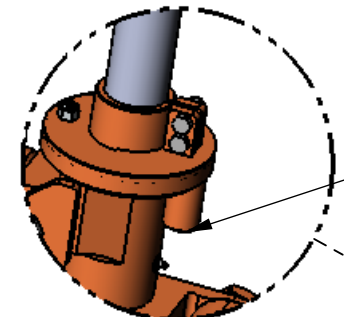
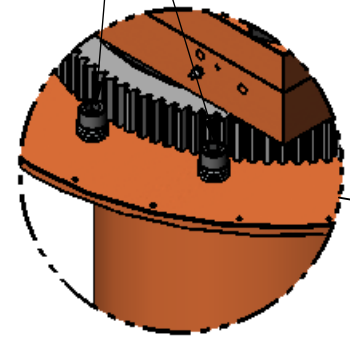


AIR PRESSURE TO BE INSTALLED FROM THE TOP - DURING INSTALL VERIFY PIGTAIL LOOP DOES NOT CATCH ON MANIPULATOR OR THE BUILD DURING FULL ROTATION

480/60/3 POWER MAY BE INSTALLED FROM THE TOP - DURING INSTALL VERIFY PIGTAIL LOOP DOES NOT CATCH ON MANIPULATOR OR THE BUILD DURING FULL ROTATION

5/8 ALLEN HEX ON STOP BOLTS (3/4 SHCS)

9/16 ALLEN HEX ON BRAKE PLUG MAY BE TURNED TIGHT FOR SHIPPING



DETAIL D SCALE 1 : 8

DETAIL J SCALE 1 : 12

DETAIL H SCALE 1 : 8

480/60/3 POWER MAY BE INSTALLED FROM THE BOTTOM - DURING INSTALL FISH WIRE THRU PEDESTAL BEFORE CONNECTION TO BEARING. WIRE MAY COME THRU CENTER OF PEDESTAL OR TO OUTSIDE OF BOX

9/16 ALLEN HEX ON BRAKE PLUG MAY BE TURNED TIGHT FOR SHIPPING

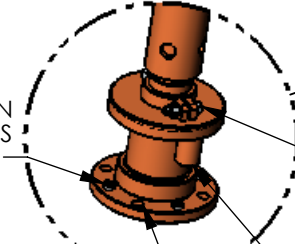
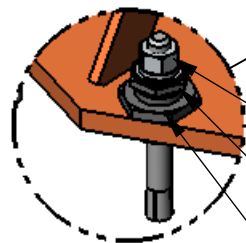
3/8 ALLEN HEX ON LEVELING SCREWS (1/2 SET SCREWS)

3/4 HEX ON ROTATION STOP SHIELD BOLT & NUT (1/2-13 THREAD)

1 1/2 HEX ON ANCHOR BOLT NUT (1-8 THREAD)  
2 1/4 HEX ON LEVELING JACK (2-20 THREAD)

3 HEX ON LEVELING JACK JAM NUT (2-20 THREAD)

MAKE ADJUSTMENTS SO THAT A LEVEL ON THE FOREARM READS THE SAME IN THREE POSITIONS 90° TO ONE ANOTHER



DETAIL G SCALE 1 : 12

9/16 ALLEN HEX ON BRAKE PLUG MAY BE TURNED TIGHT FOR SHIPPING

5/8 ALLEN HEX ON TOOL MOUNTING BOLTS (3/4 SHCS)

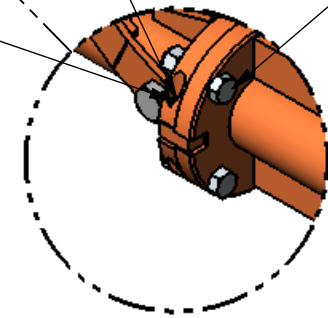
DETAIL A SCALE 1 : 8

1 1/2 HEX ON ANCHOR BOLT NUT (1-8 THREAD)  
2 1/4 HEX ON LEVELING JACK (2-12 THREAD)  
3 HEX ON LEVELING JACK JAM NUT (2-12 THREAD)

THESE 4 SET SCREWS WILL ADJUST THE DOWN SHAFT SIDE-TO-SIDE LEVEL  
NOTE:  
LOOSEN THE FOUR 1-8 BOLTS FIRST THEN RE-TIGHTEN TO CHECK LEVEL MAKE ADJUSTMENTS WITH NO LOAD AND CHECK LEVEL WITH AN AVERAGE LOAD APPLIED (DO NOT OVER TIGHTEN THE SET SCREWS SINCE THIS WILL BREAK THE KEYS)

5/16 ALLEN HEX ON SET SCREW

1 1/8 HEX ON 2ND ARM BOLT & NUT (3/4-10 THREAD)



DETAIL B SCALE 1 : 8

THE FOLLOWING IS A NON-COMPREHENSIVE LIST OF ITEMS SUGGESTED FOR INSTALLING THE TPA 15. IT IS THE INSTALLER'S RESPONSIBILITY TO UNDERSTAND THE INSTALLATION PROCESS AND THE TOOLS REQUIRED PRIOR TO PERFORMING THE WORK.

3" HEX WRENCH	MACHINIST LEVEL & BUBBLE LEVEL	CHALK TO MARK PEDESTAL LOCATION
2 1/4" HEX WRENCH	TORQUE WRENCH	DRILL
1 1/2" HEX WRENCH	1" CONCRETE BIT & HAMMER DRILL	BANDING SHEAR FOR PALLET DISASSEMBLY
1 1/8" HEX WRENCH	VACUUM TO CLEAR ANCHOR BOLT HOLES	FISH TAPE FOR ROUTING HOSES
15/16" HEX WRENCH	EXTENSION CORDS	5/8" X 3" L - EYE BOLTS FOR LIFTING PEDESTAL
3/4" HEX WRENCH	LADDERS	SLINGS
5/8" ALLEN HEX	MAN LIFT	PERSONAL PROTECTIVE EQUIPMENT
9/16" ALLEN HEX	PLUMBING TOOLS	ELECTRICAL TOOLS / HOLE PUNCH
3/8" ALLEN HEX	WILTON 6516B C-CLAMPS	RECOMMENDED 4,000 LB FORKLIFT OR CRANE TO LIFT THE TPA 15 INTO POSITION (NO TOOL)
5/16" ALLEN HEX	LAYOUT PRINT & TAPE MEASURE	

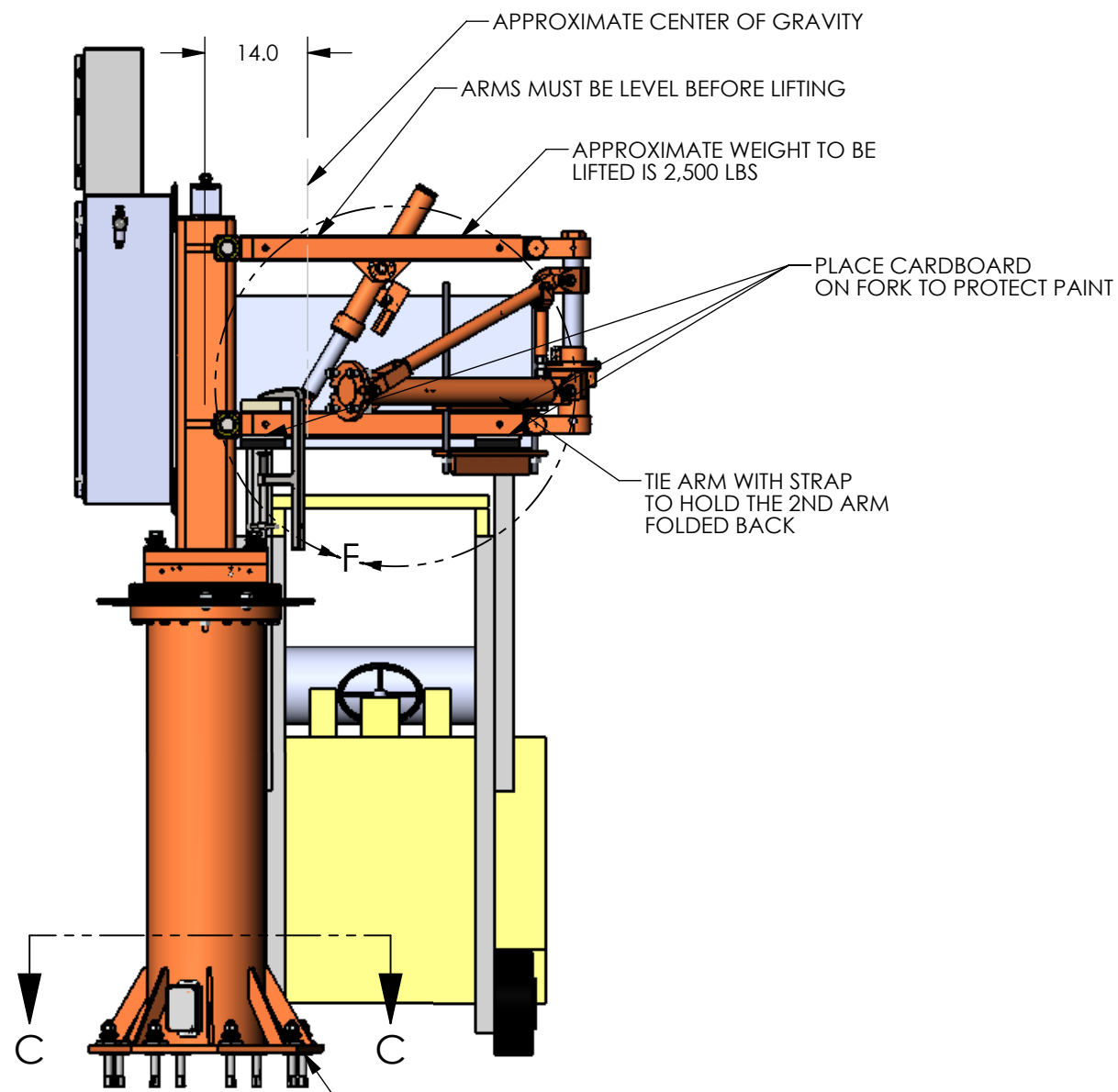
ALL SPECIFIED NOTES AND REQUIREMENTS ARE TYPICAL REFER TO EACH PROJECT PROFILE DRAWING FOR AND CUSTOM FEATURES.

A	ADDED ELECTRICAL CONNECTION BOXES, ADDED MIDDLE JOINT LEVELING JACKS TO MAIN POST, ADDED BOTTOM ELECTRICAL CONNECTION NOTE	WAK	23/Nov/2015
REV.	DESCRIPTION	BY	DATE

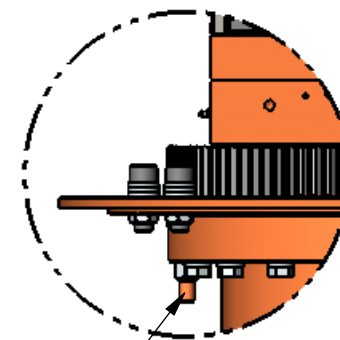
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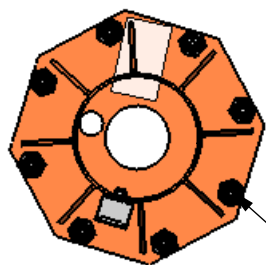
TPA 10 - INSTALLATION INSTRUCTIONS			
SCALE: 1:24	DATE: 12/Sep/2014	DRAWN BY: WAK	
CLASS CODE: 500	DWG NO: TPA 10 INSTALL	SHT: 1 of 4	REV: A



2X THREADED STUDS  
THAT CAN BE USED TO  
ALIGN THE BEARING TO  
THE PEDESTAL



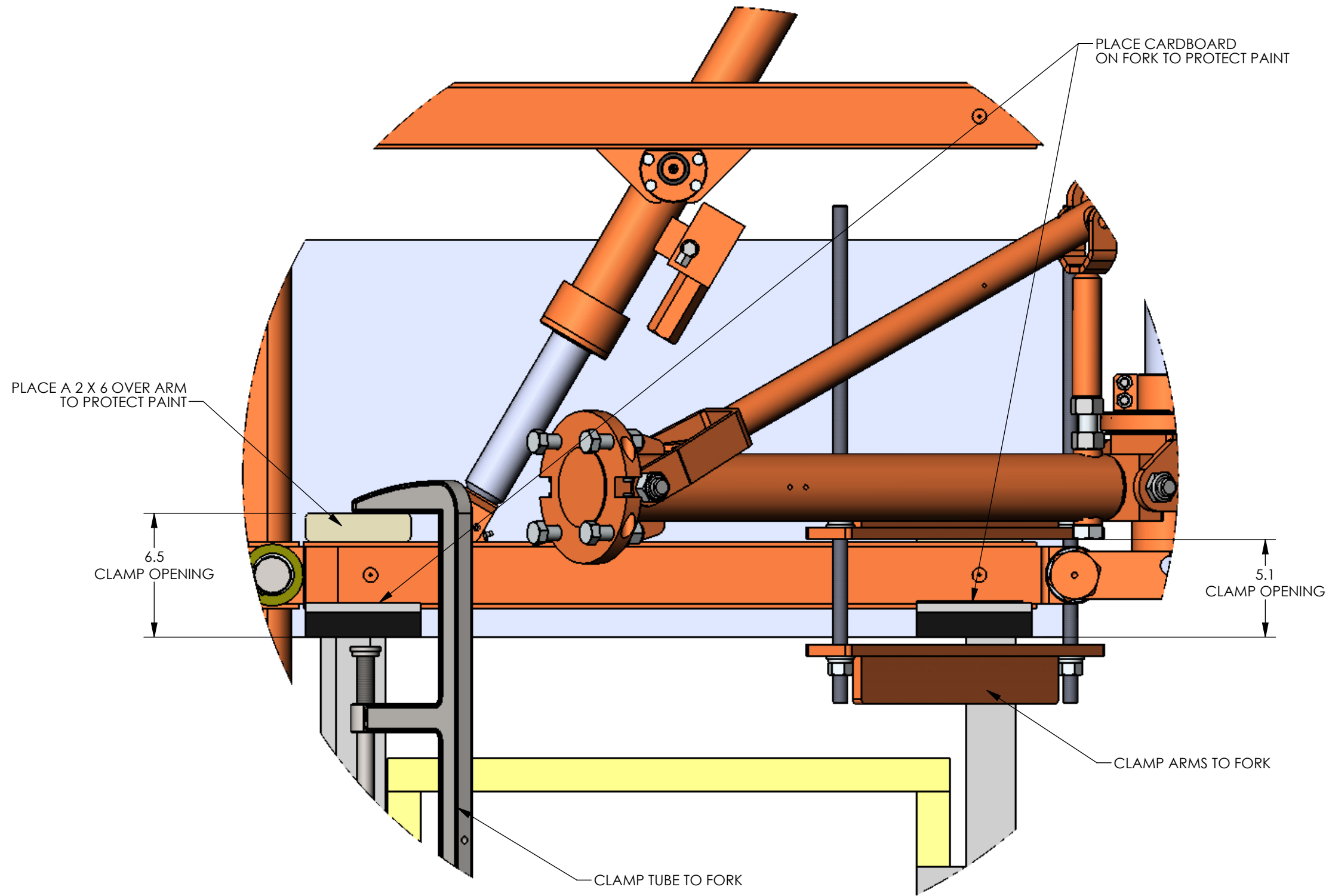
- NO GROUTING IS NEEDED TO INSTALL THIS PEDESTAL:
1. BE SURE TO PLACE THE WASHERS UNDER THE JACKS - ON THE CONCRETE.
  2. SEAT THE ANCHOR BOLTS BEFORE LEVELING.
  3. LEVEL THE PEDESTAL BEFORE INSTALLING THE MANIPULATOR.
  4. PLACE A LEVEL ON THE BEARING MOUNTING SURFACE TO LEVEL TO PEDESTAL.



SECTION C-C

SEAT BOLTS AT 250-350 FT-LBS [340-476 N-M]  
LOOSEN AND THEN TORQUE TO 250 FT-LBS [340 N-M]  
RECHECK AFTER ONE WEEK OF SERVICE  
CHECK EVERY PERIODIC EVALUATION

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DETAIL K			
SCALE 1:8			
<b>Positech</b> CORPORATION		TPA 10 - INSTALLATION INSTRUCTIONS	
		SCALE: 1:24	DATE: 12/Sep/2014
CLASS CODE: 500	DWG NO: TPA 10 INSTALL	DRAWN BY: WAK	SHT: 2 of 4
			REV: A



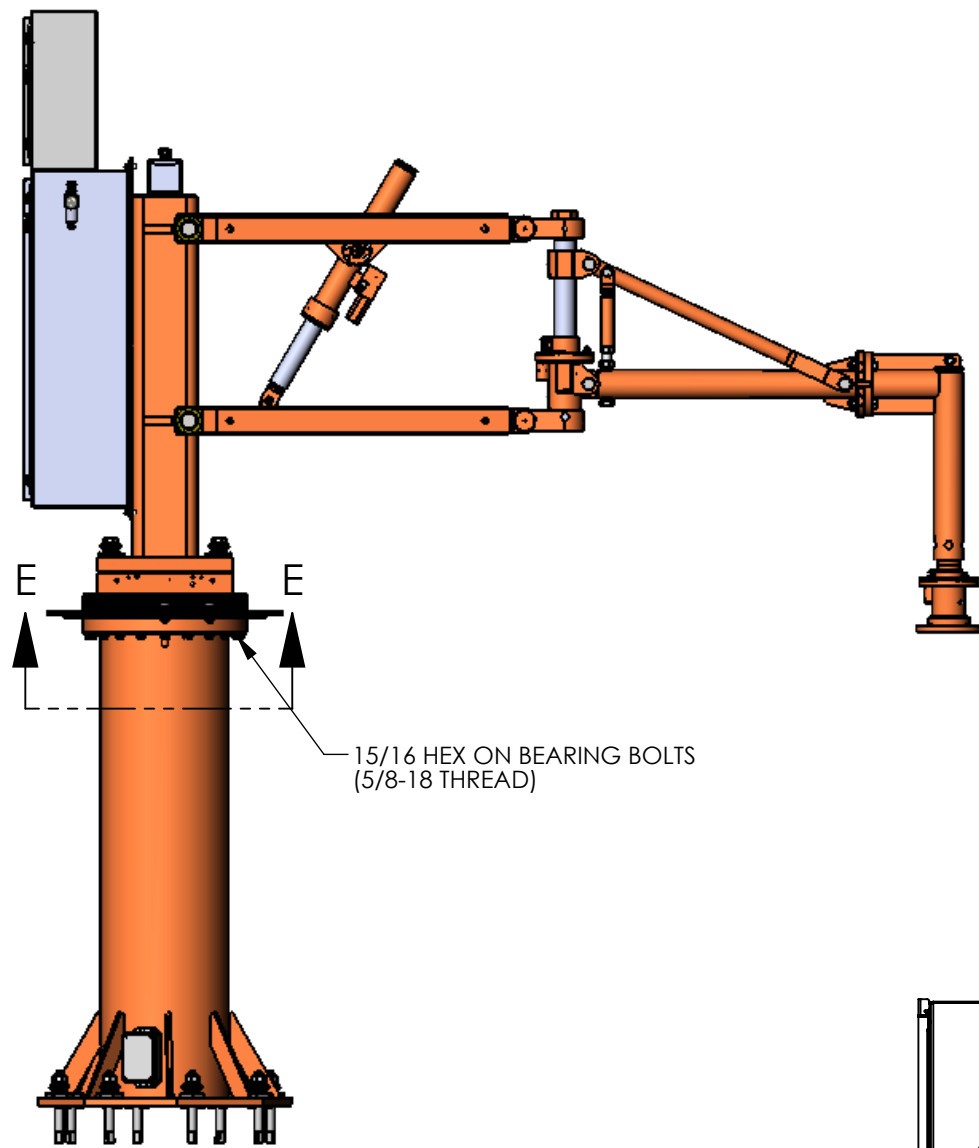
DETAIL F

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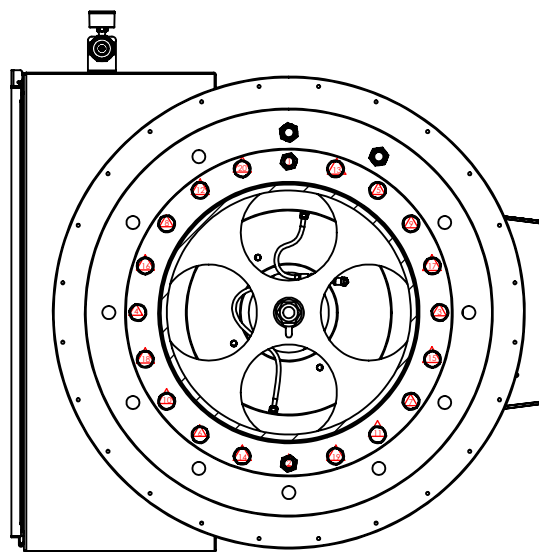


TPA 10 - INSTALLATION INSTRUCTIONS

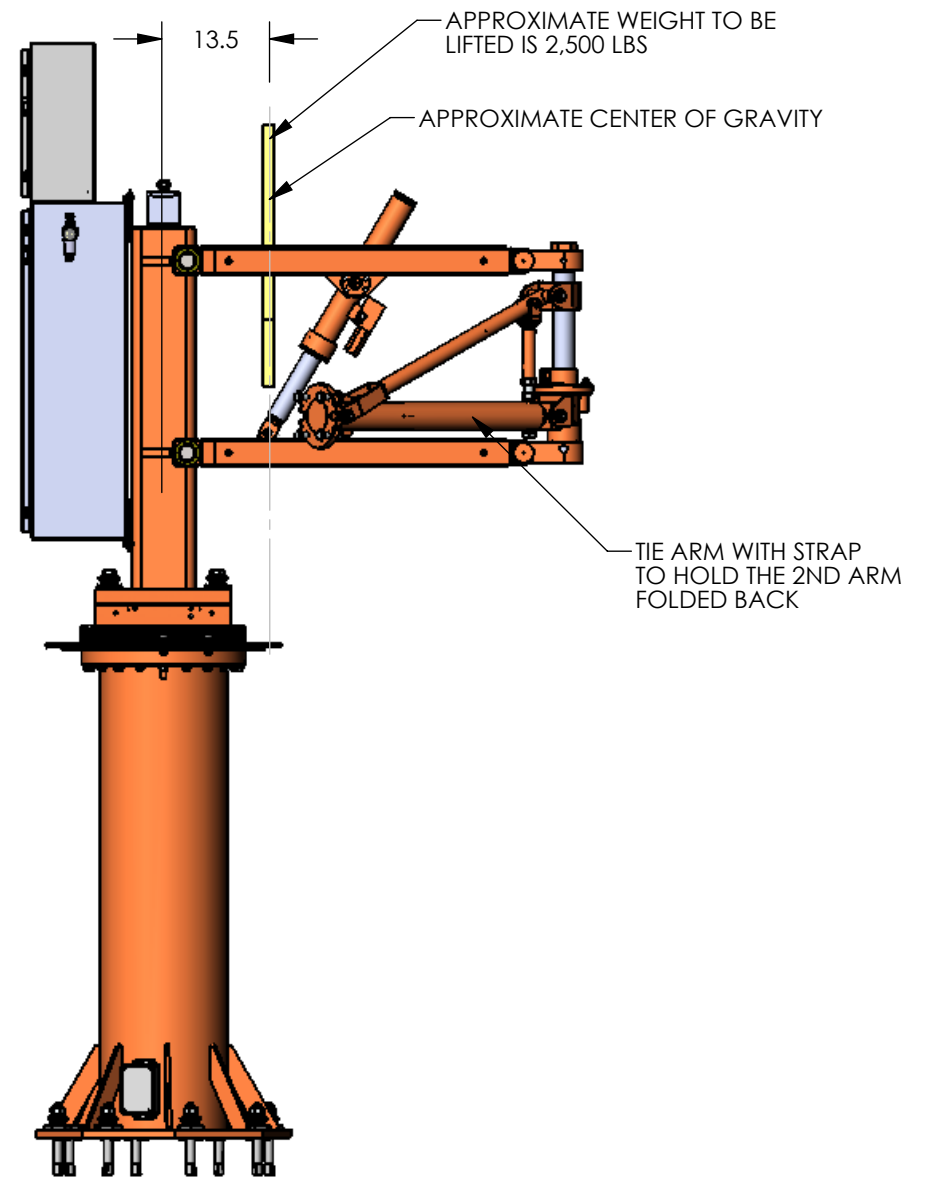
SCALE: 1:6	DATE: 12/Sep/2014	DRAWN BY: WAK
CLASS CODE: 500	DWG NO: TPA 10 INSTALL	SHT: 3 of 4 REV: A



15/16 HEX ON BEARING BOLTS  
(5/8-18 THREAD)



SECTION E-E  
SCALE 1 : 12



13.5

APPROXIMATE WEIGHT TO BE  
LIFTED IS 2,500 LBS

APPROXIMATE CENTER OF GRAVITY

TIE ARM WITH STRAP  
TO HOLD THE 2ND ARM  
FOLDED BACK

**TORQUING THE BEARING BOLTS:**

1. SEQUENCE FOR THE FIRST 10 BOLTS SHOWN.
2. ADD SERVICE GRADE THREAD LOCKER TO THE BOLTS.
3. TORQUE THE BOLTS TO 28 FT/LBS FOLLOWING THE SEQUENCE BELOW AND THEN ROTATE THE BEARING ONE FULL TURN EACH DIRECTION MAKING SURE THE BEARING ROTATES FREE.
4. TORQUE THE BOLTS TO 56 FT/LBS FOLLOWING THE SEQUENCE BELOW AND THEN ROTATE THE BEARING ONE FULL TURN EACH DIRECTION MAKING SURE THE BEARING ROTATES FREE.
5. FINAL TORQUE THE BOLTS TO 83 FT/LBS FOLLOWING THE SEQUENCE BELOW AND THEN ROTATE THE BEARING ONE FULL TURN EACH DIRECTION MAKING SURE THE BEARING ROTATES FREE.

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**TPA 10 - INSTALLATION INSTRUCTIONS**

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