

Service Data

Vickers®

Vane Pumps



Thru-Drive Vane Type Pump

(F3)–45VT*(M)–**A(M)2–**–*–22

VICKERS

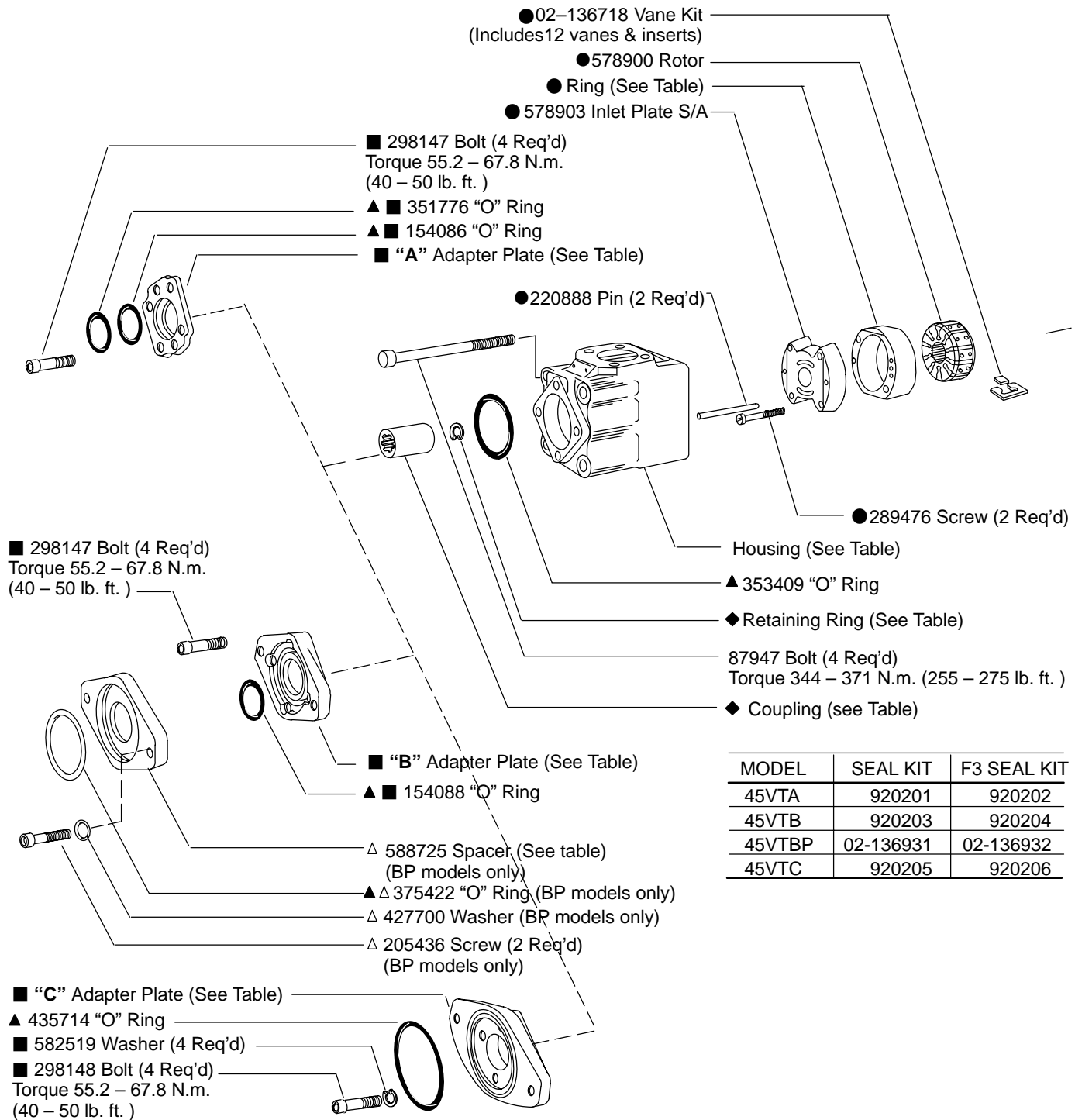
Rev 2/98

I-3151-S

MODEL	ADAPTER PLATE	ADAPTER KIT	SPACER KIT	RETAINING RING	COUPLING	COUPLING KIT
VTA	584936	941296	—	223172	426770	02-136810
VTB	584922	941297	02-136817	83003 (1)	584924	02-136813
VTBP				83003 (2)		02-136814
VTC	581833	941298	—	103989	585658	02-136816

- ▲ Included in seal kit (See Table)
 - Included in cartridge kit (See Table)
 - ◆ Included in coupling kit (See Table)
 - Included in adapter kit (See Table)
 - △ Included in spacer kit (BP models only)
- F3 equivalent seal kit (See Table)
Parts prefixed with symbols available only in kits.

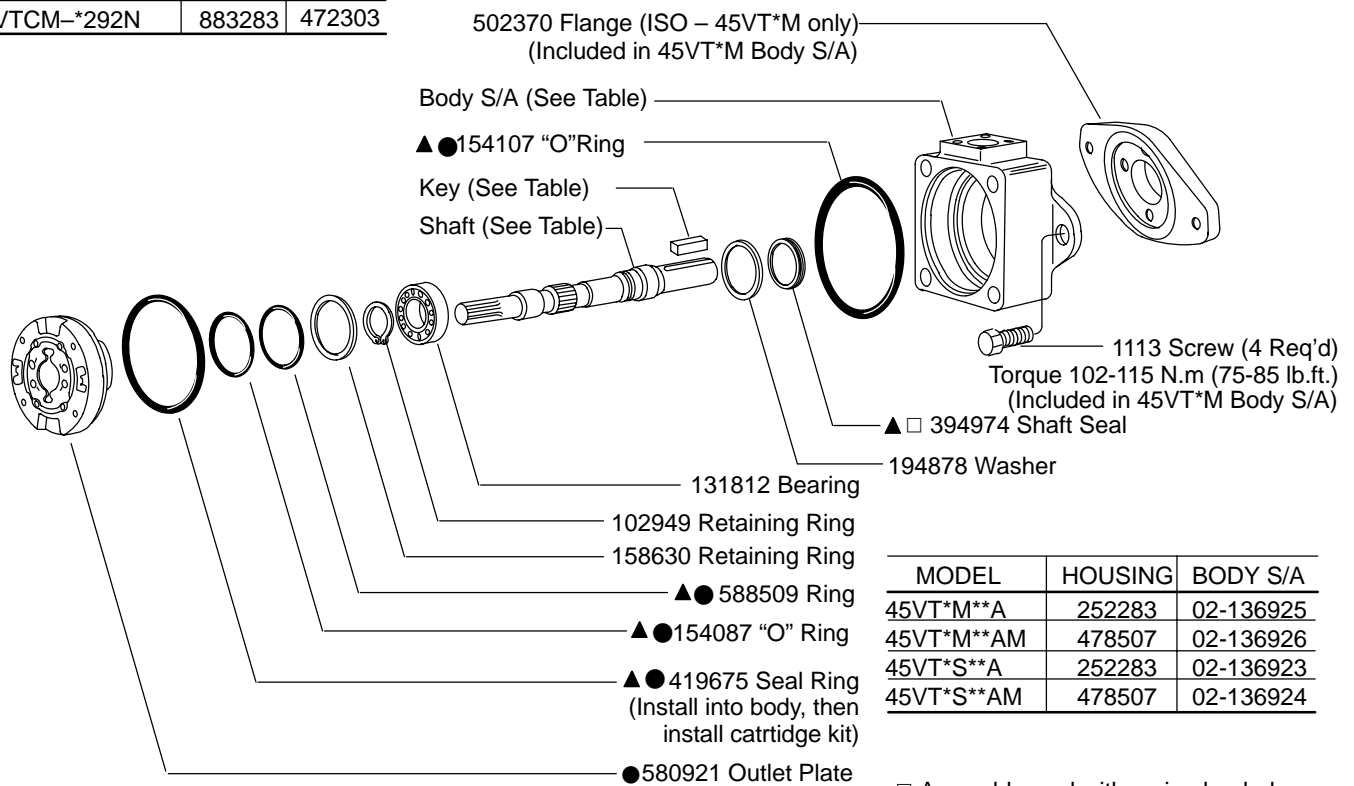
NOTE
FOR BP MODELS AN ADAPTER KIT
AND SPACER KIT IS REQUIRED.



MODEL	SEAL KIT	F3 SEAL KIT
45VTA	920201	920202
45VTB	920203	920204
45VTBP	02-136931	02-136932
45VTC	920205	920206

MODEL	SHAFT	KEY
45VTAS-*203	502418	239751
45VTAS-*297	502475	—
45VTAM-*292N	883277	472303
45VTB(P)S-*203	502419	239751
45VTB(P)S-*297	502480	—
45VTB(P)M-*292N	883280	472303
45VTCS-*203	502467	239751
45VTCS-*297	883274	—
45VTCM-*292N	883283	472303

MODEL	RING	● CART KIT	F3 CART KIT
45VT42	581679	02-102572	02-102576
45VT45	582570	02-102573	02-102593
45VT50	581680	02-102574	02-102577
45VT60	578904	02-102575	02-102578

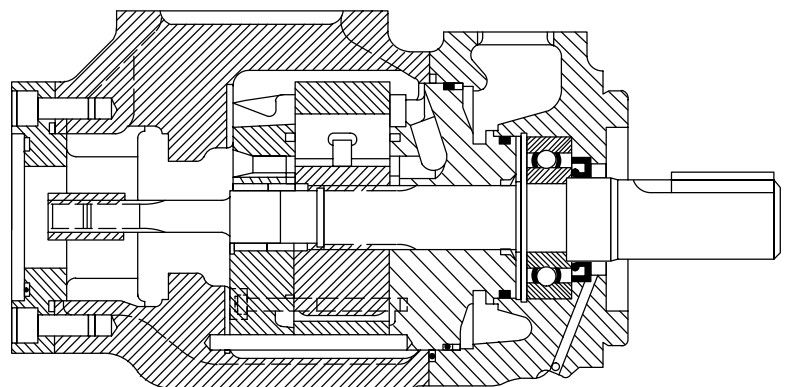


MODEL	HOUSING	BODY S/A
45VT*M**A	252283	02-136925
45VT*M**AM	478507	02-136926
45VT*S**A	252283	02-136923
45VT*S**AM	478507	02-136924

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

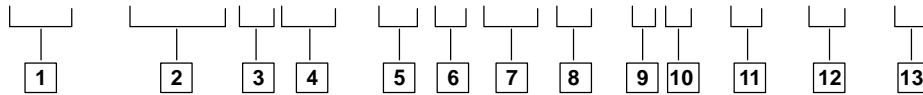
NOTE

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or cleaner. OFP, OFR, and OFRS series filters are recommended.



Model Code

(F3) - 45 VT * (S) - ** A (M) 2 - * * - * - 22 - *



1 Viton seals

Omit – Standard seals

2 Thru drive series designation

45VT – 138 to 193 cm³/r
(8.41 to 11.75 in³/r)

3 Rear pump mounting SAE (ISO 3019/1) 2 – bolt

A – 2-bolt SAE “A”
B – 2-bolt SAE “B”
BP – 2-bolt SAE “B” to mount PVE12/19/21 (Includes spacer)
C – 2-bolt SAE “C”

4 Pilot designation

M – ISO 3019/2 100A2HW
S – SAE – J744 flange

5 Geometric displacement

(Rated capacity (USgpm) at 1200 rpm, 6.9 bar (100 psi))

Frame Size	Code	cm ³ /r	in ³ /r
45V	42	138	8.41
T	45	147	9.00
	50	162	9.85
	60	193	11.75

6 Port connections

A – SAE 4 bolt flange

7 Port connection modifier

M – Metric thread port connection (4 bolt flange)
Omit – Inch thread port connection (4 bolt flange)

8 Thru–drive coupling

2 – Coupling (included with pump)

Pump series	Tail shaft pump requirements
45VTA	SAE “A” size w/30_ involute spline, 9T 16/32 D.P.
45VTB	SAE “B” size w/30_ involute spline, 13T 16/32 D.P.
45VTC	SAE “C” size w/30_ involute spline, 14T 12/24 D.P.

9 Shaft

203 – Heavy duty square key
292N – ISO key 8mm x 12mm (M pilot only)
297 – 14T 12/24 splined SAE ‘C’

10 Outlet positions

(Viewed from adapter end of pump)

A – Opposite inlet port
B – 90° CCW from inlet
C – In line with inlet
D – 90° CW from inlet

11 Thru–drive adapter orientation

(Viewed from adapter end of pump)

A adapter

A – Rotate 45° CW with respect to pump mounting flange
B – Rotate 45° CCW with respect to pump mounting flange

B or C adapter

A – In line with pump mounting flange
B – Rotate 90° with respect to pump mounting flange

12 Design

13 Rotation

(Viewed from shaft end of pump)

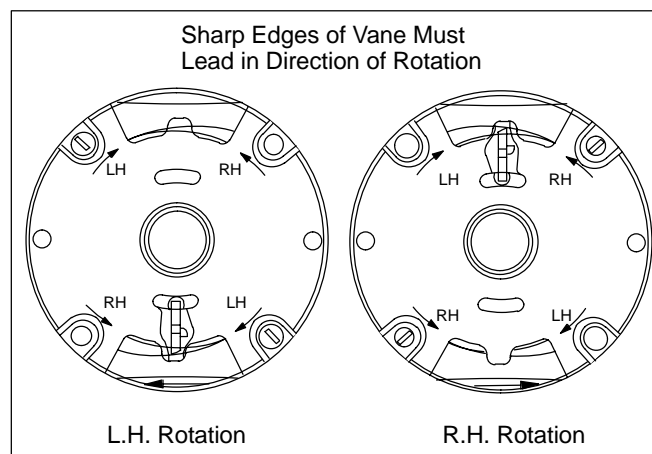
L – Left hand for counterclockwise
R – Right hand for clockwise

NOTE

To reverse cartridge kit rotation, remove the two screws and reverse the location of the inlet support plate and outlet support plate. Re–install the two screws hand tight. Use pump cover to align all sections of the cartridge. Carefully remove the cover and tighten the screws.

NOTE

When ordering spare cartridge parts, it is recommended they be obtained in cartridge kits. Kits are assembled and tested by Vickers 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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