D4 – SAE J744-152-4 (D, 4-bolt)
 MD4 – ISO 3019/2-160B4HW

4 Speed rating

E – Electric motor speeds,
 1800 r/min max. (PVQ200 Family)
 M – Mobile equipment speeds at zero
 inlet (PVQ700 Family)

5 Rotation viewed from shaft end

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

6 Adjustable maximum displacement stop

S – With stop
 F – Without stop

7 Thru-drive Options

N – Single pump, non-thru-drive
 A9 – SAE A, 2-bolt, 9T spline
 A11 – SAE A, 2-bolt, 11T spline
 B13 – SAE B, 2/4-bolt, 13T spline
 B15 – SAE B-B, 2/4-bolt, 15T spline
 C14 – SAE C, 2/4-bolt, 14T spline
 C17 – SAE C-C, 2/4-bolt, 17T spline
 MA9 – ISO 80-A2HW, 9T SAE spline
 MA11 – ISO 80-A2HW, 11T SAE spline
 MB13 – ISO 100-A2/B4HW, 13T SAE
 spline
 MB15 – ISO 100-A2/B4HW, 15T SAE
 spline
 MC14 – ISO 125-A2/B4HW, 14T SAE
 spline
 MC17 – ISO 125-A2/B4HW, 17T SAE
 spline

8 Main port options

F – SAE J518 flange ports
 M – ISO 6162 flange ports

9 Main port locations

E – End
 S – Sides

10 Shaft end type

1 – SAE J744-32-1, SAE C, Str. Key
 2 – SAE J744-38-1, SAE C-C, Str. Key
 3 – SAE J744-32-4, SAE C, 14T spline
 4 – SAE J744-38-4, SAE C-C, 17T
 spline
 5 – SAE J744-44-1, SAE D, Str. Key
 6 – SAE J744-44-4, SAE D, 13T
 spline
 N1 – ISO 3019/2 E32N, Str. Key, short
 spigot
 N2 – ISO 3019/2 E40N, Str. Key, short
 spigot

11 Shaft seal at prime mover end

S – Single shaft seal, one way
 D – Double shaft seal, two way
 N – No shaft seal

12 Pump design number

13 Pump control options

C** – Pressure compensator;
 100–230 bar (1500–3300 psi).
 Asterisks denote maximum
 pressure setting in tens of bar.
 “C23” – 230 bar (3300 psi) – is
 standard.
 CM** – Pressure compensator; 20–100
 bar (300–1500 psi). Asterisks
 denote maximum pressure
 setting in tens of bar. “CM7” –
 70 bar (1000 psi) – is standard.

14 Additional control functions

Blank – No additional control functions.
 V** – Load sensing control. 6–14
 bar (90–200 psi). Asterisks
 denote differential setting in
 bar. “V11” is standard 11 bar
 (160 psi) factory setting.
 VC** – High differential spring. 15–25
 bar (220–360 psi). “VC20” is
 standard 20 bar (300 psi)
 factory setting.

15 Bleed down orifice option for load sense control

B – Bleed-down orifice installed
 in control.
 P – Orifice plugged. No bleed-down
 in control.

16 Control design number