



# PUMPS

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## HIRSCH HYDRAULIC SERVICES



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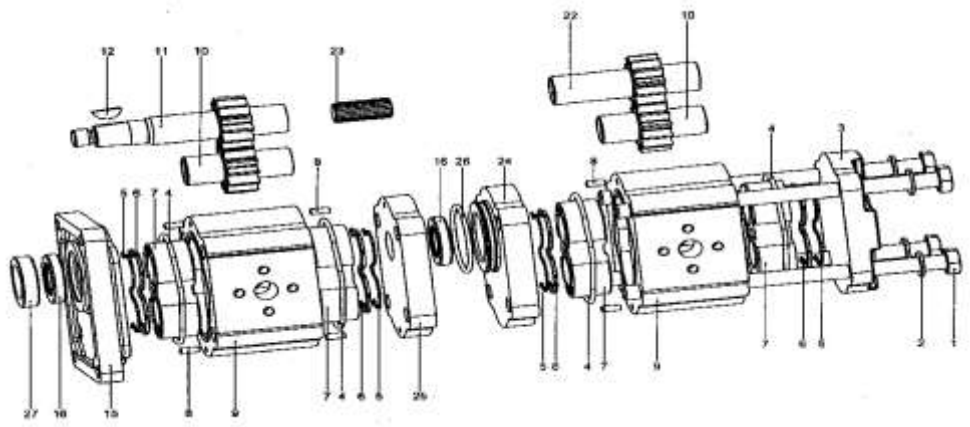




Part Number	<b>PUMPS GEAR ALUMINIUM</b>			RETAIL:
				30-11-2023
	<b><u>PUMP GROUP 2 SINGLE STAGE</u> 270 Bar Continuous</b>			
	<b><u>BHP 2 SERIES FROM TAK - BOK</u></b>			
	<b><u>BOSCH SINGLE : SPIGOT 80 mm MOUNT 4 BOLT TAPER 1:5</u></b>			
	<b><u>DESCRIPTION:</u></b>	<b><u>cc/rev:</u></b>	<b><u>CW / CCW</u></b>	
70H-P2B2D04T1F0	BHP2 B2 D 4 T1 F0	04cc per rev	0510 225 006 / 306	
70H-P2B2D06T1F0	BHP2 B2 D 6 T1 F0	06cc per rev	0510 235 006 / 306	
70H-P2B2D08T1F1	BHP2 B2 D 8 T1 F1	08cc per rev	0510 425 009 / 307	
70H-P2B2D12T1F1	BHP2 B2 D 12 T1 F1	12cc per rev	0510 525 009 / 311	
70H-P2B2D14T1F1	BHP2 B2 D 14 T1 F1	14cc per rev	0510 525 018 / 319	
70H-P2B2D16T1F1	BHP2 B2 D 16 T1 F1	16cc per rev	0510 625 022 / 315	
70H-P2B2D18T1F1	BHP2 B2 D 18 T1 F1	18cc per rev	0510 625 013 / 314	
70H-P2B2D22T1F1	BHP2 B2 D 22 T1 F1	22cc per rev	0510 725 030 / 330	
	<b><u>DEUTZ SINGLE : SPIGOT 50 mm MOUNT 2 BOLT TAPER 1:5</u></b>			
	<b><u>DESCRIPTION:</u></b>	<b><u>cc/rev:</u></b>	<b><u>CCW / CW</u></b>	
70H-P2Q1S04T1F0	BHP2 Q1 S 4 T1 F0	04cc per rev	0510 215 309 / 009	
70H-P2Q1S06T1F0	BHP2 Q1 S 6 T1 F0	06cc per rev	0510 315 307 / 006	
70H-P2Q1S08T1F1	BHP2 Q1 S 8 T1 F1	08cc per rev	0510 415 316 / 010	
70H-P2Q1S12T1F1	BHP2 Q1 S 12 T1 F1	12cc per rev	0510 515 309 / 007	
70H-P2Q1S14T1F1	BHP2 Q1 S 14 T1 F1	14cc per rev	0510 515 316 / 018	
70H-P2Q1S16T1F1	BHP2 Q1 S 16 T1 F1	16cc per rev	0510 615 317 / 010	
70H-P2Q1S18T1F1	BHP2 Q1 S 18 T1 F1	18cc per rev	0510 615 318 / 005	
70H-P2Q1S22T1F1	BHP2 Q1 S 22 T1 F1	22cc per rev	0510 715 306	
	<b><u>DEUTZ DOUBLE : SPIGOT 50 mm MOUNT 2 BOLT TAPER 1:5</u></b>			
	<b><u>DESCRIPTION:</u></b>	<b><u>cc/rev:</u></b>	<b><u>CCW / CW</u></b>	
70H-P2Q1S-16-12	BHP2 Q1 S 16-12 T1 F1	16cc / 12cc per rev	0510 665 335 /	
70H-P2Q1S-22-14	BHP2 Q1 S 22-14 T1 F1	22cc / 14cc per rev	0510 765 309 /	
70H-P2Q1S-22-16	BHP2 Q1 S 22-16 T1 F1	22cc / 16cc per rev	0510 765 310 /	
	<b><u>BOSCH OUTBOARD BEARING : PUMP SINGLE ROTATION</u></b>			
	<b><u>DESCRIPTION:</u></b>	<b><u>cc/rev:</u></b>	<b><u>CCW / CW</u></b>	
70H-P2B3S8T1F1	BHP2 Q3 S 8 T1 F1	08cc per rev	0510 445 300 / 001	
70H-P2B3S12T1F1	BHP2 Q3 S 12 T1 F1	12cc per rev	0510 545 300 / 001	
	<b><u>OPTIONAL SPARES:</u></b>			
70H-BHP2-S	PUMP SEAL KIT			
70H-BHM2-S	MOTOR SEAL KIT			
70H-BHP2-OUTB-S	PUMP SEAL KIT OUTBOARD BEARING TYPE			
	<b><u>TECHNICAL SPECS FOR GROUP 2:</u></b>			
	STANDARD SHAFT : 1 : 5 TAPER SMALL OD 14 mm TO BIG OD 17 mm OVER 17 mm LENGTH			
	OUTBOARD SHAFT : 1 : 5 TAPER SMALL OD 16.3 mm TO BIG OD 20 mm OVER 20 mm LENGTH			
	BOSCH SPIGOT 80 mm FLANGE 100 X 72 4 BOLT MOUNT			
	DEUTZ SPIGOT 50 mm FLANGE 60 X 60 2 BOLT MOUNT			

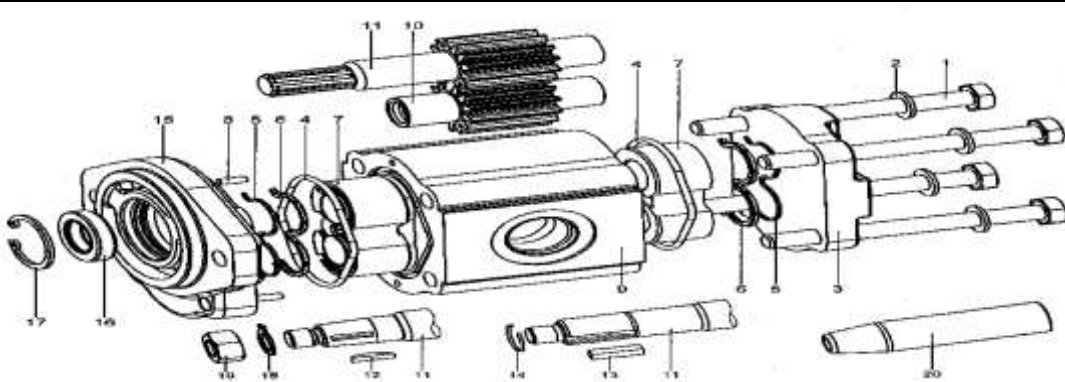







Part Number	PUMPS GEAR ALUMINIUM			RETAIL:
				01-10-2022
	<u>GROUP 2 GEAR PUMPS / MOTORS / FLOW DIVIDERS</u>			
	MADE TO ORDER OUT OF VIRGIN PARTS 270 Bar Continuous			
	<u>SINGLE PUMP DISPLACEMENTS AVAILABLE:</u>			
70H-334X-04-08	04cc ; 06cc ; 08cc ;			
70H-334X-10-14	10cc ; 11cc ; 14cc			
70H-334X-16-23	16cc ; 19cc ; 23cc			
70H-334X-27-33	27cc ; 31cc ; 33cc			
	<u>TANDEM PUMP DISPLACEMENTS AVAILABLE: ( ADD PRICE TO SINGLE PUMP'S PRICE )</u>			
70H-334XD-04-08	04cc ; 06cc ; 08cc ;			
70H-334XD-10-14	10cc ; 11cc ; 14cc			
70H-334XD-16-23	16cc ; 19cc ; 23cc			
70H-334XD-27-33	27cc ; 31cc ; 33cc			
	<u>(CODE) CHOICE OF PUMP SPIGOTS:</u>			
70H-3345041212	(33) GROUP 2	36,4mm SPIGOT	4-BOLT MOUNTING	
70H-3345041213	(34) BOSCH	80mm SPIGOT	4-BOLT MOUNTING	
70H-3345051212	(39) DEUTZ	50mm SPIGOT	2-BOLT THRU-MOUNTING ( 10 & 4 )	
70H-3345021225	(93) SAE A	3"-1/4" SPIGOT	2-BOLT MOUNTING	
70H-3345021214	(96) SAE B	4" SPIGOT	2-BOLT MOUNTING	
70H-33450512SP	(37) NEUSE	50mm SPIGOT	2-BOLT THRU-MOUNTING ( 8 & 2 )	
70H-3345050212	(38) (36) IH	52mm SPIGOT	2-BOLT THRU-MOUNTING ( 10 & 4 )(8&2)	
70H-3345021229	(XX) MASSEY	52,3mm SPIGOT	2-BOLT THRU-MOUNTING	
70H-3345021225	(xx) CAT	X" SPIGOT	X-BOLT MOUNTING	
70H-3345029216	(xx) PERKINS	X" SPIGOT	X-BOLT MOUNTING	
	<u>(CODE) CHOICE OF PUMP SHAFTS:</u>			
70H-33419XX611	(86) 1 : 8	TAPER SHAFT	SMALL O/D 15mm TO BIG O/D 17mm OVER 18mm	
70H-33419XX610	(85) 1 : 5	TAPER SHAFT	SMALL O/D 14mm TO BIG O/D 17mm OVER 17mm	
70H-33412XX210	(96) 9	TOOTH SPLINE SAE A	O/D 15,5mm	
70H-33412XX710	(81) 9	TOOTH SPLINE DIN 5482	O/D 16,5mm	
70H-33417XX210	(97) 5/8"	P / KEY SHAFT	O/D 15,8mm	
70H-33417XX310	(24) 3/4"	P / KEY SHAFT	O/D 19mm	
70H-33417XX205	(XX) 16mm	P / KEY SHAFT	O/D 16mm	
70H-33417XX214	(P ) 11/16"	KEY SHAFT WITH THREAD	O/D 17,4mm	
70H-33412XX910	(94) 10	TOOTH SPLINE SHAFT	O/D 17mm	
70H-33412XX310	(92) 11	TOOTH SPLINE SHAFT	O/D 18.5mm	
70H-3321000011	(XX) CAT	14 TOOTH OUTBOARD	O/D 31mm	
70H-33413XX510	(XX) TANG DRIVE	P / SHAFT	O/D 18mm W/D 8mm	
70H-33412XX711	(XX) SPLINE TOOTH SPLINE KALMAR		O/D 7/8"	
				
PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY				PAGE K 7









Part Number	<b>PUMPS GEAR ALUMINIUM</b>		RETAIL:
			01-10-2022
	<b>GROUP 3 PUMPS MOTORS &amp; FLOW DIVIDERS MADE TO ORDER</b>		
	MADE TO ORDER OUT OF VIRGIN PARTS		
	<u>SINGLE PUMP DISPLACEMENTS AVAILABLE:</u>		
71H-333X-14-19	14cc ; 16cc ; 19cc ;		
71H-333X-23-28	23cc ; 25cc ; 28cc ;		
71H-333X-33-44	33cc ; 38cc ; 44cc ;		
71H-333X-50-65	50cc ; 52cc ; 65cc		
	<u>TANDEM PUMP DISPLACEMENTS AVAILABLE: ( ADD PRICE TO SINGLE PUMP'S PRICE )</u>		
71H-333D-14-19	14cc ; 16cc ; 19cc ;		
71H-333D-23-28	23cc ; 25cc ; 28cc ;		
71H-333D-33-44	33cc ; 38cc ; 44cc ;		
71H-333D-50-65	50cc ; 52cc ; 65cc		
	<u>PUMP SPIGOT OPTIONS:</u>		
71H-3335040215	(87) GROUP 3	50mm SPIGOT	4-BOLT MOUNTING
71H-3335020212	(93) SAE A	3 1/4" SPIGOT	2-BOLT MOUNTING
71H-3335020213	(96) SAE B	4" SPIGOT	2 BOLT MOUNTING
71H-3335040216	(86) EURO	105mm SPIGOT	4 BOLT MOUNTING
	<u>SHAFT OPTIONS:</u>		
71H-33329XX783	(59)	1 : 8 TAPER SHAFT SMALL O/D 19mm TO BIG O/D 22mm OVER 22mm LENGTH	
71H-33329XX784	(57)	1 : 5 TAPER SHAFT SMALL O/D 13.5mm TO BIG O/D 17.4mm OVER 20mm LENGTH	
71H-33329XX951	(66)	7/8" PARALLEL KEY SHAFT	O/D 22.2mm
71H-33329XX990	(67)	1" PARALLEL KEY SHAFT	O/D 25.4mm
71H-33329XX450	(65)	13 TOOTH SPLINE SHAFT SAE B	O/D 22.2mm
71H-33329XX490	(100)	15 TOOTH SPLINE SHAFT SAE B B	O/D 24.97mm
	<u>POSSIBLE OPTIONS TO BE ADDED TO PUMPS &amp; MOTORS:</u>		
71H-3333030110	MOTOR CONVERSION BI-ROTATIONAL WITH 1/4" BSPP CASE DRAIN		
71H-333BICHV	MOTOR CONVERSION BI-ROTATIONAL WITH CHECK VALVES NO CASE DRAIN		
71H-3509713028	PRIORITY FLOW DIVIDER WITH RELIEF VALVE 5 : 38 LITRES REG FLOW		
71H-3333030110	REAR PORTS AVAILABLE MOTOR TYPE 1" MAX BSPP OR S.A.E.		
71H-3333031110	REAR PORTS AVAILABLE SPECIAL TYPE 1 1/2" MAX BSPP OR S.A.E.		
71H-3333030108	RELIEF VALVE INTERNAL DUMP 250 BAR MAX		
	<u>CHOICE OF FLOW DIVIDERS:</u>		
71H-M17FD	FLOW DIVIDERS ( ADD UP STAGES OF SINGLE MOTOR DISPLACEMENT PRICES )		
71H-P17-P11	STEP DOWN ADAPTOR P17 - P11		
71H-P17-P11S	STEP DOWN ADAPTOR P17 - P11 SEPARATE OILS LABOUR		
71H-LAB009	LABOUR TO DRILL AND TAP SHAFT		
71H-LAB010	DRILL PRIORITY FLOW DIVIDER ORIFICE		
71H-LAB011	TEST PUMP / MOTOR		
71H-3P17-S	SEAL KIT PUMP		
71H-3M17-S	SEAL KIT MOTOR		
			
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Part Number	<b>TAK - BOK HI / LOW GEAR PUMPS</b>							RETAIL:	
								01-10-2022	
<b><u>CBT SERIES; HI / LOW PUMPS FOR PETROL ENGINE FITMENT</u></b>									
<b><u>TECHNICAL SPECS ON CBT SERIES 210 Bar</u></b>									
	SHAFT	SPIGOT	MOUNT		SUCTION	PRESSURE	ROTATION		
	1/2" P/Key	45.25mm	4 BOLT 50.08 X 50.08		25.4mm PIPE	1/2" NPT	C/W		
	5/8" P/KEY	3-1/4"	2 BOLT		1" NPT	3/4" NPT	C/W		
NOTE; TO WORK OUT Kw REQUIRED, YOU ONLY NEED TO TAKE THE HIGHEST VALUE IN Kw AND THEN USE COLUMN G OR COLUMN J , NOT BOTH									
<b><u>PUMP CBT 6.3 - 2.1</u></b>									
	A	B	C	D	E	F	G	H	J
	PUMP	CC/REV	CC/REV	Bar	Bar	FLOW	MAX K.w.	FLOW	MAX K.w.
	R P M	HI	LOW	HI	LOW	COMBINED	REQUIRED	LOW	REQUIRED
72H-C-6-3-2-1	1450	6.3	2.1	210	30 - 60	12 LITER	0.7 - 1.4	3 LITER	1.2
72H-C-6-3-2-1	2500	6.3	2.1	210	30 - 60	21 LITER	1.2 - 2.5	5.3 LITER	2.2
72H-C-6-3-2-1	3600	6.3	2.1	210	30 - 60	30 LITER	1.8 - 3.5	7.6 LITER	3.3
SUGGESTED PETROL ENGINE GX200									
<b><u>PUMP CBT 10.9 - 3.6</u></b>									
	A	B	C	D	E	F	G	H	J
	PUMP	CC/REV	CC/REV	Bar	Bar	FLOW	MAX K.w.	FLOW	MAX K.w.
	R P M	HI	LOW	HI	LOW	COMBINED	REQUIRED	LOW	REQUIRED
72H-C-10-9-3-6	1450	10.9	3.6	210	30 - 60	21 LITER	1.2 - 2.5	5.2 LITER	2.1
72H-C-10-9-3-6	2500	10.9	3.6	210	30 - 60	36 LITER	2.2 - 4.3	9 LITER	3.8
72H-C-10-9-3-6	3600	10.9	3.6	210	30 - 60	52 LITER	3.1 - 6.1	12.9 LITER	5.3
SUGGESTED PETROL ENGINE GX270									
<b><u>PUMP CBT 22.9 - 7.6</u></b>									
	A	B	C	D	E	F	G	H	J
	PUMP	CC/REV	CC/REV	Bar	Bar	FLOW	MAX K.w.	FLOW	MAX K.w.
	R P M	HI	LOW	HI	LOW	COMBINED	REQUIRED	LOW	REQUIRED
72H-C-22-9-7-6	1450	22.9	7.6	210	30 - 60	44.2 LITER	2.6 - 5.2	11.0 LITER	4.5
72H-C-22-9-7-6	2500	22.9	7.6	210	30 - 60	76.2 LITER	4.5 - 9	19.0 LITER	8.0
72H-C-22-9-7-6	3600	22.9	7.6	210	30 - 60	109.8 LITER	6.4 - 12.9	27.4 LITER	11.3
SUGGESTED PETROL ENGINE GX630									
<b><u>CYLINDER SHAFT SPEEDS IN SECONDS</u></b>									
	INPUT	SHAFT OUT	SHAFT IN	SHAFT OUT	SHAFT IN	SHAFT OUT	SHAFT IN	SHAFT OUT	SHAFT IN
	FLOW	76.2mm BORE	76.2mm BORE	101.6mm BORE	101.6mm BORE	127mm BORE	127mm BORE	127mm BORE	127mm BORE
	IN	CYLINDER	38mm SHAFT	CYLINDER	50.8mm SHAFT	CYLINDER	50.8mm SHAFT	CYLINDER	50.8mm SHAFT
	LITER	500 mm	500 mm	500m	500 mm	500 mm	500 mm	500 mm	500 mm
	3	45	34	81	61	127	106	106	106
	5.2	26	20	47	35	73	61	61	61
	11	12	9.3	22	17	35	29	29	29
	12.1	11.2	8.4	19.8	14.8	31.3	26.3	26.3	26.3
	21	6.5	4.8	12	8.7	18	15	15	15
	44.2	3	2.3	5.5	4.1	8.6	7.2	7.2	7.2
<b><u>LS-TW LOG SPLITTER VALVE</u></b>									
72H-LS-TW-20F	LS-TW CONTROL VALVE HAND OPERATED WITH ONE WAY DETENT PRESSURE RELEASE DETENT								
	FLOW	PORTS	PORTS	DETENT ONE WAY		SPOOL	MAX		
	RATE	P&T	A&B	PRESSURE RELEASE		TYPE	PRESSURE		
	95 L	3/4" NPT	1/2" NPT	30 - 70 Bar		CYLINDER	210		
72H-LS-TW-S-KIT	LS-TW CONTROL VALVE SEAL KIT								
									
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Part Number	<b>TAK - BOK HI / LOW GEAR PUMPS</b>						RETAIL:		
							<b>01-10-2022</b>		
	<b><u>BHLP1 SERIES: HI / LOW PUMPS FOR ELECTIC MOTOR FITMENT</u></b>								
	<b><u>TECHNICAL SPECS ON BHLP SERIES 210 Bar</u></b>								
	SHAFT	SPIGOT	MOUNT	SUCTION	PRESSURE	ROTATION			
	1:8 TAPER Key	25.4 mm	4 BOLT	3/4 "BSPP	1/2 "BSPP	C/W			
	<b><u>PUMP BHLP1 BO D 2.1 / 5.8</u></b>								
	A	B	C	D	E	F	G	H	J
	PUMP	CC/REV	CC/REV	Bar	Bar	FLOW	MAX K.w.	FLOW	MAX K.w.
	R P M	HI	LOW	HI	LOW	COMBINED	REQUIRED	LOW	REQUIRED
72H-BHLP2-1-5-8	1450	2.1	5.8	210	30 - 60	11.4 LITER	0.7 - 1.4	3 LITER	1.2
	<b><u>PUMP BHLP1 BO D 3.7 / 9.8</u></b>								
	A	B	C	D	E	F	G	H	J
	PUMP	CC/REV	CC/REV	Bar	Bar	FLOW	MAX K.w.	FLOW	MAX K.w.
	R P M	HI	LOW	HI	LOW	COMBINED	REQUIRED	LOW	REQUIRED
72H-BHLP3-7-9-8	1450	9.8	3.7	210	30 - 60	19.5	1.2 - 2.5	5.2 LITER	2.2
	NOTE; TO WORK OUT Kw REQUIRED, YOU ONLY NEED TO TAKE THE HIGHEST VALUE IN Kw AND THEN USE COLUMN G OR COLUMN J , NOT BOTH								
	<b><u>CYLNDER SHAFT SPEEDS IN SECONDS</u></b>								
	INPUT	SHAFT OUT	SHAFT IN	SHAFT OUT	SHAFT IN	SHAFT OUT	SHAFT IN	SHAFT OUT	SHAFT IN
	FLOW	76.2mm BORE	76.2mm BORE	101.6mm BORE	101.6mm BORE	127mm BORE	127mm BORE	127mm BORE	127mm BORE
	IN	CYLINDER	38mm SHAFT	CYLINDER	50.8mm SHAFT	CYLINDER	50.8mm SHAFT	CYLINDER	50.8mm SHAFT
	LITER	500 mm	500 mm	500m	500 mm	500 mm	500 mm	500 mm	500 mm
	3	45	34	81	61	127	106	127	106
	5.2	26	20	47	35	73	61	73	61
	9	15	11	26	20	42	35	42	35
	11.4	12	9.3	22	17	35	29	35	29
	19.5	7	5	12	9	16	23	16	23
	21	6.5	4.8	11	8.7	18	15	18	15
	36	4	3	6	5	10	9	10	9
	76.2			3	2	5	4	5	4
	<b><u>LS-TW LOG SPLITTER VALVE</u></b>								
72H-LS-TW-20F	LS-TW CONTROL VALVE HAND OPERATED WITH ONE WAY DETENT PRESSURE RELEASE DETENT								
	FLOW	PORTS	PORTS	DETENT ONE WAY		SPOOL	MAX		
	RATE	P&T	A&B	PRESSURE RELEASE		TYPE	PRESSURE		
	95 L	3/4" NPT	1/2" NPT	30 - 70 Bar		CYLINDER	210		
72H-LS-TW-S-KIT	LS-TW CONTROL VALVE SEAL KIT								
									
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Part Number	PUMPS GEAR O. E. M.						RETAIL:
							01-10-2022
	<b>MASSEY</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-3349112669	MASSEY	750 / 850	TLD	COMM	PX	STEER / TR/ NO GEAR	
73H-385749Y	MASSEY	750 / A60	TLD	COMM	PX	MAIN (15 SPLINE SHAFT)	
	<b>J C B</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-384080H	J C B	3 C X	TLD	COMM	PGP620	MAIN (1" P/ KEY SHAFT)	
73H-7029120016	J C B	3 C X	TLD	COMM	SITE MASTER	MAIN (15 SPLINE SHAFT)	
	<b>NEW HOLLAND</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-7029521066	NEW HOLLAND		TLD	COMM			
	<b>MANITOU</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-7029522013	MANITOU		FORK LIFT	PGP DOUBLE	OVCON		
73H-5729D	MANITOU		FORK LIFT	PGP / P511			
	<b>VOLVO</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-386047X	VOLVO	647	FEL	COMM	PX	STEER	
	<b>FINLEY / POWER SCREEN CRUSHER</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-3349219396	FINLEY	CRUSHER	P511	COMM			
	<b>HYSTER</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-3349112374	HYSTER FORK		LIFT	COMM	PGP511		
	<b>BELL / JOHN DEER</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-3249529049	JOHN DEER	315 SE	TLD	COMMER	P330/P315	MAIN	
	<b>CAT</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-387975H	CAT						
73H-3349110016	CAT						
	<b>CASE</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>SERIES</b>	<b>USE</b>	
73H-3249110085	CASE	580 G	TLD	COMMER	P330/15	MAIN	
73H-3249120118	CASE	580 K	TLD	COMMER	P330/15/05	MAIN	
73H-3239529084	CASE	580 SLE	TLD	COMMER	P350	MAIN	
73H-3139622461	CASE	W24C	FEL	COMMER		MAIN	
	<b>BOMAG</b>						
	<b>MAKE</b>	<b>SERIES</b>	<b>TYPE</b>	<b>MAKE</b>	<b>DESCRIPTION</b>	<b>USE</b>	
73H-0036110048	BOMAG	212	GEAR	KRACHT	KP2-40-G20AK004DL1	PUMP	
73H-0049350007	BOMAG	212	GEAR	KRACHT	KM2-50-G20AK002DL1	MOTOR	
	<b>J C B 3 C X</b>						<b>MASSY 750</b>
							
	<b>MANITOU</b>						<b>FINLEY</b>
							
	<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>						<b>PAGE N1</b>







TCM

NF SERIES

74H-TKBFLTC25L TCM NF SERIES 2.5 TON

NF SERIES

74H-TKBFLTC25L NF SERIES 2.5 TON DIESEL C240 OR Z2 CCW / C/U

NF SERIES

74H-334KYB85A NF SERIES 2.5 TON DIESEL OR PETROL NISSAN H20 CCW / C/U

FHD SERIES

74H-332TCC240 FHD SERIES 2.5 TON DIESEL C 240 / Z2 CCW / CU

FHG SERIES

74H-332FLTC2-5 FHG SERIES 2.5 TON PETROL H 20 / Z 24 CW / CU

FRSB SERIES

74H-332FLTCE FRSB SERIES 2 TON 1150 15H2 ELECTRIC CCW / C/U

FRSB SERIES

74H-332TC-E FRSB SERIES 2.5 TON 25 A 4 18 A 4 ELECTRIC CCW/C/U

FD SERIES

74H-326XXXXXX FD 70 Z 7 SERIES 7 TON P315 SPECIAL 80mm spigot diesel CW&CCW

**NF SERIES**



**P511 KYB 85 A**





**FHD / FHG SERIES**





Part Number	FORKLIFT PUMPS		RETAIL:
			01-10-2022
	<u>HYSTER</u>		
	<u>XL SERIES 2.5 TON</u>	PETROL	C/W
74H-3349112288	P11A193PAX10XX23XX	XXXCHANGE ROTATION	
	<u>XL SERIES 2.5 TON</u>	DIESEL	CC/W
74H-3349112288	P11A293PAX10XX23XX		
	<u>XL SERIES 4 / 5 TON F5 / G5</u>	DIESEL	CC/W
74H-3249110127	P330A297XXAB17-25		
	<u>XL SERIES H16 TON 5 HIGH</u>	DIESEL	C/W
74H-3229529072	P365B178XXAB13-7/P330AXXAB10-XXPRV1V		
	<u>XL SERIES 2 - 2.5 TON E2 / E3</u>	ELECTRIC	C/W
74H-332-HY-E	P11A193BEXX19-97	XXPORTS S/F M10X1.5 / SHAFT 5/8" P/KEY	
	<u>XM SERIES 2.5 TON</u>	DIESEL	CC/W
74H-332HYXMD	P11 A293X PA / 10 XX 27 - 92	XXSEC CUT OUT / 11 TOOTH	
	<u>XM SERIES 2.5 TON</u>	PETROL / GAS	C/W
74H-332HYXMP	P11 A193X PA / 10 XX 27 - 92	XXSEC CUT OUT / 11 TOOTH	
	<u>H40H / H60H SERIES</u>	DIESEL	CC/W
74H-3339110222	P17A193PE/10AJ38-65		
	<u>H40H / H60H SERIES</u>	PETROL	C/W
74H-3339110222	P17A193PE/10AJ38-65		
	<u>H40H / H60H SERIES</u>	GM ENGINE PETROL	CC/W
74H-3339110222	P17A293PE/10AJ38-65		
	** DENOTES : 1 HOUR ASSEMBLY XXX DENOTES 2 HOUR OR 24 HOUR ASSEMBLY		
	<u>XL / XM SERIES</u>		
			
		<u>H40 / H60H SERIES</u>	
			
	PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY		PAGE 05



Part Number	<b>PUMPS GEAR CAST IRON</b>					RETAIL:				
						01-10-2022				
	<b><u>P20 SERIES FROM COMMERCIAL SHEARING</u></b>									
	<b>CODE</b>	<b>GEAR WIDTH</b>	<b>4073</b>	<b>CONT / PRESS</b>	<b>CODE</b>					
75H-P20-05	05	1/2"	16.34	200 Bar	05					
75H-P20-07	07	3/4"	24.21	200 Bar	07					
75H-P20-10	10	1"	32.29	200 Bar	10					
75H-P20-12	12	1-1/4"	40.36	200 Bar	12					
75H-P20-15	15	1 -1/2"	48.43	200 Bar	15					
75H-P20-17	17	1 -3/4"	56.50	170 Bar	17					
75H-P20-20	20	2"	64.58	170 Bar	20					
	<b><u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u></b>									
	<b>CODE</b>	<b>GEAR WIDTH</b>	<b>CC / REV</b>	<b>CONT / PRESS</b>	<b>CODE</b>					
75H-P20-05-XX	05	1/2"	16.34	200 Bar	05					
75H-P20-07-XX	07	3/4"	24.21	200 Bar	07					
75H-P20-10-XX	10	1"	32.29	200 Bar	10					
75H-P20-12-XX	12	1-1/4"	40.36	200 Bar	12					
75H-P20-15-XX	15	1 -1/2"	48.43	200 Bar	15					
75H-P20-17-XX	17	1 -3/4"	56.50	170 Bar	17					
75H-P20-20-XX	20	2"	64.58	170 Bar	20					
	<b><u>ADD ON PRICES</u></b>									
75H-P20-M	MOTOR									
75H-P20-PTL	TELL TAIL DRAIN (DOUBLE SHAFT SEAL)									
	<b>SHAFTS</b>	<b>SPIGOTS</b>	<b>PORTS</b>	<b>ROTATION</b>	<b>SPEED</b>					
	*3/4" P/KEY	2-5/8" 6 BOLT	BSPP	C / W	600 MIN rpm					
	7/8" P/KEY	3-1/4" 2 BOLT	NPT	CC / W	2400 MAX rpm					
	1" P/KEY	4" 2 BOLT	SAE "O"	B I						
	*1-1/4" P/KEY	4" 4 BOLT	S/F 4 BOLT							
	9 TOOTH									
	13 TOOTH									
	*14 TOOTH									
	* DENOTES : CONTI SHAFT, USE ONLY AFTER CONSULTING SIDE LOAD SPECS									
										
	<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>					<b>PAGE P 1</b>				

Part Number	PUMPS GEAR CAST IRON					RETAIL:
						01-10-2022
<u>P30 SERIES FROM COMMERCIAL SHEARING</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P30-05	05	1/2"	16.34	170 Bar	05	
75H-P30-07	07	3/4"	24.21	170 Bar	07	
75H-P30-10	10	1"	32.29	170 Bar	10	
75H-P30-12	12	1-1/4"	40.36	170 Bar	12	
75H-P30-15	15	1 -1/2"	48.43	170 Bar	15	
75H-P30-17	17	1 -3/4"	56.50	150 Bar	17	
75H-P30-20	20	2"	64.58	150 Bar	20	
75H-P30-25	25	2- 1/2"	80.00	150 Bar	25	
<u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P30-05-XX	05	1/2"	16.34	170 Bar	05	
75H-P30-07-XX	07	3/4"	24.21	170 Bar	07	
75H-P30-10-XX	10	1"	32.29	170 Bar	10	
75H-P30-12-XX	12	1-1/4"	40.36	170 Bar	12	
75H-P30-15-XX	15	1 -1/2"	48.43	170 Bar	15	
75H-P30-17-XX	17	1 -3/4"	56.50	150 Bar	17	
75H-P30-20-XX	20	2"	64.58	150 Bar	20	
75H-P30-25-XX	25	2- 1/2"	80.00	150 Bar	25	
<u>ADD ON PRICES</u>						
75H-P30-M	MOTOR					
75H-P30-D	DOWELS INCLUDED IN PRICE					
75H-P30-TT	TELL TAIL DRAIN (DOUBLE SHAFT SEAL)					
75H-P30-PB	PIGGY BACK P30 - P30					
75H-P30-PR	PRIORITY FLOW DIVIDER					
	SHAFTS	SPIGOTS	PORTS	ROTATION	SPEED	
	*3/4" P/KEY	2-5/8" 6 BOLT	BSPP	C / W	600 MIN rpm	
	7/8" P/KEY	3-1/4" 2 BOLT	NPT	CC / W	2400 MAX rpm	
	1" P/KEY	4" 2 BOLT	SAE "O"	B I		
	*1-1/4" P/KEY	4" 4 BOLT	S/F 4 BOLT			
	9 TOOTH	5" 4 BOLT				
	13 TOOTH					
	*14 TOOTH					
* DENOTES : CONTI SHAFT, USE ONLY AFTER CONSULTING SIDE LOAD SPECS						
						
PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY						
						PAGE P 2

Part Number	PUMPS GEAR CAST IRON					RETAIL:
						01-10-2022
<u>P25X SERIES FROM COMMERCIAL SHEARING</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P25X-05	05	1/2"	20.89	140 Bar	05	
75H-P25X-07	07	3/4"	31.34	140 Bar	07	
75H-P25X-10	10	1"	41.79	140 Bar	10	
75H-P25X-12	12	1-1/4"	50.54	140 Bar	12	
75H-P25X-15	15	1-1/2"	62.68	140 Bar	15	
75H-P25X-17	17	1-3/4"	73.13	140 Bar	17	
75H-P25X-20	20	2"	83.58	140 Bar	20	
75H-P25X-22	22	2-1/4"	94.00	140 Bar	22	
75H-P25X-25	25	2-1/2"	104.47	140 Bar	25	
<u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P25X-05-XX	05	1/2"	20.89	140 Bar	05	
75H-P25X-07-XX	17	3/4"	31.34	140 Bar	07	
75H-P25X-10-XX	10	1"	41.79	140 Bar	10	
75H-P25X-12-XX	12	1-1/4"	50.54	140 Bar	12	
75H-P25X-15-XX	15	1-1/2"	62.68	140 Bar	15	
75H-P25X-17-XX	17	1-3/4"	73.13	140 Bar	17	
75H-P25X-20-XX	20	2"	83.58	140 Bar	20	
75H-P25X-22-XX	22	2-1/4"	94.00	140 Bar	22	
75H-P25X-25-XX	25	2-1/5"	104.47	140 Bar	25	
<u>ADD ON PRICES</u>						
75H-P25X-M	MOTOR					
75H-P25X-LN	LONG NECK S. E. C.					
	SHAFTS	SPIGOTS	PORTS	ROTATION	SPEED	
	*7/8" P/KEY	2-5/8" 6 BOLT	BSPP	C / W	600 MIN rpm	
	*1" P/KEY	4" 2 BOLT	NPT	CC / W	2400 MAX rpm	
	*1-1/4" P/KEY	4" 4 BOLT	SAE "O"	B I		
	*13 TOOTH	5" 2 BOLT	S/F 4 BOLT			
	*14 TOOTH	5" 4 BOLT				
* DENOTES : CONTI SHAFT, USE ONLY AFTER CONSULTING SIDE LOAD SPECS						
						
PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY						

Part Number	<b>PUMPS GEAR CAST IRON</b>					RETAIL:
						01-10-2022
<b><u>P50 SERIES FROM COMMERCIAL SHEARING</u></b>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P50-05	05	1/2"	20.89	170 Bar	05	
75H-P50-07	07	3/4"	31.34	170 Bar	07	
75H-P50-10	10	1"	41.79	170 Bar	10	
75H-P50-12	12	1-1/4"	50.54	170 Bar	12	
75H-P50-15	15	1 -1/2"	62.68	170 Bar	15	
75H-P50-17	17	1 -3/4"	73.13	140 Bar	17	
75H-P50-20	20	2"	83.58	140 Bar	20	
75H-P50-22	22	2 -1/4"	94.00	140 Bar	22	
75H-P50-25	25	2- 1/2"	104.47	140 Bar	25	
<b><u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u></b>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P50-05-XX	05	1/2"	20.89	170 Bar	05	
75H-P50-07-XX	07	3/4"	31.34	170 Bar	07	
75H-P50-10-XX	10	1"	41.79	170 Bar	10	
75H-P50-12-XX	12	1-1/4"	50.54	170 Bar	12	
75H-P50-15-XX	15	1 -1/2"	62.68	170 Bar	15	
75H-P50-17-XX	17	1 -3/4"	73.13	140 Bar	17	
75H-P50-20-XX	20	2"	83.58	140 Bar	20	
75H-P50-22-XX	22	2- 1/4"	94.00	140 Bar	22	
75H-P50-25-XX	25	2- 1/2"	104.47	140 Bar	25	
<b><u>ADD ON PRICES</u></b>						
75H-P50-M	MOTOR					
75H-P50-D	DOWELS INCLUDED IN PRICE					
75H-P50-TL	TELL TAIL DRAIN (DOUBLE SHAFT SEAL)					
75H-P50-PB	PIGGY BACK P50 - P30					
75H-P50-PR	PRIORITY FLOW DIVIDER					
	SHAFTS	SPIGOTS	PORTS	ROTATION	SPEED	
	1" P/KEY	PAD MOUNT	BSPF	C / W	600 MIN rpm	
	1-1/4" P/KEY	4" 2 BOLT	NPT	CC / W	2400 MAX rpm	
	13 TOOTH	4" 4 BOLT	SAE "O"	B I		
	14 TOOTH	5" 2 BOLT	S/F 4 BOLT			
	*15 TOOTH	5" 4 BOLT				
						
<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>						

<u>Part Number</u>	<b>PUMPS GEAR CAST IRON</b>					<b>RETAIL:</b>
						<b>01-10-2022</b>
<b><u>P75 SERIES FROM COMMERCIAL SHEARING</u></b>						
	<b>CODE</b>	<b>GEAR WIDTH</b>	<b>CC / REV</b>	<b>CONT / PRESS</b>	<b>CODE</b>	
75H-P75-10	10	1"	67.00	170 Bar	10	
75H-P75-12	12	1-1/4"	84.00	170 Bar	12	
75H-P75-15	15	1 -1/2"	100.80	170 Bar	15	
75H-P75-17	17	1 -3/4"	117.60	170 Bar	12	
75H-P75-20	20	2"	134.40	150 Bar	20	
75H-P75-22	22	2 -1/4"	151.20	150 Bar	22	
75H-P75-25	25	2- 1/2"	168.00	150 Bar	25	
75H-P75-27	27	2 -3/4"	184.80	150 Bar	27	
75H-P75-30	30	3"	210.60	150 Bar	30	
<b><u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u></b>						
	<b>CODE</b>	<b>GEAR WIDTH</b>	<b>CC / REV</b>	<b>CONT / PRESS</b>	<b>CODE</b>	
75H-P75-07-XX	07	3/4"	50.00	170 Bar	07	
75H-P75-10-XX	10	1"	67.00	170 Bar	10	
75H-P75-12-XX	12	1-1/4"	84.00	170 Bar	12	
75H-P75-15-XX	15	1 -1/2"	100.80	170 Bar	15	
75H-P75-17-XX	17	1 -3/4"	117.60	170 Bar	17	
75H-P75-20-XX	20	2"	134.40	150 Bar	20	
75H-P75-22-XX	22	2 -1/4"	151.20	150 Bar	22	
75H-P75-25-XX	25	2- 1/2"	168.00	150 Bar	25	
75H-P75-27-XX	27	2 -3/4"	184.80	150 Bar	27	
75H-P75-30-XX	30	3"	210.60	150 Bar	30	
<b><u>ADD ON PRICES</u></b>						
75H-M	MOTOR					
75H-D	DOWELS INCLUDED IN PRICE					
75H-TL	TELL TAIL DRAIN (DOUBLE SHAFT SEAL)					
75H-PB	PIGGY BACK P75 - 50 - 30					
	<b>SHAFTS</b>	<b>SPIGOTS</b>	<b>PORTS</b>	<b>ROTATION</b>	<b>SPEED</b>	
	1-1/4" P/KEY	4" 4 BOLT	BSPP	C / W	600 MIN rpm	
	14 TOOTH	5" 2 BOLT	NPT	CC / W	2400 MAX rpm	
		5" 4 BOLT	SAE "O"	B I		
		6" 4 BOLT	S/F 4 BOLT			
						
<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>						

<u>Part Number</u>	<b>PUMPS GEAR CAST IRON</b>					RETAIL:
						01-10-2022
<u>P315 SERIES FROM COMMERCIAL SHEARING</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P315-05	05	1/2"	10.33	245 Bar	05	
75H-P315-07	07	3/4"	15.41	245 Bar	07	
75H-P315-10	10	1"	20.49	245 Bar	10	
75H-P315-12	12	1-1/4"	25.57	245 Bar	12	
75H-P315-15	15	1 -1/2"	30.81	225 Bar	15	
75H-P315-17	17	1 -3/4"	35.89	200 Bar	17	
75H-P315-20	20	2"	40.58	175 Bar	20	
<u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P315-05-XX	05	1/2"	10.33	245 Bar	05	
75H-P315-07-XX	07	3/4"	15.41	245 Bar	07	
75H-P315-10-XX	10	1"	20.49	245 Bar	10	
75H-P315-12-XX	12	1-1/4"	25.57	245 Bar	12	
75H-P315-15-XX	15	1 -1/2"	30.81	225 Bar	15	
75H-P315-17-XX	17	1 -3/4"	35.89	200 Bar	17	
75H-P315-20-XX	20	2"	40.58	175 Bar	20	
<u>ADD ON PRICES</u>						
75H-P315-M	MOTOR					
75H-P315-PEC	P.E.C. 1 -1/2- SPLIT FLANGE PORTS					
75H-P315-BRG	BRG/CARR 1- 1/2 SPLIT FLANGE PORTS					
75H-P315-PR	PRIORITY FLOW DIVIDER					
	SHAFTS	SPIGOTS	PORTS	ROTATION	SPEED	
	7/8" P/KEY	3-1/4" 2 BOLT	BSPP	C / W	600 MIN rpm	
	13 TOOTH	4" 2 BOLT	NPT	CC / W	2400 MAX rpm	
			SAE "O"			
			S/F 4 BOLT			
						
<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>						
						<b>PAGE P 6</b>



Part Number	PUMPS GEAR CAST IRON					RETAIL:
						01-10-2022
<u>P350 SERIES FROM COMMERCIAL SHEARING</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P350-05	05	1/2"	20.89	245 Bar	05	
75H-P350-07	07	3/4"	31.34	245 Bar	07	
75H-P350-10	10	1"	41.79	245 Bar	10	
75H-P350-12	12	1-1/4"	50.54	245 Bar	12	
75H-P350-15	15	1 -1/2"	62.68	245 Bar	15	
75H-P350-17	17	1 -3/4"	73.13	225 Bar	17	
75H-P350-20	20	2"	83.58	210 Bar	20	
75H-P350-22	22	2 -1/4"	94.00	190 Bar	22	
75H-P350-25	25	2- 1/2"	104.47	170 Bar	25	
<u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P350-05-XX	05	1/2"	20.89	245 Bar	05	
75H-P350-07-XX	07	3/4"	31.34	245 Bar	07	
75H-P350-10-XX	10	1"	41.79	245 Bar	10	
75H-P350-12-XX	12	1-1/4"	50.54	245 Bar	12	
75H-P350-15-XX	15	1 -1/2"	62.68	245 Bar	15	
75H-P350-17-XX	17	1 -3/4"	73.13	225 Bar	17	
75H-P350-20-XX	20	2"	83.58	210 Bar	20	
75H-P350-22-XX	22	2 -1/4"	94.00	190 Bar	22	
75H-P350-25-XX	25	2- 1/2"	104.47	170 Bar	25	
<u>ADD ON PRICES</u>						
75H-P350-M	MOTOR					
75H-P350-ZF	ZF TYPE 4 BOLT P.T.O. S.E.C. & SHAFT					
75H-P350-TL	TELL TAIL DRAIN (DOUBLE SHAFT SEAL)					
75H-P350-P315	MULTIPLE UNITS STEP SIZE COMMON OIL COMMON SUCTION P350/P315					
75H-P350-P11	MULTIPLE UNITS STEP SIZE COMMON OIL COMMON SUCTION P350/P11					
75H-P350-13SP	MULTIPLE UNITS STEP SIZE SEALED OILS TO S.A.E. B 4" 2 BOLT; B SPLINE 13 TOOTH					
	SHAFTS	SPIGOTS	PORTS	ROTATION	SPEED	
	1" P/KEY	4" 2 BOLT	BSPP	C / W	600 MIN rpm	
	1-1/4" P/KEY	4" 4 BOLT	NPT	CC / W	2400 MAX rpm	
	13 TOOTH	5" 2 BOLT	SAE "O"	B I		
	14 TOOTH	5" 4 BOLT	S/F 4 BOLT			
	* DENOTES : CONTI SHAFT, USE ONLY AFTER CONSULTING SIDE LOAD SPECS					



Part Number	<b>PUMPS GEAR CAST IRON</b>					RETAIL:
						01-10-2022
<b><u>P365 SERIES FROM COMMERCIAL SHEARING</u></b>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P365-10	10	1"	59.00	240 Bar	10	
75H-P365-12	12	1-1/4"	73.75	240 Bar	12	
75H-P365-15	15	1 -1/2"	88.50	240 Bar	15	
75H-P365-17	17	1 -3/4"	103.25	240 Bar	17	
75H-P365-20	20	2"	118.00	240 Bar	20	
75H-P365-22	22	2 -1/4"	132.75	242 Bar	22	
75H-P365-25	25	2- 1/2"	147.50	200 Bar	25	
<b><u>ADD ON PRICE FOR MULTIPLE STAGE PUMPS PER SECTION</u></b>						
	CODE	GEAR WIDTH	CC / REV	CONT / PRESS	CODE	
75H-P365-07-XX	07	3/4"	44.25	240 Bar	07	
75H-P365-10-XX	10	1"	59.00	240 Bar	10	
75H-P365-12-XX	12	1-1/4"	73.75	240 Bar	12	
75H-P365-15-XX	15	1 -1/2"	88.50	240 Bar	15	
75H-P365-17-XX	17	1 -3/4"	103.25	240 Bar	17	
75H-P365-20-XX	20	2"	118.00	240 Bar	20	
75H-P365-22-XX	22	2 -1/4"	132.75	242 Bar	22	
75H-P365-25-XX	25	2- 1/2"	147.50	200 Bar	25	
<b><u>ADD ON PRICES</u></b>						
75H-P365-M	MOTOR					
75H-P365-TL	TELL TAIL DRAIN (DOUBLE SHAFT SEAL)					
75H-P365-P330	MULTIPLE UNITS STEP SIZE COMMON OIL COMMON SUCTION P365/P330					
75H-P365-SAE4	MULTIPLE UNITS STEP SIZE SEALED OILS TO S.A.E. B 4" 2 BOLT FLANGE					
75H-P365-ADSP	MULTIPLE UNITS STEP SIZE SEALED OILS ADAPTOR SPLINES S.A.E. A & B					
	SHAFTS	SPIGOTS	PORTS	ROTATION	SPEED	
	1-1/4" P/KEY	4" 2 BOLT	BSPP	C / W	600 MIN rpm	
	14 TOOTH	4" 4 BOLT	NPT	CC / W	2400 MAX rpm	
		5" 2 BOLT	SAE "O"	B I		
		5" 4 BOLT	S/F 4 BOLT			





Part Number	P.T.O. GEAR PUMP SINGLE								RETAIL:
									24-04-2026
	<u>TYPE : P.T.O. DIN TYPE 4 HOLE</u>								
76H-TKBLHF1-30	P.T.O. SINGLE PUMP 4 HOLE 8 SPLINE 30cc DISPLACEMENT								
76H-TKBLHF1-40	P.T.O. SINGLE PUMP 4 HOLE 8 SPLINE 40cc DISPLACEMENT								
76H-TKBLHF1-50	P.T.O. SINGLE PUMP 4 HOLE 8 SPLINE 50cc DISPLACEMENT								
76H-TKBLHF1-63	P.T.O. SINGLE PUMP 4 HOLE 8 SPLINE 63cc DISPLACEMENT								
76H-TKBLHF1-80	P.T.O. SINGLE PUMP 4 HOLE 8 SPLINE 80cc DISPLACEMENT								
	<u>TYPE : P.T.O. UNI TYPE 3 HOLE</u>								
76H-TKBLHF3-30	P.T.O. SINGLE PUMP 3 HOLE 6 SPLINE 30cc DISPLACEMENT								
76H-TKBLHF3-40	P.T.O. SINGLE PUMP 3 HOLE 6 SPLINE 40cc DISPLACEMENT								
76H-TKBLHF3-50	P.T.O. SINGLE PUMP 3 HOLE 6 SPLINE 50cc DISPLACEMENT								
76H-TKBLHF3-63	P.T.O. SINGLE PUMP 3 HOLE 6 SPLINE 63cc DISPLACEMENT								
76H-TKBLHF3-80	P.T.O. SINGLE PUMP 3 HOLE 6 SPLINE 80cc DISPLACEMENT								
	<u>TYPE : P.T.O. DIN TYPE 4 HOLE</u>								
	<u>TRUCK PUMPS: TKBLH SERIES</u>								
	<u>MOUNTINGS</u> : DIN 4 HOLE								
	<u>SHAFTS</u> : DIN 8 SPLINE								
	<u>ROTATION</u> : REVERSIBLE								
	<u>PART No</u> : SERIES, ROTATION, CC/REV, FRONT COVER, SHAFT, PORTS, POSITION								
	<u>EXAMPLE</u> : TKBLH R 50 F1 H9 L1 CO								
	TECHNICAL DATA ; P.T.O. D.I.N. TYPE GEAR SINGLE STAGE								
	FLOW	PORTS	PORTS	PRESSURE	PRESSURE	MIN SPEED	MAX SPEED	Kg	FLOW
	cc/rev	INLET x 2	OUTLET x 2	P1 Bar	P2 Bar	RPM	RPM	±	cc/rev
	30	3/4" BSP	3/4" BSP	250	280	500	2000	18	30
	40	3/4" BSP	3/4" BSP	250	280	500	2000	18	40
	50	1" BSP	1" BSP	250	280	500	2000	18	50
	63	1" BSP	1" BSP	230	250	500	2000	18	63
	80	1" BSP	1" BSP	230	250	500	2000	20	80
	<u>TYPE : P.T.O. UNI TYPE 3 HOLE</u>								
	<u>TRUCK PUMPS: TKBLH SERIES</u>								
	<u>MOUNTINGS</u> : UNI 3 HOLE								
	<u>SHAFTS</u> : ISO 6 SPLINE								
	<u>ROTATION</u> : REVERSIBLE								
	<u>PART No</u> : SERIES, ROTATION, CC/REV, FRONT COVER, SHAFT, PORTS, POSITION								
	<u>EXAMPLE</u> : TKBLH R 50 F3 H9 L1 CO								
	TECHNICAL DATA ; P.T.O. U.N.I.. TYPE GEAR SINGLE STAGE								
	FLOW	PORTS	PORTS	PRESSURE	PRESSURE	MIN SPEED	MAX SPEED	Kg	FLOW
	cc/rev	INLET x 2	OUTLET x 2	Bar	P2 Bar	RPM	RPM	±	cc/rev
	30	3/4" BSP	3/4" BSP	250	280	500	2000	16	30
	40	3/4" BSP	3/4" BSP	250	280	500	2000	16	40
	50	1" BSP	1" BSP	250	280	500	2000	16	50
	63	1" BSP	1" BSP	230	250	500	2000	16	63
	80	1" BSP	1" BSP	230	250	500	2000	20	80

P.T.O. GEAR PUMP D.I.N. 4

P.T.O. GEAR PUMP U.N.I. 3 HOLE



Part Number	<b>P.T.O. GEAR PUMP DOUBLE</b>								RETAIL:
									24-04-2026
	<b>TYPE : P.T.O. DOUBLE DIN TYPE 4 HOLE</b>								
76H-TKBLHR80-30	P.T.O. DOUBLE PUMP 4 HOLE 8 SPLINE 80cc / 30cc DISPLACEMENT								
76H-TKBLHR80-40	P.T.O. DOUBLE PUMP 4 HOLE 8 SPLINE 80cc / 40cc DISPLACEMENT								
76H-TKBLHR80-50	P.T.O. DOUBLE PUMP 4 HOLE 8 SPLINE 80cc / 50cc DISPLACEMENT								
76H-TKBLHR80-63	P.T.O. DOUBLE PUMP 4 HOLE 8 SPLINE 80cc / 63cc DISPLACEMENT								
76H-TKBLHR80-80	P.T.O. DOUBLE PUMP 4 HOLE 8 SPLINE 80cc / 80cc DISPLACEMENT								
	<b>FIRST STAGE</b>								
	<b>MOUNTINGS :</b> DIN 4 HOLE								
	<b>SHAFTS :</b> DIN 8 SPLINE								
	<b>ROTATION :</b> REVERSIBLE								
	<b>PART No :</b> SERIES, ROTATION, CC/REV, FRONT COVER, SHAFT, PORTS, POSITION								
	<b>EXAMPLE :</b> TKBLHR R 80 / XX F1 H9 L1 LOXO								
	<b>TECHNICAL DATA ; P.T.O. D.I.N. TYPE GEAR PUMP SINGLE STAGE</b>								
	FLOW	PORTS	PORTS	PRESSURE	PRESSURE	MIN SPEED	MAX SPEED	Kg	FLOW
	cc/rev	INLET	OUTLET	P1 Bar	P2 Bar	RPM	RPM	±	cc/rev
	80	1" BSP	1" BSP	230	250	500	2000	33	80
	<b>SECOND STAGE</b>								
	<b>MOUNTINGS :</b> UNI 3 HOLE								
	<b>SHAFTS :</b> ISO 6 SPLINE								
	<b>ROTATION :</b> REVERSIBLE								
	<b>TECHNICAL DATA ; P.T.O. U.N.I.L. TYPE GEAR PUMP SECOND STAGE</b>								
	FLOW	PORTS	PORTS	PRESSURE	PRESSURE	MIN SPEED	MAX SPEED	Kg	FLOW
	cc/rev	INLET	OUTLET x 2	Bar				±	cc/rev
	30	3/4" BSP	3/4" BSP	250	280	500	2000	INCL.	30
	40	3/4" BSP	3/4" BSP	250	280	500	2000	INCL.	40
	50	1" BSP	1" BSP	250	280	500	2000	INCL.	50
	63	1" BSP	1" BSP	230	250	500	2000	INCL.	63
	80	1" BSP	1" BSP	230	250	500	2000	INCL.	80

P.T.O. GEAR PUMP DOUBLE



TYPE : SINGLE ; D.I.N. MOUNT ; 4 BOLT

HOF HIGH PRESSURE VANE PUMP

MOUNTINGS : 4 DIFFERENT POSITIONS DIN 4 BOLT

SHAFTS : DIN 5462 8 SPLINE

ROTATION : ( R ) CLOCKWISE

( L ) ANTI CLOCKWISE

PART No : HT6GC - 022 - 6 R 01-A-M1

PART No BREAKDOWN : SERIES; HT6GC DISP; 70cc SHAFT; 8 SPLINE ROTATION ; RIGHT

SINGLE VANE PUMP D.I.N.

TECHNICAL DATA

	CAM RING	DISPLACEMENT	PORTS	PORTS	PRESSURE	CAM RING	DISPLACEMENT
	SIZE	cc/rev	INLET	OUTLET	MAX INT	SIZE	cc/rev
76H-HT6GC10P	003	10.8	1-1/2" BSP	1" BSP	280 Bar	003	10.8
76H-HT6GC17P	005	17.2	1-1/2" BSP	1" BSP	280 Bar	005	17.2
76H-HT6GC21P	006	21.3	1-1/2" BSP	1" BSP	280 Bar	006	21.3
76H-HT6GC26P	008	26.4	1-1/2" BSP	1" BSP	280 Bar	008	26.4
76H-HT6GC31P	010	31.8	1-1/2" BSP	1" BSP	280 Bar	010	31.8
76H-HT6GC37P	012	37.1	1-1/2" BSP	1" BSP	280 Bar	012	37.1
76H-HT6GC46P	014	46.0	1-1/2" BSP	1" BSP	280 Bar	014	46.0
76H-HT6GC58P	017	58.3	1-1/2" BSP	1" BSP	281 Bar	017	58.3
76H-HT6GC63P	020	63.8	1-1/2" BSP	1" BSP	280 Bar	020	63.8
76H-HT6GC70P	022	70.3	1-1/2" BSP	1" BSP	280 Bar	022	70.3
76H-HT6GC79P	025	79.3	1-1/2" BSP	1" BSP	280 Bar	025	79.3
76H-HT6GC88P	028	88.8	1-1/2" BSP	1" BSP	210 Bar	028	88.8
76H-HT6GC100P	031	100.0	1-1/2" BSP	1" BSP	210 Bar	031	100.0

SPARE PARTS

76H-HT6GZC10CR	CARTRIDGE KIT 10.8cc ; CAM RING CODE 003
76H-HT6GZC17CR	CARTRIDGE KIT 17.3cc ; CAM RING CODE 005
76H-HT6GZC21CR	CARTRIDGE KIT 21.3cc ; CAM RING CODE 006
76H-HT6GZC26CR	CARTRIDGE KIT 26.4cc ; CAM RING CODE 008
76H-HT6GZC31CR	CARTRIDGE KIT 31.8cc ; CAM RING CODE 010
76H-HT6GZC37CR	CARTRIDGE KIT 37.1cc ; CAM RING CODE 012
76H-HT6GZC46CR	CARTRIDGE KIT 46.0cc ; CAM RING CODE 014
76H-HT6GZC58CR	CARTRIDGE KIT 58.3cc ; CAM RING CODE 017
76H-HT6GZC63CR	CARTRIDGE KIT 63.8cc ; CAM RING CODE 020
76H-HT6GZC70CR	CARTRIDGE KIT 70.3cc ; CAM RING CODE 022
76H-HT6GZC79CR	CARTRIDGE KIT 79.3cc ; CAM RING CODE 025
76H-HT6GZC88CR	CARTRIDGE KIT 88.8cc ; CAM RING CODE 028
76H-HT6GZC100CR	CARTRIDGE KIT 100cc ; CAM RING CODE 031

76H-HT6GCSHAF	DRIVE SHAFT SINGLE
76H-HT6GCBEAR	BEARING KIT SINGLE
76H-HT6GCSKIT	SEAL KIT SINGLE



HT6GC

Part Number	P.T.O. VANE PUMPS CAST IRON							RETAIL:
								20-02-2023
	<b>TYPE : SINGLE ; U.N.I. MOUNT ; 3 BOLT</b>							
	<b>HOF HIGH PRESSURE VANE PUMP</b>							
	<b>MOUNTINGS : 4 DIFFERENT POSITIONS DIN 4 BOLT</b>							
	<b>SHAFTS : DIN 5463 6 SPLINE</b>							
	<b>ROTATION : ( R ) CLOCKWISE</b>							
	<b>( L ) ANTI CLOCKWISE</b>							
	<b>PART No : HT6ZC - 022 - 6 R 01-A-M1</b>							
	<b>PART No BREAKDOWN : SERIES;HT6ZC DISP;70cc SHAFT; 6 SPLINE ROTATION ; RIGHT</b>							
	<b>SINGLE VANE PUMP U.N.I..</b>							
	<b>TECHNICAL DATA</b>							
	<b>CAM RING</b>	<b>DISPLACEMENT</b>	<b>PORTS</b>	<b>PORTS</b>	<b>PRESSURE</b>	<b>CAM RING</b>	<b>DISPLACEMENT</b>	
	<b>SIZE</b>	<b>cc/rev</b>	<b>INLET</b>	<b>OUTLET</b>	<b>MAX INT</b>	<b>SIZE</b>	<b>cc/rev</b>	
76H-HT6ZC10P	003	10.8	1-1/2" BSP	1" BSP	280 Bar	003	10.8	
76H-HT6ZC17P	005	17.2	1-1/2" BSP	1" BSP	280 Bar	005	17.2	
76H-HT6ZC21P	006	21.3	1-1/2" BSP	1" BSP	280 Bar	006	21.3	
76H-HT6ZC26P	008	26.4	1-1/2" BSP	1" BSP	280 Bar	008	26.4	
76H-HT6ZC31P	010	31.8	1-1/2" BSP	1" BSP	280 Bar	010	31.8	
76H-HT6ZC37P	012	37.1	1-1/2" BSP	1" BSP	280 Bar	012	37.1	
76H-HT6ZC46P	014	46.0	1-1/2" BSP	1" BSP	280 Bar	014	46.0	
76H-HT6ZC58P	017	58.3	1-1/2" BSP	1" BSP	281 Bar	017	58.3	
76H-HT6ZC63P	020	63.8	1-1/2" BSP	1" BSP	280 Bar	020	63.8	
76H-HT6ZC70P	022	70.3	1-1/2" BSP	1" BSP	280 Bar	022	70.3	
76H-HT6ZC79P	025	79.3	1-1/2" BSP	1" BSP	280 Bar	025	79.3	
76H-HT6ZC88P	028	88.8	1-1/2" BSP	1" BSP	210 Bar	028	88.8	
76H-HT6ZC100P	031	100.0	1-1/2" BSP	1" BSP	210 Bar	031	100.0	
	<b>SPARE PARTS</b>							
76H-HT6GZC10CR	CARTRIDGE KIT 10.8cc ; CAM RING CODE 003							
76H-HT6GZC17CR	CARTRIDGE KIT 17.3cc ; CAM RING CODE 005							
76H-HT6GZC21CR	CARTRIDGE KIT 21.3cc ; CAM RING CODE 006							
76H-HT6GZC26CR	CARTRIDGE KIT 26.4cc ; CAM RING CODE 008							
76H-HT6GZC31CR	CARTRIDGE KIT 31.8cc ; CAM RING CODE 010							
76H-HT6GZC37CR	CARTRIDGE KIT 37.1cc ; CAM RING CODE 012							
76H-HT6GZC46CR	CARTRIDGE KIT 46.0cc ; CAM RING CODE 014							
76H-HT6GZC58CR	CARTRIDGE KIT 58.3cc ; CAM RING CODE 017							
76H-HT6GZC63CR	CARTRIDGE KIT 63.8cc ; CAM RING CODE 020							
76H-HT6GZC70CR	CARTRIDGE KIT 70.3cc ; CAM RING CODE 022							
76H-HT6GZC79CR	CARTRIDGE KIT 79.3cc ; CAM RING CODE 025							
76H-HT6GZC88CR	CARTRIDGE KIT 88.8cc ; CAM RING CODE 028							
76H-HT6GZC100CR	CARTRIDGE KIT 100cc ; CAM RING CODE 031							
76H-HT6ZCSHAF	DRIVE SHAFT SINGLE							
76H-HT6ZCBEAR	BEARING KIT SINGLE							
76H-HT6ZCSKIT	SEAL KIT SINGLE							



HT6ZC



<b>PUMPS VANE</b>		RETAIL:
		13-04-2023
	<b>MODEL VQ VANE PUMP CARTRIDGES</b> ( DIRECT SWOP WITH VICKERS )	
	<b>CARTRIDGE KIT 20VQ SERIES</b>	
77H-20VQ-5	5 GALLON CARTRIDGE KIT	
77H-20VQ-8	8 GALLON CARTRIDGE KIT	
77H-20VQ-11	11 GALLON CARTRIDGE KIT	
77H-20VQ-12	12 GALLON CARTRIDGE KIT	
77H-20VQ-14	14 GALLON CARTRIDGE KIT	
	<b>CARTRIDGE KIT 25VQ SERIES</b>	
77H-25VQ-12	12 GALLON CARTRIDGE KIT	
77H-25VQ-14	14 GALLON CARTRIDGE KIT	
77H-25VQ-17	17 GALLON CARTRIDGE KIT	
77H-25VQ-21	21 GALLON CARTRIDGE KIT	
	<b>CARTRIDGE KIT 35VQ SERIES</b>	
77H-35VQ-25	25 GALLON CARTRIDGE KIT	
77H-35VQ-30	30 GALLON CARTRIDGE KIT	
77H-35VQ-35	35 GALLON CARTRIDGE KIT	
77H-35VQ-38	38 GALLON CARTRIDGE KIT	
	<b>CARTRIDGE KIT 45VQ SERIES</b>	
77H-45VQ-42	42 GALLON CARTRIDGE KIT	
77H-45VQ-50	50 GALLON CARTRIDGE KIT	
77H-45VQ-60	60 GALLON CARTRIDGE KIT	
	<b>SHAFT SEALS PRIMARY ( INSIDE PUMP )</b>	
77H-20VQSP	20VQ	
77H-25VQSP	25VQ	
77H-35VQSP	35VQ	
77H-45VQSP	45VQ	
	<b>SHAFT SEALS SECONDARY ( OUTSIDE PUMP )</b>	
77H-25VQSS	25/20VQ	
77H-35VQSS	35VQ	
77H-45VQSS	45VQ	
	<b>SHAFT BEARINGS</b>	
77H-20VQSB	20VQ	
77H-25VQSB	25VQ	
77H-35VQSB	35VQ	
77H-45VQSB	45VQ	
	<b>PUMP SHAFT KIT : SPIROLOCK , WASHER AND SNAPRING</b>	
77H-20VQSL	20VQ	
77H-25VQSL	25VQ	
77H-35VQSL	35VQ	
77H-45VQSL	45VQ	
	<b>PUMP SEAL KIT SINGLE</b>	
77H-20VQSK	20VQ	
77H-25VQSK	25VQ	
77H-35VQSK	35VQ	
77H-45VQSK	45VQ	
	<b>PUMP SEAL KIT DOUBLE</b>	
77H-2520VQSKD	2520VQ	
77H-3520VQSKD	3520VQ	
77H-3525VQSKD	3525VQ	
77H-4520VQSKD	4520VQ	
77H-4525VQSKD	4525VQ	
77H-4535VQSKD	4535VQ	
<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>		<b>PAGE R 1</b>




<u>Part Number</u>	<b>PUMPS VANE</b>					<b>RETAIL:</b>
						<b>13-04-2023</b>
	<b><u>MODEL VQ VANE PUMPS</u></b>		<b>( DIRECT SWOP WITH VICKERS )</b>			
	<b><u>COMPLETE PUMPS SINGLE</u></b>					
77H-20VQ	5 TO 14 GALLON SHAFT PARR KEY 7/8" OR 13 SPLINE SPIGOT 4" 2 BOLT					
77H-25VQ	12 TO 21 GALLON SHAFT PARR KEY 7/8" OR 1" OR 13 SPLINE SPIGOT 4" 2 BOLT					
77H-35VQ	25 TO 38 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 11/4" SPIGOT 5" 2 BOLT					
77H-45VQ	42 TO 60 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 11/4" SPIGOT 5" 2 BOLT					
77H-2520VQ	12-21 TO 5-14 GALLON SHAFT PARR KEY 7/8" AND 1" OR 13 SPLINE SPIGOT 4" 2 BOLT					
77H-3520VQ	25-38 TO 5-14 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 1-1/4" SPIGOT 5" 2 BOLT					
77H-3525VQ	25-38 TO 12-21 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 1-1/4" SPIGOT 5" 2 BOLT					
77H-4520VQ	42-60 TO 5-14 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 1-1/4" SPIGOT 5" 2 BOLT					
77H-4525VQ	42-60 TO 12-21 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 1-1/4" SPIGOT 5" 2 BOLT					
77H-4535VQ	42-60 TO 25-38 GALLON SHAFT PARR KEY 1-1/4" OR 14 SPLINE 1-1/4" SPIGOT 5" 2 BOLT					
	<b><u>HOW TO IDENTIFY PUMP SERIES BY MEASURING CAM RING OD IN mm</u></b>					
	20VQ CAM RING OD 82.6 mm					
	25VQ CAM RING OD 96.8 mm					
	35VQ CAM RING OD 114.3 mm					
	45VQ CAM RING OD 133.40 mm					
	<b><u>TECHNICAL SPECIFICATIONS</u></b>					
	<b>MODEL</b>	<b>FLOW @ 1200RPM US GAL</b>	<b>CC/REV</b>	<b>MAX SPEED RPM</b>	<b>MAX PRESS BAR</b>	
	20VQ	5	18	2700	206	
	20VQ	8	27	2700	206	
	20VQ	11	36	2700	206	
	20VQ	12	39	2700	158	
	20VQ	14	45	2700	138	
	<b>MODEL</b>	<b>FLOW @ 1200RPM US GAL</b>	<b>CC/REV</b>	<b>MAX SPEED RPM</b>	<b>MAX PRESS BAR</b>	
	25VQ	12	40	2700	206	
	25VQ	14	45	2700	206	
	25VQ	17	55	2500	206	
	25VQ	21	67	2500	206	
	<b>MODEL</b>	<b>FLOW @ 1200RPM US GAL</b>	<b>CC/REV</b>	<b>MAX SPEED RPM</b>	<b>MAX PRESS BAR</b>	
	35VQ	25	81	2500	206	
	35VQ	30	97	2500	206	
	35VQ	35	112	2400	206	
	35VQ	38	121	2400	206	
	<b>MODEL</b>	<b>FLOW @ 1200RPM US GAL</b>	<b>CC/REV</b>	<b>MAX SPEED RPM</b>	<b>MAX PRESS BAR</b>	
	45VQ	42	138	2200	172	
	45VQ	50	162	2200	172	
	45VQ	60	193	2200	172	






<u>Part Number</u>	<b>PUMPS VANE</b>					<b>RETAIL:</b>
	<b><u>MODEL V10, V20 &amp; VTM 42 VANE PUMPS</u></b> ( DIRECT SWOP WITH VICKERS )					<b>01-10-2022</b>
77H-V10	PUMP SINGLE					
77H-V20	PUMP SINGLE					
77H-V10P	PUMP SINGLE PRIORITY VALVE COVER					
77H-V20P	PUMP SINGLE PRIORITY VALVE COVER					
77H-V10F	PUMP SINGLE FLOW CONTROL COVER					
77H-V20F	PUMP SINGLE FLOW CONTROL COVER					
77H-V2010	PUMP DOUBLE					
77H-V2020	PUMP DOUBLE					
	<b><u>MODEL V 10 P VANE PUMP UNIT GALLION GRADER STEER PUMP</u></b>					
77H-V10P1S7K11	V10-P1S7K11D7D					
	SPECS : SPIGOT 3-1/4" 2 BOLT PORTS 1" SAE & 1/2" SAE SECONDARY 3/8" SAE PRIMARY					
	DELIVERY 11 GAL PRIORITY 7 GAL PRESSURE 70 BAR SHAFT 9 TOOTH ROTATION C/W					
	<b><u>MODEL V 20 VANE PUMP UNIT DIRECT SWOP ON PART NUMBER</u></b>					
77H-V20-1P11P1C	V20-1P11P-1C					
	SPECS : SPIGOT 3-1/4" 2 BOLT PORTS 1-1/4" NPT & 3/4" NPT DELIVERY 11 GAL					
	SHAFT 3/4" PARR KEY ROTATION C/W					
	<b><u>MODEL VTM 42 VANE PUMP UNIT DIRECT SWOP ON PART NUMBER</u></b>					
77H-VTM425040	VTM-42-50-40-15-NO-R1-14					
	SPECS : SPIGOT 3-1/4" 2 BOLT DELIVERY 5 GAL CONTROLLED FLOW 4 GAL RELIEF 15 BAR					
	ROTATION C/W SHAFT 7/8" PARR KEY + THREAD PRESSURE PORT 1/2" SAE "O"					
77H-VTM-TANK	VTM TANK					
	<b>TECHNICAL SPECIFICATIONS</b>					
	<b>MODEL</b>	<b>FLOW @ 1200RPM US GAL</b>	<b>CC/REV</b>	<b>MAX SPEED RPM</b>	<b>MAX PRESS BAR</b>	
	V10	1	3.3	4800	172	
	V10	2	6.6	4500	172	
	V10	3	9.8	4000	172	
	V10	4	13.1	3400	172	
	V10	5	16.4	3200	172	
	V10	6	19.5	3000	152	
	V10	7	22.8	2800	138	
	<b>MODEL</b>	<b>FLOW @ 1200RPM US GAL</b>	<b>CC/REV</b>	<b>MAX SPEED RPM</b>	<b>MAX PRESS BAR</b>	
	V20	6	19.5	3400	172	
	V20	7	22.8	3000	172	
	V20	8	26.5	2800	172	
	V20	9	29.7	2800	172	
	V20	11	36.4	2500	172	
	V20	12	39.0	2400	152	
	V20	13	42.4	2400	152	



Part Number	VANE MOTORS				RETAIL:	
					01-10-2022	
	<b>MOTOR SERIES ; 25HM ; 35HM ; 45HM</b>					
	<b>25HM COMPLETE MOTORS</b>					
77H-25HM30A1C	25 HM 30 A - 1 C	RING SIZE 29.0cc	PARRALLEL SHAFT 7/8" OR 13 TOOTH	SPIGOT 4"		
77H-25HM42A1C	25 HM 42 A - 1 C	RING SIZE 43.9cc	PARRALLEL SHAFT 7/8" OR 13 TOOTH	SPIGOT 4"		
77H-25HM55A1C	25 HM 55 A - 1 C	RING SIZE 57.7cc	PARRALLEL SHAFT 7/8" OR 13 TOOTH	SPIGOT 4"		
77H-25HM65A1C	25 HM 65 A - 1 C	RING SIZE 68.7cc	PARRALLEL SHAFT 7/8" OR 13 TOOTH	SPIGOT 4"		
	<b>35HM COMPLETE MOTORS</b>					
77H-35HM80A1C	35 HM 80 A - 1 C	RING SIZE 83.6cc	PARRALLEL SHAFT 1-1/4" OR 14 TOOTH	SPIGOT 5"		
77H-35HM95A1C	35 HM 95 A - 1 C	RING SIZE 100.3cc	PARRALLEL SHAFT 1-1/4" OR 14 TOOTH	SPIGOT 5"		
77H-35HM115A1C	35 HM 115 A - 1 C	RING SIZE 121.9cc	PARRALLEL SHAFT 1-1/4" OR 14 TOOTH	SPIGOT 5"		
	<b>45HM COMPLETE MOTORS</b>					
77H-45HM130A1C	45 HM 130 A - 1 C	RING SIZE 138.0cc	PARRALLEL SHAFT 1-1/4" OR 14 TOOTH	SPIGOT 5"		
77H-45HM155A1C	45 HM 155 A - 1 C	RING SIZE 163.2cc	PARRALLEL SHAFT 1-1/4" OR 14 TOOTH	SPIGOT 5"		
77H-45HM185A1C	45 HM 185 A - 1 C	RING SIZE 193.2cc	PARRALLEL SHAFT 1-1/4" OR 14 TOOTH	SPIGOT 5"		
	<b>CARTRIDGE KITS</b>					
77H-25HM-30	25HM RING SIZE, 30					
77H-25HM-42	25HM RING SIZE, 42					
77H-25HM-55	25HM RING SIZE, 55,					
77H-25HM-65	25HM RING SIZE, 65					
77H-35HM-80	35HM RING SIZE, 80					
77H-35HM-95	35HM RING SIZE, 95,					
77H-35HM-115	35HM RING SIZE, 115					
77H-45HM-130	45HM RING SIZE, 130					
77H-45HM-155	45HM RING SIZE, 155					
77H-45HM-185	45HM RING SIZE, 185					
	<b>SHAFTS</b>					
77H-25HMS-11	MOTOR SHAFT SPLINED 25 HM - 11 ( 13 TOOTH SAE B )					
77H-35HMS-11	MOTOR SHAFT SPLINED 35 HM - 11 ( 14 TOOTH SAE C )					
77H-45HMS-11	MOTOR SHAFT SPLINED 45 HM - 11 ( 14 TOOTH SAE C )					
	<b>SHAFT SEAL</b>					
77H-25HM-SS	25HM SHAFT SEAL					
77H-35HM-SS	35HM SHAFT SEAL					
77H-45HM-SS	45HM SHAFT SEAL					
	<b>NOTES:</b>					
MOTORS ARE BI ROTATION , CAN BE RUN IN SERIES, HIGHER SPEEDS CAN REACHED IF						
WORKING PRESSURE IS LOWERED, CASE DRAIN MUST BE NO MORE THAN MAX 0.7 bar						
	<b>PORTS</b>					
	SERIES	BODY PORT	COVER PORT	CASE DRAIN		
	25HM	1-1/4" S/F unc	1-1/4" S/F unc	1/4" NPT		
	35HM	1-1/2" S/F unc	1-1/2" S/F unc	3/8" NPT		
	45HM	2" S/F unc	2" S/F unc	1/2" NPT		
	<b>SPECIFICATIONS</b>					
	MODEL SERIES	TORQUE Nm/6.9bar (lb in/100psi)	DISPLACEMENT cc/r (cc/r)	FLOW INPUT @ 1200rpm L/min (Us/gal)	MAX SPEED & PRESSURE CONTINUOUS	Kg
	25HM	3.3 (30)	29.0 (1.77)	34.8 (9.19)	2600 r/min @ 155 bar	18
		4.7 (42)	43.9 (2.68)	52.6 (13.9)	2600 r/min @ 155 bar	18
		6.2 (55)	57.7 (3.52)	69.3 (18.3)	2600 r/min @ 155 bar	18
		7.3 (65)	68.7 (4.19)	82.5 (21.8)	2600 r/min @ 155 bar	18
	35HM	9.0 (80)	83.6 (5.10)	100.3 (26.5)	2600 r/min @ 155 bar	29
		10.7 (95)	100.3 (6.12)	120.4 (31.8)	2600 r/min @ 155 bar	29
		13.0 (115)	121.9 (7.44)	146.1 (38.6)	2600 r/min @ 155 bar	29
	45HM	14.7 (130)	138.0 (8.42)	165.4 (43.7)	2600 r/min @ 155 bar	39
		17.5 (155)	163.2 (9.96)	195.7 (51.7)	2600 r/min @ 155 bar	39
		20.9 (185)	193.2 (11.79)	232.0 (61.3)	2600 r/min @ 155 bar	39
<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>						
						<b>PAGE R 6</b>

## PUMPS PISTON


<b>PUMP ORDERING CODE</b>	TK	A10VS	O	71	DFR	31	R	P	P	A	12	N00					
<b>AXIAL PISTON UNIT</b>																	
SWASH PLATE VARIABLE PUMP INDUSTRIAL										A10VS							
<b>MODES OF OPERATION</b>																	
PUMP OPEN CIRCUIT											X						
<b>SIZE</b>																	
DISPLACEMENT (cc/rev)	18	28	45	71	100	140											
<b>CONTROL DEVICES</b>																	
PRESSURE CONTROL	X	X	X	X	X	X	DR										
G-REMOTE CONTROL	X	X	X	X	X	X	DRG										
PRESSURE AND FLOW CONTROL	X	X	X	X	X	X	DFR										
X CHANNEL PLUGGED	X	X	X	X	X	X	DFR1										
PRESSURE FLOW AND POWER CONTROL		X	X	X	X		DFLR										
<b>SERIES</b>																	
SERIES											31						
<b>DIRECTION OF ROTATION</b>																	
VIEWED ON DRIVE SHAFT					CLOCKWISE			R									
VIEWED ON DRIVE SHAFT					ANTI CLOCKWISE			L									
<b>SEALS</b>																	
BUNA-N											P						
FPM (FLUOROCARBON)											V						
<b>SHAFT END</b>																	
	18	28	45	71	100	140											
SPLINED SHAFT SAE INCH	3/4"-11T	7/8"-13T	1"-15T	1-1/4"-14T	1-1/2"-17T	1-3/4"-13T	S										
SPLINED SHAFT SAE INCH SHAFT REINFORCED THRU - DRIVE		7/8"-13T	1"-15T	1-1/4"-14T			R										
SPLINED SHAFT SAE INCH SMALLER SIZE NO THRU - DRIVE			7/8"-13T		1-1/4"-14T		U										
SPLINED SHAFT SAE INCH SHAFT REINFORCED U TYPE SHAFT			7/8"-13T		1-1/4"-14T		W										
PARALLEL SHAFT SAE INCH KEYED SHAFT	3/4"	7/8"	1"	1-1/4"	1-1/2"	1-3/4"	K										
PARALLEL SHAFT DIN METRIC KEYED SHAFT	18mm	22mm	25mm	32mm	40mm	45mm	P										
<b>MOUNTING FLANGE</b>																	
	18	28	45	71	100	140											
SAE 2 HOLE INCH	3-3/4"	4"	4"	5"	5"		C										
SAE 4 HOLE INCH						6"	D										
ISO 2 HOLE METRIC	80mm	100mm	100mm	125mm	125mm	180mm	A										
<b>SERVICE PORTS</b>																	
	18	28	45	71	100	140											
REAR PORTS UNC THREADS		x	x	x	x	x	61	ports pos 61, 11, 91, and 41 only for version without 41 through drive									
OPPOSITE SIDE PORTS UNC THREADS	X	X	X	X	X	X	62										
REAR PORTS METRIC THREADS		X	X	X	X	X	11										
OPPOSITE SIDE PORTS METRIC THREADS	X	X	X	X	X	X	12										
REAR PORTS UNC THREADS				X			91										
OPPOSITE SIDE PORTS UNC THREADS				X			92										
REAR PORTS METRIC THREADS				X			41										
OPPOSITE SIDE PORTS METRIC THREADS				X			42										
<b>THRU - DRIVE REAR COVER</b>																	
	18	28	45	71	100	140											
STANDARD COVER WITHOUT THROUGH DRIVE		X	X	X	X	X	N00										
SAE A 3-1/4" 2 BOLT			X	X	X	X	K01										
SAE A 3-1/4" 2 BOLT			X	X	X	X	K52										
SAE B 4" 2 BOLT			X	X	X	X	K02 / K68										
SAE B 4" 2 BOLT			X	X	X	X	K04										
SAE C 5" 2 BOLT				X	X	X	K07										
SAE D 6" 4 BOLT						X	K17										

Part Number	PUMPS PISTON							RETAIL:
								01-10-2022
	<u>SINGLE A 10V 31 SERIES IMPERIAL (SPIGOT &amp; SHAFT C/W / CCW)</u>							
	<u>STANDARD PARRALLEL KEY SHAFTS (CODE K)</u>							
78H-A10V18-IPR	A10VS O 18 DFR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 3/4"	SPIGOT 3-1/4"					
78H-A10V28-IPR	A10VS O 28 DFR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 7/8"	SPIGOT 4"					
78H-A10V45-IPR	A10VS O 45 DFR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1"	SPIGOT 4"					
78H-A10V71-IPR	A10VS O 71 DFR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1-1/4"	SPIGOT 5"					
78H-A10V100-IPR	A10VS O 100 DFR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1-1/2"	SPIGOT 5"					
78H-A10V140-IPR	A10VS O 140 DFR / 31 R - P K D 62 NOO	PARRALLEL SHAFT 1- 3/4"	SPIGOT 6"					
	<u>STANDARD SPLINE SHAFTS (CODE S)</u>							
78H-A10V18-ISR	A10VS O 18 DFR / 31 R - P S C 62 NOO	SPLINE SHAFT 11 SPLINE	SPIGOT 3-1/4"					
78H-A10V28-ISR	A10VS O 28 DFR / 31 R - P S C 62 NOO	SPLINE SHAFT 13 SPLINE	SPIGOT 4"					
78H-A10V45-ISR	A10VS O 45 DFR / 31 R - P S C 62 NOO	SPLINE SHAFT 15 SPLINE	SPIGOT 4"					
78H-A10V71-ISR	A10VS O 71 DFR / 31 R - P S C 62 NOO	SPLINE SHAFT 14 SPLINE	SPIGOT 5"					
78H-A10V100-ISR	A10VS O 100 DFR / 31 R - P S C 62 NOO	SPLINE SHAFT 17 SPLINE	SPIGOT 5"					
78H-A10V140-ISR	A10VS O 140 DFR / 31 R - P S D 62 NOO	SPLINE SHAFT 13 SPLINE	SPIGOT 6"					
	<u>DOUBLE A 10V 31 SERIES IMPERIAL (THRU-DRIVE ADD-ON C/W / CCW)</u>							
78H-A10V28AD3R	A10VS O 28 DFR / 31 R - 62 ADD-ON SAE A 3-1/4"	(K01 / 9T) (K52 / 11T)						
78H-A10V28AD4R	A10VS O 28 DFR / 31 R - 62 ADD-ON SAE B 4"	(K68 ; K02 / 13T) (K04 / 15T)						
78H-A10V45AD3R	A10VS O 45 DFR / 31 R - 62 ADD-ON SAE A 3-1/4"	(K01 / 9T) (K52 / 11T)						
78H-A10V45AD4R	A10VS O 45 DFR / 31 R - 62 ADD-ON SAE B 4"	(K68 ; K02 / 13T) (K04 / 15T)						
78H-A10V71AD3R	A10VS O 71 DFR / 31 R - 62 ADD-ON SAE A 3-1/4"	(K01 / 9T) (K52 / 11T)						
78H-A10V71AD4R	A10VS O 71 DFR / 31 R - 62 ADD-ON SAE B 4"	(K68 ; K02 / 13T) (K04 / 15T)						
78H-A10V71AD5R	A10VS O 71 DFR / 31 R - 62 ADD-ON SAE C 5"	(K07 / 14T)						
78H-A10V100AD4R	A10VS O 100 DFR / 31 R - 62 ADD-ON SAE B 4"	(K68 ; K02 / 13T) (K04 / 15T)						
78H-A10V100AD5R	A10VS O 100 DFR / 31 R - 62 ADD-ON SAE C 5"	(K07 / 14T)						
78H-A10V140AD4R	A10VS O 140 DFR / 31 R - 62 ADD-ON SAE B 4"	(K68 ; K02 / 13T) (K04 / 15T)						
78H-A10V140AD5R	A10VS O 140 DFR / 31 R - 62 ADD-ON SAE C 5"	(K07 / 14T)						
	<u>SPECS: FOR THE ABOVE PUMPS</u>							
	MODEL	CC / REV	ROTATION	SHAFT	SPIGOT	MOUNT	SUCTION	PRESSURE
	A10VSO18	18	C / W	3/4" : 11T	3-1/4"	2 X BOLT	1" S/F	3/4" S/F
	A10VSO28	28	C / W	7/8" : 13T	4"	2 X BOLT	1-1/4" S/F	3/4" S/F
	A10VSO45	45	C / W	1" : 15T	4"	2 X BOLT	1-1/2" S/F	1" S/F
	A10VSO71	71	C / W	1-1/4" : 14T	5"	2 X BOLT	2" S/F	1" S/F
	A10VSO100	100	C / W	1-1/2" : 17T	5"	2 X BOLT	2-1/2" S/F	1-1/4" S/F-m*
	A10VSO140	140	C / W	1-3/4" : 13T	6"	4 X BOLT	2-1/2" S/F	1-1/4" S/F-m*
	ALL PORTS 3000 SERIES ; EXCEPT FOR 1-1/4" S/F-m* 6000 SERIES							
	<u>SPECS: FOR THE ABOVE PUMPS</u>							
	MODEL	PRESSURE	PRESSURE	INLET PRESSURE		SPEED	SPEED	WEIGHT
	CC/REV	RATED	CASING	MIN	MAX	MAX	MIN	Kg
	A10VSO18	280 Bar	2 Bar	0.8 Bar	30 Bar	3300 rpm	600 rpm	12
	A10VSO28	280 Bar	2 Bar	0.8 Bar	30 Bar	3000 rpm	600 rpm	15
	A10VSO45	280 Bar	2 Bar	0.8 Bar	30 Bar	2600 rpm	600 rpm	21
	A10VSO71	280 Bar	2 Bar	0.8 Bar	30 Bar	2200 rpm	600 rpm	33
	A10VSO100	280 Bar	2 Bar	0.8 Bar	30 Bar	2000 rpm	600 rpm	45
	A10VSO140	280 Bar	2 Bar	0.8 Bar	30 Bar	1800 rpm	600 rpm	60
								
PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY							PAGE S 2	

Part Number	<b>PUMPS PISTON</b>		RETAIL:
	<b>SINGLE A 10V 31 SERIES IMPERIAL (HORSE POWER CONTROL)</b>		01-10-2022
	<b>STANDARD PARRALLEL KEY SHAFTS</b>	<b>( CODE K )</b>	
78H-A1028DFLIR	A10VS O 28 DFLR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 7/8" SPIGOT 4"	
78H-A1045DFLIR	A10VS O 45 DFLR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1" SPIGOT 4"	
78H-A1071DFLIR	A10VS O 71 DFLR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1-1/4" SPIGOT 5"	
78H-A10100DFLIR	A10VS O 100 DFLR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1-1/2" SPIGOT 5"	
78H-A10140DFLIR	A10VS O 140 DFLR / 31 R - P K C 62 NOO	PARRALLEL SHAFT 1-3/4" SPIGOT 6"	
	<b>CONNECTING BILLET OPTIONS</b>		
	<b>A10VSO 28 THRU - DRIVE BILLETS</b>		
78H-241-3601	BILLET ADAPTOR 9 SPLINE K01		
78H-1-3601B-SZ	BILLET ADAPTOR 11 SPLINE K52		
78H-241-3601A	BILLET ADAPTOR 13 SPLINE K02 / K68		
	<b>A10VSO 45 THRU - DRIVE BILLETS</b>		
78H-242-3601E	BILLET ADAPTOR 9 SPLINE K01		
78H-242-3601D	BILLET ADAPTOR 11 SPLINE K52		
78H-242-3601B	BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-242-3601F	BILLET ADAPTOR 15 SPLINE K04		
	<b>A10VSO 71 THRU - DRIVE BILLETS</b>		
78H-243-3601	BILLET ADAPTOR 9 SPLINE K01		
78H-243-3601E	BILLET ADAPTOR 11 SPLINE K52		
78H-243-3601C	BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-243-3601A	BILLET ADAPTOR 14 SPLINE K07		
78H-243-3601D	BILLET ADAPTOR 15 SPLINE K04		
	<b>A10VSO 100 THRU - DRIVE BILLETS</b>		
78H-244-3601	BILLET ADAPTOR 9 SPLINE K01		
78H-244-3601B	BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-244-3601A	BILLET ADAPTOR 14 SPLINE K07		
78H-244-3601C	BILLET ADAPTOR 15 SPLINE K04		
	<b>A10VSO 140 THRU - DRIVE BILLETS</b>		
78H-245-3601F	BILLET ADAPTOR 9 SPLINE K01		
78H-245-3601D	BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-245-3601B	BILLET ADAPTOR 14 SPLINE K07		
78H-245-3601C	BILLET ADAPTOR 15 SPLINE K04		
	<b>LABOUR OPTIONS</b>		
78H-A10V-LAB-01	TO SET UP ON TEST BENCH NEW SINGLE PUMP PRESSURES AND FLOW		
78H-A10V-LAB-02	TO SET UP ON TEST BENCH NEW DOUBLE PUMP PRESSURES AND FLOW		
78H-A10V-LAB-03	TO SET UP ON TEST BENCH USED SINGLE PUMP PRESSURES AND FLOW		
78H-A10V-LAB-04	TO SET UP ON TEST BENCH USED DOUBLE PUMP PRESSURES AND FLOW		
78H-A10V-LAB-05	TO SET UP ON TEST BENCH NEW DFLR CONTROLLED PUMP		
	<b>BILL OF MATERIAL FOR ROTATION CHANGE</b>		
	BACK COVER ; VALVE PLATE AND YOKE TO BE REPLACED		



<u>Part Number</u>	<b>PUMPS PISTON</b>	RETAIL:
	<b><u>A 10V 31 SERIES PISTON PUMP</u></b>	<b>01-10-2022</b>
	<b><u>A10VSO 18 SPARES</u></b>	
78H-240-3306	A10VSO 18 SEAL KIT	
78H-A10V18-ROT	A10VSO 18 ROTATING GROUP ASSEMBLY 18cc	
78H-240-1101	A10VSO 18 CYLINDER BLOCK	
78H-240-2100C	A10VSO 18 PISTON (9 PER SET)	
78H-240-1201	A10VSO 18 BARREL WASHER	
78H-240-1301	A10VSO 18 COIL SPRING	
78H-240-1401	A10VSO 18 PRESS PIN	
78H-240-1501	A10VSO 18 SNAP RING	
78H-240-4102A	A10VSO 18 BALL GUIDE	
78H-240-4111A	A10VSO 18 RETAINER PLATE	
78H-240-3704	A10VSO 18 SHAFT BIG BEARING FRONT	
78H-240-3704A	A10VSO 18 SHAFT SMALL BEARING REAR	
78H-240-4401	A10VSO 18 VALVE PLATE RIGHT HAND	
78H-240-4501	A10VSO 18 VALVE PLATE LEFT HAND	
78H-240-5220	A10VSO 18 SWASH PLATE RIGHT HAND	
78H-240-5320	A10VSO 18 SWASH PLATE LEFT HAND	
78H-240-5251	A10VSO 18 SADDLE BEARING	
78H-240-7102B	A10VSO 18 HEAD BLOCK RIGHT HAND SAE SINGLE SIDE PORT 62 N00	
78H-240-7103B	A10VSO 18 HEAD BLOCK LEFT HAND SAE SINGLE SIDE PORT 62 N00	
78H-240-3101K	A10VSO 18 3/4" P / KEY TYPE K	
78H-240-3201U	A10VSO 18 SHAFT 9 SPLINE TYPE U	
78H-240-3201S	A10VSO 18 SHAFT 11 SPLINE TYPE S	
78H-240-7300	A10VSO 18 CONTROL VALVE DR	
78H-240-7200	A10VSO 18 CONTROL VALVE DFR	
78H-240-7400	A10VSO 18 CONTROL VALVE DFR1	
78H-240-72-DRG	A10VSO 18 CONTROL VALVE DRG	
78H-240-7110	A10VSO 18 CONTROL PISTON ASSEMBLY	
78H-240-7120	A10VSO 18 COUNTER PISTON ASSEMBLY	
78H-240-7135	A10VSO 18 BIAS SPRING	
78H-240-7630A	A10VSO 18 ~ 100 0.8 ORIFICE DFR ADAPTER	
78H-240-SL-M6	A10VSO 18 ~ 100 DOUBLE HEAD PLUG SL-M6 A6VM160	
78H-240-B6X18	A10VSO 18 ~ 100 COLUMN PIN B6x18 GB/T119	
		
78H-241-3306	A10VSO 28 SEAL KIT	
78H-A10V28-ROT	A10VSO 28 ROTATING GROUP ASSEMBLY 28cc	
78H-241-1101	A10VSO 28 CYLINDER BLOCK	
78H-241-2100C	A10VSO 28 PISTON	
78H-241-1201	A10VSO 28 BARREL WASHER	
78H-241-1301	A10VSO 28 COIL SPRING	
78H-241-1401	A10VSO 28 PRESS PIN	
78H-241-1501	A10VSO 28 SNAP RING	
78H-241-4102F	A10VSO 28 BALL GUIDE	
78H-241-4111A	A10VSO 28 RETAINER PLATE	
78H-241-3704	A10VSO 28 SHAFT BIG BEARING FRONT	
78H-241-3704A	A10VSO 28 SHAFT SMALL BEARING REAR	
78H-241-4401	A10VSO 28 VALVE PLATE RIGHT HAND	
78H-241-4501	A10VSO 28 VALVE PLATE LEFT HAND	
78H-241-5220	A10VSO 28 SWASH PLATE RIGHT HAND	
78H-241-5320	A10VSO 28 SWASH PLATE LEFT HAND	
78H-241-5251	A10VSO 28 SADDLE BEARING	
78H-241-7102B	A10VSO 28 HEAD BLOCK RIGHT HAND SAE SINGLE SIDE PORT 62 N00	
78H-241-7103B	A10VSO 28 HEAD BLOCK LEFT HAND SAE SINGLE SIDE PORT 62 N00	
78H-241-7102C	A10VSO 28 RIGHT HAND REAR COVER / THRU - DRIVE 3-1/4" 2 BOLT SAE SIDE PORT 62 (K01 / K52)	
	<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>	<b>PAGE S 4</b>

Part Number	PUMPS PISTON		RETAIL: 01-10-2022
	<u>A 10V 31 SERIES PISTON PUMP</u>		
	<u>A10VSO 28 SPARES</u>		
78H-241-7103C	A10VSO 28 LEFT HAND REAR COVER / THRU - DRIVE 3-1/4" 2 BOLT SAE SIDE PORT 62 (K01 / K52)		
78H-241	A10VSO 28 RIGHT HAND REAR COVER / THRU - DRIVE 4" 2 BOLT SAE SIDE PORT 62 (K04 / K68)		
78H-241-7103E	A10VSO 28 LEFT HAND REAR COVER / THRU - DRIVE 4" 2 BOLT SAE SIDE PORT 62 (K04 / K68)		
78H-241-3601	A10VSO 28 BILLET ADAPTOR 9 SPLINE K01		
78H-1-3601B-SZ	A10VSO 28 BILLET ADAPTOR 11 SPLINE K52		
78H-241-3601A	A10VSO 28 BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-241-3601F	A10VSO 28 BILLET ADAPTOR 15 SPLINE K04		
78H-241-3101K	A10VSO28 SHAFT 7/8" P / KEY TYPE K		
78H-241-3101D	A10V28 SHAFT 7/8" P/KEY / THRU/D TYPE K		
78H-241-3201C	A10VSO28 SHAFT 13 SPLINE TYPE S		
78H-241-3201B	A10V28 SHAFT 13 SPLINE / THRU/D TYPE S		
78H-240-7300	A10VSO28 CONTROL VALVE DR		
78H-240-7200	A10VSO28 CONTROL VALVE DFR		
78H-240-7400	A10VSO28 CONTROL VALVE DFR1		
78H-240-72-DRG	A10VSO28 CONTROL VALVE DRG		
78H-242-7800	A10VSO28 HORSE POWER CONTROLLER 7.5Kw		
78H-241-7110	A10VSO 28 CONTROL PISTON ASSEMBLY		
78H-241-7120	A10VSO 28 COUNTER PISTON ASSEMBLY		
78H-241-7135	A10VSO 28 BIAS SPRING		
78H-241-7630A	A10VSO 18 ~ 100 0.8 ORIFICE DFR ADAPTER		
78H-241-SL-M6	A10VSO 18 ~ 100 DOUBLE HEAD PLUG SL-M6 A6VM160		
78H-241-B6X18	A10VSO 18 ~ 100 COLUMN PIN B6x18 GB/T119		
	<u>A10VSO 45 SPARES</u>		
78H-242-3306	A10VSO 45 SEAL KIT		
78H-A10V45-ROT	A10VSO 45 ROTATING GROUP ASSEMBLY 45cc		
78H-242-1101	A10VSO 45 CYLINDER BLOCK		
78H-242-2100C	A10VSO 45 PISTON		
78H-242-1201	A10VSO 45 BARREL WASHER		
78H-242-1301	A10VSO 45 COIL SPRING		
78H-242-1401	A10VSO 45 PRESS PIN		
78H-242-1501	A10VSO 45 SNAP RING		
78H-242-4102F	A10VSO 45 BALL GUIDE		
78H-242-4111	A10VSO 45 RETAINER PLATE		
78H-242-3704	A10VSO 45 SHAFT BIG BEARING FRONT		
78H-242-3704A	A10VSO 45 SHAFT SMALL BEARING REAR		
78H-242-4401	A10VSO 45 VALVE PLATE RIGHT HAND		
78H-242-4501	A10VSO 45 VALVE PLATE LEFT HAND		
78H-242-5220	A10VSO 45 SWASH PLATE RIGHT HAND		
78H-242-5320	A10VSO 45 SWASH PLATE LEFT HAND		
78H-242-5251	A10VSO 45 SADDLE BEARING		
78H-242-7102B	A10VSO 45 HEAD BLOCK RIGHT HAND SAE SINGLE SIDE PORT 62 N00		
78H-242-7103B	A10VSO 45 HEAD BLOCK LEFT HAND SAE SINGLE SIDE PORT 62 N00		
78H-242-7102E	A10VSO 45 RIGHT HAND REAR COVER / THRU - DRIVE 3-1/4" 2 BOLT SAE SIDE PORT 62 (K01 / K52)		
78H-242-7103E	A10VSO 45 LEFT HAND REAR COVER / THRU - DRIVE 3-1/4" 2 BOLT SAE SIDE PORT 62 (K01 / K52)		
78H-242-7102C	A10VSO 45 RIGHT HAND REAR COVER / THRU - DRIVE 4" 2 BOLT SAE SIDE PORT 62 (K04 / K68)		
78H-242-7103C	A10VSO 45 LEFT HAND REAR COVER / THRU - DRIVE 4" 2 BOLT SAE SIDE PORT 62 (K04 / K68)		
78H-242-3601E	A10VSO 45 BILLET ADAPTOR 9 SPLINE K01		
78H-242-3601D	A10VSO 45 BILLET ADAPTOR 11 SPLINE K52		
78H-242-3601B	A10VSO 45 BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-242-3601F	A10VSO 45 BILLET ADAPTOR 15 SPLINE K04		
78H-242-3101K	A10VSO 45 SHAFT 1" P / KEY TYPE K		
78H-242-3101D	A10VSO 45 SHAFT 1" P/KEY / THRU-DRIVE TYPE K		
78H-242-3201U	A10VSO 45 SHAFT 13 SPLINE TYPE U		
78H-242-3201D	A10VSO 45 SHAFT 13 SPLINE/THRU-DRIVE TYPE U		
78H-242-3201	A10VSO 45 SHAFT 15 SPLINE TYPE S		
78H-242-3201C	A10VSO 45 SHAFT 15 SPLINE / THRU-DRIVE TYPE S		
<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>			<b>PAGE 5 5</b>

Part Number	PUMPS PISTON		RETAIL: 01-10-2022
	<b><u>A 10V 31 SERIES PISTON PUMP</u></b>		
	<b><u>A10VSO 45 SPARES</u></b>		
78H-240-7300	A10VSO 45 CONTROL VALVE DR		
78H-240-7200	A10VSO 45 CONTROL VALVE DFR		
78H-240-7400	A10VSO 45 CONTROL VALVE DFR1		
78H-240-72-DRG	A10VSO 45 CONTROL VALVE DRG		
78H-242-7800	A10VSO 45 HORSE POWER CONTROLLER 15Kw		
78H-242-7110	A10VSO 45 CONTROL PISTON ASSEMBLY		
78H-242-7120	A10VSO 45 COUNTER PISTON ASSEMBLY		
78H-242-7135	A10VSO 45 BIAS SPRING		
78H-242-7630A	A10VSO 18 ~ 100 0.8 ORIFICE DFR ADAPTER		
78H-242-SL-M6	A10VSO 18 ~ 100 DOUBLE HEAD PLUG SL-M6 A6VM160		
78H-242-B6X18	A10VSO 18 ~ 100 COLUMN PIN B6x18 GB/T119		
	<b><u>A10VSO 71 SPARES</u></b>		
78H-243-3306	A10VSO 71 SEAL KIT		
78H-A10V71-ROT	A10VSO 71 ROTATING GROUP ASSEMBLY 71cc		
78H-243-1101	A10VSO 71 CYLINDER BLOCK		
78H-243-2100C	A10VSO 71 PISTON (9 PER SET)		
78H-243-1201	A10VSO 71 BARREL WASHER		
78H-243-1301	A10VSO 71 COIL SPRING		
78H-243-1401	A10VSO 71 PRESS PIN		
78H-243-1501	A10VSO 71 SNAP RING		
78H-243-4102F	A10VSO 71 BALL GUIDE		
78H-243-4111	A10VSO 71 RETAINER PLATE		
78H-243-3704	A10VSO 71 SHAFT BIG BEARING FRONT		
78H-243-3704A	A10VSO 71 SHAFT SMALL BEARING REAR		
78H-243-4401	A10VSO 71 VALVE PLATE RIGHT HAND		
78H-243-4501	A10VSO 71 VALVE PLATE LEFT HAND		
78H-243-5220	A10VSO 71 SWASH PLATE RIGHT HAND		
78H-243-5320	A10VSO 71 SWASH PLATE LEFT HAND		
78H-243-5251	A10VSO 71 SADDLE BEARING		
78H-243-7104	A10VSO 71 HEAD BLOCK RIGHT HAND REAR PORTS		
78H-243-7105	A10VSO 71 HEAD BLOCK LEFT HAND REAR PORTS		
78H-243-7102B	A10VSO 71 HEAD BLOCK RIGHT HAND SAE SINGLE SIDE PORT 62 N00		
78H-243-7103B	A10VSO 71 HEAD BLOCK LEFT HAND SAE SINGLE SIDE PORT 62 N00		
78H-243-7102C	A10VSO 71 RIGHT HAND REAR COVER / THRU - DRIVE 3-1/4" 2 BOLT SAE SIDE PORT 62 (K01 / K52)		
78H-243-7103C	A10VSO 71 LEFT HAND REAR COVER / THRU - DRIVE 3-1/4" 2 BOLT SAE SIDE PORT 62 (K01 / K52)		
78H-243-7102N	A10VSO 71 RIGHT HAND REAR COVER / THRU - DRIVE 4" 2 BOLT SAE SIDE PORT 62 (K04 / K68)		
78H-243-7103N	A10VSO 71 LEFT HAND REAR COVER / THRU - DRIVE 4" 2 BOLT SAE SIDE PORT 62 (K04 / K68)		
78H-243-7102G	A10VSO 71 RIGHT HAND REAR COVER / THRU - DRIVE 5" 2 BOLT SAE SIDE PORT 62 (K07)		
78H-243-7103G	A10VSO 71 LEFT HAND REAR COVER / THRU - DRIVE 5" 2 BOLT SAE SIDE PORT 62 (K07)		
78H-243-3601	A10VSO 71 BILLET ADAPTOR 9 SPLINE K01		
78H-243-3601E	A10VSO 71 BILLET ADAPTOR 11 SPLINE K52		
78H-243-3601B	A10VSO 71 BILLET ADAPTOR 13 SPLINE K02 / K68		
78H-243-3601C	A10VSO 71 BILLET ADAPTOR 32mm PARALLEL KEY		
78H-243-3601A	A10VSO 71 BILLET ADAPTOR 14 SPLINE K07		
78H-243-3601D	A10VSO 71 BILLET ADAPTOR 15 SPLINE K04		
78H-243-3101K	A10VSO 71 SHAFT 1-1/4" P / KEY TYPE K		
78H-243-3101D	A10VSO 71 SHAFT 1-1/4" P / THRU - DRIVE TYPE K		
78H-243-3201S	A10VSO 71 SHAFT 14 SPLINE TYPE S		
78H-243-3201A	A10VSO 71 SHAFT 14 SPLINE / THRU - DRIVE TYPE S		
78H-240-7300	A10VSO 71 CONTROL VALVE DR		
78H-240-7200	A10VSO 71 CONTROL VALVE DFR		
78H-240-7400	A10VSO 71 CONTROL VALVE DFR1		
78H-240-72-DRG	A10VSO 71 CONTROL VALVE DRG		
78H-242-7800	A10VSO 71 HORSE POWER CONTROLLER 22Kw		
78H-243-7110	A10VSO 71 CONTROL PISTON ASSEMBLY		
78H-243-7120	A10VSO 71 COUNTER PISTON ASSEMBLY		
78H-243-7135	A10VSO 71 BIAS SPRING		
78H-243-7630A	A10VSO 18 ~ 100 0.8 ORIFICE DFR ADAPTER		
78H-243-SL-M6	A10VSO 18 ~ 100 DOUBLE HEAD PLUG SL-M6 A6VM160		
78H-243-B6X18	A10VSO 18 ~ 100 COLUMN PIN B6x18 GB/T119		
	<b>PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY</b>		<b>PAGE 5 6</b>





# PUMPS GEAR ALUMINIUM ROTATION CHANGE

## GROUP 2 & GROUP 3

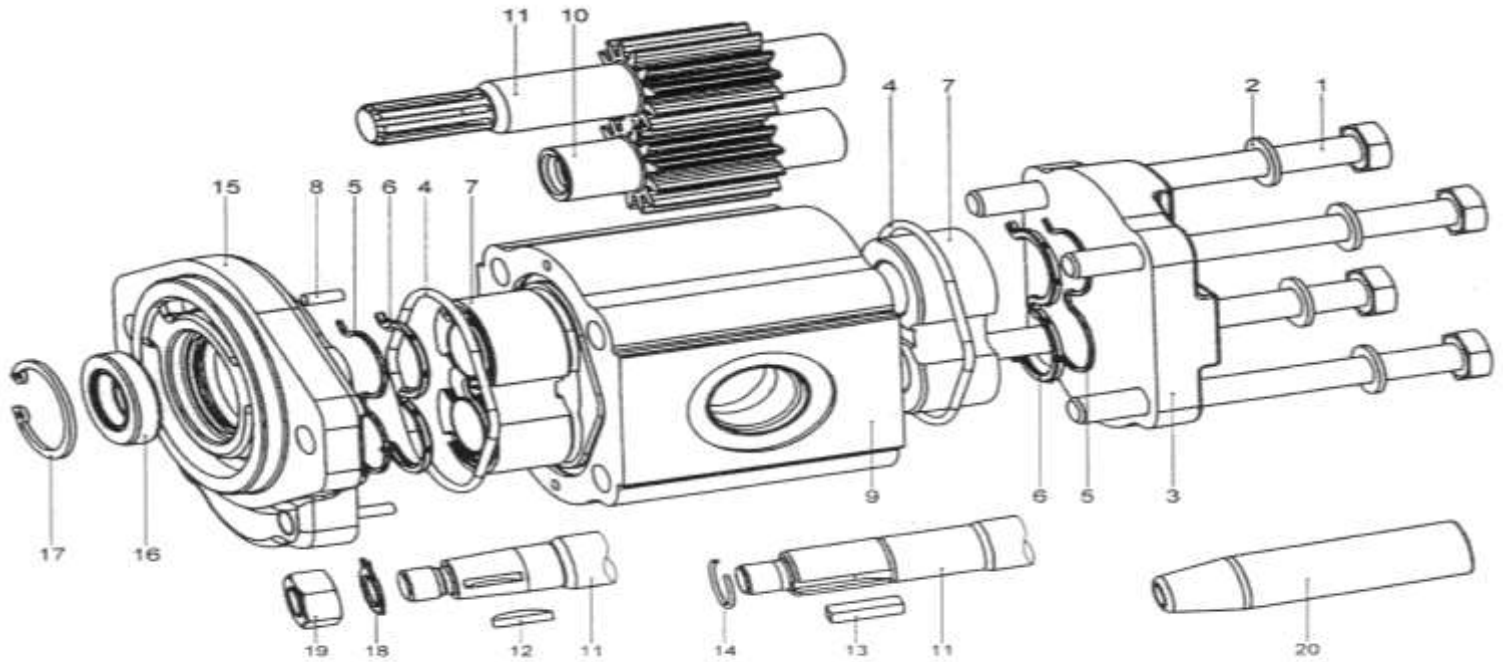
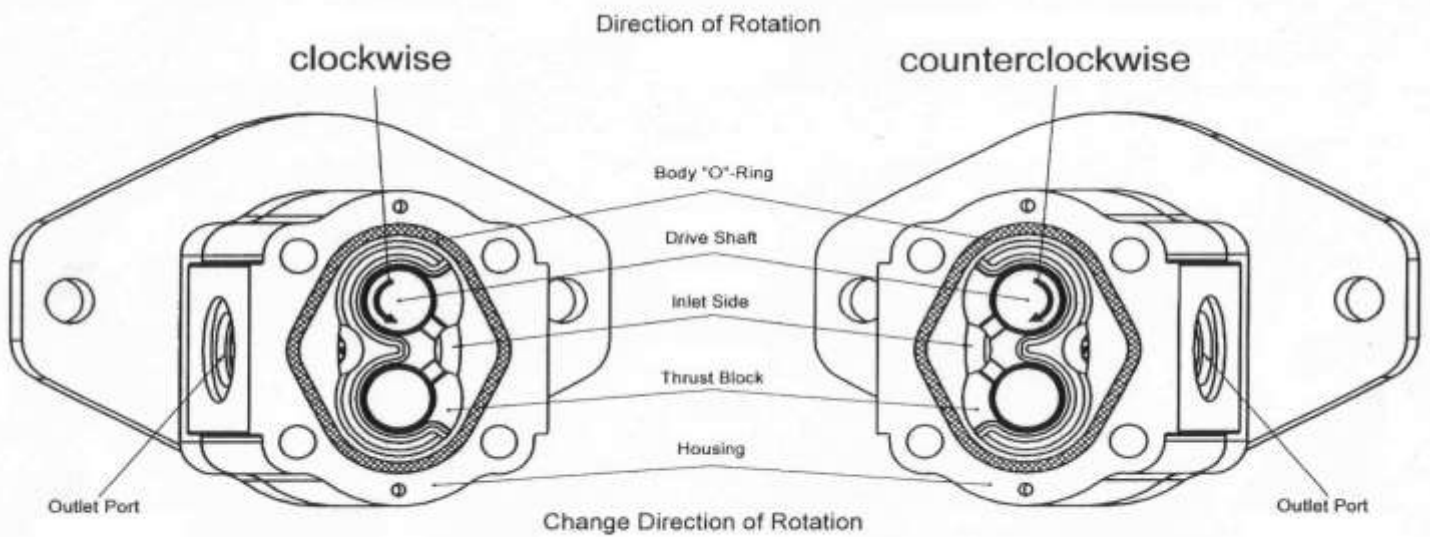
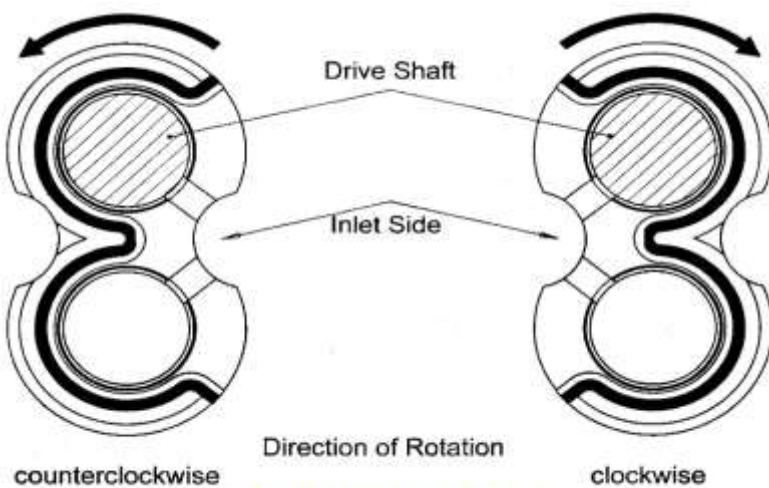


Fig.4



### Housing and Thrust Blocks turned 180°



### View from shaft end

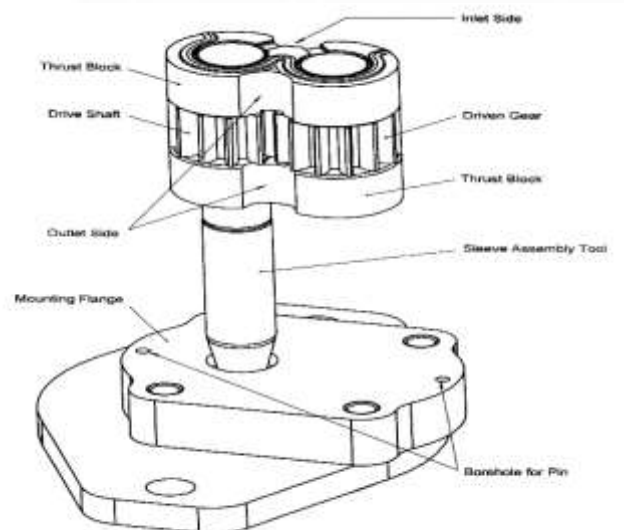


Fig. 2

# HYDRAULIC FORMULA CALCULATOR

## PUMP CALCULATIONS

**NOTE;** Put your amounts where the **red figures** are and check out the answer where the **blue figures** are (click enter) !

### FLOW RATE

**TO BE USED WHEN CALCULATING THE FLOW RATE OF A HYDRAULIC PUMP**

1	FORMULA				
	L/min	ENTER cc/Rev	ENTER RPM	FLOW (L/min)	cc/min
		6	1450	8.7	8700
2	FORMULA				
	L/min	ENTER SPEED (m/s)	ENTER CYL DIAMETER (cm)	FLOW (L/min)	cc/min
		0.047717	5.08	5.799912787	5799.912787
3	FORMULA				
	L/min	ENTER POWER (KW)	ENTER PRESSURE (Mpa)	FLOW (L/min)	cc/min
		0.568	5	5.7936	5793.6

### POWER

**TO BE USED WHEN CALCULATING THE POWER REQUIRED TO DRIVE A HYDRAULIC PUMP**

4	FORMULA				
	kW	ENTER PRESSURE (bar)	ENTER FLOW RATE (L/min)	POWER (kW)	WATTS
		200	20	7.843137255	7843.137255
5	FORMULA				
	bar	ENTER PRESSURE (bar)	ENTER FLOW RATE (L/min)	POWER (kW)	WATTS
		198.9	20	7.8	7800
6	FORMULA				
	flow	ENTER PRESSURE (bar)	ENTER FLOW RATE (L/min)	POWER (kW)	WATTS
		200	19.89	7.8	

### GEAR PUMP CAPACITY

**TO BE USED WHEN CALCULATING THE APPROXIMATE FLOW RATE OF A GEAR PUMP**

	FORMULA				
7	CC/REV	A	B	D - d	CC/REV
		CENTRE TO CENTRE	GEAR WIDTH	GEAR OD - ID	
		44.3	32	19.8	38.40329434

### TORQUE

**TO BE USED WHEN CALCULATING THE TORQUE PRODUCED BY A HYDRAULIC MOTOR**

8	FORMULA				
	Nm	ENTER PRESSURE (Mpa)	ENTER DISPLACEMENT (cm <sup>3</sup> )	TORQUE (Nm)	Dm
		5	4	3.184713376	31.84713376
9	FORMULA				
	Nm	ENTER PRESSURE (Mpa)	ENTER FLOW RATE (L/min)	ENTER RPM	TORQUE (Nm)
		5	5.8	1450	3.18

### HOSE SIZING

**TO BE USED WHEN CALCULATING THE HOSE SIZE FOR SUCTION AND DELIVERY**

10	FORMULA				
	m/s	MAX. SPEED RATE	DISPLACEMENT	SUCTION PORT ID	
		(U/min)	(cm <sup>3</sup> )	(mm)	
		1450	25.0	19.0	*** Special note;
		Velocity (m/s)	→	2.13	METERS/SECOND

\*\*\* Special note; The maximum recommended flow rate for a gear pump is 2,5 m/s please do not exceed.

\*\*\* Special note; For delivery hose size, rule of thumb 25% smaller than suction hose

**PLEASE NOTE: ALL O.E.M. NAMES OR NUMBERS ARE FOR REFERENCE USE ONLY**

# PRESSURE CONVERSION CHART

1 kPa = 0,01 bar  
1 Mpa = 10,00 bar

1 kPa = 0,145 P.S.I.  
1 kg/cm<sup>2</sup> = 14,223 P.S.I.

Kg/cm<sup>2</sup> = 1,00 at  
1 P.S.I. = 6,895 kPa

kPa	Mpa	bar	kg/cm <sup>2</sup>	P.S.I.
5	0,005	0,05	0,05	0,73
10	0,01	0,1	0,10	1,45
25	0,025	0,25	0,25	3,63
50	0,05	0,5	0,51	7,25
75	0,075	0,75	0,76	10,88
100	0,1	1	1,02	14,5
200	0,2	2	2,04	29,0
300	0,3	3	3,06	43,5
400	0,4	4	4,08	58
500	0,5	5	5,10	72,5
600	0,6	6	6,12	87
700	0,7	7	7,14	102
800	0,8	8	8,16	116
900	0,9	9	9,18	131
1000	1	10	10,2	145
2000	2	20	20,4	290
3000	3	30	30,6	435
4000	4	40	40,8	580
5000	5	50	51,0	725
6000	6	60	61,2	870
7000	7	70	71,4	1015
8000	8	80	81,6	1160
9000	9	90	91,8	1305
10000	10	100	102	1450
11000	11	110	112	1595
12000	12	120	122	1740
13000	13	130	133	1885
14000	14	140	143	2030

kPa	Mpa	bar	kg/cm <sup>2</sup>	P.S.I.
15000	15	150	152	2175
16000	16	160	163	2320
17000	17	170	173	2465
18000	18	180	183	2610
19000	19	190	194	2755
20000	20	200	204	2900
21000	21	210	214	3045
22000	22	220	224	3190
23000	23	230	235	3335
24000	24	240	245	3480
25000	25	250	255	3625
26000	26	260	265	3770
27000	27	270	275	3915
28000	28	280	286	4060
29000	29	290	296	4205
30000	30	300	306	4350
31000	31	310	316	4495
32000	32	320	326	4640
33000	33	330	337	4785
34000	34	340	347	4930
35000	35	350	357	5075
36000	36	360	367	5220
37000	37	370	377	5365
38000	38	380	387	5510
39000	39	390	398	5655
40000	40	400	408	5800
41000	41	410	418	5945
42000	42	420	428	6090

kPa	Mpa	bar	kg/cm <sup>2</sup>	P.S.I.
43000	43	430	438	6235
44000	44	440	449	6380
45000	45	450	459	6525
46000	46	460	469	6670
47000	47	470	479	6815
48000	48	480	489	6960
49000	49	490	500	7105
50000	50	500	510	7250
51000	51	510	520	7395
52000	52	520	530	7540
53000	53	530	540	7685
54000	54	540	551	7830
55000	55	550	561	7975
56000	56	560	571	8120
57000	57	570	581	8265
58000	58	580	591	8410
59000	59	590	602	8555
60000	60	600	612	8700
61000	61	610	622	8845
62000	62	620	632	8990
63000	63	630	642	9135
64000	64	640	653	9280
65000	65	650	663	9425
66000	66	660	673	9570
67000	67	670	683	9715
68000	68	680	693	9860
69000	69	690	704	10005
70000	70	700	714	10150