

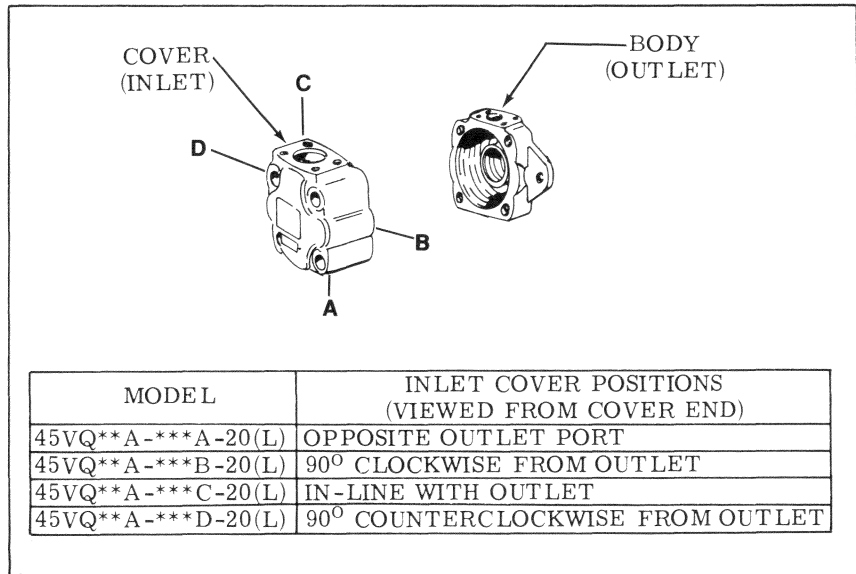


### MODEL CODE BREAKDOWN

(F3) – 45 VQ \*\* A \* – \* \* \* 20 (\*)

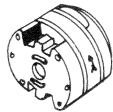
1 2 3 4 5 6 7 8 9 10

- 1 VITON SEALS  
(OMIT IF NOT REQUIRED)
- 2 SERIES
- 3 VANE TYPE
- 4 SAE RATED CAPACITY  
(RATING AT 1200 RPM - 100 PSI)  
(SEE INSIDE FOR CAPACITIES)
- 5 PORT CONNECTIONS  
A – SAE 4-BOLT FLANGE
- 6 MOUNTING & SHAFT SEALS ASSY.  
F – FOOT (SINGLE SHAFT SEAL ASSY.)  
S – FLANGE (DOUBLE SHAFT SEAL ASSY.)  
OMITTED – FLANGE (SINGLE SHAFT SEAL ASSY.)
- 7 SHAFTS  
(SEE TABULATION, EXPLODED VIEW)
- 8 PORT POSITIONS  
(SEE CHART BELOW)
- 9 DESIGN
- 10 ROTATION  
(VIEWED FROM SHAFT END)  
L – LEFT HAND (CCW ROTATION)  
OMITTED – RIGHT HAND ROTATION



PARTS ORDERING

PARTS ARE THE SAME FOR BOTH RIGHT AND LEFT HAND ROTATION. 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 KIT NUMBER. FOR EXAMPLE, 416435-L.

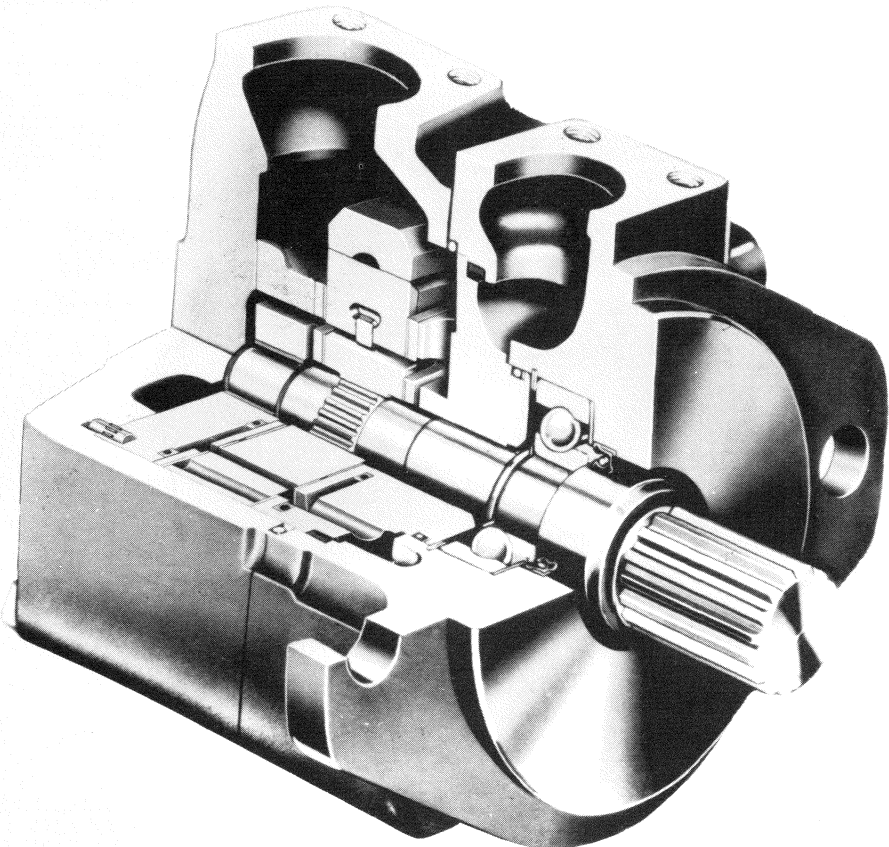


For satisfactory service life of these components, use full flow filtration to provide fluid which meets ISO cleanliness code 16/13 or cleaner. Selections from pressure, return, and in-line filter series are recommended.

Litho in U. S. A.

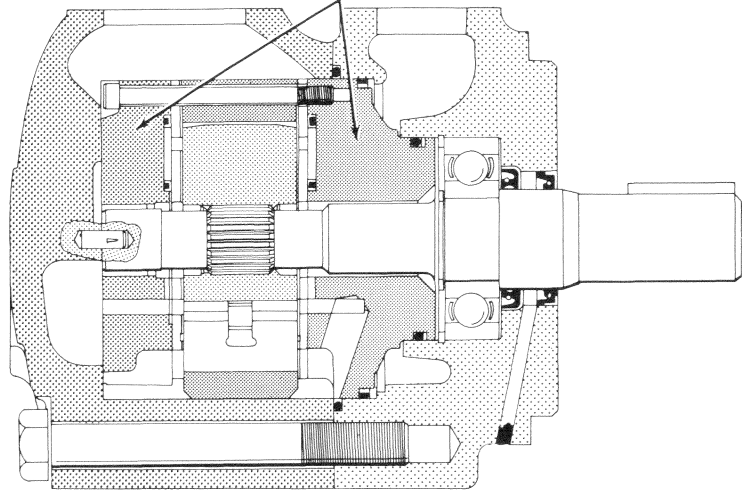
## Vane Type Single Pump

45VQ\*\*A-86\*-20(L)



Vickers Incorporated  
5445 Corporate Drive  
P. O. Box 302  
Troy, Michigan 48007-0302  
U.S.A.

SECTIONED 45° FROM CENTERLINE



⊖ TO REVERSE CARTRIDGE KIT ROTATION, REMOVE THE TWO (2) 380109 SCREWS, AND REVERSE THE LOCATION OF THE INLET SUPPORT PLATE (430807) AND OUTLET SUPPORT PLATE (425510). REINSTALL THE TWO (2) SCREWS HAND TIGHT. USE PUMP COVER TO ALIGN ALL SECTIONS OF THE CARTRIDGE. REMOVE COVER CAREFULLY AND TIGHTEN SCREWS TO 100 lb. in. TORQUE.

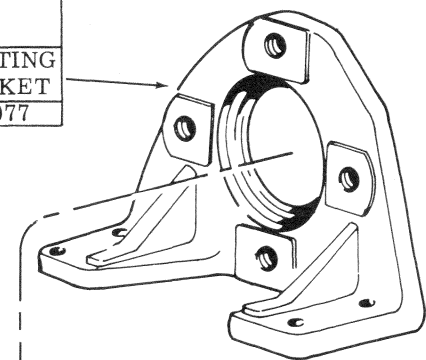
□ WIPE O. D. OF SEAL WITH OIL BEFORE PRESSING INTO BODY. APPLY GREASE TO SEAL I. D. BEFORE INSTALLATION OF SHAFT.

○ ASSEMBLE SEAL WITH SPRING TOWARD BEARING.

● ASSEMBLE SEAL FLUSH TO PILOT FACE WITH SPRING FACING INWARD AS SHOWN

NOTE  
USE 45VQ PARTS TO SERVICE 45V -10/12 DESIGN UNITS.

MOUNTING ASSEMBLY 45VQ***F-**-20(L)		
INCLUDED IN FOOT BRACKET KIT	SCREW (2 REQ'D)	MOUNTING BRACKET
FB-C-10	205533	205077



▲□ 429282 SHAFT SEAL (USE ON "S" FLANGE MOUNTED MODELS ONLY)

942356 BODY S/A KIT (OUTLET)

▲□ 394974 SHAFT SEAL

194878 WASHER

KEY  
(SEE TABLE)

SCREW (SEE TABLE)

▲ INCLUDED IN SINGLE  
SHAFT SEAL KIT 920025  
F3 EQUIVALENT 920027

▲▲ INCLUDED IN DOUBLE  
SHAFT SEAL KIT 920026  
F3 EQUIVALENT 920028

\* INCLUDED IN CARTRIDGE KITS

\*▲ 419675 RING SEALING  
(ASSEMBLY NOTE: INSTALL  
IN BODY BEFORE INSTALL-  
ATION OF CARTRIDGE KIT.)

NOTE  
BRONZE FACES MUST  
BE INSTALLED TOWARD  
THE ROTOR.

\*▲ 154107 "O" RING

\*▲ 154087 "O" RING

\*▲ 588509 BACK-UP RING

158630 SNAP RING

102949 RETAINING RING

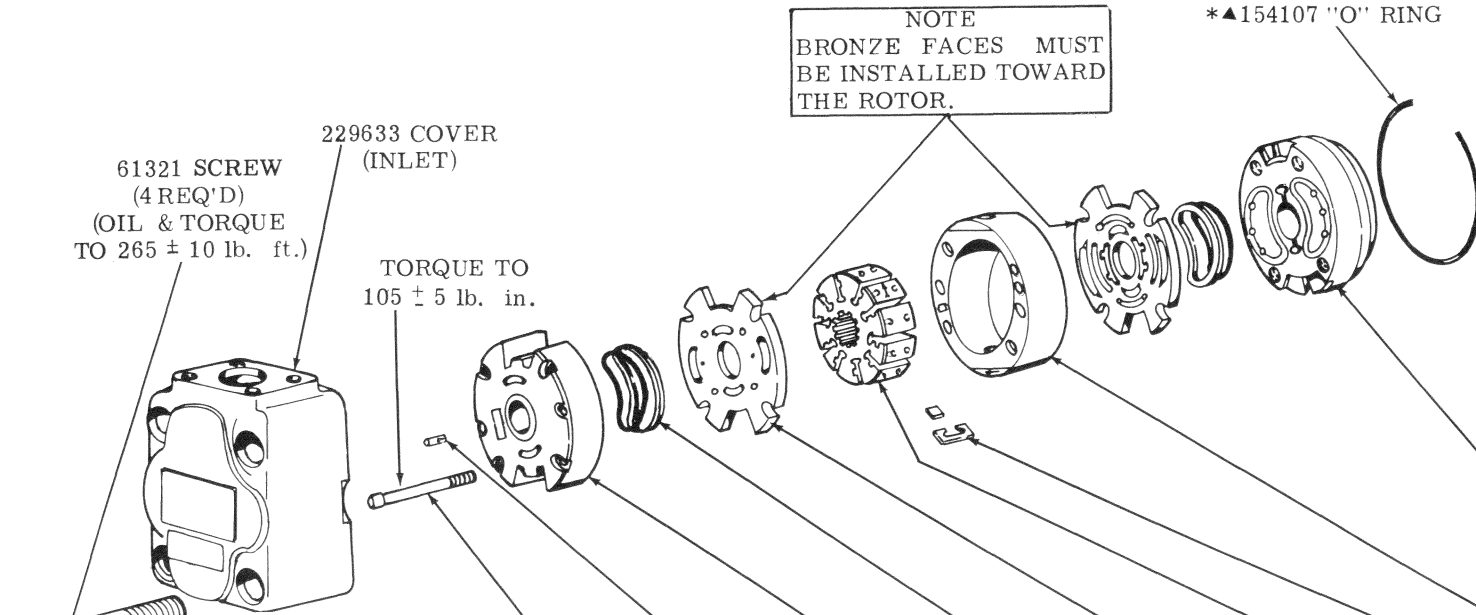
131812 BEARING

61321 SCREW  
(4 REQ'D)  
(OIL & TORQUE  
TO 265 ± 10 lb. ft.)

229633 COVER  
(INLET)

TORQUE TO  
105 ± 5 lb. in.

SHAFTS					
SINGLE SEAL MODELS		DOUBLE SEAL MODELS		KEY	TYPE
SHAFT NO.	PART NO.	SHAFT NO.	PART NO.		
1	233369	—	—	217596	STR. KEYED
4	233370	—	—	—	SPLINE
11	242885	—	—	—	SPLINE
—	—	130	422541	—	SPLINE
86	361760	—	—	239751	STR. KEYED

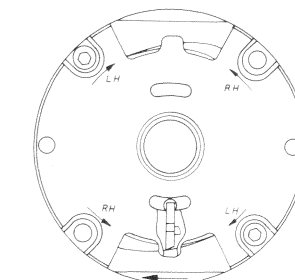


CAPACITY (USGPM)	SCREW (2 REQ'D)	PIN (2 REQ'D)	INLET SUPPORT PLATE	SEAL PACK (4 REQ'D)	◆ FLEX SIDE PLATE KIT	ROTOR	VANE KIT	RING	OUTLET SUPPORT PLATE	CART. KIT	F3 CART. KIT
45VQ42A-(*)***-20(*)								297510		416435	419511
45VQ47A-(*)***-20(*)								297718		421234	421954
45VQ50A-(*)***-20(*)	380109	422208	430807 (INCLUDES BUSHING)	433768 S/A	923954	283871	922701 (INCLUDES 10 VANES & 10 INSERTS)	297502	415382	416436	419510
45VQ57A-(*)***-20(*)								306772		421233	421955
45VQ60A-(*)***-20(*)								297503		416437	419509

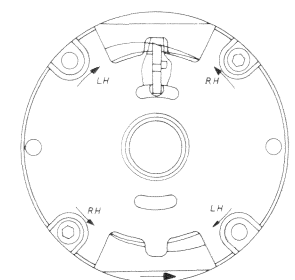
THESE PARTS ARE INCLUDED IN CARTRIDGE KIT

◆ NOTE  
WHEN ORDERED INDIVIDUALLY, FLEX SIDE PLATE KIT INCLUDES (4) F3 SEAL PACK SUBASSEMBLIES.

SHARP EDGE OF VANE MUST LEAD DIRECTION OF ROTATION



⊖ COVER END  
L. H. ROTATION



⊖ COVER END  
R. H. ROTATION