

www.hi-force.com

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

SERIAL NUMBERS

FROM BR 6179

PRODUCT NO.

HEP410164

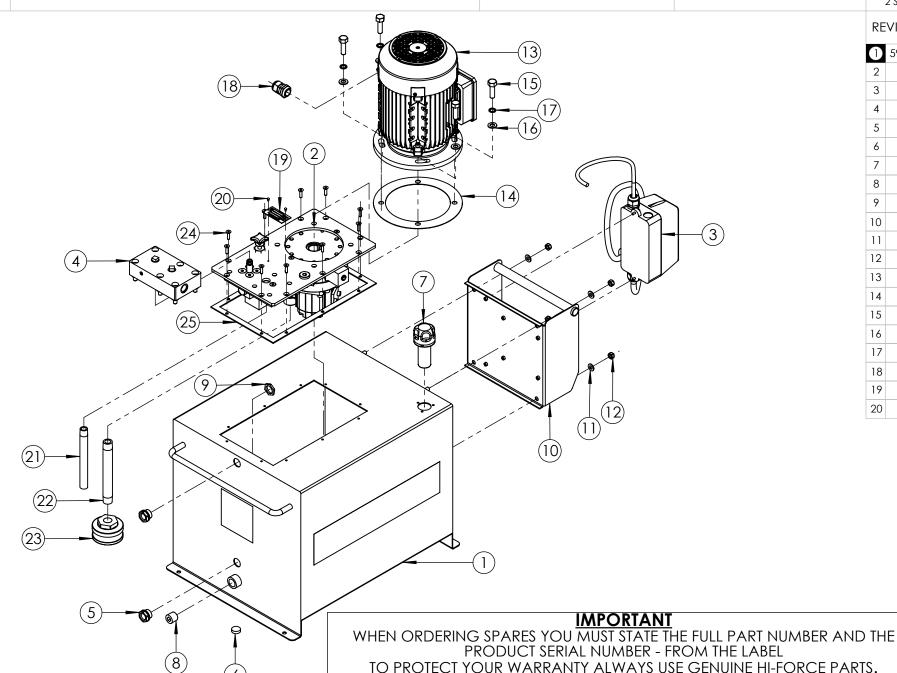
SHT 1 OF 2 SHTS

**REVISION** 

1) 5908

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

SERIAL NUMBERS

FROM BR 6179

PRODUCT NO. HEP410164

SHT 2 OF 2 SHTS

**REVISION** 

	1				
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	SERVICE PARTS
1	TAC060AS002	60L TANK	1		
2	TYPE300-24	300 SERIES PUMP UNIT	1		
3	EMA415UC001	MOTOR STARTER ASSEMBLY	1		
4	PM1	PORT PLATE (15777)	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-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	EM415-1.5-4LAF	AMPE 90L BA 4 - 1.5KW 4 POLE MOTOR	1		
14	SEC001KT003	GASKET	1		<b>✓</b>
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	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		<b>✓</b>
*	SFC065FA002	BLANKING PLATE	1		

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#### NOTE:

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

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.

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

SERIAL NUMBERS

PRODUCT NO. TYPE300-24

SHT 1 OF 2 SHTS



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2 5939

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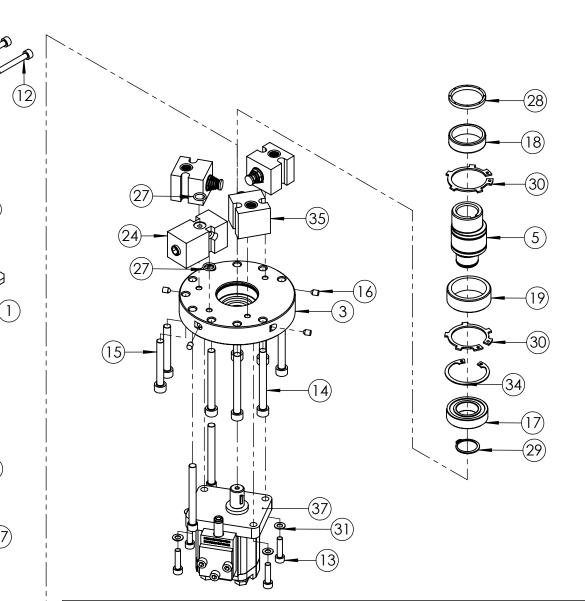
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#### 300 SERIES PUMP UNIT

SERIAL NUMBERS PRODUCT NO.

TYPE300-24

SHT 2 OF 2 SHTS

> 18 19

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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**

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.



PISTON BLOCK ASSEMBLY

SERIAL NUMBERS

PRODUCT NO.

**VERSION** 01

15494-A

SHT 1 OF 1 SHTS

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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	
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#### 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**

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 1 OF 3 SHTS

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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**

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SERIAL NUMBERS

PRODUCT NO.

PMA060GZ001

SHT 2 OF 3 SHTS

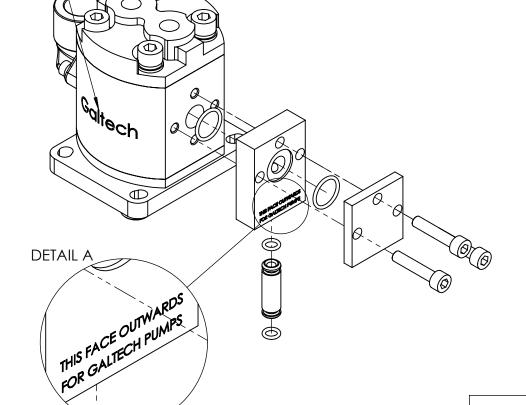
**REVISION** 

1) 5939

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#### ORIENTATION OF TRANSFER PLATE

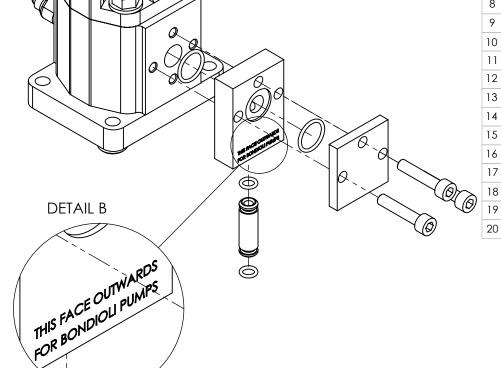
FOR GALTECH GEAR PUMPS, LOOK FOR "GALTECH" USUALLY FOUND ON THE SIDE OF THE BODY



FOR BONDIOLI GEAR PUMPS, LOOK FOR

"BONDIOLI & PAVESI" USUALLY FOUND

ON THE BOTTOM OF THE BODY



**IMPORTANT** 

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PRODUCT NO.

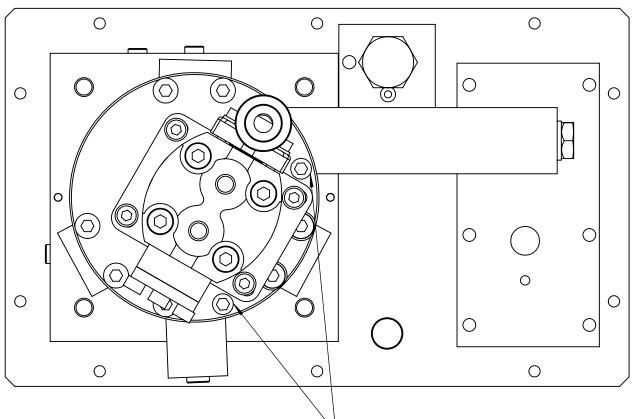
PMA060GZ001

SHT 3 OF 3 SHTS

# REVISION

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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>

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#### MOTOR STARTER ASSEMBLY

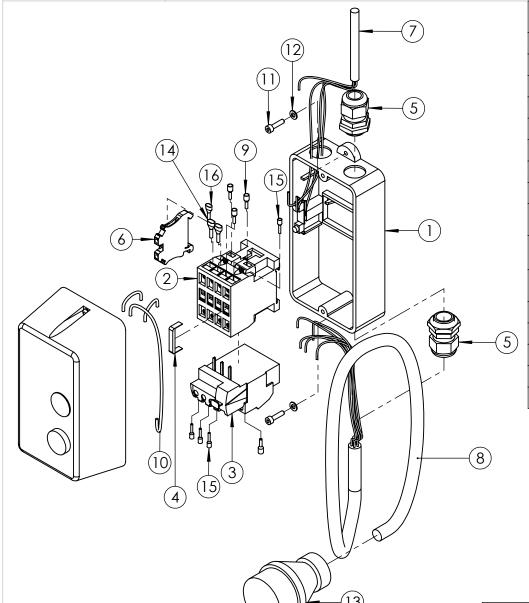
SERIAL NUMBERS

PRODUCT NO.

version 01

EMA415UC001

SHT 1 OF 1 SHTS



					1 31113
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	SPARE PARTS	REVISION
1	EMC000EF001	ENCLOSURE WITH PUSH BUTTONS P1MT	1		1 5717
2	EMC415KE001	CONTACTOR 415 V	1		2
3	EMC415RC001	OVERLOAD RELAY 2.7-4.0 AMPS	1		3
4	EMC110XF001	BRIDGING BAR	1		5
5	NUC020LS002	GLAND 6-12MM	2		6
6	EMC000NZ001	TERMINAL BLOCK	1		7
7	CEC150DC000	4 CORE CABLE 1.5 mm2 H07RN-F 4G1.5	1		8
8	CEC150EC001	5 CORE CABLE 1.5 mm2 H07RN-F 5G1.5	1		9
9	CEC250\$X001	BOOTLACE FERRULE (INSULATED) 2.5mm GREY	4		10
10	CEC250AC000	SINGLE CORE TRI-RATED CABLE 2.5mm <sup>2</sup> BLACK H05V2-K / H07V2-K	1		12
11	BLC004JD016	M4 x 16 mm HEX SOCKET CAP HEAD SCREW	2		14
12	WAC004YB000	M4 WASHER ST	2		15
13	MCC415EP002	415V, 32A ELECTRICAL PLUG	1		16
14	CEC250SX002	TWIN BOOTLACE FERRULE 2.5 mm <sup>2</sup>	2		18
15	CEC150SX001	BOOTLACE FERRULE (INSULATED) 1.5mm	4		19
16	CEC150SX002	TWIN BOOTLACE FERRULE 1.5 mm²	1		20

### NOTE:

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**IMPORTANT** 

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Hi-Force
HYDRAULIC TOOLS

PORT PLATE (15777)

SERIAL NUMBERS

PRODUCT NO.

PM1

version 02

SHT 1 OF 1 SHTS

REVISION

**1** 5717

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ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	SEC003KT001	VALVE GASKET	1
2	VFC010BF010	CONNECTOR PLATE	1
3	BLC008KD035	M8 x 35 mm HEX SOCKET CAP HEAD SCREW	6

4 FPC002PN001 1/16" x 7/8" NPT SOCKET PLUG 1
5 FPC010PN002 3/8" X 7/8" NPT SOCKET PLUG 1
6 BPC010SP004 3/8 NPT PLASTIC BLANKING PLUG (RED) 2

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### NOTE:

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# <u>IMPORTANT</u>

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PUMP SERVICE KIT

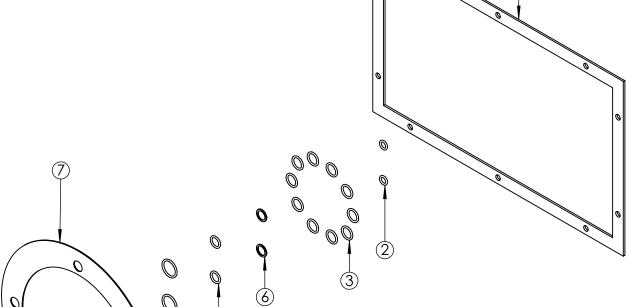
SERIAL NUMBERS	

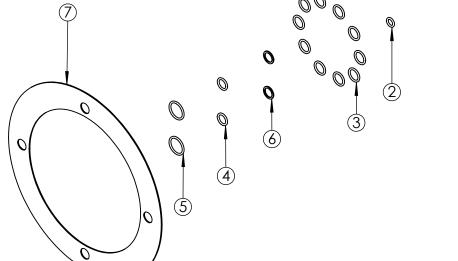
PRODUCT NO. HEP-SK1

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
	SECUTORAGOT	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





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