







DEHDASHT PETROCHEMICAL INDUSTRY COMPANY
DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT



Contract No.: DPIC/98-12	DOCUMENT TITLE: Oil Pump Data Sheet	POI: IFA	Rev.: D1
	DOCUMENT No: DPIC9812-000-VD-1002-ME-DS-0079	Sheet 1 of 7	

Oil Pump Data Sheet

PURCHASER'S COMMENT/APPROVAL STATUS						Purchaser: NARGAN
1	AP: Approved (Released for Manufacturing)					Requisition No.: DPIC98-12-001-000-ME-MR-4150-0001-D1
2	AN: Approved With Minor Comments (Fabrication may Proceed)					
3	NF: Approved With Comments (Fabrication not Proceed)					
4	RJ: Rejected					Item No. (Tag No.): PK-6101
5	NR: Not be Returned					
Date:		Signature:				Vendor Doc. No.: DPIC9812-000-VD-1002-ME-DS-0079
						
D1	17-Feb-24	IFA	M.R	M.M	A.V	
D0	02-Jan-22	IFA	M.R	M.M	A.V	
REV.	DATE ISSUE	Purpose of Issue	PREPARED	CHECKED	APPROVED	

 	DEHDASHT PETROCHEMICAL INDUSTRY COMPANY DEHDASHT HIGH DENSITY POLYETHYLENE PROJECT		
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OIL PUMP DATA SHEET

FOR	DEHDASHT PETROCHEMICAL COMPANY		MFR	KASRAVAND
PROJECT	HDPE	ITEM: P-PK6101-1A/B,2A/B	UNIT TAG No.	P-1A/2A & P-2A/2B &
P.O No.	N/A		SERIAL No.	TBA
SITE	Iran		No. REQUIRED	4
SERVICE	PROPANE REFRIGERATION PACKAGE		MODEL No.	M80P-4PM

GENERAL

1				
2	NO. MOTOR DRIVES***	2	OTHER DRIVE TYPE***	
3	PUMP TAG NO'S***	P-1A/2A & P-2A/2B	PUMP TAG NO'S***	
4	MOTOR TAG NO'S***	PM-1A/2A & PM-2A/2B	DRIVER TAG NO'S***	GEAR ITEM NO'S***
5	MOTOR PROVIDED BY*	VENDOR	DRIVER PROVIDED BY*	GEAR PROVIDED BY*
6	MOTOR MOUNTED BY*	VENDOR	DRIVER MOUNTED BY*	GEAR MOUNTED BY*
7	MOTOR DATA SHEET *		DRIVER DATA SHEET NO.*	GEAR DATA SHEET NO.*

OPERATING CONDITIONS*

9	CAPACITY @ PT	63.4 (GPM):	240.0 lpm
10	@ MAXIMUM VISCOSITY	190 cp	@ MIN. VISCOSITY 9.5 cp
11	DISCHARGE PRESSURE	PSIG: BarG	
12	MAXIMUM	392 27.0	NORMAL 336 23.1
13	SUCTION PRESSURE	PSIG: BarG	
14	MAXIMUM	316.8 21.9	NORMAL 275.5 19
15	DIFFERENTIAL PRESSURE	PSIG: BarG	
16	MAXIMUM	75.0 5.2	NORMAL; 55.0 3.8
17	NPSH AVAILABLE (FT.):	674	51 m
18	HYDRAULIC HP		

LIQUID*

9	TYPE OR NAME OF LIQUID	LUBE OIL WITH PROPELYNE Refrigerant			
10	PUMPING TEMPERATURE	°F:	°C		
11	NORMAL	176.0 80.0	MAX 190 88	MIN 70	21.111 **
12	SPECIFIC GRAVITY	0.95	MAXIMUM	MINIMUM	
13	SPECIFIC HEAT	0.52 (Btu/lb-ft)	2.1771 (kJ/kg °C)		
14	VISCOSITY (Cp)	14.25	NORMAL 190	MAX. 9.5	MIN. **
15	CORROSIVE/EROSIVE AGENTS***				
16	CHLORIDE CONCENTRATION (PPM)***				
17	H ₂ S CONCENTRATION (PPM)***				
18	LIQUID --- TOXIC --- FLAMMABLE		OTHER		

** Per pages for viscosity where 20C is the lowest operating start temperature

PERFORMANCE**

21	RATED CAPACITY (GPM):	89.8 340.0 lpm
22	NPSH REQUIRED (FT.):	10 3.0 m
23	RATED SPEED (RPM):	1,450
24	DISPLACEMENT (GPM):	89.8 340.0 lpm
25	VOLUMETRIC EFFICIENCY (%)	
26	MECHANICAL EFFICIENCY (%)	---
27	BPower @ MAXIMUM VISCOSITY	6.66 hp 5.0 kw
28	BPower @ RELIEF VALVE SETTING	9.92 hp 7.4 kw
29	MAXIMUM ALLOWABLE SPEED (RPM)	
30	MINIMUM ALLOWABLE SPEED (RPM)	

SITE AND UTILITY DATA***

LOCATION:	INDOOR	X	OUTDOOR
HEATED	X	UNHEATED	UNDER ROOF
ELECTRICAL AREA CLASS	1	GROUP	C & D DIV DIV 2
WINTERIZATION REQD		X	TROPICALIZATION REQD
SITE DATA			
AMBIENT TEMPS: MIN / MAX	** 113 45 / 23 -5.0	°F	°C
UNUSUAL CONDITIONS			
X DUST	FUMES	SALT ATMOSPHERE	
X OTHER	TROPICAL, SALINE MARINE, HIGH HUMIDITY		
UTILITY CONDITIONS			

CONSTRUCTION**

	SIZE	ANSI RATING	FACING	POSITION
CONNECTIONS				
SUCTION	100A	-	JIS STD	SIDE STD Casing***
DISCHARGE	100A	-	JIS STD	SIDE STD Casing***
GLAND FLUSH				
DRAINS				
VENTS				
JACKET				
PUMP TYPE:	*** Reduced mating flanged shall be used			
INTRN'L GEAR	X	TWIN-SCREW	VANE	
EXTRN'L GEAR		3-SCREW	PROGRESSING CAVITY	
GEAR TYPE	N/A			
SPUR		HELICAL		
OTHER				

ELECTRICITY	DRIVERS	HEATING	CONTROL	SHUTDOWN
VOLTAGE	400			
HERTZ	50			
PHASE	3			
COOLING WATER	N/A	INLET	RETURN	DESIGN MAX Δ
TEMP °F			MAX	
PRESS. (PSIG):			MIN	
SOURCE				
INSTRUMENT AIR	N/A		MAX	MIN
PRESSURE (PSIG)				
APPLICABLE SPECIFICATIONS***:				
API 676 POSITIVE DISPLACEMENT PUMPS - ROTARY			YES	
GOVERNING SPECIFICATION (IF DIFFERENT)				
REMARKS:				



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P.O No.	HDPE ITEM: P-PK6101-1A/B,2A/B	UNIT TAG No.	P-1A/2A & P-2A/2B &
SITE	N/A	SERIAL No.	TBA
SERVICE	Iran	No. REQUIRED	4
	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

CONSTRUCTION (CONTINUED)**			
CASING			
MAX. ALLOWABLE PRESSURE:	400	PSIG	27.6 barG
HYDROSTATIC TEST PRESSURE:	520	PSIG	35.9 barG
STEAM JACKET PRESSURE:		PSIG	barG
ROTOR MOUNT	BTWN. BEARINGS	OVERHUNG	
TIMING GEARS	YES	NO	X
BEARING TYPE:	RADIAL	SLEEVE	THRUST SLEEVE
LUBRICATION TYPE:	CONSTANT LEVEL OILERS		
X PUMPED FLUID	RING OIL	OIL MIST	
EXTERNAL	OIL FLOOD	GREASE	
LUBRICANT TYPE	SELF LUBRICATED		
MECHANICAL SEALS			
MANUFACTURER AND MODEL	MAYEKAWA STD		
MANUFACTURER CODE	Part	DM01400-080T	
API 610 SEAL FLUSH PLAN	N/A		
API 610 SEAL CODE			
PACKING: N/A	LANTERN RING		
MFR. AND TYPE	NO. OF RINGS		
DRIVE MECHANISM			
X DIRECT-COUPLED	V-BELT	GEAR	
COUPLING MANUFACTURER			
DRIVERS			
MOTOR:			
MANUFACTURER	TO BE DETERMINED		
TYPE	TEFC		
FRAME NO.	215T		
CONSTANT SPEED	1,450		
VARIABLE SPEED	N/A		
HP kW	7.5 Kw	22.4	RPM 1,450
VOLTS	400	PHASE	3
HERTZ	50	SERVICE FACTOR	1.15
ENCLOSURE	TEFC	/	TEFC
STEAM TURBINE			
OTHER (SEE SEPARATE DATA SHEETS)			
OTHER PURCHASER REQUIREMENTS*			
NAMEPLATE UNITS	U.S. CUSTOMARY	SI	X
RELIEF VALVES BY PUMP MFRG	INTERNAL	X	EXTRNL.
PIPING FOR SEAL FLUSH FURNISHED BY:	OTHERS PER BUYER P&ID		
PIPING FOR COOLING/HEATING FURNISHED BY:	N/A		
PROVIDE TECHNICAL DATA MANUAL			

MATERIALS**			
CASING	CAST IRON	JIS G 5501 FC300	(ASTM A48)
STATOR	N/A		
END PLATES	CAST IRON	JIS G 5501 FC300	(ASTM A48)
ROTOR (S)	DUCTILE IRON	JIS G 5502 FCD600	(ASTM A536)
VANES	N/A		
SHAFT	PART OF ROTOR		
SLEEVE (S)			
GLAND (S)			
BEARING HOUSING	CAST IRON	JIS G 5501 FC300	(ASTM A48)
TIMING GEARS	N/A		
SPECIAL MATERIAL TESTS (2.9.1.3)			
LOW AMBIENT TEMP. MATERIALS TESTS (2.9.5)			
QA INSPECTION AND TEST * & ***			
X COMPLIANCE WITH INSPECTORS CHECK LIST			
CERTIFICATION OF MATERIALS	Required per MFR.'s StD		
FINAL ASSEMBLY CLEARANCES			
SURFACE AND SUBSURFACE EXAMINATIONS			
RADIOGRAPHY			
ULTRASONIC			
MAGNETIC PARTICLE			
LIQUID PENETRANT			
X CLEANLINESS PRIOR TO FINAL ASSEMBLY			
HARDNESS OF PARTS, WELDS & HEAT AFFECTED ZONES			
FURNISH PROCEDURES FOR OPTIONAL TESTS			
TESTS	REQ'D	WIT	OBS
HYDROSTATIC	MFR STD		
MECHANICAL RUN	MFR STD		
PERFORMANCE	MFR STD		
NPSH	---		
PREPARATION FOR SHIPMENT*			
DOMESTIC	EXPORT	X	EXPORT BOXING REQ'D
OUTDOOR STORAGE MORE THAN 6 MONTHS	X		
WEIGHTS (LBS)**			
PUMP	594	BASE	N/A GEAR N/A DRIVER 260
BASEPLATE*			
BY PUMP MANUFACTURER	BY BUYER		
EXTENDED FOR			
SUBSOLE PLATES BY PUMP MANUFACTURER			
DRAIN-RIM	DRAIN-PAN		

REMARKS

VENDOR

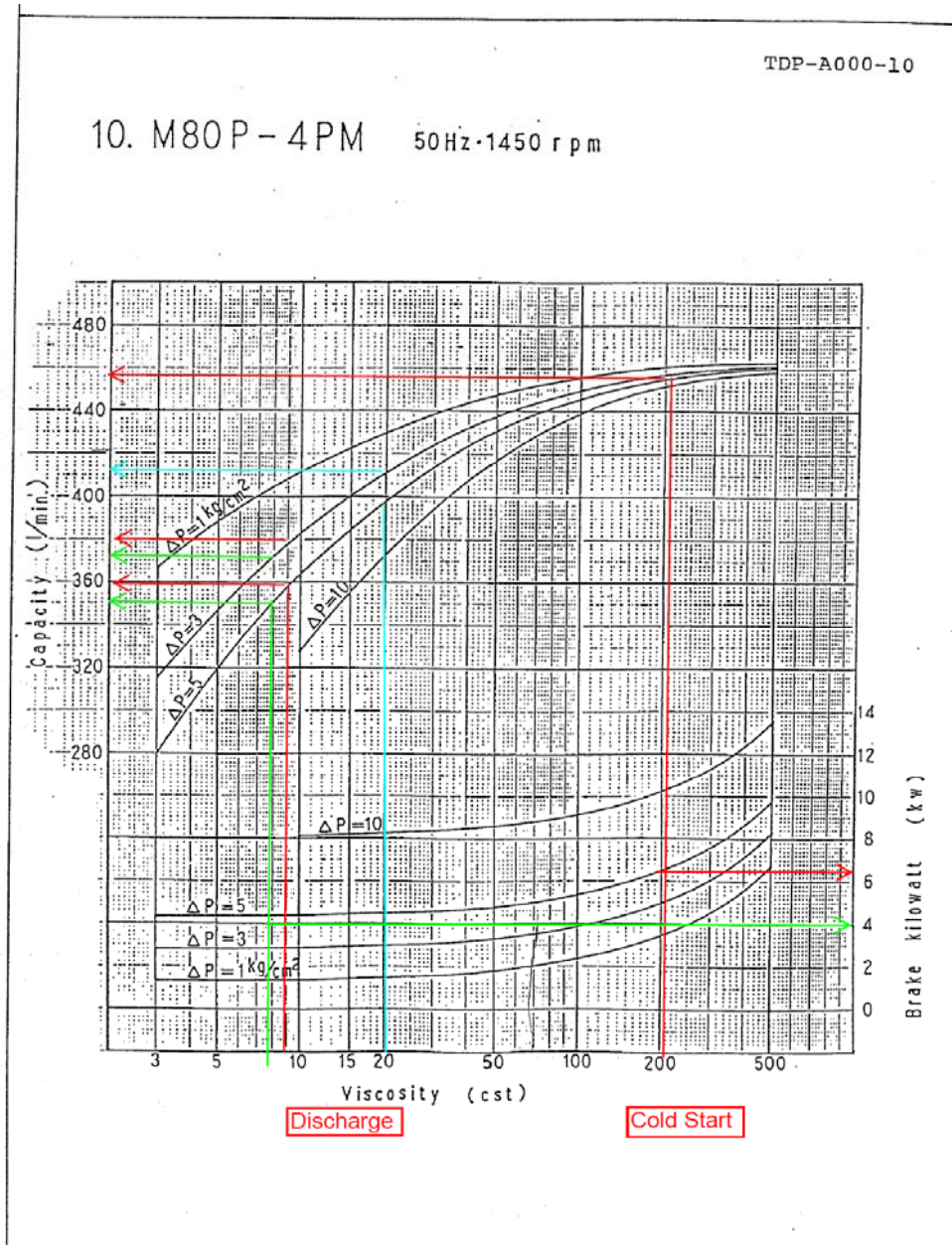
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SITE	N/A	SERIAL No.	TBA
SERVICE	Iran	No. REQUIRED	4
	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

PUMP PERFORMACE CURVE



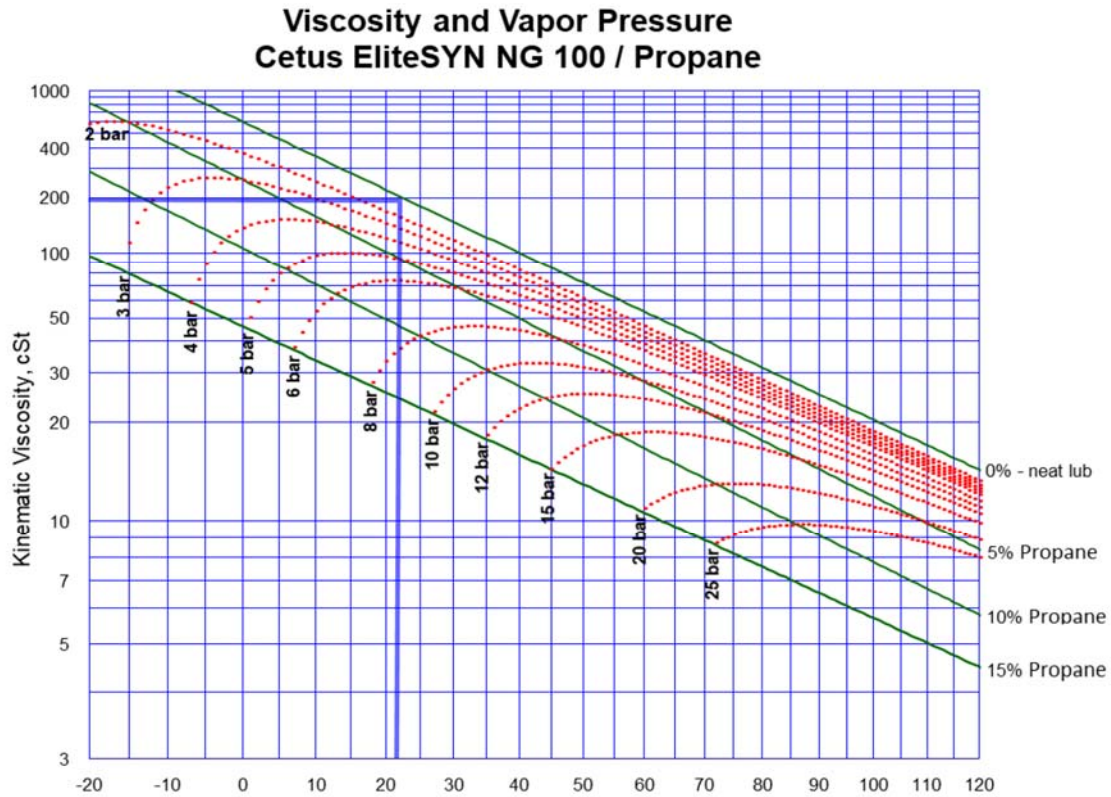
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P.O No.	N/A	SERIAL No.	TBA
SITE	Iran	No. REQUIRED	4
SERVICE	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

Oil Viscosity Chart



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SITE	N/A	SERIAL No.	TBA
SERVICE	Iran	No. REQUIRED	4
	PROPANE REFRIGERATION PACKAGE	MODEL No.	M80P-4PM

Oil Viscosity Chart

6.2.3 M80P

Table 6-3 Parts list for M80P

No.	Part Name	Part No.	Q'ty	Remarks
3	Drive rotor	-	1	
4	Idle rotor	-	1	
-	Gear assembly	DM00300-MM080	1 set	CW
5	Gear casing	DM00500-080	1	
6	Seal cover	DM00600-080	1	
7	Bearing cover	DM00700-080	1	
8	Seal holder	DM00800-080	1	
9-1	Drive shaft bearing	DM0099-A08	1 set	AJ1, 2 pcs.
9-2	Idle shaft bearing	DM0099-A08	1 set	AJ1, 2 pcs.
14	Mechanical seal assembly	DM01400-080T	1 set	
16	O-ring	PA12-155	2	JISB2401 G155
21	Key	DM02100-5	1	8 × 7 × 50, Rounded at one end
22	Hexagon socket head cap screw	NB35412-050	16	M12 × 50
23	Hexagon socket head cap screw	NB35406-020	6	M6 × 20
24	Relief valve unit	DM02400-080	1	
25	Relief valve unit flange	DM02500-080	1	
26	Piston	DM02600-080	1	
27	Adjusting bolt	DM02700-080	1	
28	Spring guide	DM02800-080	1	
29	Spring	DM02900-080	1	
30	Thrust needle bearing assembly	DM03009-080	1 set	
31	Hexagon nut	NC320-16	1	M16, 3 types
32	Domed cap nut	NC921-16	1	M16, 3 shapes
33	Locking pin	NE3204-010	1	φ 4 × 10
34	Relief valve unit gasket	DM03410-080	1	
35	O-ring	PA12-070	1	JISB2401 G70
36	O-ring	PA11-014	1	JISB2401 P14
37	Hexagon socket head cap screw	NB35412-040	8	M12 × 40
37	Hexagon socket head cap screw	NB35410-035	6	M10 × 35
38	Flange	DM03800-100B	2	JIS20K 100A BL
39	Hexagon head bolt	-	16	M20 × 60
41	Flange gasket	PL021-100	2	JIS20K 100A RF
49	Spring pin	NE3206-030	1	φ 6 × 30, For drain

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