

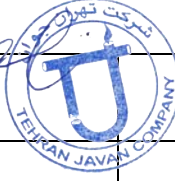
 <b>NISOC</b>	نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک								
	MECHANICAL DATA SHEETS FOR FLARE K.O. DRUM								
شماره پیمان:	پروژه	بسته کاری	صادر کننده	تهیلات	رشته	نوع مدرک	سریال	نسخه	شماره صفحه: ۸ از ۱
۰۵۳ - ۰۷۳ - ۹۱۸۴	BK	GCS	PEDCO	120	ME	DT	0012	D01	

## طرح نگهداشت و افزایش تولید ۲۷ مخزن

### MECHANICAL DATA SHEETS FOR FLARE K.O. DRUM

#### نگهداشت و افزایش تولید میدان نفتی بینک

 						
D01	SEP.2022	IFA	H.Adineh	M.Fakharian	M.Mehrshad	
D00	JAN.2022	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-708843				

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 FLARE K.O. DRUM



شماره صفحه: ۸ از ۲

شماره پیمان:

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D01

# REVISION RECORD SHEET

Page	D00	D01	D02	D03	D04
1	X	X			
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3	X	X			
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Rev	
D01	27. Fire proofing requirement will be specified as per result of fire proofing zone layout. "Area Classification: Zone 2, IIB, T3" TJ: Confirmed
D01	28. Deleted.
D01	29. Equipment packaging, preparation for shipment and delivery shall be in accordance with the project Packing, Marking, Transportation Procedure Doc. No. "BK-GNRL-PEDCO-000-QC-PR-0045". TJ: Confirmed
	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
	31. Elliptical heads shall be Ultrasonic Tested for lamination after forming. TJ: RT test will be performed.
	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
D01	33. Deleted
	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
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
D01	36. Two M12 earthing lugs shall be provided on vessel support. Material of earthing lugs shall be S.S. 316. TJ: Confirmed
	37. The material shall be in compliance with NACE MR0175/ISO15156 and Specification for Material Requirements in Sour Service, Doc.No. BK-GNRL-PEDCO-000-PI-SP-0008. TJ: Confirmed
	38. Welded carbon and carbon manganese steels for vessel shall comply with the following : Carbon content shall not exceed 0.23%. TJ: Confirmed Based on the ladel analysis, below equation shall be satisfied. $Ceq. = C+Mn/6+(Cr+Mo+V)/5+(Cu+Ni)/15 < 0.42 \%$
	39. All carbon steel material shall be fully killed, fine grain treated and supplied in the normalized condition. TJ: Confirmed
	40. All nozzles must be vertical or horizontal and not perpendicular or parallel to vessel center line. TJ: Confirmed
D01	41. 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
D01	42. 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
D01	43. VENDOR is to maximize shop fabrication based on the following transportation limits: TJ: Confirmed <ul style="list-style-type: none"> <li>- Maximum weight: 96 tonnes</li> <li>- Maximum load per axle: 12 tonnes</li> <li>- Maximum length: 50.0 m</li> <li>- Maximum width: 5.0 m</li> <li>- Maximum height: 5.2 m</li> </ul> For items with dimensions and weights greater than the road capacity specified above, VENDOR may be required to split the package into several components. TJ: Confirmed
D01	44. All external attachments directly welded to the pressure part shall be the same material as vessel grade. TJ: Confirmed



نگهداشت و افزایش تولید میدان نفتی بینک  
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



NISOC

MECHANICAL DATA SHEETS FOR FLARE K.O. DRUM

شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

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شماره صفحه: ۵ از ۸

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D01

Mechanical Data Sheets For FLARE K.O. DRUM (V-2201) / sheet 1 of 4

Rev	DATA SHEET					Rev
	1	Description : Flare K.O. Drum				
	2	Tag No. : V-2201		Quantity : 1 Set		
	3	Type : Pressure Vessel				
	4	Process Design Data				
	5	Contents	HC, H2O, CO2, H2S		Corrosive / Erosive	
	6	Operating Temp. (°C)	32		Liquid Flow (kg/h)	
	7	Operating Press. (barg)	0.5		Vap. Molec. Weight (kg/kmol)	
	8	Gas Flow (kg/h)			Liquid Sp. Gravity	0.67~1
	9	Liquid Viscosity (cP)			Service:	Sour Service
	10	Mechanical Design Data				
	11	Design Temp. (°C)	85		Vessel Orientation	Horizontal
D01	12	Design Press. (barg)	7.5		HHLL (mm)	650
	13	Test Press. (barg)	Per Code & Specification		Nor. Liquid Vol. (m³)	-
D01	14	Internal Vacuum (barg)	F.V.		In. Dia. Of Boots (mm)	N/A
	15	In. Dia. of Shell (mm)	1000		Boot Length (mm)	N/A
	16	Tan/Tan Dim. (mm)	3000		Boot Head Type	N/A
	17	Vessel Head Type	2:1 elliptical		Corr. Allowance (mm)	3.2
D01	18	Shell Wall Thk. (mm)	* TJ: 6 mm		Joint Efficiency	0.85 Shell / 1 Head
D01	19	Head Wall Thk. (mm)	* (After Forming) TJ: 6 mm		Ambient Temp. (°C)	
	20	Seismic Design	Site Clas: D, Code: ASCE 7-10		MDMT (°C)	-29
	21	Wind Design	Speed: 120 Km/hr (Max.), Code: ASCE 7-10		Insulation Required	No
	22	Materials				
D01	23	Code	ASME II / ASTM		Nozzle Necks: D01	
D01	24	Shell	A 516 Gr. 70 N		Pipes	A 106 Gr.B
D01	25	Heads	A 516 Gr. 70 N		Plates	A 516 Gr.70 N
	26	Lining / Cladding	P2		Forgings	A 105 N
D01	27	Skirt (Top / Bottom)	A 516 Gr. 70 / A 283 Gr. C		Flanges	A 105 N
	28	Platform Gratings	Hot Dip Galvanized C.S.		Fittings	A 234 Gr. WPB
	29	Gaskets	Note 26		External Bolts	A 193 Gr. B7 (Note 11)
D01	30	Lifting Lugs	A 516 Gr.70 / A 283 Gr. C		External Nuts	A 194 Gr. 2H (Note 11)
D01	31	Reinforcing Pads	A 516 Gr.70 N		Internal Bolts / Nuts	
	32	Ladder & Platform	C.S.		Name Plate	S.S. 316
	33					
	34	REFERENCE STANDARDS & DOCUMENTS				
	35	Mechanical Design Code	ASME Sec VIII Div 1, IPS-G-ME-150			
	36	Specification for Pressure Vessels	BK-GNRL-PEDCO-000-ME-SP-0001			
	37	Process Basis of Design	BK-GNRL-PEDCO-000-PR-DB-0001			
	38	Piping & Instrument Diagram (P&ID)	BK-GCS-PEDCO-120-PR-PI-0020			
	39	Specification for Painting	BK-GNRL-PEDCO-000-PI-SP-0006			
	40	Specification for Insulation	BK-GNRL-PEDCO-000-PI-SP-0019			
	41	Specification for material requirements in Sour service	BK-GNRL-PEDCO-000-PI-SP-0008			
	42					
	43	Fabrication and Inspection Requirements				
	44	Inspection Authority	TPI & Client			
	45	Material Certification	In Accordance with BS EN 10204:2004, Type 3.1, Minimum for Pressure Containing and Attachments			
	46	Hydro Test Medium	Water		Hydro Test Procedure	Yes;Per Code & Spec. Requirements
	47	Post Weld Heat Treatment	Yes; Per Code & Spec. Requir.		PT	100%
	48	MT	100 % on Lifting Lug Fillet Welds		UT	Yes;Per Code & Spec. Requirements
	49		100 % On T-Joints and Head Joints Butt-Welds,			
	50	RT	Spot On Shell Longitudinal and Circumferential Joints Butt-Welds,			
D01	51		100 % On Nozzle Neck to Flange & Fabricated Nozzle Neck Longitudinal Butt-Welds,			
	52	RT Report	Yes; Per Code & Spec. Requir.		PT Report	Yes;Per Code & Spec. Requirements
	53	MT Report	Yes; Per Code & Spec. Requir.		UT Report	Yes;Per Code & Spec. Requirements
	54	Fabrication Quality Control Plan (With Offer)	Yes			
	55	Welding Procedure Review / Approval	Yes			
	56	Surface Preparation & Coating	Specification for Painting Doc. No. "BK-GNRL-PEDCO-000-PI-SP-0006" Specification for Lining Doc. No: "BK-GNRL-PEDCO-000-PI-SP-0007"			
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## احداث ردیف تہ اکم گاز در ایستگاه جمع آوری سنک



MECHANICAL DATA SHEETS FOR FLARE K.O. DRUM


**شماره پیمان:**

• 03 - • 73 - 9184

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه
D01	0012	DT	ME	120	PEDCO	GCS	BK

شماره ۵ صفحه: ۶ از ۸

Mechanical Data Sheets For FLARE K.O. DRUM (V-2201) / sheet 2 of 4

Rev.	ACCESSORIES , NOZZLES LIST & LOADS @ BASE												Rev.		
	1	Accessories & Attachments (Note 25)									D01				
	2	Supporting Saddles	YES	Name Plate Bracket						YES					
	3	Access Ladder & Platform (Note 4)	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) (Note 2)						NO					
	7	Fireproofing Support (Note 27)	NO	Anchor Bolts						NO		D01			
	8	Lifting Lugs	YES	Instrumentations						NO					
	9	Internal/ External Clips	YES	Skid						NO					
	10	Template	YES	Support Clips						YES					
	11	Boot	NO	Vortex Breaker						YES					
	12	Davit for Manhole	YES	Rung & Grip						YES					
	13	Internal Lining (By Painting)	YES	Heating Coil						NO					
	14														
	15														
	16														
	17										D01				
	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.		
D01	21	A	1	Inlet	8"			WN	#150	RF	See DWG			Note 7	D01
D01	22	B1	1	Liquid Outlet	2"			WN	#150	RF	707				
D01	23	B2	1	Gas Outlet	10"			WN	#150	RF	807			Note 7	D01
D01	24	V1	1	Ventilation	6"			WN	#150	RF	See DWG			Note 7	D01
D01	25	V2	1	Vent	2"			WN	#150	RF	See DWG				
D01	26	P	1	Pressure Gauge	2"			WN	#300	RF	See DWG				
D01	27	T	1	Temperature Gauge	2"			WN	#300	RF	See DWG				
D01	28	L 1,2	2	Stand Pipe	3"			WN	#150	RF	See DWG			Note 7	D01
D01	29	M	1	Manhole	20"			WN	#150	RF	See DWG			Note 7	D01
D01	30	D	1	Drain	2"			WN	#150	RF	See DWG				
D01	31	L 3,4	2	Level Transmitter LL	2"			WN	#300	RF	See DWG				
D01	32	L 5,6	2	Level Transmitter HH A	2"			WN	#300	RF	See DWG				
D01	33	L 7,8	2	Level Transmitter HH B	2"			WN	#300	RF	See DWG				
D01	34	L 9,10	2	Level Transmitter HH C	2"			WN	#300	RF	See DWG				
D01	35	S	1	Utility Connection	2"			WN	#150	RF	See DWG				
	36														
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	42														
	43	Wind and Seismic Loads at Base * Note(9)													
	44		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)				
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	48	Load Type													
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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 FLARE K.O. DRUM



شماره پیمان:

۰۵۳ - ۰۷۳ - ۹۱۸۴

پروژه

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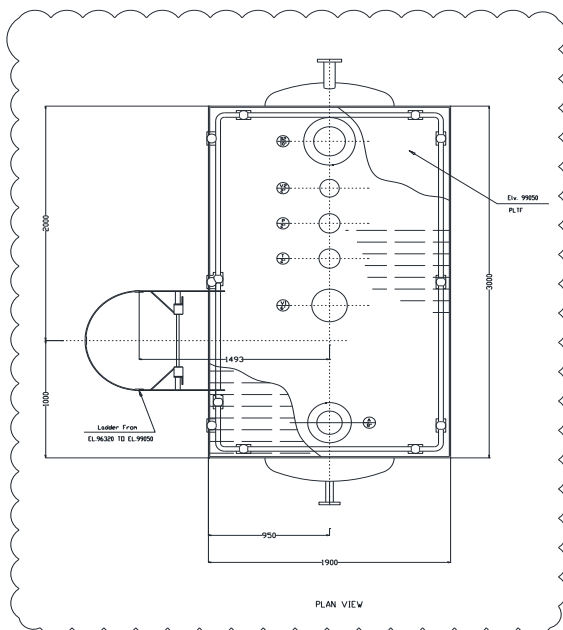
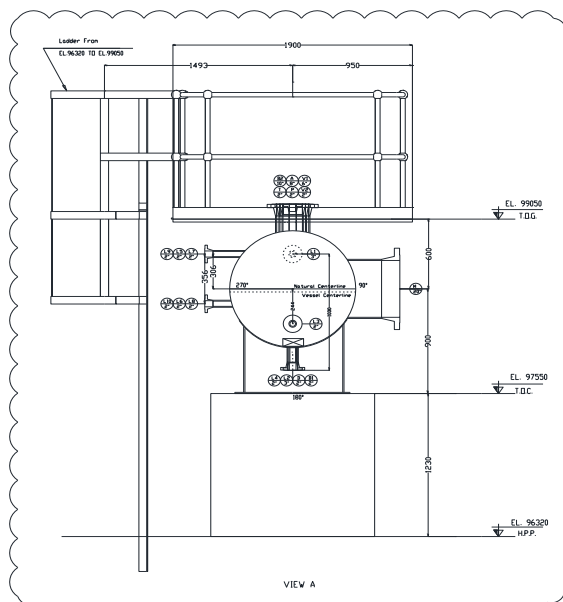
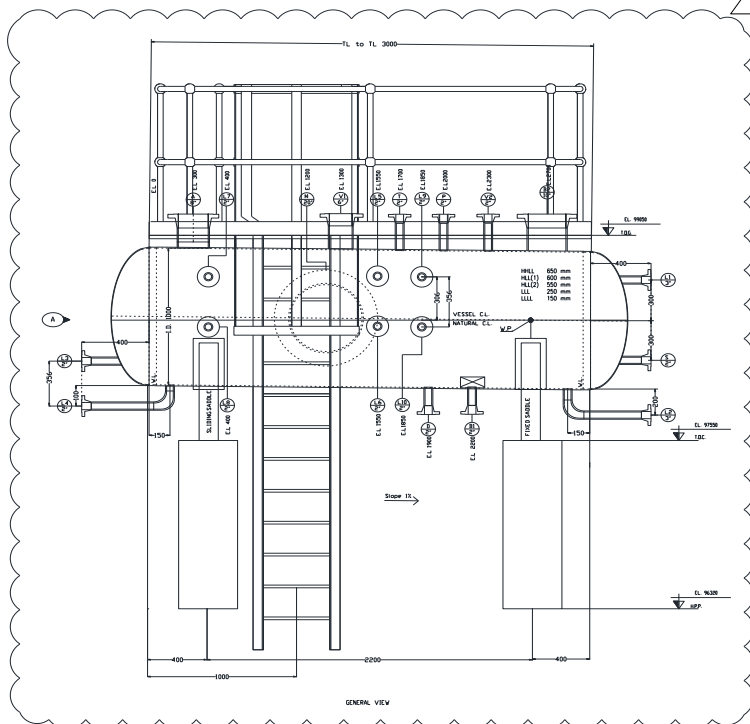
D01

شماره صفحه: ۸ از ۷

### Mechanical Data Sheets For FLARE K.O. DRUM (V-2201) / sheet 3 of 4

#### Sketch

D01



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 FLARE K.O. DRUM



شماره پیمان:

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شماره صفحه: ۸ از ۸

Mechanical Data Sheets For FLARE K.O. DRUM (V-2201) / sheet 4 of 4

Rev.	WEIGHT						D01	Rev.
1	<b>WEIGHT CONTROL DATA SHEET</b> SI UNIT *						1/1	D01
2								
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5								
6	Service :	Flare 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	Note: Information to be completed by equipment vendor.							
14								
15								
16	<b>Total weight (kg) *</b>							
17	Fabrication	Erection	Operation	Hydrostatic Test	Removable internal	Ladder & Platform		
18								
19								
20								
21								
22								
23	<b>WEIGHT AND C OF G DATA REQUIRED *</b>							
24	CONDITION	WEIGHT ACCURACY %	WEIGHT (kg)	CENTER OF GRAVITY (mm)				
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52	<b>NOTES</b>							
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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