

LOAD POINT MODEL NUMBERS					
CAPACITY LBS [KN]	MODEL NUMBER ZINC PLATED TYPE 1.0553 (S355J0) ALLOY STEEL	MODEL NUMBER TYPE 304 STAINLESS STEEL	MODEL NUMBER ELECTRO-POLISHED TYPE 304 STAINLESS STEEL	LOAD SENSOR MODEL NUMBER	CABLE LENGTH FT [M]
1125 LB [5KN]	HI ONELP-H-1125-AS	HI ONELP-H-1125-SS	HI ONELP-H-1125-ES	HI SBH04-1125	20FT [6M]
2.25 KLB [10KN]	HI ONELP-H-2.25K-AS	HI ONELP-H-2.25K-SS	HI ONELP-H-2.25K-ES	HI SBH04-2.25K	20FT [6M]
4.5 KLB [20KN]	HI ONELP-H-4.5K-AS	HI ONELP-H-4.5K-SS	HI ONELP-H-4.5K-ES	HI SBH04-4.5K	20FT [6M]
7.5 KLB [33KN]	HI ONELP-H-7.5K-AS	HI ONELP-H-7.5K-SS	HI ONELP-H-7.5K-ES	HI SBH04-7.5K	20FT [6M]
11.25 KLB [50KN]	HI ONELP-H-11.25K-AS	HI ONELP-H-11.25K-SS	HI ONELP-H-11.25K-ES	HI SBH04-11.25K	20FT [6M]
22.5 KLB [100KN]	HI ONELP-H-22.5K-AS	HI ONELP-H-22.5K-SS	HI ONELP-H-22.5K-ES	HI SBH04-22.5K	20FT [6M]

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 SBH04 SERIES LOAD SENSOR

ONE TOP PLATE

ONE LOAD CUP AND ONE ROCKER PIN ASSEMBLY

ONE LOAD SENSOR BASE PLATE AND TWO MOUNTING BOLTS

ONE SHIPPING AND INSTALLATION SPACER

TWO LIFT-OFF PROTECTION BOLTS AND TWO WASHERS

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

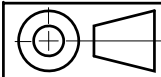
C2 + GRAY

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

PROPRIETARY NOTICE
ALL DATA AND INFORMATION CONTAINED IN OR DISCLOSED BY THIS DOCUMENT IS CONFIDENTIAL AND PROPRIETARY INFORMATION OF HARDY PROCESS SOLUTIONS INC. AND ALL RIGHTS THEREIN ARE EXPRESSLY RESERVED. BY ACCEPTING THIS MATERIAL THE RECIPIENT AGREES THAT THIS MATERIAL AND THE INFORMATION CONTAINED THEREIN IS HELD IN CONFIDENCE AND IN TRUST AND SHALL NOT BE USED, COPIED, REPRODUCED IN WHOLE OR IN PART, NOR ITS CONTENTS REVEALED IN ANY MANNER TO OTHERS, EXCEPT TO MEET THE SPECIFIC PURPOSE FOR WHICH IT WAS DELIVERED.



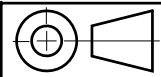
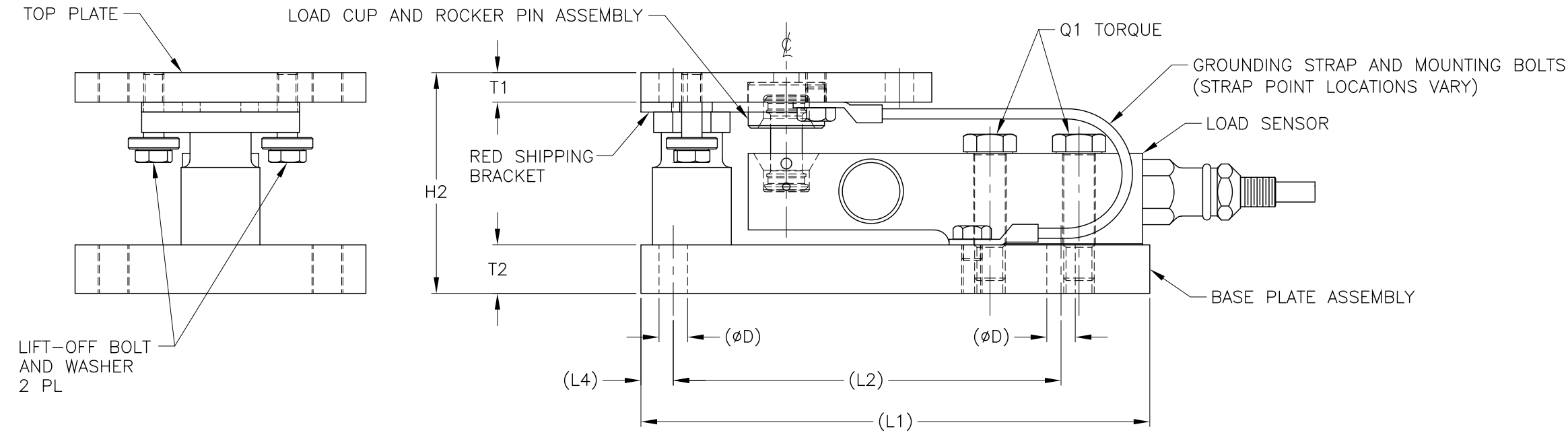
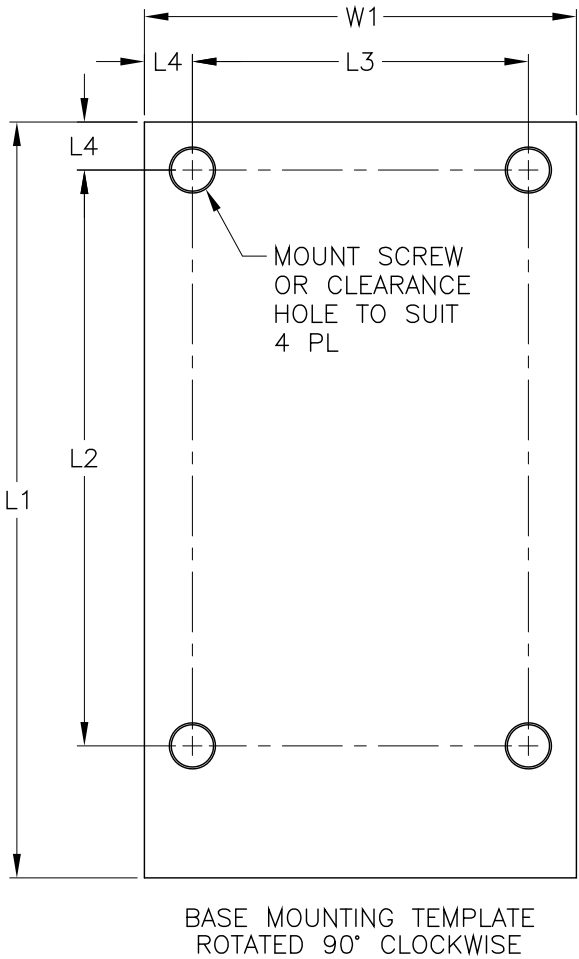
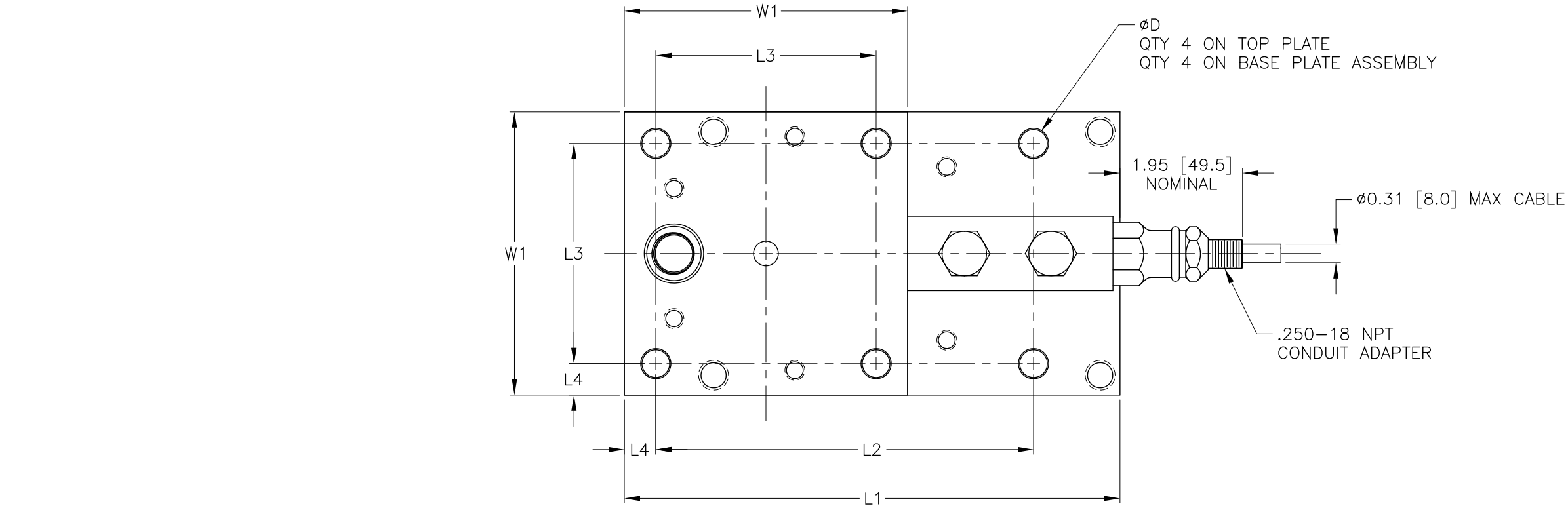
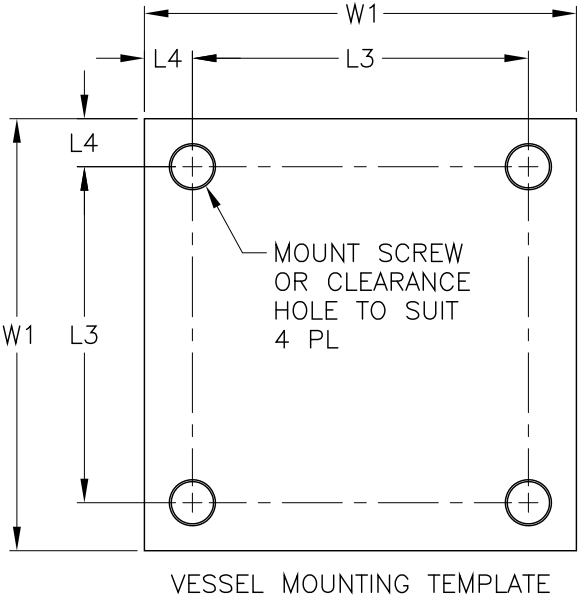
REV.	ECO/DDC	DESCRIPTION	DATE	DRAFT	CHECK	APV'D
A	----	RELEASED.	08-22-16	V.J.C.	E.J.	V.J.C.
B	----	CORRECTED "Q2" TORQUE VALUE FOR ALL LOAD POINT CAPACITIES ON DRAWING SHEET 2.	10-31-23	V.J.C.	J.M.	V.J.C.
C	----	ADDED 7.5KLB LOAD POINT CAPACITY.	02-26-24	V.J.C.	J.M.	V.J.C.

		0588-0180	OUTLINE DRAWING, HI ONELP-H SERIES, HIGH CAPACITY			SEE NOTES	
ITEM	QTY	PART NUMBER	DESCRIPTION			COMMENTS	
PARTS LIST							
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS: N/A DECIMALS: .XX = ±.03 .XXX = ±.010 ANGLES: ±0°, 30°		CONTRACT NO.					
		APPROVALS					
		DRAWN V. CHULA	DATE 08-19-16	TITLE OUTLINE DRAWING, LOAD POINT, HI ONELP-H SERIES, HIGH CAPACITY			
		CHECKED E. JAMES	DATE 08-22-16				
MATERIAL		APPROVED V. CHULA	DATE 08-22-16				
FINISH		ISSUED V. CHULA	DATE 08-22-16	SIZE D	FSCM 21316	DRAWING NO. 0588-0180	REV. C
DO NOT SCALE DRAWING		PRODUCTION	DATE	FILE NAME: 588180C1.DWG		SCALE: NONE	SHEET 1 OF 4

DIMENSIONS— INCHES & [mm]

TOLERANCES: ±0.015 [0.38] UNLESS OTHERWISE STATED

CAPACITY LBS [KN]	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]
1125 LB [5KN]	7.87 [200.0]	6.000 [152.40]	3.500 [88.90]	0.50 [12.7]	4.50 [114.3]	0.46 [11.6]	0.75 [19.0]	3.42 [86.8]	3.51 [89.2]	0.441 [11.20]	3/8-16 OR M10 DIN 8.8	0.2 [5.0]	0.2 [5.0]	5.05 T [45KN]	66 LB-FT [90NM]	38 LB-FT [51NM]
2.25 KLB [10KN]																
4.5 KLB [20KN]																
7.5 KLB [33KN]	10.08 [256.0]	7.250 [184.15]	4.000 [101.60]	0.91 [23.2]	5.83 [148.0]	0.71 [18.0]	0.94 [24.0]	4.35 [110.6]	4.53 [115.0]	0.689 [17.50]	5/8-11 OR M16 DIN 8.8	0.2 [5.0]	0.2 [5.0]	8.43 T [75KN]	295 LB-FT [400NM]	162 LB-FT [220NM]
11.25 KLB [50KN]																
22.5 KLB [100KN]	13.98 [355.0]	10.630 [270.00]	5.118 [130.00]	0.94 [24.0]	7.01 [178.0]	0.94 [24.0]	1.14 [29.0]	6.06 [154.0]	6.20 [157.6]	0.866 [22.00]	3/4-10 OR M20 DIN 8.8	0.3 [8.0]	0.3 [8.0]	11.8 T [105KN]	516 LB-FT [700NM]	317 LB-FT [430NM]



HARDY PROCESS SOLUTIONS			
TITLE OUTLINE DRAWING, LOAD POINT, HI ONELP-H SERIES, HIGH CAPACITY			
SIZE D	FSCM 21316	DRAWING NO. 0588-0180	REV. C
FILE NAME: 588180C1.DWG		SCALE: NONE	SHEET 2 OF 4

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 CUP AND THEN INSERT INTO THE CAVITY ON THE TOP PLATE. THIS CAN BE ACHIEVED BY UTILIZING THE RED SHIPPING 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.
10. RE-INSERT THE LOAD SENSOR MOUNTING BOLTS AND TORQUE TO Q1 VALUE LISTED IN TABLE ON SHEET 2. ALIGNMENT CHECK MUST BE DONE MANUALLY BY HOLDING CENTER PILLAR OF MODULE AND END OF LOAD SENSOR TO BE SURE IT IS ALIGNED CORRECTLY. BE SURE 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 BRACKET. PRY OR LIFT THE VESSEL LOAD CARRIER SLIGHTLY TO REMOVE THE RED SHIPPING BRACKET. LOWER THE VESSEL LOAD CARRIER SLOWLY UNTIL IT RESTS ON THE LOAD POINT MODULE.
12. INSERT LIFT-OFF BOLTS UNTIL THE BOLT END TOUCHES THE SURFACE OF THE VESSEL LOAD CARRIER/MOUNTING FOOT. (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.
- MAKE SURE TO INSERT THE LIFT OFF WASHERS AT THE FINAL INSTALLATION.
- 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)

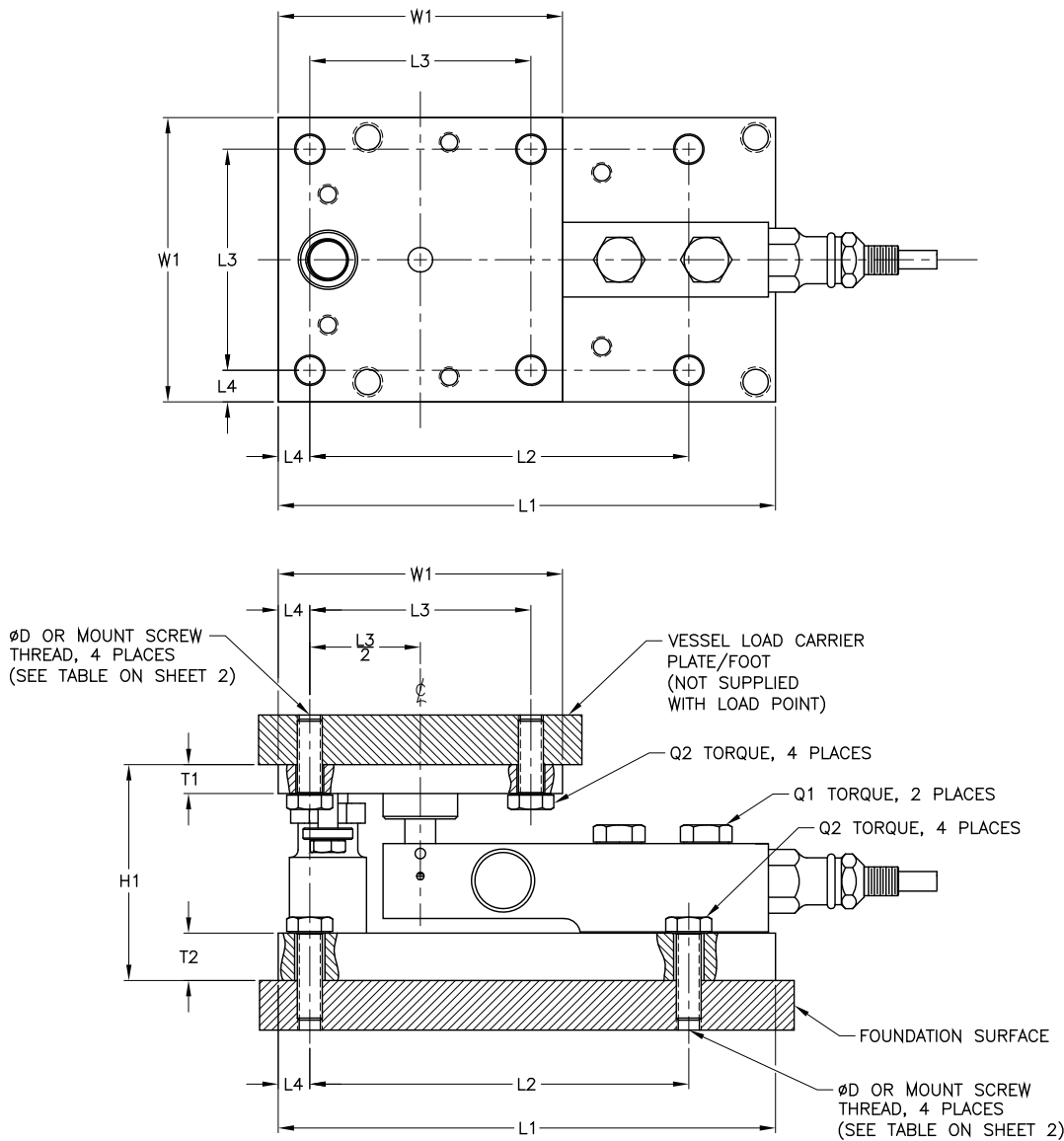


FIGURE 2: WELDED LOAD POINT MODULE (GROUNDING STRAP NOT SHOWN)

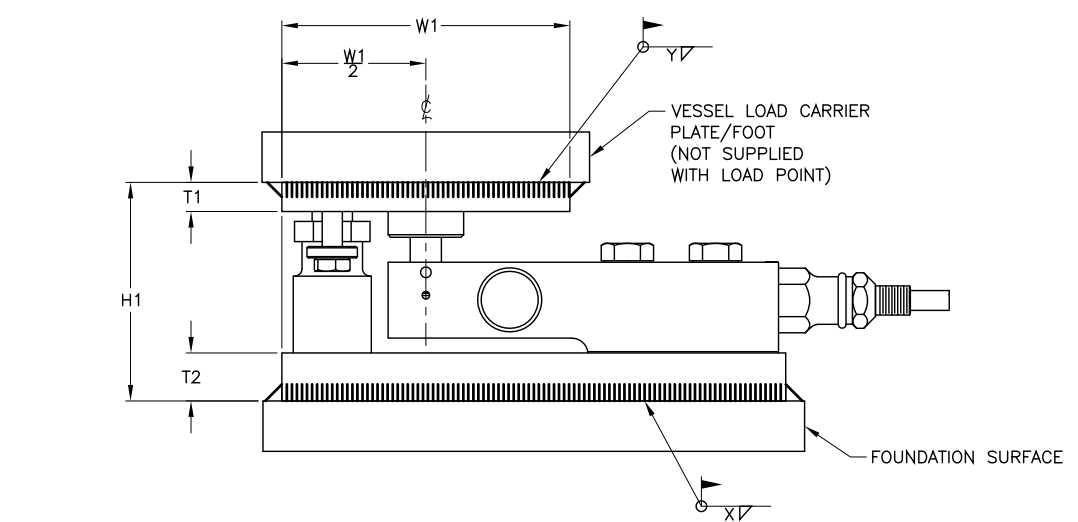
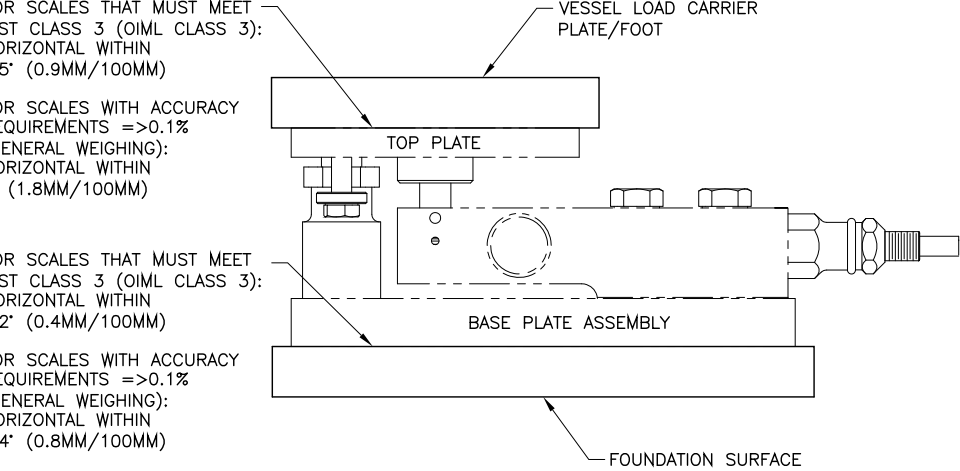
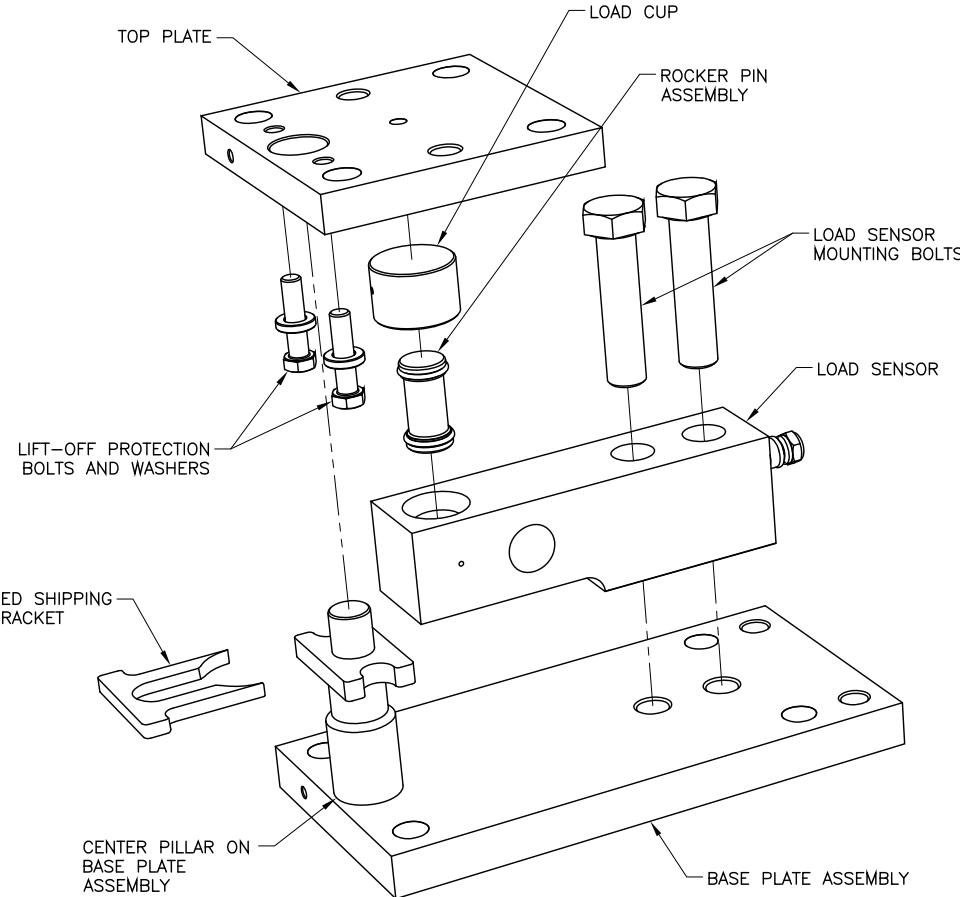


FIGURE 3: FOUNDATION SURFACE AND TOP PLATE LEVELING REQUIREMENTS



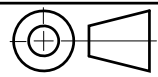
EXPLODED ASSEMBLY VIEW (GROUNDING STRAP NOT SHOWN)



HARDY PROCESS SOLUTIONS			
TITLE OUTLINE DRAWING, LOAD POINT, HI ONELP-H SERIES, HIGH CAPACITY			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0588-0180	C
FILE NAME: 588180C1.DWG		SCALE: NONE	SHEET 3 OF 4

LOAD POINT MOUNT SET MODEL NUMBERS (WITHOUT LOAD SENSOR)			
CAPACITY LBS [KN]	MODEL NUMBER ZINC PLATED TYPE 1.0553 (S355J0) ALLOY STEEL	MODEL NUMBER TYPE 304 STAINLESS STEEL	MODEL NUMBER ELECTRO-POLISHED TYPE 304 STAINLESS STEEL
1125 LB [5KN]	HI ONEMT-4.5KLB-AS	HI ONEMT-4.5KLB-SS	HI ONEMT-4.5KLB-ES
2.25 KLB [10KN]			
4.5 KLB [20KN]			
7.5 KLB [33KN]	HI ONEMT-11.25KLB-AS	HI ONEMT-11.25KLB-SS	HI ONEMT-11.25KLB-ES
11.25 KLB [50KN]			
22.5 KLB [100KN]	HI ONEMT-22.5KLB-AS	HI ONEMT-22.5KLB-SS	HI ONEMT-22.5KLB-ES

LOAD POINT MOUNT SET ACCESSORY AND REPLACEMENT PART NUMBERS				
CAPACITY LBS [KN]	STABILIZER ROD ASSEMBLY ZINC PLATED ALLOY STEEL	STABILIZER ROD ASSEMBLY STAINLESS STEEL	REPLACEMENT ROCKER PIN ASSEMBLY	REPLACEMENT SHIPPING BRACKET
1125 LB [5KN]	5504-0074-AS-4.5KLB	5504-0074-SS-4.5KLB	5504-0075-4.5KLB	5504-0076-4.5KLB
2.25 KLB [10KN]				
4.5 KLB [20KN]				
7.5 KLB [33KN]	5504-0074-AS-11.25KLB	5504-0074-SS-11.25KLB	5504-0075-11.25KLB	5504-0076-11.25KLB
11.25 KLB [50KN]				
22.5 KLB [100KN]	5504-0074-AS-22.5KLB	5504-0074-SS-22.5KLB	5504-0075-22.5KLB	5504-0076-22.5KLB



HARDY PROCESS SOLUTIONS			
TITLE OUTLINE DRAWING, LOAD POINT, HI ONELP-H SERIES, HIGH CAPACITY			
SIZE	FSCM	DRAWING NO.	REV.
D	21316	0588-0180	C
FILE NAME: 588180C1.DWG		SCALE: NONE	SHEET 4 OF 4