


 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض							 شرکت توسعه و ایران
	احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک							 HIRGAN ENERGY 
	MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM							
شماره پیمان:	پروژه	بسته کاری	صادرکننده	تهیهات	رشته	نوع مدرک	سریال	نسخه
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0013	D02
شماره صفحه: ۸ از ۱								

طرح نگهداشت و افزایش تولید ۲۷ مخزن

MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM

نگهداشت و افزایش تولید میدان نفتی بینک

D02	JUN.2023	IFA	H.Adineh	M.Fakharian	A.M.Mohseni	
D01	SEP. 2022	IFA	H.Adineh	M.Fakharian	M.Mehrshad	
D00	NOV.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-708844

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 FUEL GAS K.O. DRUM							 	
	شماره پیمان:	پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک		سریال
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0013	D02	شماره صفحه: ۸ از ۲

REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04	Page	D00	D01	D02	D03	D04
1	X	X	X			65					
2	X	X	X			66					
3	X	X				67					
4	X	X	X			68					
5	X	X				69					
6	X	X	X			70					
7	X	X				71					
8	X	X				72					
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 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض								
	احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	پروژه BK	بسته کاری GCS	صادرکننده PEDCO	تسهیلات 120	رشته ME	نوع مدرک DT	سریال 0013	نسخه D02	شماره صفحه: ۸ از ۳
General Notes									
Rev	<ol style="list-style-type: none"> The Asterisk * denotes information and/or confirmation required from VENDOR. Deleted VENDOR shall include for the services of a independent verification body for mechanical design, stage inspection, testing and stamping of the equipment (if possible). Painting and coating (internal & external) shall be as per project 'Specification for Painting', Doc. No. BK-GNRAL-PEDCO-000-PI-SP-0006. Flanges shall comply with ASME B16.5. Nozzle bolt holes shall straddle the natural centrelines for horizontal nozzles. VENDOR to confirm maximum allowable nozzle loads and moments (RF: Raised Face, WN: Welding Neck) 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-GNRAL-PEDCO-000-ME-DW-0001". 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. All external bolts and nuts shall be hot dip galvanized. Internal bolts and nuts shall be stainless steel. Loads at support base, Shall be calculated and determined by vendor. Access Ladder & Platform to be considered . Deleted All material, corrosion allowance and their suitability for the process fluid at design pressure and temperature to be confirmed by vendor. Deleted All nozzle locations and orientations to be finalized later. Instrumentation items are excluded from vendor's scope of supply. Any changes in material of construction, location & orientation of the nozzles shall be confirmed by client. All materials shall be new and unused. Fabrication tolerances for vessel shall be in accordance with requirement of ASME code. Location and number of lifting lugs on vessels shall be specified on VENDOR drawing. All items shall be clearly match marked against vessel drawings to facilitate erection. Deleted Vendor shall supply details of all welding connections and give general specification of used materials. 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). Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Doc. No. "BK-GNRAL-PEDCO-000-QC-PR-0045". Specified accessories and attachments shall be supplied by vendor. Gasket shall be spiral wound type, graphite filled with inner ring and outer ring S.S.316 Deleted Deleted Two M12 earthing lugs shall be provided on vessel support. Material of Earthing lugs shall be S.S. 316 								

 NISOC	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض							 شرکت توسعه و پارس 	
	احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تجهیزات	رشته	نوع مدرک	سرنال	نسخه	شماره صفحه: ۵ از ۸
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0013	D02	

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 1 of 4

Rev	DATA SHEET					Rev
1	Description : Fuel Gas K.O. Drum					
2	Tag No. : V-2205		Quantity : 1		Set	
3	Type : Pressure Vessel					
4	Process Design Data					
5	Contents		Corrosive / Erosive		CO2, H2S	
6	Operating Temp. (°C)		Liquid Flow (kg/h)		18.88 -36.78	
7	Operating Press. (barg)		Vap. Molec. Weight (kg/kmol)		4.9	
8	Gas Flow (kg/h)		Liquid Sp. Gravity		0.005771	
9	Liquid Viscosity (cP)		Service:		Sour Service	
10	Mechanical Design Data					
11	Design Temp. (°C)		Vessel Orientation		85	
12	Design Press. (barg)		HHLL (mm)		9	
13	Test Press. (barg)		Nor. Liquid Vol. (m³)		Per Code & Specification	
14	Internal Vacuum (barg)		In. Dia. Of Boots (mm)		F.V.	
15	In. Dia. of Shell (mm)		Boot Length (mm)		438	
16	Tan/Tan Dim. (mm)		Boot Head Type		2950	
17	Vessel Head Type		Corr. Allowance (mm)		2:1 elliptical + flange	
18	Shell Wall Thk. (mm)		Joint Efficiency		0.85 (Shell) / 1 (Head)	
19	Head Wall Thk. (mm)		Ambient Temp. (°C)		6	
20	Seismic Design		MDMT (°C)		Site Class: D, Code: ASCE 7-10	
21	Wind Design		Insulation Required		Speed: 120 Km/hr (Max.), Code: ASCE 7-10	
22	Materials					
23	Code		Nozzle Necks:		ASME II / ASTM	
24	Shell		Pipes		A 106 Gr B (18" Pipe, Sch. STD)	
25	Heads		Plates		A 516 Gr. 60 N	
26	Lining / Cladding		Forgings		A 516 Gr.60 N	
27	Leg / Pad		Flanges		A 105 N	
28	Platform Gratings		Fittings		A 516 Gr.60 N / A 283 Gr. C	
29	Gaskets		External Bolts		Hot Dip Galvanized C.S.	
30	Lifting Lugs		External Nuts		Note 26	
31	Reinforcing Pads		Internal (Removable)		A 516 Gr.60 N / A 283 Gr. C	
32	Ladder & Platform		Internal (Fixed)		A 516 Gr.60 N	
33	Name Plate				C.S.	
34					S.S. 316	
35	REFERENCE STANDARDS & DOCUMENTS					
36	Mechanical Design Code		ASME Sec VIII Div 1, IPS-G-ME-150			
37	Specification for Pressure Vessels		BK-GNRL-PEDCO-000-ME-SP-0001			
38	Process Basis of Design		BK-GNRL-PEDCO-000-PR-DB-0001			
39	Piping & Instrument Diagram (P&ID)		BK-GCS-PEDCO-120-PR-PI-0022			
40	Specification for Painting		BK-GNRL-PEDCO-000-PI-SP-0006			
41	Specification for Insulation		BK-GNRL-PEDCO-000-PI-SP-0019			
42	Specification For Material Requirements in Sour service		BK-GNRL-PEDCO-000-PI-SP-0008 (Note 45)			
43						
44	Fabrication and Inspection Requirements					
45	Inspection Authority		TPI & Client			
46	Material Certification		In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments			
47	Hydro Test Medium		Hydro Test Procedure		Water	
48	Post Weld Heat Treatment		PT		Yes; Per Code & Spec. Requirements	
49	MT		UT		100%	
50	RT		Spot % On T-Joints and Head Joints Butt-Welds,			
52			100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,			
53	RT Report		PT Report		Yes; Per Code & Spec. Requis.	
54	MT Report		UT Report		Yes; Per Code & Spec. Requis.	
55	Fabrication Quality Control Plan (With Offer)		Yes			
56	Welding Procedure Review / Approval		Yes			
57	Surface Preparation & Coating		Specification for Painting Doc. No. "BK-GNRL-PEDCO-000-PI-SP-0006"			
58			Specification for Lining Doc. No: "BK-GNRL-PEDCO-000-PI-SP-0007"			
59						
60						
61						
62						
63						



MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D02	0013	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: ۶ از ۸

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 2 of 4

Rev.	ACCESSORIES , NOZZLES LIST & LOADS @ BASE													Rev.
	1	Accessories & Attachments (Note 25)												
	2	Supporting Leg	YES	Name Plate Bracket									YES	
	3	Access Ladder & Platform (Note 10)	YES	Name Plate									YES	
	4	Insulation Support	NO	Earthing Lug (Note 30)									YES	
	5	Insulation	NO	Tailing Lug									NO	
	6	Insulation Cover	NO	Cathodic Protection (Sacrificial Anodes)									NO	
	7	Fireproofing Support	NO	Anchor Bolts									NO	
	8	Lifting Lugs	YES	Instrumentations									NO	
	9	Internal Supports	YES	Skid									NO	
	10	Internal Impingement Baffle	YES	Vortex Breaker									YES	
	11	Internal Demistier Pad (Note 44)	YES	Davit for Body Flange									YES	
	12	Internal Lining	YES											
	13													
	14													
	15													
	16													
	17													
	18	Nozzles List * (Note 1)												
	19	Mark	Qty.	Description	Pipe			Flange			Proj. (mm)	Reinforcement		Remarks
	20				Size	Thk.	Sch.	Type	Rate.	Face	(Note 32)	Thk.	O.D.	
	21	A	1	Inlet	2"			WN	#150	RF	428.5			
	22	B1	1	Gas Outlet	2"			WN	#150	RF	See DWG			
	23	B2	1	Liquid Outlet	2"			WN	#150	RF	314.25			
	24	Deleted												
	25	H	1	Handhole	8"			WN	#150	RF	478.5	*	*	Note 6
	26	S	1	Utility Connection	2"			WN	#150	RF	428.5			
	27	P1	1	Pressure Gauge	2"			WN	#300	RF	428.5			
D02	28	P 2,3	2	PDI	2"			WN	#300	RF	428.5			
	29	PSV	1	Pressure Safety Valve	2"			WN	#150	RF	428.5			
	30	L 1,2	2	Stand Pipe	3"			WN	#150	RF	428.5			
	31	L 3,4	2	Level Transmitter	2"			WN	#300	RF	428.5			
D02	32	V	1	Vent	2"			WN	#150	RF	See DWG			
	33													
	34													
	35													
	36													
	37													
	38													
	39													
	40													
	41													
	42													
	43	Wind and Seismic Loads at Base * Note(9)												
	44	 Load Type	Empty Condition			Operating Condition			Testing Condition					
	45		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)			
	46													
	47													
	48													
	49													
	50													
	51	WIND												
	52													
	53	SEISMIC												
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NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

BK

بسته کاری

GCS

صادر کننده

PEDCO

تسهیلات

120

رشته

ME

نوع مدرک

DT

سریال

0013

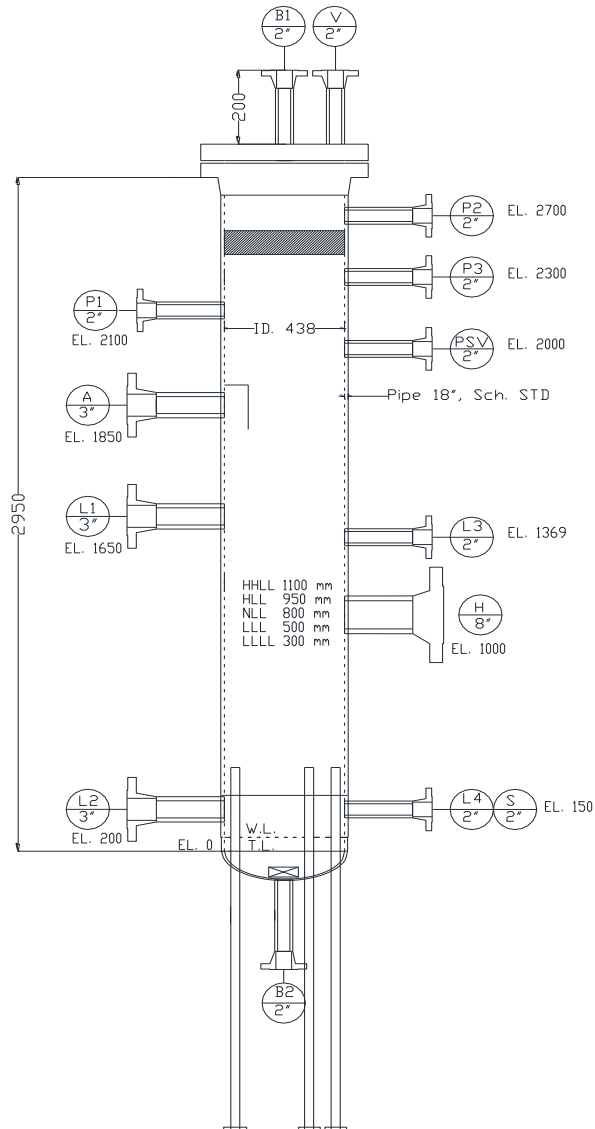
نسخه

D02

شماره صفحه: ۸ از ۷

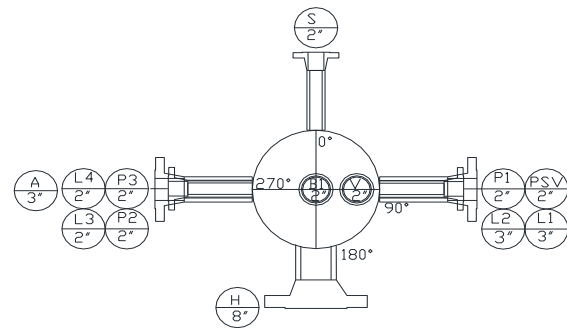
Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 3 of 4

Sketch



Elevation View

Nozzle Elevation will be finalized by piping later.



Orientation View

Nozzle Orientation will be finalized by piping later.

All dimensions are in mm.



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

MECHANICAL DATA SHEETS FOR FUEL GAS K.O. DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0013	D02

شماره صفحه: ۸ از ۸

Mechanical Data Sheets For Fuel Gas K.O. Drum (V-2205) / sheet 4 of 4

Rev.	WEIGHT						Rev.
1	WEIGHT CONTROL DATA SHEET SI UNIT *					1/1	
2							
3							
4							
5							
6	Service :	Fuel Gas K.O. Drum			Location :	Bushehr (Binak Oilfield)	
7	Type :				Quotation No. :		
8	No. trains :				Serial No. :		
9	No. stages :						
10	Supplier :						
11	Manufacturer :						
12	Model :						
13							
14	Note: Information to be completed by equipment vendor.						
15							
16	Total weight (kg) *						
17	Fabrication	Erection	Operation	Hydrostatic Test	Removable internal	Ladder & Platform	
18							
19							
20							
21							
22							
23	WEIGHT AND C OF G DATA REQUIRED *						
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)			
25				X	Y	Z	
26	Dry						
27							
28							
29							
30	SKETCH						
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51							
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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