

PC4000 Lift Arm Pocket Upgrade

Issue

If debris enters and partially or wholly obstructs the lift arm roller track, there is the potential for the rollers to become misaligned. This roller misalignment can cause either one or both of the rollers to lift up and off to one side, thereby creating a situation where only one or possibly neither of the rollers will properly engage in the pocket. When this type of roller misalignment occurs, the lift arm may twist and possibly derail from the roller track.

Recommendation

Regularly inspect the roller alignment and pocket condition for signs of uneven wear. Keep the roller track and pocket free of debris. To protect against roller misalignment when there is debris or uneven wear, use the kit and follow the procedure described on the next page of this product bulletin.



Any time the carrier is elevated and personnel are positioned under the carrier, a safety bar must be placed behind the flare end of the carrier and protrude through the holes on both sides of the inner catwalk wall to prevent lowering of the carrier (see Figure 1).



Figure 1: Safety Bar

Required Equipment

A kit (Canrig P/N 188100075) is required to perform this procedure. *Refer to the drawing at the end of this document for the kit bill of materials. Contact RigLine 24/7™ Support to order the kit.*

Procedure

Complete the following procedure with kit 188100075:

1. Weld the new Roller Lead-in Guide (141103258 and 141103259) as shown in Figure 2. *Refer to the drawing at the end of this document for exact placement.*

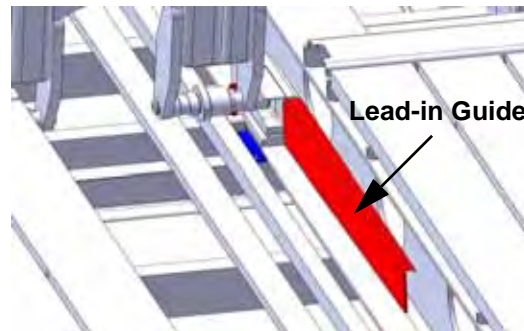


Figure 2: Lead-in Guide (RH)

2. Weld the new Roller Cover Plate (141103264) as shown in Figure 3. *Refer to the drawing at the end of this document for exact placement.*

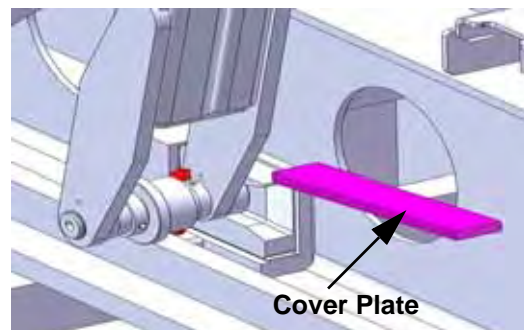
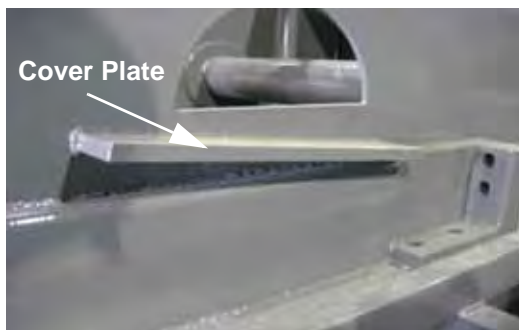


Figure 3: Roller Cover Plate (RH)

3. Weld the Lift Arm Stop Plate (141103265) to the lift arm as shown in Figure 4. *Refer to the drawing at the end of this document for exact placement.*

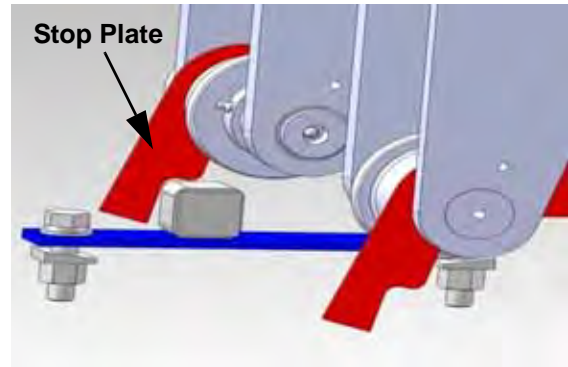
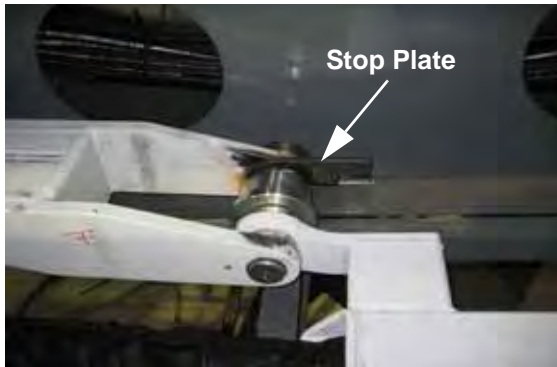
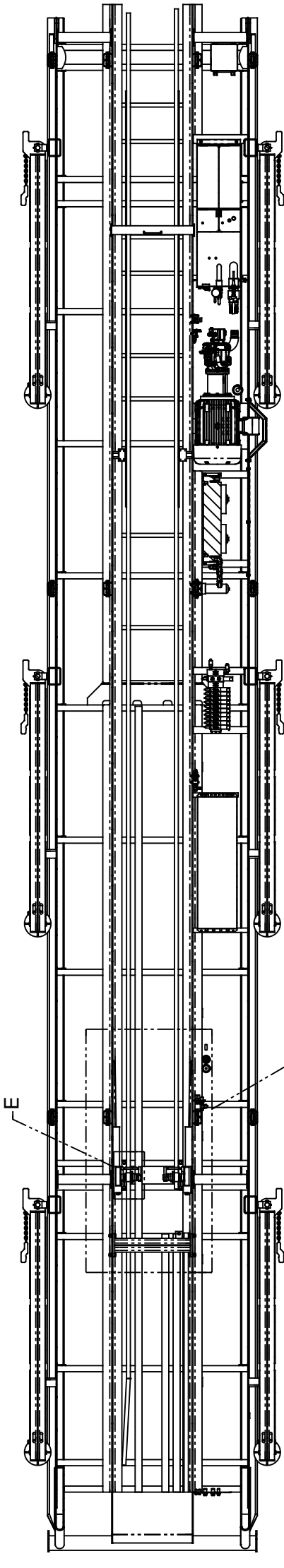
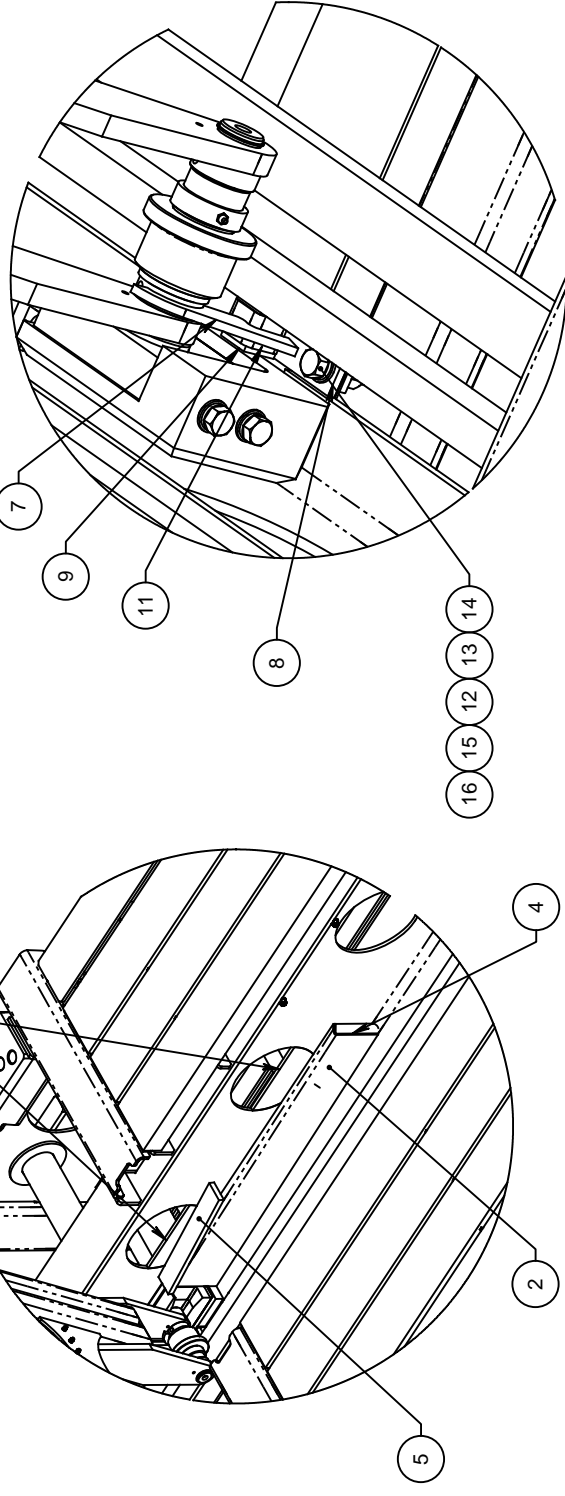


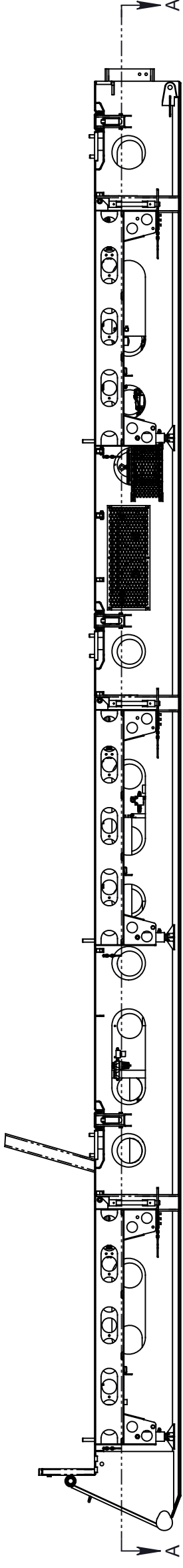
Figure 4: Lift Arm Stop Plate

IF IN DOUBT...PLEASE ASK!

ITEM	QTY	DESCRIPTION	MATERIAL	CANRIG PART No.
1	0	ASSY, MASTER SKID, PC4000	-	EXISTING
2	1	GUIDE, BUMPER - OFF DRILLERS SIDE, PC4000	G40.21-44W / A572 G50	141103258
3	1	GUIDE, BUMPER - DRILLERS SIDE, PC4000	G40.21-44W / A572 G50	141103259
4	2	END CUP, BUMPER GUIDE	G40.21-44W / A572 G50	141103267
5	2	ROLLER COVER, PC4000	G40.21-44W / A572 G50	141103264
6	0	ASSY, 21FT LIFT ARM, PC4000	-	EXISTING
7	2	LIFT ARM STOP PLATE, PC4000	G40.21-44W / A572 G50	141103265
8	2	STOPPER PLATE, LIFT ARM, PC4000	G40.21-44W / A572 G50	141103266
9	4	END CUP, LIFT ARM, PC4000	G40.21-44W / A572 G50	141103307
10	4	END CUP, PC4000	G40.21-44W / A572 G50	141103268
11	2	TS.2" X 2" X 3/16" X 1 3/4" LONG	G40.21-50W	TS2X2X0.1875X2
12	4	WASHER, F, 3/4, PLAIN, TYPE A	-	FW-0750-A
13	4	LOCKWASHER, 3/4 HELICAL SPRING	GR8	LW-0750-HS
14	4	CAPSCR, HEX HD, 3/4-10UNC X 3.00, GR8	-	HH-0750NC-0300-GR8
15	4	WASHER, B, 3/8, BEVEL	-	BW-0750
16	4	LOCKNUT, 3/4-10UNC, NYLOCK, GR8	-	LN-750NC-NL



SECTION A-A



WELDING PROCEDURE AS PER CANRIG SPECIFICATION - ENG 704, UNLESS NOTED OTHERWISE

REMOVE SHARP CORNERS AND BURRS

CASTING ± 1/16

CONCENTRICITY .005 TIR

STRAIGHTNESS ± .005 IN 5 INCHES

SQUARENESS ± .010 IN 5 INCHES

PARALLELISM ± .010 IN 5 INCHES

PLATNESS ± .010 or as Shown

TRUE POSITION .005

MACHINED SURFACES $\sqrt{25}$

MIN. RADIUS UNLESS SHOWN = 0.03 MAX.

TOLERANCE - UNLESS OTHERWISE SPECIFIED

FABRICATING IMPERIAL FABRICATING METRIC

0 TO 24" ± 1/16" 0 TO 610 mm ± 1 mm

24" to 30" ± 3/16" 610 TO 762 mm ± 3 mm

30" to 42" ± 1/8" 762 TO 1067 mm ± 3 mm

42" to 60" ± 3/16" 1067 TO 1525 mm ± 3 mm

60" to 72" ± 1/4" 1525 TO 1829 mm ± 3 mm

72" to 96" ± 1/2" 1829 TO 2445 mm ± 3 mm

96" to 120" ± 3/8" 2445 TO 3048 mm ± 3 mm

28" & OVER ± 1/2" 7112 & OVER ± 13 mm

MACHINING IMPERIAL MACHINING METRIC

DECIMAL .x ± .030" x ± .8 mm

.xx ± .015" xx ± .40 mm

.xxx ± .005" x.xx ± .13 mm

ANGULAR MACHINING ± 1° FABRICATION ± 2°

REV	DATE	BY	REVISION DESCRIPTION	ECN	CHKD	APVD

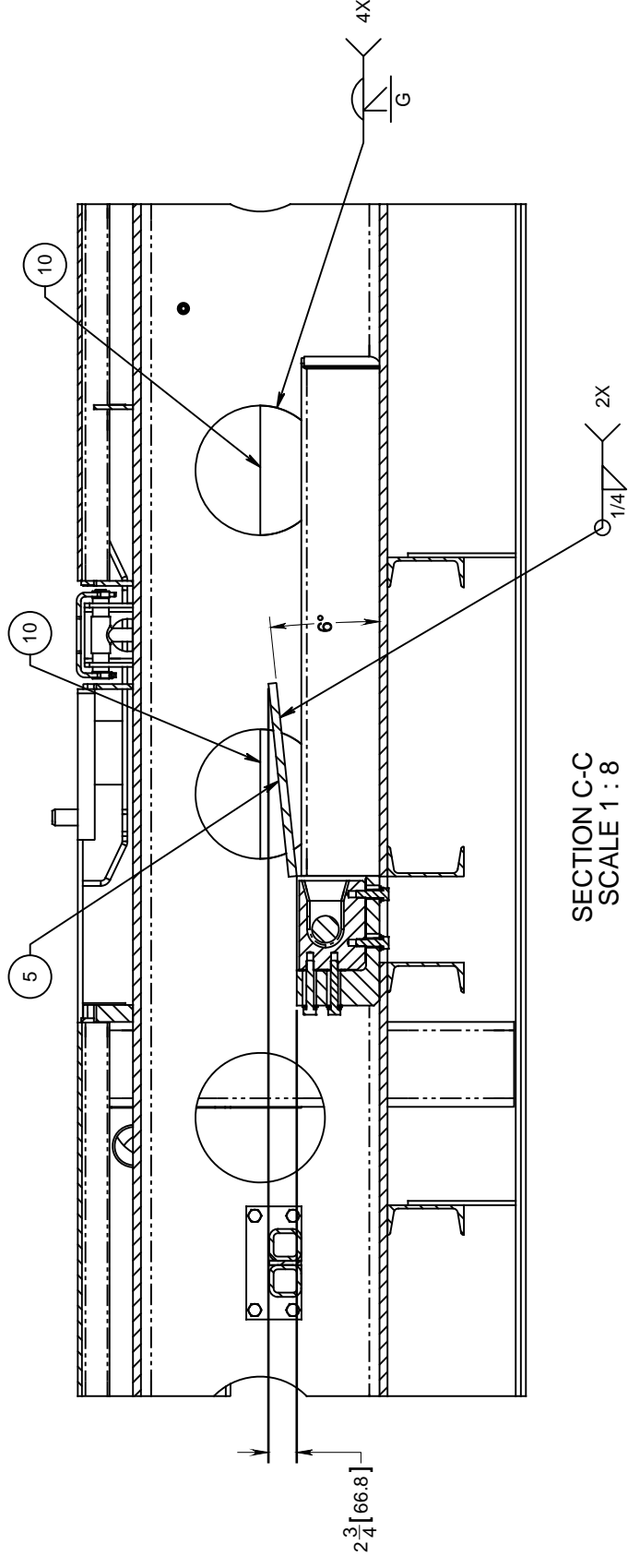
THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

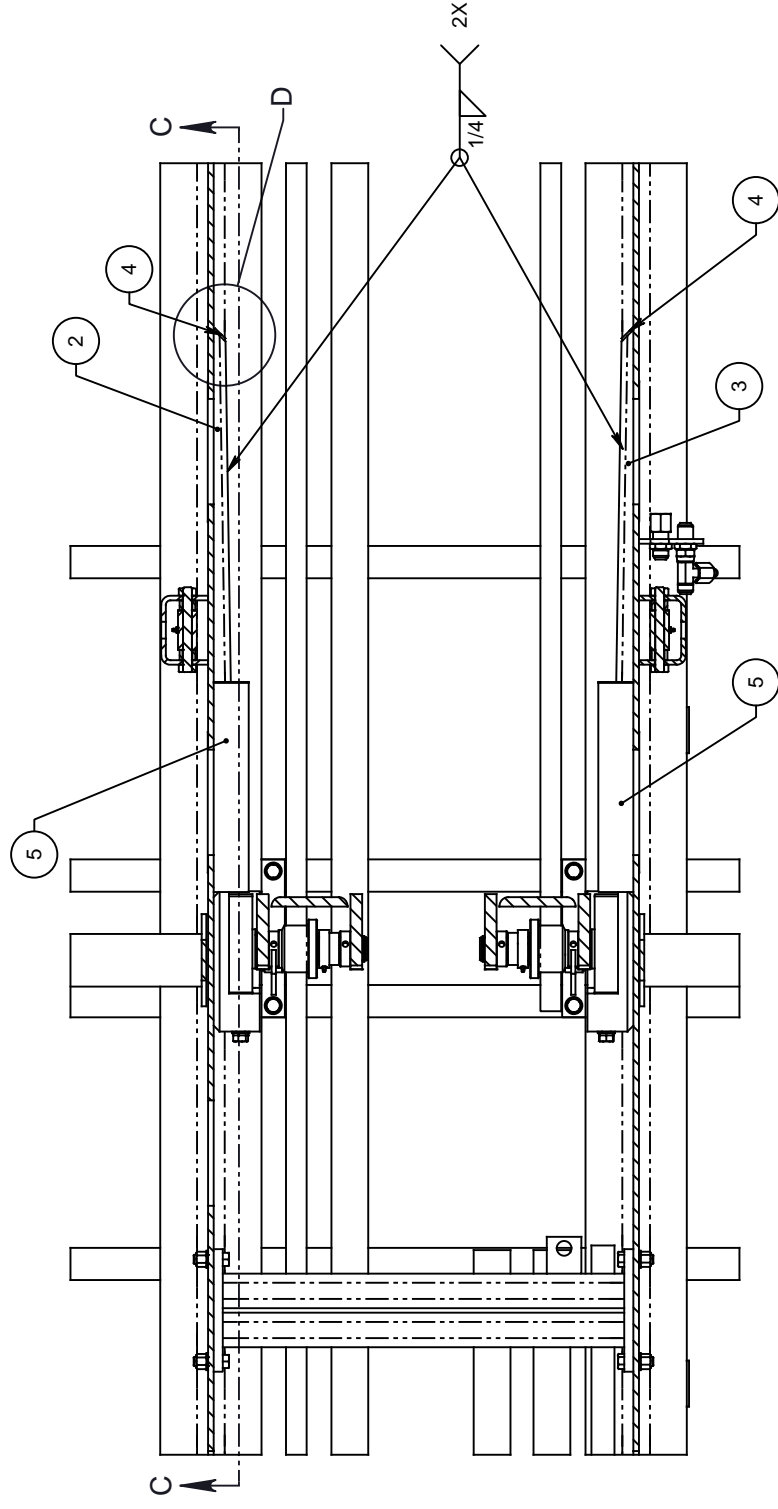
PC4000 POCKET UPGRADES

INIT.	YY/MM/DD	MODELED	CHECKED	APPROVD	MATERIAL	SCALE	SHEET SIZE	REV
OOT	12/03/09	12/03/09	12/03/13	12/03/13	SEE BOM	1:30	D	02
JCR	12/03/13	12/03/13	12/03/13	12/03/13				

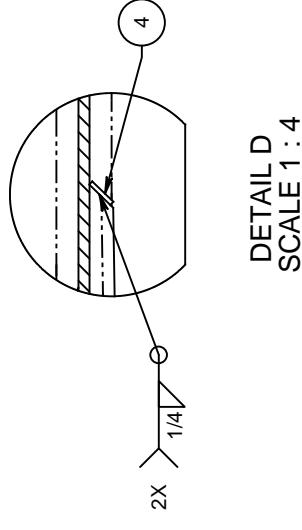
IF IN DOUBT...PLEASE ASK!



SECTION C-C
SCALE 1 : 8



DETAIL B
SCALE 1 : 8

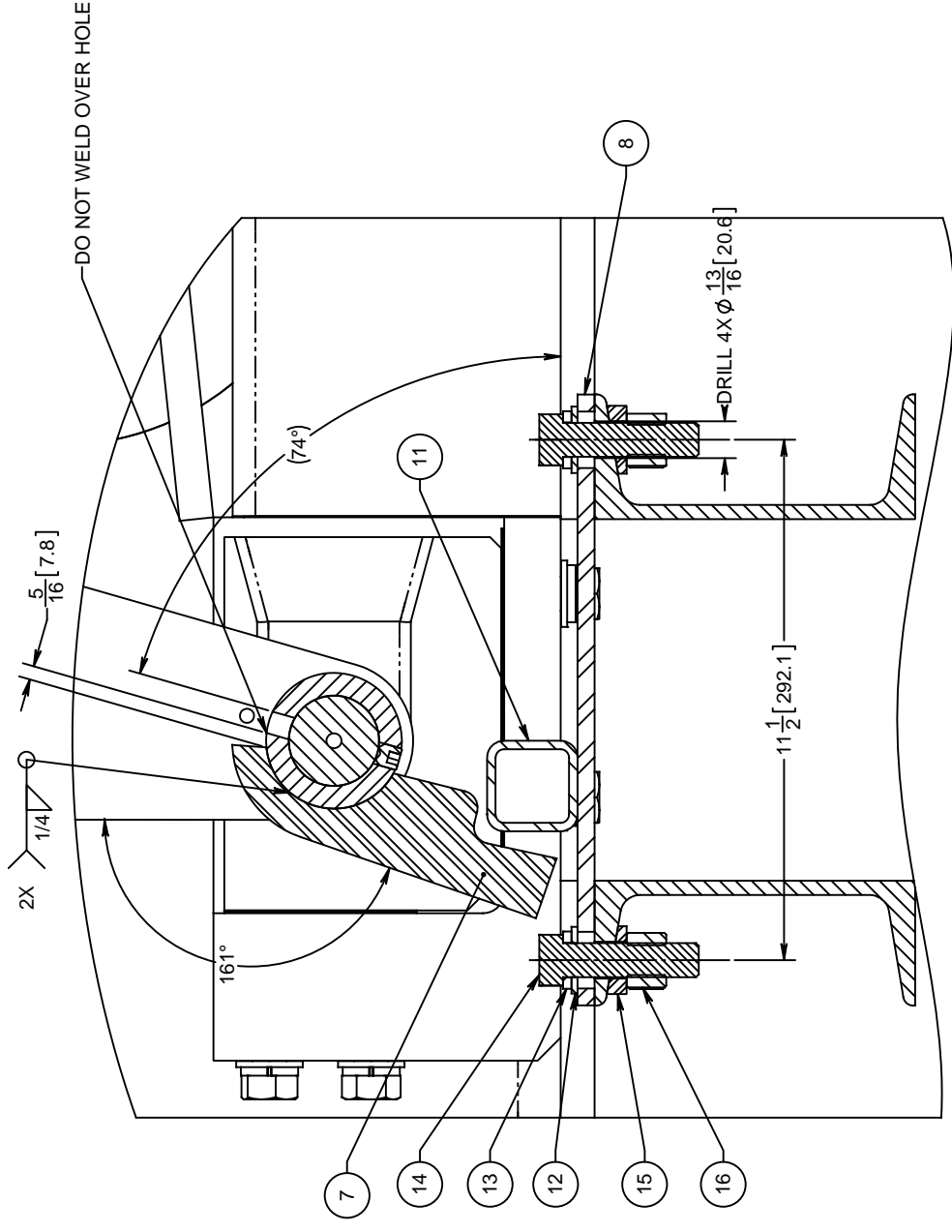


DETAIL D
SCALE 1 : 4

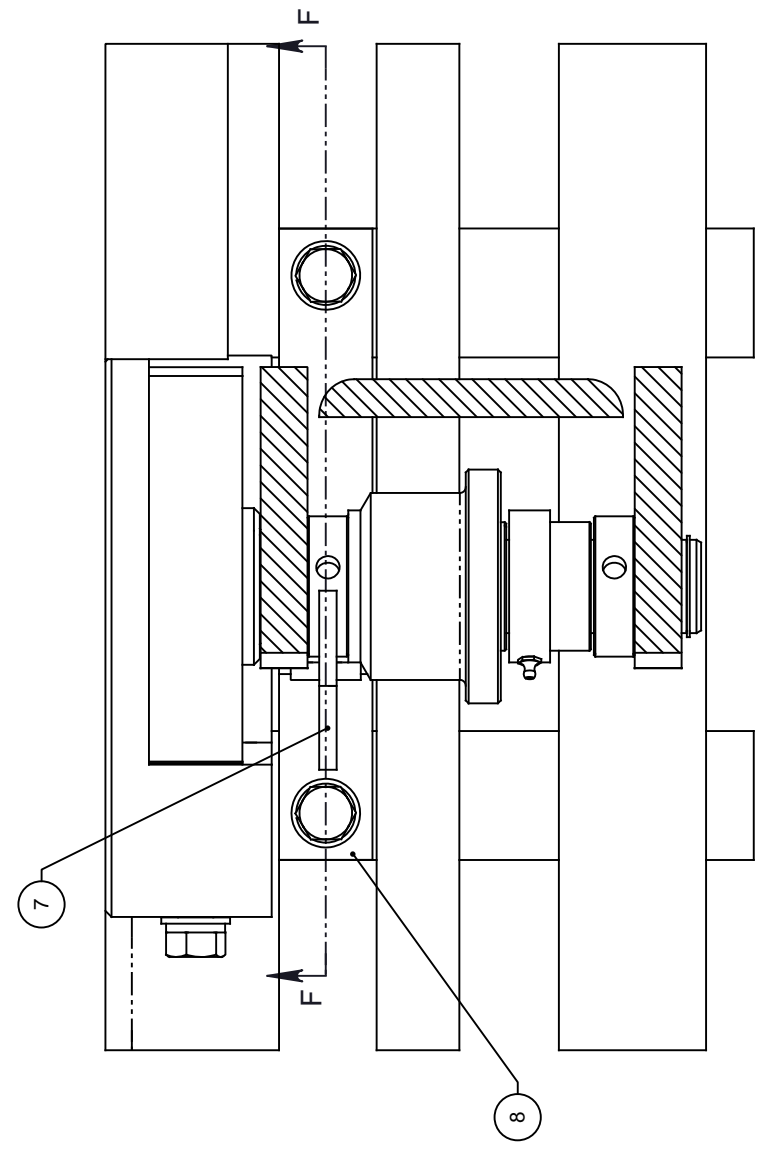
				SHEET 2 OF 3		REV 02	
WELDING PROCEDURE AS PER CANRIG SPECIFICATION - ENG 704, UNLESS NOTED OTHERWISE		TOLERANCE - UNLESS OTHERWISE SPECIFIED		YYY/MM/DD		PC4000 POCKET UPGRADES	
REMOVE SHARP CORNERS AND BURRS CASTING ± 1/16 CONCENTRICITY ± .005 TIR STRAIGHTNESS ± .005 IN 5 INCHES SQUARENESS ± .010 IN 5 INCHES PARALLELISM ± .010 IN 5 INCHES CHAMFER ± .010 or as shown TRUE POSITION .005 MACHINED SURFACES $\sqrt{25}$ MIN. RADIUS UNLESS SHOWN = 0.03 MAX.		FABRICATING IMPERIAL ± 1 mm 0 TO 24" ± 1/16" 24" TO 60" ± 3/16" 60" TO 120" ± 3/8" 120" TO 240" ± 1/2" 240" & OVER ± 13 mm FABRICATING METRIC ± 1 mm 0 TO 610 mm ± 1 mm 610 TO 1525 ± 3 mm 1525 TO 3048 ± 7 mm 3048 TO 7620 ± 13 mm MACHINING IMPERIAL ± 1/32" 7/162 & OVER ± 13 mm MACHINING METRIC ± .8 mm DECIMAL .x ± .030" .xx ± .015" .xxx ± .005" ANGULAR .MACHINING ± 1° FABRICATION ± 2°		INIT. YYY/MM/DD OOT 12/03/09 OOT 12/03/13 JCR 12/03/13 JCR 12/03/13 MATERIAL SEE BOM		EST. WEIGHT SCALE 1:30 5423.1 lbs SHEET SIZE D	
THIS PRINT AND DESIGN AND DETAIL SHOWN THEREON ARE THE PROPERTY AND INVENTION OF CANRIG DRILLING TECHNOLOGY LTD. THIS PRINT IS FURNISHED WITH THE UNDERSTANDING THAT IT IS NOT TO BE REPRODUCED WITHOUT PERMISSION AND RETURNED UPON DEMAND. ALL RIGHTS OF DESIGN AND INVENTION ARE RESERVED BY CANRIG DRILLING TECHNOLOGY LTD.		DO NOT SCALE DRAWING		SHEET 2 OF 3		REV 02	

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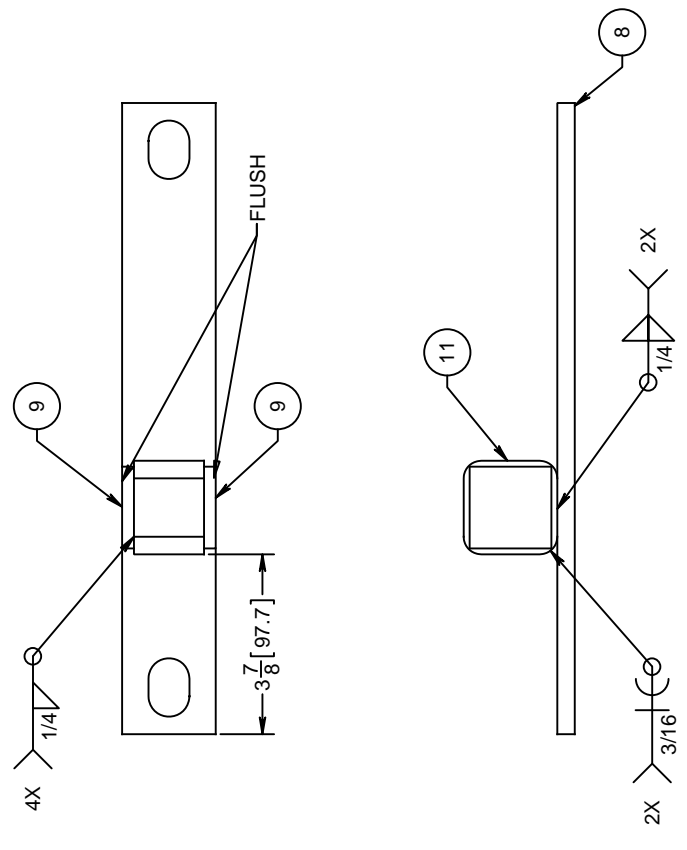
IF IN DOUBT...PLEASE ASK!



SECTION F-F
SCALE 1 : 2



DETAIL E
SCALE 1 : 2



ITEMS 8,9,11 TO BE
WELDED AND BOLTED IN

DO NOT SCALE DRAWING		PC4000 POCKET UPGRADES	
INIT.	YY/MM/DD	MODELED	THIRD ANGLE PROJECTION
OOT	12/03/09	DRAWN	12/03/09
JCR	12/03/13	CHECKED	12/03/13
JCR	12/03/13	APPROVD	12/03/13
MATERIAL		SEE BOM	
EST. WEIGHT	SCALE	SHEET SIZE	REV
5423.1 lbs	1:30	D	02
SHEET 3 OF 3		188100075	

WELDING PROCEDURE AS PER CANRIG SPECIFICATION - ENG 704, UNLESS NOTED OTHERWISE

REMOVE SHARP CORNERS AND BURRS

CASTING ± 1/16

CONCENTRICITY .005 TIR

STRAIGHTNESS ± .005 IN 5 INCHES

SQUARENESS ± .010 IN 5 INCHES

PARALLELISM ± .010 IN 5 INCHES

CHAMFER ± .010 or as Shown

TRUE POSITION .005

MACHINED SURFACES $\sqrt{25}$

MIN. RADIUS UNLESS SHOWN = 0.03 MAX.

TOLERANCE - UNLESS OTHERWISE SPECIFIED

FABRICATING IMPERIAL ± 1 mm

FABRICATING METRIC 0 TO 610 mm ± 1 mm

610 TO 1525 ± 3 mm

1525 TO 3048 ± 7 mm

3048 TO 3945 ± 2 mm

3948 TO 7612 ± 13 mm

7612 & OVER ± 13 mm

MACHINING IMPERIAL DECIMAL x ± .8 mm

MACHINING METRIC DECIMAL x.x ± .40 mm

DECIMAL .xx ± .015"

DECIMAL .xxx ± .005"

ANGULAR MACHINING ± 1° FABRICATION ± 2°

IF IN DOUBT...PLEASE ASK!