



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR DIESEL OIL DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

ME

نوع مدرک

DT

سریال

0007

نسخه

D02

شماره صفحه: ۱ از ۷

طرح نگهداشت و افزایش تولید ۲۷ مخزن

MECHANICAL DATA SHEETS FOR DIESEL OIL DRUM

نگهداشت و افزایش تولید میدان نفتی بینک

D02	OCT.2023	IFA	H.Ghadyani	M.Fakharian	S.Faramarzpour	
D01	OCT.2022	IFA	H.Adineh	M.Fakharian	M.Mehrshad	
D00	DEC.2021	IFC	H.Adineh	M.Fakharian	M.Mehrshad	
Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

Class: 1

CLIENT Doc. Number: F0Z-708838

status:

IDC: Inter-Discipline Check

IFC: Issued For Comment

IFA: Issued For Approval

AFD: Approved For Design

AFC: Approved For Construction

AFP: Approved For Purchase

AFQ: Approved For Quotation

IFI: Issued For Information

AB-R: As-Built for CLIENT Review

AB-A: As-Built -Approved



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۰۵۳ - ۰۷۳ - ۹۱۸۴



پروژه	بسته کاری	صادرکننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0007	D02

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REVISION RECORD SHEET

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1	X	X	X		
2	X	X	X		
3	X	X	X		
4	X	X	X		
5	X	X	X		
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض								 شرکت توسعه و پارس HIRGAN ENERGY
	احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	MECHANICAL DATA SHEETS FOR DIESEL OIL DRUM								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۳ از ۷
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0007	D02	

General Notes

D02

1. The Asterisk * denotes information and/or confirmation required from VENDOR. vendor shall be fully responsible for the complete mechanical design and supply of the vessel. The vessel shall be supplied in accordance with BS EN 12285-2.
2. Anchor bolts shall be calculated and sized by vendor.
3. VENDOR shall include for the services of a independent verification body for mechanical design, stage inspection, testing and stamping of the equipment (if possible).
4. Specified accessories and attachments shall be supplied by vendor.
5. Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006 and 'Specification for Liningg', Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0007.
6. Flanges shall comply with ANSI B16.5. Nozzle bolt holes shall straddle the natural centerlines. VENDOR to confirm maximum allowable nozzle loads and moments. RF: Raised Face, WN: Welding Neck, SO: Slip On
7. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project minimum requirements for "Packing, Marking, Transportation Procedure (Doc. No. BK-GNRAL-PEDCO-000-QC-PR-0045)."
8. Manways shall be supplied complete with blind flange, external grab handles, internal grab handle and ladder rungs, nuts, bolting, gasket and proof load test davits.
9. Loads at support base, Shall be calculated and determined by vendor.
10. The projection of equipment's nozzles should be considered as per 'Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001". (May be changed in future)
Projection of Horizontal & Vertical nozzles is from tangent line & center line respectively.
11. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel.
12. All dimensions are in "mm" unless otherwise specified.
13. The vendor shall be responsible for mechanical strength of the equipment based on mentioned condition in data sheets.
14. Dished ends shall be in accordance with BS EN 12285-2.
15. Hydrotest shall be carried out according to BS12285-2.
16. All nozzle must be vertical or horizontal and not perpendicular or parallel to vessel center line
17. For standard detail of Earth lug execution refer to the Project "Standard Detail Drawing For Pressure Vessels and Heat Exchangers Doc. No. BK-GNRAL-PEDCO-000-ME-DW-0001". Min two number shall be considered.
18. Vendor shall supply details of all welding connections and give general specification of used materials.
19. All materials shall be new and unused.
20. Prior to sealing the vessel for shipping and storage, the inside surface of the equipment shall be 100% visually inspected. Internal surfaces shall be clean and thoroughly dried. The CLIENT or its nominated representative shall witness the cleanliness of internal surfaces. Hange faces shall be protected by wooden or plastic dummy flanges.
21. Fabrication tolerances for vessel shall be in accordance with requirement of BS EN 12285-2 code.
22. All items shall be clearly match marked against vessel drawings to facilitate erection.
23. The elevation of equipment's nozzels should be specified as follows :
I. For vertical vessels : from bottom T.L.
II. For horizontal vessels : from Left T.L.
24. Gasket shall be spiral wound type, graphite filled with inner and outer rings S.S.316.
25. The Vendor shall be fully responsible for the complete mechanical design, preparing calculation book and supply of the vessel.
26. VENDOR to advise (VTA) internal for inlet nozzle.



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MECHANICAL DATA SHEETS FOR DIESEL OIL DRUM

شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0007	D02

شماره صفحه: ۴ از ۷

Mechanical Data Sheets For Diesel Oil Drum (V-2206) / sheet 1 of 4

Rev	DATA SHEET				Rev
1	Description	: Diesel Oil Drum			
2	Tag No.	: V-2206		Quantity	: 1 Set
3	Type	:			
4	Process Design Data				
5	Contents	Diesel		Corrosive / Erosive	-
6	Operating Temp. (°C)	AMB.		Liquid Flow (kg/h)	-
7	Operating Press. (barg)	ATM		Vap. Molec. Weight (kg/kmol)	N/A
8	Gas Flow (kg/h)	N/A		Liquid Sp. Gravity	
9	Liquid Density (kg/m ³)	860		Service:	N/A
10	Mechanical Design Data (Note 1) D02				
11	Design Temp. (°C)	85		Vessel Orientation	Horizontal
12	Design Press. (barg)	Full of Water+ATM		HLL (mm)	2050
13	Test Press. (barg)	0.75 Liquid or 0.3 Air (Note 15)		Nominal Liquid capacity (m ³)	28.11
14	Internal Vacuum (barg)	-		In. Dia. Of Boots (mm)	N/A
15	In. Dia. of Shell (mm)	2300		Boot Length (mm)	N/A
16	Tan/Tan Dim. (mm)	6000		Boot Head Type	N/A
17	Vessel Head Type	Per Code & Specification (Note 14)		Corr. Allowance (mm)	1.6
18	Shell Wall Thk. (mm)	*		Joint Efficiency	0.7
19	Head Wall Thk. (mm)	(After Forming)*		Ambient Temp. (°C)	-
20	Seismic Design	Site Class : D, Code: ASCE 7-5, Fa= 1, Fv= 1.33, S1= 0.46, Ss= 1.125, I= 1.25		MDMT (°C)	5
21	Wind Design	Speed: 183 Km/hr (Max.), Code: ASCE 7-5		Insulation Required	No
22	Materials				
23	Code	ASTM		Nozzle Necks :	
24	Shell	A 285 Gr. C		Pipes	A 106 Gr. B
25	Heads	A 285 Gr. C		Plates	A 285 Gr. C
26	Lining	P8		Forgings	A 105
27	Saddles	A 285 Gr. C		Flanges	A 105
28	Platform Grating	Hot Dip Galvanized C.S.		Fittings	A 234 Gr. WPB
29	Gaskets	Note 26		External Bolts	A 193 Gr. B7 (Note 11)
30	Lifting Lugs	A 285 Gr. C		External Nuts	A 194 Gr. 2H (Note 11)
31	Reinforcing Pads	A 285 Gr. C		Internal Bolts / Nuts	S.S.
32	Ladder & Platform	A 36		Name Plate	S.S. 316
33					
34	REFERENCE STANDARDS & DOCUMENTS				
35	Mechanical Design Code	BS EN 12285-2			
36	Process Basis of Design	BK-GNRAL-PEDCO-000-PR-DB-0001			
37	Piping & Instrument Diagram (P&ID)	BK-GCS-PEDCO-120-PR-PI-0023			
38	Specification for Painting	BK-GNRAL-PEDCO-000-PI-SP-0006			
39	Specification for Insulation	BK-GNRAL-PEDCO-000-PI-SP-0019			
40					
41	Fabrication and Inspection Requirements				
42	Inspection Authority	TPI & Client			
43	Material Certification	In Accordance with BS EN 10204:2004, Type 3.1			
44	Hydro Test Medium	Water		Hydro Test Procedure	Yes; Per BS EN 12285-2 Standard
45	MT	Yes; Per Code & Spec. Require.		PT	Yes; Per Code & Spec. Requirements
46	MT Report	Yes; Per Code & Spec. Require.		PT Report	Yes; Per Code & Spec. Requirements
47	Fabrication Quality Control Plan (With Offer)	Yes			
48	Welding Procedure Review / Approval	Yes			
49	Surface Preparation & Coating	Per Specification for Painting with Doc. No. "BK-GNRAL-PEDCO-PI-SP-0006" Per Specification for Lining with Doc. No. "BK-GNRAL-PEDCO-PI-SP-0007"			
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MECHANICAL DATA SHEETS FOR DIESEL OIL DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D02	0007	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۷ از ۵

Mechanical Data Sheets For Diesel Oil Drum (V-2206) / sheet 2 of 4

ACCESSORIES , NOZZLES LIST & LOADS @ BASE

Rev	Accessories & Attachments (Note 4)		Rev.	
1				
2	Supporting Saddles	YES	Name Plate Bracket	YES
3	Access Ladder & Platform	YES	Name Plate	YES
4	Insulation Support	NO	Earthing Lug (Note 17)	YES
5	Insulation	NO	Tailing Lug	N/A
6	Insulation Cover	NO	Cathodic Protection (Sacrificial Anodes)	NO
7	Fireproofing Support	YES	Anchor Bolts (Note 2)	NO
8	Lifting Lugs	YES	Instrumentations	NO
9	Internal/ External Clips	YES	Skid	N/A
10	Template	NO	Support Clips	YES
11	Boot	NO	Vortex Breaker	YES
12	Davit for Manhole	YES	Rung & Grip	NO
13	Internal Lining (By Painting)	YES	Heating Coil	NO
14				
15				
16				
17				

Nozzles List (Note 1, 6, 10)*

Mark	Qty.	Description	Pipe			Flange			Proj. (mm) (Note 10)	Reinforcement		Remarks
			Size	Thk.*	Sch.*	Type	Rate.	Face		Thk.	O.D.	
18												
19												
20	A	1	Inlet	2"			WN	#150	RF	See DWG*		(Note 26)
21	B	1	Liquid Outlet	2"			WN	#150	RF	See DWG*		
22	V1	1	Vent	2"			WN	#150	RF	See DWG*		With flame arrestor
23	M	1	Manhole	20"			WN	#150	RF	See DWG*	*	*
24	Deleted											
25	D	1	Drain	2"			WN	#150	RF	See DWG*		
26	Deleted											
27	L1,2	2	Stand Pipe	2"			WN	#150	RF	*		
28	L3,4	2	Level Transmitter	2"			WN	#300	RF	See DWG*		
29	V2	1	Ventilation	4"			WN	#150	RF	See DWG*	*	*
30												
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Wind and Seismic Loads at Base * Note(9)

Load Condition	Empty Condition			Operating Condition			Testing Condition		
	Max. Shear @ Base (Kg)	Max. Moment @ Base (Kg.m)	Weight (Kg)	Max. Shear @ Base (Kg)	Max. Moment @ Base (Kg.m)	Weight (Kg)	Max. Shear @ Base (Kg)	Max. Moment @ Base (Kg.m)	Weight (Kg)
WIND									
SEISMIC									



Load Type



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صادر کننده

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تسهیلات

120

رشته

ME

نوع مدرک

DT

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0007

نسخه

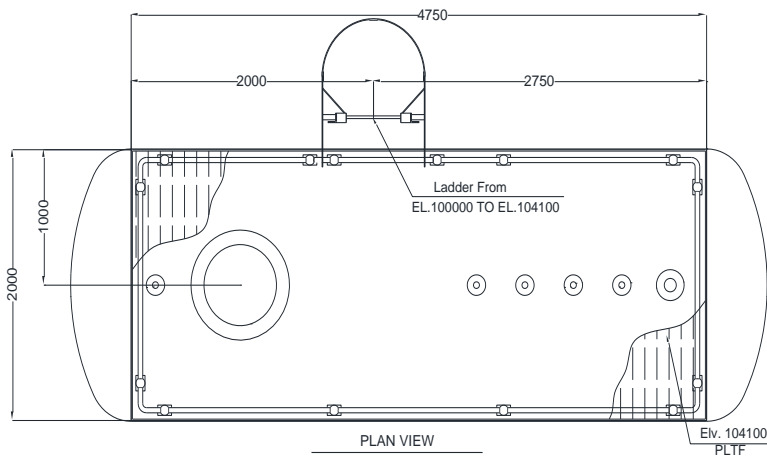
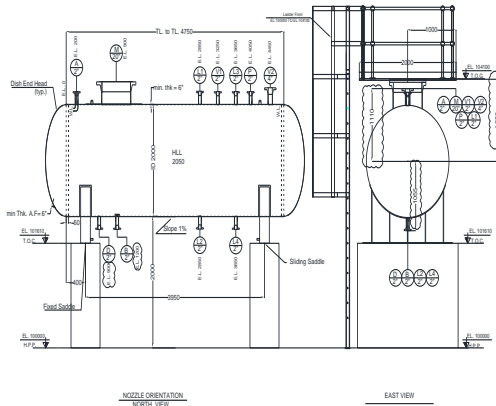
D02

شماره صفحه: ۶ از ۷

Mechanical Data Sheets For Diesel Oil Drum (V-2206) / sheet 3 of 4

D02

Sketch





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Mechanical Data Sheets For Diesel Oil Drum (V-2206) / sheet 4 of 4

Rev. WEIGHT Rev.

WEIGHT CONTROL
DATA SHEET
SI UNIT *

1/1

6	Service	: Diesel Oil Drum	Location	: Bushehr (Binak Oilfield)
7	Type	:	Quotation No.	:
8	No. trains	: -	Serial No.	:
9	No. stages	: -		
10	Supplier	:		
11	Manufacturer	:		
12	Model	:		

Note: Information to be completed by equipment vendor.

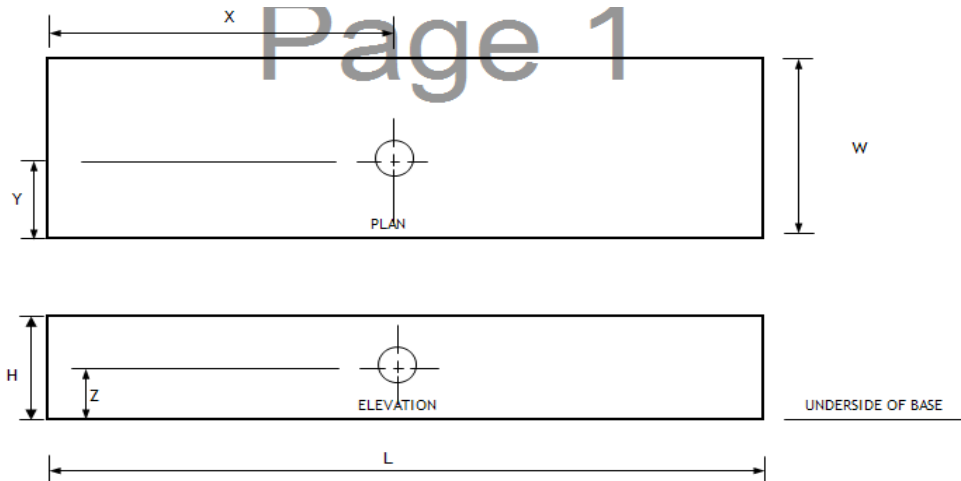
Total weight (kg) *

17	Fabrication	Erection	Operation	Hydrostatic Test	Removable internal	Ladder & Platform
18						
19						
20						
21						

WEIGHT AND C OF G DATA REQUIRED *

CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)		
			X	Y	Z
Dry					

SKETCH



NOTES

- 1) All lifting points to be load tested and certified.
- 2) Any spreader beam to be load tested and certified.
- 3) Lifting / rigging plan for skid mounted equipment to be provided by the Vendor.