



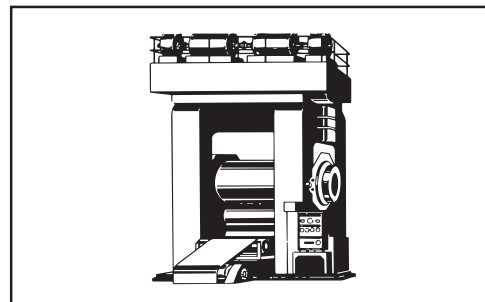
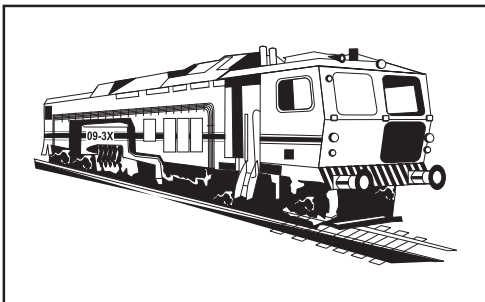
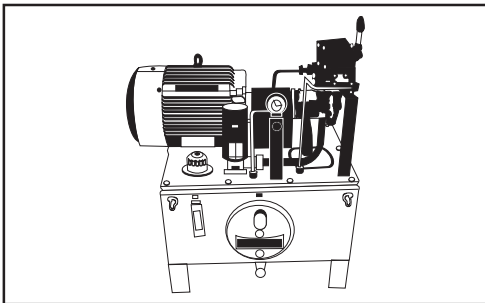
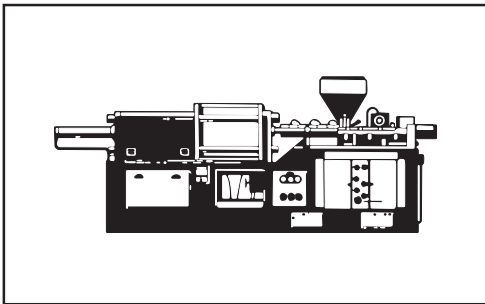
VELJAN

Service Information

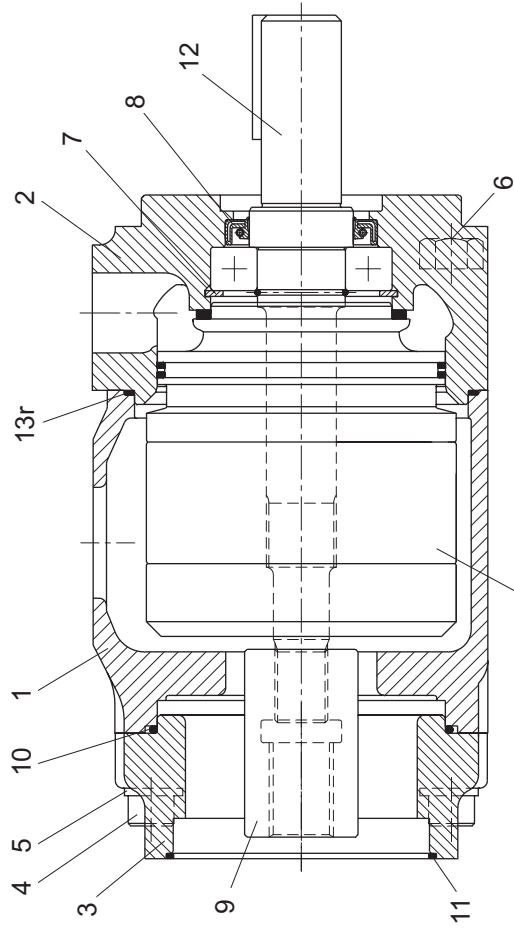
SS4 - 00111

VT6DR - VT6DRM

Drine train Single vane pump



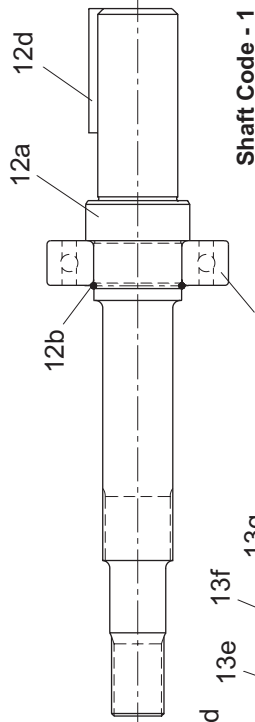
Bold printed are recommended repair kits and assemblies



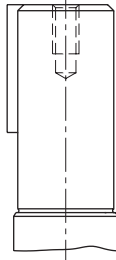
Mounting torque

Item pos.	4	6
ft-lbs	53	138
N-m	72	187

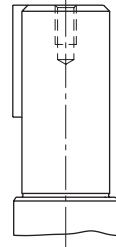
13



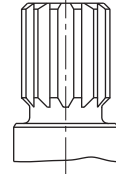
Shaft Code - 1



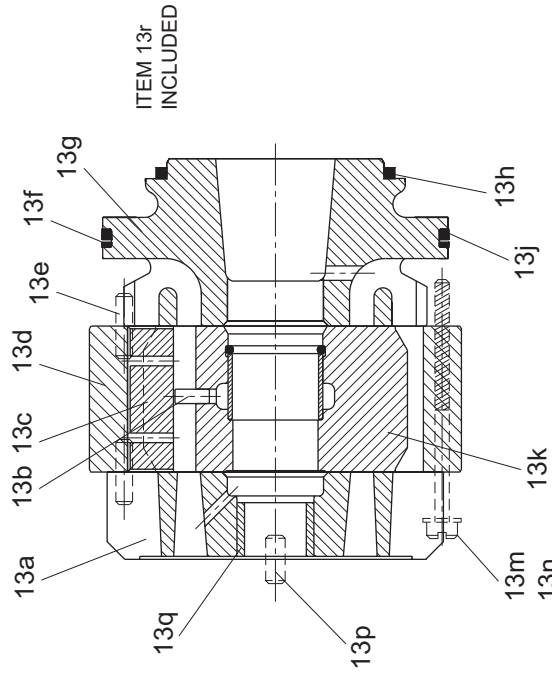
Shaft Code - 2



Shaft Code - 5



Shaft Code - 3



Item pos.	Description	Part No.			Qty
		VT6DR (Standard)	VT6DR (Bi-dir plates)	VT6DRM-B**	
1	Housing (UNC)	V034-66551	V034-66551	V034-66551	1
	Housing (Metric)	C-034-03061	C-034-03061	C-034-03061	
2	Mounting flange (UNC)	V034-66495	V034-66495	V034-66495	1
	Mounting flange (Metric)	V034-66748	V034-66748	V034-66748	
3	Mounting adapter (SAE A)	V034-66531	V034-66531	V034-66531	1
	Mounting adapter (SAE B)	V034-66533	V034-66533	V034-66533	
	Mounting adapter (SAE C)	V034-66535	V034-66535	V034-66535	
4	Washer	V034-66412	V034-66412	V034-66412	4
5	Mounting Screw (SAE A)	V361-12254-8	V361-12254-8	V361-12254-8	4
	Mounting Screw (SAE B)	V361-12264-3	V361-12264-3	V361-12264-3	
	Mounting Screw (SAE C)	V361-12284-3	V361-12284-3	V361-12284-3	
6	Mounting Screw	V306-40156	V306-40156	V306-40156	4
7	Retaining ring	V356-32283	V356-32283	V356-32283	1
8	Shaft seal (S1-0.7 bar)	V620-82064	V620-82064	V620-82064	1
	Shaft seal (S4-S5-7 bar)	V620-82072	V620-82072	V620-82072	

9	Coupling (SAE A) (9 teeth) for adaptor SAE A	V034-66538	V034-66538	V034-66538	1
	Coupling (SAE B) for adaptor SAE A	V034-66650	V034-66650	V034-66650	
	Coupling (SAE) (11 teeth) for adaptor SAE A	V034-66653	V034-66653	V034-66653	
	Coupling (SAE B) for adaptor SAE B	V034-66541	V034-66541	V034-66541	
	Coupling (SAE B-B) for adaptor SAE B	V034-66544	V034-66544	V034-66544	
	Coupling (SAE C) for adaptor SAE C	V034-66547	V034-66547	V034-66547	
10	'O' ring	V671-00246	V671-00246	V671-00246	1
11	Sq. section seal (for adaptor SAE A)	V671-10152	V671-10152	V671-10152	1
	Sq. section seal (for adaptor SAE B)	V671-10155	V671-10155	V671-10155	
	Sq. section seal (for adaptor SAE C)	V671-10159	V671-10159	V671-10159	

Item pos.	Description	Part No.			Qty
		VT6DR (Standard)	VT6DR (Bi-dir plates)	VT6DRM-B**	
12	Shaft and bearing assy (# 1)	VS24-26349	VS24-26349	VS24-26349	1
	Shaft and bearing assy (# 2)	VS24-26350	VS24-26350	VS24-26350	
	Shaft and bearing assy (# 3)	VS24-26351	VS24-26351	VS24-26351	
	Shaft and bearing assy (# 5)	VS24-26352	VS24-26352	VS24-26352	
12a	Shaft (Keyed) (Code-1)	V034-66560	V034-66560	V034-66560	1
	Shaft (Keyed) (Code-2)	V034-66561	V034-66561	V034-66561	
	Shaft (Splined) (Code-3)	V034-66562	V034-66562	V034-66562	
	Shaft (splined) (Code-5)	V034-66563	V034-66563	V034-66563	
12b	Round section ring	V034-70853	V034-70853	V034-70853	1
12c	Ball bearing	V230-00207	V230-00207	V230-00207	1
12d	Key (Code 1 and 5)	V034-46754	V034-46754	V034-46754	1
	Key (Code 2)	V034-70330	V034-70330	V034-70330	
13	Cartridge assembly *14 C.W.	VS24-33849	C-S14-71583	VS24-40789	1
	Cartridge assembly *14 C.C.W.	VS24-40598	C-S14-71584	VS24-40790	
	Cartridge assembly *20 C.W.	VS24-26486	C-S14-71585	VS24-30139	
	Cartridge assembly *20 C.C.W.	VS24-26487	C-S14-71586	VS24-30140	
	Cartridge assembly *24 C.W.	VS14-97784	VS24-25970	VS24-30141	
	Cartridge assembly *24 C.C.W.	VS24-25544	C-S14-71587	VS24-30142	
	Cartridge assembly *28 C.W.	VS24-10837	VS24-10123	VS24-30143	
	Cartridge assembly *28 C.C.W.	VS24-10838	VS24-10124	VS24-30144	
	Cartridge assembly *31 C.W.	VS24-10839	VS24-10125	VS24-30145	
	Cartridge assembly *31 C.C.W.	VS24-10840	VS24-10126	VS24-30146	
	Cartridge assembly *35 C.W.	VS24-10841	VS24-10127	VS24-30147	
	Cartridge assembly *35 C.C.W.	VS24-10842	VS24-10128	VS24-30148	
	Cartridge assembly *38 C.W.	VS24-10843	VS24-10129	VS24-30149	
	Cartridge assembly *38 C.C.W.	VS24-10844	VS24-10130	VS24-30150	
	Cartridge assembly *42 C.W.	VS24-10845	VS24-10131	VS24-30151	
	Cartridge assembly *42 C.C.W.	VS24-10846	C-S14-71588	VS24-30152	
	Cartridge assembly *45 C.W.	VS24-10847	VS24-10136	VS24-30153	
	Cartridge assembly *45 C.C.W.	VS24-10848	C-S14-71589	VS24-30154	
	Cartridge assembly *50 C.W.	VS24-40028	VS24-40610	VS24-40030	
	Cartridge assembly *50 C.C.W.	VS24-40029	C-S14-71590	VS24-40031	
13a	Port plate - rear C.W.	V034-59810			1
	Port plate - rear C.C.W.	V034-59811			
	Port plate - rear Bi-dir		V034-59101	V034-59101	

Item pos.	Description	Part No.			Qty
		VT6DR (Standard)	VT6DR (Bi-dir plates)	VT6DRM-B**	
13b	Pin vane holdout	V034-59130	V034-59130	V034-24984	10
13c	Vane	V034-53588	V034-53588	V034-53588	10
13d	Cam ring - 014	V034-66708	V034-66708	V034-66708	1
	Cam ring - 020	V034-66596	V034-66596	V034-66596	
	Cam ring - 024	V034-59294	V034-59294	V034-59294	
	Cam ring - 028	V034-59133	V034-59133	V034-59133	
	Cam ring - 031	V034-59135	V034-59135	V034-59135	
	Cam ring - 035	V034-59137	V034-59137	V034-59137	
	Cam ring - 038	V034-59139	V034-59139	V034-59139	
	Cam ring - 042	V034-59132	V034-59132	V034-59132	
	Cam ring - 045	V034-59131	V034-59131	V034-59131	
	Cam ring - 050	V034-66737	V034-66737	V034-66737	
13e	Dowel pin	V324-21612	V324-21612	V324-21612	2
13f	Back-up ring	V618-15017	V618-15017	V618-15017	1
13g	Port plate - pressure C.W.	V034-59808			1
	Port plate - pressure C.C.W.	V034-59809			
	Port plate - pressure		V034-59057	V034-59057	
13h	Sq. section seal	V691-10232	V691-10232	V691-10232	1
13j	Sq. section seal	V691-10244	V691-10244	V691-10244	1
13k	Rotor-insert assy	VS24-10121	VS24-10121	VS24-30018	1
13m	Screw	V317-10320	V317-10320	V317-10320	2
13n	Lockwasher internal tooth	V348-10010	V348-10010	V348-10010	2
13p	Dowel pin	V323-82004	V323-82004	V323-82004	1
13q	Bush	V034-70868	V034-70868	V034-70868	1
13r	Sq. section seal	V671-10159	V671-10159	V671-10159	1
8, 10	Seal kit (S1 - 0,7 bar)	VS24-26384	VS24-26384	VS24-26384	1
11, 13f	Seal kit (S4 - 7 bar)	VS24-26384-4	VS24-26384-4	VS24-26384-4	
13h, 13j	Seal kit (S5 - 7 bar)	VS24-26384-5	VS24-26384-5	VS24-26384-5	
13r					
13a	Port plate - rear and bush assy		C.W		1
13q			C.C.W		
			Bi-dir	VS24-10122	VS24-10122
3, 4	Mounting adapter ass'y (SAE A)	VS24-26336	VS24-26336	VS24-26336	1
5, 10	Mounting adapter ass'y (SAE B)	VS24-26337	VS24-26337	VS24-26337	
	Mounting adapter ass'y (SAE C)	VS24-26338	VS24-26338	VS24-26338	

* 0 - Standard
B - Bi-directional plates/Mobile
R - Mobile-Spring assisted (on request)

MODEL CODE

VT6DR * * * - * 35 - 1 R 00 - A 1 0 - A 1 *

Series

M = Mobile (omit for Industrial)

Y = Metric port connection, omit for UNC

Cam ring — Displacement — Cam ring — Displacement
 in³/rev (cm³/rev) in³/rev (cm³/rev)

014/B14/R14	= 2.90 (47.6)	038/B38/R38	= 7.30 (120.3)
020/B20/R20	= 4.00 (66.0)	042/B42/R42	= 8.30 (136.0)
024/B24/R24	= 4.85 (79.5)	045/B45/R45	= 8.90 (145.7)
028/B28/R28	= 5.50 (89.7)	050/B50/R50	= 9.64 (158.0)
031/B31/R31	= 6.00 (98.3)		
035/B35/R35	= 6.80 (111.0)		

Select 'B**' for Mobile and Bi-directional

Select 'R**' for Mobile-spring assisted

Type of Shaft

VT6DR/VT6DRM

- 1 = Keyed (SAE C)
- 2 = Keyed (no SAE)
- 3 = Splined (SAE C)
- 4 = Splined (no SAE)

Direction of rotation

R = Clockwise

L = Counter - clockwise

Modification

Seal class

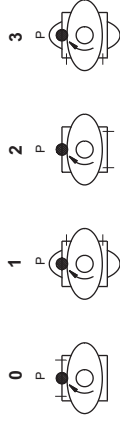
1 = S1 - BUNA N

4 = S4 - EPDM

5 = S5 - VITON

Design letter

Porting adapter



SAE A - SAE B

SAE C

Coupling

1 = SAE A

3 = SAE B - B

5 = SAE J498b 16/32-11 teeth

Adapter

0 = None

A = SAE A

B = SAE B

C = SAE C

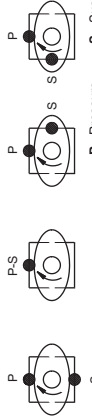
Porting combination : (00 = Standard)

00

01

02

03

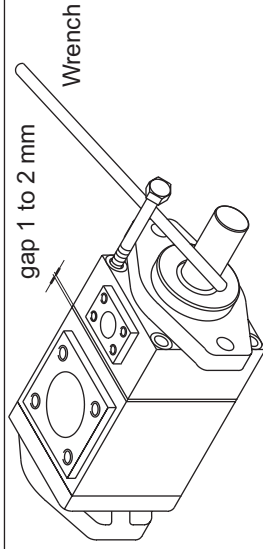


To change porting position, follow the steps below:

- Secure pump and remove 4 bolts from mounting flange. Move the mounting flange 1 to 2 mm away from housing. Insert one bolt halfway to mounting flange. Install a wrench between the shaft and bolt and turn in the desired way, so that the required position of P1 port with respect to Suction is obtained. Reinstall the bolts and tighten to corresponding mounting torque as provided on page 2.

Instruction: Do not remove mounting flange completely from the housing but only just 1 to 2 mm to avoid the cartridge pin to move out from the housing dowel pin hole. Make sure no piece of paint enters into the gap to avoid leakage.

If it is difficult to turn mounting flange put some hydraulic oil into the pressure port to lubricate the pressure port seals.



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