

* THESE COMPONENTS ARE LOCATED IN THE FLUID CYLINDER GROUP, ITEM (2)
 ** THESE COMPONENTS ARE LOCATED IN THE ATTACHING GROUP, ITEM (3)
 *** THESE COMPONENTS ARE LOCATED IN THE CYLINDER GROUP, ITEM (4)

ITEM NO.	PART NO.	PART NAME
(1)	P510129	POWER END:
(2)	P512464	FLUID CYLINDER GROUP:
(3)	P500362	ATTACHING GROUP:
(4)	3267985	CYLINDER GROUP:
(5)	5257807	CUP: 1 $\frac{1}{8}$ " CARBOXYLATED NITRILE
(6)	5266225	LIT KIT:
(7)	P500358	FLUID CYLINDER:
(8)	5260142	VALVE SEAT:
(9)	1219610	CAGE:
(10)	5253499	DISC & SPRING ASSEMBLY:
(11)	1219614	VALVE COVER:
(12)	1177394	O-RING: 1 $\frac{3}{8}$ " OD X $\frac{1}{8}$ " NOM., BUNA-N
(13)	1255887	VALVE COVER CLAMP:
(14)	1100064	HEX HD CAP SCREW: 1 $\frac{1}{2}$ -13 X 1 $\frac{1}{2}$ " LG.
(15)	1109987	PLUG: 1 $\frac{1}{4}$ " PIPE (NOT SHOWN)
(16)	P500360	BELLEVILLE WASHER: $\frac{7}{16}$ "
(17)	1279148	UMBRELLA: BLACK
(18)	1269388	UMBRELLA WASHER:
(19)	1101339	O-RING: 1 $\frac{1}{8}$ " OD X $\frac{1}{16}$ " NOM., BUNA-N
(20)	1177200	CAPPLUG: INT. 12
(21)	1177202	CAPPLUG: INT. 17S
(22)	P522316	HEX HD CAP SCREW: $\frac{7}{16}$ -14 X 5.5" LG
(23)	A91684	CYLINDER GASKET:
(24)	1241364	CERAMIC CYLINDER: 1.63 DIA
(25)	1282557	PACKING HOLDER:
(26)	5257986	PACKING WASHER:
(27)	1284516	HEX HD CAP SCREW: $\frac{3}{16}$ -18 X 1 $\frac{1}{2}$ " LG.
(28)	1285170	SEAL RING:
(29)	1177841	O-RING: 2 $\frac{1}{8}$ " OD X $\frac{1}{16}$ " NOM., BUNA-N

NOTES:
 1. TORQUE ITEM 22 TO 55 FT-LBS; ITEM 14 TO 35 FT-LBS
 2. TEST AT 500 RPM, 750 PSI
 3. RETORQUE ITEM 22 AFTER TEST
 4. STAMP NAMEPLATE PER ENGR SPEC AS-21 WITH THE FOLLOWING DATA IN "RATED CONDITIONS" SPACES:
 MODEL NO. - E0413
 PART NO. - P503150
 MAX RPM. - 700
 POWER - 12.9 HP / 9.6 KW
 FLOW - 25 GPM/95 LPM
 MAX PRESSURE - 750 PSI/5170 KPA
 SERIAL NO. -
 5. PAINT PER ENGR SPEC CP-20

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FMC Energy Systems

PUMP ASSEMBLY

E0413C, W/1 $\frac{1}{2}$ " NPT X 3 $\frac{1}{4}$ " NPT FLUID END, CARBOXYLATED NITRILE PACKING, W/HYD MTR MOUNTING FLANGE

D	REV	BDM	DATE	BY	REV	BDM	DATE	BY

D	REV	BDM	DATE	BY	REV	BDM	DATE	BY

P503150

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ITEM	NO. REOD	PART NO.	PART NAME
(2)			
①	1	P510129	POWER END:
②	1	P512464	FLUID CYLINDER GROUP:
③	1	P500362	ATTACHING GROUP:
④	2	3267985	CYLINDER GROUP:
⑤	4	5257807	CUP: 1 $\frac{7}{8}$ " , CARBOXYLATED NITRILE
⑥	1	5266225	LIT KIT:

⑦	1	P500358	FLUID CYLINDER:
⑧	8	5260142	VALVE SEAT:
⑨	8	1219610	CAGE:
⑩	8	5253499	DISC & SPRING ASSEMBLY:
⑪	4	1219614	VALVE COVER:
⑫	12	1177394	O-RING: 1 $\frac{3}{16}$ " OD X $\frac{1}{8}$ " NOM., BUNA-N
⑬	2	1255887	VALVE COVER CLAMP:
⑭	2	1100064	HEX HD CAP SCREW: $\frac{1}{2}$ -13 X 1 $\frac{1}{2}$ " LG.
⑮	1	1109987	PLUG: $\frac{1}{4}$ " PIPE (NOT SHOWN)
⑯	4	P500360	BELLEVILLE WASHER: $\frac{7}{16}$
⑰	4	1279148	UMBRELLA: BLACK
⑱	4	1269388	UMBRELLA WASHER:
⑲	4	1101339	O-RING: 1 $\frac{1}{16}$ " OD X $\frac{1}{16}$ " NOM., BUNA-N
⑳	1	1177200	CAPLUG: INT. 12
㉑	1	1177202	CAPLUG: INT. 17S
㉒	4	P522316	HEX HD CAP SCREW: $\frac{7}{16}$ -14 X 5.5" LG
㉓	4	A91684	CYLINDER GASKET:
㉔	4	1241364	CERAMIC CYLINDER: 1.63 DIA
㉕	4	1282557	PACKING HOLDER:
㉖	4	5257986	PACKING WASHER:
㉗	4	1284516	HEX HD CAP SCREW: $\frac{5}{16}$ -18 X 1 $\frac{1}{2}$ " LG.
㉘	4	1285170	SEAL RING:
㉙	4	1177841	O-RING: 2 $\frac{1}{8}$ " OD X $\frac{1}{16}$ " NOM., BUNA-N

TES:
1. TORQUE ITEM 22 TO 55 FT-LBS; ITEM 14 TO 35 FT-LBS
ITEM 27 TO 10 FT-LBS

2. TEST AT 500 RPM, 750 PSI

3. RETORQUE ITEM 22 AFTER TEST

4. STAMP NAMEPLATE PER ENGR SPEC AS-21 WITH THE FOLLOWING DATA IN "RATED CONDITIONS" SPACES:

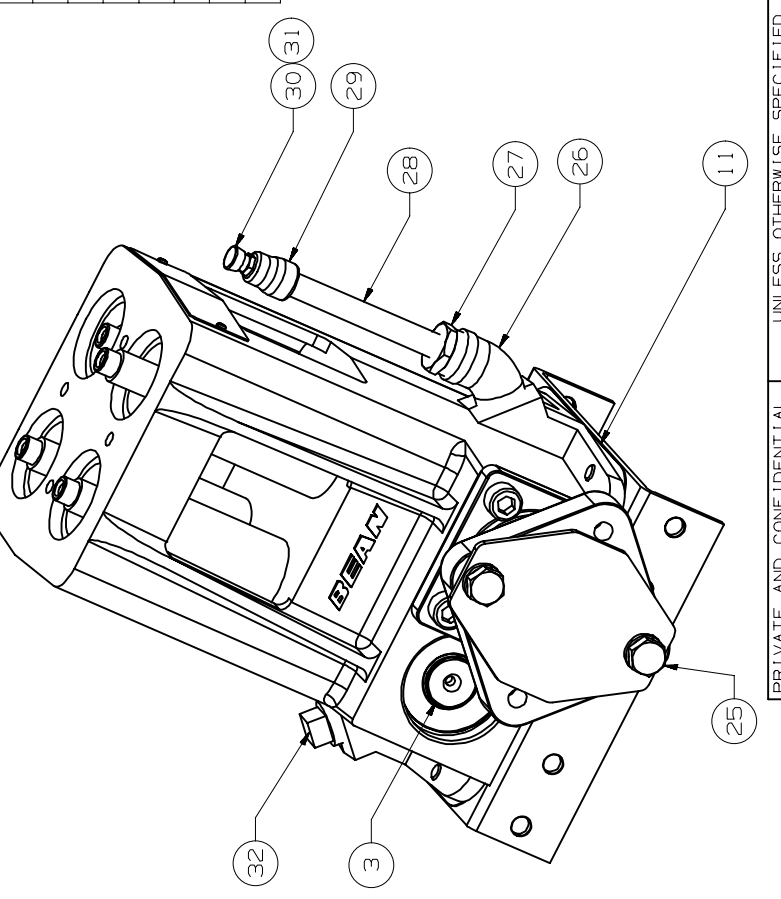
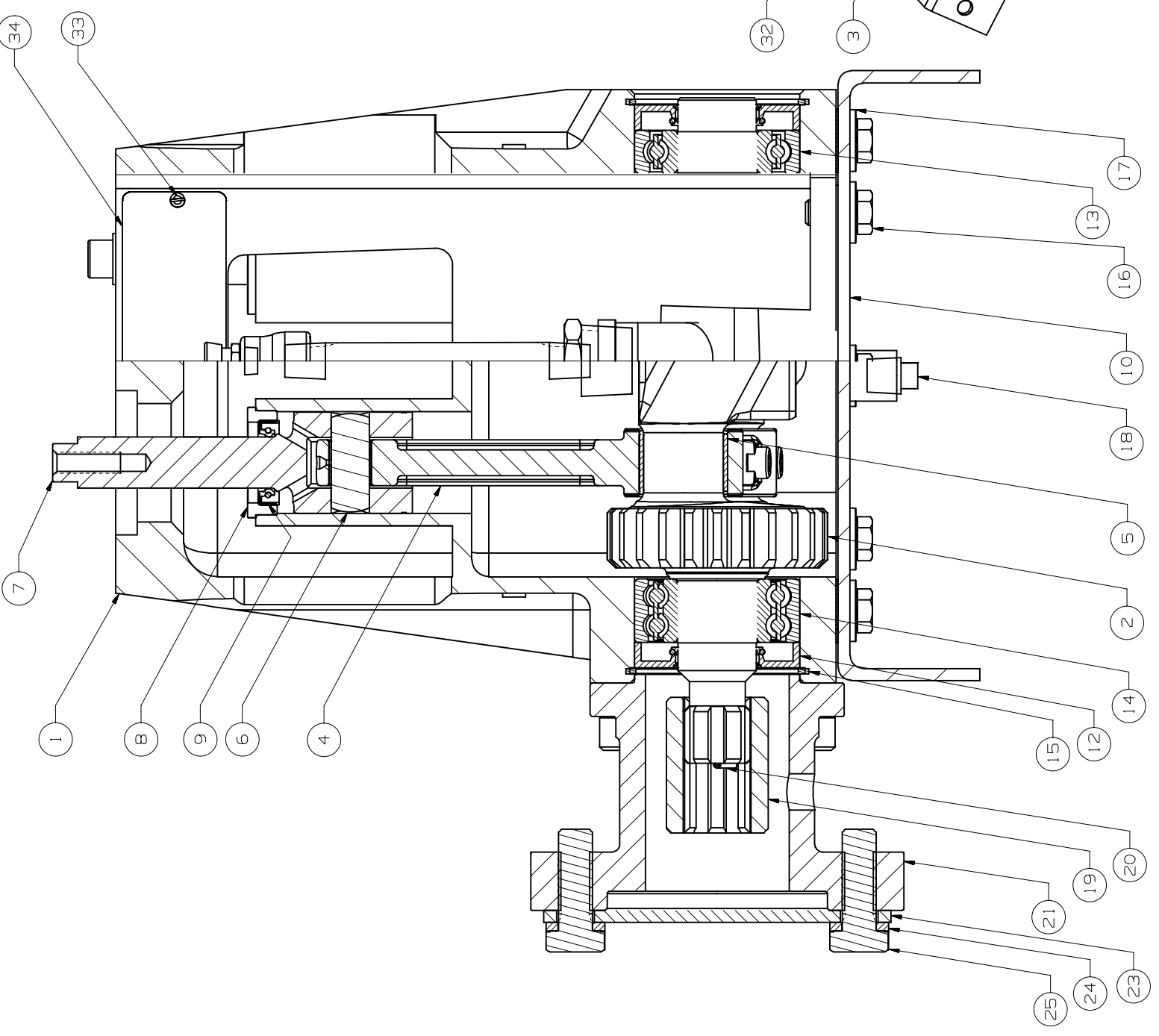
MODEL NO. - E0413 PART NO. - P503150
MAX RPM. - 700 POWER - 12.9 HP / 9.6 KW
FLOW - 25 GPM/95 LPM MAX PRESSURE - 750 PSI/5170 KPA
SERIAL NO. -

5. PAINT PER ENGR SPEC CP-20

1 2 3 4 5 6 7 8 9 10 11 12

NOTES:

- 1 LINE UP THE TIMING MARKS ON THE GEARS AND CHECK THE POSITION OF CRANKS SO THAT WHEN THROWS ON ONE CRANK ARE VERTICAL, THE THROWS ON THE OTHER CRANK ARE HORIZONTAL.
- 2 APPLY LIGHT OIL TO CONNECTING ROD BEARINGS, WRIST PINS AND CROSSHEADS.



ITEM	DESCRIPTION	QTY
1	POWER FRAME:	1
2	CRANKSHAFT: E04, HEAVY DUTY, DRIVE, SAE	1
3	CRANKSHAFT: E04, HEAVY DUTY, DRIVEN	1
4	CONNECTING ROD: E04	4
5	ROD BEARING: HALF SHELL	X4
6	WRIST PIN:	4
7	CROSSHEAD:	4
8	SEAL HOLDER:	4
9	SEAL: PONY ROD	4
10	MOUNTING BASE: E04	1
11	GASKET: BASE	1
12	OIL SEAL:	4
13	BALL BEARING: SINGLE ROW	3
14	BALL BEARING: DOUBLE ROW	1
15	RETAINING RING:	4
16	CAP SCREW: HEX HEAD, 3/8 X .75 LG	12
17	WASHER: BELLEVILLE, 3/8	12
18	PIPE PLUG: 1/4" NPT	1
19	COUPLING: 1" SAE 6B SPLINE	1
20	PIN, SPRING: SLOTTED	1
21	FLANGE: E04, SAE A 4-BOLT	1
22	CAP SCREW: HEX SOC HEAD, 1/2 X 1.00 LG	4
23	PROTECTIVE COVER:	1
24	LOCK WASHER: REGULAR, 1/2	2
25	CAP SCREW: HEX HEAD, 1/2 X 1.50 LG	2
26	STREET ELBOW: 3/4 NPT X 45 DEG	1
27	BUSHING: HEX HEAD, 3/4 X 1/8	1
28	NIPPLE: 1/4 SCH 40, 1/4 NPT	1
29	REDUCER: 1/4 NPT X 1/8 NPT	1
30	LUBE VENT: 1/8-27 PTF	1
31	PIPE PLUG: SO HEAD, 1/8 NPT	1
32	PIPE PLUG: SO HEAD, 3/4 NPT	1
33	SELF TAPPING SCREW:	2
34	NAMEPLATE	1

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UNLESS OTHERWISE SPECIFIED
 TOLERANCE
 X ... ± .030 (1.762)
 .XX ... ± .015 (1.381)
 .XXX ... ± .005 (1.271)
 ANGLES ... ± .30°

DO NOT SCALE THIS DRAWING
 ALL DIMENSIONS ARE IN INCHES (MM)
 BREAK SHARP EDGES .015 (1.381) MAXIMUM
 INSIDE CORNER RADIUS .030 (1.762) MAXIMUM
 THREADS CONFORM TO FEDERAL STANDARD H-28
 TAPERED THREADS CONFORM TO API 6A
 BOLT HOLES MUST STRADDLE COMMON CENTERLINE
 FINISH Z50 RMS

DESCRIPTION: POWER END ASSEMBLY: E04 FOR 1/2" INCH SAE 6B SPLINE & HYDRAULIC MOTOR MOUNT

DRAWN BY: KINWISHIGE, SCOTT DATE: 10-SEP-2005
 CHECKED BY: KINWISHIGE, SCOTT DATE: 10-SEP-2005
 DESIGNED BY: LYON, TIM DATE: 07-MAR-2006
 MANUFACTURING APPROVAL: CHARLTON, FRED DATE: 13-FEB-2006
 APPROVED BY: HODGES, BILLY BOB DATE: 12-APR-2006

REV. A
 PART NO. 5015044
 DRAWING NUMBER: 00500000700
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ITEM	DESCRIPTION	QTY
1	POWER FRAME:	1
2	CRANKSHAFT: E04,HEAVY DUTY, DRIVE, SAE	1
3	CRANKSHAFT: E04, HEAVY DUTY, DRIVEN	1
4	CONNECTING ROD; E04	4
5	ROD BEARING; HALF SHELL	4
6	WRIST PIN;	4
7	CROSSHEAD:	4
8	SEAL HOLDER:	4
9	SEAL: PONY ROD	4
10	MOUNTING BASE; E04	1
11	GASKET; BASE	1
12	OIL SEAL;	4
13	BALL BEARING: SINGLE ROW	3
14	BALL BEARING: DOUBLE ROW	1
15	RETAINING RING;	4
16	CAP SCREW: HEX HEAD, 3/8 X .75 LG	12
17	WASHER: BELLEVILLE, 3/8	12
18	PIPE PLUG: 1/4" NPT	1
19	COUPLING: 1" SAE 6B SPLINE	1
20	PIN, SPRING: SLOTTED	1
21	FLANGE: E04, SAE A 4-BOLT	1
22	CAP SCREW: HEX SOC HEAD, 1/2 X 1.00 LG	4
23	PROTECTIVE COVER:	1
24	LOCK WASHER: REGULAR, 1/2	2
25	CAP SCREW: HEX HEAD, 1/2 X 1.50 LG	2
26	STREET ELBOW: 3/4 NPT X 45 DEG	1
27	BUSHING: HEX HEAD, 3/4 X 1/8	1
28	NIPPLE: 1/4 SCH 40, 1/4 NPT	1
29	REDUCER: 1/4 NPT X 1/8 NPT	1
30	LUBE VENT: 1/8-27 PTF	1
31	PIPE PLUG: SQ HEAD, 1/8 NPT	1
32	PIPE PLUG: SQ HEAD, 3/4 NPT	1
33	SELF TAPPING SCREW:	2
34	NAMEPLATE	1