

.04-.44-4145

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد ۰۰-۲۳-۰۰) BK-HD-GCS-CO



شماره پیمان:

DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

صادر کننده بسته کاری تسهيلات نوع مدرک 0001 V00 BK GCS ΚP 120 ME DS

شماره صفحه: ۱ از ۱۶

طرح نگهداشت و افزایش تولید ۲۷ مخزن

DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

نگهداشت و افزایش تولید میدان نفتی بینک

Rev.	Date	Purpose of Issue / Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval
V00	Nov-2024	IFA	KP	M.Fakharian	M.Sadeghian	

status:

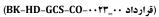
IFA: Issued For Approval

AFC: Approved For Construction

IFI: Issued For Information



خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک





DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

نسخه سريال نوع مدرك رشته تسهيلات صادر كتنده بسته كارى پروژه BK GCS KP 120 ME DS 0001 V00 شماره صفحه: ۲ از ۱۶

REVISION RECORD SHEET

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شماره پیمان:

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض

خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد BK-HD-GCS-CO-۰۰۲۳_۰۰)

DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP



KPC: Confirmed

	سىدرى پيسى.			- '		- , -		WAIN DIESEL PUIVI		
	۱۸۶-۰۷۳-۹۱۸۶	پروژه BK	بسته کاری GCS	صادر کننده KP	تسهیلات 120	رشته ME	نوع مدرک DS	سريال 0001	نسخه V00	شماره صفحه: ۱۳ز ۱۶ -
						NERAL NO				
1	Vendor shall fill in the blanks and retu	n the comple	ted data shee	t along with D	iesel data sh	eet with his p	roposal.			KPC : Confirmed
2	Vendor shall submit ITP (Inspection &	Testing Plan)	with his prop	osal.						KPC : Confirmed
3	Vendor is requested to confirm the ma	aterial, or prop	ose appropria	ate alternative).					KPC : Confirmed
4	For Instrumentation, Project specificat BK-GNRAL-PEDCO-000-IN-SP-0004		KPC : Confirmed							
5	Instead of mechanical seal, vendor sh	all advise the	suitable Pack	ing specificat	ion.					KPC : Packing is confirme
6	NPSH test shall be done & witnessed	if the margin	of NPSHr & N	IPSHa is less	than 1.					KPC : Confirmed
7	The Tie-in flanges shall conform to AS	ME B-16.1.								KPC : Confirmed
8	Pump drain shall be terminated at skid	d edge with fla	inge connection	on and valved	i.					KPC : Confirmed
9	Supplier to indicate which minimum flo	w pumps can	achieve.							KPC : Confirmed
10	Nozzle loads shall be 2 times the load	s shown in AF	PI 610 11th Ed	lition.						KPC : Confirmed
11	The Suction line size is 12" and disch	arge line is 10)".							KPC : Confirmed
12	Air release valve shall be considered	by vendor .								KPC : Pump is self vent
13	As the pump jobsite environmental co (in accordance with IPS-E-EL-100) in						ls and electrica	l parts		KPC : Confirmed
14	Ultrasonic Test shall be performed for	forged shaft.								KPC : Confirmed
15	Couplings shall be dry, flexible and sp	acer type.								KPC : Confirmed
16	A local control panel shall be conside Pumps", Doc. No. BK-GCS-PEDCO-1	,				•				KPC : Confirmed
17	Pump LCP shall be designed to mana "P&ID For Fire Water Network", Doc.N				gnals , as mir	nimum in acc	ordance with			KPC : Confirmed
18	The electrical characteristics of panels	shall be spec	cified by vend	or such as: -	The power de	mand of con	trol panel The	e number of control	panel.	KPC : Confirmed
19	Fuel daily tank shall be sized for 8 hou	ırs and all inst	truments such	as level tran	smitter with H	H/LL Alarm a	and etc. are in v	endor's scope of s	upply.	KPC : Confirmed
20	Diesel engine shall be tested at 110%	rated speed i	n mechanical	running test	also the maxii	mum speed o	of diesel engine	es shall be 2300 RF	PM.	KPC : Confirmed
21	pressure sensing lines are in the vend	lor's scope of	supply.							KPC : Confirmed
22	The sparate power & control panels for shall be specified by vendor.	r main pump	diesel engine	shall be cons	sidered by ver	ndor. Therefo	re required sin	gle line, wiring diag	ram and etc.	KPC : Confirmed
23	Design pressure is 15.4 barg also as	oer NFPA 20 s	standard the h	ydrotest pres	sure shall not	t be less thar	17.24 barg.			KPC : Confirmed
24	Estimated BHP at rated capacity is 19	9.2 kW by co	nsidering 65%	efficiency.						KPC : Confirmed

1- set point of pressure sensing line shall be specified

 $25 \quad \text{The pumps shall furnish not less than } 150\% \text{ of rated capacity at not less than } 65\% \text{ of rated head.}$

2- allowable leakage of packing shall be specified



NISOC

٤٨١ ٩-٣٧٠-٣٥٠

نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنيه تحت الارض

خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد BK-HD-GCS-CO-۰۰۲۳_۰۰)



DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP شماره پیمان: صادر کننده بسته کاری تسهيلات سريال 0001 پروژه نوع مدرك GCS DS V00 KP

شماره صفحه: ٤ از ١٤

	CEN	NTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 1 of 6)	
	CLIENT:	National Iranian South Oil Company (NISOC)	
	PROJECT TITLE:	BINAK Gas Compressor Station	
	JOB NUMBER:		
	EQUIPMENT NUMBER:	P-2301 B	
	EQUIPMENT SERVICE:	Fire Water Pumps - Diesel Engine Driven	
	SERIAL NUMBER:		
	REQ. / SPEC NO.:	BK-GCS-PEDCO-120-ME-SP-0005	
	PURCH ORDER NO.		
Cells coloured thus	contain drop-down opti	ions	
	contain calculated value	tes based on input data; do not change.	
l l	identify a cross reference	need paragraph in the document note, and may also contain a drop down list	
W/h	dala De kiakii dada adala asa	. C	
Delete these notes on con	ed the DS, highlight the whole page impletion	e format cells pattern none	
COMMENT	ΓS:		
		DATA SHEETS	

PUMP MOTOR GEAR TURBINE

		DATA SHEETS			
ITEM No.	ATT	ITEM No.	ATT	ITEM No.	ATT
P-2301 B	YES				



نگهداشت و افزایش تولید میدان نفتی بینک

سطح الارض و ابنيه تحت الارض

خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد ۲۳_۰۰-BK-HD-GCS-CO)

شماره پیمان: DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP نوع مدرک رشته تسهیلات صادر کننده بسته کاری پروژه نسخه

شماره صفحه: ٥ از ١٤

٠٥٣-٠٧٣-٩١٨٤			کننده بسته کاری GCS K			نوع مدر تک رشته ME DS	سريال 0001	سخه ۷00	شماره صفحه: ٥ از ۱۶
		DK						1 000	
			CENT	RIFUGAL PUN	MP DATA SHE	EET (SI UNIT) - P-2301 B	(Sheet 2 of 6)		
APPLICABLE TO: PROPOS	SAL				APPLIC	CABLE NTL/INTNTL STAND	ARD:		NFPA20 (2019) & IPS-M-PM-125
FOR NISOC					UNIT				
SITE BINAK Gas Compressor St	ation				SERVI	CE Fire Wat	ter Pumps - Diesel Engi	ne Driven	
NO. REQ 1	PUMP SIZ	E	8"x6"	1	TYPE	BB1		No. STAGES	1
MANUFACTURER			ALAYE PU		MODE		TO KPSPF 15	0-570 SERIAL NO.	<u>•</u>
		-	LILLIII E I C			RACTERISTICS	ine) IXI STT TE	.0 270	
	Units	Maximum	Minimum	Note		SERVICE :			INTERMITTENT
LIQUID TYPE OR NAME :		Water		Max & n	nin	• IF INTERMITTENT NO. O	OF STARTS :		
VAPOR PRESSURE :	bara	0.0087	0.1219	values re		PUMPS OPERATE IN:			
	kg/m³		997	only to the		CORROSION DUE TO : (6.	12.1.9)		
SPECIFIC HEAT :	kj/kgC		4.186	property		EROSION DUE TO : (6.12.1	1.9)		
VISCOSITY :	cP		1	listed		H2S CONCENTRATION (p)	pm): (6.12.1.12)		N.A.
	OPERAT	I FING CONDITIONS (6	5.1.2)			CHLORIDE CONCENTRAT			
	Units	Maximum	Rated	Normal	Min	PARTICULATE SIZE (DIA			
NPSH _A Datum:			C.L. Impel	er		PARTICULATE CONCENT	RATION (PPM)		
PUMPING TEMPERATURE :	°C	50			5	†			
FLOW:	m³/hr		454.20			†			
DISCHARGE PRESSURE :(6.3.2)	barg		10.4			1			
SUCTION PRESSURE :	barg	0.83	0.81		0.08	1			
DIFFERENTIAL PRESSURE :	bar		10.3			1			
DIFFERENTIAL HEAD :	m		105.0			1			
NPSH _A :	m		8.8			†			
HYDRAULIC POWER:	KW		129.50			†			
H	irgan s	shall			SITE AND U	TILITY DATA			
	pecifie					COOLING WATER:			
OUTDOOR I			ROOF					RETUR	N DESIGN
MOUNTED AT:	onditio	n	EQ'D			TEMP			
ELECTRIC AREA CLASSIFICATION			SA	FE		PRESS.			
GROUP	DO N					SOURCE			
SITE DATA:	PC: No	oted				COOLING WATER	CHLORIDE CONCENTRA	ATION:	
ELEVATION (MSL): 12.5	m	BAROMETE	R:	990.77	mBa	INSTRUMENT AIR:		kg	vendor to specify
RANGE OF DESIGN TEMPS:MIN / MAX		5	85	°C		STEAM			model of diesel and
RELATIVE HUMIDITY: MIN / MAX		0	100	% (@ 25.6	°C)			DRIVERS	
UNUSUAL CONDITIONS:		NA NA			•	TEMP			related cataluge
UTILITY CONDITIONS:						PRESS.			shall be submitted
ELECTRICITY: AUXILIARY	HEATING	CONTROL	SHUTDOW	N					chan be edermited
VOLTAGE 400									
PHASE 3			l l	Is and	Nss li	mitation sh	all be		KPC:TAD1341GE
HERTZ 50			Sr	pecified	1 @ O	bep of max	x	Ĺ	
		PERFORMANCE					^	DRIVER (7.1.5) (N	
PROPOSAL CURVE NO.	PSPF 150			npller c					DIESEL ENGINE
As Tested Curve No.		I	KPSPF 15	PC:Co	nfirme	ed			/NO
IMPELLER DIA.: RATED 530	MAX.	585 MIN.				pm)=8498			/ NO
RATED POWER 180.5 Kw		CIENCY	72	33(III3)/11,111,1	piii)=0490			
RATED CURVE BEP FLOW (at rated impelled	er dia)			S (rpm	ı, m3/h	n,m)=867			
MIN FLOW:			15	` '					VOLVO
PREFERRED OPERATING REGION (6.1.11)		342 to	681			11		@Site Condition	308 KW
ALLOWABLE OPERATING REGION		146to	681	m³/hr		Nominal RPM			1490
MAX HEAD @ RATED IMPELLER			120	m	/	RATED LOAD RPM			
MAX POWER @ RATED IMPELLER			241	kW		FRAME OR MODEL			
NPSH3 AT RATED FLOW:			3.5	m		ORIENTATION			HORIZONTAL
CL PUMP TO U/S BASEPLATE				m		it shall be	e open va	ılve	
NPSH MARGIN AT RATED FLOW:			5.3	m		KPC: Cor	ofirmed		
SPECIFIC SPEED (6.1.9)						IN .			
SUCTION SPECIFIC SPEED LIMIT						THRUST			
SUCTION SPECIFIC SPEED			8498			STARTING METHOD			<u> </u>
MAX. ALLOW. SOUND PRESS. LEVEL REQ	QD (6.1.14)		110	(dBA)	@ 1 m	SEE DRIVER DATA SHEE			
EST MAX SOUND PRESS. LEVEL			Rechec	k Nss	or clar	ify how did	l you rea	ch to it?	
MAX. SOUND POWER LEVEL REQ'D (6.1.1	14)					•	•		ax impeller diameter
EST MAX SOUND POWER LEVEL						iodidilon be	3500 011 (abop of III	
			Q(m3/h		2=280				
			H(m):12	20					
			NDSHr						

Speed(rpm):1490



نگهداشت و افزایش تولید میدان نفتی بینک

سطح الارض و ابنيه تحت الارض



خرید یکیج یمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قر ار داد ۲۳_۰۰ -BK-HD-GCS-CO) (قر ار داد DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP by considering of نوع مدرك شماره صفحه: ٦ از ١٤ پروژه بسته کاری صادر کننده تسهيلات material is it correct BK GCS 120 DS 0001 according to API to use RF? CENTRIFUGAL PUMP DATA SHEET (SI UNIT) - P-2301 B (Sheet 3 of 6) 610 : MAWP shall KPC:Confirmed be at least 20 bard API PUMP TYPE: Based on API 610 definitions to be specified SING MOUNTING: KPC:MAWP is 15 SING TYPE OLUTE KPC:22.5 bar NOZZLE CONNECTIONS: (655) BACKPULLOUT LIFTING DEVICE PE NOTES 7,11 bar (according to CASE PRESSURE RATING: Size Facing Rating KPC:AMB NFPA20) SUCTION SIDE MAWP: 150 HYDROTEST: DISCHARGE RF SIDE PRESSURE CASING AUX. CONNECTIONS: (6.4.3.2) to be specified Facing No. Size Type HYDROTEST OH PUMP AS ASSEMBLY completely. SUCT'N PRESS. REGIONS DESIGNED FOR MAWP BAL./LEAK OFF KPC:CW DRAIN 1/2" SWF (VIEWED FROM COUPLING END) RF ROTATION: KPC:Noted 1/2" SWF RF IMPELLERS INDIVIDUALLY SECURED : 1 KPC:Yes PRESSURE GAGE BOLT OH 3/4/5 PUMP TO PAD / FOUNDATION TEMP GAGE PROVIDE SOLEPLATE FOR OH 3/4/5 PUMPS Coupling WARM-UP LINE ROTOR: Manufacturer & SHAFT FLEXIBILITY INDEX (SFI) (9.1.1.3) model shall be Drain Valve Supplied By First Critical Speed Wet (Multi stage pumps only) COMPONENT BALANCE TO ISO 1940 G1.0 DRAINS MANIFOLDED NO specified SHRINK FIT -LIMITED MOVEMENT IMPELLERS (9.2.2.3) KPC:Noted COUPLING:(7.2.3) VENTS MANIFOLDED (7.2.13.f) THREAD. CONS FOR PIPELINE SERVICE & < 50°C (6.4.3.2) MANUFACTURER **KPC:Colossus** SPECIAL FITTINGS FOR TRANSITIONING (6.4.3.3) NO MODEL CYLINDRICAL THREADS REG Gr. 60-40-15 is not NO RATING (POWER/100 RPM) GUSSET SUPPORT REQUIRED CORRECT. it shall be KPC:180 mm VES SPACER LENGTH NO SERVICE FACTOR corrected. VS 6 DRAIN RIGID DRAIN TO SKID EDGE KPC:GGG40(A536 YES COUPLING WITH HYDRAULIC FIT (7.2.10) COUPLING BALANCED TO ISO 1940-1 G6.3 (7.2.3) 60-40-18) APPENDIX H CLASS COUPLING WITH PROPRIETARY CLAMPING DEVICE (7.2.11) MIN DESIGN METAL TEMP (6.12.4.1) REDUCED-HARDNESS MATERIALS REO'D (6.12.1.12.1) COUPLING IN COMPLIANCE WITH (7.2.4) API 671 Applicable Hardness Standard (6.12.1.12.3) COUPLING GUARD STANDARD PER (7.2.13.a) **KPC:**Coupling Guard BARREL: Window on Coupling Guard CASE : GGG40(A536 60-40-15) DIFFLISERS BASEPLATE IMPELLER : C95200 API BASEPLATE NUMBER IMPELLER WEAR RING C95200 BASEPI ATE CONSTRUCTION (7.3.14) KPC:PARTIAL TOP DECKING CASE WEAR RING: BASEPLATE DRAINAGE (7.3.1) A276 T420 MOUNTING : NON-GROUT CONSTRUCTION: (7.3.13) Bo case wear ring to VERTICAL LEVELING SCREWS REQUIRED be specified AND LUBRICATION (6 10 1 1) LONGITUDINAL DRIVER POSITIONING SCREWS REQUIRED **™KPC:Bronze** GROUT AND VENT HOLES DRAIN CONNECTION YES (C95200) 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) GREASE OTHER PRESSURE LUBE SYSTEM TO ISO 10438to be specified ISO 10438 DATA SHEETS ATTACHED Pressurized Lube Oil System mtd on pump baseplate REMARKS: **KPC:Noted** Location of Pressurized Lube Oil System mounted on baseplate : INTERCONNECTING PIPING PROVIDED BY Supplier OIL VISC. ISO GRADE VG CONSTANT LEVEL OILER



خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشار گاز بینک

(قرارداد ۲۳_۰۰-BK-HD-GCS-CO)



٠٥٣-٠٧٣-٩١٨٤

 DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

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

 BK
 GCS
 KP
 120
 ME
 DS
 0001
 V00

شماره صفحه: ۱۲ از ۱۶

CENTRIFUGAL PUMP DAT	A 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	DENTE LEGITION ON DIEDELETTE					
Woulding Location of Accordinates	INTERCONNECTING PIPING BY	Cumulian				
PROJUCION FOR MESCANI V. ((10.0.10)	INTERCONNECTING PIPING BY	Supplier				
PROVISION FOR MTG ONLY (6.10.2.10) YES						
Number of Accelerometers	MECHANICAL SEAL					
Mounting Location of Accelerometers	SEE ATTACHED ISO 21049/API 682 DATA SHEET	N/A NOTE 5				
	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						
VIBRATION PROBES (7.4.2.2) N/A	HEATING AND COOLIN	G (6.1.17)				
PROVISIONS FOR VIB. PROBES	COOLING REQ'D	NO				
NUMBER PER RADIAL BEARING	COOLING WATER PIPING PLAN					
NUMBER PER AXIAL BEARING	COOLING WATER PIPING					
	FIT	TINGS				
MONITORS AND CABLES SUPPLIED BY (7.4.2.4)	COOLING WATER PIPING MATERIALS					
	COOLING WATER REQUIREMENTS:					
TEMPERATURE (7.4.2.3)	· ·					
PROVISIONS FOR TEMP PROBES						
RADIAL BEARING TEMP.	TOTAL COOLING WATER					
	HEATING MEDIUM					
NUMBER PER RADIAL BEARING						
THRUST BEARING TEMP.	OTHER					
NUMBER PER THRUST BEARING ACTIVE SIDE	HEATING PIPING					
NUMBER PER THRUST BEARING INACTIVE SIDE						
TEMP. GAUGES (WITH THERMOWELLS) (9.1.3.6)	PIPING & APPURTEN	ANCES				
PRESSURE GAUGE TYPE	MANIFOLD PIPING FOR PURCHASER CONNECTION (7.5.1.6)					
Remarks	VENT	YES				
	DRAIN	YES				
	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)					
	1					



خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد BK-HD-GCS-CO-۰۰۲_۰۰)



NISOC

٠٥٣-٠٧٣-٩١٨٤

 DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

 نسخه سربال نوع مدرک رشته تسهیلات صادر کننده بسته کاری پروژه BK GCS KP 120 ME DS 0001 V00

This section shall 'be as per Approved ≡ITP

CENTRIFUGAL PUMP DATA SHEET (SI UNIT) -P-2301 B (Sheet 5 of 6) KPC:Noted and confirmed SURFACE PREPARATION AND PAINT MANUFACTURER'S STANDARD SHOP INSPECTION (8.1.1) OTHER (SEE BELOW) SPECIFICATION NO. BK-GNRAL-PEDCO-000-PI-SP-0006, "Specification & DATA APPROVAL PRIOR TO SHIPMENT. YES TEST WITH SUBSTITUTE SEAL (8.3.3.2.b) for Painting" римр. MATERIAL CERTIFICATION REQUIRED CASING VES PUMP SURFACE PREPARATION SHAFT (6.12.1.8) IMPELLER YES PRIMER AS PER PROJECT PAINTING SPEC. YES FINISH COAT AS PER PROJECT PAINTING SPEC. CASTING REPAIR WELD PROCEDURE APPR REQD YES BASEPLATE: INSPECTION REQUIRED FOR CONNECTION WELDS (6.12.3.4.d) KPC:NOT APPLICABLE BASEPLATE SURFACE PREPARATION LIQUID PENETRANT YES MAG PARTICLE AS PER PROJECT PAINTING SPEC. RADIOGRAPHY FINISH COAT INSPECTION REQUIRED FOR CASTINGS AS PER PROJECT PAINTING SPEC. DETAILS OF LIFTING DEVICES LIQUID PENETRANT MAG PARTICLE SHIPMENT: (8.4.1) EXPORT ULTRASONIC YES RADIOGRAPHY EXPORT BOXING REQUIRED HARDNESS TEST REQUIRED (8.2.2.7) OUTDOOR STORAGE MORE THAN 6 MONTHS YES ADDNL SUBSURFACE EXAMINATION (6.12.1.5) (8.2.1.3) FOR ROTOR STORAGE ORIENTATION (9 2 8 2) METHOD SHIPPING & STORAGE CONTAINER FOR VERT STORAGE (9.2.8.3) N₂ PURGE (9.2.8.4) PMI TESTING REQUIRED (8.2.2.8) SPARE PARTS COMPONENTS TO BE TESTED START-UP YES RESIDUAL UNBALANCE TEST (J.4.1.2) NORMAL MAINTENANCE NOTIFICATION OF SUCCESSFUL SHOP YES YES PERFORMANCE TEST (8.1.1.c) (8.3.3.5) YES ITEM No PUMP DRIVER GEAR TOTAL BASE BASEPLATE TEST (7.3.21) WIT HYDROSTATIC TEST OF BOWLS & COLUMN (9.3.13.2) PERFORMANCE TEST WIT TEST IN COMPLIANCE WITH (8.3.3.2) OTHER PURCHASER REQUIREMENTS NFPA 20 COORDINATION MEETING REQUIRED (10.1.3) YES TEST DATA POINTS TO (8.3.3.3) NFPA 20 MAXIMUM DISCHARGE PRESSURE TO INCLUDE TEST TOLERANCES TO (8.3.3.4) TABLE 16 NOTE 6 NPSH (8.3.4.3.1) (8.3.4.3.4) WIT OPERATION TO TRIP SPEED NPSH-1ST STG ONLY (8.3.4.3.2) MAX DIA. IMPELLERS AND/OR NO OF STAGES YES NPSH TESTING TO HI 1.6 OR ISO 9906 (8.3.4.3.3) CONNECTION DESIGN APPROVAL (9.2.1.4) TEST NPSHA LIMITED TO 110% SITE NPSHA (8.3.3.6) OBSERVE TORSIONAL ANALYSIS / REPORT (6.9.2.10) NO RETEST ON SEAL LEAKAGE (8.3.3.2.d) YES RETEST REQUIRED AFTER FINAL HEAD ADJ (8.3.3.7.b) OUTLINE OF PROC FOR OPTIONAL TESTS (10.2.5) COMPLETE UNIT TEST (8.3.4.4.1) WIT ADDITIONAL DATA REQUIRING 20 YEARS RETENTION (8.2.1.1) SOUND LEVEL TEST (8.3.4.5) WIT YES CLEANLINESS PRIOR TO FINAL ASSEMBLY (8.2.2.6) OBSERVE LATERAL ANALYSIS REQUIRED (9.1.3.4) (9.2.4.1.3) LOCATION OF CLEANLINESS INSPECTION NO MODAL ANALYSIS REQUIRED (9.3.9.2) NOZZLE LOAD TEST CHECK FOR CO-PLANAR MOUNTING PAD SURFACES DYNAMIC BALANCE ROTOR (6.9.4.4) YES INSTALLATION LIST IN PROPOSAL (10.2.3.1) MECHANICAL RUN TEST UNTIL OIL TEMP STABLE VFD STEADY STATE DAMPED RESPONSE ANALYSIS (6.9.2.3) NO 4 HR, MECH RUN AFTER OIL TEMP STABLE (8.3.4.2.1) WIT TRANSIENT TORSIONAL RESPONSE 4 HR. MECH RUN TEST (8.3.4.2.2) BEARING LIFE CALCULATIONS REOUIRED (6.10.1.6) BRG HSG RESONANCE TEST (8.3.4.7) IGNITION HAZARD ASSMT TO EN 13463-1 (7.2.13.e) STRUCTURAL RESONANCE TEST (9.3.9.2) CASING RETIREMENT THICKNESS DRAWING (10.3.2.3) REMOVE / INSPECT HYDRODYNAMIC BEARINGS AFTER TEST (9.2.7.5) FLANGES RQD IN PLACE OF SKT WELD UNIONS (7.5.2.8) INCLUDE PLOTTED VIBRATION SPECTRA (6.9.3.3) AUXILIARY EOUIPMENT TEST (8.3.4.6) CONNECTION BOLTING (7.5.1.7) EQUIPMENT TO BE INCLUDED IN AUXILIARY TESTS CADMIUM PLATED BOLTS PROHIBITED LOCATION OF AUXILIARY EQUIPMENT TEST VENDOR TO KEEP REPAIR AND HT RCDS (8.2.1.1.c) PER EN 13445 VENDOR SUBMIT TEST PROCEDURES (8.3.1.1) PER ASME SECTION VIII SUBMIT INSPECTION CHECK LIST (8.1.5) NOTE 2 YES REMOVE CASING AFTER TEST



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.04-.44-4185

 DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

 نسخه سریال نوع مدرک (شته تسهیلات صادرکننده بسته کاری پروژه

 BK
 GCS
 KP
 120
 ME
 DS
 0001
 V00

شماره صفحه: ۹ از ۱۶

CASTI	BE LISTED BY THE MANUFACTURER ING FACTORS USED IN DESIGN (TABLE 3) SOURCE OF MATERIAL PROPERTIES WELDING ICHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE	EL DESIGN CODE REFERENCES E AND REPAIRS (NOTE 12) IS STATED)		
THESE REFERENCES MUST BE LISTED BY THE PUR ALTERNATE WELDING CODES AND STANDARDS WELDING REQUIREMENT (APPLICABLE CODE OR S WELDEN/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	BE LISTED BY THE MANUFACTURER ING FACTORS USED IN DESIGN (TABLE 3) SOURCE OF MATERIAL PROPERTIES WELDING ICHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE	AND REPAIRS (NOTE 12)		
THESE REFERENCES MUST BE LISTED BY THE PUR ALTERNATE WELDING CODES AND STANDARDS WELDING REQUIREMENT (APPLICABLE CODE OR S WELDEN/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	SOURCE OF MATERIAL PROPERTIES WELDING CHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE			
ALTERNATE WELDING CODES AND STANDARDS WELDING REQUIREMENT (APPLICABLE CODE OR S WELDER/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	WELDING CHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE			
ALTERNATE WELDING CODES AND STANDARDS WELDING REQUIREMENT (APPLICABLE CODE OR S WELDER/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	CHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE			
ALTERNATE WELDING CODES AND STANDARDS WELDING REQUIREMENT (APPLICABLE CODE OR S WELDER/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	CHASER. (DEFAULT TO TABLE 11 IF NO PURCHASER PREFERENCE			
ALTERNATE WELDING CODES AND STANDARDS WELDING REQUIREMENT (APPLICABLE CODE OR S WELDER/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION		IS STATED)		
WELDING REQUIREMENT (APPLICABLE CODE OR S WELDER/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	STANDARD)			
WELDER/OPERATOR QUALIFICATION WELDING PROCEDURE QUALIFICATION	STANDARD)			
WELDING PROCEDURE QUALIFICATION			DEFAULT PER TABLE 11	
			DEFAULT PER TABLE 11	
NON-PRESSURE RETAINING STRUCTURAL WELDIN			DEFAULT PER TABLE 11	
MAGNETIC PARTICLE OR LIQUID PENETRANT EXA			DEFAULT PER TABLE 11 DEFAULT PER TABLE 11	
POSTWELD HEAT TREATMENT	WINATION OF FLATE EDGES		DEFAULT PER TABLE II	
POSTWELD HEAT TREATMENT OF CASING FABRIC	ATION WELDS		DEFAULT PER TABLE II	
		ERIAL INSPECTION		
THESE REFERENCES MUST BE LISTED BY THE PUR			DEFAULT TO TABLE 14	YES
ALTERNATIVE MATERIAL INSPECTIONS AND ACCE		T		
TYPE OF INSPECTION	METHOD	FOR FABRICATIONS	FOR CASTINGS	
RADIOGRAPHY LILTRASONIC INSPECTION				
ULTRASONIC INSPECTION MAGNETIC PARTICLE INSPECTION				
LIQUID PENETRANT INSPECTION				
VISUAL INSPECTION (all surfaces)				



خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشار گاز بینک (قرارداد ۲۰۰۰-۱۹۲۳)



شماره پیمان:

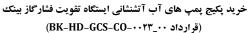
3419-74-40+

ن		DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP										
	نسخه سریال نوع مدرک رشته تسهیلات صادر کننده بسته کاری پروژه											
	BK	GCS	KP	120	ME	DS	0001	V00				

شماره صفحه: ۱۰ از ۱۶

			D	Diesel Engine Data Sheet For Fire Water	r Pump - P-2301	B (SI UNIT) (1 of 4)			
SERVICE:					MANUFACTURE	TD.			VOLVO
FOR:	Fire Water Pumps -	Diesel Engine Driven			MODEL NO:				, TAD 1341
	NISOC				TYPE:				TAD 1341
SITE: NO. REQUIRED:	BINAK Gas Compre	essor Station			ITPE:	catalogue to	he	\neg	
NO. REQUIRED:	1					catalogue to	DC		
			1		(Note 1)	submitted			REMARKS
ODERATING CONDITIONS					(Note 1)	KPC: Please	refer		REMARKS
OPERATING CONDITIONS	1050					to the attach			
DIESEL ENGINE MANUFACTI ISO POWER (ISO 3046)	JREK	134	200			to the attach	eu ille.		
ISO SPEED		kW	308						
SITE CONTINUOUS RATED P	OWER	rpm	1490	-					
SITE CONTINUOUS RATED P		kW	275						
OVERLOAD SITE POWER	PEED	rpm kW	1490						
OVERLOAD SPEED				-					
OVERLOAD DURATION		rpm							
	EDOM CDI C)	h	ccw						
DIRECTION OF ROTATION (I SPEED RANGE	-ROM CPLG)	CW/CCW	CCVV						
		±% rpm	000						
IDLE SPEED		rpm	900						
LOADING TIME		S	10						
DEDECRIANCE									
PERFORMANCE	'n								
% OF MAX CONT SITE POWE									
FUEL SPECIFIC CONSUMPTION	ON	g/kWh							
TOLERANCE		%							
SPEED		rpm (NOTE 20)							
LOAD ACCEPTANCE RATING		% 1 step							
ENGINE DATA									
CYCLE:- 2 STROKE/4 STROK	KE						4 STROKE R	EQUIRED	KPC:Confirmed
NUMBER OF CYLINDERS									
IN-LINE/V FORM									
BORE/STROKE		mm							
CAPACITY		liters							
BMEP (RATED)									
PISTON SPEED		m/s							
COOLING SYSTEM: AIR/WAT	ΓER						1	SED SYSTEM an & Radiator)	KPC:Confirmed
TURBOCHARGER:-							, , , ,	,	
SINGLE OR SERIES									
INTERCOOLER		CA or CW							
EMISSIONS									
No _x EMISSION		g/kWh					IPS-E	-SF-860	KPC:Confirmed
CO EMISSION		g/kWh							
CO ₂ EMISSION		g/kWh							
STARTING SYSTEM									
AIR:-									
NUMBER OF TANKS		5 / //							
PRESSURE		Barg / Kpag							
CAPACITY		m ³							
NO. OF STARTS W/OUT REF	ILLING								
STARTING SYSTEM									
ELECTRICAL:-									YES
							2	set including 20 cell	ls with 200 ampere hour capacity
NO. OF BATTERIES								at least (Dual cha	rger equal to 100% of power)
NO. OF BATTERIES							KPC:2		40 cells with 100 ampere hour
TVDE									capacity
TYPE TOTAL CAPACITY		۸h						N	Nickel - Cadmium
STARTING CIRCUIT		Ah							
STARTING MOTOR							<u> </u>		







 DATA SHEETS (WIPERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

 نسخه سریال نوع مدر ک رشه تسهیلات صادر کننده بسته کاری پروژه BK GCS KP 120 ME DS 0001 V00

شماره صفحه: ۱۱ از ۱۶

		Dissel Facility Data Chart For Fire Water Down D 2201 D (CLINIT) (2 of f)	
		Diesel Engine Data Sheet For Fire Water Pump - P-2301 B (SI UNIT) (2 of 4)	
HYDRAULIC:-			
ACCUMULATOR/MOTOR			
NO OF STARTS PER 5 SEC CRANKS			
NO OF ACCUMULATORS			
DARRING CYCTEM			
BARRING SYSTEM			
MANUAL/ELEC/HYDRAULIC IF REQ'D			MANUAL
LUBRICATION			
DRY SUMP			
SYSTEM;- PRESSURE	bar g / Kpa g		
OIL QUANTITY			
OIL CONSUMPTION	g/kwh		
PUMPS	Main/Aux		
OIL FILTER:-			
CHANGE OVER WHILE RUNNING	Reqd y/n		
FILTER:-			TWO STAGE
TYPE	Wat or dry		
	Wet or dry		
NUMBER			
AIR CUT OFF SYSTEM ("RIG SAVER")			YES
EXHAUST SYSTEM			
ENGINE PIPE OUTLET			YES
SPARK ARRESTOR			YES
SILENCER	dBA @1m		YES - 85
EXPANSION JOINT			YES
EXHAUST MANIFOLD	Cooling		PERSONNEL PROTECTION
FUEL			
MAX STATIC HEAD ABOVE FUEL INLET			
FILTER CLEANABLE WHILE RUNNING	Y/N		YES
SELF CLEANING	Y/N		YES
CHANGEOVER WHILE RUNNING	Y/N		YES
CHANGES VER WHILE ROMAING	.,,,		
HEAT EMISSIONS			
	144		
TO COOLING SYSTEM	kW		
TO AMBIENT	kW		
SITE AND INSTALLATION DATA			
ALTITUDE	m		
AMBIENT TEMPERATURE MIN/MAX	°C		5 / 50
DESIGN TEMPERATURE	°C		52
HUMIDITY	%		0 / 100
WIND SPEED	km/h		
ATMOSPHERIC AIR (DUST/FUMES)			
CORROSION BY			
LOCATION:- INDOOR/OUTDOOR			OUTDOOR



نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد ۱۸-۰۰۲۳-۱۹۸)



DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP

سرال نوع مدرکت | رشته | تسهیارت | صادر کننده | بسته کاری | پروژه |

شماره صفحه: ۱۲ از ۱۶

	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه	شماره صفحه: ۱۲ از ۱۶
٤٨١ ٩-٠٧٣٠٠٠٠٠٠	BK	GCS	KP	120	ME	DS	0001	V00	
							•	•	
			Diesel Engine D	ata Sheet For	Fire Water Pun	np - P-2301 B (S	SI UNIT) (3 of 4)		
HEATED / UNHEATED									UNHEATED
UNDER ROOF / PARTIAL SIDES									UNDER ROOF
AREA CLASSIFICATION									
STARTING:- LOCAL / REMOTE									
AVAILABLE UTILITIES									
COOLING WATER:-								F	ROM FIRE WATER PUMP DISCHARGE
PRESSURE	bar g / kPa g	•							
AVAILABLE PRESSURE DROP	bar / kPa	ı							
TEMPERATURE	°C								
TEMPERATURE CHANGE	°C								
INSTRUMENT AIR:-									
PRESSURE	bar g / kPa g								
TEMPERATURE DEW POINT	°C								
ELECTRICITY SUPPLY	AC								
LLLCTRICITI SOFFLI	AC								
FUEL CHARACTERISTICS:-									
FUEL OIL CLASSIFICATION									
VISCOSITY	сР)							
TEMPERATURE	°C								
OPERATING DURATION	hrs	i							
IMPURITIES	% weight	:							
FUEL SYSTEM									
DAY TANK REQUIRED (NOTE 19)									YES
TANK SUPPLIED BY									ENGINE SUPPLIER
CAPACITY	hrs								AS PER NFPA 20
LOCATION									OFF-SKID
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									IPS-E-TP-100
INSPECTION AND TESTING									
MANUFACTURER'S STANDARD									IPS-M-PM-290
OTHER									113-M-114-270
INSTRUMENTATION				ALARM		SI	HUTDOWN	-	IPS-M-PM-290 SECTION 6.8.
LUBRICATING OIL PRESSURE								Remark:	
FUEL PRESSURE									GCS-PEDCO-120-SA-PI-0001.)
ENGINE OIL TEMPERATURE								shall be fo	
FUEL TEMPERATURE									
OVER SPEED									
DIFF PRESS SWITCH ON FILTER									
MANOMETER ON OIL CIRCUIT;									
DOWNSTREAM OF PUMP									
DOWNSTREAM OF FILTER									
SIGHT GLASSES ON OIL CIRCUIT									



نگهداشت و افزایش تولید میدان نفتی بینک

سطح الارض و ابنيه تحت الارض

خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشارگاز بینک (قرارداد ۰۰-۳۳_(BK-HD-GCS-CO)



شماره پیمان:

DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PLIMP

w	DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP							
	پروژه	بسته کاری	صادر کننده	تسهيلات	رشته	نوع مدرک	سريال	نسخه
	BK	GCS	KP	120	ME	DS	0001	V00

شماره صفحه: ۱۳ از ۱۶

٠٥٣-٠٧٣-٩١٨٤	پروزه BK	GCS	KP	سهیلات 120	رشته ME	DS	سريال 0001	V00	شماره صفحه: ۱۲ از ۱۶
	DN	GCS	NP.	120	IVIE	1 03	0001	V00	
			Diesel Engine D	ata Sheet For I	Fire Water Pur	np - P-2301 B (SI	UNIT) (4 of 4)		
NGINE EXHAUST TURBOCHARGER									
			TE BEFORE/			PI BEFORE/			
			AFTER COOLER	}		AFTER COOLER			
IRCUIT OF:								<u> </u>	
AW WATER				/			/		
RESH WATER				1			/		
OIL				1			/		
UPERCHARGING:				,			,		
				/			/		
MRSIDE						_			
VATERSIDE			1	/			/		
EMARKS:									
For each pump set one 400V, 3PH/N auxilia									
All required power for local control panel (2	30VAC/110VAC/	/24VDC) shall b	e convert by ve	endor as reque	st.				

1- Min/Max continues stable flow shall be shown on curve.

KPC:Min continues stable flow is 15 m3/h
Max continues stable flow is 681.3 m3/h

U**MP CO.** e curve





2-Efficiency curve shall be added

Z Emolerity darve small b	c addct
KPC:It is not possible	

r	not possible		•	KPSPF 150-570	Flow,Rated (m^3/h)	454.2
	Liquid	Water	Speed (rpm)	1490	Head (m)	105
	Temp. (°c)	-3.5 / 53	Rated Imp.Dia. (mm)	530	Efficiency (%)	72
Ī	Density(kg/m^3)	997	Suction Size (Inch)	8	NPSHR (m)	3.5
	Viscosity (cp)	1	Disch. Size (Inch)	6	Rated Power (kw)	180.5
	NPSHA (m)	8.8	NSS (m³/h,m,rpm)	8498	Diesel Power (kw)	308

