Hi-Force

400V 50 Hz/460V 60 Hz - 3Ph, TWO STAGE, ELECTRIC DRIVEN, HIGH FLOW PUMP

SERIAL NUMBERS **FROM BQ 3854** 

PRODUCT NO. HEP517444

SHT 1 OF 2 SHTS



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2 6127

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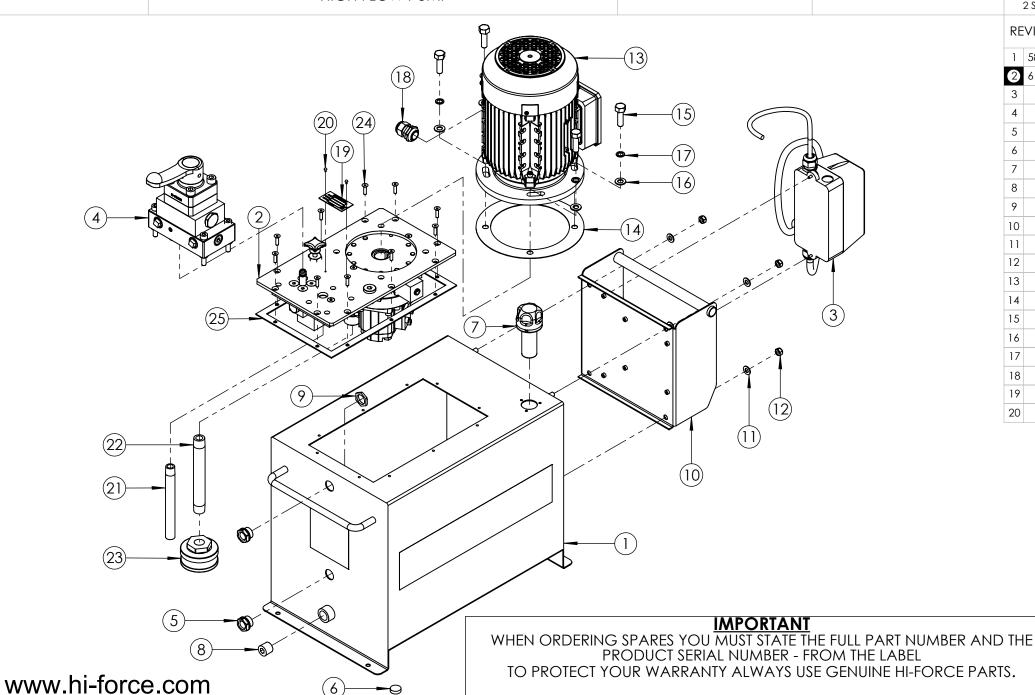
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# 400V 50 Hz/460V 60 Hz - 3Ph, TWO STAGE, ELECTRIC DRIVEN, HIGH FLOW PUMP

SERIAL NUMBERS FROM BQ 3854

PRODUCT NO. HEP517444

SHT 2 OF 2 SHTS

TEM   PART NUMBER   DESCRIPTION		1				
2         TYPE300-24         300 SERIES PUMP UNIT         1           3         EMA415UD001         400 ∨ MOTOR STARTER ASSEMBLY         1           4         PMV4L         4 WAY, MANUALLY OPERATED, PUMP MOUNTED DIRECTIONAL CONTROL VALVE WITH LOAD HOLDING         1           5         BLC021YT010         SIGHT GLASS HGF.13 BLACK OIL LEVEL INDICATOR         2           6         DCSF00328         DOUBLE SIDED MAGNET         1           7         FFC028P7001         FILLER/BREATHER         1           8         FPC013PC001         1/2"BSP PLUG - HEX SOCKET         1           9         NUC021-B000         1/2"BSP PLUG - HEX SOCKET         1           10         TAC000FS002         MODULAR ELECTRIC TRAY         1           11         WAC008AB000         M8 PLAIN WASHER         4           12         NUC008KC000         M8 NYLOC NUT         4           13         EM415-3.0-2LAF         SKW 2 POLE IE3 230/400V 3/50Hz IMB5         1           14         SEC001KT003         GASKET         1           15         BLC010LB035         M10 x 35 mm HEX HEAD BOLT, ZINC PLATED         4           16         WAC010AB000         M10 ZINC PLATED FLAT WASHER         4           17         WAC010BZ000		PART NUMBER	DESCRIPTION	QTY.		
3         EMA415UD001         400 V MOTOR STARTER ASSEMBLY         1           4         PMV4L         4 WAY, MANUALLY OPERATED, PUMP MOUNTED DIRECTIONAL CONTROL VALVE WITH LOAD HOLDING         1           5         BLC021YT010         SIGHT GLASS HGF.13 BLACK OIL LEVEL INDICATOR         2           6         DCSF00328         DOUBLE SIDED MAGNET         1           7         FFC028PZ001         FILLER/BREATHER         1           8         FPC013PC001         1/2" BSP PLUG - HEX SOCKET         1           9         NUC021-8000         1/2" BSP LOCK NUT         2           10         TAC000FS002         MODULAR ELECTRIC TRAY         1           11         WAC008AB000         M8 PLAIN WASHER         4           12         NUC008KC000         M8 PLAIN WASHER         4           13         EM415-3.0-2LAF         3kW 2 POLE IE3 230/400V 3/50Hz IMB5 FLANGE MOUNT         1           14         SEC001KT003         GASKET         1           15         BLC010LB035         M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4           16         WAC010AB000         M10 ZINC PLATED FLAT WASHER         4           17         WAC010BZ000         M10 SPRING WASHER         4           18         NUC020LS002         GLAND 6-1	1	TAC040AS004	40 L TANK	1		
4 PMV4L  A WAY, MANUALLY OPERATED, PUMP MOUNTED DIRECTIONAL CONTROL VALVE WITH LOAD HOLDING  5 BLC021YT010  SIGHT GLASS HGF.13 BLACK OIL LEVEL INDICATOR  6 DCSF00328  DOUBLE SIDED MAGNET  7 FFC028PZ001  FILLER/BREATHER  1 PNUC021-B000  1/2" BSP PLUG - HEX SOCKET  1 PNUC021-B000  1/2" BSP LOCK NUT  2 PNUC021-B000  1/2" BSP LOCK NUT  2 PNUC021-B000  MB PLAIN WASHER  4 PMV4L  11 WAC008AB000  M8 PLAIN WASHER  4 PMV4L  12 NUC008KC000  M8 PLAIN WASHER  4 PMV4L  13 EM415-3.0-2LAF  14 SEC001KT003  GASKET  15 BLC010LB035  M10 x 35 mm HEX HEAD BOLT, ZINC PLATED  16 WAC010AB000  M10 ZINC PLATED FLAT WASHER  17 WAC010BZ000  M10 SPRING WASHER  4 PMV4L  18 NUC020LS002  GLAND 6-12MM  1 PAAN000UP001  60 x 30 mm UNIVERSAL NAME PLATE  20 FAS002HZ001  NO.4 x 3/16 HAMMER DRIVE SCREW  21 TAC000PA001  160 mm LONG SUCTION PIPE  1 PLETED PIPE  2 PLETED PIPE  1 PLETED PIPE	2	TYPE300-24	300 SERIES PUMP UNIT	1		
A	3	EMA415UD001		1		
S   BLCU2111010   INDICATOR   2	4	PMV4L	MOUNTED DIRECTIONAL CONTROL VALVE WITH LOAD HOLDING	1		
7         FFC028PZ001         FILLER/BREATHER         1           8         FPC013PC001         1/2" BSP PLUG - HEX SOCKET         1           9         NUC021-B000         1/2" BSP LOCK NUT         2           10         TAC000FS002         MODULAR ELECTRIC TRAY         1           11         WAC008AB000         M8 PLAIN WASHER         4           12         NUC008KC000         M8 NYLOC NUT         4           13         EM415-3.0-2LAF         3kW 2 POLE IE3 230/400V 3/50Hz IMB5         1           14         SEC001KT003         GASKET         1           15         BLC010LB035         M10 x 35 mm HEX HEAD BOLT, ZINC PLATED         4           16         WAC010AB000         M10 ZINC PLATED FLAT WASHER         4           17         WAC010BZ000         M10 SPRING WASHER         4           18         NUC020LS002         GLAND 6-12MM         1           19         AAN000UP001         60 x 30 mm UNIVERSAL NAME PLATE         1           20         FAS002HZ001         NO.4 x 3/16 HAMMER DRIVE SCREW         2           21         TAC000PA001         160 mm LONG SUCTION PIPE         1           22         FPC013AC002         FEED PIPE         1           24	5	BLC021YT010		2		
8 FPC013PC001 1/2" BSP PLUG - HEX SOCKET 1 9 NUC021-B000 1/2" BSP LOCK NUT 2 10 TAC000FS002 MODULAR ELECTRIC TRAY 1 11 WAC008AB000 M8 PLAIN WASHER 4 12 NUC008KC000 M8 NYLOC NUT 4 13 EM415-3.0-2LAF 3kW 2 POLE IE3 230/400∨ 3/50Hz IMB5 1 14 SEC001KT003 GASKET 1 15 BLC010LB035 M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4 16 WAC010AB000 M10 ZINC PLATED FLAT WASHER 4 17 WAC010BZ000 M10 SPRING WASHER 4 18 NUC020LS002 GLAND 6-12MM 1 19 AAN000UP001 60 x 30 mm UNIVERSAL NAME PLATE 1 20 FAS002HZ001 NO.4 x 3/16 HAMMER DRIVE SCREW 2 21 TAC000PA001 160 mm LONG SUCTION PIPE 1 22 FPC013AC002 FEED PIPE 1 23 FFC045MZ001 FILTER 1 24 BLC005HF020 M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW 1 25 15482 TANK GASKET 1		DCSF00328	DOUBLE SIDED MAGNET	1		
9 NUC021-B000 1/2" BSP LOCK NUT 2 10 TAC000FS002 MODULAR ELECTRIC TRAY 1 11 WAC008AB000 M8 PLAIN WASHER 4 12 NUC008KC000 M8 NYLOC NUT 4 13 EM415-3.0-2LAF 3kW 2 POLE IE3 230/400V 3/50Hz IMB5 FLANGE MOUNT 1 14 SEC001KT003 GASKET 1 15 BLC010LB035 M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4 16 WAC010AB000 M10 ZINC PLATED FLAT WASHER 4 17 WAC010BZ000 M10 SPRING WASHER 4 18 NUC020LS002 GLAND 6-12MM 1 19 AAN000UP001 60 x 30 mm UNIVERSAL NAME PLATE 1 20 FAS002HZ001 NO.4 x 3/16 HAMMER DRIVE SCREW 2 21 TAC000PA001 160 mm LONG SUCTION PIPE 1 22 FPC013AC002 FEED PIPE 1 23 FFC045MZ001 FILTER 1 24 BLC005HF020 M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW 10 25 15482 TANK GASKET 1	7	FFC028PZ001	FILLER/BREATHER	1		
10 TAC000FS002 MODULAR ELECTRIC TRAY 1 11 WAC008AB000 M8 PLAIN WASHER 4 12 NUC008KC000 M8 NYLOC NUT 4 13 EM415-3.0-2LAF SKW 2 POLE IE3 230/400V 3/50Hz IMB5 1 14 SEC001KT003 GASKET 1 15 BLC010LB035 M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4 16 WAC010AB000 M10 ZINC PLATED FLAT WASHER 4 17 WAC010BZ000 M10 SPRING WASHER 4 18 NUC020LS002 GLAND 6-12MM 1 19 AAN000UP001 60 x 30 mm UNIVERSAL NAME PLATE 1 20 FAS002HZ001 NO.4 x 3/16 HAMMER DRIVE SCREW 2 21 TAC000PA001 160 mm LONG SUCTION PIPE 1 22 FPC013AC002 FEED PIPE 1 23 FFC045MZ001 FILTER 1 24 BLC005HF020 M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW 10 25 15482 TANK GASKET 1	8	FPC013PC001	1/2" BSP PLUG - HEX SOCKET	1		
11       WAC008AB000       M8 PLAIN WASHER       4         12       NUC008KC000       M8 NYLOC NUT       4         13       EM415-3.0-2LAF       3kW 2 POLE IE3 230/400V 3/50Hz IMB5 FLANGE MOUNT       1         14       SEC001KT003       GASKET       1         15       BLC010LB035       M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4         16       WAC010AB000       M10 ZINC PLATED FLAT WASHER       4         17       WAC010BZ000       M10 SPRING WASHER       4         18       NUC020LS002       GLAND 6-12MM       1         19       AAN000UP001       60 x 30 mm UNIVERSAL NAME PLATE       1         20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	9	NUC021-B000	1/2" BSP LOCK NUT	2		
12 NUC008KC000	10	TAC000FS002	MODULAR ELECTRIC TRAY	1		
13 EM415-3.0-2LAF 3kW 2 POLE IE3 230/400V 3/50Hz IMB5 1 14 SEC001KT003 GASKET 1 15 BLC010LB035 M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4 16 WAC010AB000 M10 ZINC PLATED FLAT WASHER 4 17 WAC010BZ000 M10 SPRING WASHER 4 18 NUC020LS002 GLAND 6-12MM 1 19 AAN000UP001 60 x 30 mm UNIVERSAL NAME PLATE 1  20 FAS002HZ001 NO.4 x 3/16 HAMMER DRIVE SCREW 2 21 TAC000PA001 160 mm LONG SUCTION PIPE 1 22 FPC013AC002 FEED PIPE 1 23 FFC045MZ001 FILTER 1 24 BLC005HF020 M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW 2 25 15482 TANK GASKET 1	11	WAC008AB000	M8 PLAIN WASHER	4		
13       EM413-3.0-2LAF       FLANGE MOUNT       1         14       SEC001KT003       GASKET       1         15       BLC010LB035       M10 x 35 mm HEX HEAD BOLT, ZINC PLATED       4         16       WAC010AB000       M10 ZINC PLATED FLAT WASHER       4         17       WAC010BZ000       M10 SPRING WASHER       4         18       NUC020LS002       GLAND 6-12MM       1         19       AAN000UP001       60 x 30 mm UNIVERSAL NAME PLATE       1         20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	12	NUC008KC000	M8 NYLOC NUT	4		
15 BLC010LB035 M10 x 35 mm HEX HEAD BOLT, ZINC PLATED 4  16 WAC010AB000 M10 ZINC PLATED FLAT WASHER 4  17 WAC010BZ000 M10 SPRING WASHER 4  18 NUC020LS002 GLAND 6-12MM 1  19 AAN000UP001 60 x 30 mm UNIVERSAL NAME PLATE 1  20 FAS002HZ001 NO.4 x 3/16 HAMMER DRIVE SCREW 2  21 TAC000PA001 160 mm LONG SUCTION PIPE 1  22 FPC013AC002 FEED PIPE 1  23 FFC045MZ001 FILTER 1  24 BLC005HF020 M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW 2  25 15482 TANK GASKET 1	13	EM415-3.0-2LAF		1		
16       WAC010AB000       M10 ZINC PLATED FLAT WASHER       4         17       WAC010BZ000       M10 SPRING WASHER       4         18       NUC020LS002       GLAND 6-12MM       1         19       AAN000UP001       60 x 30 mm UNIVERSAL NAME PLATE       1         20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	14	SEC001KT003	GASKET	1		<b>√</b>
17       WAC010BZ000       M10 SPRING WASHER       4         18       NUC020LS002       GLAND 6-12MM       1         19       AAN000UP001       60 x 30 mm UNIVERSAL NAME PLATE       1         20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	15	BLC010LB035	M10 x 35 mm HEX HEAD BOLT, ZINC PLATED	4		
18       NUC020LS002       GLAND 6-12MM       1         19       AAN000UP001       60 x 30 mm UNIVERSAL NAME PLATE       1         20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	16	WAC010AB000	M10 ZINC PLATED FLAT WASHER	4		
19       AAN000UP001       60 x 30 mm UNIVERSAL NAME PLATE       1       X         20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	17	WAC010BZ000	M10 SPRING WASHER	4		
20       FAS002HZ001       NO.4 x 3/16 HAMMER DRIVE SCREW       2         21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	18	NUC020LS002	GLAND 6-12MM	1		
21       TAC000PA001       160 mm LONG SUCTION PIPE       1         22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	19	AAN000UP001	60 x 30 mm UNIVERSAL NAME PLATE	1	X	
22       FPC013AC002       FEED PIPE       1         23       FFC045MZ001       FILTER       1         24       BLC005HF020       M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW       10         25       15482       TANK GASKET       1	20	FASO02HZ001	NO.4 x 3/16 HAMMER DRIVE SCREW	2		
23         FFC045MZ001         FILTER         1           24         BLC005HF020         M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW         10           25         15482         TANK GASKET         1	21	TAC000PA001	160 mm LONG SUCTION PIPE	1		
24         BLC005HF020         M5 x 20 mm HEX SOCKET COUNTERSUNK SCREW         10           25         15482         TANK GASKET         1	22	FPC013AC002	FEED PIPE	1		
24 BLC003HF020 SCREW 10 25 15482 TANK GASKET 1 ✓	23	FFC045MZ001	FILTER	1		
	24	BLC005HF020		10		
* SFC065FA002 BLANKING PLATE 1	25	15482	TANK GASKET	1		<b>√</b>
	*	SFC065FA002	BLANKING PLATE	1		

REVISION				
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2	6127			
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#### NOTE:

- ALL PARTS ARE AVAILABLE TO BE ORDERED AS SPARE PARTS (UNLESS MARKED WITH x).
- ONLY PARTS MARKED WITH ✓ARE AVAILABLE AS BOTH SPARE PARTS OR SERVICEABLE PARTS, FROM HEP-SK1 PUMP SERVICE KIT. (REFER TO HEP-SK1: PUMP SERVICE KIT EVD FOR FULL PARTS LIST)
- FOR SUB ASSEMBLIES (ITEM NO.S 2, 3 & 4) REFER TO THEIR INDUVIDUAL EVD's.

## **IMPORTANT**

 $^{\uparrow}_{\Box}$ 

SERIAL NUMBERS

PRODUCT NO. TYPE300-24

SHT 1 OF 2 SHTS



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2 5939

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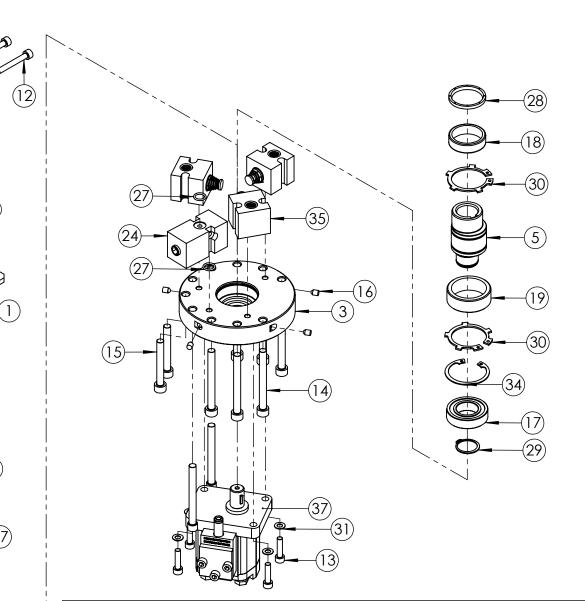
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<u>IMPORTANT</u>

WHEN ORDERING SPARES YOU MUST STATE THE FULL PART NUMBER AND THE PRODUCT SERIAL NUMBER - FROM THE LABEL TO PROTECT YOUR WARRANTY ALWAYS USE GENUINE HI-FORCE PARTS.



#### 300 SERIES PUMP UNIT

SERIAL NUMBERS PRODUCT NO.

TYPE300-24

SHT 2 OF 2 SHTS

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS
1	TAC000BA003	COVER PLATE	1		
2	PMC000UM001	UPPER PLATE	1		
3	PMC000LF001	LOWER PLATE	1		
4	15503	CONNECTOR PIPE	1		
5	15505	24mm DRIVE SHAFT	1		
6	17587	TRANSFER BLOCK	1		
7	17588	VALVE PLATE	1		
8	BAC008\$N000	Ø8 mm STEEL BALL GRADE 100	5		
9	BLC005HF016	M5 x 16 mm HEX SOCKET COUNTERSUNK SCREW	2		
10	BLC006JE016	M6 x 16 mm HEX SOCKET COUNTERSUNK SCREW	1		
11	BLC008KF035	M8 x 35 mm HEX SOCKET COUNTERSUNK SCREW	4		
12	BLC006JC045	M6 x 45 mm HEX SOCKET CAP HEAD SCREW	2		
13	BLC006JD025	M6 x 25 mm HEX SOCKET CAP HEAD SCREW	4		
14	BLC008KC080	M8 x 80 mm HEX SOCKET CAP HEAD SCREW	6		
15	BLC008KC060	M8 x 60 mm HEX SOCKET CAP HEAD SCREW	2		
16	BPC006RS001	SEALING PLUG	4		
17	BSC025MC001	LOWER PLATE BEARING	1		
18	BSC035NC001	UPPER PLATE BEARING	1		
19	BSC040ND001	ECCENTRIC BEARING	1		
20	FAS006GJ010	1/4" BSP HEX HEAD BLANKING PLUG	1		
21	FAS010MA010	M10 X 10 CUP POINT GRUB SCREW	5		
22	FFC012MA001	SUCTION FILTER	1		
23	HPRV1	HIGH PRESSURE R/VALVE	1		
24	LPRV1	LOW PRESSURE R/VALVE	1		
25	SEC013BA001	BACK-UP RING - PTFE, SOLID SPLIT	2		<b>√</b>
26	SEC013RA001	O-RING - I.D. 9.25mm, C.S. 1.78mm, NITRILE 90	2		1
27	SEC014RF001	O-RING - I.D. 10.82 mm, C.S. 1.78 mm, NITRILE 90	4		1

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS	RE	VISION
28	SEC035WE001	UPPER PLATE OIL SEAL	1			1	5817
29	STC025AA001	EXTERNAL CIRCLIP - 25 x 1,2 mm D1400/025	1			2	5939
30	STC040AA001	EXTERNAL CIRCLIP - 40 x 1.75 mm D2100/0400	2			3	
31	WAC006AF000	M6 ZINC WASHER	4			5	
32	WAC006BC001	M6 SPRING ZINC WASHER (SQUARE SECTION)	2			6	
33	WAC007HD000	1/4" BSP SELF CENTERING BONDED WASHER	1			7	
34	STC047BA001	INTERNAL CIRCLIP - 47 x 1.75 mm D1300/0470	1			9	
35	15494-A	PISTON BLOCK ASSEMBLY	3			10	
36	FPC010PB001	3/8" BSP BLANKING PLUG	1			11	
37	PMA060GZ001	GP60 GEAR PUMP ASSEMBLY	1			12	
						13	

#### NOTE:

- ALL PARTS ARE AVAILABLE TO BE ORDERED AS SPARE PARTS (UNLESS MARKED WITH X).
- ONLY PARTS MARKED WITH ✓ARE AVAILABLE AS BOTH SPARE PARTS OR SERVICEABLE PARTS FROM **HEP-SK1 PUMP SERVICE KIT.** (REFER TO HEP-SK1: PUMP SERVICE KIT EVD FOR FULL PARTS LIST)
- IF ITEM NO. 24 (LPRV1) IS ORDERED AS A SPARE PART, THIS ALREADY COMES WITH 2 OFF ITEM NO.27 (SEC014RF001). THEREFORE THESE ARE NOT REQUIRED TO BE ORDERED SEPERATELY.
- FOR SUB ASSEMBLIES ITEM NO. 35 (15494-A) & ITEM NO. 37 (PMA060GZ001) REFER TO THEIR INDUVIDUAL EVD's.

## **IMPORTANT**



PISTON BLOCK ASSEMBLY

SERIAL NUMBERS

PRODUCT NO.

**VERSION** 01

15494-A

SHT 1 OF 1 SHTS

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www.hi-force.com

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS	RE	VISION
1	15494	PISTON BLOCK	1	X		1	5717
2	15495	PISTON	1	X		2	5866
3	15496	VALVE SEAT	1	X		3	
4	15509	SUCTION/DELIVERY SPRING	2	X		4	
5	15508	PUMP SPRING	1	X		5	
6	BAC005\$N000	Ø5 mm STEEL BALL GRADE 100	2	X		6	
7	SEC014RF001	O-RING - I.D. 10.82 mm, C.S. 1.78 mm, NITRILE 90	2		1	8	
8	SEC010RA001	O-RING - I.D. 6.35 mm, C.S. 1.78 mm, NITRILE 70	1	X		9	
9	STC008SA001	N1305-0031 SELF LOCKING RING	1	X		11	
						12	
						13	

### NOTE:

- ALL PARTS ARE AVAILABLE TO BE ORDERED AS SPARE PARTS (UNLESS MARKED WITH X).
- ONLY PARTS MARKED WITH **\( \sigma** ARE AVAILABLE AS BOTH SPARE PARTS OR SERVICEABLE PARTS, FROM HEP-SK1 PUMP SERVICE KIT. (REFER TO HEP-SK1: PUMP SERVICE KIT EVD FOR FULL PARTS LIST).

## **IMPORTANT**

SERIAL NUMBERS

PRODUCT NO.

PMA060GZ001

SHT 1 OF 3 SHTS

17

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS	REVISION
1	GP60	GEAR PUMP	1			1 5939
2	PMC000TM001	TRANSFER PLATE	1			2
3	15510C	CONNECTOR TUBE	1			3
4	SEC010RA001	O-RING - I.D. 6.35 mm, C.S. 1.78 mm, NITRILE 70	2		✓	5
5	SEC019RF002	O-RING - I.D. 15.60, C.S. 1.78mm, NITRILE 90	2		✓	6
6	PMC000XM001	SEALING PLATE	1			7
7	BLC006JD030	M6 x 30 mm HEX SOCKET CAP HEAD SCREW	3			9
8	15507	ADAPTOR	1			10
9	PCC002WC001	KEY TO FIT 200/300 PUMPS	1			11
	5.0000000000	M8 X 80 HEX SOCKET				12
10	FAS008SP080	REDUCED CAP HEAD SCREW (FULLY THREADED)	2			13
11	FPA013DC001	GEAR PUMP ELBOW (INC	1	х		14
- ' '	1.7.01020001	WITH GEAR PUMP)				15
						16

#### NOTE:

- ALL PARTS ARE AVAILABLE TO BE ORDERED AS SPARE PARTS (UNLESS MARKED WITH  $\emph{\textbf{x}}$ )
- ONLY PARTS MARKED WITH ✓ARE AVAILABLE AS BOTH SPARE PARTS OR SERVICEABLE PARTS, FROM HEP-SK1 PUMP SERVICE KIT. (REFER TO HEP-SK1: PUMP SERVICE KIT EVD FOR FULL PARTS LIST)
- THE ORIENTATION OF ITEM NO. 2 (PMC000TM001) IS DETERMINED BY THE BRAND OF THE GP60 GEAR PUMP SUPPLIED (REFER TO SHEET 2 FOR FURTHER DETAILS)
- ITEM NO. 10 (FAS008SP080) ARE TO REPLACE TWO SCREWS (BLC008KC080)ON THE TYPE300-24, PRIOR TO FITTING PMA060GZ001 (REFER TO SHEET 3 FOR FURTHER DETAILS)
- INDIVIDUAL ITEMS ARE NOT AVAILABLE AS SPARE PARTS FOR HEP PUMPS WITH SERIAL NUMBERS EARLIER THAN **BR9070**. GP60 GEAR PUMP ASSEMBLY (PMA060GZ001) WILL NEED TO BE ORDERED. INDIVIDUAL ITEMS APART FROM ITEM NO. 11 ARE AVAILABLE AS SPARE PARTS FOR HEP PUMPS WITH SERIAL NUMBERS ABOVE **BR9070**

## **IMPORTANT**

WHEN ORDERING SPARES YOU MUST STATE THE FULL PART NUMBER AND THE PRODUCT SERIAL NUMBER - FROM THE LABEL TO PROTECT YOUR WARRANTY ALWAYS USE GENUINE HI-FORCE PARTS.

SERIAL NUMBERS

PRODUCT NO.

PMA060GZ001

SHT 2 OF 3 SHTS

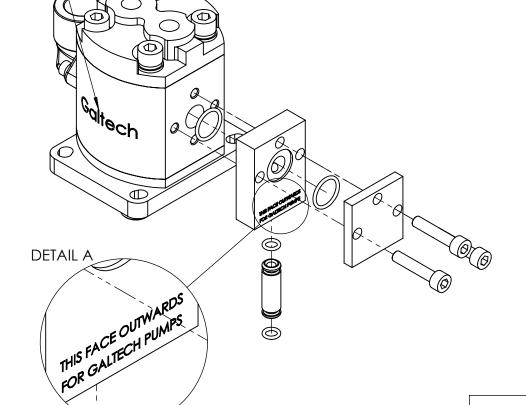
**REVISION** 

1) 5939

5

### ORIENTATION OF TRANSFER PLATE

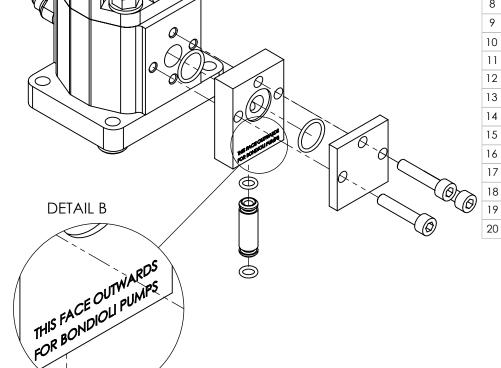
FOR GALTECH GEAR PUMPS, LOOK FOR "GALTECH" USUALLY FOUND ON THE SIDE OF THE BODY



FOR BONDIOLI GEAR PUMPS, LOOK FOR

"BONDIOLI & PAVESI" USUALLY FOUND

ON THE BOTTOM OF THE BODY



**IMPORTANT** 

WHEN ORDERING SPARES YOU MUST STATE THE FULL PART NUMBER AND THE PRODUCT SERIAL NUMBER - FROM THE LABEL TO PROTECT YOUR WARRANTY ALWAYS USE GENUINE HI-FORCE PARTS.

PRODUCT NO.

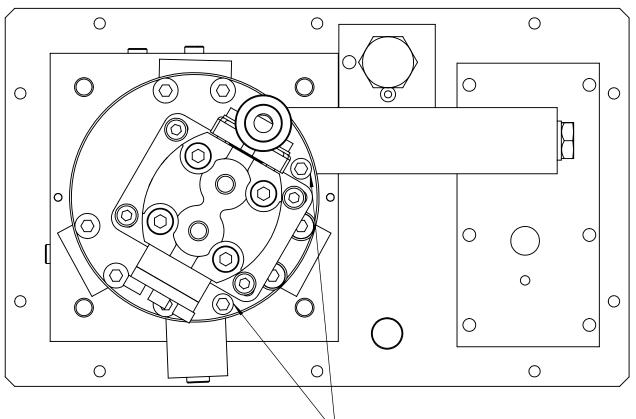
PMA060GZ001

SHT 3 OF 3 SHTS

# REVISION

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2	
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## **TYPE300-24: BOTTOM VIEW**



REMOVE THE TWO CURRENT SCREWS FROM THESE TWO POSITIONS AND REPLACE WITH ITEM NO. 10 (FAS008SP080)

## <u>IMPORTANT</u>

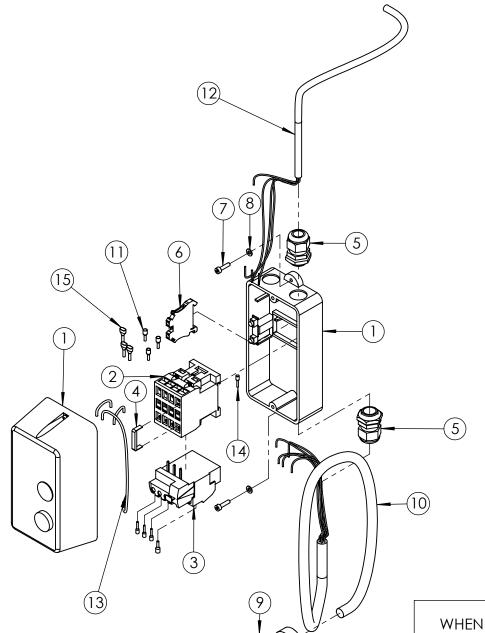
www.hi-force.com

SERIAL NUMBERS

PRODUCT NO.

EMA415UD001

SHT 1 OF 1 SHTS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS		/ISION 5825
1	EMC000EF001	ENCLOSURE WITH PUSH BUTTONS PIMT	1		2	3623
2	EMC415KE001	CONTACTOR 415 V	1		3	
3	EMC415RD001	THERMAL OVERLOAD RELAY 4-6 AMPS	1		5	
4	EMC110XF001	BRIDGING BAR	1		6	
5	NUC020LS002	GLAND 6-12MM	2		7	
6	EMC000NZ001	TERMINAL BLOCK	1		8	
7	BLC004JD016	M4 x 16 mm HEX SOCKET CAP HEAD SCREW	2		9	
8	WAC004YB000	M4 WASHER ST	2		11	
9	MCC415EP002	415V, 32A ELECTRICAL PLUG	1		12	
10	CEC150EC001	5 CORE CABLE 1.5 mm2 H07RN-F 5G1.5	1		14	
11	CEC250SX001	BOOTLACE FERRULE (INSULATED) 2.5mm GREY	4		15 16	
12	CEC150DC000	4 CORE CABLE 1.5 mm2 H07RN-F 4G1.5	1		17 18	
13	CEC250AC000	SINGLE CORE TRI-RATED CABLE 2.5mm² BLACK H05V2-K / H07V2-K	1		19	
14	CEC150SX001	BOOTLACE FERRULE (INSULATED) 1.5mm	4		20	
15	CEC250SX002	TWIN BOOTLACE FERRULE 2.5 mm <sup>2</sup>	3			

### NOTE:

- ALL PARTS ARE AVAILABLE TO BE ORDERED AS SPARE PARTS (UNLESS MARKED WITH  $\pmb{\varkappa}$ ).

**IMPORTANT** 

Hi-Force

(28)

# 4 WAY, MANUALLY OPERATED, PUMP MOUNTED DIRECTIONAL CONTROL VALVE WITH LOAD HOLDING

(14)

SERIAL NUMBERS PRODUCT NO.

PMV4L

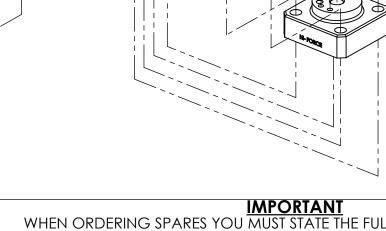
**VERSION** 01

SHT 1 OF 2 SHTS

**REVISION** 



(23)



www.hi-force.com

(31



# 4 WAY, MANUALLY OPERATED, PUMP MOUNTED DIRECTIONAL CONTROL VALVE WITH LOAD HOLDING

ERIAL NUMBERS	PRODUCT NO.	VERSION	
	PMV4L	01	SHT 2 OF 2 SHTS

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12 13

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15 16

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19 20

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS
1	VFC010BF007	VALVE MOUNTING BLOCK	1		
2	BLC005HU020	M5 x 20 mm HEX SOCKET CAP HEAD SCREW	2		
3	BLC010LC100	M10 x 100 mm HEX SOCKET CAP HEAD SCREW	4		
4	BLC008KC060	M8 x 60 mm HEX SOCKET CAP HEAD SCREW	4		
5	BSC035NA001	NEEDLE BEARING	1		
6	BSC035NA002	HOUSING WASHER	1		
7	FPC002PN001	1/16" x 7/8" NPT SOCKET PLUG	3		
8	FPC003PN001	1/8" x 3/4" NPT TAPER DRY SEAL PRESS PLUG	1		
9	FPC010PN002	3/8" X 7/8" NPT SOCKET PLUG	2		
10	HLC012LP002	HANDLE	1		
11	PCC003RB006	Ø3 x 12 mm SELLOCK PIN	2		
12	PCC005RD002	Ø5 x 22 mm SPIROL PIN	2		
13	PCC006RD001	Ø6 X 22 mm SPIROL PIN	2		
14	SEC003KT001	VALVE GASKET	1		1
15	SEC011BA001	BACK UP RING	3		1
16	SEC012BA002	BACK UP RING	1		<b>√</b>
17	SEC011RA001	O-RING - I.D. 8.10 mm, C.S. 1.6 mm, NITRILE 90	3		<b>✓</b>
18	SEC012RA003	O-RING - I.D. 9 mm, C.S. 1.50 mm, NITRILE 70	1		•
19	SEC016RA002	O-RING - I.D. 10.77 mm, C.S. 2.62 mm, NITRILE 70	4		•
20	SEC049RF001	O-RING - I.D. 48.90 mm, C.S. 2.62 mm, NITRILE 90	1		•
21	SPC005KA001	SPRING	1		
22	SPC010CA001	SPRING	3		
23	VFC000BD003	VALVE BODY	1		
24	VFC000SC001	SHEAR SEAL COLLAR	3		
25	VFC000SQ002	VALVE ROTOR	1		
1					

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS	REVISION
26	VFC000SR002	SPINDLE	1			1) 5717
27	VFC000ST001	SHEAR SEAL PLATE	1			2
28	VFC000SU001	SHEAR SEAL	3			3
29	BAC006SN000	Ø6 mm STEEL BALL	1			4
30	V-8245	DUAL CHECK VALVE	1			5
31	BPC010SP004	3/8 NPT PLASTIC BLANKING PLUG (RED)	2			7
32	SEC014RA001	O-RING - I.D. 9.19mm, C.S. 2.62mm, NITRILE 90	4		1	8
						′

### NOTE:

- ALL PARTS ARE AVAILABLE TO BE ORDERED AS SPARE PARTS (UNLESS MARKED WITH  $\pmb{\varkappa}$ ).
- ONLY PARTS MARKED WITH ✓ARE AVAILABLE AS BOTH SPARE PARTS OR SERVICEABLE PARTS, FROM **DCV-M1**: **SERVICE KIT (3 & WAY MANUAL VALVES)**. (REFER TO **DCV-M1** EVD FOR FULL PARTS LIST)
- IF ITEM NO. 30 IS ORDERED AS A SPARE PART, THIS ALREADY COMES WITH ITEM NO. 32. THEREFORE THESE ARE NOT REQUIRED TO BE ORDERED SEPERATELY.

## **IMPORTANT**

WHEN ORDERING SPARES YOU MUST STATE THE FULL PART NUMBER AND THE PRODUCT SERIAL NUMBER - FROM THE LABEL TO PROTECT YOUR WARRANTY ALWAYS USE GENUINE HI-FORCE PARTS.



PUMP SERVICE KIT

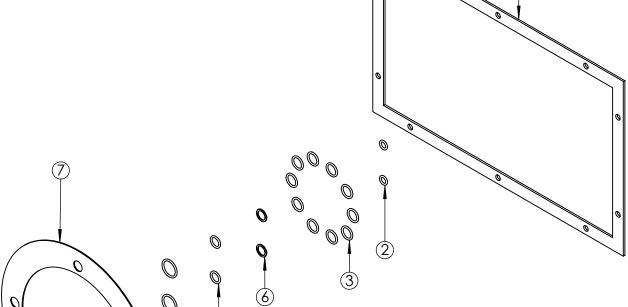
SERIAL NUMBERS	

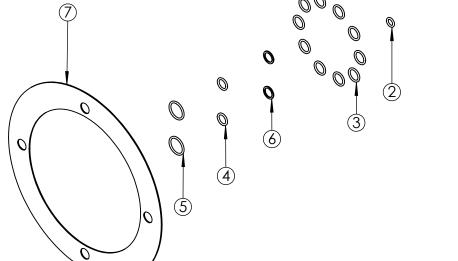
PRODUCT NO. HEP-SK1

SHT 1 OF 1 SHTS

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	REVISION
1	15482	TANK GASKET	1	1 5717
2	SEC010RA001	O-RING - I.D. 6.35 mm,	2	2 5939
_	3200101010101	C.S. 1.78 mm, NITRILE 70	_	3

1       15482       TANK GASKET       1       1         2       SEC010RA001       O-RING - I.D. 6.35 mm, C.S. 1.78 mm, NITRILE 70       2       3         3       SEC014RF001       O-RING - I.D. 10.82 mm, C.S. 1.78 mm, NITRILE 90       10       4         4       SEC013RA001       O-RING - I.D. 9.25mm, C.S. 1.78mm, NITRILE 90       2       6         5       SEC019RF002       O-RING - I.D. 15.60, C.S. 1.78mm, NITRILE 90       2       7         6       SEC013BA001       BACK-UP RING - PTFE, SOLID SPLIT       2       9         7       SEC001KT003       GASKET       1       10					1
2 SEC010RA001 C.S. 1.78 mm, NITRILE 70 2 3 3 SEC014RF001 O-RING - I.D. 10.82 mm, C.S. 1.78 mm, NITRILE 90 10 4 4 SEC013RA001 O-RING - I.D. 9.25mm, C.S. 2 6 5 SEC019RF002 O-RING - I.D. 15.60, C.S. 1.78mm, NITRILE 90 2 6 6 SEC013BA001 BACK-UP RING - PTFE, SOLID SPLIT 2 9	1	15482	tank gasket	1	1
3       SEC014RF001       C.S. 1.78 mm, NITRILE 90       10         4       SEC013RA001       O-RING - I.D. 9.25mm, C.S. 1.78mm, NITRILE 90       2         5       SEC019RF002       O-RING - I.D. 15.60, C.S. 1.78mm, NITRILE 90       2         6       SEC013BA001       BACK-UP RING - PTFE, SOLID SPLIT       2	2	SEC010RA001	O-RING - I.D. 6.35 mm, C.S. 1.78 mm, NITRILE 70	2	3
4 SEC013RA001 O-RING - I.D. 9.25mm, C.S. 2 6 5 SEC019RF002 O-RING - I.D. 15.60, C.S. 1.78mm, NITRILE 90 2 8 6 SEC013BA001 BACK-UP RING - PTFE, SOLID SPLIT 2 9	3	SEC014RF001		10	- 1
5 SEC019RF002 1.78mm, NITRILE 90 2 6 SEC013BA001 BACK-UP RING - PTFE, SOLID SPLIT 2 9	4	SEC013RA001	O-RING - I.D. 9.25mm, C.S. 1.78mm, NITRILE 90	2	
6 SECUTSBAUUT SOLID SPLIT 2 7	5	SEC019RF002		2	
7 SEC001KT003 GASKET 1 10	6	SEC013BA001		2	9
	7	SEC001KT003	GASKET	1	10





**IMPORTANT** 

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Hi-Force	
HYDRAULIC TOOLS	

SERVICE KIT (3 & 4 WAY MANUAL VALVES)

SERIAL NUMBERS

PRODUCT NO.

DCV-M1

VERSION

01

SHT 1 OF 1 SHTS

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ITEM NO.	PART NUMBER	DESCRIPTION		QTY.	RE	VISION
1	SEC003KT001	VALVE GASKET		1		5717
2	SEC049RF001	O-RING - I.D. 48.90 m C.S. 2.62 mm, NITRILE		1	2	0, 1,
3	SEC016RA002	O-RING - I.D. 10.77 m C.S. 2.62 mm, NITRILE	,	4	4	
4	SEC012BA002	BACK UP RING		1	5	
5	SEC012RA003	O-RING - I.D. 9 mm, ( 1.50 mm, NITRILE 7		1	7	
6	SEC011BA001	BACK UP RING		3	8	
7	SEC011RA001	O-RING - I.D. 8.10 mm 1.6 mm, NITRILE 90		3	9	
8	SEC014RA001	O-RING - I.D. 9.19mm, 2.62mm, NITRILE 90		4	11 12	
9	SEC010RF002	O-RING - I.D. 4.42 mm 2.62 mm, NITRILE 7		1	13	
					14	

**IMPORTANT**