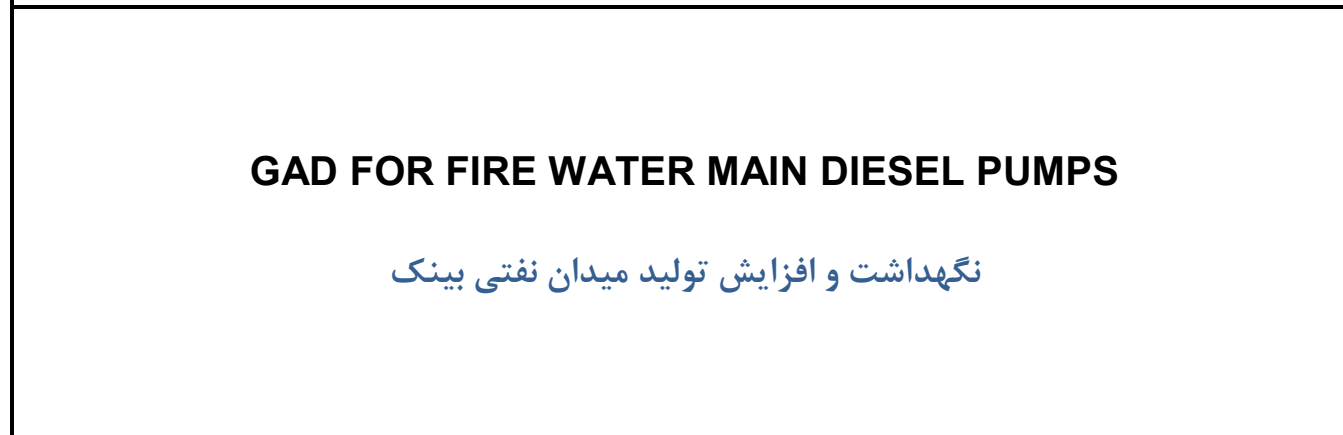
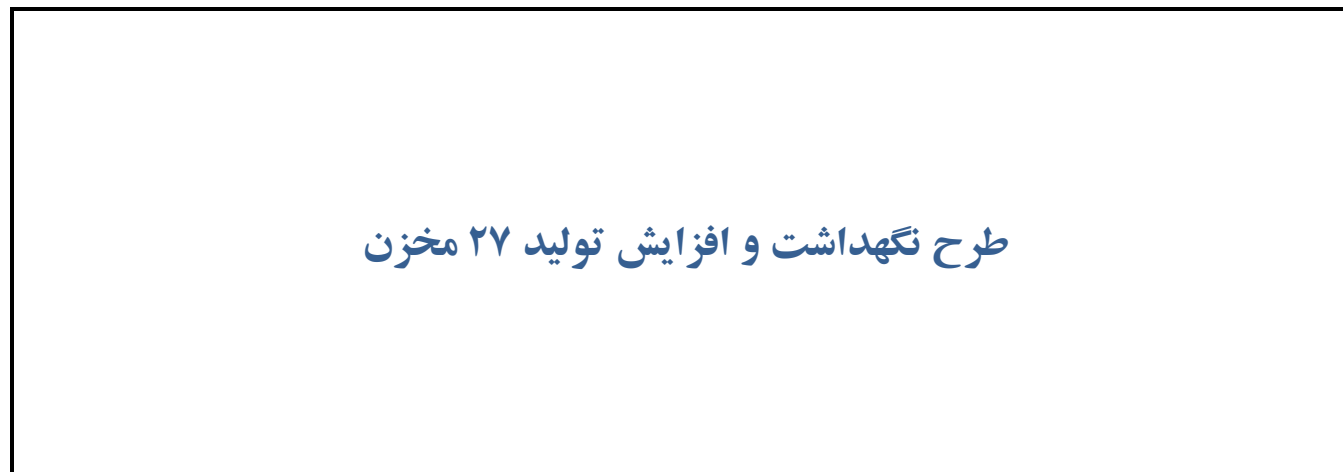


 NISOC	<p>نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض</p> <p>خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0023_00)</p>	 کمرت تولید هیرگان  Kalaye Pump Co.																								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	<table><tr><th colspan="8">GAD FOR FIRE WATER MAIN DIESEL PUMPS</th></tr><tr><td>نسخه</td><td>سریال</td><td>نوع مدرک</td><td>رشته</td><td>تسهیلات</td><td>صادرکننده</td><td>بسته کاری</td><td>پروژه</td></tr><tr><td>V00</td><td>0001</td><td>DW</td><td>ME</td><td>120</td><td>KP</td><td>GCS</td><td>BK</td></tr></table>	GAD FOR FIRE WATER MAIN DIESEL PUMPS								نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه	V00	0001	DW	ME	120	KP	GCS	BK	شماره صفحه : ۱ از ۶
GAD FOR FIRE WATER MAIN DIESEL PUMPS																										
نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه																			
V00	0001	DW	ME	120	KP	GCS	BK																			



V00	DEC. 2024	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour	
Rev.	Date	Purpose of Issue/Status	Prepared by:	Checked by:	Approved by:	CLIENT Approval

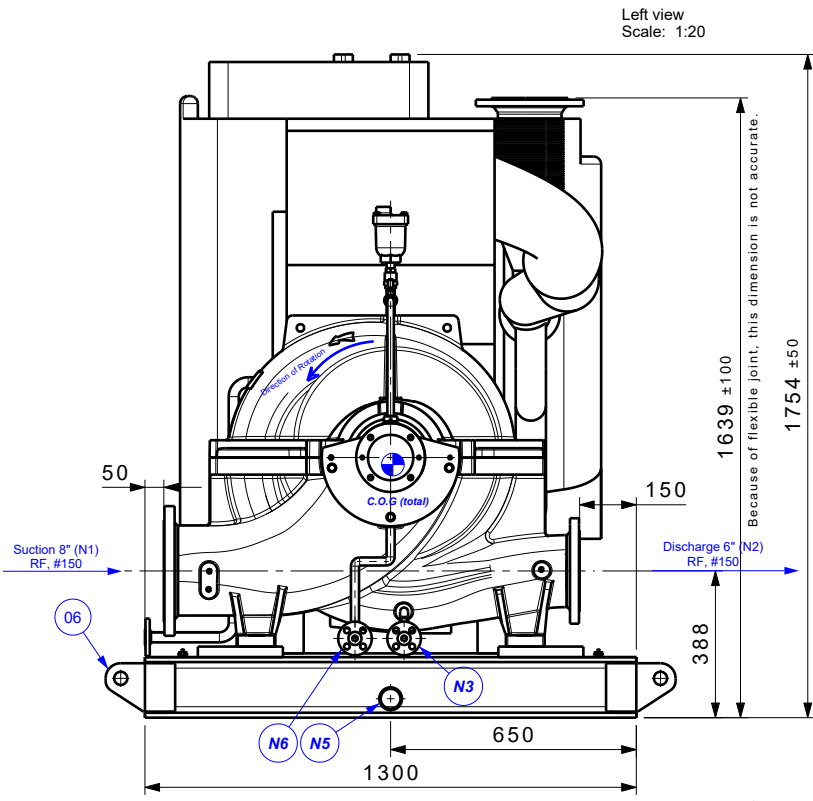
<p>Status:</p> <p>IFA: Issued for Approval IFI: Issued for Information AFC: Approved for Construction</p>
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 NISOC	<p>نگهداشت و افزایش تولید میدان نفتی بینک سطح الارض و ابنیه تحت الارض</p> <p>خرید پکیج پمپ های آب آتشنشانی ایستگاه تقویت فشار گاز بینک (قرارداد BK-HD-GCS-CO-0023_00)</p>	 کمرت تهر تهر ایران  Kalaye Pump Co.																								
شماره پیمان: ۰۵۳ - ۰۷۳ - ۹۱۸۴	<table><tr><th colspan="8">GAD FOR FIRE WATER MAIN DIESEL PUMPS</th></tr><tr><th>نسخه</th><th>سریال</th><th>نوع مدرک</th><th>رشته</th><th>تسهیلات</th><th>صادرکننده</th><th>بسته کاری</th><th>پروژه</th></tr><tr><td>V00</td><td>0001</td><td>DW</td><td>ME</td><td>120</td><td>KP</td><td>GCS</td><td>BK</td></tr></table>	GAD FOR FIRE WATER MAIN DIESEL PUMPS								نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه	V00	0001	DW	ME	120	KP	GCS	BK	شماره صفحه: ۲ از ۶
GAD FOR FIRE WATER MAIN DIESEL PUMPS																										
نسخه	سریال	نوع مدرک	رشته	تسهیلات	صادرکننده	بسته کاری	پروژه																			
V00	0001	DW	ME	120	KP	GCS	BK																			

REVISION RECORD SHEET

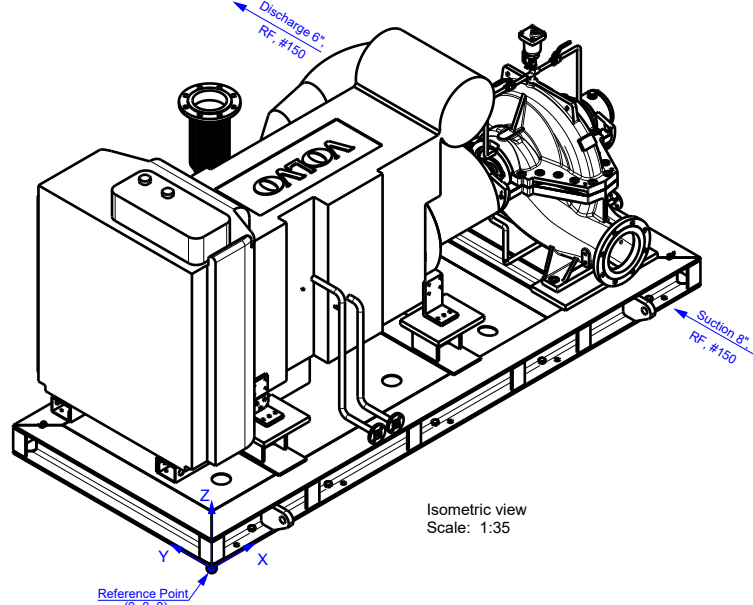
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1. All dimension are in millimeter.
2. Flange faces are in accordance with ASME B16.5 for diameter 24" or less and ASME B16.47 series 'A' for 26" and above.
3. Tolerances for general outline drawing are based on ASME Y14.5 Standard.
4. For best performance of diesel motor fan cooled radiator, at least 2 meter space behind the radiator should not be blocked.
5. For maintenance, the heaviest pump part is casing cover which is 160 kg.
6. Exhaust line of diesel shall be piped to open air.
7. Muffler maybe installed horizontally or vertically.
8. The skid drain pan shall be filled completely with non-shrinkage grout or similar. (G2)
9. All sensors and instrument for diesel pump is gathered in local control panel.
10. Each engine is provided with two set of nickel cadmium battery units. First set are main batteries and second set as standby. Each set includes 20 batteries.
11. Each pump (diesel, electrical and jockeys) includes one CRV 1".
12. Dynamic load acts in rotational direction on a plane perpendicular to pump shaft which contains total COG.

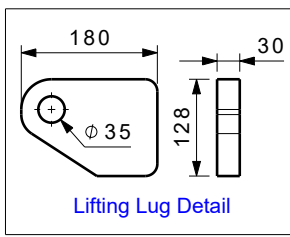
Static Load	Dynamic Load
33550 N	1263 N




[illegible]


<i>Item</i>	<i>Description</i>	<i>Type</i>	<i>Size</i>	<i>Qty.</i>	<i>Facing</i>	<i>Rating</i>	<i>Position</i>
N1	Suction	Flange	8"	1	RF	#150	Side
N2	Discharge	Flange	6"	1	RF	#150	Side
N3	Casing Drain	Flange	1/2"	1	RF	#150	End
N4	Diesel Exhaust	Flange	DN 150	1	RF	PN 16	Top
N5	Skid Drain	Coupling	2"	1	Female Thread	Sch. 40	End
N6	Packing Drain	Flange	1/2"	1	RF	#150	End
N7	Diesel Fuel Inlet	Flange	3/4"	1	RF	#150	Side
N8	Diesel Fuel Return	Flange	3/4"	1	RF	#150	Side

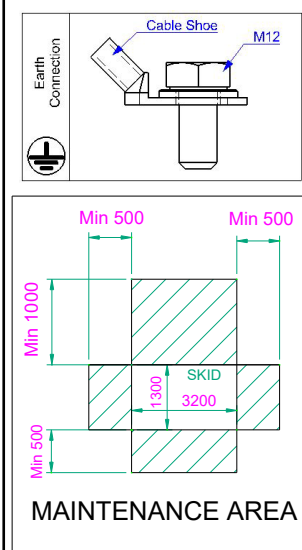
Technical drawing of a recommended anchor box. The drawing shows a cross-section of a concrete wall with an anchor box. The anchor box is a vertical cylinder with a diameter of 150 mm. It is surrounded by a 40 mm grout. The wall has a thickness of 125 mm. The anchor box is 480 mm high. The grout is 13 mm thick. The anchor box is spot welded to the wall. The drawing includes dimensions for the anchor box, grout, and wall. A table below the drawing lists the recommended grout type as G2.

Recommended Grout Type is G2.	
Anchor Box Type-1 (T F0.20 125.410 105)	
Material	ASTM F 1554 Grade 36

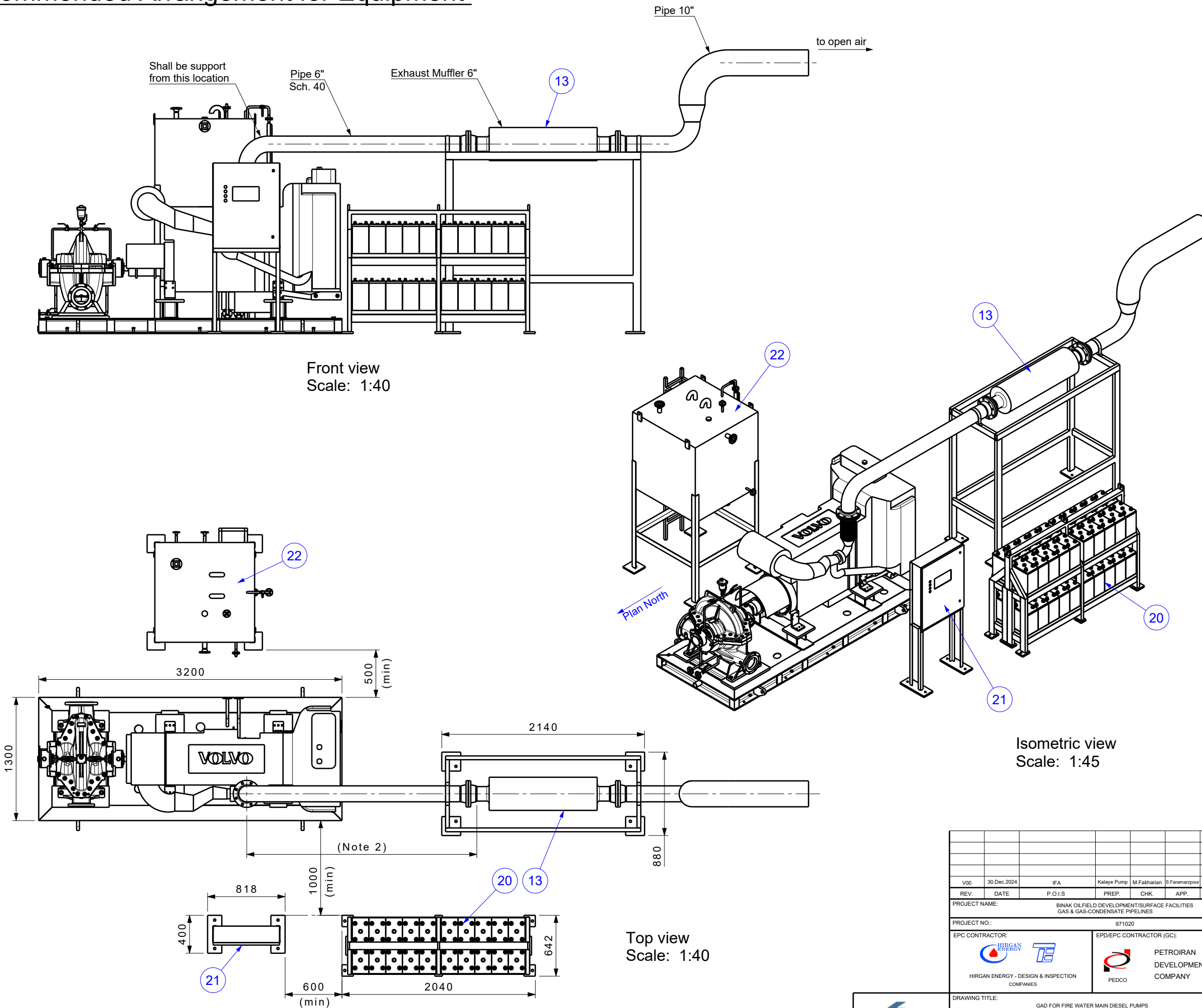


V00	30.Dec.2024	IFA	Kalaye Pump	M.Fakharian	S.Faramarzpour	** **	
REV.	DATE	P.O.I.S	PREP.	CHK.	APP.	AUT.	
PROJECT NAME: BINAK OIL FIELD DEVELOPMENT/SURFACE FACILITIES GAS & GAS-CONDENSATE PIPELINES							
PROJECT NO.:			971020				
EPC CONTRACTOR:			EPD/EPC CONTRACTOR (GC):				
  HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES			 PETROIRAN DEVELOPMENT COMPANY PEDCO				
DRAWING TITLE:							
GAD FOR FIRE WATER MAIN DIESEL PUMPS							
SCALE		SIZE		DRAWING NO.		SHEET NO.	
As Shown		A3		BK-GCS-KP-120-ME-DW-0001		3/6	
						V00	

REV.	DESCRIPTION	BY	DATE	BY	DATE	
		CHECKED		REV. APPR.		
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THE ORIGINAL AND ALL COPIES OF THIS DRAWING TOGETHER WITH THE COPYRIGHT THEREIN ARE THE SOLE PROPERTY OF N.I.S.O.C / FIELDS						
						
BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES						
GAS COMPRESSOR STATION						
DATE	SCALE	DRAWING BY	CHECKED BY	PROJECT ENG.		
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED						
APPROVED FOR CONSTRUCTION				BY:	DATE:	
BUDGET REF.	LOCATION	SIZE	CLASS	SERIAL NO.	SHEET	REVISION



Recommended Arrangement for Equipment



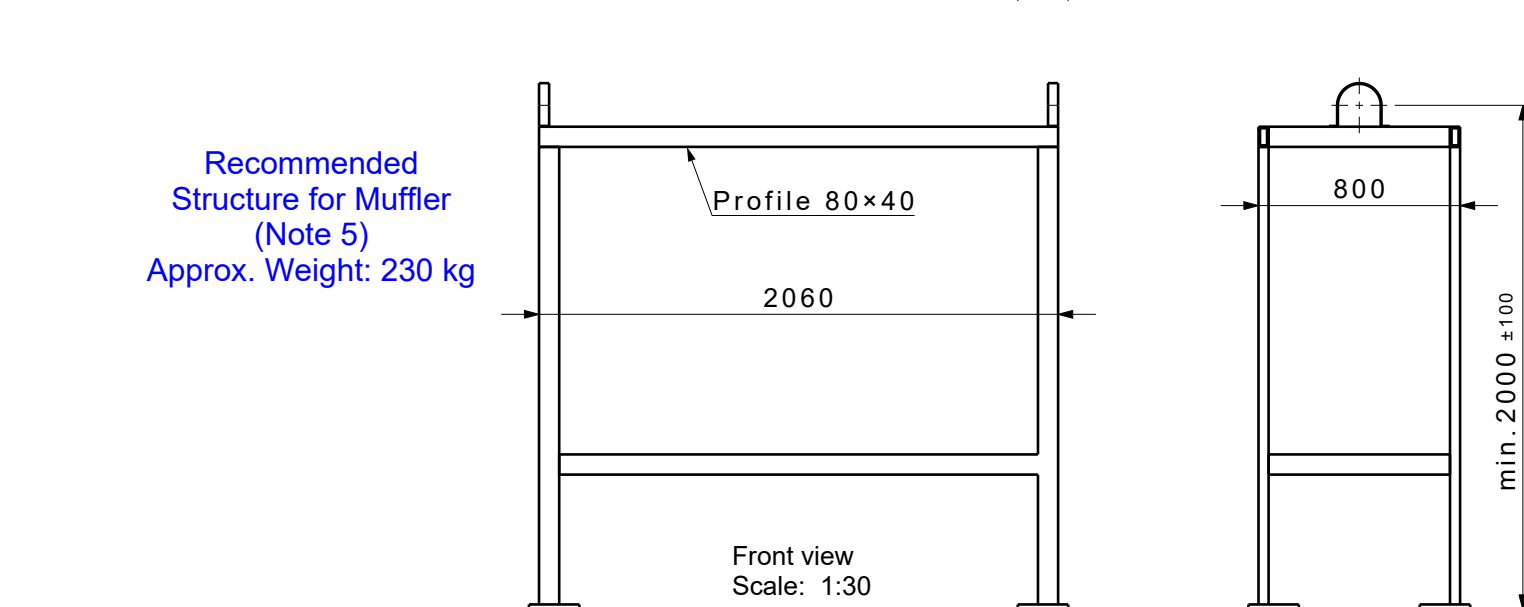
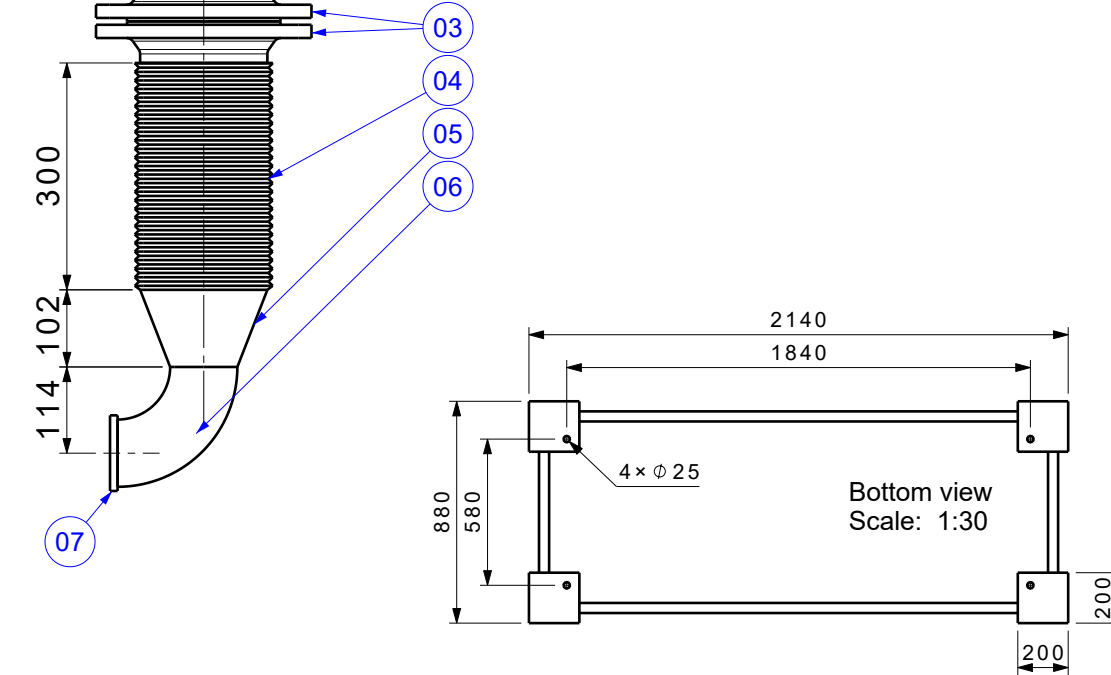
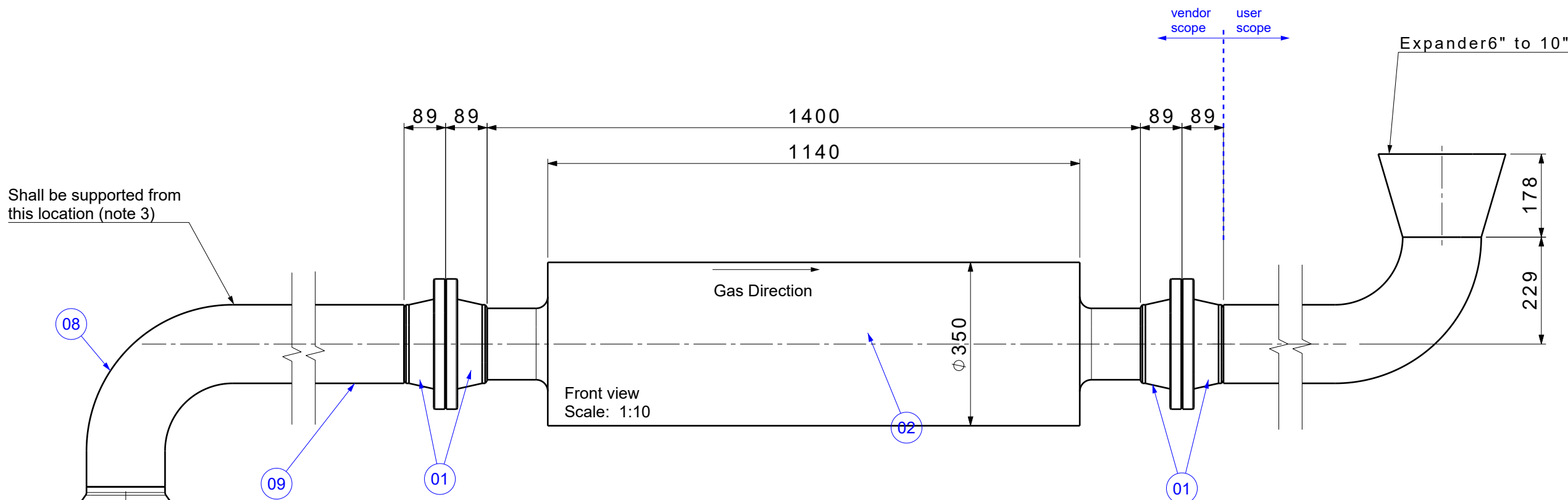
1. Current views are just a schematic and recommended arrangement, following current arrangement is not mandatory. End-User might change this arrangement based on space limitation at site.
2. Exhaust muffler location shall be as close as possible to diesel engine and preferably not more than 2 m.
3. All Piping and wiring between vendor skids and local control panels are in the vendor scope of supply as loose parts.
4. The exhaust pipe and muffler shall be supported independently of the engine's flexible exhaust connection
5. Type of routes for related instrument cables are tray.
6. All equipment outside the pump skid such as PSL, PRV, CRV, Waste cone and etc. will be supplied by KPC (acc. to contract) as loose parts. These items will be shown as a schematic in documents BK-GCS-KP-120-IN-DW-0004.
7. Minimum distance between controller/battery rack and pump skid is 1 m.
8. Detailed drawing and specification of diesel control panel is submitted in document no. BK-GCS-KP-120-IN-DW-0001.
9. Detailed drawing and specification of diesel fuel daily tank is submitted in document no. BK-GCS-KP-120-ME-DW-0004.
10. Piping components between diesel exhaust (N4) and muffler including flanges and pipes will be supplied by KPC as loose part. Boundary limit is submitted in page 5.
11. Piping between diesel engine and fuel daily tank will be supplied by KPC as loose part.

LEGEND

REFERENCE DRAWING	DRG. No.
DATA SHEETS (WIPEPERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP P-2301 B	BK-GCS-KP-120-ME-DS-0001
SPECIFICATION FOR DIESEL ENGINE PUMP P-2301 B	BK-GCS-KP-120-ME-DS-0004
CROSS SECTIONAL DWG FOR FIRE WATER MAIN DIESEL PUMP P-2301 B	BK-GCS-KP-120-ME-DW-0005
COUPLING ASSEMBLY DWG FOR FIRE WATER MAIN DIESEL PUMP P-2301 B	BK-GCS-KP-120-ME-DW-0008
HOOK-UP DIAGRAM FOR FIRE WATER PUMPS	BK-GCS-KP-120-IN-DW-0004

KEY PLANS

[illegible]



PART LIST				
Item No.	Description	Material	Weight (kg)	Qty.
01	Flange 6"	A105	13.5	4
02	Muffler 6" (Spark Arrestor)	A106	37	1
03	Flange DN 105	A105	11	2
04	Expansion Joint 6"	A240 Gr 304L	2	1
05	Reducer 6" to 3" (Sch. 40)	A234	6.5	1
06	Long Radius Elbow 3" (Sch. 40)	A234	3.9	1
07	Fastener on diesel	A240 Gr 304L	-	1
08	Long Radius Elbow 6" (Sch. 40)	A234	20.3	1
09	Pipe 6", (Sch 40)	A106	42.5/m	-
Total weight without pipes (Approx.)			146	

NOZZLE TABLE							
Item No.	Type	Standard	Size	Qty.	Facing	Rating	Material
01	Flange	ASME B16.5	6"	4	RF	#150	A105
03	Flange	DIN 2633	DN 105	2	RF	PN 16	A105

Part	Weight	Operating Temperature	Operating Pressure
Muffler (Spark Arrestor)	37 kg	Up to 500 ° C	Atmospheric
Expansion Joint	2 kg	Up to 500 ° C	Atmospheric

Left view
Scale: 1:30

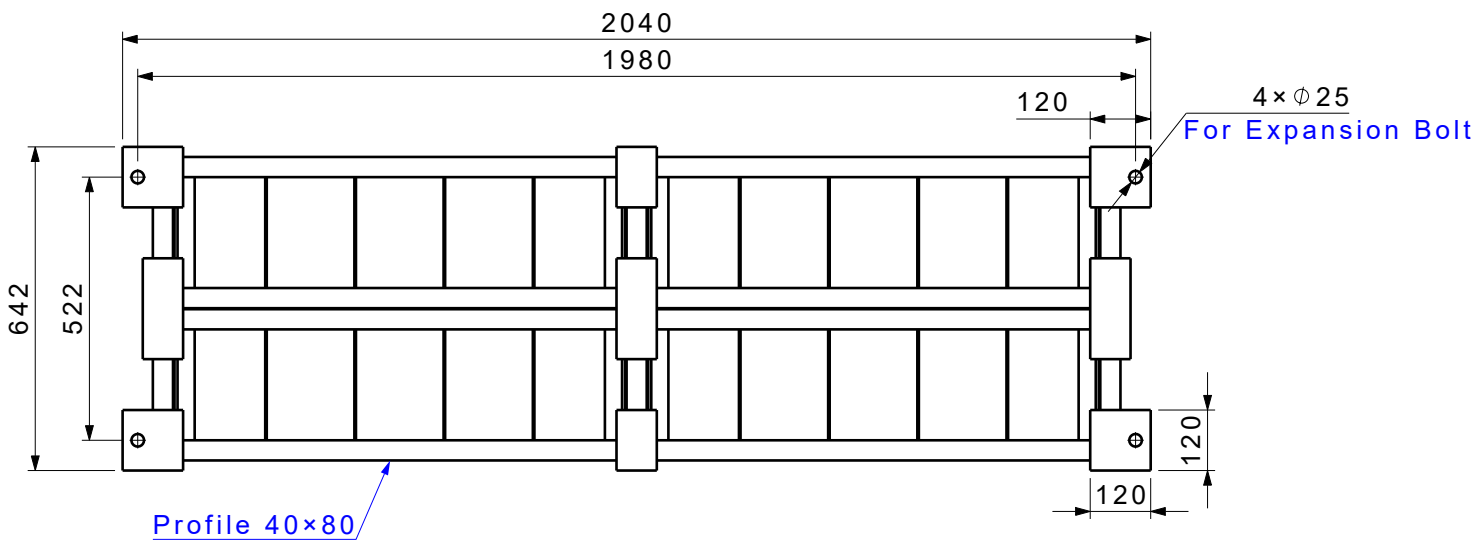
- NOTES
1. All dimension are in millimeter.
 2. Exhaust chamber location shall be as close as possible to diesel engine and preferably not more than 2 m (horizontally).
 3. The exhaust pipe and muffler shall be supported independently of the engine's expansion Joint.
 4. Exhaust piping length and height should be designed with respect to maximum allowable back pressure mentioned in diesel engine datasheet. It shall be guided to open air.
 5. Design and supplying the muffler stand structure is not in KPC scope of work. Recommended structure is shown.
 6. Items 3, 4, 5 and 6 will be welded together by KPC and will be delivererd with pump package.
 7. Piping components between diesel exhaust (N4) and muffler outlet including flanges and pipes will be supplied by KPC as loose part. Boundary limit is submitted in shown.

LEGEND

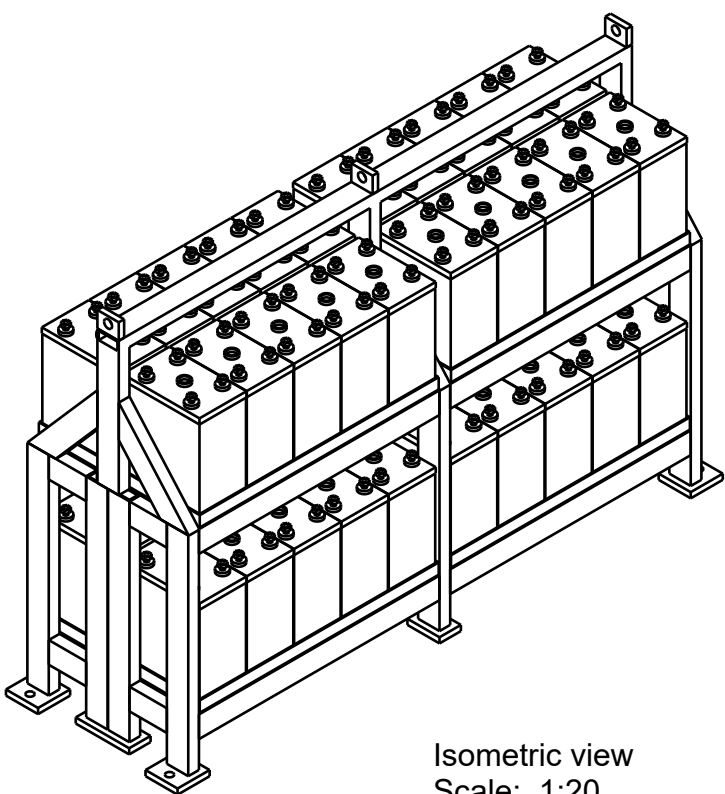
REFERENCE DRAWING	DRG. No.
DATA SHEETS (WIPERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP P-2301 B	BK-GCS-KP-120-ME-DS-0001
SPECIFICATION FOR DIESEL ENGINE PUMP P-2301 B	BK-GCS-KP-120-ME-DS-0004
CROSS SECTIONAL DWG FOR FIRE WATER MAIN DIESEL PUMP P-2301 B	BK-GCS-KP-120-ME-DW-0005
COUPLING ASSEMBLY DWG FOR FIRE WATER MAIN DIESEL PUMP P-2301 B	BK-GCS-KP-120-ME-DW-0008
HOOK-UP DIAGRAM FOR FIRE WATER PUMPS	BK-GCS-KP-120-IN-DW-0004

KEY PLAN

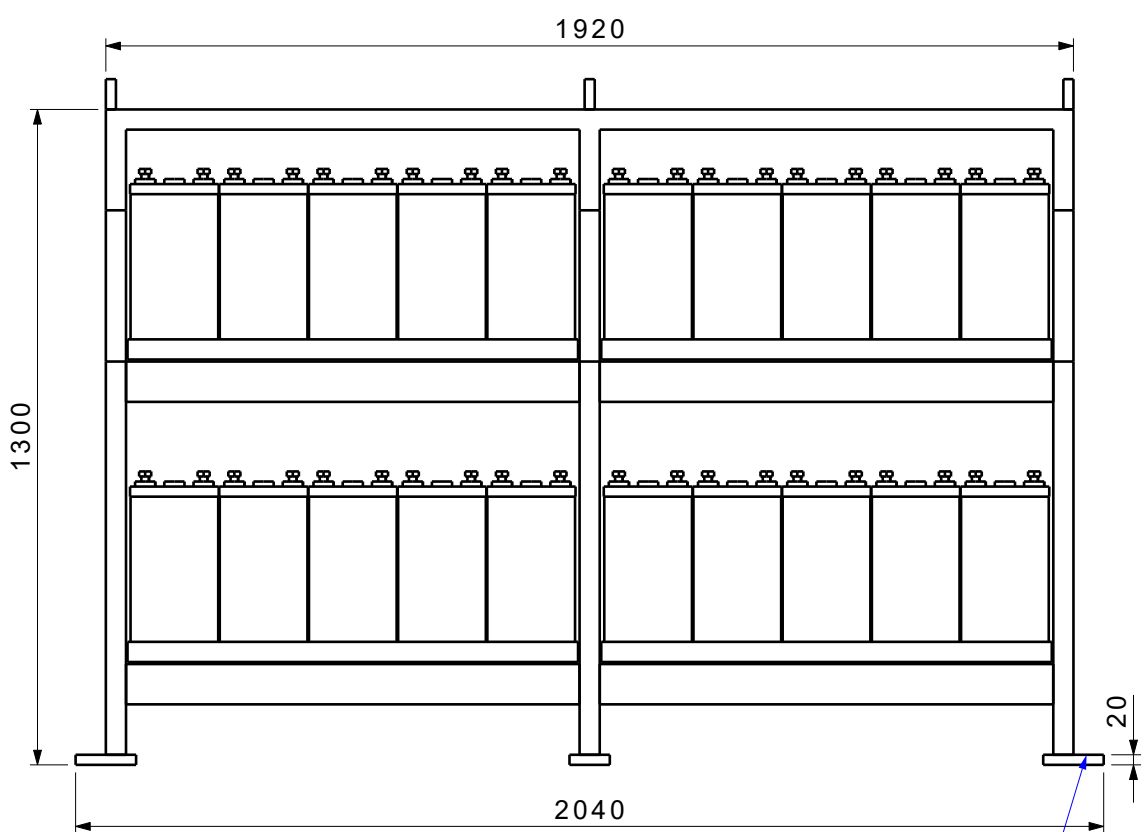
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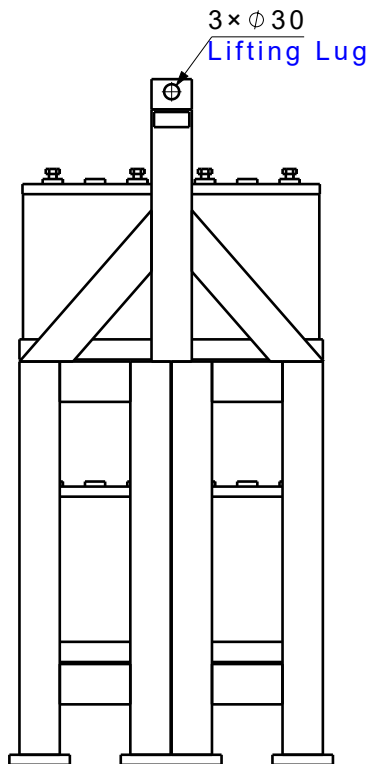
Bottom view
Scale: 1:15



Isometric view
Scale: 1:20

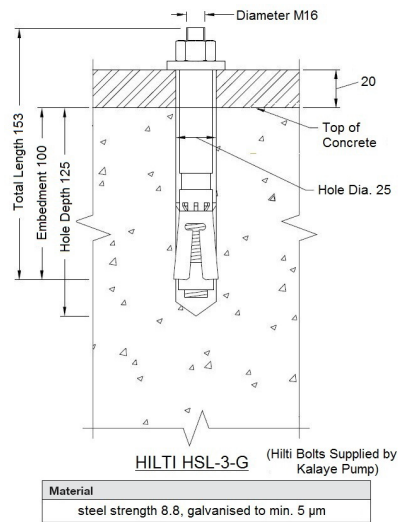


Front view
Scale: 1:15



Left view
Scale: 1:15

Description	Qty.	Weight (kg)
Structure	1	425
Battery	40	880
Total Weight		1305 (kg)



REFERENCE DRAWING										DRG. No.									
DATA SHEETS (W/PERFORMANCE CURVE) FOR FIRE WATER MAIN DIESEL PUMP P-2301 B										BK-GCS-KP-120-ME-DS-0001									
SPECIFICATION FOR DIESEL ENGINE PUMP P-2301 B										BK-GCS-KP-120-ME-DS-0004									
CROSS SECTIONAL DWG FOR FIRE WATER MAIN DIESEL PUMP P-2301 B										BK-GCS-KP-120-ME-DW-0005									
COUPLING ASSEMBLY DWG FOR FIRE WATER MAIN DIESEL PUMP P-2301 B										BK-GCS-KP-120-ME-DW-0008									
HOOK-UP DIAGRAM FOR FIRE WATER PUMPS										BK-GCS-KP-120-IN-DW-0004									
REV.										DESCRIPTION									
V00										30 Dec 2024									
IFA										Kalaye Pump									
M.Fakharan										S.Faramarzpour									
PREP.										CHK.									
APP.										AUT.									
PROJECT NAME:										BINAK OILFIELD DEVELOPMENT/SURFACE FACILITIES									
PROJECT NO.:										971020									
EPC CONTRACTOR:										EPD/EPC CONTRACTOR (GC):									
HIRGAN ENERGY										PETROIRAN DEVELOPMENT COMPANY									
HIRGAN ENERGY - DESIGN & INSPECTION COMPANIES										PEDCO									
DRAWING TITLE:										GAD FOR FIRE WATER MAIN DIESEL PUMPS									
SCALE										SHEET NO.									
As Shown										6/6									
BUDGET REF.										V00									
NO CONSTRUCTION PERMITTED UNLESS DRAWING APPROVED										APPROVED FOR CONSTRUCTION									
DATE										BY:									
SCALE										SERIAL NO.									
DRAWING NO.										SHEET									
BK-GCS-KP-120-ME-DW-0001										REVISION									

- NOTES
1. All dimension are in millimeter.
 2. Battery type is nickel cadmium.
 3. There are 40 batteries in battery rack. 20 batteries are main and 20 batteries are standby.
 4. Batteries structure will be supplied by KPC.

LEGEND

KEY PLAN

THE ORIGINAL AND ALL COPIES OF THIS DRAWING TOGETHER WITH THE COPYRIGHT THEREIN ARE THE SOLE PROPERTY OF N.I.S.O.C./ FIELDS

BINAK OILFIELD DEVELOPMENT SURFACE FACILITIES			
GAS CPMRESSOR STATION			
DATE	SCALE	DRAWING BY	CHECKED BY
PROJECT ENG.			

