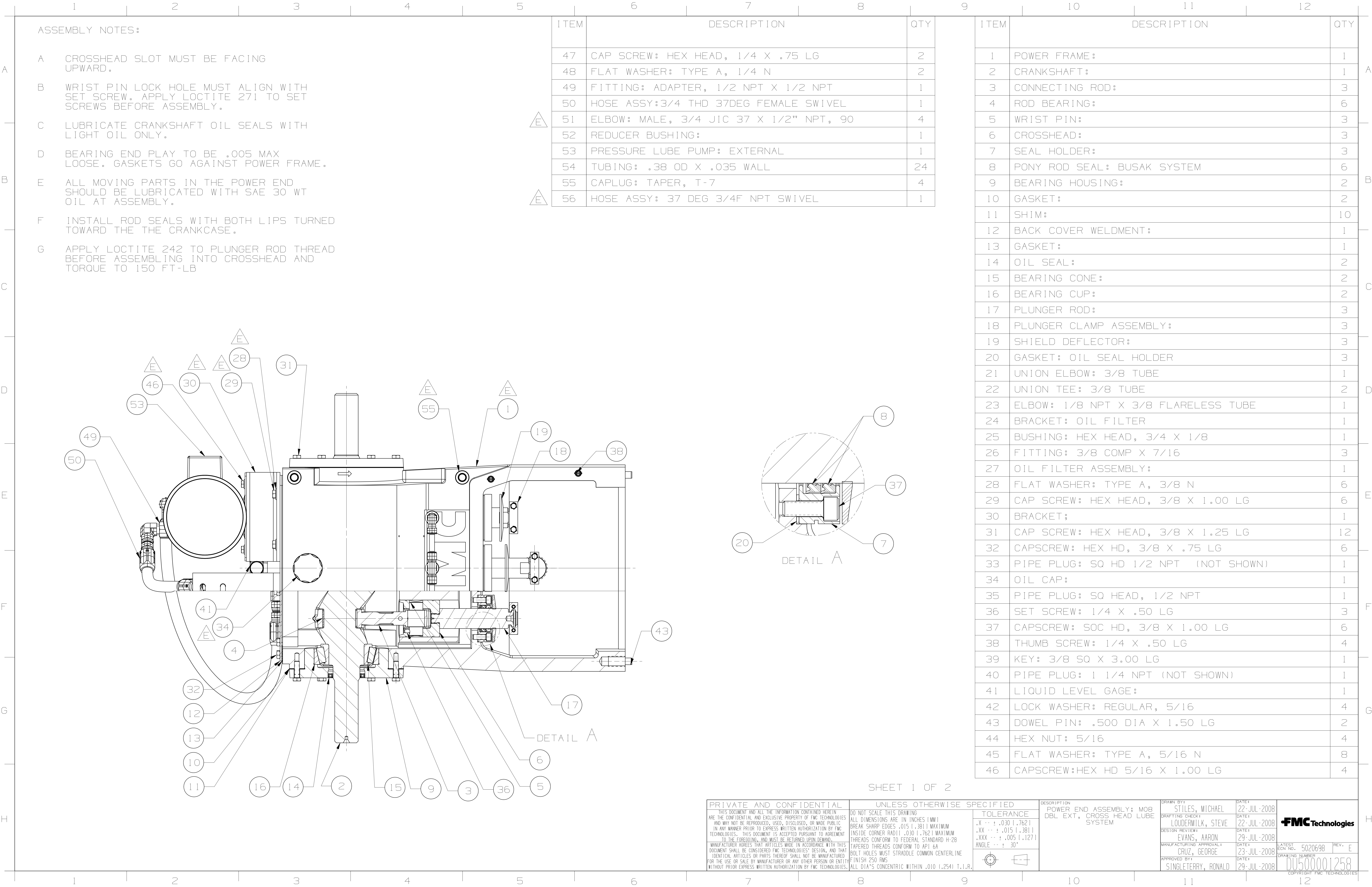




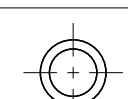
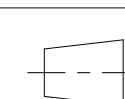
ASSEMBLY NOTES:

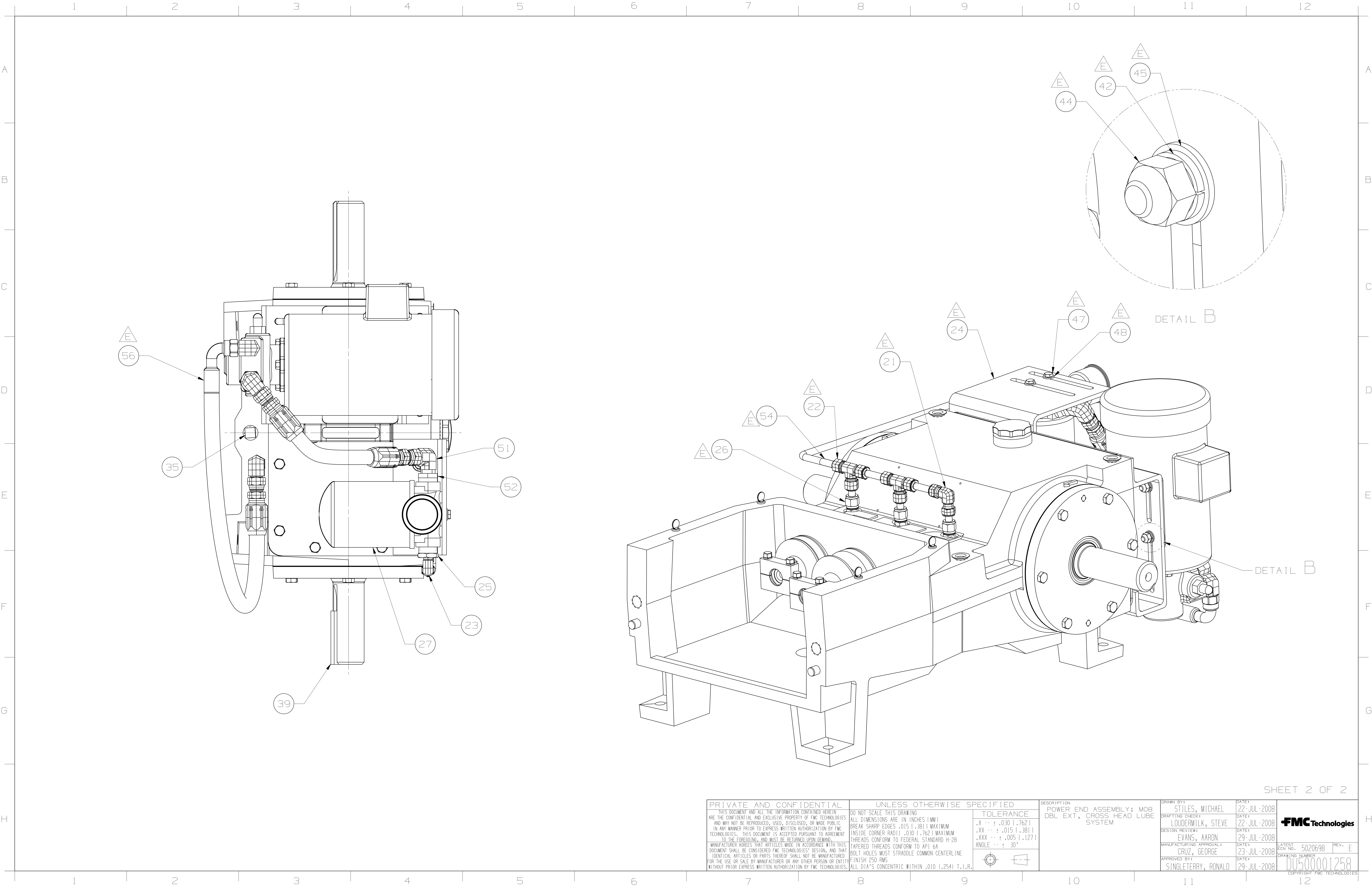
- A CROSSHEAD SLOT MUST BE FACING UPWARD.
- B WRIST PIN LOCK HOLE MUST ALIGN WITH SET SCREW. APPLY LOCTITE 271 TO SET SCREWS BEFORE ASSEMBLY.
- C LUBRICATE CRANKSHAFT OIL SEALS WITH LIGHT OIL ONLY.
- D BEARING END PLAY TO BE .005 MAX LOOSE. GASKETS GO AGAINST POWER FRAME.
- E ALL MOVING PARTS IN THE POWER END SHOULD BE LUBRICATED WITH SAE 30 WT OIL AT ASSEMBLY.
- F INSTALL ROD SEALS WITH BOTH LIPS TURNED TOWARD THE THE CRANKCASE.
- G APPLY LOCTITE 242 TO PLUNGER ROD THREAD BEFORE ASSEMBLING INTO CROSSHEAD AND TORQUE TO 150 FT-LB

ITEM	DESCRIPTION	QTY
47	CAP SCREW: HEX HEAD, 1/4 X .75 LG	2
48	FLAT WASHER: TYPE A, 1/4 N	2
49	FITTING: ADAPTER, 1/2 NPT X 1/2 NPT	1
50	HOSE ASSY:3/4 THD 37DEG FEMALE SWIVEL	1
51	ELBOW: MALE, 3/4 JIC 37 X 1/2" NPT, 90	4
52	REDUCER BUSHING:	1
53	PRESSURE LUBE PUMP: EXTERNAL	1
54	TUBING: .38 OD X .035 WALL	24
55	CAPLUG: TAPER, T-7	4
56	HOSE ASSY: 37 DEG 3/4F NPT SWIVEL	1

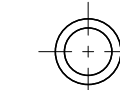
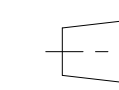
ITEM	DESCRIPTION	QTY
1	POWER FRAME:	1
2	CRANKSHAFT:	1
3	CONNECTING ROD:	3
4	ROD BEARING:	6
5	WRIST PIN:	3
6	CROSSHEAD:	3
7	SEAL HOLDER:	3
8	PONY ROD SEAL: BUSAK SYSTEM	6
9	BEARING HOUSING:	2
10	GASKET:	2
11	SHIM:	10
12	BACK COVER WELDMENT:	1
13	GASKET:	1
14	OIL SEAL:	2
15	BEARING CONE:	2
16	BEARING CUP:	2
17	PLUNGER ROD:	3
18	PLUNGER CLAMP ASSEMBLY:	3
19	SHIELD DEFLECTOR:	3
20	GASKET: OIL SEAL HOLDER	3
21	UNION ELBOW: 3/8 TUBE	1
22	UNION TEE: 3/8 TUBE	2
23	ELBOW: 1/8 NPT X 3/8 FLARELESS TUBE	1
24	BRACKET: OIL FILTER	1
25	BUSHING: HEX HEAD, 3/4 X 1/8	1
26	FITTING: 3/8 COMP X 7/16	3
27	OIL FILTER ASSEMBLY:	1
28	FLAT WASHER: TYPE A, 3/8 N	6
29	CAP SCREW: HEX HEAD, 3/8 X 1.00 LG	6
30	BRACKET:	1
31	CAP SCREW: HEX HEAD, 3/8 X 1.25 LG	12
32	CAPSCREW: HEX HD, 3/8 X .75 LG	6
33	PIPE PLUG: SQ HD 1/2 NPT (NOT SHOWN)	1
34	OIL CAP:	1
35	PIPE PLUG: SQ HEAD, 1/2 NPT	1
36	SET SCREW: 1/4 X .50 LG	3
37	CAPSCREW: SOC HD, 3/8 X 1.00 LG	6
38	THUMB SCREW: 1/4 X .50 LG	4
39	KEY: 3/8 SQ X 3.00 LG	1
40	PIPE PLUG: 1 1/4 NPT (NOT SHOWN)	1
41	LIQUID LEVEL GAGE:	1
42	LOCK WASHER: REGULAR, 5/16	4
43	DOWEL PIN: .500 DIA X 1.50 LG	2
44	HEX NUT: 5/16	4
45	FLAT WASHER: TYPE A, 5/16 N	8
46	CAPSCREW:HEX HD 5/16 X 1.00 LG	4

SHEET 1 OF 2

PRIVATE AND CONFIDENTIAL		UNLESS OTHERWISE SPECIFIED		DESCRIPTION		POWER END ASSEMBLY: MOB DBL EXT, CROSS HEAD LUBE SYSTEM		DRAWN BY: STILES, MICHAEL		DATE: 22-JUL-2008		
THIS DOCUMENT AND ALL THE INFORMATION CONTAINED HEREIN ARE THE CONFIDENTIAL AND EXCLUSIVE PROPERTY OF FMC TECHNOLOGIES AND MAY NOT BE REPRODUCED, USED, DISCLOSED, OR MADE PUBLIC IN ANY MANNER PRIOR TO EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES. THIS DOCUMENT IS ACCEPTED PURSUANT TO AGREEMENT TO THE FOREGOING, AND MUST BE RETURNED UPON DEMAND. MANUFACTURER AGREES THAT ARTICLES MADE IN ACCORDANCE WITH THIS DOCUMENT SHALL BE CONSIDERED FMC TECHNOLOGIES' DESIGN, AND THAT IDENTICAL ARTICLES OR PARTS THEREOF SHALL NOT BE MANUFACTURED FOR THE USE OR SALE BY MANUFACTURER OR ANY OTHER PERSON OR ENTITY WITHOUT PRIOR EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES.		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 250 RMS ALL DIA'S CONCENTRIC WITHIN .010 (1.254) T.I.R.		TOLERANCE .X -- ± .030 (1.762) .XX -- ± .015 (1.381) .XXX -- ± .005 (1.271) ANGLE -- ± 30'  				DESIGN REVIEW: EVANS, AARON		DATE: 29-JUL-2008		
								MANUFACTURING APPROVAL: CRUZ, GEORGE		DATE: 23-JUL-2008		
								APPROVED BY: SINGLETERRY, RONALD		DATE: 29-JUL-2008		
								LATEST FOR INQ. 5020698		REV. E		
								DRAWING NUMBER: DU500001258				



SHEET 2 OF 2

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					TOLERANCE		DRAFTING CHECK:		DATE:
					.X -- ± .030 (1.762) .XX -- ± .015 (1.381) .XXX -- ± .005 (1.27) ANGLE -- ± 30'		LOUDERMILK, STEVE		22-JUL-2008
					 		DESIGN REVIEW:		DATE:
					EVANS, AARON		29-JUL-2008		
					MANUFACTURING APPROVAL:		DATE:		
					CRUZ, GEORGE		23-JUL-2008		
					APPROVED BY:		DATE:		
					SINGLETERY, RONALD		29-JUL-2008		
					DRAWING NUMBER		LATEST REV. NO.		
					DU5000001258		5020698 E		
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