



BOSCH

REPAIR PARTS

MODEL SV-20 & SV-25

VARIABLE VOLUME VANE TYPE PUMP

MANIFOLD MOUNTED
FLANGE MOUNTED

VOID PRODUCT
NOT ALL PARTS AVAILABLE

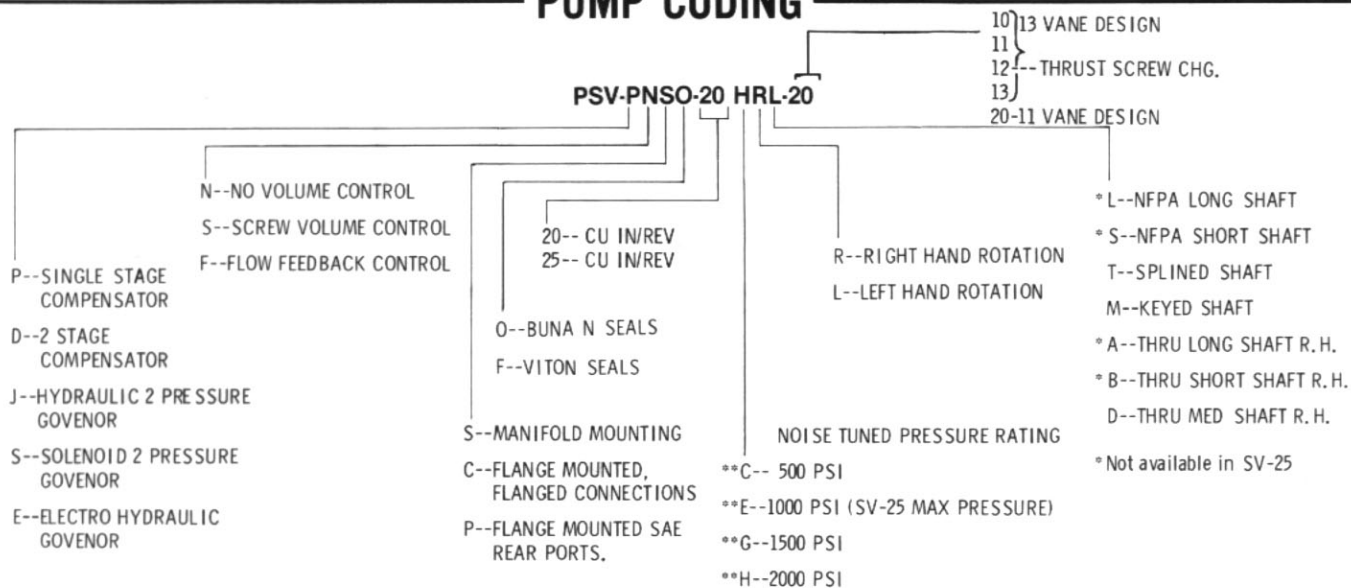


WHEN ORDERING PARTS, FURNISH:

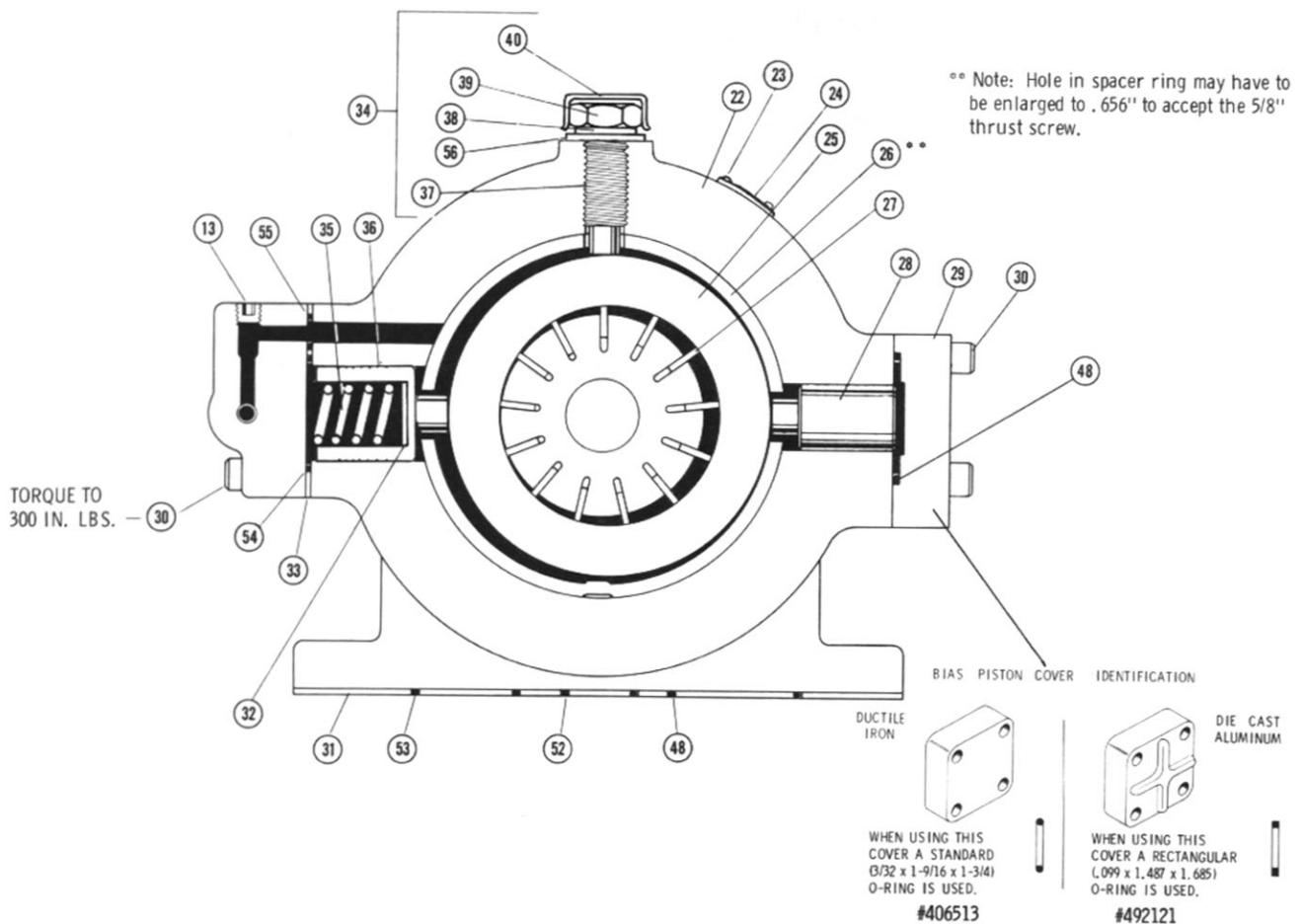
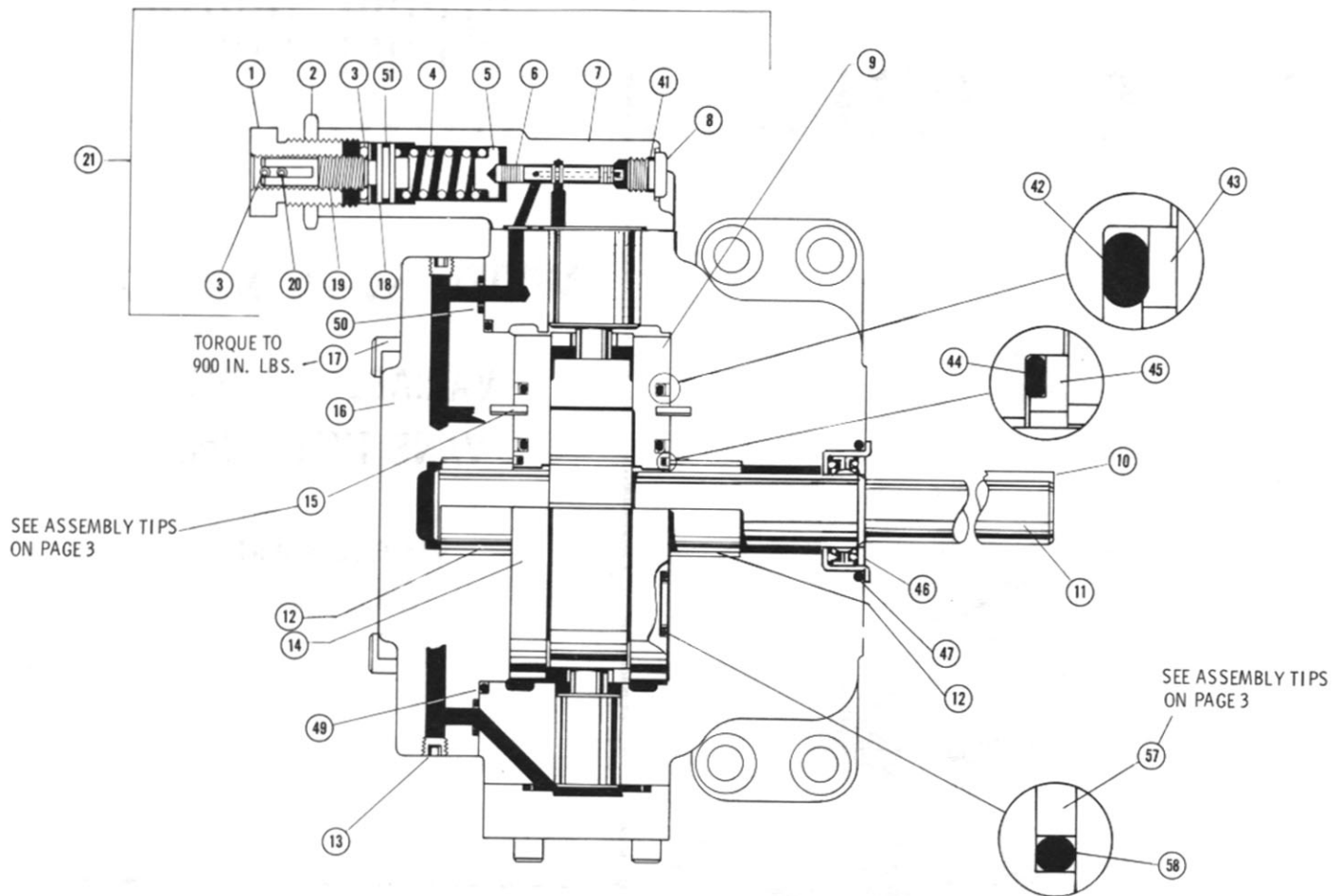
1. COMPLETE CODE NUMBER
2. PARTS REQUIRED
3. SHIPPING INSTRUCTIONS

WRITE FACTORY FOR NEAREST AUTHORIZED
PARTS AND SERVICE CENTER.

PUMP CODING



**All pumps shipped after 8/1/73 are coded H-2000 psi
but can be sound tuned at lower pressures.



Ref. No.	Part No.	Description	Qty.
** 1	308123	Outer Adjustment Screw	1
2	308124	Lock Nut	1
** 3	402387	Roll Pin	3
4	408716	Spring	1
5	308137	Spring Stop	1
6	308136	Compensator Spool	1
7	222362	Compensator Body	1
8	406351	#5 SAE Plug (Buna)	1
8	490832	#5 SAE Plug (Viton)	1
9	See Chart A	Body Port Plate	1
10	405646	Key (Long) 1.50"	1
10	408906	Key (Short) .875"	1
11	See Chart B	Rotor Shaft	1
12	778083	Bearing Assembly	2
13	400925	1/16 NPTF Plug	3
14	See Chart A	Cover Port Plate	1
15	401712	Roll Pin	4
16	222412	Cover - Subplate Mtd.	1
16	222468	Cover - Subplate Mtd. (Thru Shaft)	1
16	222478	Cover - Flange Mtd.	1
16	222710	Cover - Flange Mtd. (Thru Shaft)	1
16	222671	Cover - Flange Mtd. (Rear Ported - SAE Ports)	1
17	408892	Screw (7/16 - 14 x 2)	4
18	308537	Spring Guide	1
** 19	308615	Inner Adjustment Screw	1
** 20	401715	Roll Pin	1
21	723004	Compensator Assembly	1
* 22	222410	Body - L.H. (Subplate Mtd.)	1
* 22	222411	Body - R.H. (Subplate Mtd.)	1
* 22	222477	Body - R.H. (Flange Mtd.)	1
* 22	222479	Body - L.H. (Flange Mtd.)	1

CHART A

Port Plates - Ref. No.'s 9 & 14

SV-20 - Description	-10-To-13 Design (13 Vane)	-20 Design (11 Vane)
R.H. Cover, L.H. Body	222882	222943
R.H. Body, L.H. Cover	222883	222942
R.H. Cover (Low Pressure)	222884	
SV-25 - Description		
R.H. Cover, L.H. Body	222882	222943
R.H. Body, L.H. Cover	222883	222942

Note: SV-25 Port Plates can be used in SV-20 Pumps.

Note: Flange mounted pump flange kit no. 950064 contains one 1-1/4" NPT inlet, one 1" NPT outlet, all bolts and O-Rings.

Ref. No.	Part No.	Description	Qty.
23	401296	Self Tapping Screw	4
24	490542	Nameplate (R.H.)	1
24	490543	Nameplate (L.H.)	1
25	308128	Pressure Ring	1
25	308675	Pressure Ring (SV - 25)	1
26	308320	Spacer Ring	1
27	778276	Vane Set (Qty. 13)	1
27	778343	Vane Set (Qty. 11)	1
28	308316	Bias Piston	1
29	492010	Bias Cover	1
30	400787	Screw (5/16 - 18 x 1-1/4)	8
31	408907	Seal Plate	1
32	491907	Washer (SV - 25 Only)	1
33	408898	Seal Plate	1
34	723497	Thrust Screw Assembly (5/8 - 18 UNF)	1
34	723251	Thrust Screw Assembly (9/16 - 18 UNF)	1
35	408717	Spring	1
36	308129	Control Piston	1
37	308676	Screw (5/8 - 18 UNF)	1
37	491268	Screw (9/16 - 18 UNF)	1
38	491405	Washer (.637 ID) Assemble so Chamfer	1
38	491252	Washer (.572 ID) Faces Seal	1
39	401015	Jam Nut (5/8 - 18 UNF)	1
39	491270	Jam Nut (9/16 - 18 UNF)	1
40	490775	Security Cap	1
-	400928	Plug 1/4 NPTF - Flange Mtd. - Not Shown -	2

- * Use Thrust Screw Assy. #723497 With New Pump Body
- ** Included In Adjusting Screw Kit Assembly #723551

For All Pumps Manufactured Before November 1975,
Use 9/16 Thrust Screw Assembly # 723251

CHART B

Rotor Shafts - Ref. No. 11

Description	-10-To-13 Design (13 Vanes)	-20 Design (11 Vanes)
• Longed Keyed Shaft	308134	308770
• Short Keyed Shaft	308135	308773
• Long Keyed Thru Shaft	308245	* 308769
• Short Keyed Thru Shaft	308246	** 308768
Splined Shaft	308382	308771
Medium Keyed Shaft	308348	308760
Medium Thru Keyed Shaft	308380	308772

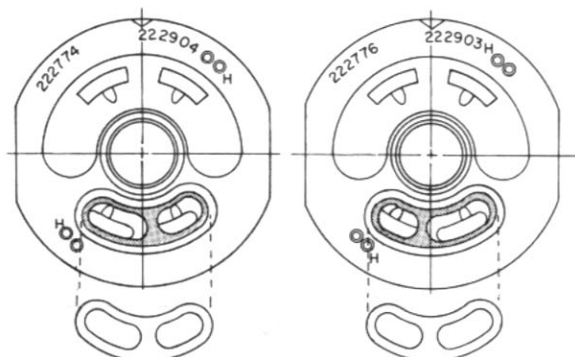
- * Subplate Mtd. Only
- ** SV-20 R.H. Rotation, Subplate Mounted Only
- SV-20 Pump Only

ASSEMBLY TIPS

NOTE: PLACEMENT OF BACK-UP RING IN SUCTION PORT IS IMPORTANT. IF LARGER ARC IS NOT LOCATED AS SHOWN, BACK-UP RING CAN FALL INTO BODY CAVITY. THIS IS DUE TO PORT PLATES BEING ROTATED 7°.

ALL PUMPS DO NOT CONTAIN THESE PORT PLATES. CURRENT DESIGN ELIMINATES THE BACK-UP RING. VISUALLY INSPECT FOR CORRECT PARTS REPLACEMENT.

-20 DESIGN PORT PLATES HAVE 2 SETS OF ROLL PIN HOLES. ONLY USE HOLES MARKED "H"



SEAL KITS

VITON SEAL KIT # 723718

Ref. No.	Part No.	Description	Qty.
41	406586	O-Ring, .072 x .414 x .558	1
42	406702	O-Ring, 1/8 x 3-1/8 x 3-3/8	2
43	491827	Back - Up Ring	2
44	409156	O-Ring, 1/16 x 1-3/4 x 1-7/8	2
45	490746	Back - Up Ring	2
46	723525	Shaft Seal	1
47	407105	O-Ring, 1/16 x 1-1/2 x 1-5/8	1
48	406513	O-Ring, 3/32 x 1-9/16 x 1-3/4	2
48	492122	Rectangular O-Ring (ALUMINUM COVER)	1
49	407146	O-Ring, 1/8 x 4-7/8 x 5-1/8	1
50	406269	O-Ring, 1/16 x 3/8 x 1/2	3
51	407125	O-Ring, 1/16 x 3/4 x 7/8	1
52	406555	O-Ring, 3/32 x 13/16 x 1	1
53	407148	O-Ring, 3/32 x 1-3/16 x 1-3/8	1
54	491525	O-Ring, 1/16 x 1-3/8 x 1-1/2	1
55	409135	O-Ring, 1/16 x 5/16 x 7/16	2
56	491372	Thread Seal	1
57	492031	Back - Up Ring	2
58	406712	O-Ring, 3/32 x 1-11/16 x 1-7/8	2
59	408846	Back - Up Ring	1
—	491405	Washer (Thread Seal)	1
—	491252	Washer w/Chamfer	1
—	406093	O-Ring, 1/16 x 1/2 x 5/8	1
—	406196	O-Ring, 1/16 x 9/16 x 11/16	1
—	407093	O-Ring, 3/32 x 1 x 1-13/16	1
—	407123	O-Ring, 1/16 x .30 x .429	1
—	407480	Back - Up Ring	1
—	493743	Seal	1
—	794177	I.D. Card	1
—	794178	Installation Card	1

REPAIR KITS

11 VANE REPAIR KITS

Description	Assembly No. SV-20	Assembly No. SV-25
Short Shaft Viton	723656	—
Short Thru Shaft Viton	723659	—
Long Shaft Viton	723655	—
Long Thru Shaft Viton	723660	—
Splined Shaft Viton	723627	723701
Medium Length Thru Shaft Viton	723625	723661
Standard Medium Shaft Viton	723623	723702

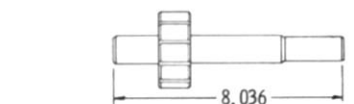
Each repair kit contains the following parts:
one pressure ring, one rotor shaft, one or
two keys, one set of vanes, four roll pins,
two port plates, two bearings, and one seal kit.

CONVERSION KIT SV-20 to SV-25 - No. 723679
Includes pressure ring, port plates, and control piston washer.

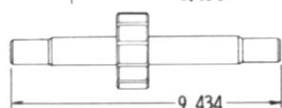
Note: When a pump with 13 vanes
is rebuilt using a 11 vane repair
kit the pump then becomes a -20 Design.

SHAFT IDENTIFICATION

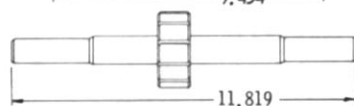
11 VANE ROTORS



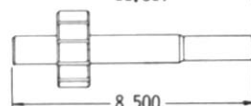
308760
STANDARD (MEDIUM) SHAFT



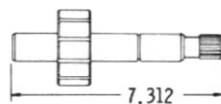
308768
SHORT THRU SHAFT (NFPA)



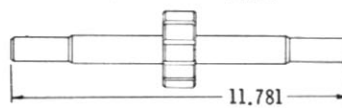
308769
LONG THRU SHAFT (NFPA)



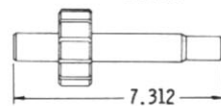
308770
LONG SHAFT (NFPA)



308771
SHORT, SPLINED

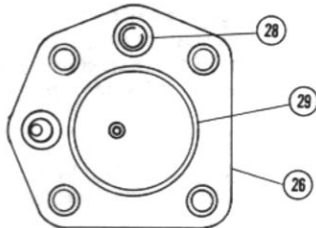
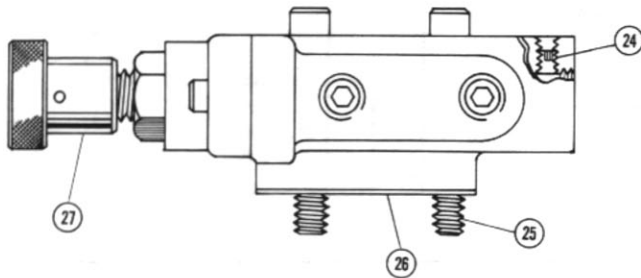
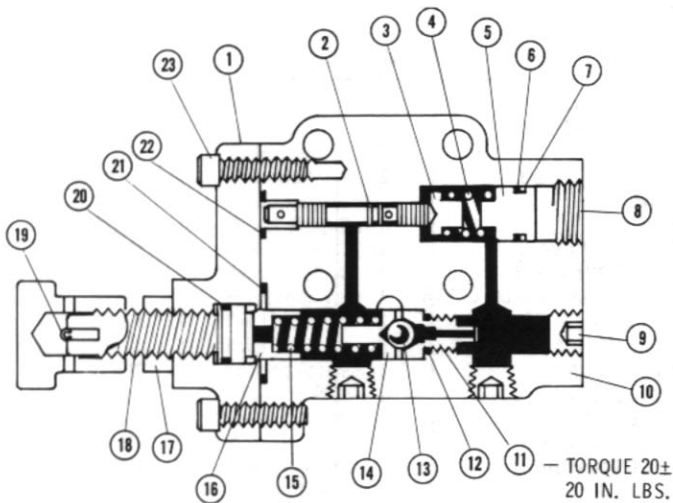


308772
MEDIUM THRU SHAFT



308773
SHORT SHAFT (NFPA)

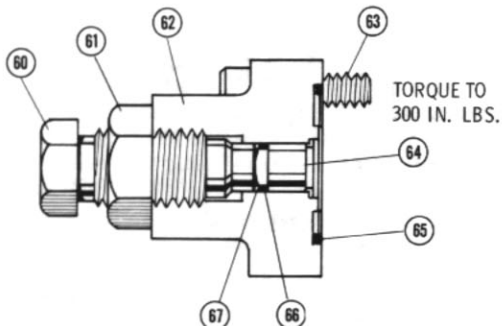
TWO STAGE PRESSURE COMPENSATOR



Ref. No.	Part No.	Description	Qty.
1	222462	Cover	1
2	308252	Compensator Spool	1
3	308253	Spring Seat	1
4	408734	Spring	1
5	308322	Spring Seat	1
6	406093	O-Ring, 1/16 x 1/2 x 5/8	1
7	407480	Back - Up Ring	1
8	308321	Adjusting Plug	1
9	400928	Pipe Plug 1/4" NPT	3
10	222463	Compensator Body	1
11	308456	Poppet Seat	1
12	407123	O-Ring, 1/16 x .30 x .429	1
13	401066	Ball .312 Dia.	1
14	308534	Seat	1
15	406239	Spring	1
16	308517	Spring Retainer	1
17	401014	Jam Nut 9/16 x 13 UNF	1
18	308255	Adjusting Screw	1
19	401715	Roll Pin	1
20	406196	O-Ring, 1/16 x 9/16 x 11/16	1
21	407093	O-Ring, 3/32 x 15/16 x 1-1/8	1
22	406269	O-Ring, 1/16 x 3/8 x 1/2	1
23	400778	Screw, 1/4 - 20 x 1	2
24	400852	Lock Screw 1/4 x 1/4	1
25	402406	Screw, 5/16 x 18 x 2-1/4	4
26	408898	Seal Plate	1
27	308256	Adjusting Knob	1
28	409135	O-Ring, 1/16 x 5/16 x 7/16	2
29	491525	O-Ring, 1/16 x 1-3/8 x 1-1/2	1

VOLUME CONTROL

Viton Volume Control Assembly No. 723021



Ref. No.	Part No.	Description	Qty.
60	308127	Screw	1
61	401016	Jam Nut (3/4 - 16)	1
62	222524	Body	1
63	400789	Screw (5/16 - 18)	4
64	308317	Piston	1
* 65	406513	O-Ring, 3/32 x 1-9/16 x 1-3/4	1
* 66	406269	O-Ring, 1/16 x 3/8 x 1/2	1
* 67	408846	Back - Up Ring	1

*Included In Seal Kits

9 535 233 239
HPUS RSB 003/12 US (4.95)

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