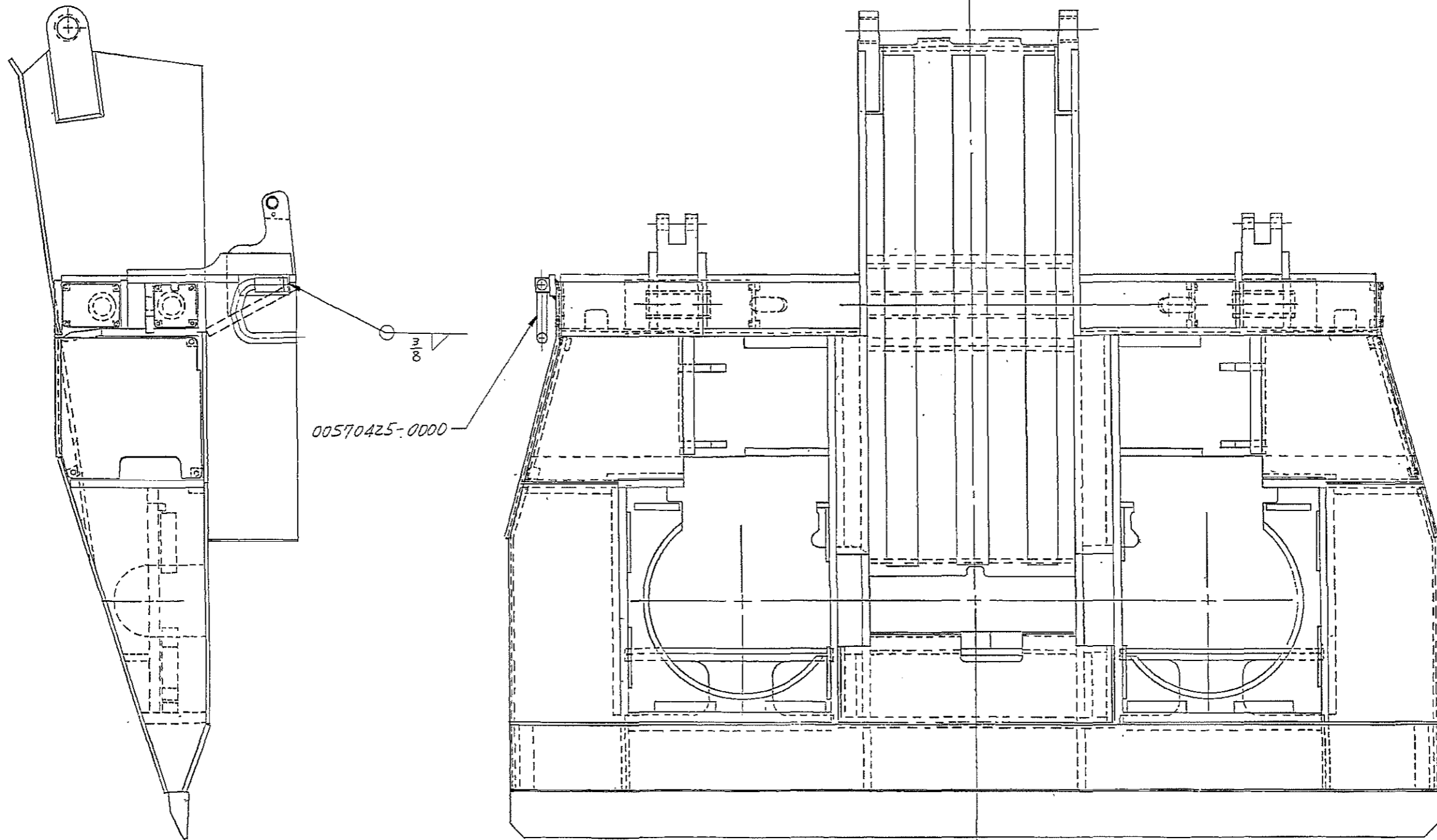


B/M Number	Description	Reference	Date	Sheet
00507313-2132	FRAME, GATHERING HEAD	SK024776-0093 FDE7599	06/08/1995	01

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Qty	UOM	Part Number	Description	Ref No
1	EA	00570425-0000	HANGER, CABLE	10
2	EA	01565996-1996	DETAIL	20
1	EA	01565996-2841	DETAIL	30
1	EA	01565996-2842	DETAIL	40
1	EA	01565996-2843	DETAIL	50
1	EA	01565996-2844	DETAIL	60
2	EA	01565996-2845	DETAIL	70
2	EA	01565996-2846	DETAIL	80
2	EA	01565996-2847	DETAIL	90
2	EA	01565996-2848	DETAIL	100
1	EA	01565996-2849	DETAIL	110
1	EA	01565996-2850	DETAIL	120
1	EA	01565996-2851	DETAIL	130
1	EA	01565996-2852	DETAIL	140
1	EA	03507313-0019	FRAME, HEAD, GATHERING	150

\*\*\*\*\* End of Bill of Material \*\*\*\*\*



DO NOT LITHOPRINT

ALL WELDS MUST BE 70,000 MINIMUM TENSILE.

ENG. ORDER <u>FDC4403</u> DATE ISSUED <u>11-7-90</u>		REVISIONS _____ _____ _____	FINISH SYMBOLS <table border="1"> <thead> <tr> <th>SYMBOL</th> <th>MICRO INCHES</th> <th>DESCRIPTION</th> <th>SYMBOL</th> <th>MICRO INCHES</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>4</td> <td>PRECISION POLISH</td> <td>G</td> <td>250</td> <td>ROUGH MACH.</td> </tr> <tr> <td>B</td> <td>8</td> <td>FINE POLISH</td> <td>H</td> <td>500</td> <td>HEAVY ROUGH</td> </tr> <tr> <td>C</td> <td>16</td> <td>COMMON POLISH</td> <td>K</td> <td>1000</td> <td>EX. HEAVY ROUGH</td> </tr> <tr> <td>D</td> <td>32</td> <td>GRIND OR EQUAL</td> <td></td> <td></td> <td></td> </tr> <tr> <td>E</td> <td>63</td> <td>SMOOTH MACH.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>F</td> <td>125</td> <td>COMMON MACH.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		SYMBOL	MICRO INCHES	DESCRIPTION	SYMBOL	MICRO INCHES	DESCRIPTION	A	4	PRECISION POLISH	G	250	ROUGH MACH.	B	8	FINE POLISH	H	500	HEAVY ROUGH	C	16	COMMON POLISH	K	1000	EX. HEAVY ROUGH	D	32	GRIND OR EQUAL				E	63	SMOOTH MACH.				F	125	COMMON MACH.				JOY MANUFACTURING CO. PLANT LOCATION AS INDICATED BELOW <table border="1"> <tr> <td>BIRMINGHAM, AL.</td> <td>LA GRANGE, NC.</td> </tr> <tr> <td>BUFFALO, NY.</td> <td>MICHIGAN CITY, IN.</td> </tr> <tr> <td>CAMBRIDGE, ONT., CAN.</td> <td>NEW PHILADELPHIA, OH.</td> </tr> <tr> <td>CLAREMONT, NH.</td> <td></td> </tr> <tr> <td>EAST KILBRIDE, SCOT.</td> <td></td> </tr> <tr> <td>FRANKLIN, PA.</td> <td></td> </tr> </table>		BIRMINGHAM, AL.	LA GRANGE, NC.	BUFFALO, NY.	MICHIGAN CITY, IN.	CAMBRIDGE, ONT., CAN.	NEW PHILADELPHIA, OH.	CLAREMONT, NH.		EAST KILBRIDE, SCOT.		FRANKLIN, PA.	
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UNLESS OTHERWISE NOTED: ALL DIMENSIONS IN INCHES. MACHINING DIMENSIONS LIMITED TO FRACTIONAL ± 1/64. DECIMAL ± .005 ANGULAR ± 1/2°. STRUCTURAL DIMENSIONS LIMITED TO ± 1/16. DO NOT SCALE THIS DRAWING.			MATERIAL _____ HEAT TREAT _____ CARBURIZE _____ HARDEN _____ QUENCH _____ HARDEN _____ QUENCH _____ DRAW _____ HARDNESS _____		PATTERN NO. _____																																																							

THIS DRAWING AND ALL INFORMATION THEREIN IS THE PROPERTY OF THE JOY MANUFACTURING CO., IS CONFIDENTIAL AND MUST NOT BE MADE PUBLIC OR COPIED. IT IS LOANED SUBJECT TO RETURN UPON DEMAND. IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST.

FRAME, GATHERING HEAD

SIMILAR TO \_\_\_\_\_  
 SUPERSEDED BY \_\_\_\_\_  
 REPLACES \_\_\_\_\_  
 REPLACED BY \_\_\_\_\_

(NAME OR INITIAL & DATE)  
 DR. DAN WRHEN  
 TR. 11-7-90  
 CK \_\_\_\_\_  
 APPR. \_\_\_\_\_

SCALE 1/2" = 1'-0" CLASS 12-CM

SK024776-0093

B/M Number	Description	Reference	Date	Sheet
00483014-0049	SPRAYS, WATER, GATHERING HEAD	SK025394-0053 FDE7614	06/26/1995	01

-----

Qty	UOM	Part Number	Description	Ref No
2	EA	01046348-0279	BLOCK, SPRAY	10
1	EA	01563770-4815	DETAIL	20
1	EA	01563770-4816	DETAIL	30

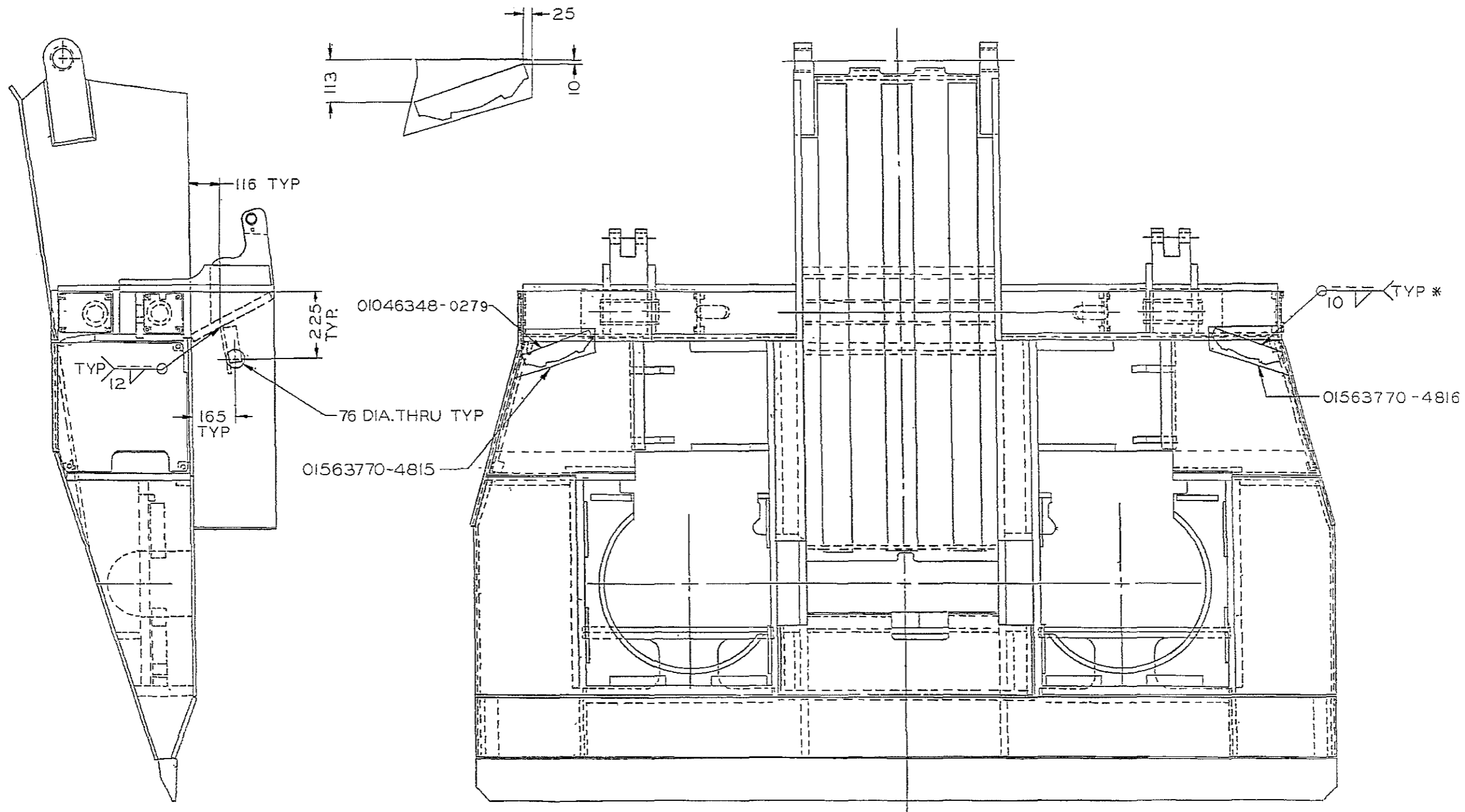
\*\*\*\*\* End of Bill of Material \*\*\*\*\*

NO. SK025394-0053

DO NOT SCALE

WELDING STANDARD IS ISO METHOD A

PROJECTION THIRD ANGLE



\* WELD ALL AROUND WHERE POSSIBLE

BM 00483014-0049

ALL WELDS MUST BE 70,000 MINIMUM TENSILE.

ENG ORDER FDE 7614

REVISIONS

DATE ISSUED

TOLERANCE TO BE AS SPECIFIED BELOW UNLESS OTHERWISE STATED

ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED

MACHINING	FABRICATION PLATE & STRUCTURAL WORK	CASTINGS
± 0.5mm	UP TO 300mm ± 0.5mm	301 TO 1000mm ± 0.5mm
		1001 TO 2000mm ± 0.5mm
		WALL THICKNESS ± 12-1/2%

ALL DIMENSIONS IN INCHES UNLESS OTHERWISE STATED

MACHINING	FABRICATION PLATE & STRUCTURAL WORK	CASTINGS
FRACTIONAL DIMENSIONS UP TO 12" ± 1/64 OVER 12" ± 1/32	UP TO 12" ± 1/32	12" TO 36" ± 1/16
		OVER 36" ± 1/8
		WALL THICKNESS ± 12-1/2%

FINISH SYMBOLS

SYMBOL	MICRO INCHES	DESCRIPTION	SYMBOL	MICRO INCHES	DESCRIPTION
A	4	PRECISION POLISH	F	125	COMMON MACHINE
B	8	FINE POLISH	G	250	ROUGH MACHINE
C	16	COMMON POLISH	H	500	HEAVY ROUGH
D	32	GRIND OR EQUAL	K	1000	EX HEAVY ROUGH
E	63	SMOOTH MACHINE			

DR MJG

DATE 6-95

CHK'D

DATE

APP

DATE

SIMILAR TO -0044

REPLACES

REPLACED BY



PLANT LOCATION FRANKLIN

TITLE: SPRAYS, WATER, GATHERING HEAD

SCALE: 1/4" = 1" (CLASS: MINERS)

DWG. NO. SK025394-0053

B/M Number	Description	Reference	Date	Sheet
00703465-0191	ASSEMBLY, GATHERING HEAD	JCM00852-0193		01
		JCM00852-0193		02
		FDF5318	01/07/1997	

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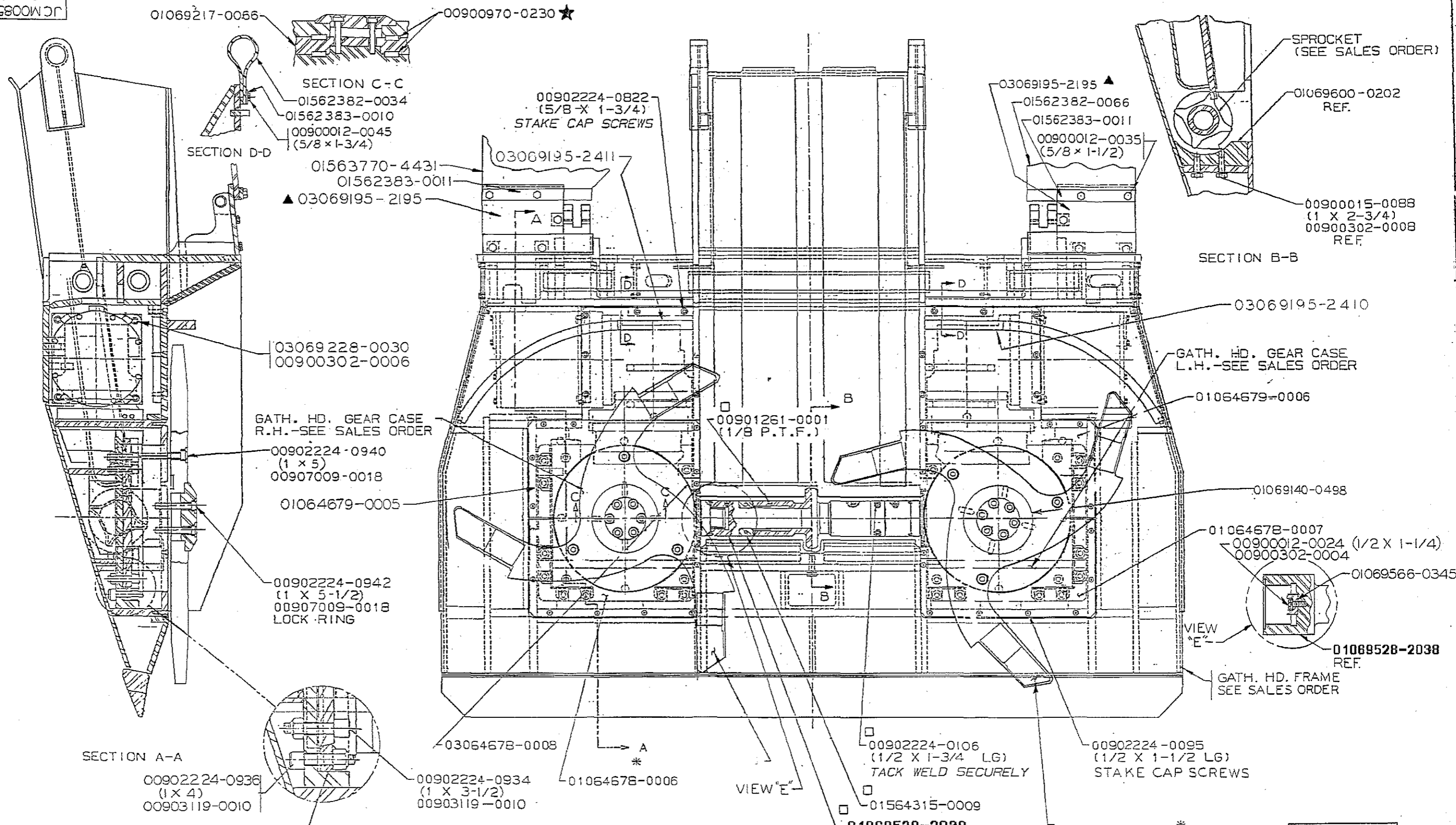
Qty	UOM	Part Number	Description	Ref No
2	EA	00900012-0024	SCREW, CAP, GR. 5, 1/2-13 X 1-1/4	10
4	EA	00900012-0035	SCREW, CAP, GR. 5, 5/8-11 X 1-1/2	20
8	EA	00900012-0045	SCREW, CAP, GR. 5, 5/8-11 X 1-3/4	30
2	EA	00900302-0004	WASHER, LOCK, 1/2	40
8	EA	00900302-0006	WASHER, LOCK, 3/4	50
8	EA	00900970-0230	KEY, 3/4 X 3/4 X 2-3/8	60
4	EA	00901261-0001	GREASE FITTING	70
30	EA	00902224-0095	SCREW, CAP, 1/2-13 X 1-1/2	80
4	EA	00902224-0106	SCREW, CAP, 1/2-13 X 1-3/4	90
14	EA	00902224-0822	SCREW, CAP, 5/8-11 X 1-3/4	100
8	EA	00902224-0934	SCREW, CAP, 1-8 X 3-1/2	110
16	EA	00902224-0936	SCREW, CAP, 1-8 X 4	120
6	EA	00902224-0940	SCREW, CAP, 1-8 X 5	130
12	EA	00902224-0942	SCREW, CAP, 1-8 X 5-1/2	140
24	EA	00903119-0010	NUT, LOCK, GR. C, 1-8	150
2	EA	00906512-0168	RING, RETAINING	160
18	EA	00907009-0018	WIRE, LOCKING, 1-1/2	170
2	EA	00910660-0220	O-RING	180
2	EA	00910660-0273	O-RING	190
1	EA	01064678-0006	COVER	200
1	EA	01064678-0007	COVER	210
1	EA	01064679-0005	COVER	220
1	EA	01064679-0006	COVER	230
8	EA	01065943-0004	WEDGE	240
2	EA	01069140-0498	CAP, BOLTED	250
2	EA	01069217-0066	DISC, HEAD, GATHERING	260
2	EA	01069452-0031	PLUG, SPECIAL	270
2	EA	01069528-0490	SHAFT, SPLINED	280
2	EA	01069528-2038	SHAFT, SPLINED	290
2	EA	01069566-0345	SPACER, SPECIAL	300
2	EA	01562382-0034	BELTING	310
1	EA	01562382-0066	BELTING	320
2	EA	01562383-0010	STRAP	330
2	EA	01562383-0011	STRAP	340
1	EA	01563770-4431	DETAIL	350
4	EA	01564315-0009	CLAMP	360
1	EA	01567326-2003	ARM (C.L.A.) (R.H.)	370
1	EA	01567326-2004	ARM (C.L.A.) (L.H.)	380
2	EA	03064678-0008	COVER, GATH. HD. POT	390
2	EA	03069195-2195	COVER	400
1	EA	03069195-2410	COVER	410
1	EA	03069195-2411	COVER	420

B/M Number	Description	Reference	Date	Sheet
00703465-0191	ASSEMBLY, GATHERING HEAD			

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Qty	UOM	Part Number	Description	Ref No
8	EA	03069228-0030	EXTENSION	430

\*\*\*\*\* End of Bill of Material \*\*\*\*\*



□ COMPLETE FOOT SHAFT PARTS MAY BE ORDERED AS PART NO. 00703500-7297

▲ LOCATE AND WELD BOSSES

\* C L A'S MUST BE TIMED AS SHOWN

☆ LOCATE ONLY 2 KEYS PER SURFACE, 180° APART.

BM 00703465-0191

ALL WELDS MUST BE 70,000 MINIMUM TENSILE.

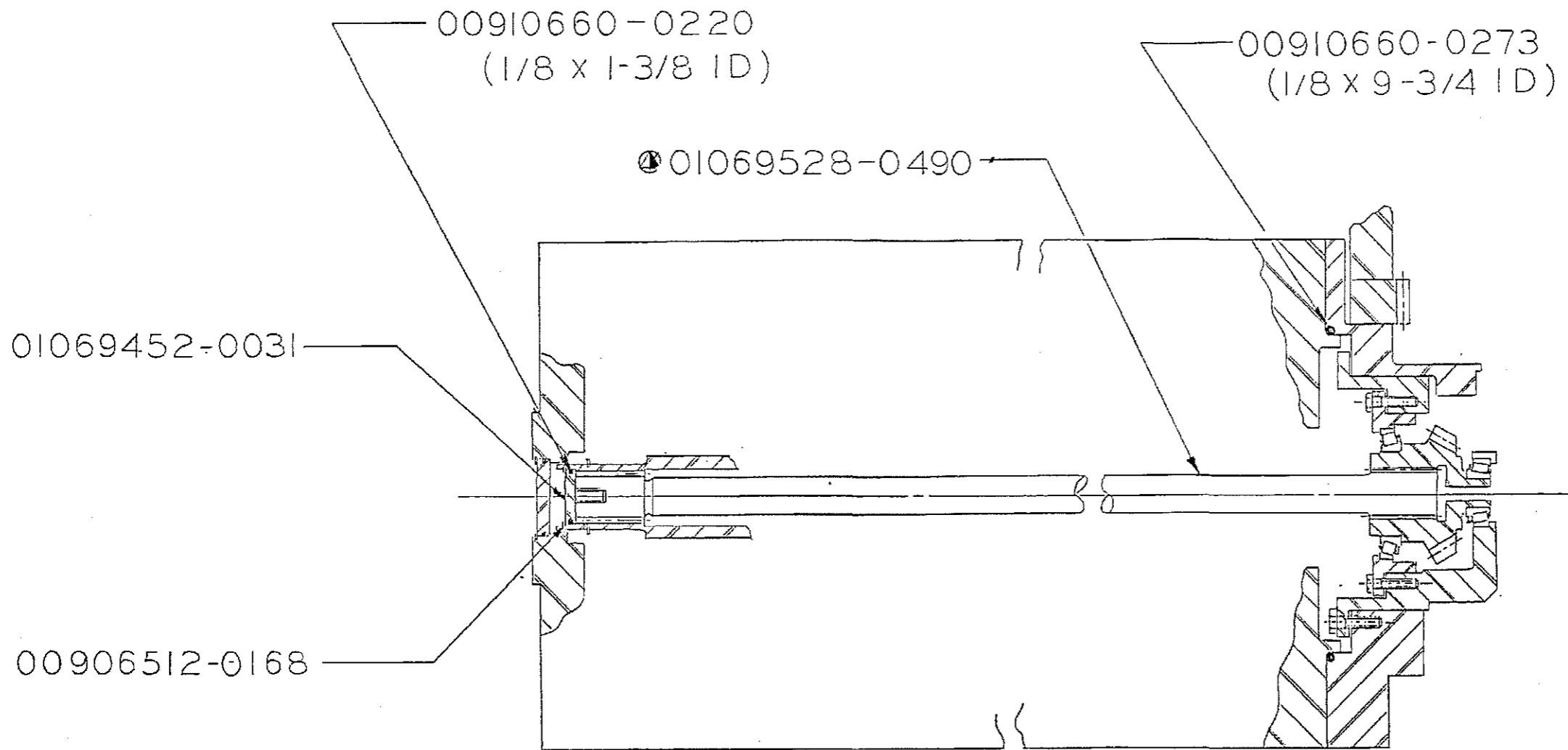
LITHOPRINT THIS DRAWING

ENC. ORDER FDE7599 DATE ISSUED  
 REVISIONS  
 ① FDF5318

This drawing and all information therein is the property of the JOY MANUFACTURING CO. It is confidential and must not be made public or copied. It is loaned subject to return when demanded. It is not to be used directly or indirectly in any way detrimental to our interests.

JOY MANUFACTURING CO.	
PLANT LOCATION AS INDICATED BELOW	
BIRMINGHAM, AL.	LA GRANGE, NC.
BUFFALO, NY.	MICHIGAN CITY, IN.
CAMBRIDGE, ONT. CANADA	NEW PHILADELPHIA, OH.
CLARDON, NH.	
EAST KILBRIDE, SCOT.	
FRANKLIN, PA.	

ASSEMBLY, GATHERING HEAD	
SIMILAR TO -0105	DATE OR INITIAL & DATE
SUPERSEDED BY	BY M36
REPLACES	BY 6-95
REPLACED BY	BY
SCALE	CLASS 120512
JCM00852-0193	SH 1 OF 2



MOTOR SECTION

Ⓐ ALTERNATE SHAFT  
01069528-0513 TO BE USED  
IN SEVERE CONDITIONS ONLY.

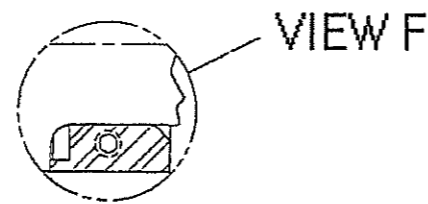
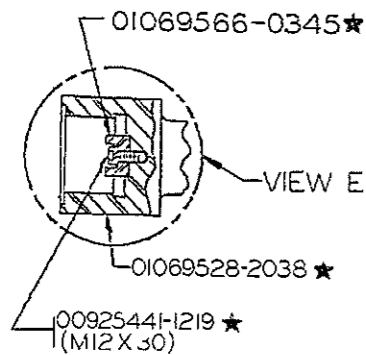
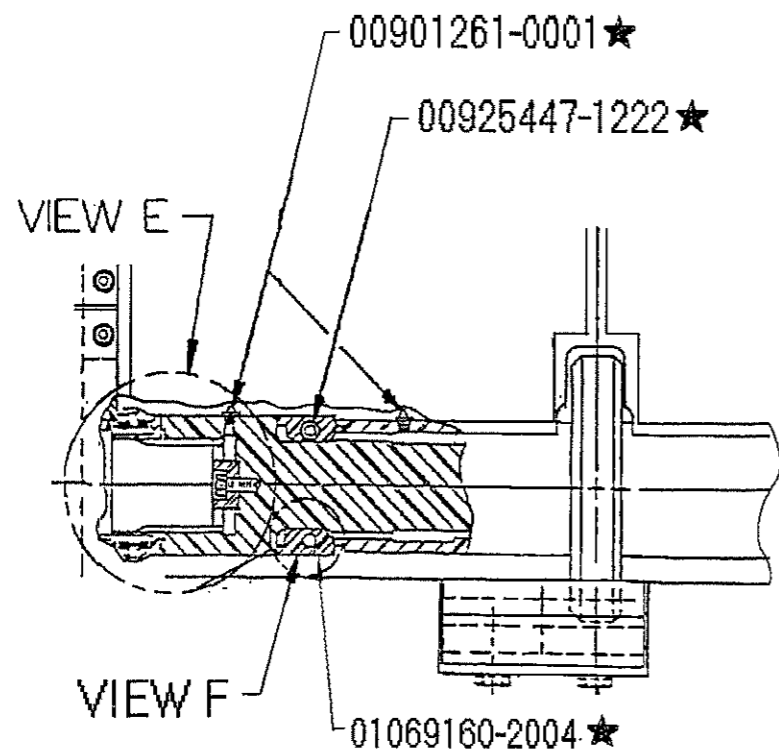
NOTE:  
BOTTOM DRAIN HOLE COVERS  
MUST BE REMOVED PRIOR TO  
MOTOR INSTALLATION.

BM 00703465-0191

ENG ORDER - <b>FDE 7599</b>	REVISIONS	FINISH SYMBOLS				JOY TECHNOLOGIES INC. FRANKLIN, PENNSYLVANIA 15322	ASSEMBLY, GATHERING HEAD																																			
	MATERIAL HEAT TREAT HARDNESS CARBURIZE (ECO)	PATTERN NO LITHOPRINT YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	<table border="1"> <tr> <th>SYM</th> <th>MICRO INCHES</th> <th>DESCRIPTION</th> <th>SYM</th> <th>MICRO INCHES</th> <th>DESCRIPTION</th> </tr> <tr> <td>A</td> <td>4</td> <td>PRECISION POLISH</td> <td>F</td> <td>125</td> <td>COMMON MACHINE</td> </tr> <tr> <td>B</td> <td>8</td> <td>FINE POLISH</td> <td>G</td> <td>250</td> <td>ROUGH MACHINE</td> </tr> <tr> <td>C</td> <td>16</td> <td>COMMON POLISH</td> <td>H</td> <td>500</td> <td>HEAVY ROUGH</td> </tr> <tr> <td>D</td> <td>32</td> <td>GRIND OR EQUAL</td> <td>K</td> <td>1000</td> <td>EX HEAVY ROUGH</td> </tr> <tr> <td>E</td> <td>63</td> <td>SMOOTH MACHINE</td> <td></td> <td></td> <td></td> </tr> </table>	SYM	MICRO INCHES				DESCRIPTION	SYM	MICRO INCHES	DESCRIPTION	A	4	PRECISION POLISH	F	125	COMMON MACHINE	B	8	FINE POLISH	G	250	ROUGH MACHINE	C	16	COMMON POLISH	H	500	HEAVY ROUGH	D	32	GRIND OR EQUAL	K	1000	EX HEAVY ROUGH	E	63	SMOOTH MACHINE			
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<small>UNLESS OTHERWISE NOTED ALL DIMEN-          SIONS IN INCHES MACHINING DIMEN-          SIONS LIMITED TO FRACTIONAL ± 1/64          ANGULAR ± 1/2°. STRUCTURAL DIMEN-          SIONS LIMITED TO ± 1/16          DO NOT SCALE THIS DRAWING</small>																																										

143127  
 50744  
 NEW BRUNSWICK COMPANY



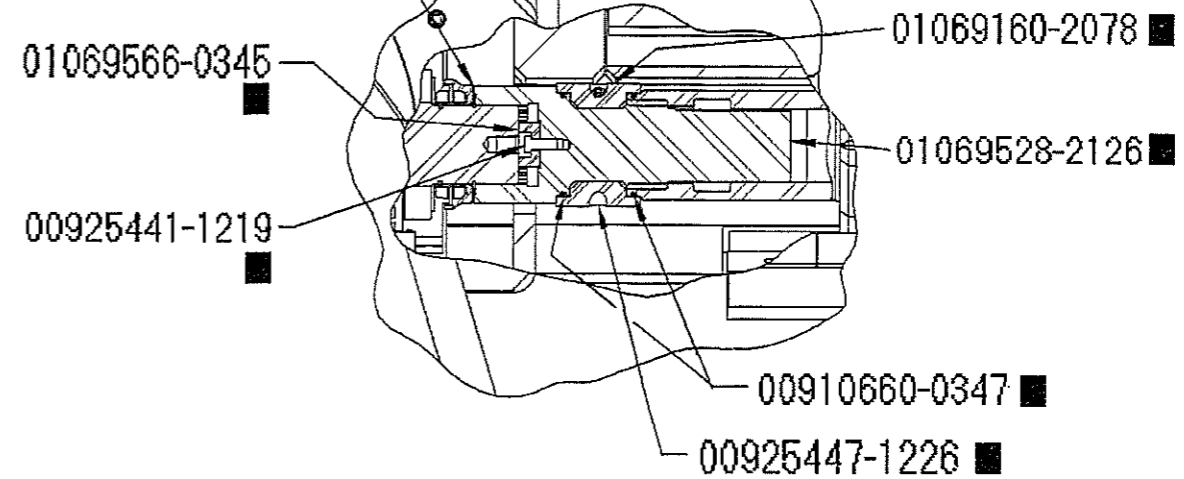


PRIOR TO NOVEMBER, 2000, THE FOOTSHAFT INCLUDED PARTS SHOWN HERE.

★ COMPLETE FOOT SHAFT PARTS MAY BE ORDERED AS BOM 00720261-0001.

APPLY SILICONE SEALANT IN GAP TO SEAL WATER TIGHT

VIEW E



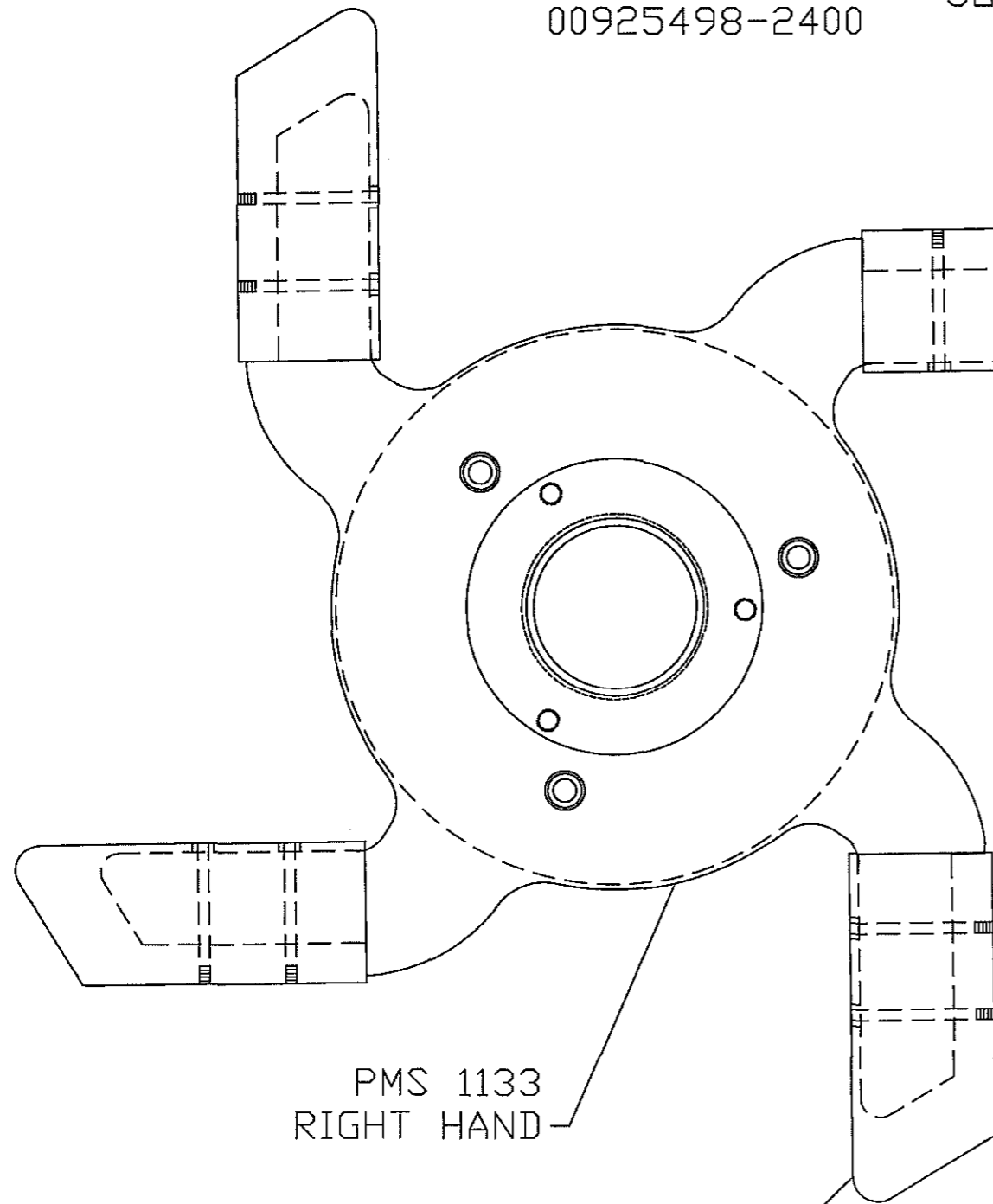
AFTER NOVEMBER, 2000, THE FOOTSHAFT IS O-RING SEALED USING PARTS SHOWN HERE.

■ COMPLETE FOOT SHAFT PARTS MAY BE ORDERED AS BOM 100062083

ENG ORDER 1018903 UNLESS OTHERWISE NOTED ALL DIMENSIONS IN INCHES MACHINING DIMENSIONS LIMITED TO FRACTIONAL ± 1/64 ANGULAR ± 1/2° STRUCTURAL DIMENSIONS LIMITED TO ± 1/16 DO NOT SCALE THIS DRAWING		REVISIONS @1020193		FINISH SYMBOLS A 4   PRECISION POLISH B 8   FINE POLISH C 16   CCVIION POU... D 22   GRIND OR EQUAL E 63   SMOOTH...		JOY TECHNOLOGIES INC FRANKLIN PENNSYLVANIA 16323		<b>KIT, GATHERING HEAD</b>	
MATERIAL HEAT TREAT HARDNESS CARBURIZE (ECC)		PATTERN NO		LITHOPRINT YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		THIS DRAWING AND ALL INFORMATION THEREIN IS THE PROPERTY OF AND CONFIDENTIAL TO JOY TECHNOLOGIES INC. IT MUST NOT BE MADE PUBLIC OR COPIED. IT IS LOANED SUBJECT TO RETURN UPON DEMAND. IT IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO OUR INTEREST.		SIMILAR TO REPLACES REPLACED BY	
						OR D. KURTZHALS DATE 9/13/2000 CL-SS J.G.M. SCALE		100040525 SHT 2 OF 2	

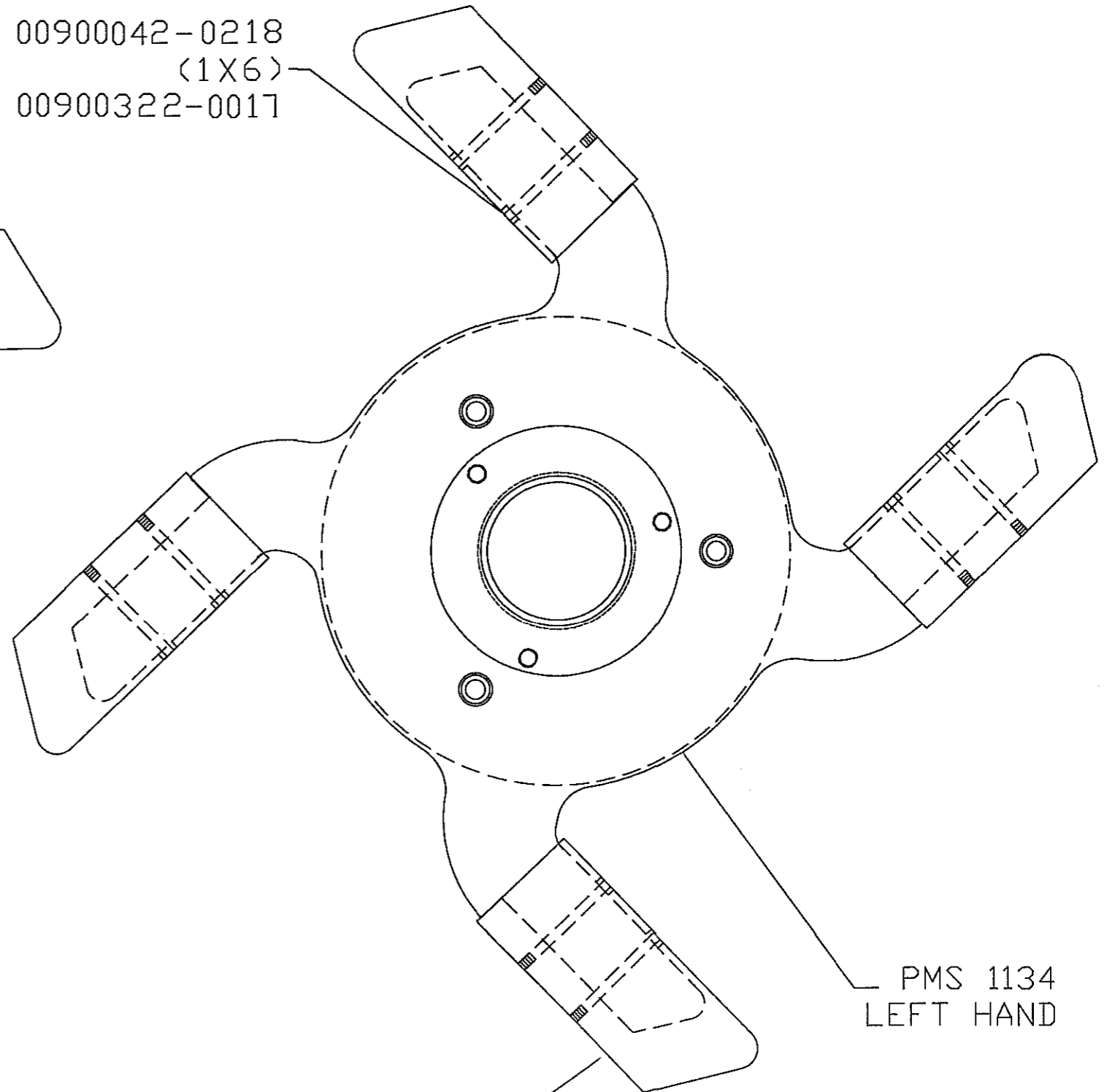
00925441-2438  
(M24 X 150)  
00925498-2400

JOY P/N: 00900042-0218  
(1X6)  
00900322-0017




PMS 1133  
RIGHT HAND

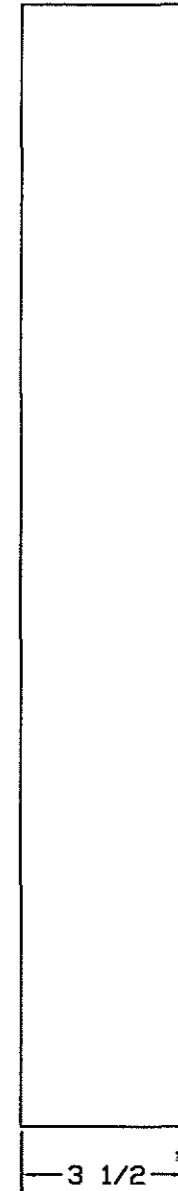
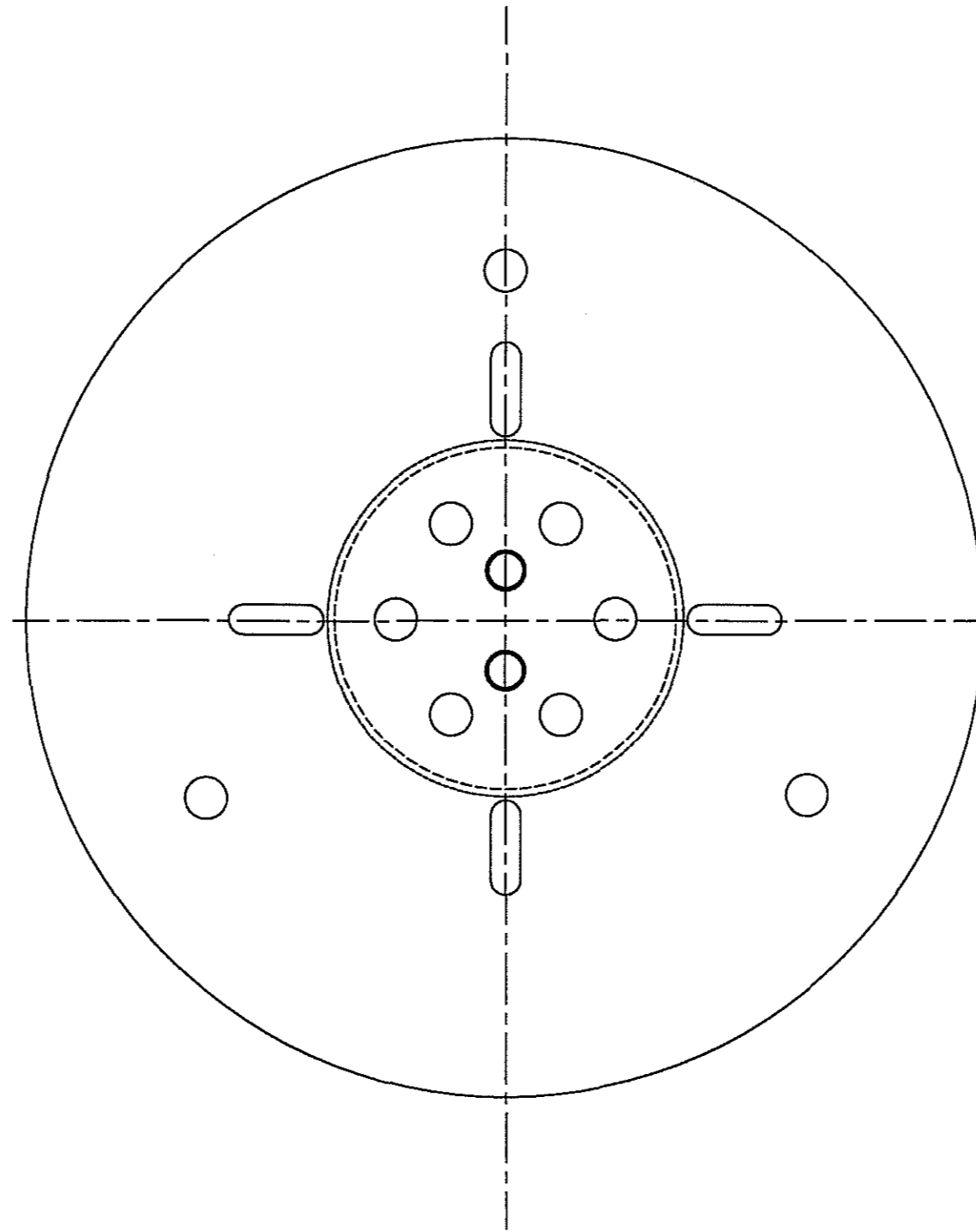
JOY P/N: 01069540-2035 R.H.




PMS 1134  
LEFT HAND

JOY P/N: 01069540-2036 L.H.

 367 GEORGE STREET BECKLEY, WV 25801 PHONE 304-255-0537	JOY STYLE 4 ARM CLA 60" DIAMETER 4" THICK		
	MATERIAL: NA	PART NO:	
	DATE: 4/13/03	FILE: 4 ARM CLA	
	DWG. BY: JRB	DIRECTORY: 41000	
	REVISION: 0	SCALE: NTS	SIZE: B 1



P/N: PMS-1135

	PMS Inc. Beckley, West Virginia	Part; SPACER DISC 12cm12 WITH CCO	Date; 12/09/04	Drawn By; <i>VCB</i>	Mat'l; A-36	SPACER DISC 12cm12 041000
		Assembly; G/P	Scale; NTS	App'd By;	Rev; 0	

B/M Number	Description	Reference	Date	Sheet
03069850-0140	SPROCKET, FOOTSHAFT, GATHERING	FDC6226	05/07/1991	

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Qty	UOM	Part Number	Description	Ref No
1	EA	01069629-0087	TUBE, SPECIAL	10
1	EA	01069850-0112	SPROCKET	20

\*\*\*\*\* End of Bill of Material \*\*\*\*\*

E/M Number	Description	Reference	Date	Sheet
00572019-0045	CASE, GEAR, GATH. HEAD, L.H.	00572019-0045		01
		00572019-0045		02
		SK021855-0000		01
		1011134	02/01/2000	

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Qty	UOM	Part Number	Description	Ref No
2	M	00809023-0000	WIRE, STEEL, .0625 DIA, SOFT STEEL	10
6	EA	00900907-0106	BEARING, ROLLER	80
1	EA	100008401	Seal, Metallic Face, VITON	400
1	EA	00913128-0012	SEAL, DUO-CONE, FLOATING	410
1	EA	00950028-0004	BEARING, CONE, TAPERED	420
2	EA	00950030-0002	BEARING, CONE, TAPERED	430
1	EA	00950042-0001	BEARING, CONE, TAPERED	440
1	EA	00950063-0001	BEARING, CONE, TAPERED	450
1	EA	00950064-0003	BEARING, CONE, TAPERED	460
1	EA	00950116-0001	BEARING, CONE, TAPERED	470
1	EA	00950119-0002	BEARING, CONE, TAPERED	480
1	EA	00950138-0003	BEARING, CONE, TAPERED	490
1	EA	00950169-0001	BEARING, CONE, TAPERED	500
1	EA	00950261-0001	BEARING, CONE, TAPERED	510
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1	EA	00960028-0001	BEARING, CUP, TAPERED	530
2	EA	00960030-0001	BEARING, CUP, TAPERED	540
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1	EA	00960262-0001	BEARING, CUP, TAPERED	630
1	EA	01069140-0485	CAP, BOLTED	640
1	EA	01069140-2014	CAP, BOLTED	650
1	EA	01069145-0565	CARRIER, BEARING	660
1	EA	01069145-0582	CARRIER, BEARING	670
1	EA	01069145-0584	CARRIER, SEAL	680
1	EA	01069145-0588	CARRIER, BEARING	690
1	EA	01069145-2012	CARRIER	700
1	EA	01069145-2020	CARRIER, SEAL	710
1	EA	01069145-2023	CARRIER, BEARING	720
1	EA	01069145-2024	CARRIER, BEARING	730
1	EA	01069145-2025	CARRIER, BEARING,	740
1	EA	01069217-0068	DISC, HEAD, GATHERING	750
1	EA	01069273-2005	GEAR, INTERNAL	760
1	EA	01069333-0002	HOUSING	770
1	EA	01069333-0003	HOUSING	780

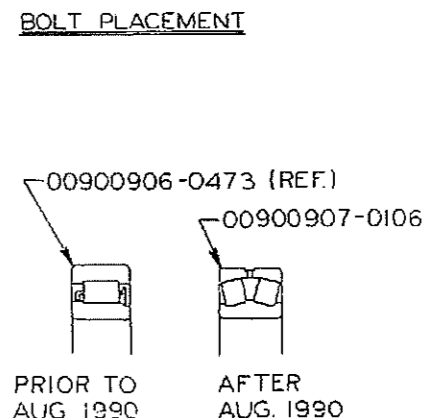
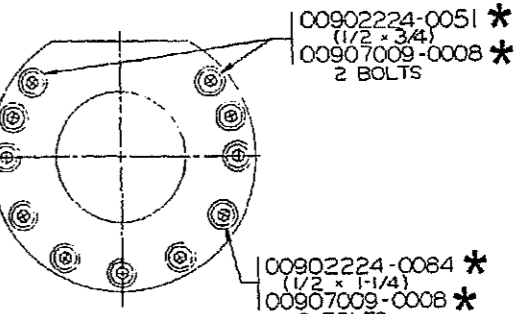
B/M Number	Description	Reference	Date	Sheet
00572019-0045	CASE, GEAR, GATH. HEAD, L.H.			

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Qty	UOM	Part Number	Description	Ref No
1	EA	01069333-0004	HOUSING	790
3	EA	01069527-0253	SHAFT, SHOULDERED	820
1	EA	01069700-0083	GEAR, SPUR, 3DP	1090
3	EA	01069702-0131	GEAR, SPUR, 5DP	1100
1	EA	01069763-0027	GEAR, BEVEL, STRAIGHT, 4DP	1110
1	EA	01069787-0028	GEAR, BEVEL, STRAIGHT, REV FDF0494	1120
1	EA	01069787-0042	GEAR, BEVEL, STRAIGHT, SPECIAL	1130
1	EA	01565905-0012	CAGE, PLANETARY	1140
1	EA	03069763-0029	GEAR, BEVEL ASSEMBLY	1150
1	EA	03069805-0026	Gear, Cluster	1160
1	EA	100040355	Bag, Hardware	1180

\*\*\*\*\* End of Bill of Material \*\*\*\*\*

REV. NO.		00572019-0045		REV. 1	
ZONE	REV	DESCRIPTION	DATE	APPROVED	
A		FDA 0523	6-88		
B		FDA 0585	8-88		
C		FDA0898	9-88		
D		FDC0463	12-88		
E		FDC0908	3-89		
F		FDC3065	5-90		
G		FDC4897	12-90		
H		FDC 5481	2-91		
I		FDC8798	7-92		
J		FDE0491	2-93		
K		FDE2385	10-93		
L		FDE3488	1-94		
M		FDE6242	1-95		
14		1010853	1-24-00		



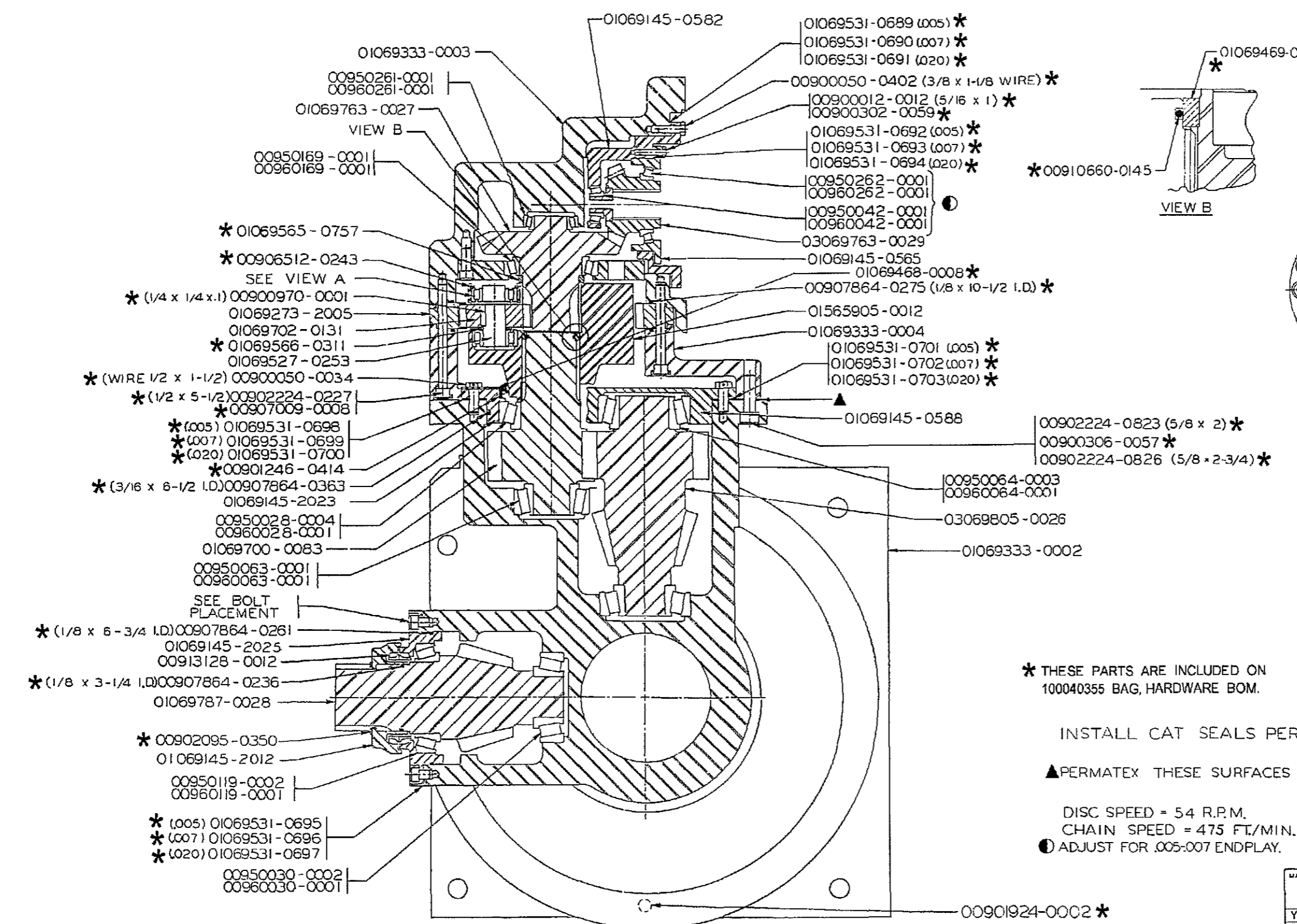
\* THESE PARTS ARE INCLUDED ON 100040355 BAG, HARDWARE BOM.

INSTALL CAT SEALS PER SK021855-0000

▲ PERMATEX THESE SURFACES

DISC SPEED = 54 R.P.M.  
CHAIN SPEED = 475 FT./MIN.

● ADJUST FOR .005-.007 ENDPLAY.



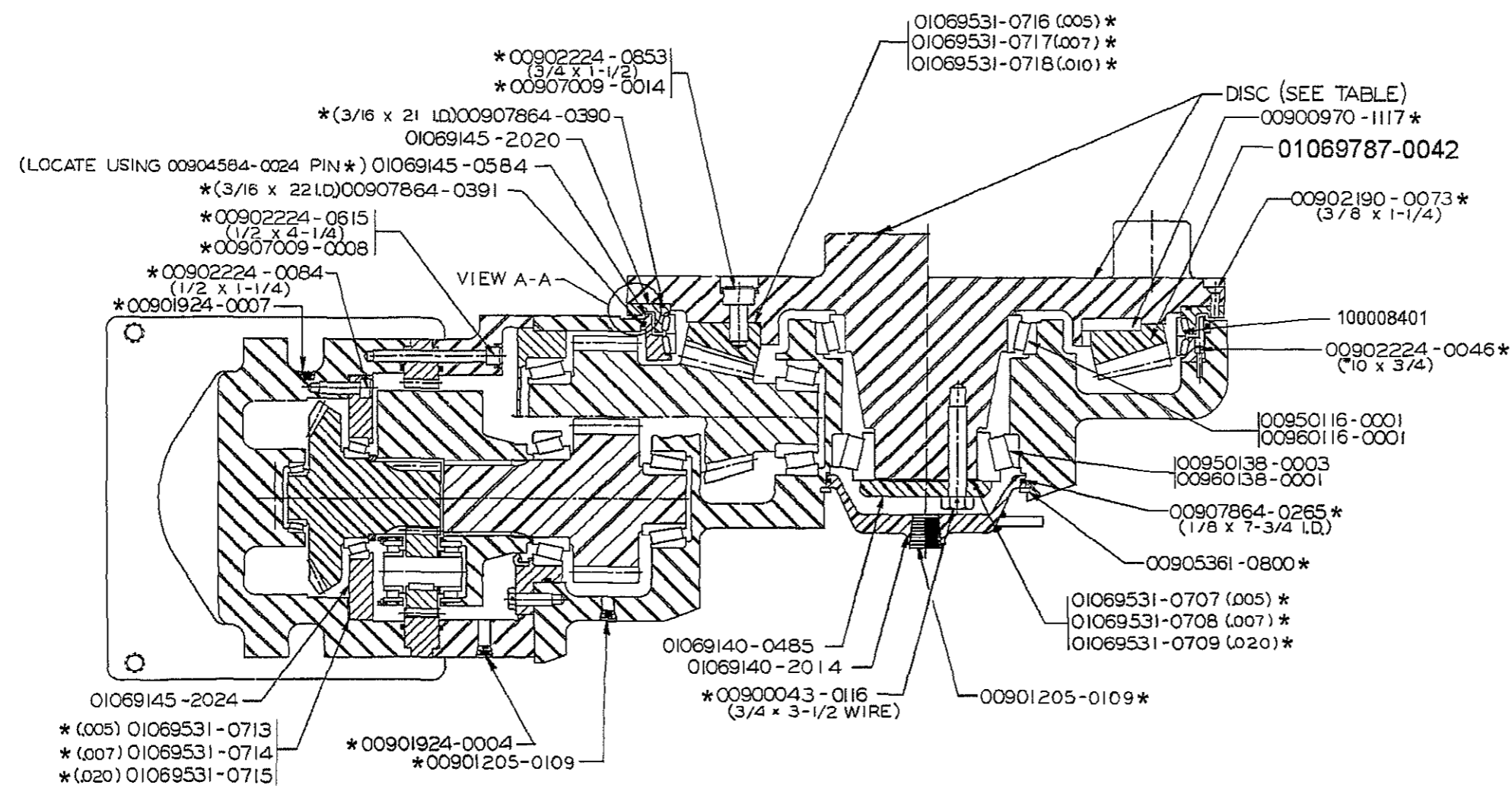
ASS'Y. NO.	TYPE	DISC P/N	THROW	REL. E.O.	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
00572019-0045	CLA	01069217-0068		FDA0523	① FDE3488	② FDE6242	⑬ 1010853				
00572019-0053	GATH. ARM	01069217-0067	10"	FDA0898	① FDE3488	② FDE6242	⑬ 1010853				

UNLESS OTHERWISE NOTED: ALL DIMENSIONS IN INCHES; MACHINING DIMENSIONS LIMITED TO FRACTIONAL 1/16", ANGULAR ±1/2°; STRUCTURAL DIMENSIONS LIMITED TO ±1/16". DO NOT SCALE THIS DRAWING.

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MATERIAL		PATTERN NO.	
HEAT TREAT		JOY TECHNOLOGIES INC.	
CARBURIZE (ECD)		FRANKLIN, PENNA. 16323	
HARDNESS		SIMILAR TO	
YES LITHOPRINT	CLASS MINERS	GATHERING HEAD GEAR CASE (L.H.)	
DRAFTER JOHNSON	DATE 6 88	SIZE FSCW NO. D 75003	
CHECKER:	DATE	Dwg. NO. 00572019-0045	
ENGINEER:	DATE	REV 14	
APPROVAL:	DATE	SCALE	
		SHEET 1 OF 2	

REV. NO. 00572019-0045		REV. 2		1	
REVISIONS					
ZONE	REV	DESCRIPTION	DATE	APPROVED	
A		FDA 0523	6-88		
B		FDA 0585	8-88		
C		FDA 0898	9-88		
D		FDC 0463	12-88		
E		FDC 1514	7-89		
F		FDC 4897	11-90		
G		FDE 0491	2-93		
H		FDE 7211	3-95		
I		FDE 7768	5-95		
J		FDE 9881	3-96		
K		PDF 6813	3-10-98		
L		1008240	9-30-99		
13		1010853	01-25-00		



ASS'Y NO.	TYPE	DISC P/N	THROW	REL. E.O.	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
00572019-0045	CLA	01069217-0068		FDA0523	FDA0585	FDA0898	FDC0463	FDC1514	FDC4897	FDC1514	FDC4897	FDE7768	FDE9881	PDF6813	1008240	1010853
00572019-0053	GATH. ARM	01069217-0067	10"	FDA0898	FDC0463	FDC1514	FDC4897	FDE0491	FDE7211	FDE0491	FDE7211	PDF6813	1008240	1010853		

\* THESE PARTS ARE INCLUDED ON 100040355 BAG, HARDWARE BOM.

YES LITHOPRINT		CLASS MINERS		SIMILAR TO	
DRAFTER	DATE	JOY TECHNOLOGIES INC.			
JOHNSON	6-88	FRANKLIN, PENNA. 16323			
CHECKER:	DATE	GATHERING HEAD GEAR CASE (L.H.)			
ENGINEER:	DATE				
APPROVAL:	DATE				
SIZE	FSCM NO.	DWG. NO.			
D	75003	00572019-0045			
SCALE	WGT.	SHEET			
		2			

UNLESS OTHERWISE NOTED: ALL DIMENSIONS IN INCHES; MACHINING DIMENSIONS LIMITED TO FRACTIONAL 1/8", ANGULAR 1/2"; STRUCTURAL DIMENSIONS LIMITED TO 1/16". DO NOT SCALE THIS DRAWING.

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SK21855

PROCEDURE:

1. CLEAN SEALS AND RING SEATS WITH CLEANING SOLVENT.
2. WIPE SEAL FACES CLEAN AND COAT WITH LIGHT OIL. THERE MUST BE NO OIL ON TORIC RING OR RING SEAT.
3. USE PROPER INSTALLER TOOL, WET RING IN SOLVENT, AND PRESS INTO SEAT MAKING SURE IT IS NOT TWISTED.
4. ALWAYS ASSEMBLE SEALS IN MATCHED PAIRS. NEVER ASSEMBLE ONE NEW SEAL AND ONE USED SEAL TOGETHER, OR TWO SEALS THAT HAVE NOT PREVIOUSLY RUN TOGETHER.

L

ENG. ORDER <u>EBD927</u>	REVISIONS	FBM697	<b>JOY MANUFACTURING CO.</b>	<b>INSTALLATION INSTRUCTIONS FOR CATERPILLAR SEALS</b>	
DATE ISSUED			PLANT LOCATION AS INDICATED BELOW		
③ 1009670			CLAREMONT, N. H.	NEW PHILADELPHIA, O.	DR. R. J. 12-30-68 <sup>TR.</sup>
			DALLAS, TEXAS	ST. LOUIS, MISSOURI	CK.      APPVD.
			FRANKLIN, PA.		SUPERSEDES _____
			GALT, ONTARIO, CAN.		SUPERSEDED BY _____
			GREENOCK, SCOTLAND		REPLACES _____
		MICHIGAN CITY, IND.		REPLACED BY _____	SCALE <u>CD</u> CLASS _____
					SK21855

B/M Number	Description	Reference	Date	Sheet
00572019-0044	CASE, GEAR, GATH. HEAD, R.H.	00572019-0044		01
		00572019-0044		02
		SK021855-0000		01
		1011134	02/01/2000	

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Qty	UOM	Part Number	Description	Ref No
2	M	00809023-0000	WIRE, STEEL, .0625 DIA, SOFT STEEL	10
6	EA	00900907-0106	BEARING, ROLLER	20
1	EA	100008401	Seal, Metallic Face, VITON	30
1	EA	00913128-0012	SEAL, DUO-CONE, FLOATING	40
1	EA	00950028-0004	BEARING, CONE, TAPERED	50
2	EA	00950030-0002	BEARING, CONE, TAPERED	60
1	EA	00950042-0001	BEARING, CONE, TAPERED	70
1	EA	00950063-0001	BEARING, CONE, TAPERED	80
1	EA	00950064-0003	BEARING, CONE, TAPERED	90
1	EA	00950116-0001	BEARING, CONE, TAPERED	100
1	EA	00950119-0002	BEARING, CONE, TAPERED	110
1	EA	00950138-0003	BEARING, CONE, TAPERED	120
1	EA	00950169-0001	BEARING, CONE, TAPERED	130
1	EA	00950261-0001	BEARING, CONE, TAPERED	140
1	EA	00950262-0001	BEARING, CONE, TAPERED	150
1	EA	00960028-0001	BEARING, CUP, TAPERED	160
2	EA	00960030-0001	BEARING, CUP, TAPERED	170
1	EA	00960042-0001	BEARING, CUP, TAPERED	180
1	EA	00960063-0001	BEARING, CUP, TAPERED	190
1	EA	00960064-0001	BEARING, CUP, TAPERED	200
1	EA	00960116-0001	BEARING, CUP, TAPERED	210
1	EA	00960119-0001	BEARING, CUP, TAPERED	220
1	EA	00960138-0001	BEARING, CUP, TAPERED	230
1	EA	00960169-0001	BEARING, CUP, TAPERED	240
1	EA	00960261-0001	BEARING, CUP, TAPERED	250
1	EA	00960262-0001	BEARING, CUP, TAPERED	260
1	EA	01069140-0485	CAP, BOLTED	270
1	EA	01069140-2014	CAP, BOLTED	280
1	EA	01069145-0565	CARRIER, BEARING	290
1	EA	01069145-0582	CARRIER, BEARING	300
1	EA	01069145-0584	CARRIER, SEAL	310
1	EA	01069145-2012	CARRIER	320
1	EA	01069145-2020	CARRIER, SEAL	330
1	EA	01069145-2022	CARRIER, BEARING	340
1	EA	01069145-2023	CARRIER, BEARING	350
1	EA	01069145-2024	CARRIER, BEARING	360
1	EA	01069145-2025	CARRIER, BEARING,	370
1	EA	01069217-0068	DISC, HEAD, GATHERING	380
1	EA	01069273-2005	GEAR, INTERNAL	390
1	EA	01069333-0001	HOUSING	400
1	EA	01069333-0003	HOUSING	410

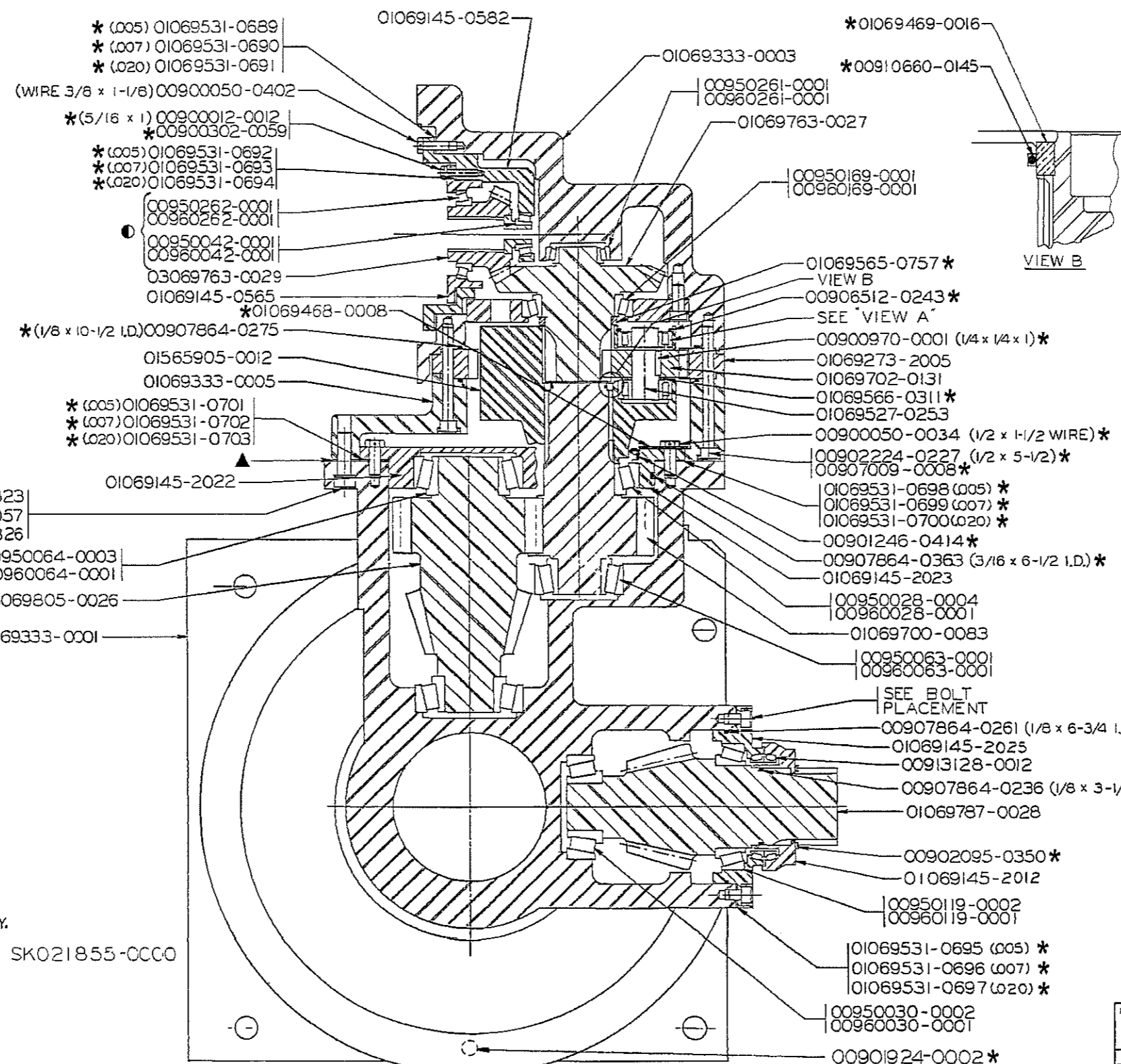
B/M Number	Description	Reference	Date	Sheet
00572019-0044	CASE, GEAR, GATH. HEAD, R.H.			

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Qty	UOM	Part Number	Description	Ref No
1	EA	01069333-0005	HOUSING	420
3	EA	01069527-0253	SHAFT, SHOULDERED	430
1	EA	01069700-0083	GEAR, SPUR, 3DP	440
3	EA	01069702-0131	GEAR, SPUR, 5DP	450
1	EA	01069763-0027	GEAR, BEVEL, STRAIGHT, 4DP	460
1	EA	01069787-0028	GEAR, BEVEL, STRAIGHT, REV FDF0494	470
1	EA	01069787-0042	GEAR, BEVEL, STRAIGHT, SPECIAL	480
1	EA	01565905-0012	CAGE, PLANETARY	490
1	EA	03069763-0029	GEAR, BEVEL ASSEMBLY	500
1	EA	03069805-0026	Gear, Cluster	510
1	EA	100040355	Bag, Hardware	520

\*\*\*\*\* End of Bill of Material \*\*\*\*\*

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A		FDA 0523	6-88	
B		FDA 0585	8-88	
C		FDA 0898	9-88	
D		FDC 0463	12-88	
E		FDC 0908	3-89	
F		FDC 3065	5-90	
G		FDC 4897	12-90	
H		FDC 5481	2-91	
I		FDC 8798	7-92	
J		FDE 0491	2-93	
K		FDE 2385	10-93	
L		FDE 3488	1-94	
M		FDE 6242	1-95	
N		DFD 0454	5-96	
15		1010853	1-00	



\* THESE PARTS ARE INCLUDED ON  
100040355 BAG, HARDWARE BOM.

● ADJUST FOR .005-.007 ENDPLAY.  
INSTALL CAT SEALS PER SK021855-0000

▲ PERMATX THESE SURFACES

DISC SPEED = 54 R.P.M.  
CHAIN SPEED = 475 FT./MIN.

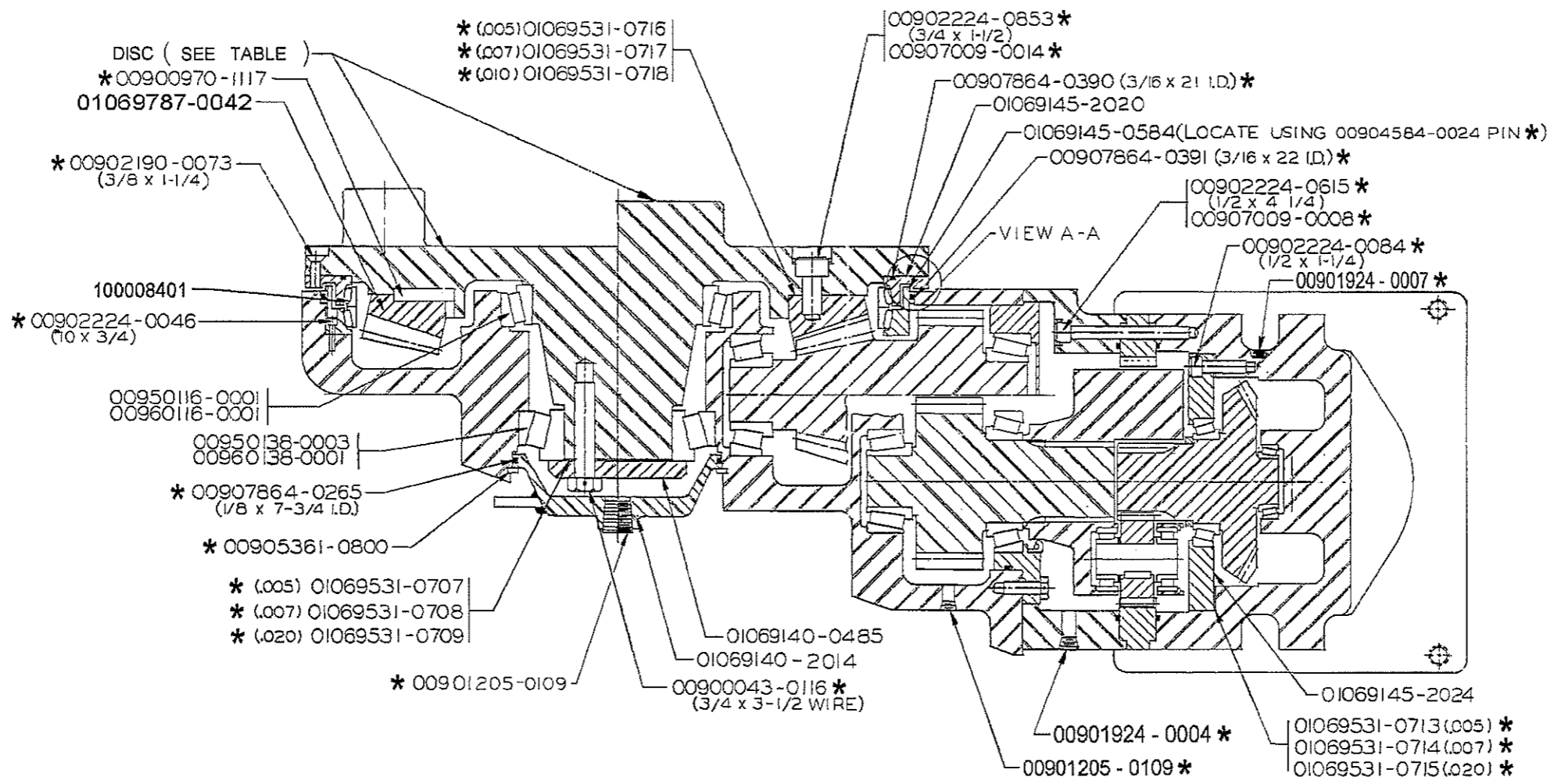
ASS'Y NO.	TYPE	DISC P/N	THROW	REL. E.O.	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
00572019-0044	CLA	01069217-0068		FDA0523	① FDE 3488	② FDE 6242	③ N) FDF0454	④ 15) 1010853			
00572019-0052	GATH. ARM	01069217-0067	10"	FDA0898	① FDE 3488	② FDE 6242	③ N) FDF0454	④ 15) 1010853			

MATERIAL		PATTERN NO.	
HEAT TREAT		CARBURIZE (ECO)	
HARDNESS		SIMILAR TO	
YES LITHOPRINT	CLASS MINERS	JOY TECHNOLOGIES INC. FRANKLIN, PENNA. 16323	
DRAFTER JOHNSON	DATE 6-88	GATHERING HEAD GEAR CASE (R.H.)	
CHECKER:	DATE		
ENGINEER:	DATE		
APPROVAL:	DATE	SIZE D1 75003	DWG. NO. 00572019-0044
SCALE		WGT.	REV 15
		SHEET 1 OF 2	

UNLESS OTHERWISE NOTED: ALL DIMENSIONS IN INCHES; MACHINING DIMENSIONS LIMITED TO FRACTIONAL 1/64, ANGULAR ±1/2°; STRUCTURAL DIMENSIONS LIMITED TO ±1/16. DO NOT SCALE THIS DRAWING.

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DWG NO		REV		1	
00572019-0044		2			
REVISIONS					
ZONE	REV	DESCRIPTION	DATE	APPROVED	
A		FDA 0523	6-88		
B		FDA 0585	8-88		
C		FDA 0898	9-88		
D		FDC 0463	12-88		
E		FDC1514	7-89		
F		FDC4897	11-90		
G		FDE0491	2-93		
H		FDE7211	3-95		
I		FDE9881	3-96		
J		PDF0454	5-96		
K		PDF8813	3-10-98		
L		1008240	9-30-99		
13		1010853	1-24-00		



ASS'Y. NO.	TYPE	DISC P/N	THROW	REL. E.O.	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	
00572019-0044	CLA	01069217-0068		FDA0523	FDA0585	FDA0898	FDC0463	FDC1514	FDC4897	FDE0491	FDE7211	FDE9881	PDF0454	PDF8813	1008240	1010853
00572019-0052	GATH. ARM	01069217-0067	10"	FDA0898	FDC0463	FDC1514	FDC4897	FDE0491	FDE7211	FDE9881	PDF0454	PDF8813	1008240	1010853		

\* THESE PARTS ARE INCLUDED ON  
100040355 BAG, HARDWARE BOM.

YES LITHOPRINT		CLASS MINERS		SIMILAR TO	
DRAFTER	DATE	JOY TECHNOLOGIES INC.		PATTERN NO.	
JOHNSON	6 88	FRANKLIN, PENNA. 16323		HEAT TREAT	
CHECKER:	DATE	GATHERING HEAD GEAR CASE (R.H.)		CARBURIZE (ECC)	
ENGINEER:	DATE			HARDNESS	
APPROVAL:	DATE				
SIZE		DWG. NO.		SHEET	
D 75003		00572019-0044		2	
SCALE		WGT.		SHEET	
				2	

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SK21855

PROCEDURE:

1. CLEAN SEALS AND RING SEATS WITH CLEANING SOLVENT.
2. WIPE SEAL FACES CLEAN AND COAT WITH LIGHT OIL. THERE MUST BE NO OIL ON TORIC RING OR RING SEAT.
3. USE PROPER INSTALLER TOOL, WET RING IN SOLVENT, AND PRESS INTO SEAT MAKING SURE IT IS NOT TWISTED.
4. ALWAYS ASSEMBLE SEALS IN MATCHED PAIRS. NEVER ASSEMBLE ONE NEW SEAL AND ONE USED SEAL TOGETHER, OR TWO SEALS THAT HAVE NOT PREVIOUSLY RUN TOGETHER.



ENG. ORDER <u>EBD927</u>	REVISIONS	FBM697	<b>JOY MANUFACTURING CO.</b>	<b>INSTALLATION INSTRUCTIONS FOR CATERPILLAR SEALS</b>	
DATE ISSUED _____			PLANT LOCATION AS INDICATED BELOW	DR. R. J. 12-30-68 TR.	CK. _____ APPVD. _____
③ 1009670			CLAREMONT, N. H.	NEW PHILADELPHIA, O.	SK21855
			DALLAS, TEXAS	ST. LOUIS, MISSOURI	
			FRANKLIN, PA.		
			GALT, ONTARIO, CAN.		
			GREENOCK, SCOTLAND		
			MICHIGAN CITY, IND.		
					SCALE <u>CD</u> CLASS _____
				SUPERSEDES _____	
				SUPERSEDED BY _____	
				REPLACES _____	
				REPLACED BY _____	

EIERD002

BILL OF MATERIAL

DATE 02/19/91

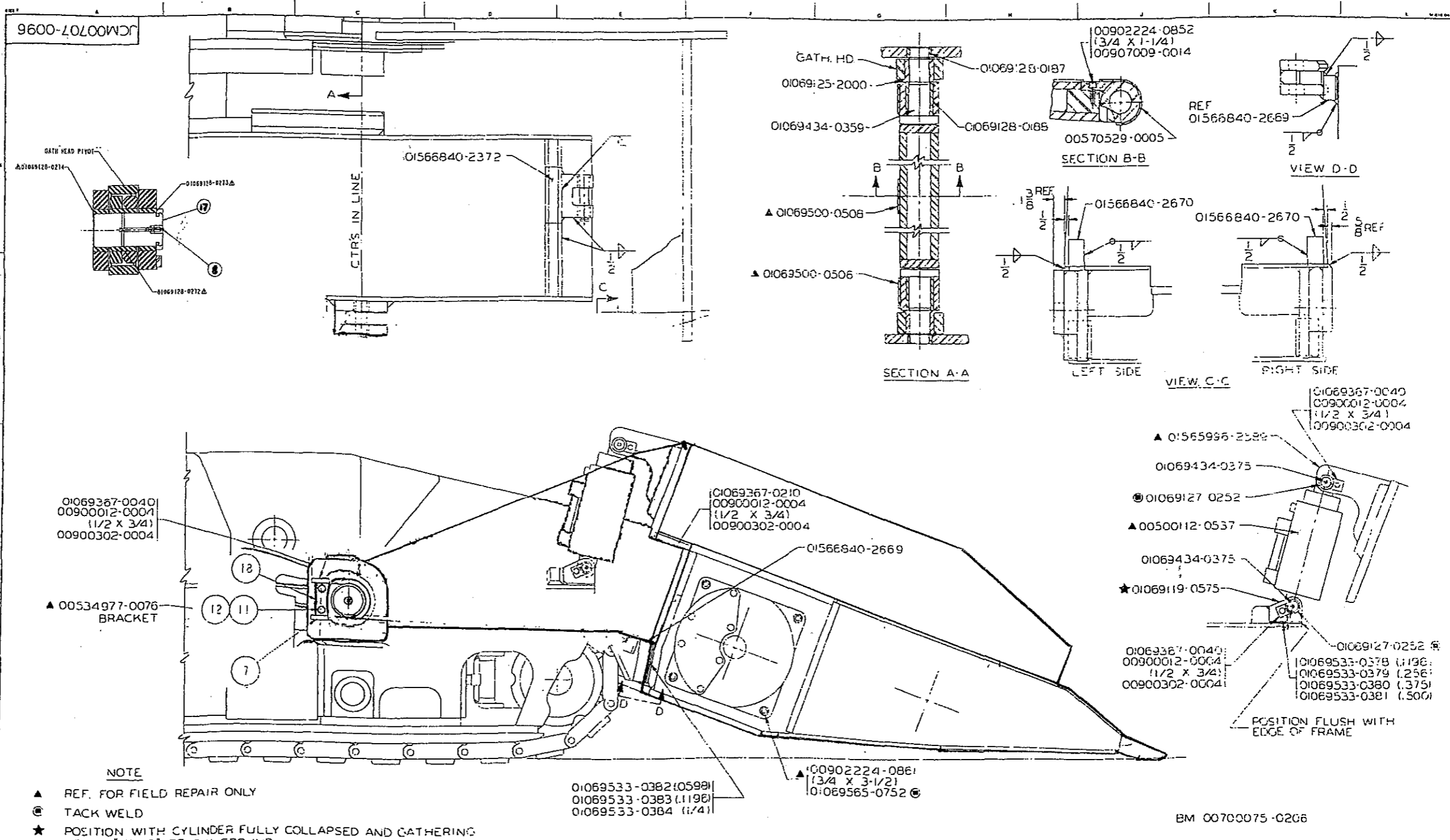
PAGE 1

B/M NUMBER	DESCRIPTION	REFERENCE	DATE
00700075	0206 MOUNTING, HEAD, GATHERING	JCM00707 0096	01
		FDC3089	05/22/80
		FDC3778	07/11/80
		FDC5028	01/29/81

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QTY	PART NUMBER	DESCRIPTION
1	00534977 0081	BRACKET (R.H.)
1	00534977 0082	BRACKET (L.H.)
1	00570528 0005	PLATE (PIVOT)
10	00900012 0004	CAP SCR (1/2 X 3/4 HEX HD)
10	00900302 0004	LWASHER (1/2)
6	00902224 0852	CAP SCR (3/4 X 1-1/4 SOC HD)
6	00907008 0014	RING (HOG)
1	01069022 0012	ARM, TORQUE, R.H.
1	01069022 0013	ARM, TORQUE, L.H.
2	01069119 0E75	BRACKET
2	01069125 2000	BUSHING
8	01069127 0252	BUSHING
8	01069127 0446	BUSHING
2	01069128 0187	BUSHING
2	01069128 0188	BUSHING
6	01069387 0040	KEEPER
2	01069367 0210	KEEPER
2	01069434 0359	PIN
4	01069434 0375	PIN
4	01069434 0378	PIN
2	01069533 0378	SHIM (.1196)
2	01069533 0379	SHIM (.250)
2	01069533 0380	SHIM (.375)
2	01069533 0381	SHIM (.500)
2	01069533 0382	SHIM (.0598)
2	01069533 0383	SHIM (.1196)
2	01069533 0384	SHIM (1/4)
2	01566840 2372	BAR
2	01566840 2669	DETAIL
2	01566840 2670	DETAIL

\*\*\*\*\* END OF BM PRINT \*\*\*\*\*



ITEM	PART NUMBER	QTY	DESCRIPTION
19	01566327-3741	2	DETAIL, GATH HEAD
18	01069444-0288	2	PLATE, MOUNTING
17	01069432-1468	2	PIV
16	01069432-0334	4	PIV
15	01069427-2013	2	PIV, HEADED
14	01069367-0040	4	KEEPER
13	00925493-1200	2	WASHER, W12
12	00925442-1219	6	HRCS, CLTD. 9, W12 X 30
11	00925081-0120	4	WASHER, LOCK, W12
10	00907009-0014	6	wire, locking
9	00902224-0852	6	SHCS, 3/4 X 1.25
8	00901257-0015	2	GREASE FITTING
7	00900947-1058	4	KEY, 1/2 X 3/4 X 2
6	00900302-0004	2	WASHER, LOCK, 1/2
5	00900012-0024	2	HRCS, 1/2 X 1-1/4
4	00570529-0006	1	PLATE, PIVOT
3	100099089	1	COVER, ACCESS
2	100099088	1	COVER, ACCESS
1	100019008	2	BRACKET, CYLINDER

- NOTE**
- ▲ REF. FOR FIELD REPAIR ONLY
  - TACK WELD
  - ★ POSITION WITH CYLINDER FULLY COLLAPSED AND GATHERING HEAD 7" TO 8" BELOW GROUND

REV	DESCRIPTION
1	ISSUED FOR PRODUCTION

FINISH SYMBOLS	DESCRIPTION
F	FREE POLISH
R	ROUGH MACHINE
H	HEAVY ROUGH
X	EXTRA ROUGH
S	SMOOTH MACHINE

**JOY TECHNOLOGIES INC.**  
FRANKLIN, PENNSYLVANIA 16802

**MOUNTING, GATHERING HEAD**

SCALE: 1/2" = 1'-0"

JCM00707-0096

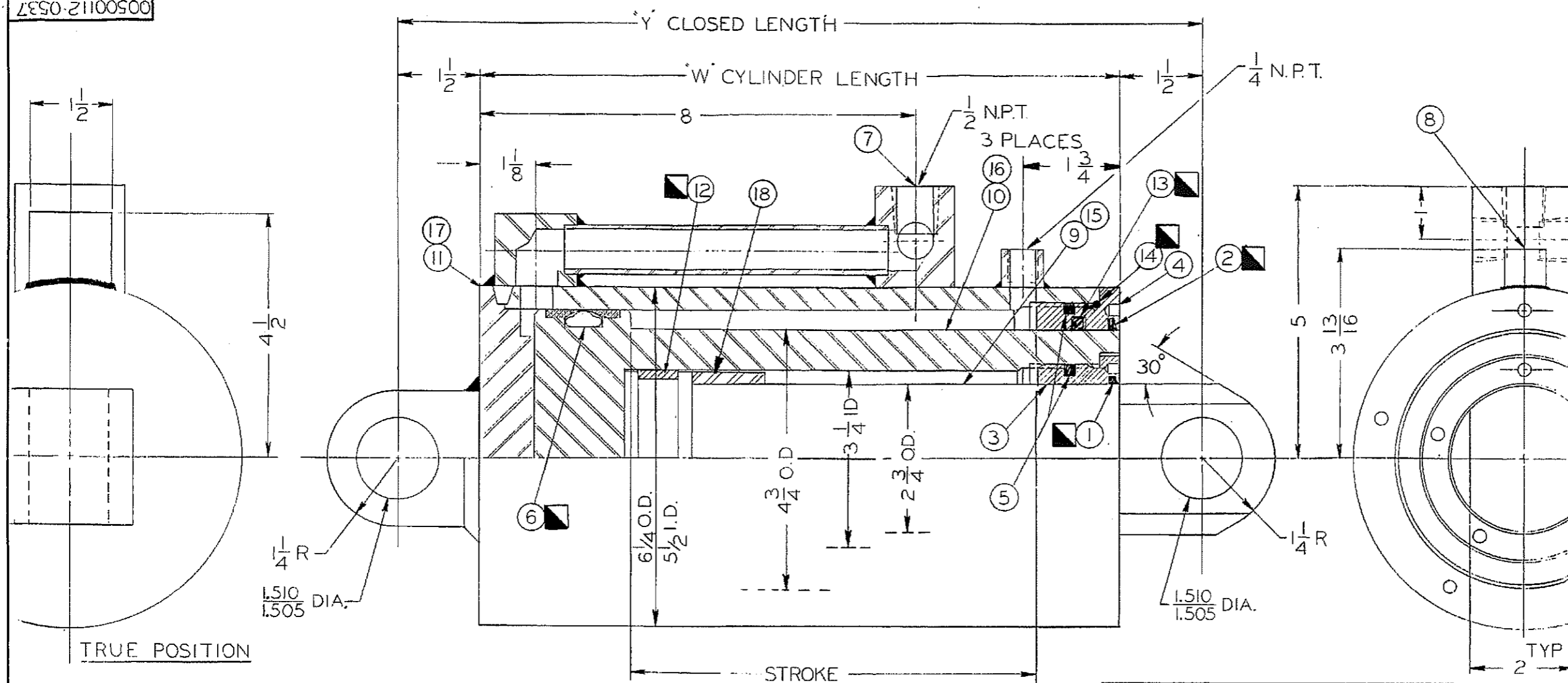
BILL OF MATERIAL: 00700075-0291



B/M Number	Description	Reference	Date	Sheet
00500112-0537	CYLINDER, ELEVATE, GATHERING H	00500112-0537		01
		FDF6905	06/15/1998	

Qty	UOM	Part Number	Description	Ref No
1	EA	01701336-0000	RING, WIPER	1
1	EA	03190338-0021	WIPER	2
1	EA	01069858-0008	NUT, PACKING	3
1	EA	01069858-0009	NUT, PACKING	4
2	EA	03190154-0046	PLUG, NYLOC	5
1	EA	01567707-0031	SEAL	6
3	EA	00901924-0005	PLUG, HEX SOC., 1/2 NPTF	7
1	EA	00901924-0003	PLUG, HEX SOC, 1/4" NPT	8
1	EA	00506205-1736	PLUNGER	9
1	EA	00506205-1735	SLEEVE	10
1	EA	03069862-0024	CYLINDER, BODY	11
1	EA	01567707-0032	BEARING	12
1	EA	00914478-0160	SEAL, POLY PAK	13
1	EA	00910660-0161	O-RING	14

\*\*\*\*\* End of Bill of Material \*\*\*\*\*



00500112-0546	1 THRU 8 12 THRU 18	9.5 6.00 PULL OUT	13.75	16.75	1.75 3.25	14 O-RING (3/32x5-1/2)	1	00910660-0161
00500112-0537	1 THRU 14	7.5 6.00 PULL OUT	11.75	14.75	1.75 1.25	13 ROD SEAL	1	00914478-0160
JOY PART NO.	CONSISTS OF	STROKE	'W'	'Y'	O.L.	12 PISTON BEARING	1	01567707-0032
						11 MAIN CYL ASSY.	1	03069862-0024
						10 1 ST. SLEEVE	1	00506205-1735
						9 PLUNGER	1	00506205-1736
						8 PLUG	1	00901924-0003
						7 PLUG	3	00901924-0005
						6 PISTON SEAL	1	01567707-0031
						5 NYLON PLUG	2	03190154-0046

18 SPACER	1	01701688-0000	4 PACKING NUT	1	01069858-0009		
17 MAIN CYL. ASS'Y	1	00506205-1774	3 PACKING NUT	1	01069858-0008		
16 1 ST SLEEVE	1	00506205-1775	2 WIPER	1	03190338-0021		
15 PLUNGER	1	00506205-1776	1 WIPER	1	01701336-0000		
NO.	DESCRIPTION	QTY.	PART NO.	NO.	DESCRIPTION	QTY.	PART NO.

OPERATING PRESSURE -2000 P.S.I.  
 ■ INCLUDED IN SEAL KIT 00703761-0032

This drawing and all information therein is the property of the JOY MANUFACTURING CO. It is loaned subject to return upon demand, is not to be used directly or indirectly in any way detrimental to our interest.

**JOY MANUFACTURING CO.**  
 PLANT LOCATION AS INDICATED BELOW

BIRMINGHAM, AL	LA GRANGE, NC
BUFFALO, NY	MICHIGAN CITY, IN
CAMBRIDGE, ONT. CANADA	NEW PHILADELPHIA, OH
CLAREMONT, NH	
E. KILBRIDE, SCOTLAND	
FRANKLIN, PA	

**HYDRAULIC CYLINDER**

SIMILAR TO: \_\_\_\_\_  
 SUPERSEDED BY: \_\_\_\_\_  
 REPLACES 500112-S33  
 REPLACED BY: \_\_\_\_\_

(NAME OR INITIAL & DATE)  
 DR. LARDIN  
 TN. \_\_\_\_\_  
 CK. \_\_\_\_\_  
 APPD. \_\_\_\_\_

SCALE: 2 CLASS 25M12  
 00500112-0537