

REV.	ECO/DDC	DESCRIPTION	DATE	DRAFT	CHECK	APV'D
A	----	RELEASED.	11-30-16	V.J.C.	E.M.J.	V.J.C.

### LOAD POINT MODEL NUMBERS

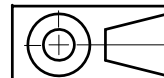
CAPACITY LBS [KG]	MODEL NUMBER PLATED ALLOY STEEL	MODEL NUMBER STAINLESS STEEL	MODEL NUMBER ELECTRO-POLISHED STAINLESS STEEL	LOAD SENSOR MODEL NUMBER	CABLE LENGTH FT [M]
22 LB [10KG]	HI ONELP-H-22-AS	HI ONELP-H-22-SS	HI ONELP-H-22-ES	HI HBB01-22	10FT [3M]
44LB [20KG]	HI ONELP-H-44-AS	HI ONELP-H-44-SS	HI ONELP-H-44-ES	HI HBB01-44	10FT [3M]
110 LB [50KG]	HI ONELP-H-110-AS	HI ONELP-H-110-SS	HI ONELP-H-110-ES	HI HBB01-110	10FT [3M]
220 LB [100KG]	HI ONELP-H-220-AS	HI ONELP-H-220-SS	HI ONELP-H-220-ES	HI HBB01-220	10FT [3M]
440 LB [200KG]	HI ONELP-H-440-AS	HI ONELP-H-440-SS	HI ONELP-H-440-ES	HI HBB01-440	10FT [3M]
550 LB [250KG]	HI ONELP-H-550-AS	HI ONELP-H-550-SS	HI ONELP-H-550-ES	HI HBB01-550	10FT [3M]

10. SEE SHEET 4 FOR LOAD POINT ACCESSORY AND REPLACEMENT PART NUMBERS.
10. SEE SHEET 2 FOR LOAD POINT DIMENSIONS AND SHEET 3 FOR LOAD POINT INSTALLATION INSTRUCTIONS.
9. LOAD POINT OPERATING TEMPERATURE RATING IS -40°C TO +80°C. USAGE OF LOAD POINT AT TEMPERATURES BELOW -40°C REQUIRES THAT THE LOAD POINT ASSEMBLY AND CABLE BE TEMPERATURE CONTROLLED.
8. DO NOT WELD LOAD POINT TO VESSEL/FOUNDATION WITH LOAD SENSOR INSTALLED.
7. LOAD POINT IS SUPPLIED WITH THE FOLLOWING:
  - ONE HI HBB01 SERIES LOAD SENSOR
  - ONE TOP PLATE
  - TWO LOAD CUPS AND ONE ROCKER PIN ASSEMBLY
  - ONE LOAD SENSOR BASE PLATE AND TWO MOUNTING BOLTS
  - TWO SHIPPING AND INSTALLATION SPACER BRACKETS
  - TWO LIFT-OFF PROTECTION BOLTS
  - ONE GROUND STRAP AND TWO M8 MOUNTING BOLTS
6. LOAD SENSOR BODY IS STAINLESS STEEL 17-4PH (1.4548).
5. LOAD SENSOR CABLE IS SHIELDED, 6 CONDUCTOR. CABLE SHIELD IS FLOATING. SEE TABLE FOR CABLE LENGTHS.
4. C2 WIRE COLOR CODE FLAG LABEL IS LOCATED APPROXIMATELY 10 INCHES [254MM] FROM END OF LOAD SENSOR CABLE.
 

EXCITATION +	RED
EXCITATION -	BLACK
SIGNAL +	GREEN
SIGNAL -	WHITE
C2 +	GRAY
C2 -	VIOLET
SHIELD	YELLOW
3. LOAD SENSOR CABLE WIRE ENDS ARE STRIPPED BACK 0.5 INCHES [12.7MM] AND TINNED. CABLE JACKET IS STRIPPED BACK APPROXIMATELY 5 INCHES [127MM].
2. THIS DRAWING IS SUBJECT TO CHANGE WITHOUT NOTICE.
1. LOAD SENSOR RATED OUTPUT: 2mV/V ±0.002.

#### NOTES: UNLESS OTHERWISE SPECIFIED

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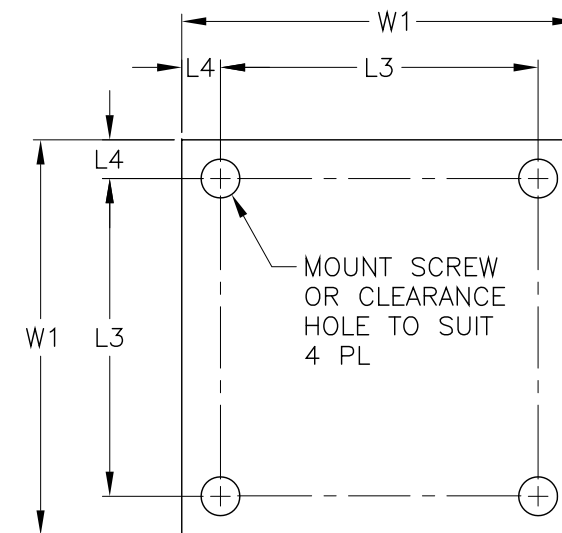
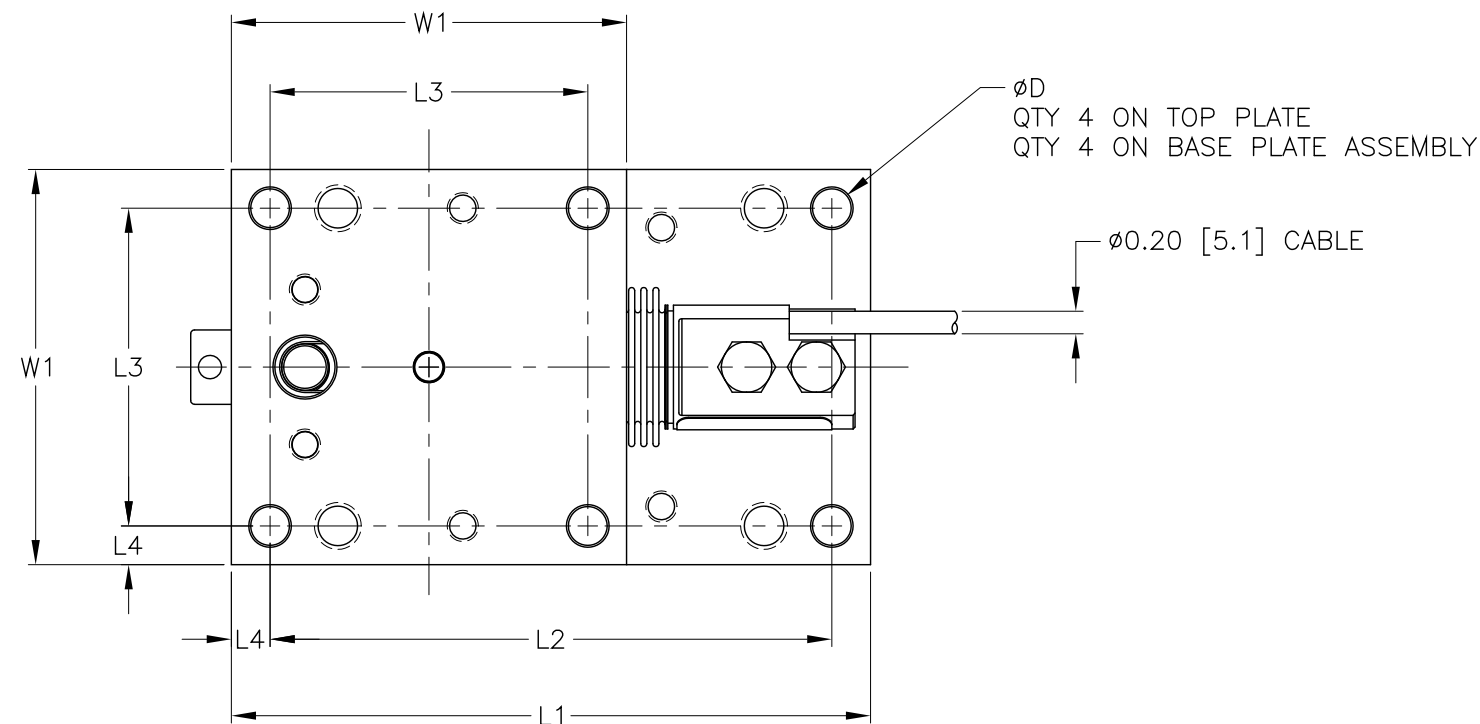


		0588-0179	OUTLINE DRAWING, HI ONELP-H SERIES, LOW CAPACITY	SEE NOTES
ITEM	QTY	PART NUMBER	DESCRIPTION	COMMENTS
PARTS LIST				
<small>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: N/A DECIMALS: .XX = ±.03 .XXX = ±.010 ANGLES: ±0°, 30'</small>		CONTRACT NO.		
		APPROVALS		
		DRAWN V. CHULA	DATE 11-30-16	
		CHECKED E. JAMES	DATE 11-30-16	
MATERIAL		APPROVED V. CHULA	DATE 11-30-16	<b>OUTLINE DRAWING, LOAD POINT, HI ONELP-H SERIES, LOW CAPACITY</b>
FINISH		ISSUED V. CHULA	DATE 11-30-16	
DO NOT SCALE DRAWING		PRODUCTION	DATE	
SIZE	FSCM	DRAWING NO.		REV.
D	21316	0588-0179		A
FILE NAME: 588179A1.DWG		SCALE: NONE		SHEET 1 OF 4

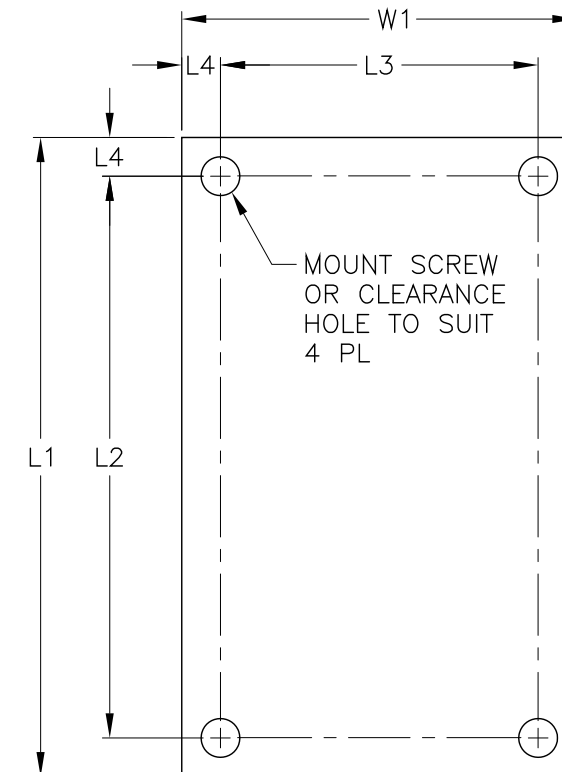
CAPACITY LBS [KG]	L1	L2	L3	L4	W1	T1	T2	H1	H2	∅D	MOUNT SCREW	WELD X	WELD Y	MAX LIFT- OFF FORCE	Q1 TORQUE LB-FT [NM]	Q2 TORQUE LB-FT [NM]
22 LB [10KG]																
44LB [20KG]																
110 LB [50KG]	6.50 [165.0]	5.709 [145.00]	3.228 [82.00]	0.39 [10.00]	4.02 [102.0]	0.31 [8.0]	0.49 [12.5]	2.98 [75.6]	3.02 [76.6]	0.394 [10.00]	5/16-18 OR M8 DIN 8.8	0.2 [5.0]	0.2 [5.0]	5.05 T [45KN]	18 LB-FT [25NM]	15 LB-FT [21NM]
220 LB [100KG]																
440 LB [200KG]																
550 LB [250KG]																

**DIMENSIONS- INCHES & [mm]**

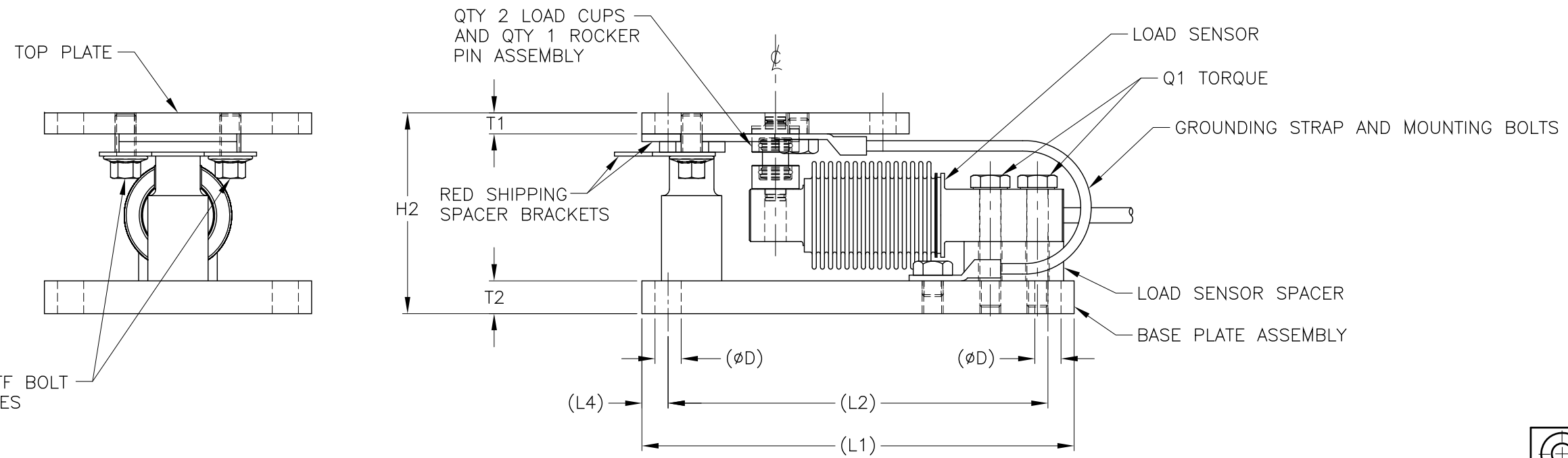
TOLERANCES: ±0.015 [0.38] UNLESS OTHERWISE STATED



VESSEL MOUNTING TEMPLATE



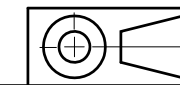
BASE MOUNTING TEMPLATE ROTATED 90° CLOCKWISE



**HARDY**  
PROCESS SOLUTIONS

TITLE  
OUTLINE DRAWING, LOAD POINT,  
HI ONELP-H SERIES, LOW CAPACITY

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**INSTALLATION INSTRUCTIONS:**

**GENERAL:**

THE HI ONELP-H SERIES LOAD POINT MODULE IS SHIPPED IN THE "INSTALLATION STATE".

**INSTALLATION – BOLTED MODULE:**

1. POSITION THE LOAD POINT MODULES ON THE FOUNDATION SURFACE AS SHOWN IN FIGURE 1.
2. THE TOP PLATE OR THE BASE PLATE ASSEMBLY MAY BE BOLTED FIRST. (SEE TABLE ON SHEET 2 FOR BOLT SIZE AND TORQUE VALUES)
3. MARK ALL THE TOP PLATE HOLE POSITIONS ON THE VESSEL LOAD CARRIER PLATE/FOOT.
4. REMOVE MODULE IF NEEDED, THEN, DRILL AND/OR TAP ALL REQUIRED HOLES.
5. SECURE THE BASE PLATE ASSEMBLY TO THE FOUNDATION SURFACE. (SEE TABLE ON SHEET 2 FOR BOLT SIZE AND TORQUE VALUES)
6. LOWER THE VESSEL LOAD CARRIER ONTO THE TOP PLATE AND SECURE WITH BOLTS. (SEE TABLE ON SHEET 2 FOR BOLT SIZE AND TORQUE VALUES)
7. PREPARE THE LOAD SENSOR FOR INSTALLATION BY GREASING THE LOAD SENSOR LOADING CAVITY.
8. GREASE THE LOAD CUPS AND THEN INSERT ONE LOAD CUP INTO THE LOAD SENSOR. INSERT THE OTHER LOAD CUP INTO THE CAVITY ON THE TOP PLATE. THIS CAN BE ACHIEVED BY UTILIZING THE RED UPPER SHIPPING SPACER BRACKET AS A GUIDE TO FIND THE CAVITY.
9. WHILE THE LOAD CUP IS HELD IN THE TOP PLATE CAVITY, INSTALL THE LOAD SENSOR WITH THE ROCKER PIN ASSEMBLY INSTALLED INTO THE MODULE BY TILTING IT SLIGHTLY TO GAIN ACCESS UNDER THE TOP PLATE. WHILE HOLDING THE LOAD SENSOR IN POSITION, INSERT THE LOAD SENSOR SPACER UNDER THE TAIL END OF THE LOAD SENSOR AND RE-INSERT THE LOAD SENSOR MOUNTING BOLTS.
10. TORQUE LOAD SENSOR MOUNTING BOLTS TO Q1 VALUE LISTED IN TABLE ON SHEET 2. PRIOR TO APPLICATION OF TORQUE, AN ALIGNMENT CHECK MUST BE DONE MANUALLY BY HOLDING THE CENTER PILLAR OF MODULE AND THE END OF LOAD SENSOR TO ENSURE CORRECT ALIGNMENT. ENSURE THE MOUNTING BOLTS ARE LINED UP IN THE CENTER OF THE LOAD SENSOR HOLES AS WELL PRIOR TO SECURING.
11. LOOSEN THE TWO LIFT-OFF BOLTS LOCATED JUST UNDER THE RED SHIPPING SPACER BRACKETS. PRY OR LIFT THE VESSEL LOAD CARRIER SLIGHTLY TO REMOVE THE RED SHIPPING SPACER BRACKETS. LOWER THE VESSEL LOAD CARRIER SLOWLY UNTIL IT RESTS ON THE LOAD POINT MODULE.
12. ADJUST THE LIFT-OFF BOLTS TO MAINTAIN THE LIFT-OFF GAP DIMENSION SHOWN (THREAD LOCKING COMPOUND IS PRE-APPLIED TO BOLT THREADS).

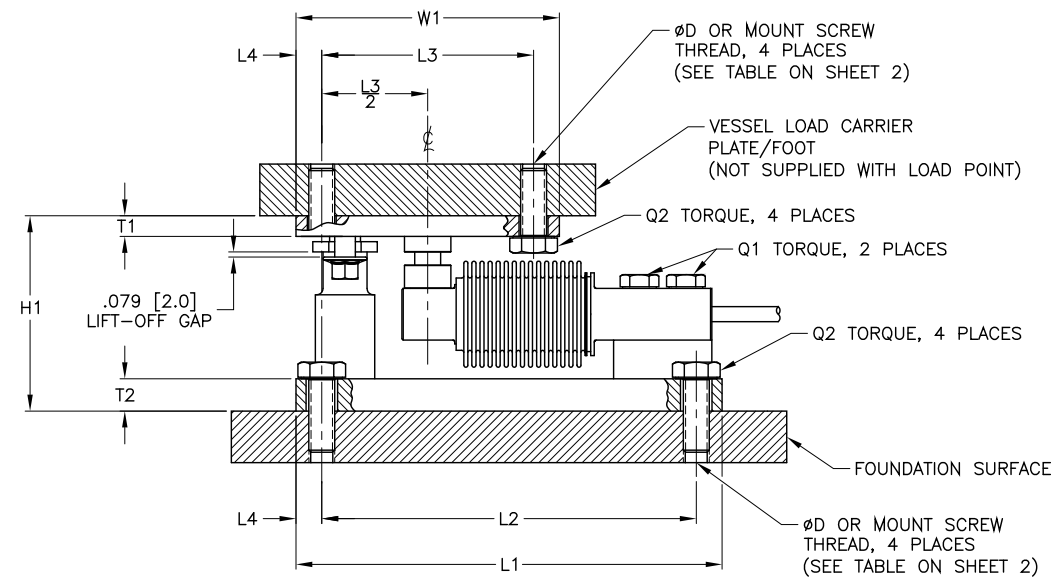
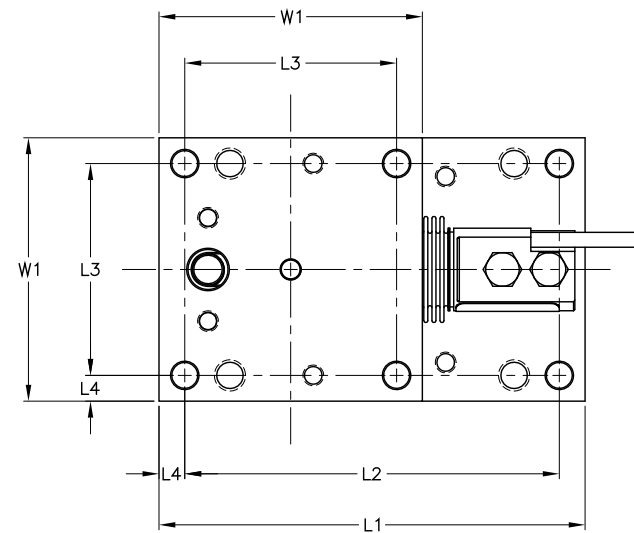
**INSTALLATION – WELDED MODULE:**

1. REMOVE THE LOAD SENSOR MOUNTING BOLTS AND LOAD SENSOR FROM BASE PLATE ASSEMBLY.
2. POSITION THE LOAD POINT MODULE BASE PLATE ASSEMBLY ON THE FOUNDATION SURFACE AND THE TOP PLATE ON THE VESSEL LOAD CARRIER/MOUNTING FOOT AS SHOWN IN FIGURE 2.
3. APPLY WELDS TO LOAD POINT MODULE TOP PLATE AND BASE PLATE ASSEMBLY AS SHOWN. (SEE TABLE ON SHEET 2 FOR RECOMMENDED WELD SIZES)
4. PREPARE THE LOAD SENSOR FOR INSTALLATION. FOLLOW STEPS 8 THROUGH 12 AS LISTED IN THE BOLTED MODULE INSTALLATION INSTRUCTIONS.

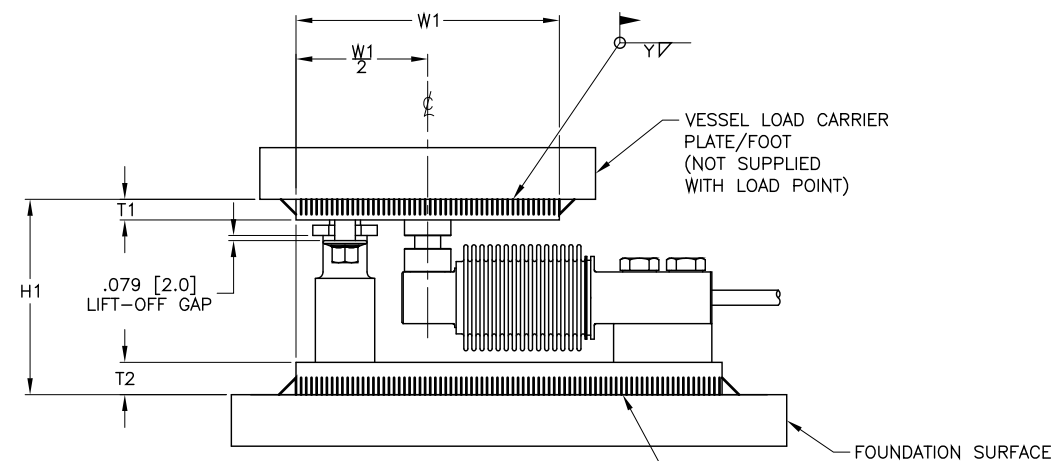
**IMPORTANT:**

- DO NOT WELD THE MODULE WHILE THE LOAD SENSOR IS INSTALLED.
- SEE FIGURE 3 FOR FOUNDATION SURFACE AND TOP PLATE LEVELING REQUIREMENTS.
- ENSURE THAT THE GROUNDING CABLE IS PROPERLY SECURED AFTER INSTALLATION.
- TORQUE Q2 IS DETERMINED ASSUMING FRICTION COEFFICIENTS OF DRY THREADS.
- SEE OPERATION AND INSTALLATION MANUAL FOR ADDITIONAL INFORMATION.

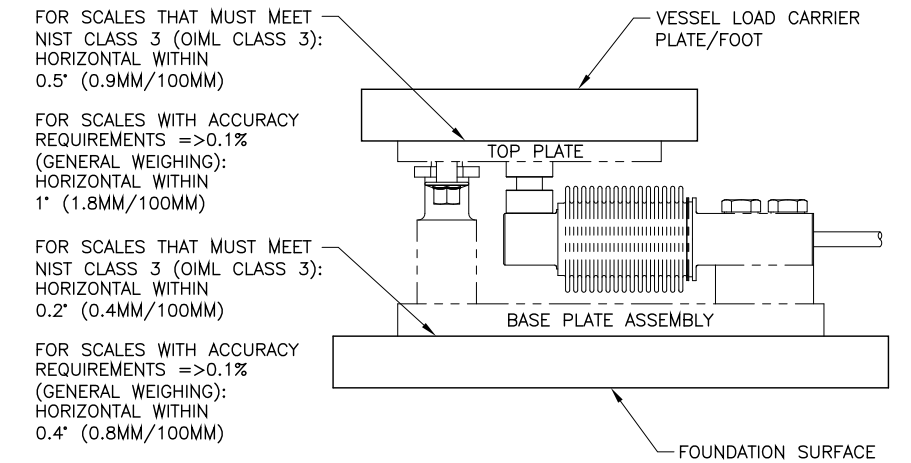
**FIGURE 1: BOLTED LOAD POINT MODULE (GROUNDING STRAP NOT SHOWN)**



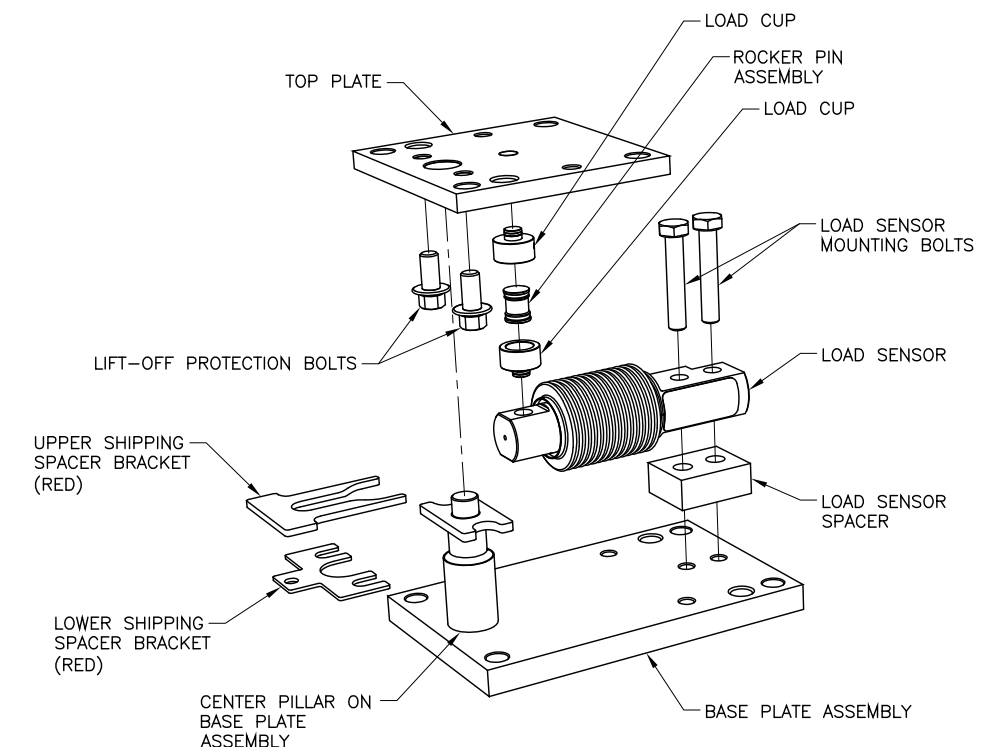
**FIGURE 2: WELDED LOAD POINT MODULE (GROUNDING STRAP NOT SHOWN)**



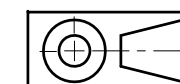
**FIGURE 3: FOUNDATION SURFACE AND TOP PLATE LEVELING REQUIREMENTS**



**EXPLODED ASSEMBLY VIEW (GROUNDING STRAP NOT SHOWN)**



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**LOAD POINT MOUNT SET MODEL NUMBERS (WITHOUT LOAD SENSOR)**

CAPACITY LBS [KG]	MODEL NUMBER PLATED ALLOY STEEL	MODEL NUMBER STAINLESS STEEL	MODEL NUMBER ELECTRO-POLISHED STAINLESS STEEL
22 LB [10KG]	HI ONEMT-550LB-AS	HI ONEMT-550LB-SS	HI ONEMT-550LB-ES
44LB [20KG]			
110 LB [50KG]			
220 LB [100KG]			
440 LB [200KG]			
550 LB [250KG]			

**LOAD POINT MOUNT SET ACCESSORY AND REPLACEMENT PART NUMBERS**

CAPACITY LBS [KG]	STABILIZER ROD ASSEMBLY PLATED ALLOY STEEL	STABILIZER ROD ASSEMBLY STAINLESS STEEL	REPLACEMENT ROCKER PIN ASSEMBLY	REPLACEMENT SHIPPING BRACKET
22 LB [10KG]	5504-0074-AS-550LB	5504-0074-SS-550LB	5504-0075-550LB	5504-0076-550LB
44LB [20KG]				
110 LB [50KG]				
220 LB [100KG]				
440 LB [200KG]				
550 LB [250KG]				



TITLE  
**OUTLINE DRAWING, LOAD POINT,  
 HI ONELP-H SERIES, LOW CAPACITY**

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