



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:

MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

053-073-9184

پروژه	بسته کاری	صادرکننده	تهیيات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0030	D05

شماره صفحه: 1 از 13

طرح نگهداشت و افزایش تولید 27 مخزن

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

نگهداشت و افزایش تولید میدان نفتی بینک

D05	FEB. 2023	IFA	H. Adineh	M. Fakharian	M. Mehrshad	
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: 1

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



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D05	0030	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: 2 از 13

REVISION RECORD SHEET

page	D00	D01	D02	D03	D04	D05
1	x	x	x	x	x	x
2	x	x	x	x	x	x
3	x	x	x	x		
4	x					
5	x	x	x	x		
6	x	x	x	x	x	
7	x					
8	x					
9	x					
10	x	x	x		x	x
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شماره صفحه: 3 از 13

GENERAL NOTES

- Vendor shall fill in the blanks and return the completed data sheet along with Diesel data sheet with his proposal.
- Vendor shall submit ITP (Inspection & Testing Plan) with his proposal.
- Vendor is requested to confirm the material, or propose appropriate alternative.
- 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.
- Instead of mechanical seal, vendor shall advise the suitable Packing specification.
- NPSH test shall be done & witnessed if the margin of NPSHr & NPSHa is less than 1.
- The Tie-in flanges shall conform to ASME B-16.1.
- Pump drain shall be terminated at skid edge with flange connection and valved.
- Supplier to indicate which minimum flow pumps can achieve.
- Nozzle loads shall be 2 times the loads shown in API 610 11th Edition.
- The Suction line size is 12" and discharge line is 10" .
- Air release valve shall be considered by vendor .
- As the pump jobsite environmental condition is fummy 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.
- Ultrasonic Test shall be performed for forged shaft.
- Couplings shall be dry, flexible and spacer type.
- 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.
- 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.
- The electrical characteristics of panels shall be specified by vendor such as: - The power demand of control panel. - The number of control panel.
- 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.
- Diesel engine shall be tested at 110% rated speed in mechanical running test also the maximum speed of diesel engines shall be 2300 RPM.
- pressure sensing lines are in the vendor's scope of supply.
- 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.
- Design pressure is 15.4 barg also as per NFPA 20 standard the hydrotest pressure shall not be less than 17.24 barg.
- Estimated BHP at rated capacity is 199.2 kW by considering 65% efficiency.
- The pumps shall furnish not less than 150% of rated capacity at not less than 65% of rated head.



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D05	0030	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: 13 از 5

CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 2 of 6)

APPLICABLE TO: PROPOSAL	APPLICABLE NTL/INTNL STANDARD: NFPA20 (2019) & IPS-M-PM-125
FOR NISOC	UNIT
SITE BINAK Gas Compressor Station	SERVICE Fire Water Pumps - Diesel Engine Driven
NO. REQ 1	PUMP SIZE
MANUFACTURER	MODEL BB1 (V.T.C)
	SERIAL NO.

LIQUID CHARACTERISTICS

LIQUID TYPE OR NAME : Water	Units	Maximum	Minimum	Note	SERVICE : INTERMITTENT
VAPOR PRESSURE :	bara	0.0087	0.1219	Max & min values refer only to the property listed	• IF INTERMITTENT NO. OF STARTS : _____
DENSITY :	kg/m ³	997			PUMPS OPERATE IN: _____
SPECIFIC HEAT :	kJ/kgC	4.186			CORROSION DUE TO : (6.12.1.9) _____
VISCOSITY :	cP	1			EROSION DUE TO : (6.12.1.9) _____
OPERATING CONDITIONS (6.1.2)					H2S CONCENTRATION (ppm) : (6.12.1.12) NA.
	Units	Maximum	Rated	Normal	Min
PARTICULATE SIZE (DIA IN MICRONS)					
PARTICULATE CONCENTRATION (PPM)					
NPSH _a Datum:	C.L. Impeller				
PUMPING TEMPERATURE :	°C	50			5
FLOW :	m ³ /hr		454.20		
DISCHARGE PRESSURE :(6.3.2)	barg		10.4		
SUCTION PRESSURE :	barg	0.83	0.81		0.08
DIFFERENTIAL PRESSURE :	bar		10.3		
DIFFERENTIAL HEAD :	m		105.0		
NPSH _a :	m		8.8		
HYDRAULIC POWER:	KW		129.50		

SITE AND UTILITY DATA

LOCATION: OUTDOOR UNHEATED UNDER ROOF	COOLING WATER :
MOUNTED AT :	TEMP
ELECTRIC AREA CLASSIFICATION: (6.1.22) SAFE	PRESS.
GROUP	SOURCE
SITE DATA :	COOLING WATER CHLORIDE CONCENTRATION:
ELEVATION (MSL) : 12.5 m	INSTRUMENT AIR :
BAROMETER : 990.77 mBar	STEAM
RANGE OF DESIGN TEMPS:MIN / MAX 5 85 °C	TEMP
RELATIVE HUMIDITY: MIN / MAX 0 100 % (@ 25.6 °C)	PRESS.
UNUSUAL CONDITIONS: NA	
UTILITY CONDITIONS :	
ELECTRICITY :	
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	SOURCE OF VARIABLE SPEED _____
EFFICIENCY _____ (%)	OTHER _____
RATED CURVE BEP FLOW (at rated impeller dia) _____ m ³ /hr	MANUFACTURER _____
MIN FLOW : _____ kJ/Nm ³	NAMEPLATE POWER _____ @Site Condition _____ KW
PREFERRED OPERATING REGION (6.1.11) _____ to _____ m ³ /hr	Nominal RPM _____
ALLOWABLE OPERATING REGION _____ to _____ m ³ /hr	RATED LOAD RPM _____
MAX HEAD @ RATED IMPELLER _____ m	FRAME OR MODEL _____
MAX POWER @ RATED IMPELLER _____ kW	ORIENTATION HORIZONTAL
NPSH ₃ AT RATED FLOW : _____ m	LUBE _____
CL PUMP TO U/S BASEPLATE _____ m	RADIAL _____ / _____
NPSH MARGIN AT RATED FLOW : _____ m	THRUST _____ / _____
SPECIFIC SPEED (6.1.9) _____	STARTING METHOD _____
SUCTION SPECIFIC SPEED LIMIT _____	SEE DRIVER DATA SHEET _____
SUCTION SPECIFIC SPEED _____	Max Voltage Variation _____
MAX. ALLOW. SOUND PRESS. LEVEL REQD (6.1.14) 110 (dBA) @ 1 m	Max Frequency Variation _____
EST MAX SOUND PRESS. LEVEL _____ (dBA)	Max Voltage and Frequency Variation together _____
MAX. SOUND POWER LEVEL REQD (6.1.14) _____	
EST MAX SOUND POWER LEVEL _____	



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D05	0030	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: 6 از 13

CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 3 of 6)

CONSTRUCTION

API PUMP TYPE: **BB1** [Based on API 610 definitions]

NOZZLE CONNECTIONS: (6.5.5) **NOTES 7,11**

	Size	Facing	Rating	Position
SUCTION	RF		300	SIDE
DISCHARGE	RF		300	SIDE

PRESSURE CASING AUX. CONNECTIONS: (6.4.3.2)

No.	Size	Type	Facing	Rating	Posn.
BAL./LEAK OFF					
DRAIN					
VENT					
PRESSURE GAGE					
TEMP GAGE					
WARM-UP LINE					

Drain Valve Supplied By **SUPPLIER**

DRAINS MANIFOLDED **YES**

VENT Valve Supplied By **SUPPLIER**

VENTS MANIFOLDED **YES**

THREAD. CONS FOR PIPELINE SERVICE & < 50°C (6.4.3.2) **NO**

SPECIAL FITTINGS FOR TRANSITIONING (6.4.3.3) **NO**

CYLINDRICAL THREADS REQUIRED (6.4.3.8) **NO**

GUSSET SUPPORT REQUIRED **YES** If Needed

MACHINED AND STUDDED CONNECTIONS (6.4.3.12) **NO**

VS 6 DRAIN **N/A**

DRAIN TO SKID EDGE **YES**

CASING MOUNTING:

CASING TYPE: (6.3.10) _____

OH3 BACKPULLOUT LIFTING DEVICE REQD. (9.1.2.6) _____

CASE PRESSURE RATING:

MAWP : (6.3.5) **By vendor** barg @ _____ °C

HYDROTEST : **1.5*MAWP** barg @ _____ °C

HYDROTEST OH PUMP ASSEMBLY **YES**

SUCT'N PRESS. REGIONS DESIGNED FOR MAWP **YES**

ROTATION: (VIEWED FROM COUPLING END) _____

- IMPELLERS INDIVIDUALLY SECURED : _____
- BOLT OH 3/4/5 PUMP TO PAD / FOUNDATION : _____
- PROVIDE SOLEPLATE FOR OH 3/4/5 PUMPS _____

ROTOR:

SHAFT FLEXIBILITY INDEX (SFI) (9.1.1.3) _____

First Critical Speed Wet (Multi stage pumps only) _____

COMPONENT BALANCE TO ISO 1940 G1.0 **NO**

SHRINK FIT -LIMITED MOVEMENT IMPELLERS (9.2.2.3) _____

COUPLING:(7.2.3) (7.2.13.f) **NOTE 16**

MANUFACTURER _____

MODEL _____

RATING (POWER/100 RPM) _____

SPACER LENGTH _____ mm

SERVICE FACTOR **Min 1.5**

RIGID **NO**

COUPLING WITH HYDRAULIC FIT (7.2.10) _____

COUPLING BALANCED TO ISO 1940-1 G6.3 (7.2.3) **YES**

COUPLING WITH PROPRIETARY CLAMPING DEVICE (7.2.11) _____

COUPLING IN COMPLIANCE WITH (7.2.4) **API 671**

COUPLING GUARD STANDARD PER (7.2.13.a) **ISO 14120**

Window on Coupling Guard _____

MATERIAL (6.12.1.1)

APPENDIX H CLASS **I-2** **NOTES 3**

MIN DESIGN METAL TEMP (6.12.4.1) **5** °C

REDUCED-HARDNESS MATERIALS REQ'D (6.12.1.12.1) _____

Applicable Hardness Standard (6.12.1.12.3) _____

BARREL : _____

CASE : _____

DIFFUSERS _____

IMPELLER : _____

IMPELLER WEAR RING : _____

CASE WEAR RING : _____

SHAFT: _____

Bowl (if VS-type) _____

Inspection Class **Note 2**

BEARINGS AND LUBRICATION (6.10.1.1)

BEARING (TYPE / NUMBER): (6.11.4)

RADIAL _____ / _____

THRUST _____ / _____

REVIEW AND APPROVE THRUST BEARING SIZE : (9.2.5.2.4) _____

LUBRICATION : (6.10.2.2) (6.11.3) (9.2.6)

PRESSURE LUBE SYSTEM TO ISO 10438- (9.2.6.5) _____

ISO 10438 DATA SHEETS ATTACHED

Pressurized Lube Oil System mtd on pump baseplate

Location of Pressurized Lube Oil System mounted on baseplate : _____

INTERCONNECTING PIPING PROVIDED BY **Supplier**

OIL VISC. ISO GRADE **VG**

CONSTANT LEVEL OILER : _____

BASEPLATE

API BASEPLATE NUMBER : _____

BASEPLATE CONSTRUCTION (7.3.14) _____

BASEPLATE DRAINAGE (7.3.1) **Entire Baseplate Drain Pan**

MOUNTING : _____

NON-GROUT CONSTRUCTION : (7.3.13) _____

VERTICAL LEVELING SCREWS : **REQUIRED**

LONGITUDINAL DRIVER POSITIONING SCREWS : **REQUIRED**

SUPPLIED WITH :

- GROUT AND VENT HOLES **YES**
- DRAIN CONNECTION **YES**

MOUNTING PADS SIZED FOR BASEPLATE LEVELING (7.3.5) **YES**

MOUNTING PADS TO BE MACHINED (7.3.6) **YES**

PROVIDE SPACER PLATE UNDER ALL EQUIPMENT FEET **YES**

OTHER _____

REMARKS :



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شماره صفحه: 7 از 13

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 _____ Supplier
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 N/A NOTE 5
Mounting Location of Accelerometers	ADDITIONAL CENTRAL FLUSH PORT (6.8.9)
FLAT SURFACE REQUIRED (6.10.2.11) N/A	HEATING JACKET REQ'D. (6.8.11) N/A
Number of Accelerometers	FLUSH PLAN
Mounting Location of Accelerometers	HEATING AND COOLING (6.1.17)
VIBRATION PROBES (7.4.2.2) N/A	COOLING REQ'D NO
PROVISIONS FOR VIB. PROBES	COOLING WATER PIPING PLAN
NUMBER PER RADIAL BEARING	COOLING WATER PIPING
NUMBER PER AXIAL BEARING	FITTINGS
MONITORS AND CABLES SUPPLIED BY (7.4.2.4)	COOLING WATER PIPING MATERIALS
TEMPERATURE (7.4.2.3)	COOLING WATER REQUIREMENTS:
PROVISIONS FOR TEMP PROBES	TOTAL COOLING WATER
RADIAL BEARING TEMP.	HEATING MEDIUM
NUMBER PER RADIAL BEARING	OTHER
THRUST BEARING TEMP.	HEATING PIPING
NUMBER PER THRUST BEARING ACTIVE SIDE	PIPING & APPURTENANCES
NUMBER PER THRUST BEARING INACTIVE SIDE	MANIFOLD PIPING FOR PURCHASER CONNECTION (7.5.1.6)
TEMP. GAUGES (WITH THERMOWELLS) (9.1.3.6)	VENT YES
PRESSURE GAUGE TYPE	DRAIN YES
Remarks	VALVES YES (NOTE 8)
	COOLING WATER NO
	TAG ALL ORIFICES (7.5.2.4) YES
	SOCKET WELD CONN ON SEAL GLAND (7.5.2.8)



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شماره صفحه: 8 از 13

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

SURFACE PREPARATION AND PAINT

MANUFACTURER'S STANDARD	_____
OTHER (SEE BELOW)	_____
SPECIFICATION NO.	BK-GNRL-PEDCO-000-PL-SP-0006, "Specification for Painting"
PUMP:	
PUMP SURFACE PREPARATION	_____
PRIMER	AS PER PROJECT PAINTING SPEC.
FINISH COAT	AS PER PROJECT PAINTING SPEC.
BASEPLATE:	
BASEPLATE SURFACE PREPARATION	_____
PRIMER:	AS PER PROJECT PAINTING SPEC.
FINISH COAT	AS PER PROJECT PAINTING SPEC.
DETAILS OF LIFTING DEVICES	_____
SHIPMENT: (8.4.1)	EXPORT
EXPORT BOXING REQUIRED	YES
OUTDOOR STORAGE MORE THAN 6 MONTHS	YES
SPARE ROTOR ASSEMBLY PACKAGED FOR:	
ROTOR STORAGE ORIENTATION (9.2.8.2)	_____
SHIPPING & STORAGE CONTAINER FOR VERT STORAGE (9.2.8.3)	_____
N ₂ PURGE (9.2.8.4)	_____
SPARE PARTS	
START-UP	YES
NORMAL MAINTENANCE	YES

ITEM No	PUMP	DRIVER	GEAR	BASE	TOTAL

OTHER PURCHASER REQUIREMENTS

COORDINATION MEETING REQUIRED (10.1.3)	YES
MAXIMUM DISCHARGE PRESSURE TO INCLUDE	_____
OPERATION TO TRIP SPEED	_____
MAX DIA. IMPELLERS AND/OR NO OF STAGES	YES
CONNECTION DESIGN APPROVAL (9.2.1.4)	YES
TORSIONAL ANALYSIS / REPORT (6.9.2.10)	NO
PROGRESS REPORTS	YES
OUTLINE OF PROC FOR OPTIONAL TESTS (10.2.5)	_____
ADDITIONAL DATA REQUIRING 20 YEARS RETENTION (8.2.1.1)	YES
LATERAL ANALYSIS REQUIRED (9.1.3.4) (9.2.4.1.3)	NO
MODAL ANALYSIS REQUIRED (9.3.9.2)	_____
DYNAMIC BALANCE ROTOR (6.9.4.4)	YES
INSTALLATION LIST IN PROPOSAL (10.2.3.1)	YES
VFD STEADY STATE DAMPED RESPONSE ANALYSIS (6.9.2.3)	NO
TRANSIENT TORSIONAL RESPONSE	NO
BEARING LIFE CALCULATIONS REQUIRED (6.10.1.6)	_____
IGNITION HAZARD ASSMT TO EN 13463-1 (7.2.13.e)	_____
CASING RETIREMENT THICKNESS DRAWING (10.3.2.3)	_____
FLANGES RQD IN PLACE OF SKT WELD UNIONS (7.5.2.8)	_____
INCLUDE PLOTTED VIBRATION SPECTRA (6.9.3.3)	_____
CONNECTION BOLTING (7.5.1.7)	_____
CADMIUM PLATED BOLTS PROHIBITED	_____
VENDOR TO KEEP REPAIR AND HT RCDS (8.2.1.1.c)	_____
VENDOR SUBMIT TEST PROCEDURES (8.3.1.1)	YES
SUBMIT INSPECTION CHECK LIST (8.1.5) NOTE 2	YES

TEST

SHOP INSPECTION (8.1.1)	Yes
PERFORMANCE CURVE	_____
& DATA APPROVAL PRIOR TO SHIPMENT.	YES
TEST WITH SUBSTITUTE SEAL (8.3.3.2.b)	_____
MATERIAL CERTIFICATION REQUIRED	CASING YES
SHAFT	YES (6.12.1.8) IMPELLER YES
OTHER	YES Casing and impeller Wear ring
CASTING REPAIR WELD PROCEDURE APPR REQD	YES
INSPECTION REQUIRED FOR CONNECTION WELDS (6.12.3.4.d)	_____
LIQUID PENETRANT	YES MAG PARTICLE _____
ULTRASONIC	RADIOGRAPHY YES
INSPECTION REQUIRED FOR CASTINGS	_____
LIQUID PENETRANT	YES MAG PARTICLE YES
ULTRASONIC	YES RADIOGRAPHY _____
HARDNESS TEST REQUIRED (8.2.2.7)	_____
ADDNL SUBSURFACE EXAMINATION (6.12.1.5) (8.2.1.3)	_____
	FOR _____
	METHOD _____
PMI TESTING REQUIRED (8.2.2.8)	_____
COMPONENTS TO BE TESTED	_____
RESIDUAL UNBALANCE TEST (4.4.1.2)	_____
NOTIFICATION OF SUCCESSFUL SHOP	YES
PERFORMANCE TEST (8.1.1.c) (8.3.3.5)	YES
BASEPLATE TEST (7.3.21)	_____
HYDROSTATIC	WIT
HYDROSTATIC TEST OF BOWLS & COLUMN (9.3.13.2)	_____
PERFORMANCE TEST	WIT
TEST IN COMPLIANCE WITH (8.3.3.2)	NFPA 20
TEST DATA POINTS TO (8.3.3.3)	NFPA 20
TEST TOLERANCES TO (8.3.3.4)	TABLE 16
NPSH (8.3.4.3.1) (8.3.4.3.4)	NOTE 6 WIT
NPSH-1ST STG ONLY (8.3.4.3.2)	_____
NPSH TESTING TO HI 1.6 OR ISO 9906 (8.3.4.3.3)	_____
TEST NPSHA LIMITED TO 110% SITE NPSHA (8.3.3.6)	_____
RETEST ON SEAL LEAKAGE (8.3.3.2.d)	OBSERVE
RETEST REQUIRED AFTER FINAL HEAD ADJ (8.3.3.7.b)	_____
COMPLETE UNIT TEST (8.3.4.4.1)	WIT
SOUND LEVEL TEST (8.3.4.5)	WIT
CLEANLINESS PRIOR TO FINAL ASSEMBLY (8.2.2.6)	OBSERVE
LOCATION OF CLEANLINESS INSPECTION	_____
NOZZLE LOAD TEST	_____
CHECK FOR CO-PLANAR MOUNTING PAD SURFACES	_____
MECHANICAL RUN TEST UNTIL OIL TEMP STABLE	_____
4 HR. MECH RUN AFTER OIL TEMP STABLE (8.3.4.2.1)	WIT
4 HR. MECH RUN TEST (8.3.4.2.2)	_____
BRG HSG RESONANCE TEST (8.3.4.7)	_____
STRUCTURAL RESONANCE TEST (9.3.9.2)	_____
REMOVE / INSPECT HYDRODYNAMIC BEARINGS AFTER TEST (9.2.7.5)	_____
AUXILIARY EQUIPMENT TEST (8.3.4.6)	_____
EQUIPMENT TO BE INCLUDED IN AUXILIARY TESTS	_____
LOCATION OF AUXILIARY EQUIPMENT TEST	_____
IMPACT TEST	PER EN 13445 _____
	PER ASME SECTION VIII _____
REMOVE CASING AFTER TEST	_____



نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض



احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک

شماره پیمان:

053-073-9184

MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0030	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: 10 از 13

Diesel Engine Data Sheet For Fire Water Pump - P-2301 B (SI UNIT) (1 of 4)

SERVICE: <u>Fire Water Pumps - Diesel Engine Driven</u>	MANUFACTURER: _____
FOR: <u>NISOC</u>	MODEL NO: _____
SITE: <u>BINAK Gas Compressor Station</u>	TYPE: _____
NO. REQUIRED: <u>1</u>	_____

	(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 CPLG) CW/CCW	_____	_____
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 _x EMISSION g/kWh	_____	IPS-E-SF-860
CO EMISSION g/kWh	_____	_____
CO ₂ EMISSION g/kWh	_____	_____
STARTING SYSTEM		
AIR:-	_____	_____
NUMBER OF TANKS	_____	_____
PRESSURE Barg / Kpag	_____	_____
CAPACITY m ³	_____	_____
NO. OF STARTS W/OUT REFILLING	_____	_____
STARTING SYSTEM		
ELECTRICAL:-	_____	YES
NO. OF BATTERIES	_____	2 set including 20 cells with 200 ampere hour capacity at least (Dual charger equal to 100% of power)
TYPE	_____	Nickel - Cadmium
TOTAL CAPACITY Ah	_____	_____
STARTING CIRCUIT	_____	_____
STARTING MOTOR	_____	_____





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شماره پیمان:

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MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادر کننده	بسته کاری	پروژه
D05	0030	DT	ME	120	PEDCO	GCS	BK

شماره صفحه: 12 از 13

Diesel Engine Data Sheet For Fire Water Pump - P-2301 B (SI UNIT) (3 of 4)

HEATED / UNHEATED
UNDER ROOF / PARTIAL SIDES
AREA CLASSIFICATION
STARTING:- LOCAL / REMOTE

AVAILABLE UTILITIES

COOLING WATER:-

PRESSURE bar g / kPa g

AVAILABLE PRESSURE DROP bar / kPa

TEMPERATURE °C

TEMPERATURE CHANGE °C

INSTRUMENT AIR:-

PRESSURE bar g / kPa g

TEMPERATURE °C

DEW POINT °C

ELECTRICITY SUPPLY AC

DC

FUEL CHARACTERISTICS:-

FUEL OIL CLASSIFICATION

VISCOSITY cP

TEMPERATURE °C

OPERATING DURATION hrs

IMPURITIES % weight

FUEL SYSTEM

DAY TANK REQUIRED (NOTE 19)

TANK SUPPLIED BY

CAPACITY hrs

LOCATION

WEIGHTS AND DIMENSIONS

HEAVIEST PART FOR ERECTION

HEAVIEST PART FOR MAINTENANCE

WEIGHT OF ENGINE ONLY

WEIGHT OF SET

WEIGHT OF CONTROL PANEL

HEIGHT UNDER HOOK

DIMENSIONS FOR MAINTENANCE

PAINTING

STANDARD/OTHER

INSPECTION AND TESTING

MANUFACTURER'S STANDARD

OTHER

INSTRUMENTATION

LUBRICATING OIL PRESSURE

FUEL PRESSURE

ENGINE OIL TEMPERATURE

FUEL TEMPERATURE

OVER SPEED

DIFF PRESS SWITCH ON FILTER

MANOMETER ON OIL CIRCUIT;

DOWNSTREAM OF PUMP

DOWNSTREAM OF FILTER

SIGHT GLASSES ON OIL CIRCUIT

UNHEATED

UNDER ROOF

FROM FIRE WATER PUMP DISCHARGE

YES
ENGINE SUPPLIER
AS PER NFPA 20
OFF-SKID

IPS-E-TP-100

IPS-M-PM-290

ALARM

SHUTDOWN

IPS-M-PM-290 SECTION 6.8.

Remark: P&ID For Fire Water Network
(No.BK-GCS-PEDCO-120-SA-PI-0001.)
shall be followed.



NISOC

نگهداشت و افزایش تولید میدان نفتی بینک
سطح الارض

احداث ردیف تراکم گاز در ایستگاه جمع آوری بینک



شماره پیمان:

053-073-9184

MECHANICAL DATA SHEETS FOR FIRE WATER PUMPS-DIESEL ENGINE DRIVEN

پروژه	بسته کاری	صادر کننده	تسهیلات	رشته	نوع مدرک	سریال	نسخه
BK	GCS	PEDCO	120	ME	DT	0030	D05

شماره صفحه: 13 از 13

Diesel Engine Data Sheet For Fire Water Pump - P-2301 B (SI UNIT) (4 of 4)

ENGINE EXHAUST TURBOCHARGER

CIRCUIT OF:

RAW WATER

FRESH WATER

OIL

SUPERCHARGING:

AIRSIDE

WATERSIDE

TE BEFORE/
AFTER COOLER

PI BEFORE/
AFTER COOLER

/

/

/

/

/

/

/

/

REMARKS:

For each pump set one 400V, 3PH/N auxiliary feeder is delivered by purchaser.

All required power for local control panel (230VAC/110VAC/24VDC) shall be convert by vendor as request.