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# HYDRERA ENERGY SERVICES

## H15P - HARPOON FRAC TANK

### SALES DRAWING

RedFox Project No: RF21046  
PO: HAR-008

REVISIONS					
REV.	DATE	DESCRIPTION	DRAWN	CHECKED	APPROVED
A	3/17/21	ISSUED FOR APPROVAL	Dan Griffiths		
0	3/31/21	ISSUED FOR CONSTRUCTION	Dan Griffiths		

RedFox Design & Drafting Inc 151 Vancouver Crescent Red Deer, AB T4R 0P2 PH: (403) 877-9859 E: dan@redfox-design.ca www.redfox-design.ca		Drawn By:	Dan Griffiths
		Date:	March-17-2021
		Checked By:	-
		Approved By:	-
		Customer Project No:	HAR-008
		RedFox Project No:	RF21046

## GENERAL NOTES

1. THE ABOVE GROUND STORAGE TANK HAS BEEN DESIGNED IN ACCORDANCE WITH THE AMERICAN PETROLEUM INSTITUTE STANDARD 650.
2. ALL STRUCTURAL STEEL MEMBERS DESIGNED IN ACCORDANCE WITH ANSI/AISC 360-16 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.
3. ALL STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING MINIMUM MATERIALS PROPERTIES:

MATERIAL SPECIFICATIONS			Minimum Yield Stress (ksi)	Minimum Rupture Stress (ksi)
SHAPE	CANADA	USA (ASTM)		
HSS	G40.21 50W	A500 Gr. C	50	62
PLATE	G40.21 50W	A572	50	65
PLATE	G40.21 44W	A572	44	65
PLATE	QT-100	A514	100	110
BAR	AISI 1020	A36	36	58

4. FABRICATION SHALL CONFORM TO ANSI/AISC 360-16.
5. ALL WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 USING E70XX ELECTRODES. WELDING SHALL BE PERFORMED BY WELDERS CERTIFIED FOR THE WELD TYPE AND POSITIONS INVOLVED ACCORDING TO THE CURRENT EDITION OF AWS D1.1.
6. UNLESS OTHERWISE NOTED ALL CONNECTIONS ARE TO BE 3/16" CONTINUOUS FILLET WELDS.
7. MINIMUM FABRICATED THICKNESS OF ALL 10 GAUGE ELEMENTS SHALL BE 0.1345".

## ASSEMBLY NOTES

1. ERECTOR SHALL PROVIDE ALL MATERIAL, EQUIPMENT AND LABOR THAT IS REQUIRED FOR TEMPORARY STABILITY OF THE TANK DURING ERECTION.
2. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCES TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS, TIE DOWNS, ETC.
3. TANK AND SUMP ARE TO BE SUPPORTED BY LEVEL FOUNDATION, DESIGNED BY OTHERS.
4. TANK IS TO BE USED IN COMPLIANCE WITH LOCAL & FEDERAL JURISDICTION.

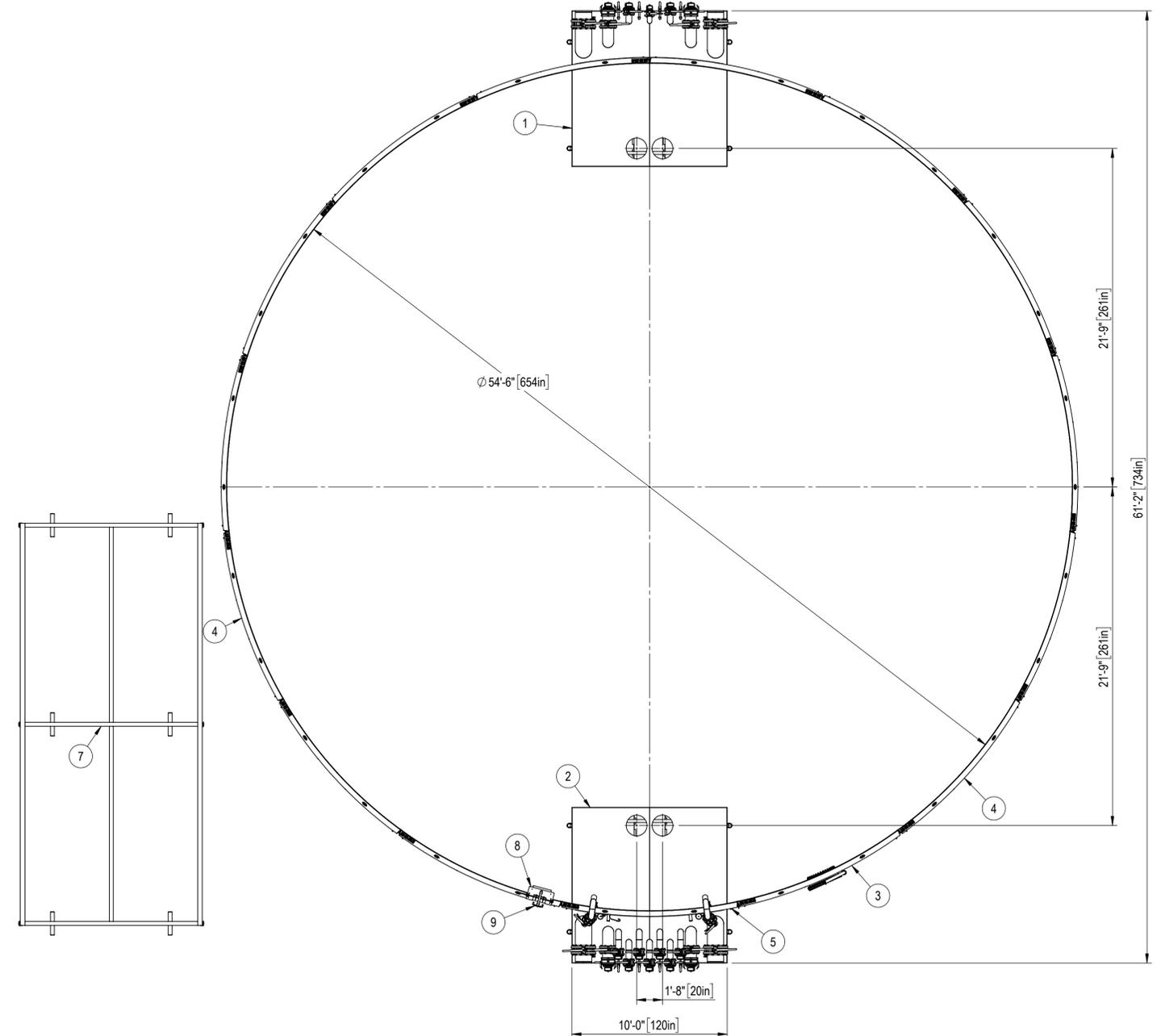
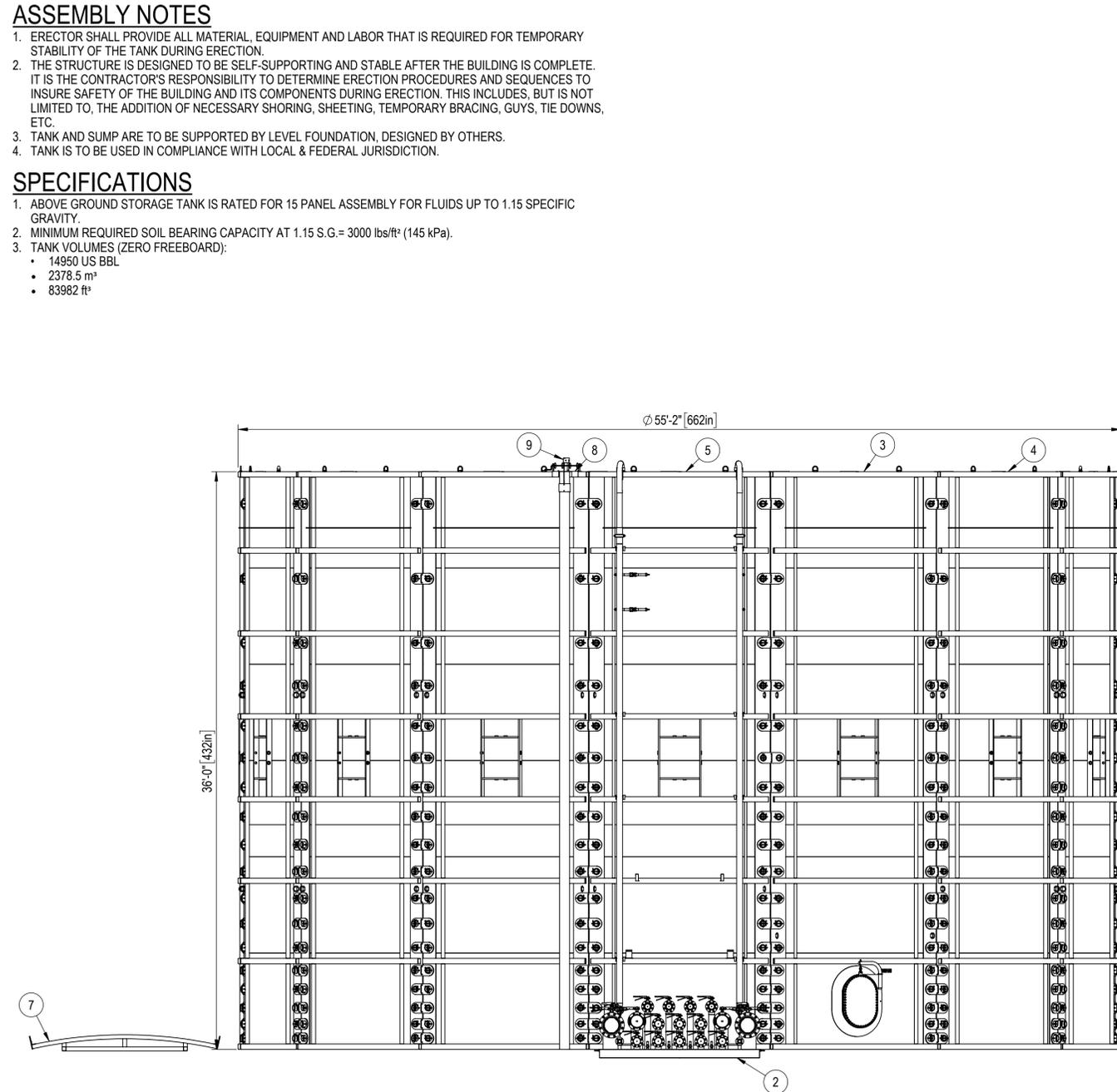
## SPECIFICATIONS

1. ABOVE GROUND STORAGE TANK IS RATED FOR 15 PANEL ASSEMBLY FOR FLUIDS UP TO 1.15 SPECIFIC GRAVITY.
2. MINIMUM REQUIRED SOIL BEARING CAPACITY AT 1.15 S.G. = 3000 lbs/ft<sup>2</sup> (145 kPa).
3. TANK VOLUMES (ZERO FREEBOARD):
  - 14950 US BBL
  - 2378.5 m<sup>3</sup>
  - 83982 ft<sup>3</sup>

## BILL OF MATERIALS

ITEM	PART NUMBER	QTY	DESCRIPTION	WEIGHT (lbs)
1	H15P-1001	1	FILL MANIFOLD ASSEMBLY	3897
2	H15P-1002	1	SUMP MANIFOLD ASSEMBLY	4461
3	H15P-1003	1	MANWAY PANEL ASSEMBLY	7529
4	H15P-1004	13	PANEL ASSEMBLY	6962
5	H15P-1005	1	RETURN PIPING PANEL ASSEMBLY	7741
6	H15P-1006	2	4" NPS FILL NECK	32
7	H15P-1007	3	PANEL TRANSPORT STAND	928
8	H15P-1008	1	TOMCAT LEVEL GAUGE BRACKET	31
9	H15P-1009	1	TOMCAT GAUGE BOARD ASSEMBLY (36'-0" GUIDED) c/w MAGNETS AND WEIGHTS	
10	H15P-1010	1	BLADDER ASSEMBLY	2330

TOTAL WEIGHT: 115322 lbs



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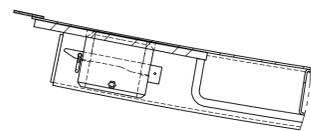
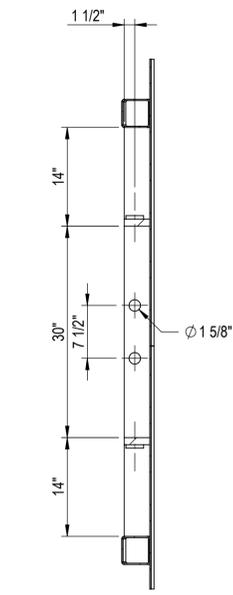
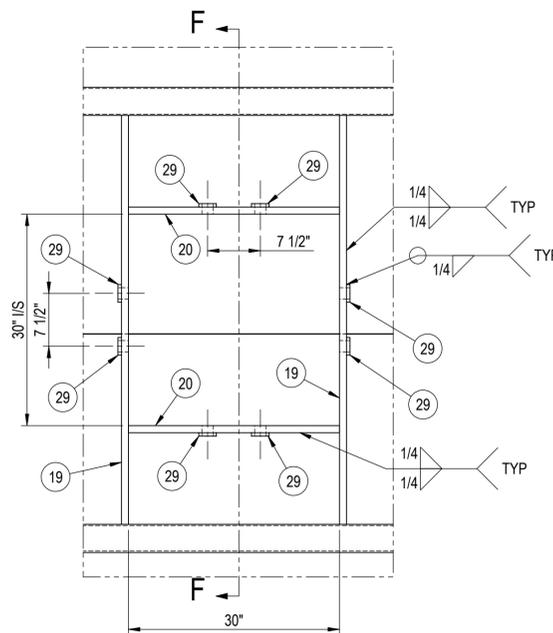
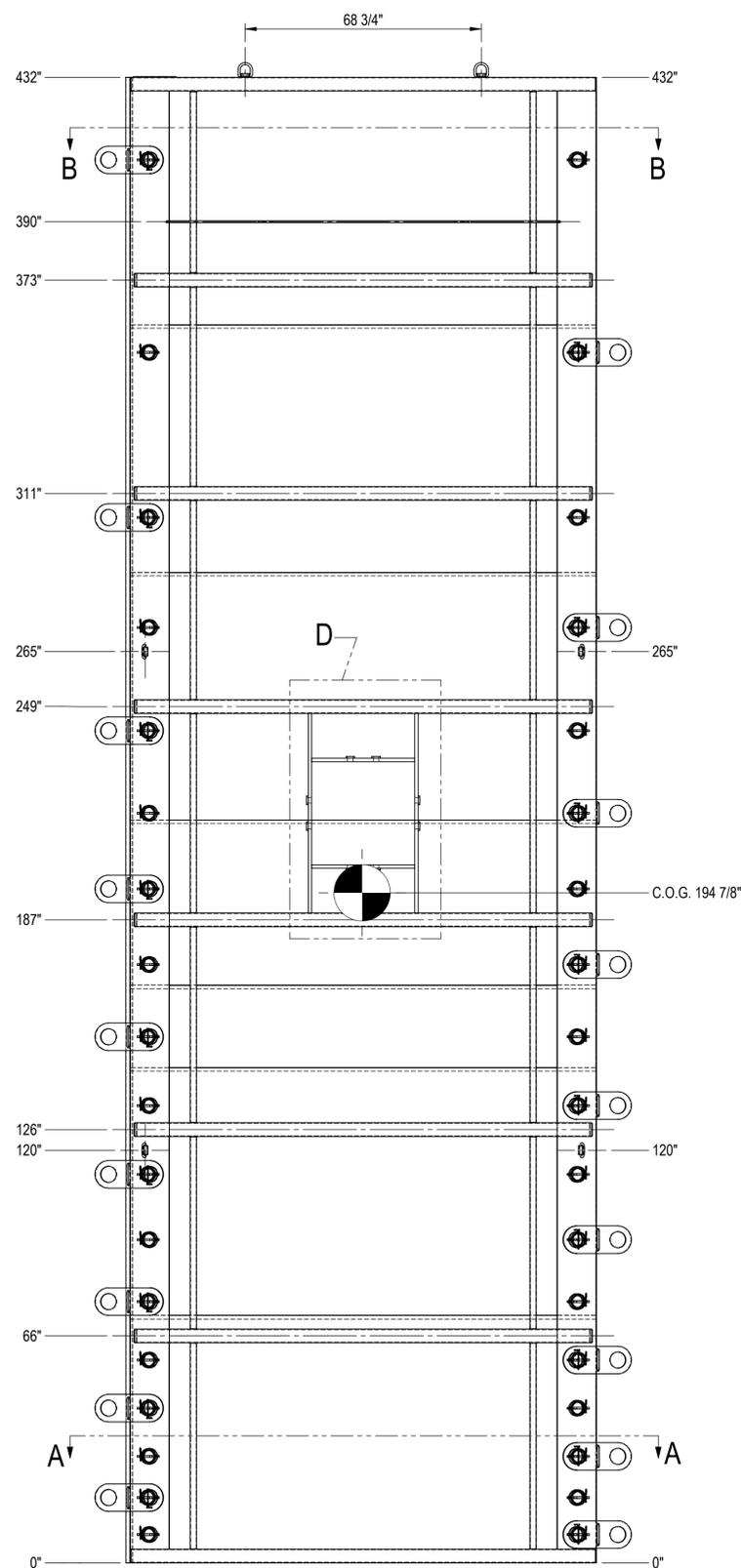
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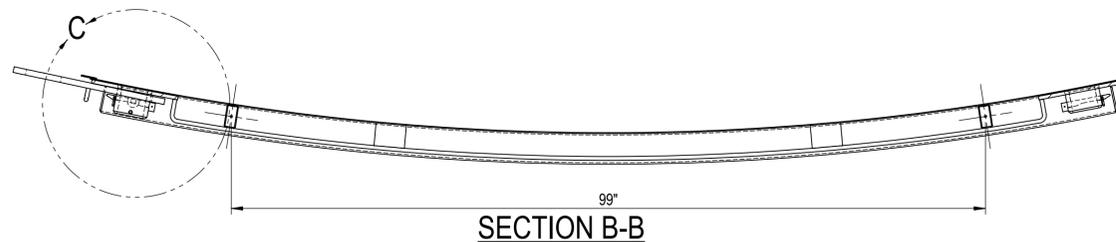
H15P - HARPOON FRAC TANK

H15P - HARPOON TANK ASSEMBLY GENERAL ARRANGEMENT

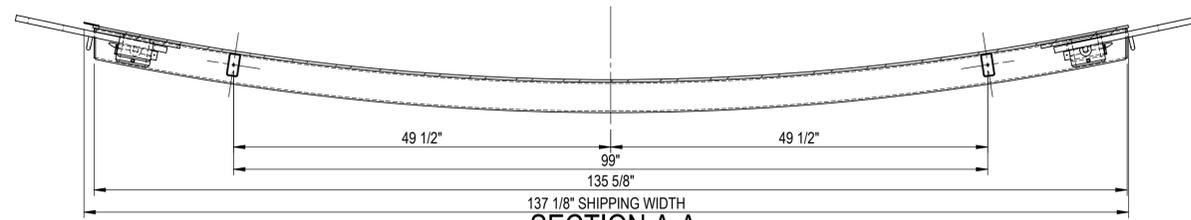
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DETAIL C



SECTION B-B



SECTION A-A

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 TYPICAL PANEL ASSEMBLY

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