



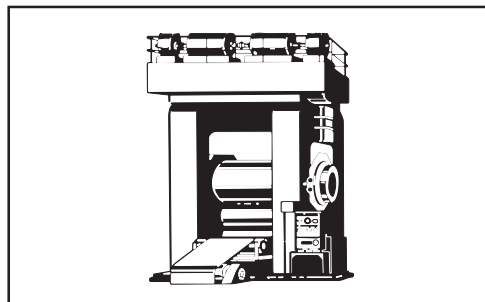
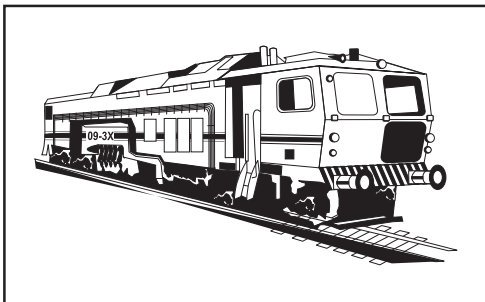
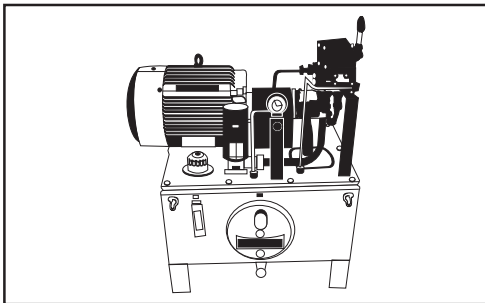
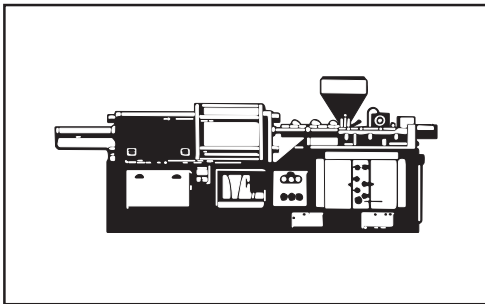
**VELJAN**

**Service Information**

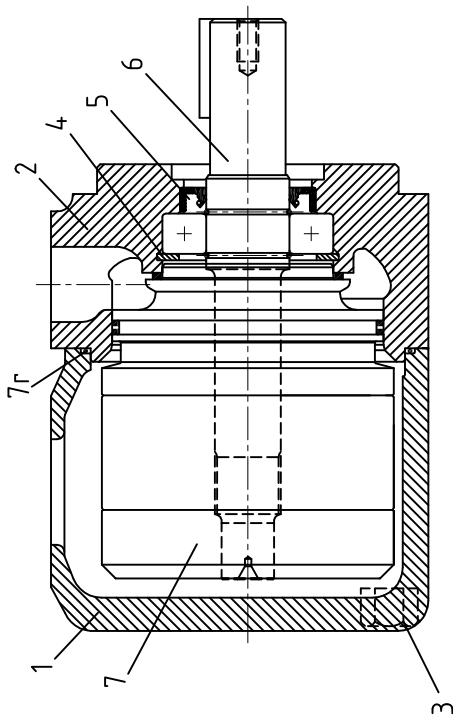
**SS4 - 00102**

## **VT6D - VT6DM - VT6DP**

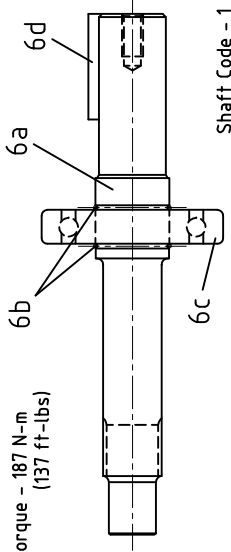
### **Single vane pump**



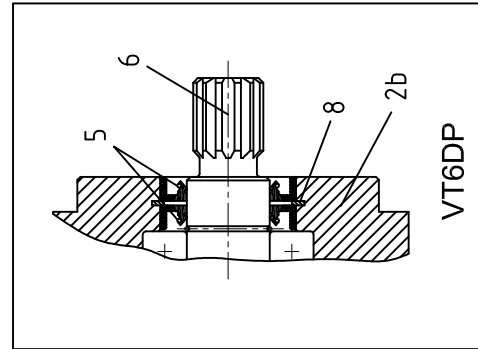
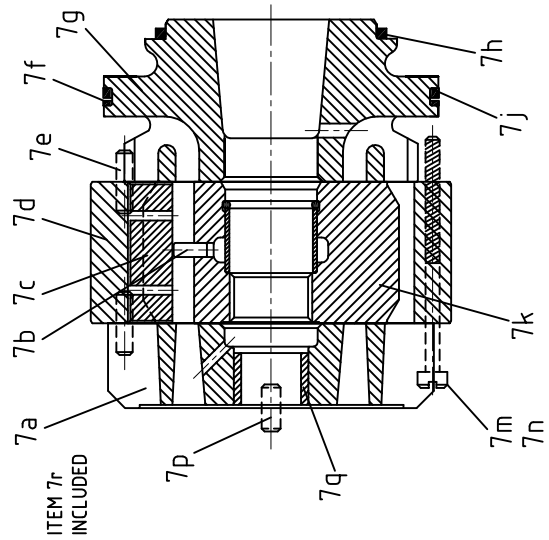
**Bold printed are recommended repair kits and assemblies**



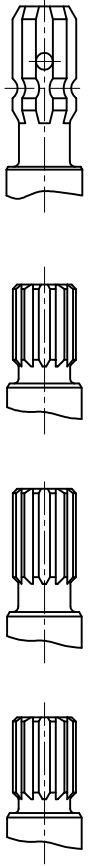
Mounting torque - 187 N-m  
(137 ft-lbs)



Shaft Code - 1      Shaft Code - 2



Item pos.	Description	VT6D VT6DN VT6DQ (Standard)	VT6D VT6DN VT6DQ (Bi-dir plates)	VT6DM-B** VT6DP-B** VT6DNM-B** VT6DQM-B** VT6DQP-B**	Qty
1	Housing (UNC)	V034-47917	V034-47917	V034-47917	1
	Housing (Metric)	C-034-03052	C-034-03052	C-034-03052	
2	Mounting flange (UNC)	V034-47916	V034-47916	V034-47916	1
	(VT6D/VT6DN/VT6DM/VT6DNM)				
	Mounting flange (Metric)	C-034-03053	C-034-03053	C-034-03053	
	(VT6D/VT6DN/VT6DM/VT6DNM)				
	Mounting flange (UNC) (VT6DP)			V034-66725	
	Mounting flange (Metric) (VT6DP)			C-034-03054	
	Mounting flange (VT6DQ/VT6DQM)	V034-66527	V034-66527	V034-66527	
	Mounting flange (VT6DQP)			C-034-03048	
3	Mounting Screw	V306-40157	V306-40157	V306-40157	4
4	Retaining ring	V356-32283	V356-32283	V356-32283	1



Shaft Code - 3      Shaft Code - 4      Shaft Code - 3  
(VT6DP)      Shaft Code - T

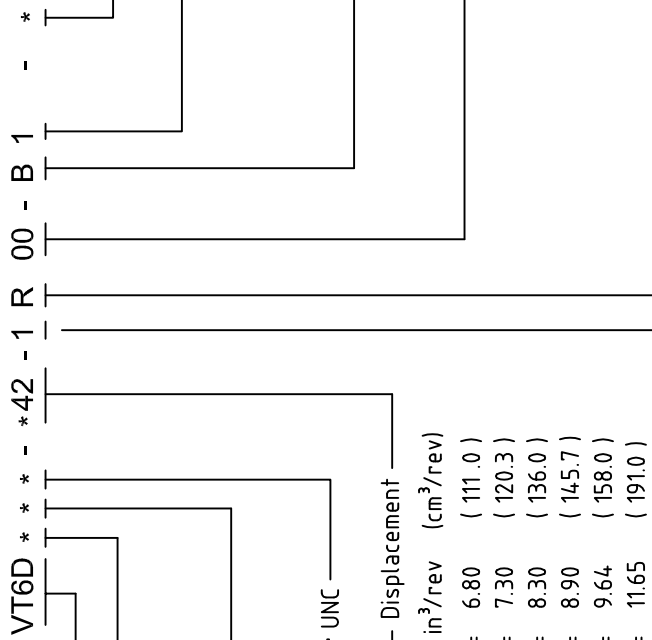
5	Shaft seal (S1-0.7 bar)	V620-82062	V620-82062	V620-82062	1
	Shaft seal (S4-S5-7 bar)	V620-82066	V620-82066	V620-82066	
	Shaft seal (S1-0.7 bar) (VT6DP)			V620-82062	2
6	Shaft and bearing ass'y (Code-1)	VS14-20084	VS14-20084	VS14-20084	1
	Shaft and bearing ass'y (Code-2)	VS14-25646	VS14-25646	VS14-25646	
	Shaft and bearing ass'y (Code-3)	VS14-20085	VS14-20085	VS14-20085	
	Shaft and bearing ass'y (Code-3) (VT6DP),(VT6DQP)			VS24-30160	
	Shaft and bearing ass'y (Code-4)	VS14-40835	VS14-40835	VS14-40835	
	Shaft and bearing ass'y (Code-T)			VS24-10203	
6a	Shaft (Keyed) (Code-1)	V034-70858	V034-70858	V034-70858	1
	Shaft (Keyed) (Code-2)	V034-70980	V034-70980	V034-70980	
	Shaft (Splined) (Code-3)	V034-70859	V034-70859	V034-70859	
	Shaft (splined) (Code-3) (VT6DP),(VT6DQP)			V034-66724	
	Shaft (Splined) (Code-4)	V034-70923	V034-70923	V034-70923	
	Shaft (Splined) (Code-T)			V034-59203	

Item pos.	Description	VT6D VT6DN VT6DQ (Standard)	VT6D VT6DN VT6DQ (Bi-dir plates)	VT6DM-B** VT6DP-B** VT6DNM-B** VT6DQM-B** VT6DQP-B**	Qty	
6b	Round section ring	V034-70853	V034-70853	V034-70853	2	
6c	Ball bearing	V230-00207	V230-00207	V230-00207	1	
6d	Key [Code -1]	V034-46754	V034-46754	V034-46754	1	
	Key [Code -2]	V034-49676	V034-49676	V034-49676		
7	Cartridge assembly *14 C.W.	V524-33849	V524-51677	V524-40789	1	
	Cartridge assembly *14 C.C.W.	V524-40598	V524-51571	V524-40790		
	Cartridge assembly *17 C.W.	V524-58996	V524-59955	V524-63325		
	Cartridge assembly *17 C.C.W.	V524-58997	C-S14-72347	V524-64242		
	Cartridge assembly *20 C.W.	V524-26486	V524-26502	V524-30139		
	Cartridge assembly *20 C.C.W.	V524-26487	V524-26503	V524-30140		
	Cartridge assembly *24 C.W.	V514-97784	V524-25970	V524-30141		
	Cartridge assembly *24 C.C.W.	V524-25544	V524-25971	V524-30142		
	Cartridge assembly *28 C.W.	V524-10837	V524-10123	V524-30143		
	Cartridge assembly *28 C.C.W.	V524-10838	V524-10124	V524-30144		
	Cartridge assembly *31 C.W.	V524-10839	V524-10125	V524-30145		
	Cartridge assembly *31 C.C.W.	V524-10840	V524-10126	V524-30146		
	Cartridge assembly *35 C.W.	V524-10841	V524-10127	V524-30147		
	Cartridge assembly *35 C.C.W.	V524-10842	V524-10128	V524-30148		
	Cartridge assembly *38 C.W.	V524-10843	V524-10129	V524-30149	1	
	Cartridge assembly *38 C.C.W.	V524-10844	V524-10130	V524-30150		
	Cartridge assembly *42 C.W.	V524-10845	V524-10131	V524-30151		
	Cartridge assembly *42 C.C.W.	V524-10846	V524-10132	V524-30152		
	Cartridge assembly *45 C.W.	V524-10847	V524-10136	V524-30153		
	Cartridge assembly *45 C.C.W.	V524-10848	V524-10137	V524-30154		
	Cartridge assembly *50 C.W.	V524-40028	V524-40610	V524-40030		
	Cartridge assembly *50 C.C.W.	V524-40029	C-S14-71590	V524-40031		
	Cartridge assembly *61 C.W.	C-S14-71608	C-S14-71610	C-S14-71612		
	Cartridge assembly *61 C.C.W.	C-S14-71609	C-S14-71611	C-S14-71613		
	7a	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		
7b	Pin vane holdout	V034-59130	V034-59130	V034-24984	10	
	Vane	V034-53588	V034-53588	V034-53588	10	
	Cam ring - 014	V034-66708	V034-66708	V034-66708	1	
	Cam ring - 017	V034-67028	V034-67028	V034-67028		
	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			

Item pos.	Description	VT6D VT6DN VT6DQ (Standard)	VT6D VT6DN VT6DQ (Bi-dir plates)	VT6DM-B** VT6DP-B** VT6DNM-B** VT6DQM-B** VT6DQP-B**	Qty
	Cam ring - 035	V034-59135	V034-59135	V034-59135	
	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	
	Cam ring - 061	V034-67127	V034-67127	V034-67127	
7e	Dowel pin	V324-21612	V324-21612	V324-21612	2
7f	Back-up ring	V618-15017	V618-15017	V618-15017	1
7g	Port plate - pressure C.W.	V034-59808			1
	Port plate - pressure C.C.W.	V034-59809			
	Port plate - pressure Bi-dir		V034-59057	V034-59057	
7h	Sq. section seal	V691-10232	V691-10232	V691-10232	1
7j	Sq. section seal	V691-10244	V691-10244	V691-10244	1
7k	Rotor-insert ass'y	V524-10121	V524-10121	V524-30018	1
7m	Screw	V317-10320	V317-10320	V317-10320	2
7n	Lockwasher internal tooth	V348-10010	V348-10010	V348-10010	2
7p	Dowel pin	V323-82004	V323-82004	V323-82004	1
7q	Bush	V034-70868	V034-70868	V034-70868	1
7r	Sq. section seal	V671-10159	V671-10159	V671-10159	1
8	Retaining ring (VT6DP)			356-00032-3	1
7,f	Seal kit (S1 - 0.7 bar)	V524-10138	V524-10138	V524-10138	1
	Seal kit (S1 - 0.7 bar) (VT6DP)			V524-30155	
	Seal kit (S4 - 7 bar)	V524-10138-4	V524-10138-4	V524-10138-4	
	Seal kit (S5 - 7 bar)	V524-10138-5	V524-10138-5	V524-10138-5	
7a	Port plate - rear and bush ass'y		CW		1
			CCW		
			Bi-dir		
7q			V524-10122	V524-10122	

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

# MODEL CODE



Series

- \* N = Shaft seal installed reverse
- \* Q = Special mounting cap with ear orientation of 20° from standard (\*omit if not required)
- M = Mobile
- P = Mobile with double shaft seal (not for VT6DN) (□omit for Industrial)
- Y = Metric port connection (Not for code 'Q'), omit for UNC

Cam ring	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)	Cam ring	Displacement in <sup>3</sup> /rev (cm <sup>3</sup> /rev)
014/B14/R14	= 2.90 (47.6)	035/B35/R35	= 6.80 (111.0)
017/B17/R17	= 3.55 (58.2)	038/B38/R38	= 7.30 (120.3)
020/B20/R20	= 4.00 (66.0)	042/B42/R42	= 8.30 (136.0)
024/B24/R24	= 4.80 (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)	061/B61/R61	= 11.65 (191.0)

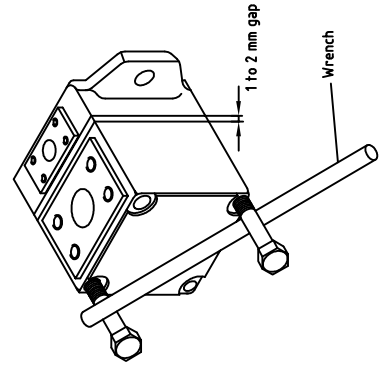
(Select 'B\*\*' for Mobile and Industrial bi-directional)  
(Select 'R\*\*' for Mobile-spring assisted)

Type of Shaft	Type of Shaft	Type of Shaft
VT6D/VT6DN/VT6DQ 1 = Keyed (SAE-C) 2 = Keyed (no SAE) 3 = Splined (SAE-C) 4 = Splined (no SAE)	VT6DM/VT6DNM/VT6DQM 1 = Keyed (SAE-C) 2 = Keyed (no SAE) 3 = Splined (SAE-C) 4 = Splined (no SAE) T = Splined (SAE J18c)	VT6DP/VT6DQP 3 = Splined (no SAE)

To change porting position, follow the steps below:

Secure pump and remove 4 bolts from housing. Move the housing 1 to 2 mm away from mounting flange. Insert two bolt halfway to housing. Install a wrench between the two bolts and turn in the desired way, so that the required position of pressure port with respect to suction is obtained. Reinstall the bolts and tighten to corresponding torque.

Instruction: Do not remove housing completely from the mounting flange 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 in to the gap to avoid leakage. If it is difficult to turn housing put some hydraulic oil to the pressure port to lubricate the pressure port seals.



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Print	_____
Replace	_____
Revision	_____

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