

PART DESCRIPTION

PART NUMBER: 1279027	PUMP ASSEMBLY; L0918B GI, LH, W/1-1/2	DRAWING NO: DU500014243
REVISION: J	NPT X 1 NPT FLUID END, NEOPRENE & FABRIC	DRAWING REV: A
ECN: 5021671	PISTON, 440 SST BALL VALVE ASSEMBLIES	DWG OWN: STE COE

TYPE: N STATUS: RELEASED OWNERSHIP: STE COE UOM: EA WEIGHT: 228 (104)
LBS (KGS)

PART DATA

PROD SPEC : NA	QUALITY LVL: NA
MATL CLASS:	TEMP RANGE:
PR# :	GR# :
	SRV CLASS:

REVIEWED BY: Herold, John R.	REVIEW DATE : 08-MAR-2011
APPROVED BY: Lyon, Tim	APPROVAL DATE: 15-APR-2011

BILL OF MATERIAL

ITEM	PART NUMBER	DESCRIPTION	DWG NUMBER	UM	QTY	MATERIAL
1	5271247	POWER END ASSEMBLY; L09 LH	DU500009548	EA	1	
2	1255266	FLUID CYLINDER, L09, W/1-1/2 NPT X 1 NPT, GRAY IRON	6700DU5015837	EA	1	
3	1225327	SEAT, BALL, 1.187 DIA GAGE LINE, .750 ID, 440 SST	6700DU5017155	EA	6	
4	1187738	BALL, 15/16 DIA, 440 SST GR-100	NO-DWG	EA	6	
5	1272060	CYLINDER; L0618, CERAMIC LINER, 3.245 LG	6700DU5001794	EA	3	
6	A3434N	PISTON CUP, 2.25 OD X .771 ID X 1.16 LONG, HEMISPHERE STYLE, NEOPRENE AND COTTON	6700DU5002330	EA	3	
7	8495	PISTON HOLDER; L0618, C67300 BRASS	6700DU5001800	EA	3	
8	A5016	PLUNGER NUT; 3/4-16 UNF	6700DU5001798	EA	3	
9	1281655	SEAL HOLDER; L06	6700DU5001797	EA	3	
10	1207289	WASHER; PACKING FORMING, L06/L09/L11/L16/Q1218, DELRIN	6700DU5001802	EA	3	
11	A5002	CYLINDER COVER; ROUND, 2.81 OD X 1.94 ID X 1.84 THK, 1040 CARBON STEEL	DU500001052	EA	3	
12	A5003	VALVE/CYLINDER COVER; ROUND, 1.87 X 1.00 ID X 1.59 THK, 1040 CARBON STEEL	DU500001048	EA	3	
13	1271415	CYLINDER COVER CLAMP	DU500001066	EA	3	M10126

(continued...)

BILL OF MATERIAL (Continued)

ITEM	PART NUMBER	DESCRIPTION	DWG NUMBER	UM	QTY	MATERIAL
14	1271716	CASTING; L0918/14 TWO HOLE, DUCTILE IRON CYLINDER COVER CLAMP	DU500001049	EA	3	M10601
15	1101176	CASTING; L09 TWO HOLE, DUCTILE IRON O-RING, 0.489 ID X 0.070 CS, UNIFORM NO. 014, NITRILE 70 DURO	NO-DWG	EA	3	
16	1280024	GASKET; STUFFING BOX, 2.37 ID X 2.67 OD X .06 THICK, KEVLAR/NITRILE	6700DU5001805	EA	6	
17	1280025	GASKET; STUFFING BOX, 2.44 ID X 2.81 OD X .06 THICK, KEVLAR/NITRILE	6700DU5012659	EA	3	
18	1280026	GASKET; VALVE COVER, 1.38 ID X 1.88 OD X .06 THICK, KEVLAR/NITRILE	DU500004961	EA	3	
19	A5012	STUD; 1/2-13 UNC-2A X 3.12 LG, 4140 ALLOY STEEL	6700DU5009044	EA	6	
20	A5009	STUD; 1/2-13 UNC-2A X 6.62 LONG, PER IFI 136, DOUBLE ENDED, TYPE 2, ASTM A193 GRADE B7 ALLOY STEEL, BLUE XYLAN COATED	DU500001078	EA	2	M20118
21	A5011	STUD; 1/2-13 UNC-2A X 8.63 LONG, PER IFI 136, DOUBLE ENDED, TYPE 2, ASTM A193 GRADE B7 ALLOY STEEL, BLUE XYLAN COATED	DU500001080	EA	6	M20118
22	8309	NUT, HEX, 1/2-13 UNC, SILICON BRONZE INTERNAL COATED LOCKING COMPOUND	6700DU5001799	EA	3	
23	3235702	HEAVY HEX NUT; 1/2-13UNC-2B, ASTM A194 GR 2H CARBON STEEL, BLUE XYLAN COATED	NO-DWG	EA	14	M10135
24	1187039	PETCOCK; 1/8, BRASS, ESSEX 63T	NO-DWG	EA	1	
25	P501267	PIPE PLUG; HEX HEAD, 1/8-27 NPT, 304 SST	6000DU5002746	EA	6	
26	1105105	SQUARE HEAD PLUG, PIPE, 1-1/2 INCH NPT MALE, MALLEABLE IRON, BLACK	NO-DWG	EA	2	
27	1177201	CAPLUG, TAPERED, T-14, LOW DENSITY POLYETHYLENE, RED, F/ 1 NPT PORT	NO-DWG	EA	1	
28	1177203	CAPLUG, TAPERED, T-20-S, LOW DENSITY	NO-DWG	EA	1	

(continued...)

BILL OF MATERIAL (Continued)

ITEM	PART NUMBER	DESCRIPTION	DWG NUMBER	UM	QTY	MATERIAL
29	P514112	POLYETHYLENE, RED, F/ 1-1/2 NPT PORT OPERATION AND MAINTENANCE MANUAL, L06 THROUGH L16 PUMPS	NO-DWG	EA	1	

QUALITY MATRIX: 6QM5000

SECTION: 314.0 REV: A OWNER: STE COE STATUS: RELEASED
ASSEMBLY

Q00024 VISUAL INSPECTION, HANDLING, STORAGE AND SHIPPING
REQUIREMENTS FOR FLUID CONTROL EQUIPMENT

ENGINEERING NOTES AND SPECIFICATIONS

ENGINEERING SPECIFICATIONS:

- Q50118 FCD USE ONLY - PUMP FASTENER TORQUE SPECIFICATION
- Q50117 FCD USE ONLY - PUMP NAMEPLATE STAMPING PROCEDURE
- Q50112 FCD USE ONLY - PUMP MECHANICAL RUN TEST PROCEDURE
- C85024 FCD USE ONLY - PAINTING SPECIFICATION FOR INDUSTRIAL PUMP
PRODUCTS (REPLACES CP-20)
- Q00250 FCD USE ONLY - SPECIFICATION FOR SERIALIZATION OF VARIOUS FLUID
CONTROL PRODUCTS

=====END OF PART=====

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

A

B

C

D

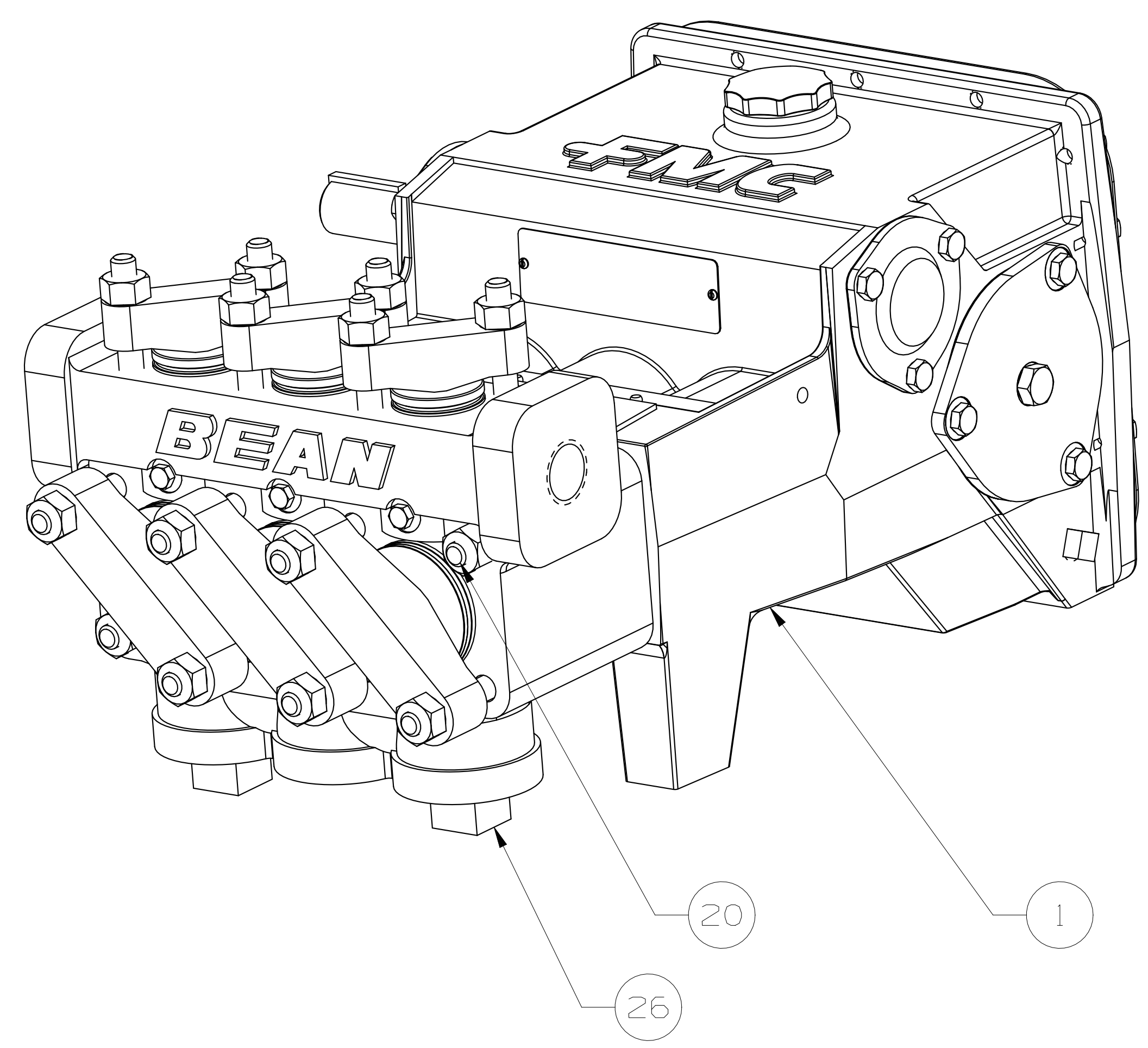
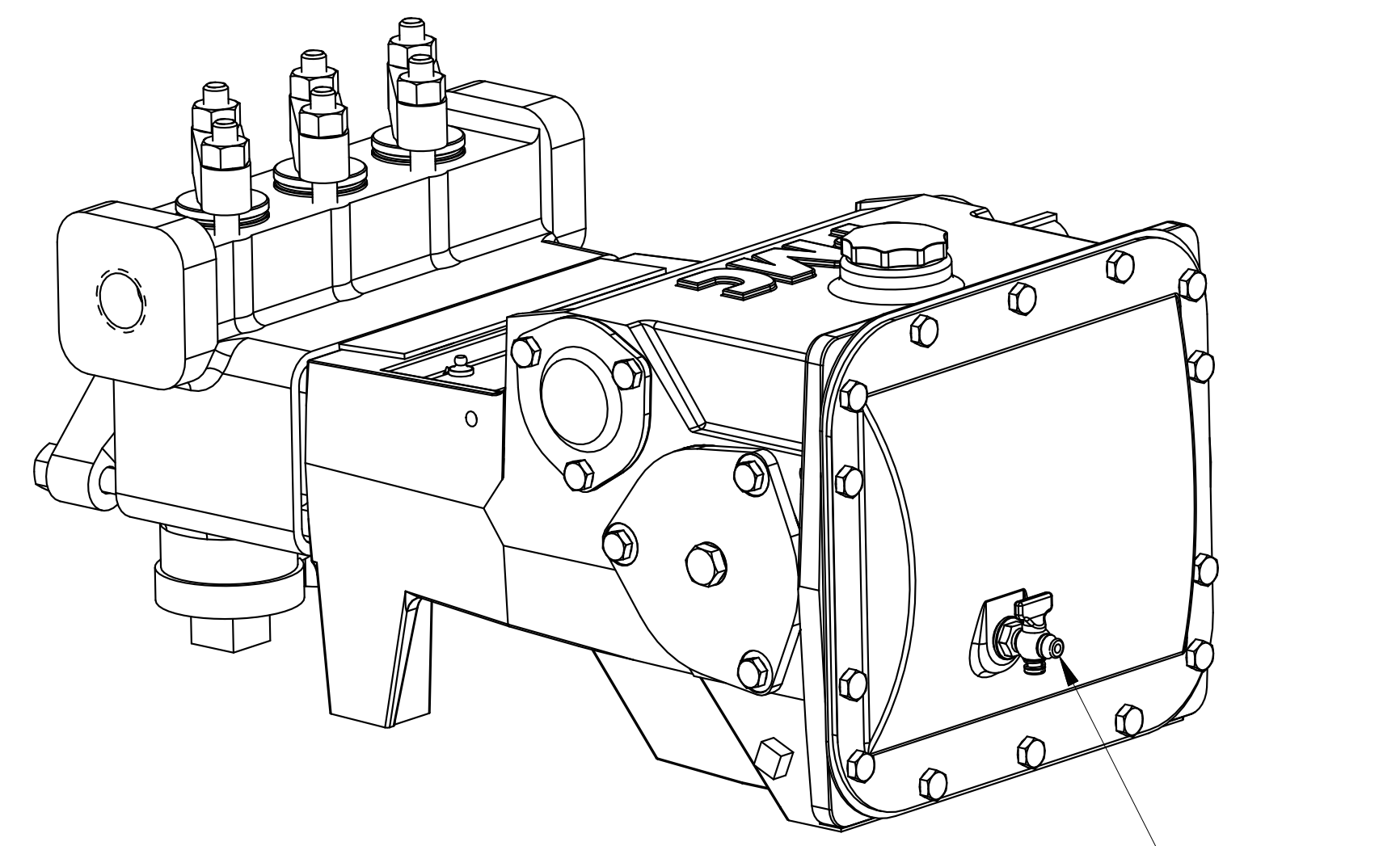
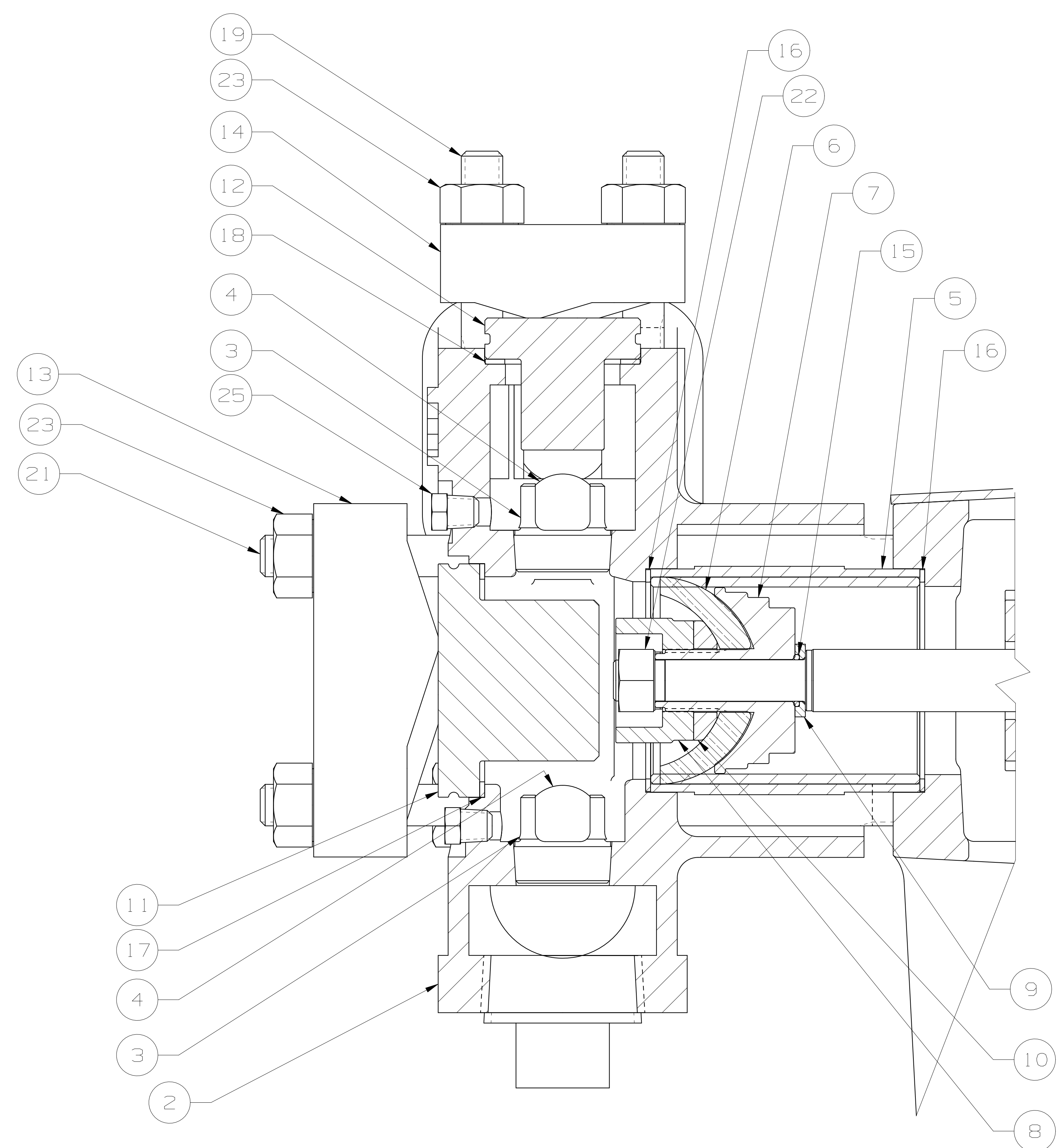
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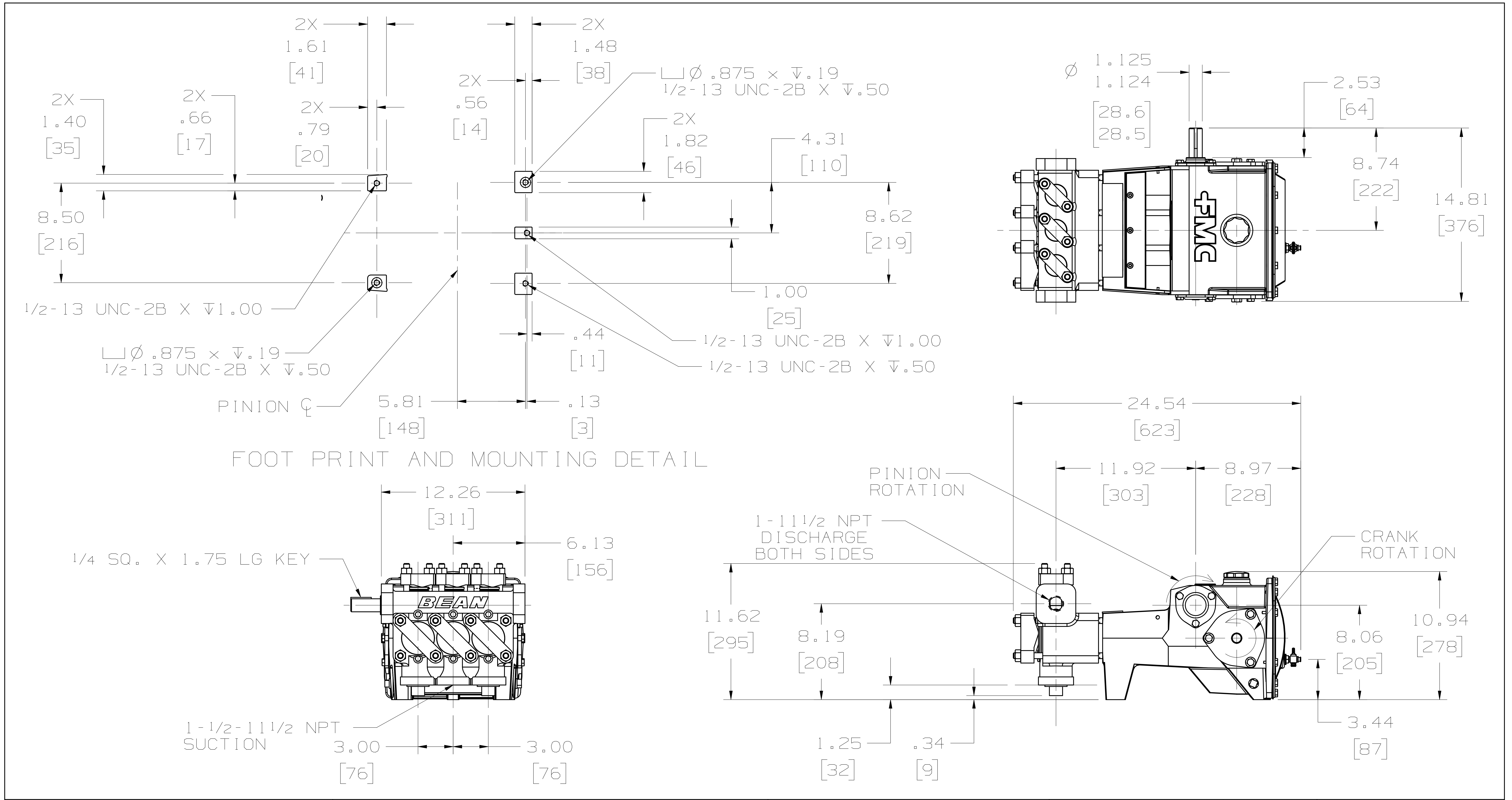
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H

ITEM	DESCRIPTION	QTY
1	POWER END ASSEMBLY: L09 LH	1
2	FLUID CYLINDER:	1
3	VALVE SEAT:	6
4	BALL:	6
5	CYLINDER:	3
6	PISTON CUP:	3
7	PISTON HOLDER:	3
8	PLUNGER NUT:	3
9	SEAL HOLDER:	3
10	PISTON WASHER:	3
11	CYLINDER COVER:	3
12	VALVE COVER:	3
13	CYLINDER COVER CLAMP:	3
14	VALVE COVER CLAMP:	3
15	O-RING: UNIFORM #014	3
16	GASKET: CYLINDER	6
17	GASKET: CYLINDER COVER	3
18	GASKET: VALVE COVER	3
19	STUD: 1/2 X 3.125 LG	6
20	STUD: 1/2 X 6.62 LG	2
21	STUD: 1/2 X 8.62 LG	6
22	NUT: SPECIAL LOCKING, 1/2	3
23	HEAVY HEX NUT: 1/2	14
24	PETCOCK:	1
25	PLUG: 1/8 NPT	6
26	PIPE PLUG: SQ HD 1-1/2 NPT	2
27	CAPLUG: INT 14 (NOT SHOWN)	1
28	CAPLUG: MODEL 20S (NOT SHOWN)	1



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				DRAFTING CHECKS: KUNISHIGE, SCOTT	DATE: 16-FEB-2011		DESIGN REVIEW: HEROLD, JOHN R.
				MANUFACTURING APPROVAL:	DATE:	LATEST EGN NO. 5021671	REV. A
				APPROVED BY: LYON, TIM	DATE: 15-APR-2011	DRAWING NUMBER DUS00014243	SHEET 1/2



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ENGINEERING DIMENSIONAL OUTLINE

DESCRIPTION
 PUMP ASSEMBLY; L0918 B LH, W/1-1/2 NPT X 1 NPT FLUID END, PISTON, BALL VALVE ASSEMBLIES

DRAWN BY: WOLVERTON, JARROD	DATE: 24-DEC-2008
DRAFTING CHECK: KUNISHIGE, SCOTT	DATE: 16-FEB-2011
DESIGN REVIEW: HEROLD, JOHN R.	DATE: 08-MAR-2011
MANUFACTURING APPROVAL:	DATE:
APPROVED BY: LYON, TIM	DATE: 15-APR-2011

FMC Technologies

LATEST ECN NO. 5021671	REV. A
DRAWING NUMBER DU500014243	SHEET 2/2

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PART DESCRIPTION

PART NUMBER: 5271247 POWER END ASSEMBLY; L09 LH DRAWING NO: DU500009548
 REVISION: K DRAWING REV: A
 ECN: 5019086 DWG OWN: STE COE
 TYPE: N STATUS: RELEASED OWNERSHIP: STE COE UOM: EA WEIGHT: 147 (67)
 LBS (KGS)

PART DATA

PROD SPEC : NA QUALITY LVL: NA
 MATL CLASS: TEMP RANGE:
 PR# : GR# : SRV CLASS:

REVIEWED BY: Evans, Aaron REVIEW DATE : 21-JAN-2008
 APPROVED BY: Singleterry, Ronald APPROVAL DATE: 23-JAN-2008

BILL OF MATERIAL

ITEM	PART NUMBER	DESCRIPTION	DWG NUMBER	UM	QTY	MATERIAL
1	5260537	POWER FRAME; L09, PINION GRAY IRON	DU500000250	EA	1	
2	1279071	CRANKSHAFT AND GEAR ASSEMBLY; L09,	DU500008690	EA	1	
3	18710	ECCENTRIC, DUCTILE IRON CONNECTING ROD	6700DU5001741	EA	3	
4	P506697	ASSEMBLY; M08/L09, SPLASH LUBE, W/BRONZE BUSHING, DUCTILE IRON	DU500007081	EA	6	
5	A5006	ROD BEARING; HALF SHELL, L09, HD, TRI- METAL, W/ MODIFIED SLOT	6700DU5001752	EA	3	M25014
6	1250876	WRIST PIN; M08/L09, 8620 ALLOY STEEL	DU500001047	EA	3	
7	1283601	CROSSHEAD ASSEMBLY; L09, CAST IRON	6700DU5001756	EA	3	
8	1283603	SLEEVE; L09, ACETAL- RESIN	DU500018934	EA	6	
9	1279064	OIL SEAL; F/AXIAL MOTION .750 ROD DIA X 1.250 BORE DIA X .250 SEAL LENGTH, NITRILE	DU500001006	EA	2	
10	A5025	BEARING HOUSING; L09, CAST IRON	DU500001039	EA	2	
11	1252594	GASKET; BEARING HOUSING L09, .016 THICK, ASTM F104 F332145M7Z, LEXIDE#NV-518 CELLULOSE, NITRILE, BUTADIENE, LATEX	DU500001041	EA	5	
		SHIM; BEARING HOUSING, L09, ARTUS PLASTIC .005 THICK BLUE				

(continued...)

BILL OF MATERIAL (Continued)

ITEM	PART NUMBER	DESCRIPTION	DWG NUMBER	UM	QTY	MATERIAL
12	1279063	BACK COVER; L09, CARBON STEEL	6700DU5001747	EA	1	
13	1279065	GASKET: F/L09 HD, POWER FRAME COVER	6700DU5001755	EA	1	
14	A5005	PINION BEARING CAP; L09, DRIVE SIDE, CAST IRON	DU500001014	EA	1	
15	1225769	PINION CAP; L09, 7 GA. STEEL	DU500006518	EA	1	
16	1177287	BEARING CUP; 3.1250 OD X .9375 LG ***NO GRAPHICS***	DU500008729	EA	2	
17	1101242	BEARING CONE; 1.5625 ID X .9375 LG ***NO GRAPHICS***	DU500008730	EA	2	
18	1265098	PINION SHAFT; L09, 1.125 SHAFT DIA., 14.31 LG AISI 8620H	DU500007763	EA	1	
19	A5026	GASKET; PINION HOUSING/CAP L09, .02 THICK, VELLUMOID #4	DU500001040	EA	2	
20	1283600	SEAL HOLDER NUT; PONY ROD SEAL, L09, ZINC ALLOY #3	6700DU5001759	EA	3	
21	1283602	PACKING WASHER, L09 1.72 OD X 1.00 ID X .12 THK, ACETAL RESIN	6700DU5001760	EA	3	
22	1106910	CAP SCREW; HEX HEAD, 3/8-16 UNC-2A X .500 LONG, PER ASME B18.3, SAE J429 GRADE 2 CARBON STEEL, PLAIN	NO-DWG	EA	14	
23	1100068	CAP SCREW, HEX HEAD, 3/8-16UNC-2A X .75 LONG, PER ASME B18.2.1, SAE J429 GRADE 5, ZINC COATED	NO-DWG	EA	12	
24	1106980	CAP SCREW, HEX HEAD, 1/2-13UNC-2A X .75 LONG, PER ASME B18.2.1, SAE J429 GRADE 5, ZINC COATED	NO-DWG	EA	2	
25	1103470	SET SCREW; 5/16-18 X 1/2 SOCKET HEAD ***NO GRAPHICS***	6000DU5001774	EA	6	
26	1187577	KEY; 1/4 SQUARE X 1.75 LG, CARBON STEEL	DU500000353	EA	1	
27	1214260	CRADLE COVER; L09, W/SPRINGS, CARBON STEEL	DU500001067	EA	1	
28	1100759	LUBE FITTING; 1/8 NPT ***NO GRAPHICS***	6700DU5009213	EA	3	
29	A5054	BREATHER ASSEMBLY; 1-	6700DU5001751	EA	1	

(continued...)

BILL OF MATERIAL (Continued)

ITEM	PART NUMBER	DESCRIPTION	DWG NUMBER	UM	QTY	MATERIAL
30	1104444	1/4 NPT, ANTI SPLASH GUARD, ALUMINUM	DU500000341	EA	2	
31	3269460	BALL BEARING; SINGLE ROW, 1.1811 ID X 2.4409 OD X .630 LG	6000DU5002699	EA	1	
32	1187048	PIPE PLUG; SQ HEAD, 1/8 NPT, HIGH DENSITY POLYETHYLENE	6000DU5002283	EA	2	
33	3269461	PIPE PLUG; SQ HEAD, 1/2 NPT, MAGNETIC, CARBON STEEL	6000DU5002172	EA	1	
34	1187413	PIPE PLUG SQUARE HEAD; 1 1/4 NPT, HIGH DENSITY POLYETHYLENE	NO-DWG	EA	2	
35	5277981	TAPPING SCREW; PHILLIPS PAN HEAD, TYPE B, #4-24 X .250 LONG, 18-8 STAINLESS STEEL	6700DU5001750	EA	1	

QUALITY MATRIX: 6QM5000

SECTION: 314.0 REV: A OWNER: STE COE STATUS: RELEASED
 ASSEMBLY

Q00024 VISUAL INSPECTION, HANDLING, STORAGE AND SHIPPING
 REQUIREMENTS FOR FLUID CONTROL EQUIPMENT

ENGINEERING NOTES AND SPECIFICATIONS

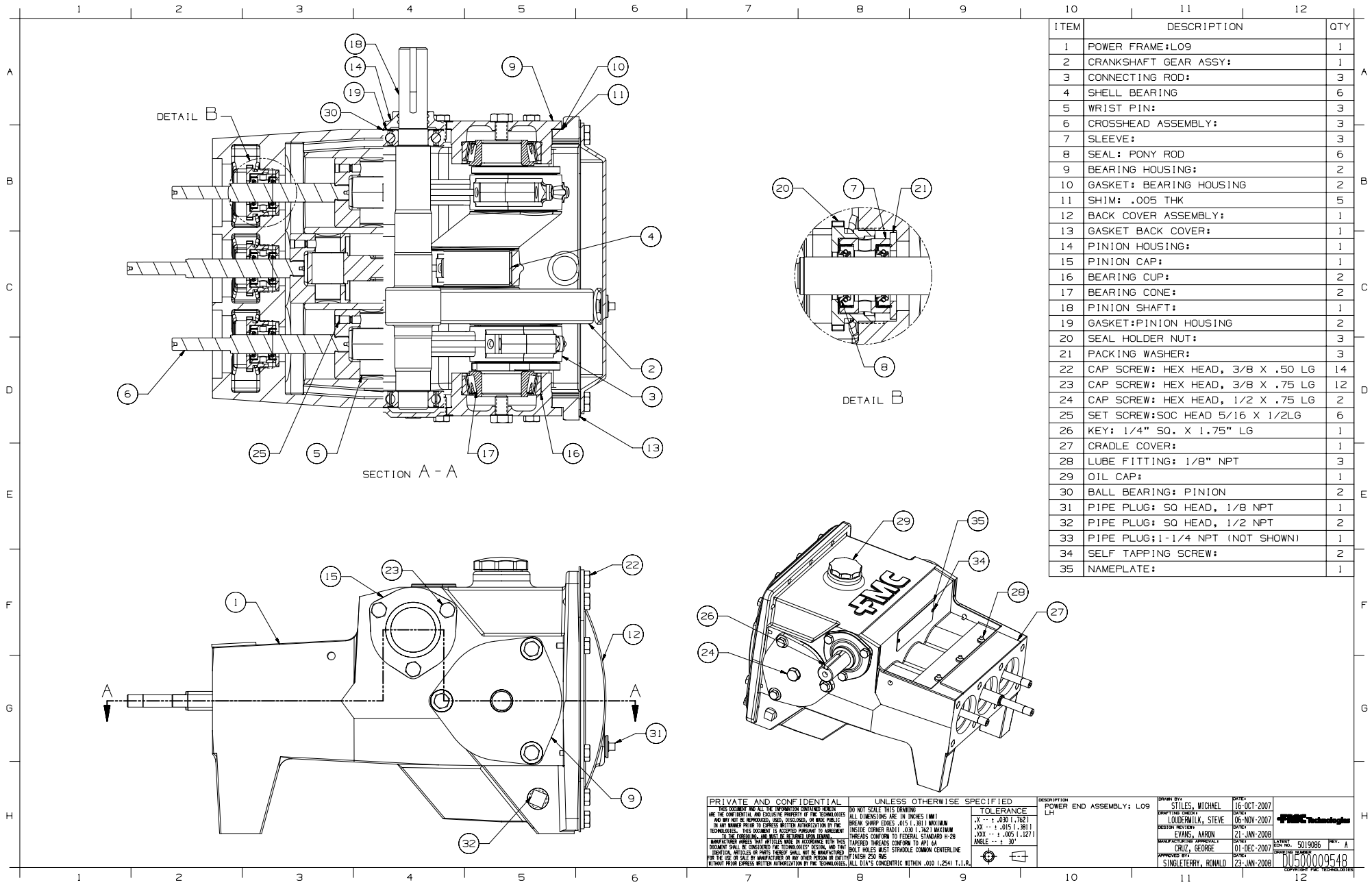
MISCELLANEOUS NOTES

NOTE1 ITEMS 31 AND 33 ARE TO BE INSTALLED AFTER TESTING AND BEFORE
 CLEANING AND PAINTING.

ENGINEERING SPECIFICATIONS:

Q50118 FCD USE ONLY - PUMP FASTENER TORQUE SPECIFICATION

=====END OF PART=====



ITEM	DESCRIPTION	QTY
1	POWER FRAME:LO9	1
2	CRANKSHAFT GEAR ASSY:	1
3	CONNECTING ROD:	3
4	SHELL BEARING	6
5	WRIST PIN:	3
6	CROSSHEAD ASSEMBLY:	3
7	SLEEVE:	3
8	SEAL: PONY ROD	6
9	BEARING HOUSING:	2
10	GASKET: BEARING HOUSING	2
11	SHIM: .005 THK	5
12	BACK COVER ASSEMBLY:	1
13	GASKET BACK COVER:	1
14	PINION HOUSING:	1
15	PINION CAP:	1
16	BEARING CUP:	2
17	BEARING CONE:	2
18	PINION SHAFT:	1
19	GASKET:PINION HOUSING	2
20	SEAL HOLDER NUT:	3
21	PACKING WASHER:	3
22	CAP SCREW: HEX HEAD, 3/8 X .50 LG	14
23	CAP SCREW: HEX HEAD, 3/8 X .75 LG	12
24	CAP SCREW: HEX HEAD, 1/2 X .75 LG	2
25	SET SCREW:SOC HEAD 5/16 X 1/2LG	6
26	KEY: 1/4" SQ. X 1.75" LG	1
27	CRADLE COVER:	1
28	LUBE FITTING: 1/8" NPT	3
29	OIL CAP:	1
30	BALL BEARING: PINION	2
31	PIPE PLUG: SQ HEAD, 1/8 NPT	1
32	PIPE PLUG: SQ HEAD, 1/2 NPT	2
33	PIPE PLUG:1-1/4 NPT (NOT SHOWN)	1
34	SELF TAPPING SCREW:	2
35	NAMEPLATE:	1

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	BREAM SHARP EDGES .015 (-.381) MAXIMUM INSIDE CORNER RADIUS .000 (-.762) MAXIMUM THREADS CONFORM TO FEDERAL STANDARD H-28 TAPPED THREADS CONFORM TO API 6A BOLT HOLES MUST STRADDLE COMMON CENTERLINE FINISH 250 RMS			MANUFACTURED BY CRUZ, GEORGE DATE 01-DEC-2007	TESTED BY SINGLETERRY, RONALD DATE 23-JAN-2008