



 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 	
	MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه: BK	بسته کاری: GCS	صادر کننده: PEDCO	تسهیلات: 120	رشته: ME	نوع مدرک: DT	سریال: 0036	نسخه: D01	شماره صفحه: ۱ از ۸

طرح نگهداشت و افزایش تولید ۲۷ مخزن

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM

نگهداشت و افزایش تولید میدان نفتی بینک

D01	SEP.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: 2
 CLIENT Doc. Number: F0Z-709383

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



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادرکننده

PEDCO

تسهیلات

120

رشته

ME

نوع مدرک

DT

سریال

0036

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D01

شماره صفحه: ۲ از ۸




REVISION RECORD SHEET

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1	X	X			
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 NISOC		<p>نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض</p> <p>احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک</p> <p>MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM</p>							
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۸ از ۳
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General Notes		D01	
Rev			
D01	1.	The Asterisk * denotes information and/or confirmation required from VENDOR. The Vendor shall be fully responsible for the complete mechanical design and supply of the vessel. TJ: Confirmed	
	2.	Nozzles and flanges shall be suitably supported and reinforced based on nozzle loads provided in project Specification for Pressure Vessels, Document No. BK-GNRL-PEDCO-000-ME-SP-0001. TJ: Confirmed	
	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). TJ: Confirmed	
D01	4.	Access Ladder & Platform to be considered . TJ: Confirmed	
	5.	Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRL-PEDCO-000-PI-SP-0006 and Specification for Lining (Internal Protection of Equipment by painting), Doc. No. BK-GNRL-PEDCO-000-PI-SP-0007. TJ: Confirmed	
D01	6.	Flanges shall comply with ANSI B16.5. Series A. Nozzle bolt holes shall straddle the natural centerlines. VENDOR to confirm maximum allowable nozzle loads and moments. RF: Raised Face, WN: Welding Neck TJ: Confirmed	
	7.	For equipment requiring PWHT, final inspection and acceptance by the CLIENT or its nominated representative shall only be undertaken against NDE after PWHT. All weldings shall be made before vessel heat treatment (if any). TJ: Confirmed	
	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. Davits shall be proof load tested on the vessels to 1.5 x Safe Working Load (SWL) and shall be marked accordingly. TJ: Confirmed	
	9.	Loads at support base, Shall be calculated and determined by vendor. TJ: Confirmed	
D01	10.	Location and number of lifting lugs on vessels shall be specified on VENDOR drawing. TJ: Confirmed	
	11.	All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel. TJ: Confirmed	
	12.	All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor. TJ: Confirmed	
D01	13.	The vendor shall be responsible for mechanical strength of the equipment based on mentioned condition in data sheets. TJ: Confirmed	
D01	14.	All nozzle locations and orientations will be finalized later. TJ: Confirmed	
	15.	Instrumentation items are excluded from vendor's scope of supply. TJ: Confirmed	
	16.	Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client. TJ: Confirmed	
	17.	Structural surfaces of stainless steel internals shall be pickled & passivated. TJ: Confirmed	
D01	18.	All dimensions shown are in mm unless otherwise indicated. All nozzle sizes are in inch. TJ: Confirmed	
	19.	All materials shall be new and unused. TJ: Confirmed	
	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 suarfaces. Flange faces shall be protected by wooden or plastic dummy flanges. TJ: Confirmed	
	21.	Fabrication tolerances for vessel shall be in accordance with requirement of ASME code. TJ: Confirmed	
	22.	All items shall be clearly match marked against vessel drawings to facilitate erection. TJ: Confirmed	
	23.	The elevation of equipment's nozzels should be specified as follows : I. For vertical vessels : from bottom T.L. TJ: Confirmed II. For horizontal vessels : from Left T.L.	
	24.	Vendor shall supply details of all welding connections and give general specification of used materials. TJ: Confirmed	
	25.	Specified accessories and attachments shall be supplied by vendor. TJ: Confirmed	
	26.	Gasket shall be spiral wound type, graphite filled with inner ring S.S.316 and outer ring S.S. TJ: Confirmed	
D01	27.	Deleted.	
D01	28.	Deleted.	
D01	29.	Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Transportation Procedure Doc. No. "BK-GNRL-PEDCO-000-QC-PR-0045". TJ: Confirmed	

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	MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۴ از ۸
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General Notes (Cont'd)	
Rev	D01
	<p>30. For standard detail of Earth lug execution refer to the Project "Standard Detail Drawing For Pressure Vessels and Heat Exchangers Doc. No. BK-GNRL-PEDCO-000-ME-DW-0001". TJ: Confirmed</p> <p>31. Elliptical heads shall be Ultrasonic Tested for lamination after forming. TJ: RT test will be performed.</p> <p>32. The projection of equipment's nozzles should be considered as per 'Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRL-PEDCO-000-ME-DW-0001". Projection of Horizontal & Vertical nozzles is from tangent line and centerline respectively. TJ: Confirmed</p> <p>D01 33. Deleted</p> <p>34. All reinforcement pads shall have 1/4" (6mm) tell-tale hole and 1/8" (3mm) vent hole as per Standard Detail Drawing For Pressure Vessels and Heat Exchangers', Doc. No. BK-GNRL-PEDCO-000-ME-DW-0001". TJ: Confirmed</p> <p>D01 35. Minimum requirement for pre-commissioning, commissioning, start up and two years operation spare parts shall be in accordance with document E&C-QC-SP-1. TJ: Confirmed</p> <p>36. Nozzle loads shall be in accordance with Specification for Pressure Vessels, Doc. No. BK-GNRL-PEDCO-ME-SP-0001. TJ: Confirmed</p> <p>37. All nozzles must be vertical or horizontal and not perpendicular or parallel to vessel center line. TJ: Confirmed</p> <p>D01 38. Lifting Lugs / trunnions shall be provided to facilitate a single point lift. If a single point lift cannot be achieved without the use of a lifting beam, then VENDOR shall provide a suitable, certified, lifting beam. TJ: Confirmed</p> <p>D01 39. Design pressure specified is at top of vessels. VENDOR design shall include static head for vessels flooded with specific gravity of the handled liquid. TJ: Confirmed</p> <p>D01 40. VENDOR is to maximize shop fabrication based on the following transportation limits: TJ: Confirmed</p> <ul style="list-style-type: none"> - Maximum weight: 96 tonnes - Maximum load per axle: 12 tonnes - Maximum length: 50.0 m - Maximum width: 5.0 m - Maximum height: 5.2 m <p>For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components.</p> <p>D01 41. All external attachments directly welded to the pressure part shall be the same material as vessel grade. TJ: Confirmed</p>



احداث ردیف تراکم گاز در ایستگاه جمع آوری سنک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره ۵ صفحه: ۵ از ۸

شماره ۵ بهمان:

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تسهيلات

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شماره ۵ صفحه: ۵ از ۸

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 1 of 4

Rev	DATA SHEET					Rev
1	Description : Glycol Sump Drum					
2	Tag No. : V-2107		Quantity : 1 Set			
3	Type : Pressure Vessel					
4	Process Design Data					
5	Contents	-	Corrosive / Erosive	NO		
6	Operating Temp. (°C)	AMB	Liquid Flow (kg/h)	-		
7	Operating Press. (barg)	0.1	Vap. Molec. Weight (kg/kmol)	143.1		
8	Gas Flow (kg/h)	-	Liquid Sp. Gravity	1100		
9	Liquid Viscosity (cP)	6.63	Lethal:	No		
10	Mechanical Design Data (1) D01					
11	Design Temp. (°C)	85	Vessel Orientation	Horizontal		
12	Design Press. (barg)	3.5	LLLL / HHLL (mm)	150 / 800		
13	Test Press. (barg)	Per Code & Spec. Requirements		Normal Liquid Vol. (m³)	4	
14	Internal Vacuum (barg)	F.V.	In. Dia. Of Boots (mm)	N/A		
15	In. Dia. of Shell (mm)	1100	Boot Length (mm)	N/A		
16	Tan/Tan Dim. (mm)	3600	Boot Head Type	N.A		
17	Vessel Head Type	2:1 Elliptical (Note 31)	Corr. Allowance (mm)	3		
18	Shell Wall Thk. (mm)	*(1) TJ: 6mm	Joint Efficiency	0.85 (Shell) / 1 (Head)		
19	Head Wall Thk. (mm)	*(1) TJ: 6mm	Ambient Temp. (°C)	5 ~ 50		
20	Seismic Design	Site Class : D, Code: ASCE 7-10	MDMT (°C)	5		
21	Wind Design	Speed: 120 Km/hr (Max.), Code: ASCE 7-10	Insulation Required	-		
22	Materials D01					
23	Code	ASME II /ASTM	Internal Welded Supports	A 516 70		
24	Shell	A 516 70	Nozzle Necks	A 106 Gr.B		
25	Heads	A 516 70	Pipes	A 106 Gr.B		
26	Lining	P8	Plates	A 516 70		
27	Saddles	A 283 Gr. C	Forgings	A 105		
28	Wear Plate	A 516 70	Flanges	A 105		
29	Stiffening Rings	A 516 70	Fittings	A 234 Gr. WPB		
30	Gaskets	Note 26	Welded Internals	A 516 70		
31	Lifting Lugs	A 516 Gr.70 / A 283 Gr. C	External Bolts / Nuts (Note 11)	A 193 Gr. B7 / A 194 Gr. 2H		
32	Reinforcing Pads	A 516 70	Internal Bolts / Nuts (Note 11)	S.S.		
33	Ladder & Platform	C.S.	External Welded Clips	A 516 Gr.70		
34	Gratings	Hot Dip Galvanized C.S.	Name Plate	S.S. 316		
35						
36	REFERENCE STANDARDS & DOCUMENTS D01					
37	Mechanical Design Code	ASME Sec VIII Div 1, IPS-G-ME-150 (Latest Edition)				
38	Specification for Pressure Vessels	BK-GNRL-PEDCO-000-ME-SP-0001				
39	Process Basis of Design	BK-GNRL-PEDCO-000-PR-DB-0001				
40	Piping & Instrument Diagram (P&ID)	BK-GCS-PEDCO-120-PR-PI-0025				
41	Specification for Painting	BK-GNRL-PEDCO-000-PI-SP-0006				
42	Specification for Insulation	BK-GNRL-PEDCO-000-PI-SP-0019				
43	Specification For Material Requirements in Sour service	BK-GNRL-PEDCO-000-PI-SP-0008				
44	Specification For lining	BK-GNRL-PEDCO-000-PI-SP-0007				
45	Fabrication and Inspection Requirements					
46	Inspection Authority	TPI & Client				
47	Material Certification	In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments				
48	Hydro Test Medium	Water	Hydro Test Procedure	Yes;Per Code & Spec. Requirements		
49	Post Weld Heat Treatment	Per Code & Spec. Requr.	PT	100%		
50	MT	100 % on Lifting Lug Fillet Welds	UT	Yes;Per Code & Spec. Requirements		
51	RT	100 % On T-Joints and Head Joints Butt-Welds,				
52		Spot On Shell Longitudinal and Circumferential Joints Butt-Welds,				
53		100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,				
54	RT Report	Yes; Per Code & Spec. Requr.	PT Report	Yes;Per Code & Spec. Requirements		
55	MT Report	Yes; Per Code & Spec. Requr.	UT Report	Yes;Per Code & Spec. Requirements		
56	Fabrication Quality Control Plan (With Offer)	Yes				
57	Welding Procedure Review / Approval	Yes				
58	Surface Preparation & Coating	Specification for Painting with Doc. No. "BK-GNRL-PEDCO-PI-SP-0006"				
59		Specification For Lining, Doc. No.: "BK-GNRL-PEDCO-000-PI-SP-0007"				
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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

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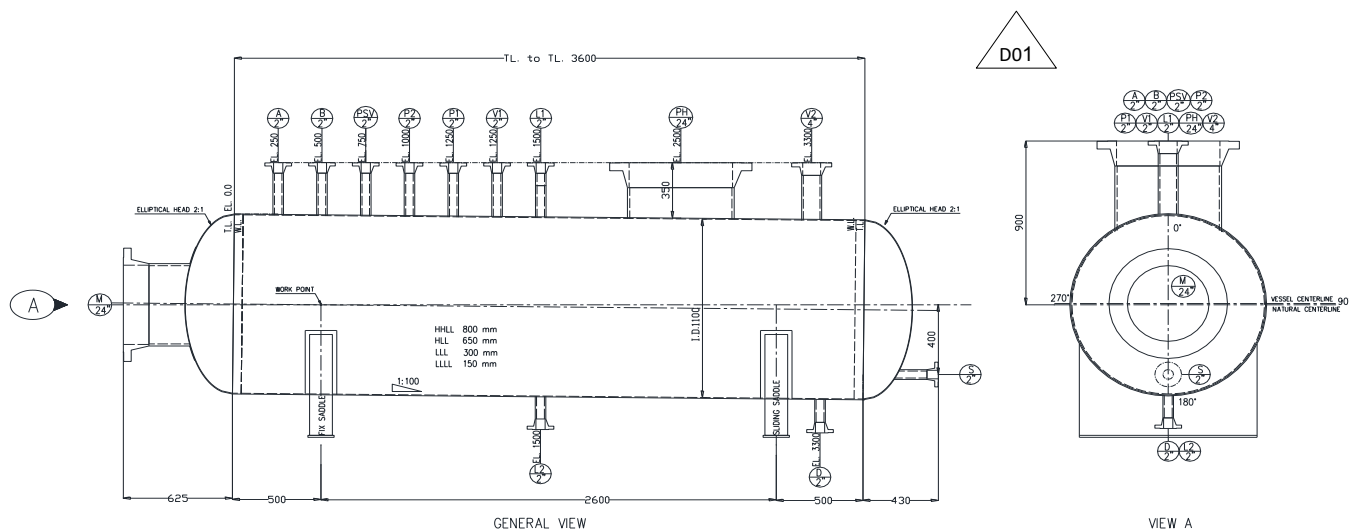
نسخه

D01

شماره صفحه: ۸ از ۷

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 3 of 4

Sketch





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نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR GLYCOL SUMP DRUM



شماره پیمان:

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D01

شماره صفحه: ۸ از ۸

Mech. Data Sheet For Glycol Sump Drum (V-2107) / sheet 4 of 4

Rev.	WEIGHT						Rev.
1	WEIGHT CONTROL DATA SHEET SI UNIT *						D01 1/1
2							
3							
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5							
6	Service : <i>Glycol Sump Drum</i>			Location : <i>Bushehr (Binak Oilfield)</i>			D01
7	Type :			Quotation No. :			
8	No. trains :			Serial No. :			
9	No. stages :						
10	Supplier :						
11	Manufacturer :						
12	Model :						
13	Note: Information to be completed by equipment vendor.						
14							
15							
16	Total weight (kg) *						
17	Fabrication	Erection	Operation	Hydrostatic Test	Removable internal	Ladder & Platform	
18							
19							
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21							
22							
23	WEIGHT AND C OF G DATA REQUIRED (9)						
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)			
25				X	Y	Z	
26	Dry						
27							
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30	SKETCH						
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52	NOTES						
53	1) All lifting points to be load tested and certified.						
54	2) Any spreader beam to be load tested and certified.						
55	3) Lifting / rigging plan for skid mounted equipment to be provided by the Vendor.						
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