

6. SEE SHEET 2 FOR CONFIGURATION OPTIONS. SEE ADDITIONAL SHEETS FOR MORE DETAILED INFORMATION ON OPTIONS.
5. PROOF LOAD TEST OPTIONAL. SEE SHEET 7 FOR MORE INFORMATION.
4. FINISHES:
- A. **STANDARD** FLOTRON FINISHES (SHOWN) - CLASS 10K (ISO 7 CLEANROOM COMPATIBLE FINISHES) - FLOTRON BLUE POWDER COATED END FRAMES. GEARBOX AND PILLOW BLOCK BEARINGS PAINTED FLOTRON BLUE. NICKEL PLATED OR STAINLESS STEELCOMPONENTS, FASTENERS, AND MISC. HARDWARE.
- B. **C FINISH** - CLASS 1K (ISO 6 CLEAN ROOM COMPATIBLE FINISHES) - SKY WHITE POWDER COATED END FRAMES. GEARBOX AND PILLOW BLOCK BEARINGS PAINTED GLOSS WHITE EPOXY. NICKEL PLATED COMPONENTS, STAINLESS STEEL FASTENERS, AND MISC. HARDWARE. OPEN-ENDED TUBES NICKEL PLATED. KRYTOX GPL 217 LUBRICANT ON CASTERS, SYNCO - SUPER LUBE SYNTHETIC GREASE WITH PTFE LUBRICANT ON JACKS.
3. LOAD RATING:
- a) **DR06** GB AT SFy=3 & SFult=5: 7,000 LBS @ 3.25" MAX ECCENTRICITY CONSIDERING A SIMULTANEOUS 1/2G SIDE LOAD (WORST CASE DIRECTION) AND A 1G VERTICAL LOAD. MAX TORQUE ON GEARBOX 23,000 IN-LBS (10,000 IN-LBS MAX EASY CRANK USING HANDWHEEL)
- b) **DR09** GB AT SFy=3 & SFult=5: 7,000 LBS @ 5.18" MAX ECCENTRICITY CONSIDERING A SIMULTANEOUS 1/2G SIDE LOAD (WORST CASE DIRECTION) AND A 1G VERTICAL LOAD. MAX TORQUE ON GEARBOX 36,300 IN-LBS (18,000 IN-LBS MAX EASY CRANK USING HANDWHEEL)

2. WEIGHT IN TITLE BLOCK INCLUDES 7,000 LB PAYLOAD.

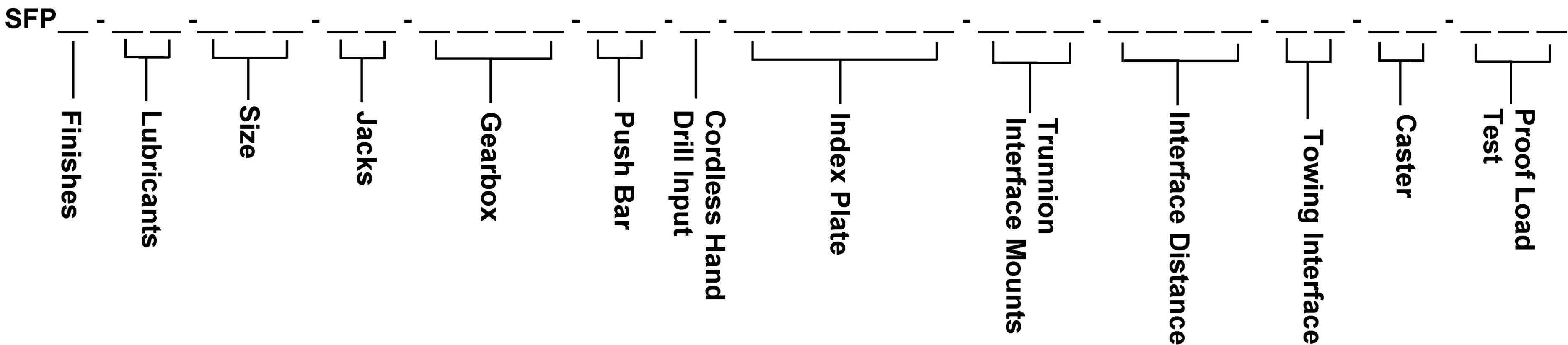
1. CONFIGURATION SHOWN ON THIS SHEET: SFP-974-DR06-INDS15-P13-B096

NOTES:

LATERAL STABILITY WITH 7,000 LB PAYLOAD = 28.69 / 58.63 = .49G

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				<b>SFP-974</b>							
				SCALE: 1 : 12				SIZE: D			
				DRAWING NO. 8094-100PROP							
				WT: 10770.5 lbmass				Cad software: Inventor			
				SHEET 1 OF 7							





**Finishes**  
(blank) - Standard finishes (No Zinc)  
**C** - - - - - Clean Room finishes

**Lubricants**  
(blank) - Standard lubricants  
**L1** - - - - - Trunnions, caster swivel bearings, and jacks (if applicable) lubricated with Krytox GPL 217  
**L2** - - - - - Trunnions, caster swivel bearings, and jacks (if applicable) lubricated with Braycote 631RP  
*NOTE: “C” finish includes L1 Lubricants*

**Size**  
**974** - - 74” Wide frame

**Jacks**  
(blank) - No provision for Jacks  
**J2** - - - - - Jacks Frame-mounted leveling/stabilizing  
**J3** - - - - - Jacks Frame-mounted with leveling foot “F1”  
**J4** - - - - - Jacks Frame-mounted with vibration-isolating plate “V1”

**Gearbox**  
**DR06** - - - - - 600:1 Low Backlash Gearbox  
**DR09** - - - - - 900:1 Low Backlash Gearbox

**Push Bar**  
(blank) - No Push Bar  
**P1** - - - - - End Frame-mounted Push Bar

**Cordless Hand Drill Input**  
(blank) - - - No hand drill  
**D** - - - - - Battery powered hand drill mounted to gearbox input shaft

**Proof Load Test**  
(blank) - - No Proof Load Test  
**PLT** - - - - - Standard Proof Load Test (includes deliverable report)

**Caster**  
(blank) - Ø8” Nylon caster with brake & swivel lock, no Steering Bars

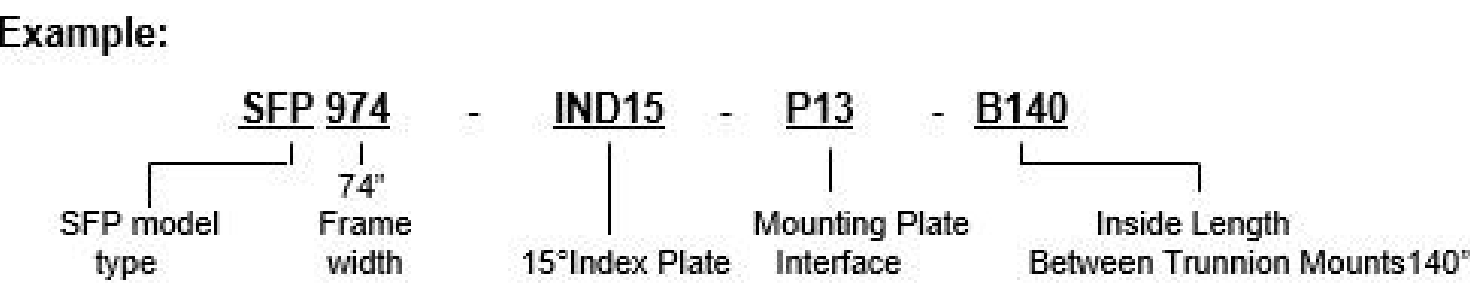
**Towing Interface**  
(blank) - No Towing Interface  
**T1** - - - - - Removable Lunette Ring Towing Interface (attaches to main beam)  
**T2** - - - - - Removable Ball Coupler Towing Interface (attaches to main beam)  
**T3** - - - - - Removable Tow Bar (attaches to end frames)

**Interface Distance**  
**B”XXX”**- - Interface distance where “XXX” = length in inches between trunnion interface mounts. (1” increments within the following range)

MODEL	MIN	MAX
974	35”	350”

**Trunnion Interface Mounts**  
**P13** - - - - - 9” x 13” mounting plate with 8 through holes  
**P13/B36** - - - - - P13 (8 bolts, 9” x 13”) mounting plate and standard 36” long horizontal interface adapter (with standard mounting hole pattern) bolted to P13.  
*NOTE: Special Interface mounts available upon request.*

**Index Plate**  
**IND15** - - - 15° Index Plate  
**INDS15**- - -15° Index Plate with Index Stops  
*NOTE: Special index plate hole spacing available upon request. SFP-974 comes standard with IND15 option.*



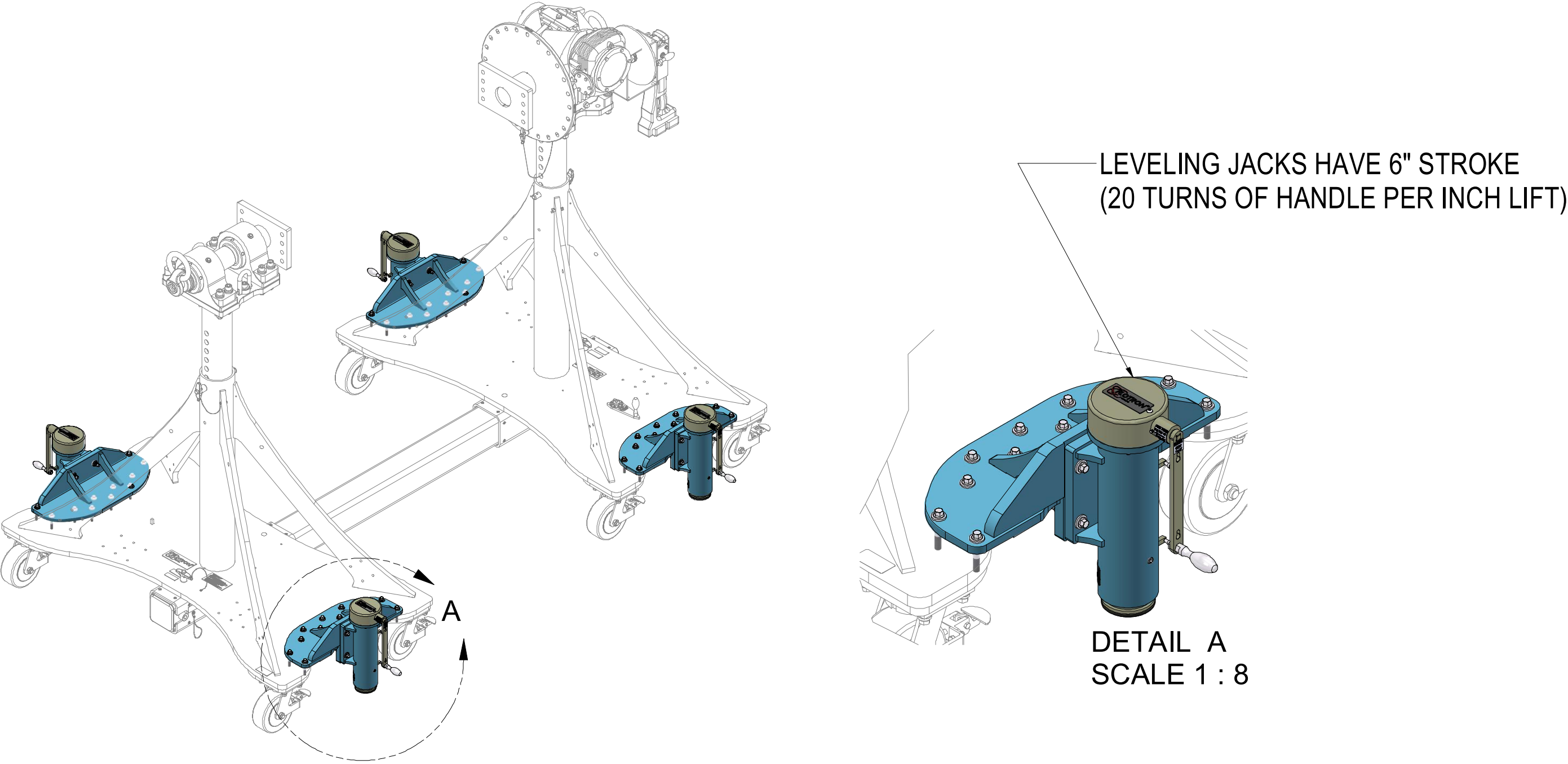


J2, J3, J4 MOUNTED JACK OPTIONS

J2 OPTION INCLUDES LJ-4500 JACKS WITH MOUNTING BRACKETS. J3 OPTION REPLACES STANDARD FOOT PAD WITH LEVELING FOOT THAT ACCOMMODATES UNEVEN FLOORS. J4 OPTION ADDS PASSIVE VIBRATION ISOLATOR UNDER STANDARD FOOT

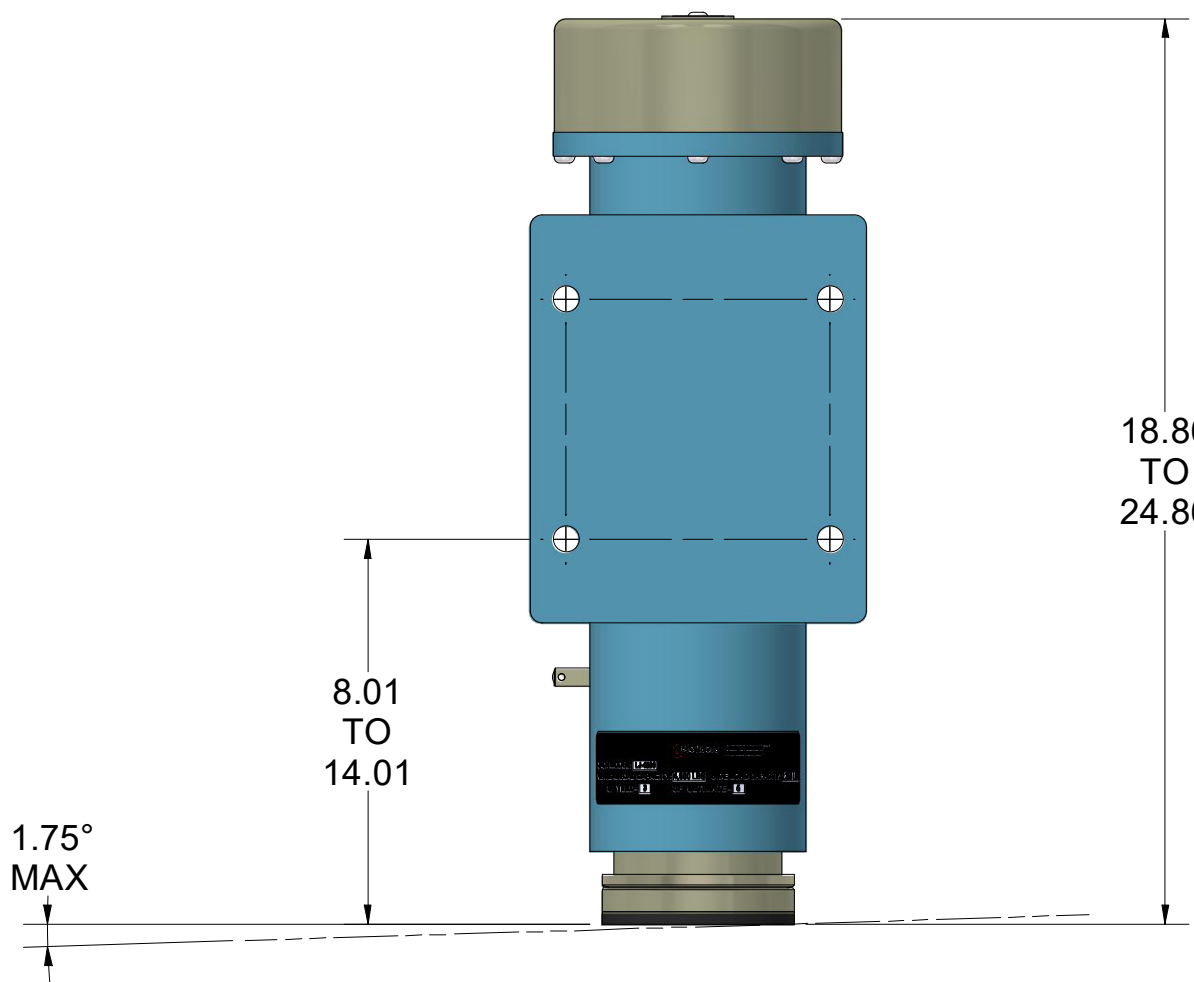
SFP-974 DYNAMIC LOAD CHART

J2 STANDARD JACK KIT



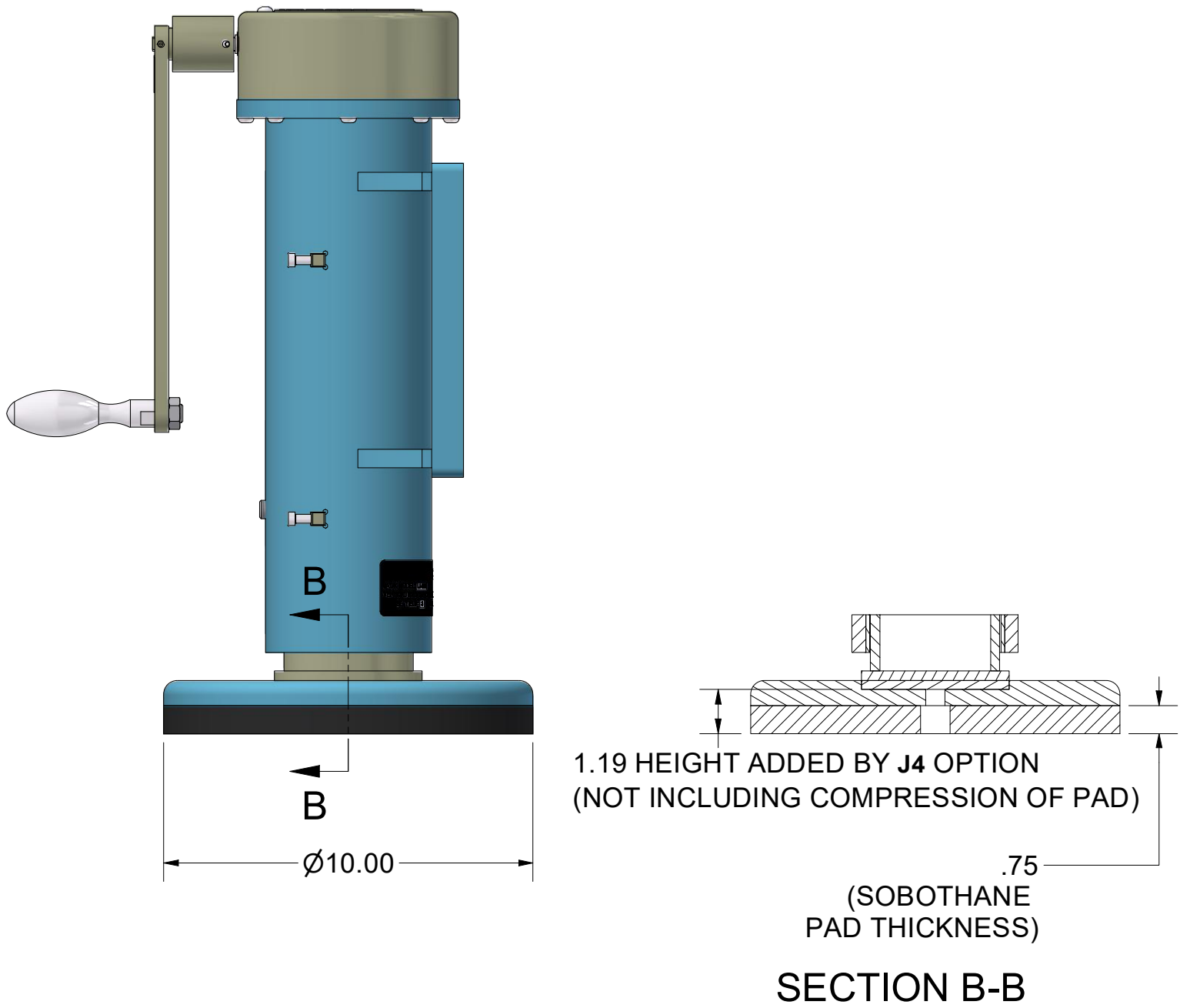
J3 JACKS WITH LEVELING FEET

SAME COMPONENTS AS J2 KIT BUT WITH LEVELING FEET TO ACCOMMODATE UNEVEN FLOORS. OPTION ADDS .52" TO JACK HEIGHT

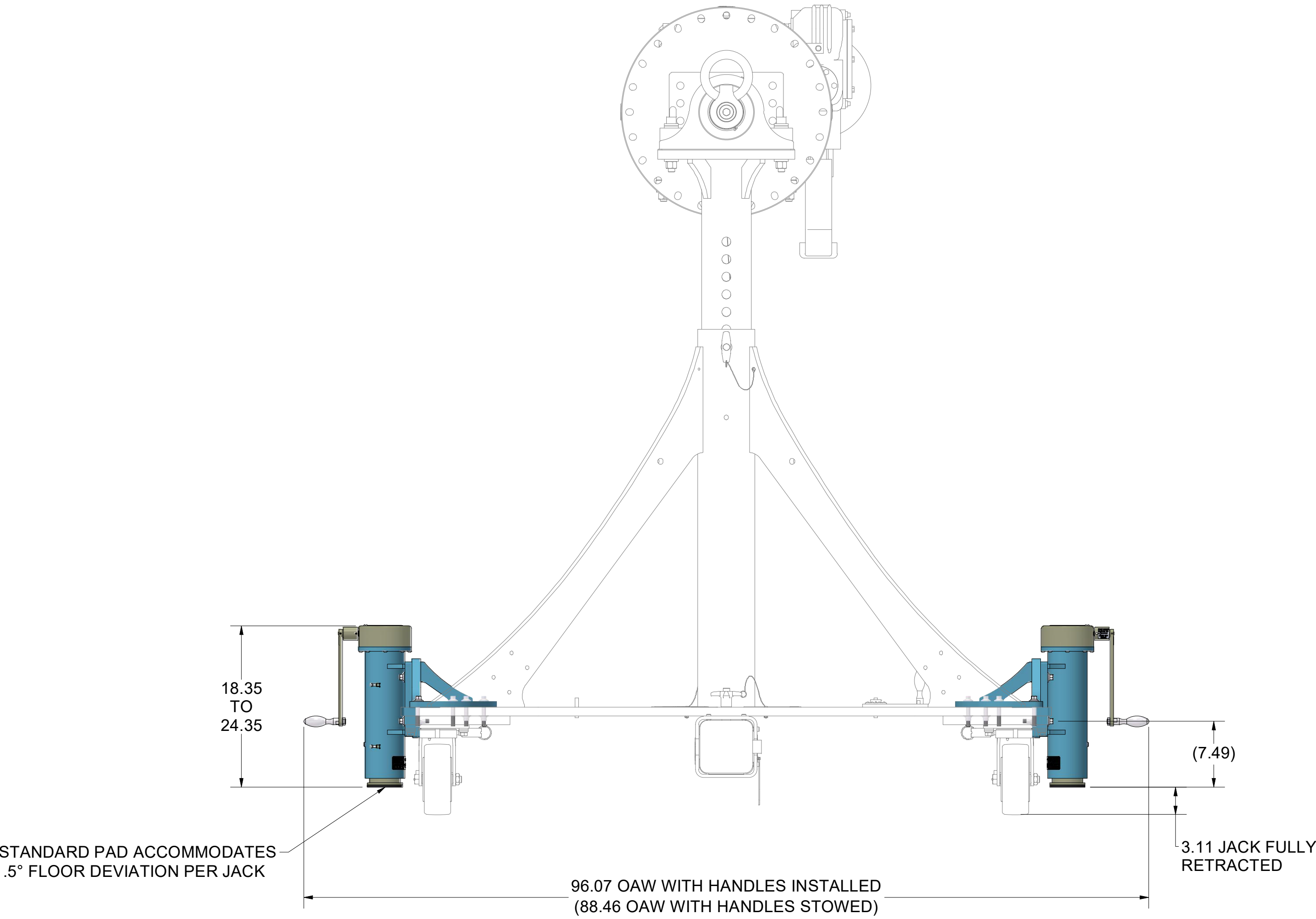
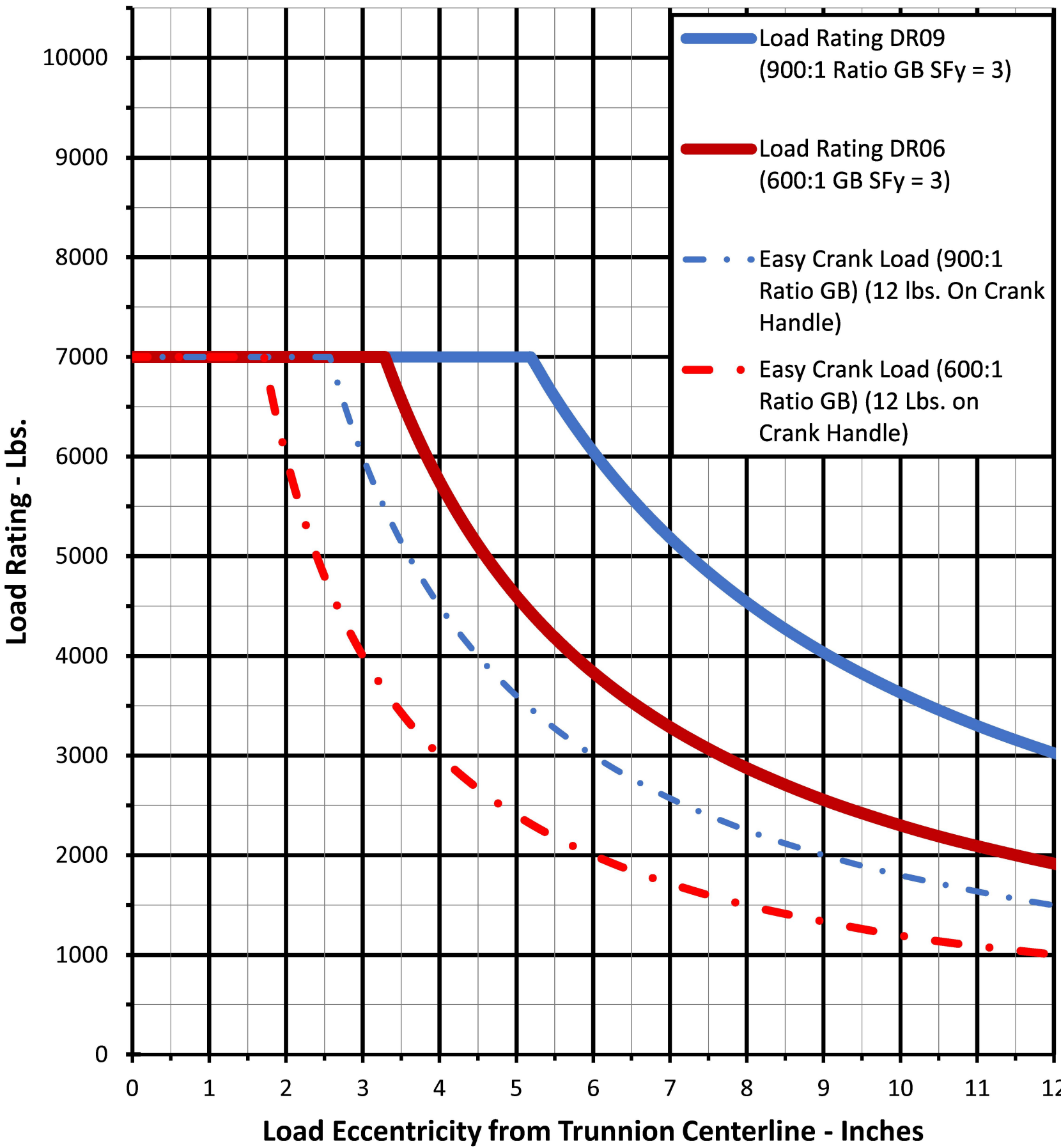


J4 JACKS WITH VIBRATION ISOLATOR PADS

SORBOTHANE (VISCO-ELASTIC POLYMER) PAD INCLUDED TO PROTECT SENSITIVE ELECTRONIC FROM FLOOR VIBRATIONS. PAD CAN ABSORB 75% OF FLOOR VIBRATIONS AT FREQUENCIES FROM 10 TO 30,000 HERTZ. EACH PAD WILL COMPRESS APPROXIMATELY .11" UNDER A 7,000 LB MAX PAYLOAD WEIGHT.



SFP-974 Dynamic Loading  
(1.0 G Vertical & 0.5 G Horizontal)



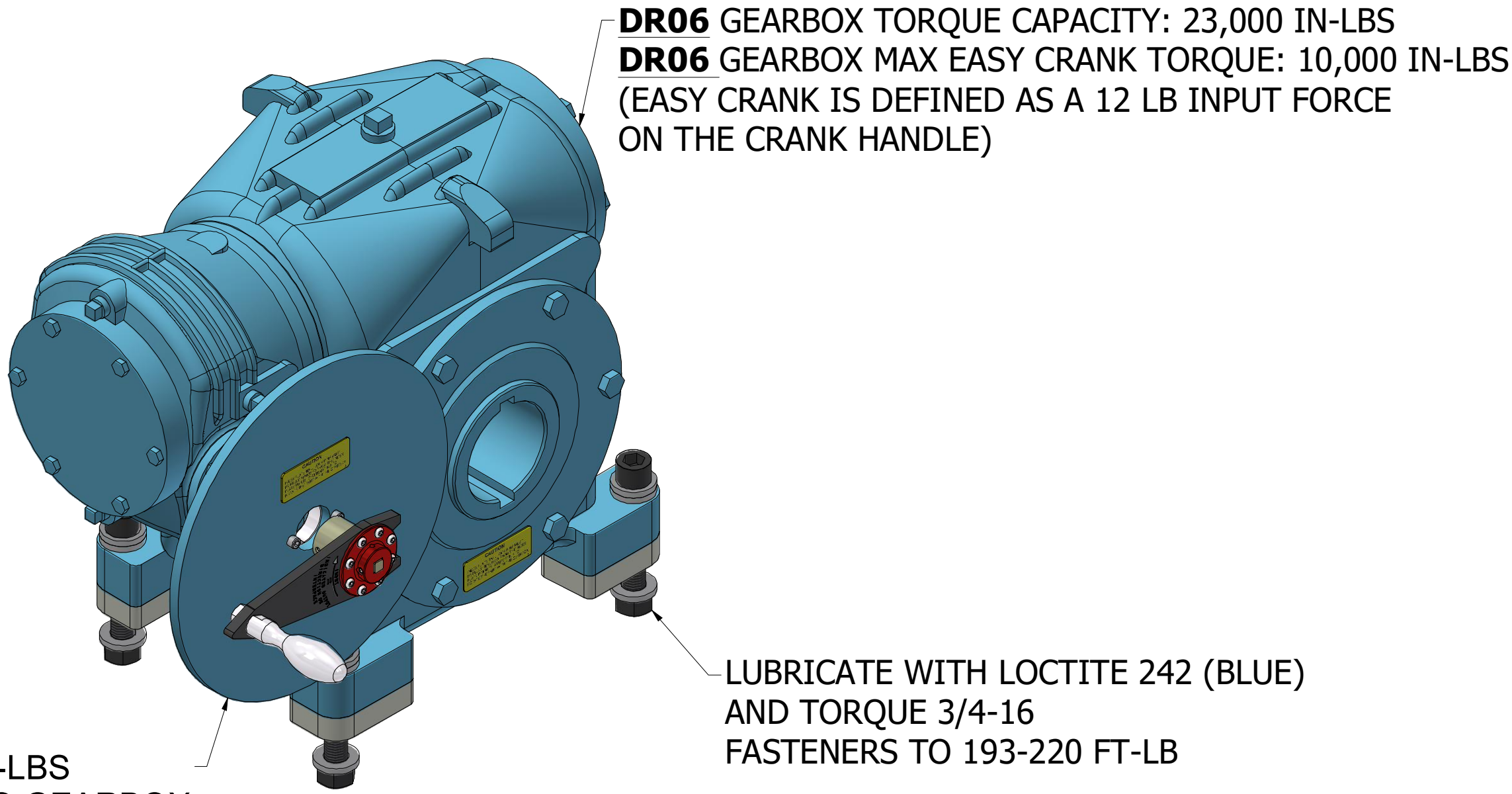
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GEARBOX OPTIONS

DR06 600:1 STANDARD GB OPTION

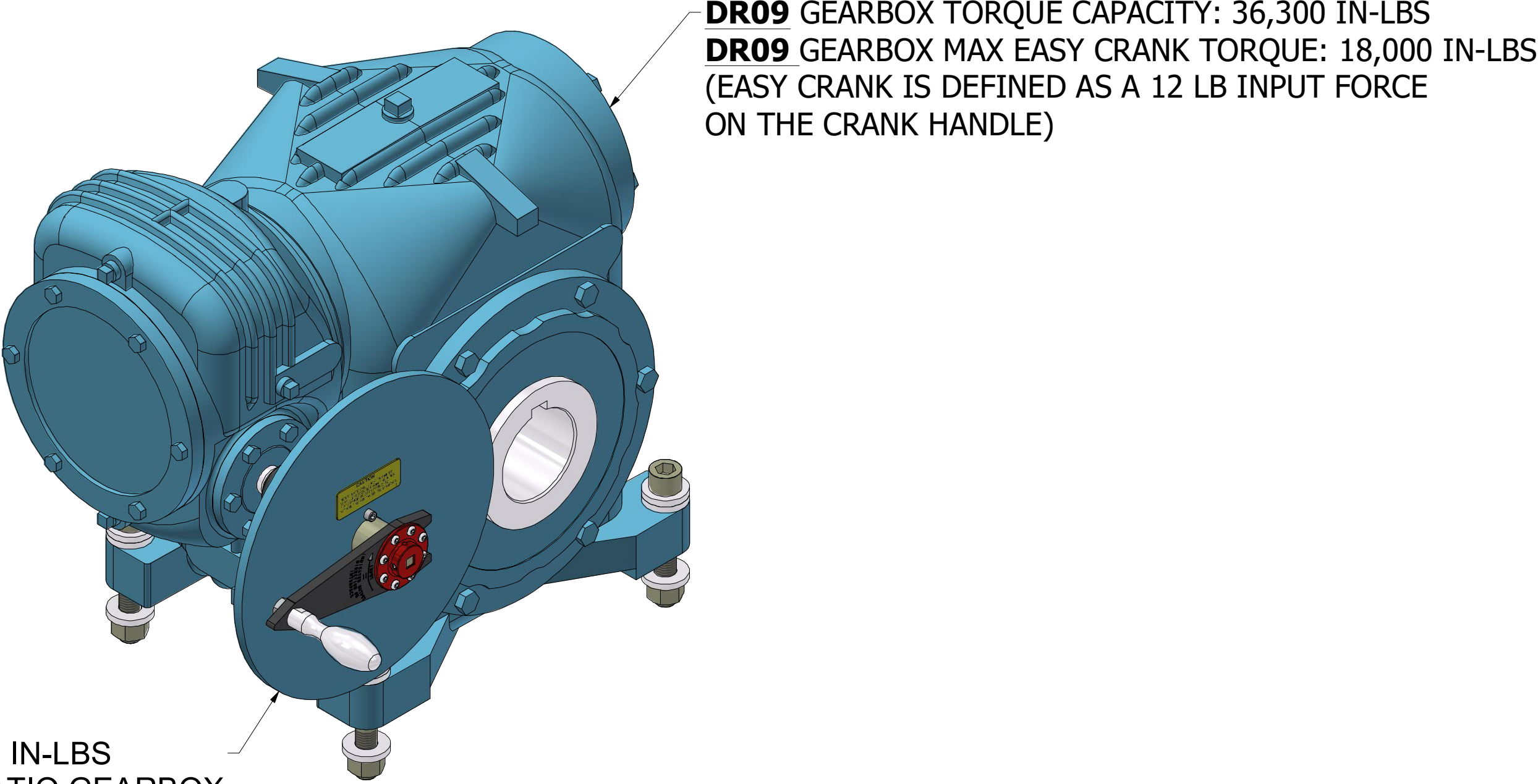
NON-BACKDRIVING WITH 600:1 RATIO DUAL STAGE DOUBLE ENVELOPING WORM GEAR DRIVE.



SET CLUTCH TO 220 IN-LBS FOR **DR06** (600:1) RATIO GEARBOX PRIOR TO ASSEMBLY

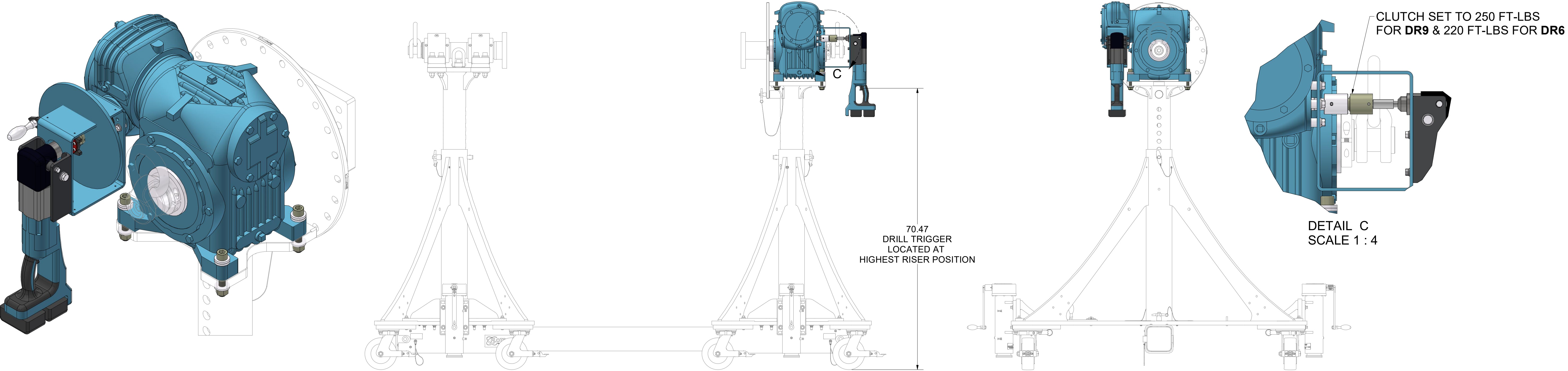
DR09 900:1 GB OPTION

NON-BACKDRIVING WITH 900:1 RATIO DUAL STAGE DOUBLE ENVELOPING WORM GEAR DRIVE.



SET CLUTCH TO 250 IN-LBS FOR **DR09** (900:1) RATIO GEARBOX PRIOR TO ASSEMBLY

D CORDLESS HAND DRILL INPUT OPTION



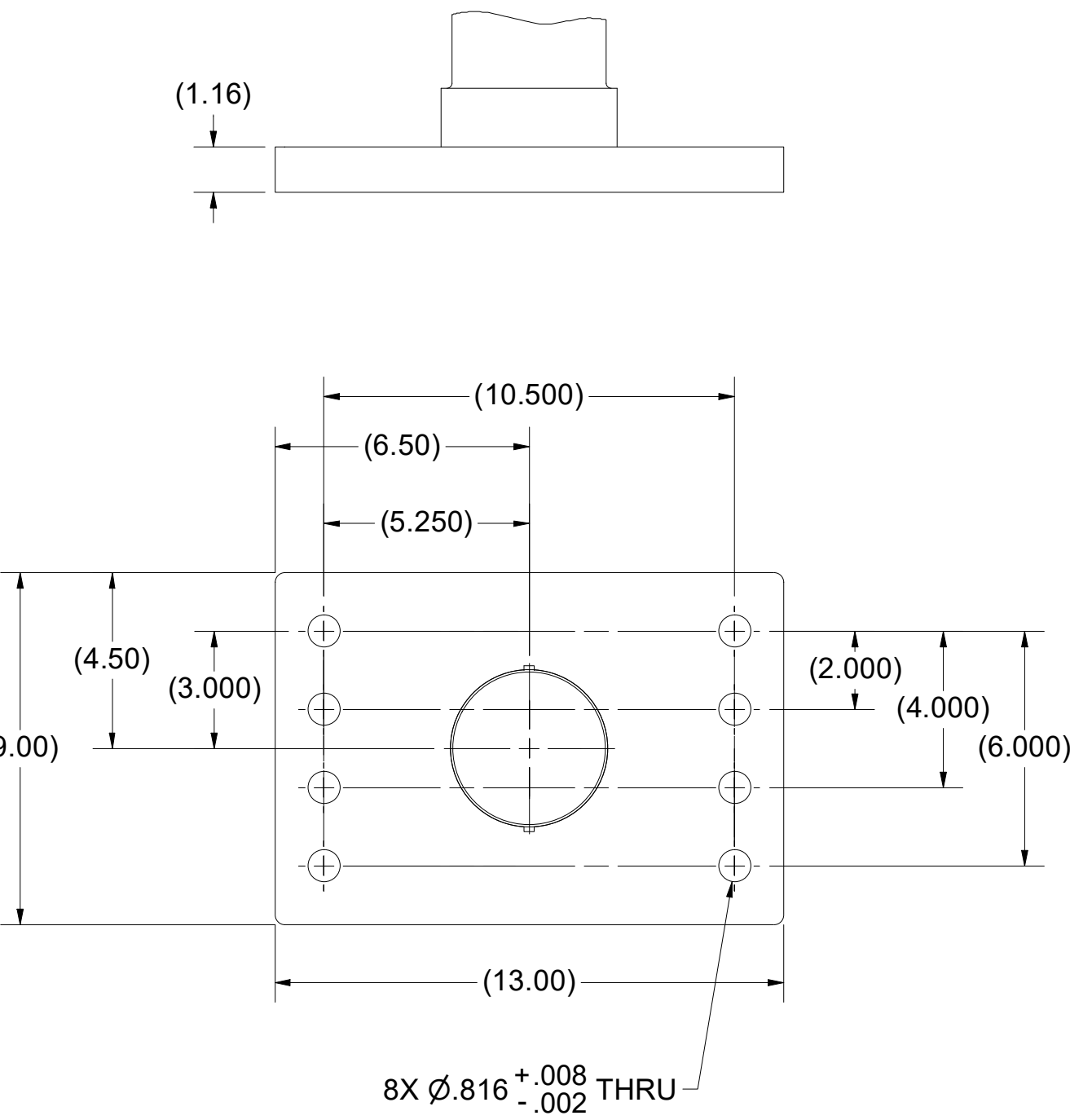
WHEN **D** OPTION IS USED WITH **DR09** GEARBOX (900:1 RATIO), DRILL MAX RPM IS 300 RESULTING IN A MAX OUTPUT PAYLOAD ROTATION SPEED OF .33 RPM.  
WHEN **D** OPTION IS USED WITH **DR06** GEARBOX (600:1 RATIO), DRILL MAX RPM IS 300 RESULTING IN A MAX OUTPUT PAYLOAD ROTATION SPEED OF .5 RPM.  
WITH **D** OPTION, FULL GEARBOX TORQUE CAPACITY CAN BE USED. COMES STANDARD WITH CLUTCH BETWEEN THE GEARBOX AND HAND CRANK TO PREVENT OVER-TORQUE OF GEARBOX IN CASE INDEX PIN WAS NOT REMOVED BEFORE ROTATION OR PAYLOAD ECCENTRICITY IS TOO HIGH.

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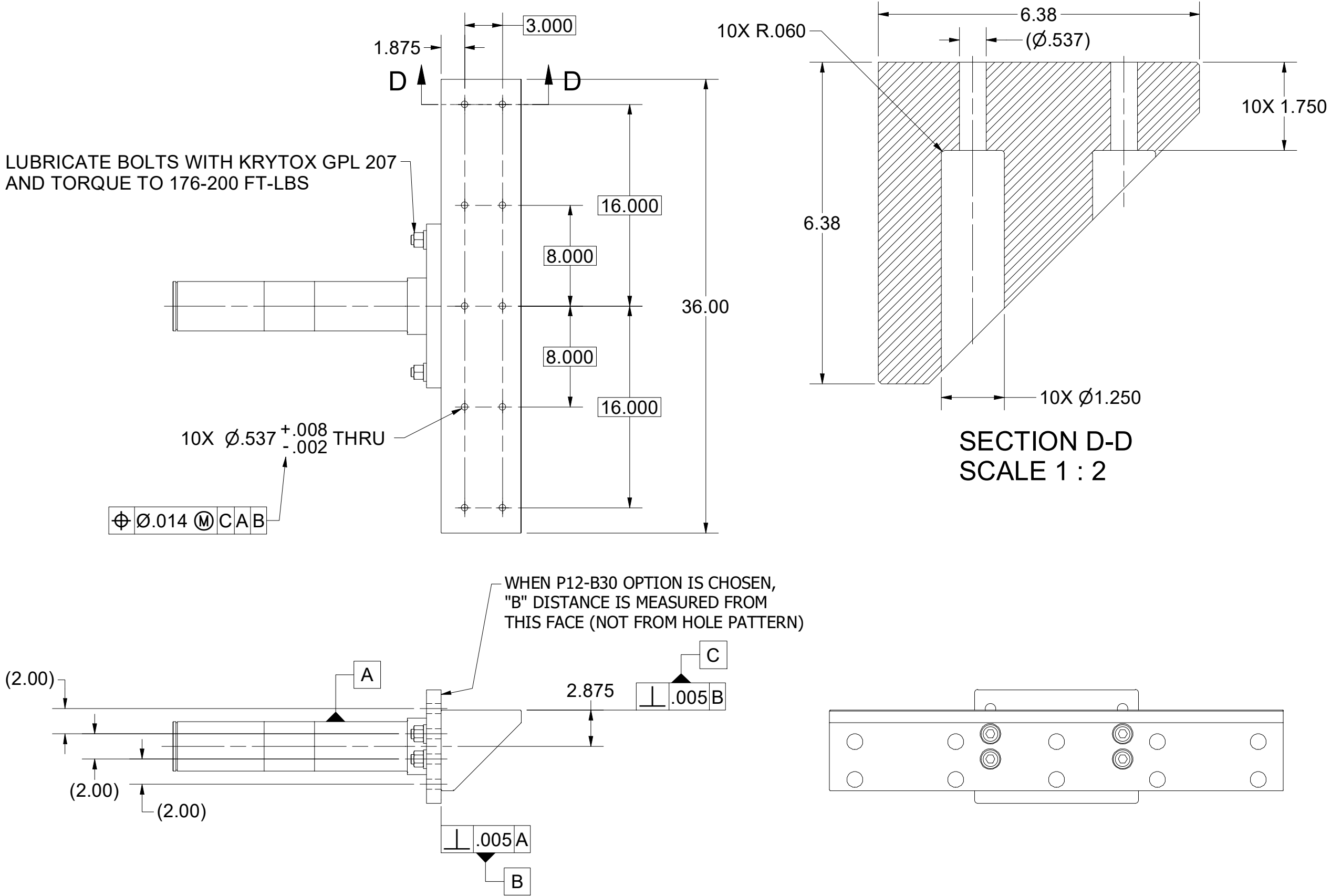


TRUNNION INTERFACE MOUNT OPTIONS

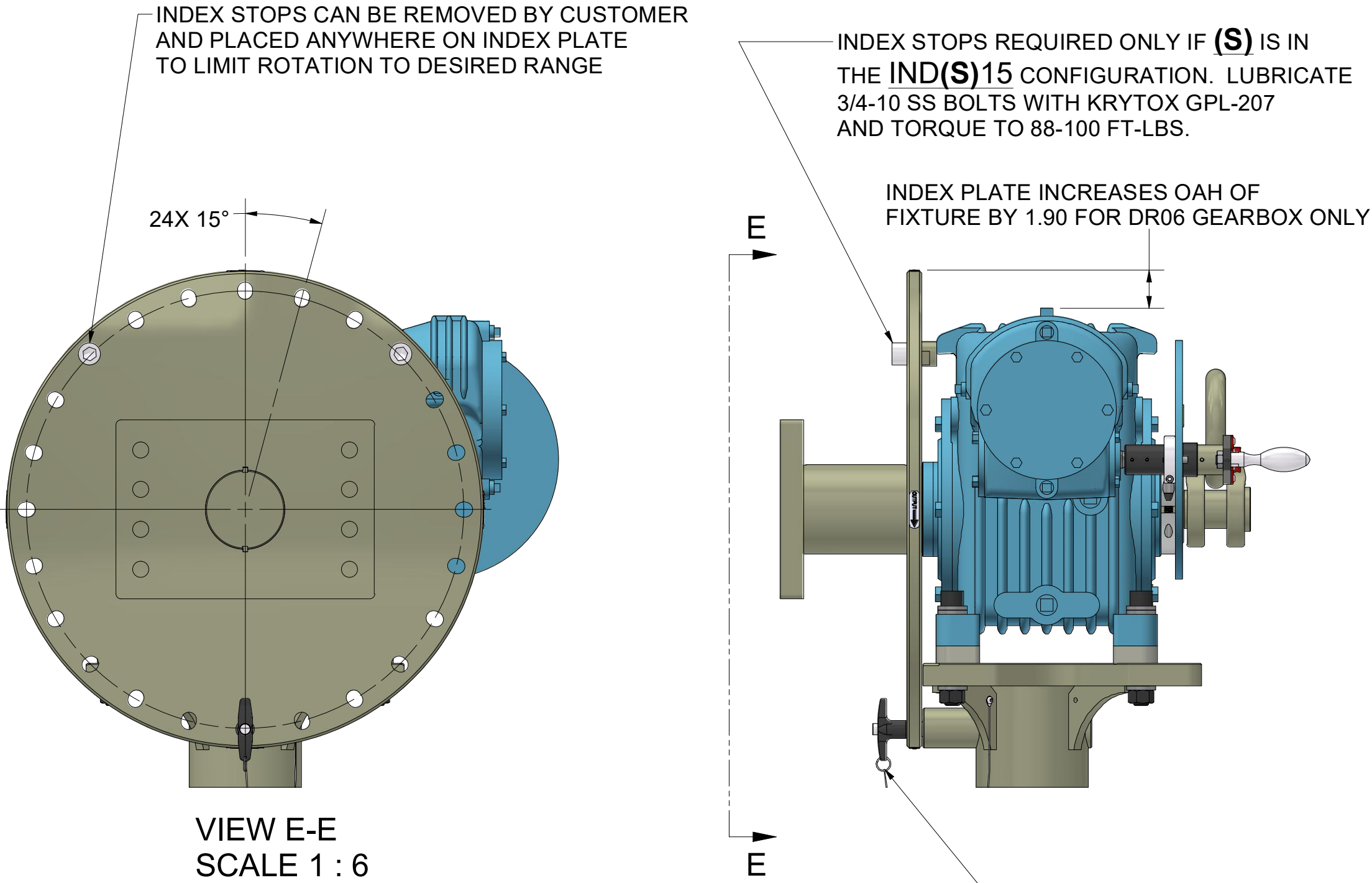
P13 PAYLOAD INTERFACE  
(SHOWN WITH OPTIONAL INDS15)



P13/B36 PAYLOAD INTERFACE  
(WITH STANDARD BOLT HOLE PATTERN AND MACHINED MOUNTING SURFACE)  
(TYPICAL BOTH SIDES) ANGLE MATERIAL: 6061-T6 ALUMINUM  
FINISH: HARD ANODIZED

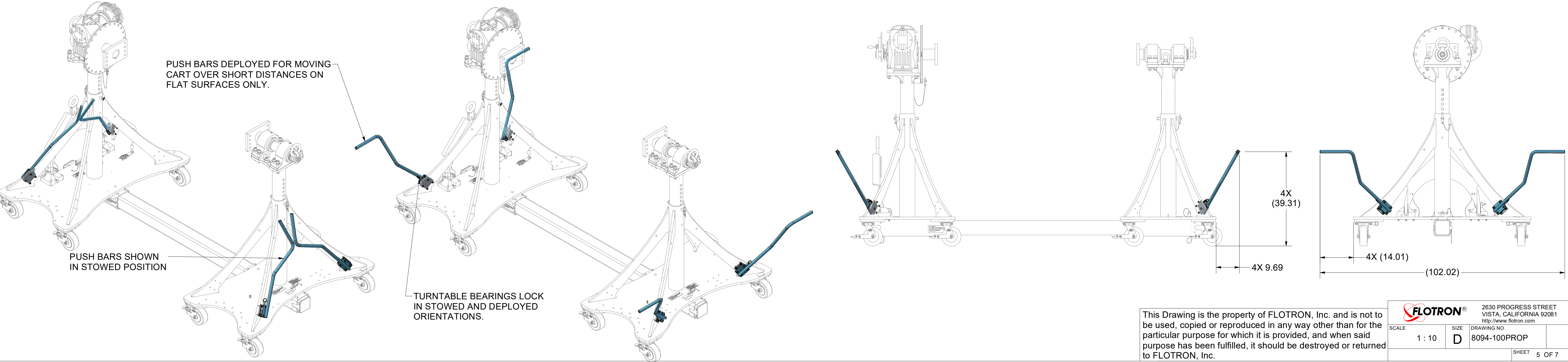


IND(S)15 INDEX PLATE WITH STOPS (S)



CAUTION: INDEX PIN MUST BE REMOVED PRIOR TO ROTATION. FAILURE TO REMOVE PIN COULD DAMAGE INDEX PLATE OR GEARBOX.

P1 PUSH BAR OPTION  
END FRAME-MOUNTED PUSH BARS WITH STOW-AWAY CAPABILITY



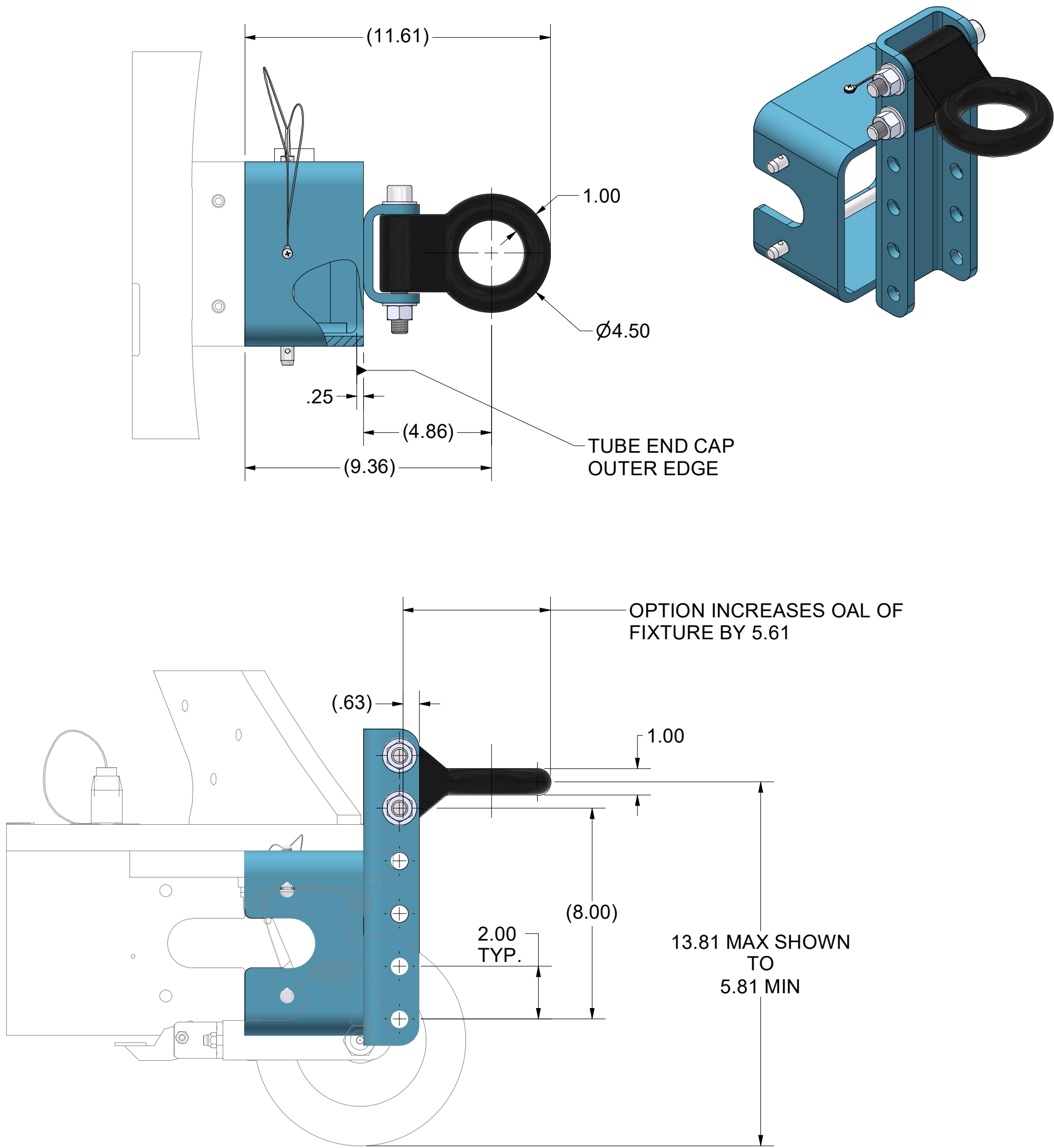
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TOW HARDWARE OPTIONS

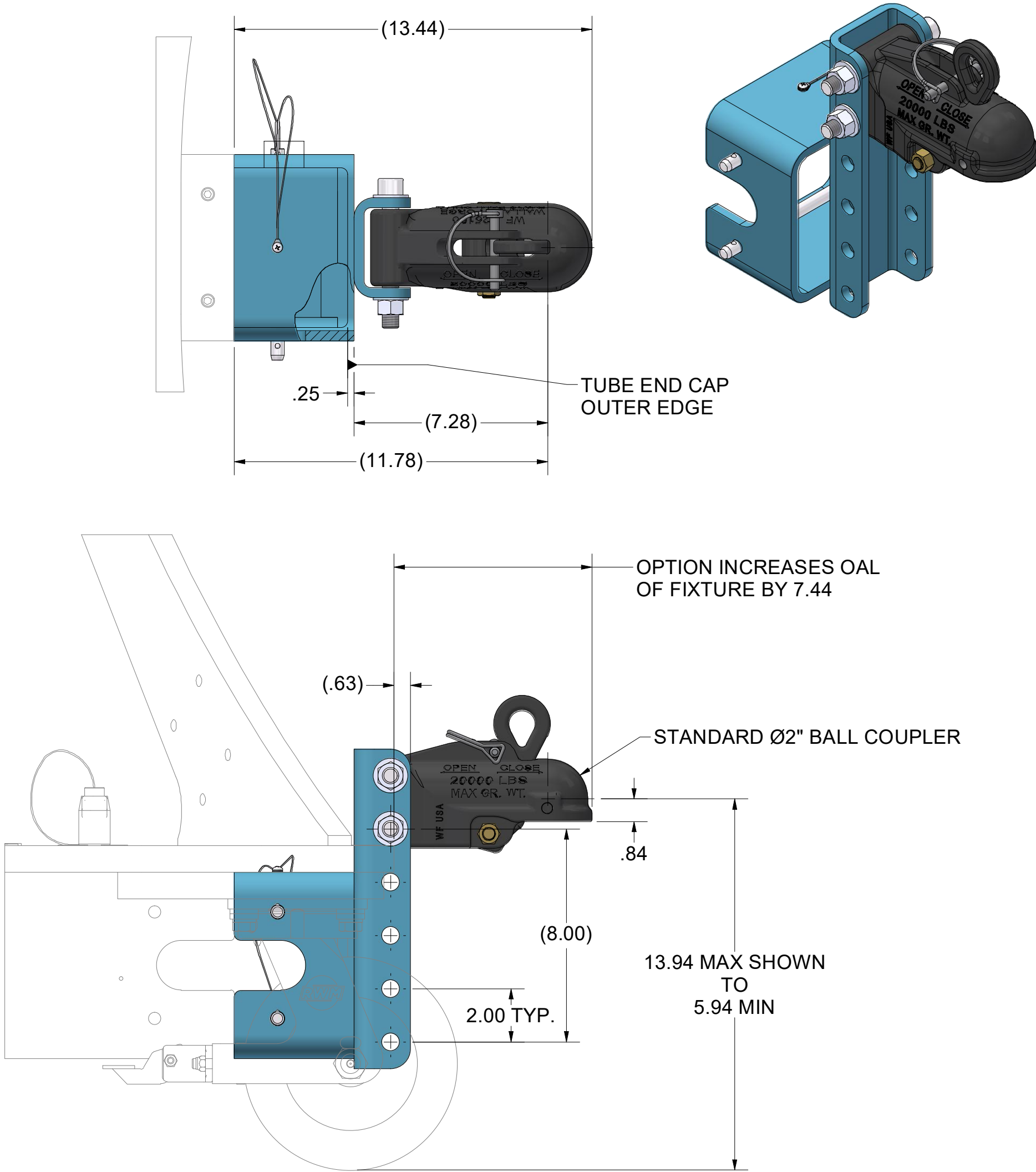
T1 REMOVABLE TOW RING INSERT

MAIN BEAM MOUNTED TOW RING  
OPTION INCREASES OAL OF FIXTURE BY 5.48"

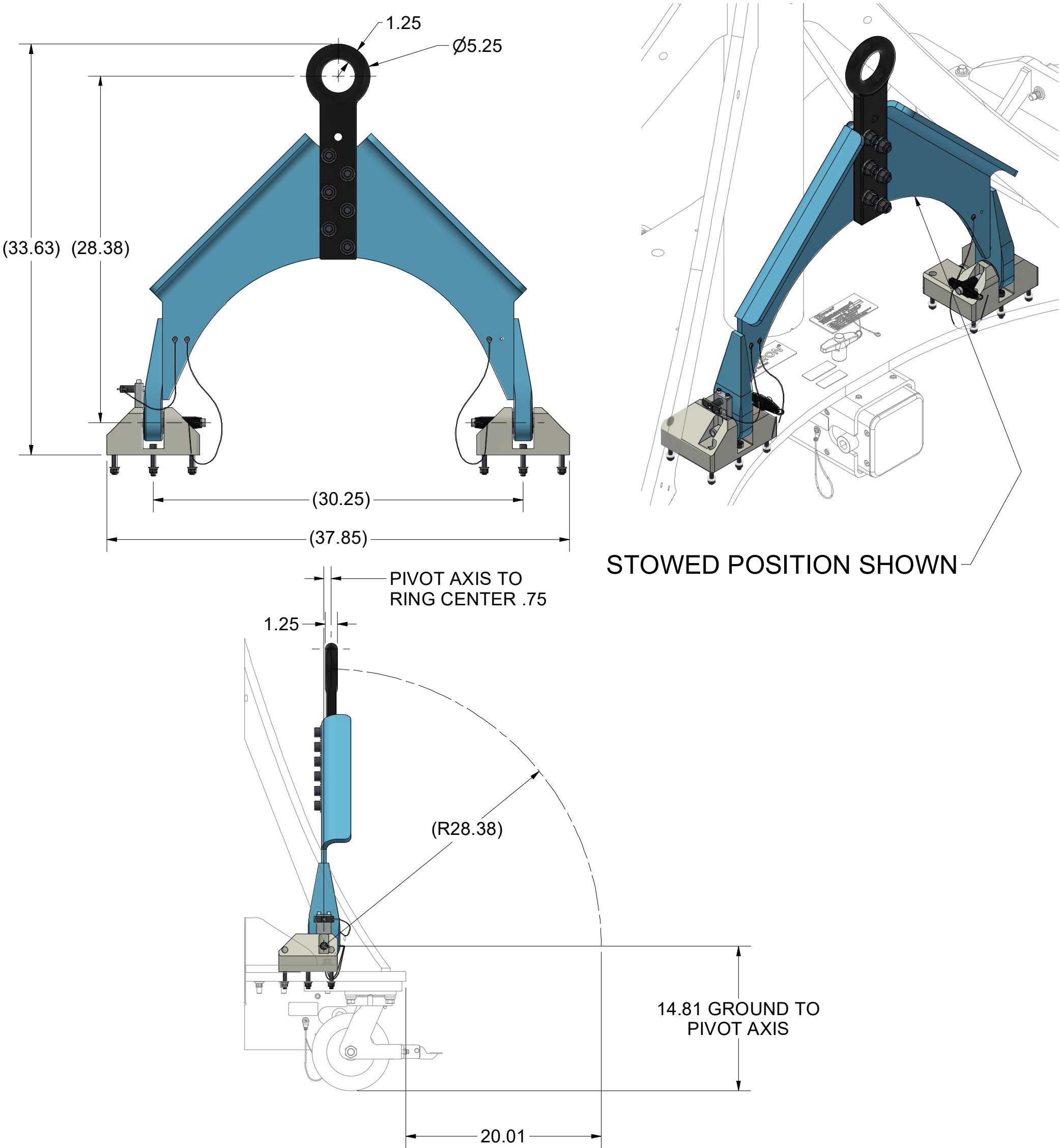


T2 REMOVEABLE TOW BALL INSERT

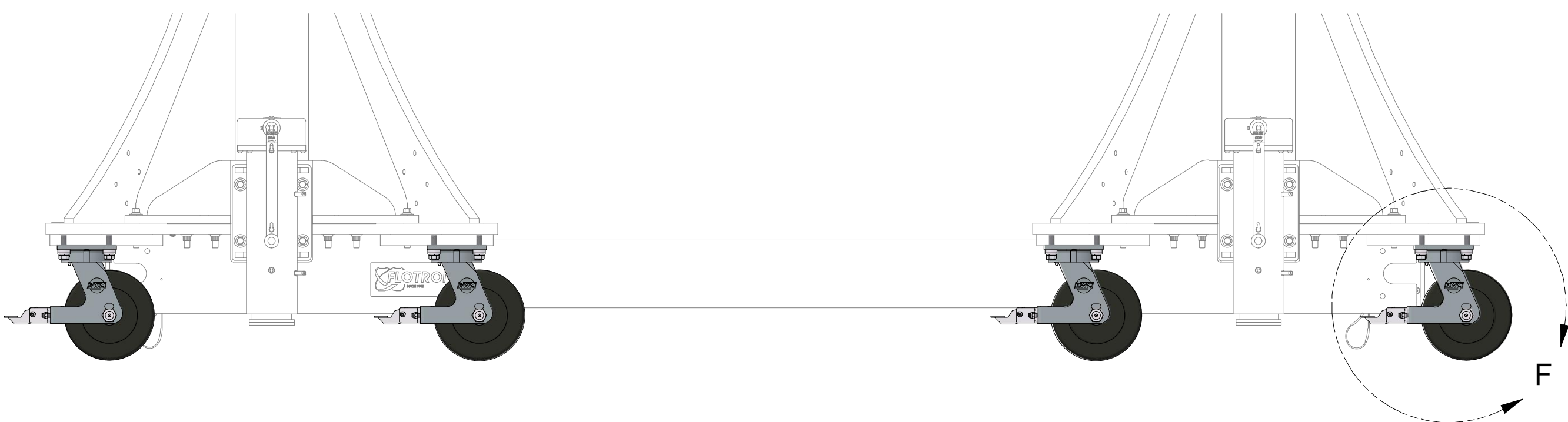
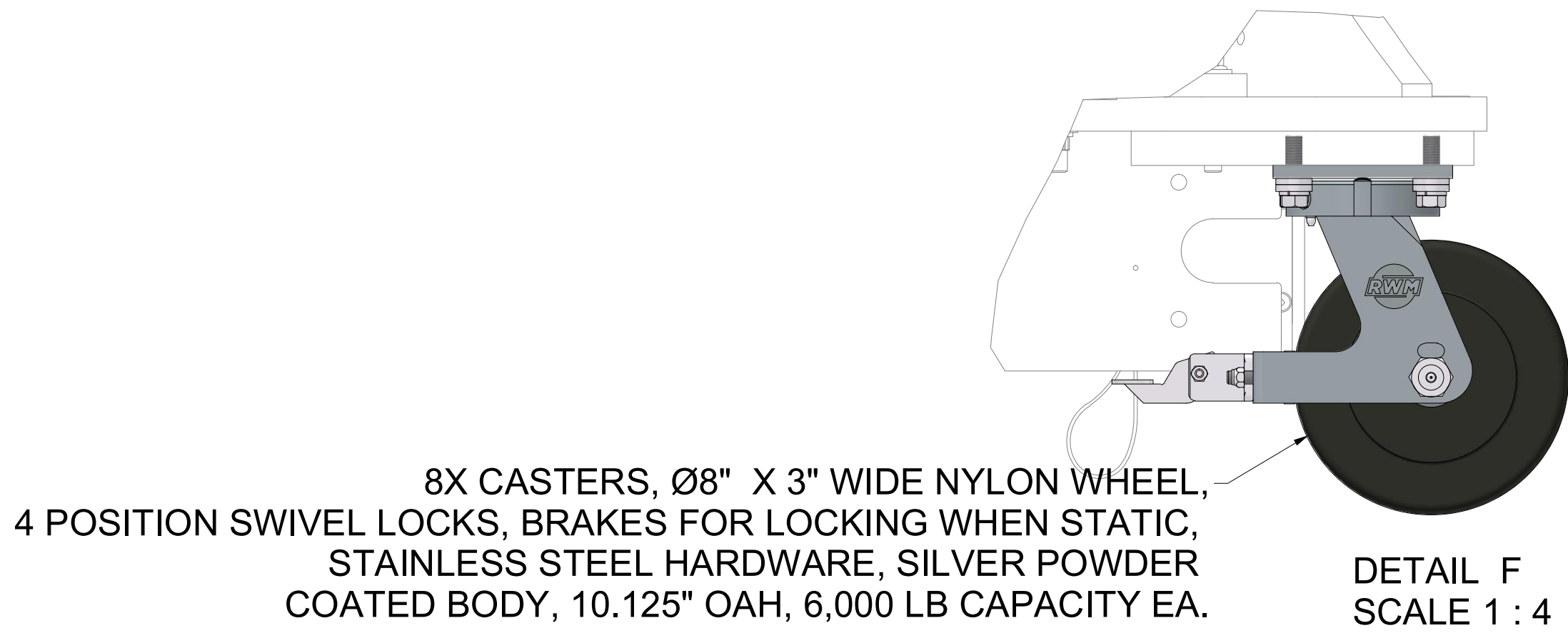
MAIN BEAM MOUNTED TOW BALL COUPLER  
OPTION INCREASES OAL OF FIXTURE BY 7.44"



T3 REMOVEABLE TOW BAR



STANDARD CASTER WITH BRAKE AND SWIVEL LOCK



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# PROOF LOAD TEST (PLT) PROCEDURE

## STATIC PROOF LOAD REQUIREMENTS:

PROOF LOAD WEIGHT = 2 X 7,000 LBS = 14,000 **LBS (MIN)**  
100% RATED TORQUE = 23,000 **IN-LBS (MIN) FOR DR06**  
36,300 **IN-LBS (MIN) FOR DR09**

## STANDARD STATIC PROOF LOAD TEST PROCEDURE (DO NOT ROTATE LOAD):

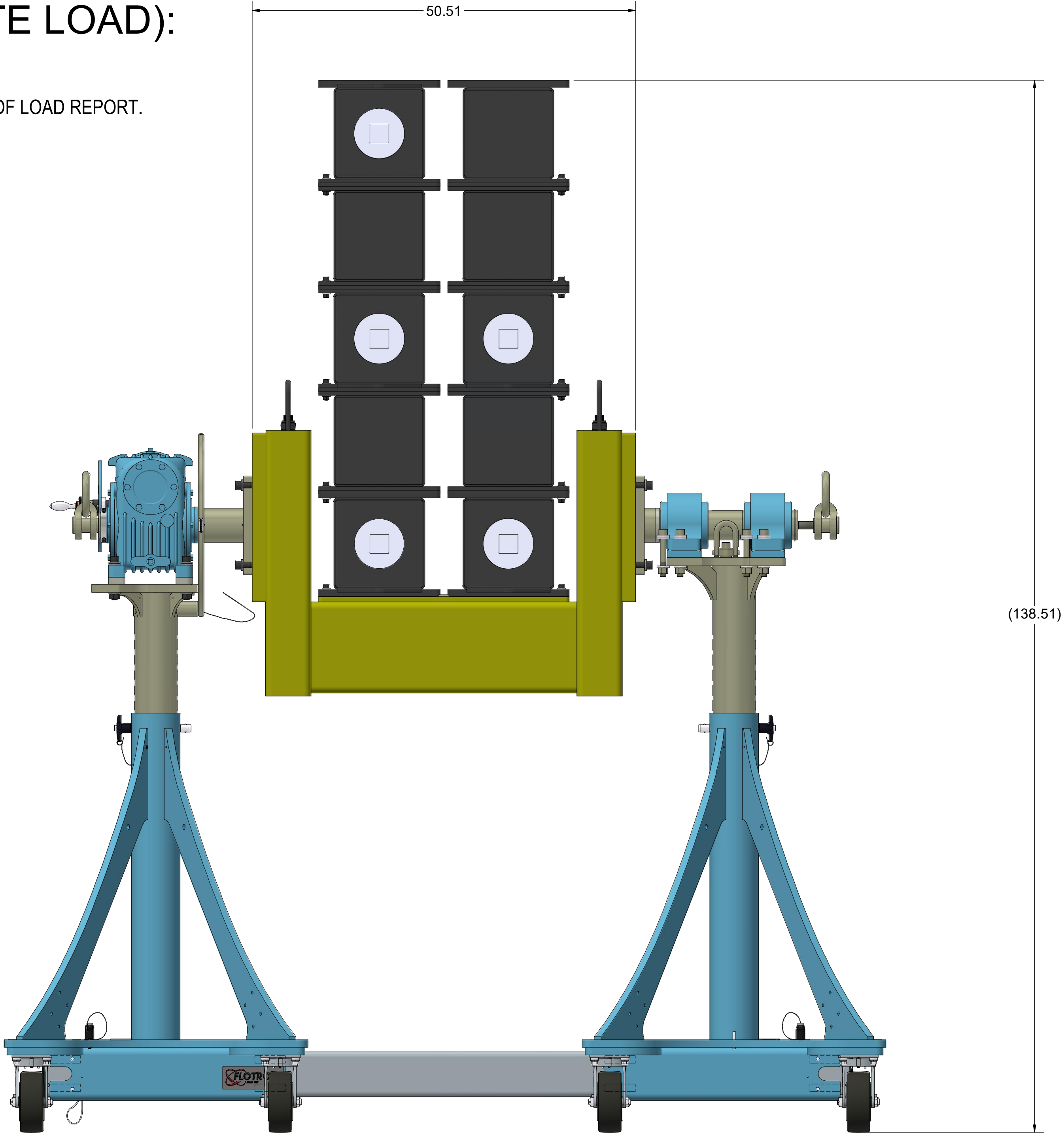
- I. LOAD APPROPRIATE NUMBER OF WEIGHTS WITH CRANE OR FORKLIFT TO MEET PROOF LOAD WEIGHT AND TORQUE REQUIREMENTS LISTED ABOVE.
- II. WEIGH PROOF LOAD TO MAKE SURE IT MEETS REQUIREMENT AND TAKE A PICTURE OF PROOF LOAD ON SCALE WITH LOAD VALUE ON SCALE VISIBLE FOR PROOF LOAD REPORT.
- III. INSTALL PROOF LOAD ONTO FIXTURE.
- IV. STOP AS REQUIRED TO REVIEW AND INSPECT ANY UNEXPECTED NOISES OR MOVEMENTS.
- V. START TIMER, TAKE A PICTURE OF CLOCK ON FIXTURE, AND HOLD FOR (5) FIVE MINUTES.  
AFTER 5 MINUTES, TAKE A SECOND PICTURE OF CLOCK ON FIXTURE AND VISUALLY INSPECT FOR CRACKS, DEFORMATION, ETC.

### IF JACK (J2 OR J3) OPTION IS CHOSEN:

- 1. LOWER ALL JACKS TO CONTACT THE FLOOR WITHOUT COMPLETELY OFFLOADING WEIGHT FROM CASTERS.
- 2. AT ONE JACK LOCATION, EXTEND JACK TO RAISE CASTER 1/2" FROM FLOOR.
- 3. REVIEW THE REMAINING JACK POSITIONS AND DOCUMENT CLEARANCE TO FLOOR IF ANY.
- 4. EXTEND THE PARTNER JACK MOUNTED ON THE SAME END FRAME TO RAISE THE CASTER 1/2" FROM FLOOR LEVEL.
- 5. FOLLOW THE PROCEDURE ON THE OPPOSITE END FRAME.
- 6. START TIMER, TAKE A PICTURE OF CLOCK ON FIXTURE, AND HOLD FOR (5) FIVE MINUTES.  
AFTER 5 MINUTES, TAKE A SECOND PICTURE OF CLOCK ON FIXTURE AND VISUALLY INSPECT FOR CRACKS, DEFORMATION, ETC.

### DELIVERABLE REPORT INCLUDES:

THE REPORT WILL INCLUDE A SUMMARY OF THE TEST PROCEDURE,  
ACTUAL MEASURED WEIGHT OF LOAD APPLIED, VISUAL INSPECTION RESULTS,  
AND IMAGES OF THE TEST BEING PERFORMED.



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SCALE	1 : 10	SIZE	D
DRAWING NO.		8094-100PROP	
SHEET		7 OF 7	