









Vendor:  Job No. 1308-2285	EPC Contractor :  Project No. : 1208	HENGAM FERTILIZER PROJECT Instrument List for 11-P-101 A/B Doc. No.: VD-1208-307A-LST-124 Rev. : 01	Owner:  شکرت صنعت پتروشیمی گلستان Hengam Gulf Petrochemical Industries Co. H.G.P.I.C.	MC:  شکرت مدیریت توسعه منابع انرژی گلستان Hengam Gulf Petrochemical Industries Co. H.G.P.I.C.
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VENDOR : Roodhart Pump Group
REQ. NO. : 1208-00-REQ-RE-307A
ITEM NO. : 11-P-101 A/B
ITEM DESCRIPTION : HP AMMONIA PUMP
PURCHASER DOC. NO.: VD-1208-307A-LST-124
VENDOR DOC. NO. : 2285-101AB-2002
TOTAL PAGES : 8

<input type="checkbox"/> No Comment To Vendor <input type="checkbox"/> Comment as marked manufacturing may proceed To Vendor <input type="checkbox"/> Major Comment as marked manufacturing is on hold for the next rev To Vendor <input type="checkbox"/> Rejected , new document with the same rev. no. To Vendor <input type="checkbox"/> Used as for information To Vendor		
Name :	Req. No.:	Seq. No.:
Signature :		
Date:		
PIDEC review & comments does not absolve the vendor of the responsibility for the correct design, manufacturing and operation of the equipment		

DE		EXT	APPROVAL			
Eng. Phase		Purpose of Distribution (POD)	Purpose of Issue (POI)		Purchaser's Action	
01	29.09.24	Issued For Approval	H.H	A.B	A.S.	J.VV
00	11.03.23	Issued For Approval	A.B.	G.C.	A.S.	J.VV
Rev.	Date	Description	Prepared by	Checked by	Approved by	Authorized by

Vendor:  Job No. 1308-2285	EPC Contractor :  Project No. : 1208	HENGAM FERTILIZER PROJECT Instrument List for 11-P-101 A/B Doc. No.: VD-1208-307A-LST-124 Rev. : 01	Owner:  شکرت صنایع پتروشیمی هنگام Hengam Fertilizer Project H.F.P.C	MC:  شکرت مدیریت توسعه صنایع پتروشیمی هنگام Hengam Fertilizer Project H.F.P.C
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Instrument List for 11-P-101A/B
Gearbox 101A/B



No.	Tag No.	P&ID	Area	Service	Sensor type	Vendor	Model	Range	Unit	ATEX class	Ingress Protection	Output	Alarm point value	unit	Trip point value	unit	Source	Remark
1	11-FO-10179A/B	VD-1208-307A-PID-111-Sht4,5,8	Gear Box	lube oil inlet	Restriction Orifice	RPG	RO-3mm THK- 11mm Bore	-	-	-	-	-	-	-	-	-	-	-
2	11-PG-10177A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	lube oil inlet	Bourdon tube pressure gauge	WIKA	232.50-100 SS316 1/2NPTM 0-16BAR/LM	0-16	barg	-	IP 65	-	-	-	-	-	-	-
3	11-SG-10178A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	lube oil outlet	Flow Indicator	Flowpoint Type P	SP-080-A	-	-	-	-	-	-	-	-	-	-	-
4	11-TG-10178A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	lube oil outlet	Gas actuated thermometer with contact bulb	WIKA	R73.160	0-120	°C	-	IP 65	-	-	-	-	-	-	-
5	11-TE-10183A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	DE HS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
6	11-TE-10184A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	DE HS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
7	11-VXE-10177A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	DE HS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	90	µm	115	µm	JBIZ-10108A/B-P	
8	11-VYE-10177A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	DE HS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	90	µm	115	µm	JBIZ-10108A/B-P	
9	11-TE-10185A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	NDE HS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
10	11-TE-10186A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	NDE HS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
11	11-VXE-10178A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	NDE HS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	100	µm	125	µm	JBIZ-10108A/B-P	
12	11-VYE-10178A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	NDE HS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	100	µm	125	µm	JBIZ-10108A/B-P	
13	11-TE-10191A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	driver side LS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
14	11-TE-10192A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	driver side LS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
15	11-VXE-10180A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	driver side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	90	µm	115	µm	JBIZ-10108A/B-P	
16	11-VYE-10180A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	driver side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	90	µm	115	µm	JBIZ-10108A/B-P	
17	11-TE-10189A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
18	11-TE-10190A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft radial bearing	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
19	11-TE-10173A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft tilting pad bearing active side	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
20	11-TE-10174A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft tilting pad bearing active side	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
21	11-TE-10187A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft tilting pad bearing non-active side	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
22	11-TE-10188A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft tilting pad bearing non-active side	PT100	Dittmer	Bearing Sensor with Flexible Top	-40-250	°C	-	-	-	100	°C	110	°C	JBIR-10102A/B-P	
23	11-VXE-10179A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	90	µm	115	µm	JBIZ-10108A/B-P	
24	11-VYE-10179A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	90	µm	115	µm	JBIZ-10108A/B-P	
25	11-ZE-10177A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	±0.39	mm	±0.52	mm	JBIZ-10108A/B-P	
26	11-ZE-10178A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	±0.39	mm	±0.52	mm	JBIZ-10108A/B-P	
27	11-KE-10176A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	oil pump side LS shaft	Eddy current proximity sensor	Bentley nevada	3300 XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	-	-	-	-	JBIZ-10108A/B-P	
28	11-VE-10183A/B	VD-1208-307A-PID-111-Sht4,5	Gear Box	casing	Intrinsically Safe Accelerometer	Bentley nevada	330400	±50	g	Ex ia IIC T4	IP 68	8-12V	4.5	mm/s	7.1	mm/s	JBIZ-10108A/B-P	



**Instrument List for 11-P-101A/B
Driver 101A/B**

1



No.	Tag No.	P&ID	Area	Service	Sensor type	Vendor	Model	Range	Unit	ATEX class	Ingress Protection	Output	Alarm point value	unit	Trip point value	unit	Source	Remark
1	11-PG-10178A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE lube oil inlet	Bourdon tube pressure gauge	WIKA	232.50-100 SS316 1/2NPTM 0-16BAR/LM	0-16	barg	-	IP 65	-	-	-	-	-	-	-
2	11-FI-10178A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE lube oil outlet	PISTON TYPE Flow Indicator	HONSBURG	HD2KO-015GK005A-474124	0.4 to 6	lit/m	-	-	-	-	-	-	-	-	-
3	11-SG-10179A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE lube oil outlet	Flow Indicator	ATB Schorsh	-	-	-	-	-	-	-	-	-	-	-	-
4	11-TG-10179A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE lube oil outlet	Gas actuated thermometer with contact bulb	WIKA	R73.160	0-120	°C	-	IP 65	-	-	-	-	-	-	-
5	11-TE-10193A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE bearing	Screw in Resistance Sensor	Ephy-Mess	LT-38	-40-120	°C	Ex ia IIC T6	IP 65	-	95	°C	100	°C	JBIR-10103A/B-P	
6	11-TE-10194A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE bearing	Screw in Resistance Sensor	Ephy-Mess	LT-38	-40-120	°C	Ex ia IIC T6	IP 65	-	95	°C	100	°C	JBIR-10103A/B-P	
7	11-VXE-10181A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE shaft	Eddy current proximity sensor	Bentley nevada	3300XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	80	µm	120	µm	JBIZ-10109A/B-P	
8	11-VYE-10181A/B	VD-1208-307A-PID-111-Sht4,5	Driver	DE shaft	Eddy current proximity sensor	Bentley nevada	3300XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	80	µm	120	µm	JBIZ-10109A/B-P	
9	11-TE-10197A/B	VD-1208-307A-PID-111-Sht4,5	Driver	windings	Slot Resistance Sensor	Ephy-Mess	NWT-M-OK-AK-ESH	-50-180	°C	Ex ia IIC Gb	IP 65	-	120	°C	135	°C	JBIR-10103A/B-P	
10	11-TE-10198A/B	VD-1208-307A-PID-111-Sht4,5	Driver	windings	Slot Resistance Sensor	Ephy-Mess	NWT-M-OK-AK-ESH	-50-180	°C	Ex ia IIC Gb	IP 65	-	120	°C	135	°C	JBIR-10103A/B-P	
11	11-TE-10199A/B	VD-1208-307A-PID-111-Sht4,5	Driver	windings	Slot Resistance Sensor	Ephy-Mess	NWT-M-OK-AK-ESH	-50-180	°C	Ex ia IIC Gb	IP 65	-	120	°C	135	°C	JBIR-10103A/B-P	
12	11-TE-10200A/B	VD-1208-307A-PID-111-Sht4,5	Driver	windings	Slot Resistance Sensor	Ephy-Mess	NWT-M-OK-AK-ESH	-50-180	°C	Ex ia IIC Gb	IP 65	-	120	°C	135	°C	JBIR-10103A/B-P	
13	11-TE-10201A/B	VD-1208-307A-PID-111-Sht4,5	Driver	windings	Slot Resistance Sensor	Ephy-Mess	NWT-M-OK-AK-ESH	-50-180	°C	Ex ia IIC Gb	IP 65	-	120	°C	135	°C	JBIR-10103A/B-P	
14	11-TE-10202A/B	VD-1208-307A-PID-111-Sht4,5	Driver	windings	Slot Resistance Sensor	Ephy-Mess	NWT-M-OK-AK-ESH	-50-180	°C	Ex ia IIC Gb	IP 65	-	120	°C	135	°C	JBIR-10103A/B-P	
15	11-PG-10179A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE lube oil inlet	Bourdon tube pressure gauge	WIKA	232.50-100 SS316 1/2NPTM 0-16BAR/LM	0-16	barg	-	IP 65	-	-	-	-	-	-	-
16	11-FI-10179A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE lube oil outlet	PISTON TYPE Flow Indicator	HONSBURG	HD2KO-015GK005A-474124	0.4 to 6	lit/m	-	-	-	-	-	-	-	-	-
17	11-SG-10180A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE lube oil outlet	Flow Indicator	ATB Schorsh	-	-	-	-	-	-	-	-	-	-	-	-
18	11-TG-10180A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE lube oil outlet	Gas actuated thermometer with contact bulb	WIKA	R73.160	0-120	°C	-	IP 65	-	-	-	-	-	-	-
19	11-TE-10195A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE bearing	Screw in Resistance Sensor	Ephy-Mess	LT-38	-40-120	°C	Ex ia IIC T6	IP 65	-	95	°C	100	°C	JBIR-10103A/B-P	
20	11-TE-10196A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE bearing	Screw in Resistance Sensor	Ephy-Mess	LT-38	-40-120	°C	Ex ia IIC T6	IP 65	-	95	°C	100	°C	JBIR-10103A/B-P	
21	11-VXE-10182A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE shaft	Eddy current proximity sensor	Bentley nevada	3300XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	80	µm	120	µm	JBIZ-10109A/B-P	
22	11-VYE-10182A/B	VD-1208-307A-PID-111-Sht4,5	Driver	NDE shaft	Eddy current proximity sensor	Bentley nevada	3300XL 8mm	0.25-2.3	mm	Ex ia IIC T4/T5	IP 65	0-18V	80	µm	120	µm	JBIZ-10109A/B-P	



Roodhart Pump Group

Comment / Response Sheet No. VD-1208-307A-LST-124-00 Comments response	Reference No.: 1308-2285 P-101 A/B	Date of comments: 15-08-2023
Attached Document no.: VD-1208-307A-LST-124-01	Document title: Instrument List for 11-P-101 A/B	Date of response: 29-09-2024

Item no.	Client Comments	Vendor Clarifications	Reply
Page 1 of 8	General Comment: further to our general comments on LST-224 (INSTRUMENT LIST FOR P-102A/B), There are some difference between specified ranges in instrument list and instrumnt datasheet. in below document , Also please check and uniform instrument ranges with instrument datasheet (DSH-225) and Alarm setpoint to be compatible with P&ID	Updated	
Page 4-6 of 8	Due to lube oil OP. press. of 3.5 barg, the range is out of exact indication.	With clients approval equipment has been sent to site. The range is sufficient for the operating pressure	
Page 4 of 8	Trip/Alarm point shall be specified.	There is no alarm/trip point defined for key phasor	
Page 4 of 8	(Flow gauge)	Noted	
Page 4 of 8	0-100 barg (as per instrument datasheet)	Noted	
Page 4 of 8	operating press. is 30 barg, please check the alarm point value.	Noted	
Page 5 of 8	Check please, shall be inline with instrument datasheet.	Noted	

Item no.	Client Comments	Vendor Clarifications	Reply
Page 5 of 8	JBIR-10102A/B-P	Noted	
Page 6 of 8	JBIR-10103A/B-P	Noted	
Page 7 of 8	0-10 barg as per instrument datasheet (VD-1208-307A-DSH-125).	Noted	
Page 7 of 8	Trip/Alarm point shall be specified.	Noted	
Page 7 of 8	Operating temperature is 60 °C, alarm points shall be corrected.	Deleted. It was issued in C&E List	
Page 8 of 8	0-100 barg as per instrument datasheet (VD-1208-307A-DSH-125)	Noted	
Page 8 of 8	Trip/Alarm point shall be specified.	Noted	
Page 8 of 8	shall be deleted.	Noted	
Page 8 of 8	This tag is not found in the last rev of P&ID. Please add in next rev.	Noted	