

.04-.44-4146

#### نگهداشت و افزایش تولید میدان نفتی بینک سطحالارض



#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:		MECHAI	NICAL DATA	SHEETS FOR	FIRE WATER	R PUMPS-DIE	SEL ENGINE DRIVE	:N
	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه
	BK	GCS	PEDCO	120	ME	DT	0030	D04

شماره صفحه: ۱ از ۱۳

# طرح نگهداشت و افزایش تولید ۲۷ مخزن

# MECHANICAL DATA SHEETS FOR FIRE WATER MAIN PUMPS-DIESEL ENGINE DRIVEN (P-2301 B)

نگهداشت و افزایش تولید میدان نفتی بینک

D04	DEC. 2022	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
D03	OCT. 2022	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
D02	JUL. 2022	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
D01	APR. 2022	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
D00	FEB. 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-708861

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



# HIRGAN THERES

# NISOC

# احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

ن:	شماره پیمار		MECHAN	NICAL DATA	SHEETS FOR	FIRE WATER	PUMPS-DIE	SEL ENGINE DRIVE	N
·0T-·YT-91AF		پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
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شماره صفحه: ۲ از ۱۳

#### REVISION RECORD SHEET

page	D00	D01	D02	D03	D04	D05
1	X	X	X	X	X	D03
2	X	X	X	X	X	
3	X	X	X	X		
4	X					
5	Х	Х	Х	Х		
6	X	X	Х	X	Х	
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#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

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ىمارە پىمان:									
·0T-·YT-91AF	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	شماره صفحه: ۱۳ز ۱۳
101 - 11 - CIAI	BK	GCS	PEDCO	120	ME	DT	0030	D04	

#### **GENERAL NOTES**

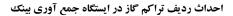
- 1 Vendor shall fill in the blanks and return the completed data sheet along with Diesel data sheet with his proposal.
- 2 Vendor shall submit ITP (Inspection & Testing Plan) with his proposal.
- 3 Vendor is requested to confirm the material, or propose appropriate alternative.
- 4 For Instrumentation, Project specification 'Specification For Instrument and Control of package Unit System (PU)' Doc. No. BK-GNRAL-PEDCO-000-IN-SP-0004. shall be followed.
- 5 Instead of mechanical seal, vendor shall advise the suitable Packing specification.
- 6 NPSH test shall be done & witnessed if the margin of NPSHr & NPSHa is less than 1.
- 7 The Tie-in flanges shall conform to ASME B-16.1.
- 8 Pump drain shall be terminated at skid edge with flange connection and valved.
- 9 Supplier to indicate which minimum flow pumps can achieve.
- 10 Nozzle loads shall be 2 times the loads shown in API 610 11th Edition.
- 11 The Suction line size is 12" and discharge line is 10".
- 12 Air release valve shall be considered by vendor .
- 13 As the pump jobsite environmental condition is fumy and dusty, any required protection for pumps, panels and electrical parts (in accordance with IPS-E-EL-100) in this regard shall be considered by pump manufacturer.
- 14 Ultrasonic Test shall be performed for forged shaft.
- 15 Couplings shall be dry, flexible and spacer type
- 16 A local control panel shall be considered by vendor to be located next to the pumps as per "Specification For Fire Water Pumps", Doc. No. BK-GCS-PEDCO-120-ME-SP-0005". Alarm and trip shall be specified for diesel control based on NFPA 20.
- 17 Pump LCP shall be designed to manage all required monitoring and control signals, as minimum in accordance with "P&ID For Fire Water Network", Doc.No.BK-GCS-PEDCO-120-SA-PI-0001.
- 18 The electrical characteristics of panels shall be specified by vendor such as: The power demand of control panel. The number of control panel.
- 19 Fuel daily tank shall be sized for 8 hours and all instruments such as level transmitter with HH/LL Alarm and etc. are in vendor's scope of supply.
- 20 Diesel engine shall be tested at 110% rated speed in mechanical running test also the maximum speed of diesel engines shall be 2300 RPM.
- 21 pressure sensing lines are in the vendor's scope of supply.
- 22 The sparate power & control panels for main pump diesel engine shall be considered by vendor. Therefore required single line, wiring diagram and etc. shall be specified by vendor.
- 23 Design pressure is 15.4 barg also as per NFPA 20 standard the hydrotest pressure shall not be less than 17.24 barg.
- 24 Estimated BHP at rated capacity is 199.2 kW by considering 65% efficiency.
- 25 The pumps shall furnish not less than 150% of rated capacity at not less than 65% of rated head.



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شماره پیمان:

#### نگهداشت و افزایش تولید میدان نفتی بینک سطحالارض



Chircian Cheren

-28--48-9126

 MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

 نسخه سریال نوع مدر که رشته تسهیلات صادر کننده بسته کاری پروژه

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شماره صفحه: ۱۴ ز ۱۳

	CENTR	IFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 1 of 6)	
	CLIENT:	National Iranian South Oil Company (NISOC)	
PRO	DJECT TITLE:	BINAK Gas Compressor Station	
J	OB NUMBER:		<u> </u>
EQUIPME	NT NUMBER:	P-2301 B	<u> </u>
EQUIPME	NT SERVICE:	Fire Water Pumps - Diesel Engine Driven	_
SERI	AL NUMBER:		<u> </u>
REC	Q. / SPEC NO. :	BK-GCS-PEDCO-120-ME-SP-0005	<u> </u>
PURCI	H ORDER NO.		<u> </u>
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COMMENTS:			
<u>—</u>			
	1	DATA SHEETS	
PUMP P-2301 B	ATT YES	ITEM No. ATT I	TEM No. ATT
MOTOR GEAR			
TURBINE			





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112000													
ره پیمان:	MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN												
·0T-·YT-91A4	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	شماره صفحه: ۱۵ز ۱۳				
781 - 771 - CIXI	BK	GCS	PEDCO	120	ME	DT	0030	D04					

			CENTRI	COMETO	in Darragin	EE1 (51 CN11) -1 -2501 B (51eet 2 01	. 0)	
APPLICABLE TO: PROPO	SAL					ICABLE NTL/INTNTL STANDARD:	NFPA20 (2019) & II	PS-M-PM-125
FOR NISOC					UNIT			
SITE BINAK Gas Compressor					SERV			
NO. REQ 1 MANUFACTURER	PUMP SI	ZE			TYPE MODE		No. STAGES SERIAL NO.	<del></del>
MANUFACTURER						EL BB1 (V.T.C) RACTERISTICS	SERIAL NO.	
		Maximum	Minimum		LIQUID CHA	SERVICE :	TAILURE	RMITTENT
LIQUID TYPE OR NAME :	Units	Water	Minimum	Note Max &		• IF INTERMITTENT NO. OF STARTS:	-	WITTENT
VAPOR PRESSURE :	bara	0.0087	0.1219	values		PUMPS OPERATE IN:		
DENSITY:	kg/m³	99		only to		CORROSION DUE TO : (6.12.1.9)		_
SPECIFIC HEAT :	kj/kgC		186	proper		EROSION DUE TO : (6.12.1.9)		
VISCOSITY :	cP			listed	9	H2S CONCENTRATION (ppm): (6.12.1.	.12)	N.A.
	OPERA'	TING CONDITIONS (6.1		noted		CHLORIDE CONCENTRATION (ppm):		
	Units	Maximum	Rated	Normal	Min	PARTICULATE SIZE (DIA IN MICRONS		
NPSH <sub>A</sub> Datum:			C.L. Impell	er	Į.	PARTICULATE CONCENTRATION (PP		
PUMPING TEMPERATURE :	°C	50			5	1		-
FLOW:	m <sup>3</sup> /hr		454.20			1		
DISCHARGE PRESSURE :(6.3.2)	barg		10.4			1		
SUCTION PRESSURE :	barg	0.83	0.81		0.08			
DIFFERENTIAL PRESSURE :	bar		10.3					
DIFFERENTIAL HEAD :	m		105.0					
NPSH <sub>A</sub> :	m		8.8					
HYDRAULIC POWER:	KW		129.50					
					SITE AND U	TILITY DATA		
LOCATION:						COOLING WATER:		•
	NHEATED		DER ROOF				RETURN DESIGN	
MOUNTED AT:		<ul> <li>TROPICALISA</li> </ul>	-			TEMP		
ELECTRIC AREA CLASSIFICATION	N: (6	5.1.22) ZONE	SAI	Æ		PRESS.		ı
GROUP		TEMP CLASS	-			SOURCE		
SITE DATA : ELEVATION (MSL) : 12.5		BAROMETER	_	990.77	D.	COOLING WATER CHLORIDE CO		
ELEVATION (MSL) : 12.5  RANGE OF DESIGN TEMPS:MIN / MA	m -	5		990.77 C	шьа	INSTRUMENT AIR : STEAM	kg MIN	kg kg
RELATIVE HUMIDITY: MIN / MAX	i.A	0		% (@ 25	6°C)	SIEAM	DRIVERS HEATING	
UNUSUAL CONDITIONS:		NA NA	100	7 <b>0</b> (@ 23	.6 C)	TEMP	DIA VERO INSTITUTO	
UTILITY CONDITIONS:		- NA				PRESS.		
ELECTRICITY: AUXILIARY	HEATING	CONTROL	SHUTDOW	N				
VOLTAGE 400								
PHASE 3								
HERTZ 50								
	]	PERFORMANCE					DRIVER (7.1.5) (NOTE 22)	
PROPOSAL CURVE NO.		RPM				Driver Type	DIESEL	ENGINE
As Tested Curve No.						GEAR		NO
IMPELLER DIA.: RATED	MAX.	MIN.		mm		VARIABLE SPEED REQUIRED		NO
RATED POWER Kw		ICIENCY		(%)		SOURCE OF VARIABLE SPEED		
RATED CURVE BEP FLOW (at rated im				m³/hr		OTHER		
MIN FLOW:	kJ/Nm³			m³/hr		MANUFACTURER		
PREFERRED OPERATING REGION (6.	.1.11)	to		m³/hr		NAMEPLATE POWER	@Site Condition	KW
ALLOWABLE OPERATING REGION		to		m³/hr		Nominal RPM		
MAX HEAD @ RATED IMPELLER				m		RATED LOAD RPM		
MAX POWER @ RATED IMPELLER				kW		FRAME OR MODEL		
NPSH3 AT RATED FLOW:				m		ORIENTATION	HORIZONT	AL
CL PUMP TO U/S BASEPLATE				m		LUBE		
NPSH MARGIN AT RATED FLOW:				m		n.m	<del></del>	<del> </del>
SPECIFIC SPEED (6.1.9) SUCTION SPECIFIC SPEED LIMIT						RADIAL THRUST		<u> </u>
						STARTING METHOD		· ====================================
SUCTION SPECIFIC SPEED	DEOD (6.1.1.1)		110	(dD A)	@ 1 m			
MAX. ALLOW. SOUND PRESS. LEVEL EST MAX SOUND PRESS. LEVEL	L KEQD (0.1.14)	1	110	(dBA)	@ I m	SEE DRIVER DATA SHEET		
MAX. SOUND POWER LEVEL REQ'D	(6.1.14)			(dBA)		Max Voltage Variation Max Frequency Variation		
EST MAX SOUND POWER LEVEL  EST MAX SOUND POWER LEVEL	(0.1.14)					Max Voltage and Frequency Variation toge	other	
LOT THE BOOKED TO THE REEVEL						onage and rrequency variation toge	ALIEA .	





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#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

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شماره پیمان:									
10-14-14	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	شماره صفحه: ۱۶ز ۱۳
•01 -• ¥1 - ₹1X1	BK	GCS	PEDCO	120	ME	DT	0030	D04	

#### CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 3 of 6) CONSTRUCTION API PUMP TYPE: BB1 [Based on API 610 definitions] CASING MOUNTING: CASING TYPE: (6.3.10) D04 NOZZLE CONNECTIONS: OH3 BACKPULLOUT LIFTING DEVICE REQD. (9.1.2.6) NOTES 7,11 Size Facing CASE PRESSURE RATING: Rating Position SUCTION MAWP: (6.3.5) SIDE By vendor barg @ HYDROTEST: DISCHARGE 1.5\*MAWP RF SIDE barg @ PRESSURE CASING AUX. CONNECTIONS: (6.4.3.2) HYDROTEST OH PUMP AS ASSEMBLY No. Size Facing Rating Posn. BAL/LEAK OFF SUCT'N PRESS. REGIONS DESIGNED FOR MAWP DRAIN (VIEWED FROM COUPLING END) ROTATION: VENT IMPELLERS INDIVIDUALLY SECURED: PRESSURE GAGE BOLT OH 3/4/5 PLIMP TO PAD / FOUNDATION · TEMP GAGE PROVIDE SOLEPLATE FOR OH 3/4/5 PUMPS WARM-UP LINE ROTOR: SHAFT FLEXIBILITY INDEX (SFI) (9.1.1.3) First Critical Speed Wet (Multi stage pumps only) Drain Valve Supplied By DRAINS MANIFOLDED COMPONENT BALANCE TO ISO 1940 G1.0 YES VENT Valve Supplied By SUPPLIER SHRINK FIT -LIMITED MOVEMENT IMPELLERS (9.2.2.3) VENTS MANIFOLDED COUPLING:(7.2.3) YES THREAD. CONS FOR PIPELINE SERVICE & $<50^{\circ}\mathrm{C}$ (6.4.3.2) MANUFACTURER NO SPECIAL FITTINGS FOR TRANSITIONING (6.4.3.3) NO MODEL CYLINDRICAL THREADS REQUIRED (6.4.3.8) RATING (POWER/100 RPM) SPACER LENGTH GUSSET SUPPORT REQUIRED YES If Needed MACHINED AND STUDDED CONNECTIONS (6.4.3.12) NO SERVICE FACTOR Min 1.5 VS 6 DRAIN NO DRAIN TO SKID EDGE COUPLING WITH HYDRAULIC FIT (7.2.10) YES MATERIAL (6.12.1.1) COUPLING BALANCED TO ISO 1940-1 G6.3 (7.2.3) YES APPENDIX H CLASS COUPLING WITH PROPRIETARY CLAMPING DEVICE (7.2.11)MIN DESIGN METAL TEMP (6.12.4.1) °C API 671 REDUCED-HARDNESS MATERIALS REO'D (6.12.1.12.1) COUPLING IN COMPLIANCE WITH (7.2.4) Applicable Hardness Standard (6.12.1.12.3) COUPLING GUARD STANDARD PER (7.2.13.a) ISO 14120 BARREL: Window on Coupling Guard CASE: DIFFUSERS BASEPLATE IMPELLER : API BASEPLATE NUMBER IMPELLER WEAR RING: BASEPLATE CONSTRUCTION (7.3.14) CASE WEAR RING: BASEPLATE DRAINAGE (7.3.1) Entire Baseplate Drain Pan MOUNTING: NON-GROUT CONSTRUCTION: (7.3.13) Bowl (if VS-type) Inspection Class Note 2 VERTICAL LEVELING SCREWS: REQUIRED BEARINGS AND LUBRICATION (6.10.1.1) LONGITUDINAL DRIVER POSITIONING SCREWS REQUIRED BEARING (TYPE / NUMBER): GROUT AND VENT HOLES (6.11.4)YES RADIAL. DRAIN CONNECTION YES THRUST MOUNTING PADS SIZED FOR BASEPLATE LEVELING (7.3.5) YES REVIEW AND APPROVE THRUST BEARING SIZE : (9.2.5.2.4) MOUNTING PADS TO BE MACHINED (7.3.6) YES PROVIDE SPACER PLATE UNDER ALL EQUIPMENT FEET YES LUBRICATION: (6.10.2.2) (6.11.3) (9.2.6) OTHER PRESSURE LUBE SYSTEM TO ISO 10438-ISO 10438 DATA SHEETS ATTACHED Pressurized Lube Oil System mtd on pump baseplate REMARKS: Location of Pressurized Lube Oil System mounted on baseplate: INTERCONNECTING PIPING PROVIDED BY OIL VISC. ISO GRADE VG CONSTANT LEVEL OILER:





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	شماره پیمان:		MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN											
.0444-4176		پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	۵: ۱۷ز ۱۳				
•01-•11-1181		BK	GCS	PEDCO	120	ME	DT	0030	D04					

#### CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 4 of 6) INSTRUMENTATION SEAL SUPPORT SYSTEM MOUNTING SEE ATTACHED API-670 DATA SHEET SEAL SUPPORT SYSTEM MOUNTED ON PUMP BASEPLATE ACCELEROMETER (7.4.2.1) (7.5.1.4) Number of Accelerometers IDENTIFY LOCATION ON BASEPLATE Mounting Location of Accelerometers INTERCONNECTING PIPING BY PROVISION FOR MTG ONLY (6.10.2.10) YES MECHANICAL SEAL (6.8.1) Number of Accelerometers SEE ATTACHED ISO 21049/API 682 DATA SHEET Mounting Location of Accelerometers N/A NOTE 5 ADDITIONAL CENTRAL FLUSH PORT (6.8.9)FLAT SURFACE REQUIRED (6.10.2.11) HEATING JACKET REO'D. (6.8.11)Number of Accelerometers FLUSH PLAN Mounting Location of Accelerometers VIBRATION PROBES (7.4.2.2) HEATING AND COOLING (6.1.17) PROVISIONS FOR VIB. PROBES COOLING REO'D NUMBER PER RADIAL BEARING COOLING WATER PIPING PLAN NUMBER PER AXIAL BEARING COOLING WATER PIPING FITTINGS MONITORS AND CABLES SUPPLIED BY (7.4.2.4) COOLING WATER PIPING MATERIALS COOLING WATER REQUIREMENTS: PROVISIONS FOR TEMP PROBES RADIAL BEARING TEMP. TOTAL COOLING WATER NUMBER PER RADIAL BEARING HEATING MEDIUM THRUST BEARING TEMP. OTHER HEATING PIPING NUMBER PER THRUST BEARING ACTIVE SIDE NUMBER PER THRUST BEARING INACTIVE SIDE TEMP, GAUGES (WITH THERMOWELLS) (9.1.3.6) PIPING & APPURTENANCES MANIFOLD PIPING FOR PURCHASER CONNECTION (7.5.1.6) PRESSURE GAUGE TYPE VENT YES DRAIN YES VALVES YES (NOTE 8) COOLING WATER TAG ALL ORIFICES (7.5.2.4) SOCKET WELD CONN ON SEAL GLAND (7.5.2.8)





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شماره پیمان:	MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN											
·0T-·YT-91AF	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه	شماره صفحه: ۱۸ز ۱۳			
*## - * * * * * * * * * * * * * * * * *	BK	GCS	PEDCO	120	ME	DT	0030	D04				

#### CENTRIFUGAL PUMP DATA SHEET (SI UNIT) -P-2301 B (Sheet 5 of 6)

SURFACE PREPARATION AND PAINT						TEST					
MANUFACTURE	ER'S STAND	ARD					SHOP INSPECTION (8.1.1)			Yes	
OTHER (SEE BEI	ELOW)				-		PERFORMANCE CURVE				
SPECIFICATION	NO.	BK-GNRAL-F	PEDCO-000-PI-SP	-0006, "Specification			& DATA APPROVAL PRIOR TO SHIPMENT.			YES	
		for Painting"					TEST WITH SUBSTITUTE SEAL (8.3.3.2.b)				
PUMP:						MATERIAL CERTIFICATION REQUIRED	YES				
PUMP SURFACE	E PREPARAT	TION					SHAFT YES		(6.12.1.8) IMPELLER	YES	
PRIMER				AS PER PROJECT PAI	NTING SPEC.		OTHER YES	Casing and impeller	r Wear ring		
FINISH COAT				AS PER PROJECT PAI	NTING SPEC.		CASTING REPAIR WELD PROCEDURE APPR	REQD		YES	
BASEPLATE:							INSPECTION REQUIRED FOR CONNECTION	WELDS (6.12.3.4.d)	)		
BASEPLATE SUI	RFACE PREI	PARATION					LIQUID PENETRANT	YES	MAG PARTICLE		
PRIMER:				AS PER PROJECT PAI	NTING SPEC.		ULTRASONIC		RADIOGRAPHY	YES	
FINISH COAT				AS PER PROJECT PAI	NTING SPEC.		INSPECTION REQUIRED FOR CASTINGS				
DETAILS OF LIF	FTING DEVI	CES					LIQUID PENETRANT	YES	MAG PARTICLE	YES	
SHIPMENT: (8.4	.4.1)			EXP	ORT		ULTRASONIC	YES	RADIOGRAPHY		
EXPORT BOXIN	NG REQUIRE	D			YES		HARDNESS TEST REQUIRED (8.2.2.7)				
OUTDOOR STOP	RAGE MORE	E THAN 6 MON	THS		YES		ADDNL SUBSURFACE EXAMINATION (6.12.)	1.5) (8.2.1.3)			
SPARE ROTOR	RASSEMBLY	Y PACKAGED	FOR:						FOR		
ROTOR STORAG	GE ORIENTA	ATION (9.2.8.2)							METHOD		
SHIPPING & STO	ORAGE CON	TAINER FOR V	/ERT STORAGE (9	9.2.8.3)							
N <sub>2</sub> PURGE (9.2.8.	3.4)						PMI TESTING REQUIRED (8.2.2.8)				
SPARE PARTS							COMPONENTS TO BE	TESTED			
START-UP					YES		RESIDUAL UNBALANCE TEST (J.4.1.2)				
NORMAL MAIN	TENANCE				YES		NOTIFICATION OF SUCCESSFUL SHOP			YES	
							PERFORMANCE TEST (8.1.1.c) (8.3.3.5)			YES	
ITEM No	PUMP	DRIVER	GEAR	BASE	TOTAL		BASEPLATE TEST (7.3.21) HYDROSTATIC			WIT	
							HYDROSTATIC TEST OF BOWLS & COLUMN	I (9.3.13.2)		WII	
							PERFORMANCE TEST			WIT	
		OTI	HER PURCHAS	ER REQUIREMENTS	8		TEST IN COMPLIANCE WITH (8.3.3.2)			NFPA 20	
COORDINA	ATION MEET	ING REQUIREI	D (10.1.3)		YES		TEST DATA POINTS TO (8.3.3.3)			NFPA 20	
MAXIMUM	DISCHARGI	E PRESSURE T	O INCLUDE				TEST TOLERANCES TO (8.3.3.4)			TABLE 16	
							NPSH (8.3.4.3.1) (8.3.4.3.4)		NOTE 6	WIT	
		OPERATION	TO TRIP SPEED				NPSH-1ST STG ONLY (8.3.4.3.2)				
	MAX D	IA. IMPELLERS	AND/OR NO OF	STAGES	YES		NPSH TESTING TO HI 1.6 OR ISO 9906 (8.3.4.3	3.3)			
CONNECTIO	ON DESIGN	APPROVAL (9.	2.1.4)		YES		TEST NPSHA LIMITED TO 110% SITE NPSHA	(8.3.3.6)			
TORSIONAL	L ANALYSIS	/ REPORT (6.9	.2.10)		NO		RETEST ON SEAL LEAKAGE (8.3.3.2.d)			OBSERVE	
PROGRESS I	REPORTS				YES		RETEST REQUIRED AFTER FINAL HEAD AD.	J (8.3.3.7.b)			
OUTLINE OF	OF PROC FOR	R OPTIONAL TE	ESTS (10.2.5)				COMPLETE UNIT TEST (8.3.4.4.1)			WIT	
ADDITIONA	AL DATA RE	QUIRING 20 Y	EARS RETENTION	N (8.2.1.1)			SOUND LEVEL TEST (8.3.4.5)			WIT	
					YES		CLEANLINESS PRIOR TO FINAL ASSEMBLY	(8.2.2.6)		OBSERVE	
		EQUIRED (9.1.3			NO		LOCATION OF CLEANLINESS INSPECTION				
		QUIRED (9.3.9.2	2)				NOZZLE LOAD TEST				
		OTOR (6.9.4.4)			YES		CHECK FOR CO-PLANAR MOUNTING PAD S				
		PROPOSAL (1			YES		MECHANICAL RUN TEST UNTIL OIL TEMP S				
			ONSE ANALYSIS (	6.9.2.3)	N	10	4 HR. MECH RUN AFTER OIL TEMP STABLE (8.3.4.2.1) WIT				
		L RESPONSE			NO		4 HR. MECH RUN TEST (8.3.4.2.2)				
		-	JIRED (6.10.1.6)				BRG HSG RESONANCE TEST (8.3.4.7)				
		SMT TO EN 134					STRUCTURAL RESONANCE TEST (9.3.9.2)				
			RAWING (10.3.2.3)				REMOVE / INSPECT HYDRODYNAMIC BEAR	RINGS AFTER TEST	Γ		
	-		D UNIONS (7.5.2.8	)			(9.2.7.5)				
		BRATION SPEC	TRA (6.9.3.3)				AUXILIARY EQUIPMENT TEST (8.3.4.6)				
CONNECTIO							EQUIPMENT TO BE INCLUDED IN AUXILIAR				
		LTS PROHIBIT					LOCATION OF AUXILIARY EQUIPMENT TES				
		AIR AND HT R					IMPACT TEST	PER EN			
		PROCEDURE			YES			PER AS	ME SECTION VIII		
SUBMIT INSPECTION CHECK LIST (8.1.5) NOTE 2 YES REMOVE CASING AFTER TEST											





#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

 MECHANICAL DATA
 شماره پیمان:

 صادر کننده بسته کاری پروژه
 پروژه

 BK GCS PEDCO

	MECHA	NICAL DATA	SHEETS FOR	FIRE WATER	R PUMPS-DIE	SEL ENGINE DRIVE	N
پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرك	سريال	نسخه
BK	GCS	PEDCO	120	ME	DT	0030	D04

شماره صفحه: ۹ از ۱۳

	CENTRIFUGAL PUMP DAT	TA SHEET (SI UNIT) - P-2301 B (Sheet 6 of 6)					
	PRESSURE VESS	SEL DESIGN CODE REFERENCES					
THESE REFERENCES MUST	BE LISTED BY THE MANUFACTURER	DED PENGIN CODE REN ENGLICED					
CASTI	NG FACTORS USED IN DESIGN ( TABLE 3)						
	SOURCE OF MATERIAL PROPERTIES						
		G AND REPAIRS (NOTE 12)					
	PURCHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PR	REFERENCE IS STATED)					
ALTERNATE WELDING CODES AND STANDAR							
WELDING REQUIREMENT (APPLICABLE CODE	OR STANDARD)		DEFAULT PER TABLE 11				
WELDER/OPERATOR QUALIFICATION  WELDING PROCEDURE QUALIFICATION  DEFAULT PER TABLE 11  DEFAULT PER TABLE 11							
WELDING PROCEDURE QUALIFICATION  NON-PRESSURE RETAINING STRUCTURAL WELDING SUCH AS BASEPLATES OR SUPPORTS  DEFAULT PER TABLE 11  DEFAULT PER TABLE 11							
MAGNETIC PARTICLE OR LIQUID PENETRANT			DEFAULT PER TABLE 11				
POSTWELD HEAT TREATMENT			DEFAULT PER TABLE 11				
POSTWELD HEAT TREATMENT OF CASING FA	BRICATION WELDS		DEFAULT PER TABLE 11				
	MAT	TERIAL INSPECTION					
THESE REFERENCES MUST BE LISTED BY THE	PURCHASER		DEFAULT TO TABLE 14 YES				
ALTERNATIVE MATERIAL INSPECTIONS AND	ACCEPTANCE CRITERIA (SEE TABLE 15) (8.2.2.5)						
TYPE OF INSPECTION	METHOD	FOR FABRICATIONS	FOR CASTINGS				
RADIOGRAPHY							
ULTRASONIC INSPECTION							
MAGNETIC PARTICLE INSPECTION							
LIQUID PENETRANT INSPECTION VISUAL INSPECTION (all surfaces)							
VISUAL INSPECTION (all surfaces)							
REMARKS:							
				·			
	<u> </u>			<del></del>			
-							
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-							
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.04-.44-4146

#### نگهداشت و افزایش تولید میدان نفتی بینک سطحالارض



#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

 MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

 نسخه سریال نوع مدر ک رشته تسهیلات صادر کننده بسته کاری پروژه

 BK
 GCS
 PEDCO
 120
 ME
 DT
 0030
 D04

شماره صفحه: ۱۰ از ۱۳

		Diesel Engine Data Sheet For Fir	re Water Pump - P-2301 B (SI UNIT) (1	of 4)	
	Pumps - Diesel Engine Driven		MANUFACTURER:		
FOR: NISOC			MODEL NO:		
	s Compressor Station		TYPE:		
NO. REQUIRED: 1					
		1		-	PEWARKS
ODED LEWIS COMPLETIONS			(Note 1)		REMARKS
OPERATING CONDITIONS					
DIESEL ENGINE MANUFACTURER				_	
ISO POWER (ISO 3046)	kW			_	
ISO SPEED	rpm			_	
SITE CONTINUOUS RATED POWER	kW	-		_	
SITE CONTINUOUS RATED SPEED	rpm			_	
OVERLOAD SITE POWER	kW			_	
OVERLOAD SPEED	rpm			_	
OVERLOAD DURATION	h			_	
DIRECTION OF ROTATION (FROM CPLO					
SPEED RANGE	±% rpm			_	
IDLE SPEED	rpm				
LOADING TIME	S				
				_	
PERFORMANCE					
% OF MAX CONT SITE POWER					
FUEL SPECIFIC CONSUMPTION	g/kWh			_	
TOLERANCE	%				
SPEED	rpm (NOTE 20)			_	
LOAD ACCEPTANCE RATING	% 1 step				
ENGINE DATA					
CYCLE:- 2 STROKE/4 STROKE					4 STROKE REQUIRED
NUMBER OF CYLINDERS				_	
IN-LINE/V FORM					
BORE/STROKE	mm				
CAPACITY	liters			_	
BMEP (RATED)					
PISTON SPEED	m/s			_	
COOLING SYSTEM: AIR/WATER					CLOSED SYSTEM
					(Air fan & Radiator)
TURBOCHARGER:-					
SINGLE OR SERIES				_	
INTERCOOLER	CA or CW				
EMISSIONS					
No <sub>x</sub> EMISSION	g/kWh			_	IPS-E-SF-860
CO EMISSION	g/kWh			_	
CO <sub>2</sub> EMISSION	g/kWh				
				_	
STARTING SYSTEM					
AIR:-				_	
NUMBER OF TANKS				_	
PRESSURE	Barg / Kpag			_	
CAPACITY	m <sup>3</sup>				
NO. OF STARTS W/OUT REFILLING				_	
STARTING SYSTEM					
ELECTRICAL:-				_	YES
NO. OF BATTERIES				$-\sqrt{D04}$	20 Cell (Dual charger equal to 100% of power )
TYPE					Nickel - Cadmium
TOTAL CAPACITY	Ah			_	
STARTING CIRCUIT				_	
STARTING MOTOR		1		1	



-04--74-9174

#### نگهداشت و افزایش تولید میدان نفتی بینک سطحالارض



#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:

 MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

 سریال
 نوع مدر ک
 رشته
 تسهیلات
 صادر کننده
 بسته کاری
 پروژه

 BK
 GCS
 PEDCO
 120
 ME
 DT
 0030

شماره صفحه: ۱۱ از ۱۳

D04

TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
TWO STAGE  YES  YES  YES  YES  YES  YES  YES  Y
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES  YES  YES  YES  YES  YES-85
YES YES YES - 85
YES YES - 85
YES YES - 85
YES YES - 85
YES - 85
VES
ILS
PERSONNEL PROTECTION
YES
YES
YES
5/50
52
0/100
OUTDOOR





#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:

MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

سريال نوع مدرك رشته تسهيلات صادركننده بسته كارى پروژه BK GCS PEDCO 120 ME DT 0030

شماره صفحه: ۱۲ از ۱۳

D04

		Diesel Engine Data Sheet For Fire Water Pu	mp - P-2301 R (SLUNIT) (3 of 4)	
		Diesei Engine Data Sneet For Fire water Fu	mp - F-2301 В (SI UNII) (3 01 4)	
HEATED / UNHEATED				UNHEATED
JNDER ROOF / PARTIAL SIDES				UNDER ROOF
AREA CLASSIFICATION				
TARTING:- LOCAL / REMOTE				
VAILABLE UTILITIES			_	
COOLING WATER:-				FROM FIRE WATER PUMP DISCHARGE
RESSURE	bar g / kPa g			
VAILABLE PRESSURE DROP	bar / kPa			
EMPERATURE	°C			
EMPERATURE CHANGE	°C			
ISTRUMENT AIR:-				
RESSURE	bar g / kPa g			
EMPERATURE	°C			
EW POINT	°C			
LECTRICITY SUPPLY	AC			
HEL CHARACTERISTICS	DC			
UEL CHARACTERISTICS:-				
UEL OIL CLASSIFICATION	сР			
ISCOSITY EMDERATURE				-
EMPERATURE	°C			
PERATING DURATION	hrs			-
APURITIES	% weight	-		
II ONTIES	70 Weight	-		
JEL SYSTEM		-		-
AY TANK REQUIRED (NOTE 19)			_	YES
ANK SUPPLIED BY		-	<del>.</del>	ENGINE SUPPLIER
APACITY	hrs		_	AS PER NFPA 20
OCATION		-	_	OFF-SKID
		-	_	
EIGHTS AND DIMENSIONS				
EAVIEST PART FOR ERECTION				
EAVIEST PART FOR MAINTENANCE				
EIGHT OF ENGINE ONLY		-		
EIGHT OF SET				
EIGHT OF CONTROL PANEL				
EIGHT UNDER HOOK				
MENSIONS FOR MAINTENANCE				
AINTING				
ANDARD/OTHER				IPS-E-TP-100
SPECTION AND TESTING				
ANUFACTURER'S STANDARD		-		
THER				IPS-M-PM-290
ISTRUMENTATION		AL ADM	SHUTDOWN	IDC M DM 200 CECTION 6 9
STRUMENTATION		ALARM	SHUTDOWN	IPS-M-PM-290 SECTION 6.8.
JBRICATING OIL PRESSURE				Remark: P&ID For Fire Water Network
EL PRESSURE				(No.BK-GCS-PEDCO-120-SA-PI-0001.)
IGINE OIL TEMPERATURE				shall be followed.
JEL TEMPERATURE /ER SPEED				
IFF PRESS SWITCH ON FILTER				
ANOMETER ON OIL CIRCUIT;				-
DOWNSTREAM OF PUMP DOWNSTREAM OF FILTER				
IGHT GLASSES ON OIL CIDCUIT		-	<del>.</del>	·



.04-.44-4146

#### نگهداشت و افزایش تولید میدان نفتی بینک سطحالارض



#### احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:

 MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

 نسخه
 سریال
 نوع مدر ک
 رشته
 نسجه
 سویال
 پروژه

 BK
 GCS
 PEDCO
 120
 ME
 DT
 0030
 D04

شماره صفحه: ۱۳ از ۱۳

	Diesel Engine Data Sheet For Fi	re Water Pump - P-2301 B (SI UNIT) (4 o	of 4)	
NGINE EXHAUST TURBOCHARGER				
	TE BEFORE/	PI BEFORE/		
		AFTER COOLER		
	AFTER COOLER	AFTER COOLER		
RCUIT OF:				
AW WATER	/	/		
RESH WATER	/	/		
IL	/	/		
	/	/		
JPERCHARGING:				
RSIDE	/	/		
ATERSIDE	/	/		-
MARKS:		<u> </u>		
For each pump set one 400V, 3PH/N auxiliary feeder is delivered	1 by purchaser.			
All required power for local control panel ( 230VAC/110VAC/24VDC	) shall be convert by vendor as	request.		
		•		
-				
	<del></del>			
	-		-	
-				
	·			
			· · · · · · · · · · · · · · · · · · ·	
				-
-				