



Exploration & Production

GENERAL SPECIFICATION

ROTATING MACHINERY

DS MEC 282

Oil system data sheet

01	08/03	Change of Group name and logo
00	11/01	First issue
Rev.	Date	Notes

Data sheet

CUSTOMER :				ITEM :				SPECIF.													
LOCATION :				Nbr. of units :																	
JOB N° :				UNIT :				Page : /													
1		APPLICABLE TO		PROPOSAL		PURCHASE		AS-BUILT													
2		APPLICABLE DOCUMENTS				INSTALLATION DATA															
3		☐ Lube oil system 1		☐ API 614		General site data															
4		☐ Lube oil system 2		☐ API 614		Location : Main equipment ☐ Inside compression skid ☐															
5		☐ Centrifugal pumps		☐ API 610		Oil supply system ☐ Grade ☐															
6		☐ Volumetric pumps		☐ API 676		Seal drain traps ☐															
7		☐ Induction motors		☐		Degassing drum ☐															
8		☐ Sound levels		☐		☐ Winterise ☐ Tropicalise ☐ Other :															
9		☐ Other codes				Area classification ☐ Safe ☐ Hazardous															
10		☐				Group of explosion : ☐ II A ☐ Other :															
11		☐				Auto ignition temperature: ☐ T3 ☐ Other : °C															
12		OVERALL SYSTEM SCHEMATICS (§ 1.6.1; §1.6.2; §2.1.13 & Appendix"A")																			
13						Figure N° & Option N°		Comments													
14						System 1		System 2													
15		☐ Combined Lube, Seal & Control System (A1)																			
16		☐ Separate Seal Oil System (A2 - A6)																			
17		☐ Seal Module at Equipment (A7)																			
18		☐ Lube/Control Systems (A8 - A9)																			
19		☐ Basic Oil Supply Module (A10)																			
20		☐ Lube oil module at equipment (A11)																			
21		☐ Relief valves to protect low pressure systems (§ 3.1.8; A8; A9)				☐ YES ☐ NO		FOR:													
22																					
23		EQUIPMENT OIL REQUIREMENT (§ 2.1.5)				BASIC SYSTEM DETAILS															
24				Normal		After trip		☐ Compressor Block-in Time : Minutes													
25				m3/h Barg		m3/h Barg		☐ Equipment Coast-down Time : Minutes													
26		☐ Lube oil: Driven Equip.						☐ Equipment Cool-off Time Driver : Minutes													
27		☐ Prime Mover						☐ Other : Minutes													
28		☐ Gear						☐ Minimum Start-up oil temperature : °C													
29		☐ Coupling						☐ Settling Out Pressure : Barg													
30		☐						☐ Process Relief Valve Setting : Barg													
31		☐ TOTAL						☐ Shop test conditions :													
32		☐ Lube oil: Gas generator						☐ Field start-up / Run-in conditions :													
33		☐						☐ Other special conditions :													
34		☐ Hydraulic oil Normal																			
35		☐ Transient																			
36		☐ Control oil: Normal																			
37		☐ Transient																			
38		☐ Seal oil At																			
39		☐ At																			
40		☐ At																			
41		☐ At																			
42		☐ TOTAL																			
43		☐ Oil type & Viscosity:																			
44																					
45		☐ Comments																			
46																					
47		OIL CONDITIONERS : (§ 2.10)				BASEPLATES (§ 2.2)															
48		☐ Purchaser's item N°.				☐ Point support (§ 2.2.6)															
49		☐ Type				☐ Grout hole / Vent hole (§ 2.2.5)															
50		☐ Portable, or mounted on				☐ Epoxy grout / Precoat (§ 2.2.8)															
51		☐ Rated m3/h of oil (§ 2.10.2)																			
52		☐ Manufacturer																			
53		☐ Model																			
54		☐ Driver : for				PAINTING (§ 4.4.2)															
55		☐ kW & Enclosure				☐ Component supplier standard															
56		☐ Water removal rate				☐ Unified, system supplier standard															
57		☐ Materials of construction				☐ Special:															
58																					
59		Notes :																			
60																					
61																					
62																					
63																					
64																					
65										4		5									
66												2		3							
67												0		1							
68		DESIGNATION		Date		By		Appr		Rev		DESIGNATION		Date		By		Appr		Rev	



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DS MEC 282

Rev: 01

CUSTOMER :		ITEM :		SPECIF.	
LOCATION :		Nbr. of units :			
JOB N° :		UNIT :		Page : /	
1 PIPING AND TUBING : (§ 2.13)					
☐ Material (§ 2.13.8 + § 2.13.10) :		☐ Welding NDE (§2.1.23)			
☐ Double blocks & bleeds (§ 2.1.17) for :		☐ 100% Radiography			
☐ Tight shutoff (§ 2.7.4) for :		☐ Magnetic particle			
☐ Fittings for Tubing (§ 2.13.9.3)		☐ Liquid penetrant			
Mfr : Model :		☐ Utilities manifold to common connections (§ 2.13.2)			
☐ CS slip-on flanges (§ 2.13.10.3) Yes ☐ No ☐		☐ Air			
☐ Through stud required (§ 2.13.9.12)		☐ Cooling water			
☐ Heat tracing required :		☐ Other			
☐ Furnished by purchaser		☐ Instrument test valves required (§ 2.13.9.10)			
☐		☐ Valve heads vented to reservoir (§ 2.13.14)			
☐ Special requirements (§ 2.13.7)					
☐					
☐					
15 RESERVOIR : (§ 2.3)					
☐ Service application		☐ Lube oil system 1	☐ Lube oil system 2	☐	
☐ Purchaser's Item N°.					
☐ Figure Nos (§ 1, A22) and Option Nos.					
☐ Heater : Steam/Electric (§ 2.3.7.1)					
☐ Heater in sealed tube (§ 2.3.7.2)					
☐ Material (§ 2.3.13)					
☐ Normal flow (§ 1.14.18) m3/h					
☐ Free surface (§ 2.3.6.2.6) m2					
☐ Working capacity (§ 2.3.6.1.10) minutes/m3					
☐ Retention capacity (§ 2.3.6.1.7 & 8) min/m3					
☐ Rundown capacity (§ 2.3.6.1.9) m3					
☐ Normal operating range (§2.3.6.1.6) m3					
☐ Charge capacity (§ 2.3.6.1.5) m3					
☐ Insulation clips (§2.3.8)		☐	☐	☐	
☐ Ladder with handrails (§ 2.3.12)		☐	☐	☐	
☐ Handrails on top (§ 2.3.12)		☐	☐	☐	
☐ Nonskid decking on top (§ 2.3.12)		☐	☐	☐	
☐ Flanged vent (§ 2.3.5.e)					
☐ Oversize flanged vent (§2.3.5.f)					
☐ Pressure relief device (§ 2.3.5.f), Type & Mat'l					
☐ Siphon breaker (§ 2.3.10 & 2.10.3)		☐	☐	☐	
☐ Top mounted components: actual					
☐ submerged components & materials (§ 2.1.15)					
☐ Approx. dimensions LxWxH (tank only): m					
☐					
☐					
42 PUMPS AND DRIVERS :					
☐ Service application		☐ Lube oil system 1	☐ Lube oil system 2	☐	
☐ Figure Nos (A19-A21) and Option Nos.					
☐ Emergency pump system (§ 2.4.2)					
☐					
Pump service		Main/Stdby	Emergency	Main/Stdby	Emergency
☐ Pump Item N°					
☐ Pump type (§ 2.4.4)					
☐ Pump data sheet					
☐ Horizontal or vertical					
☐ Driver Item N°					
☐ Turbine driver for					
☐ Turbine data sheet					
☐ Elec. motor driver for					
☐ Elec. motor data sheet					
☐ Other driver :					
☐ Other driver data sheet :					
☐ Coupling type (§ 2.4.20)					
☐ Booster pumps Req'd (§ 2.4.7.2)					
☐ Booster suction protection (§ 2.4.19)					
☐ Solenoid trip valve (§ 2.4.6)					
☐					
☐ Rotary pump relief valve (§ 2.4.10) by Purchaser ☐ Vendor ☐					
			4		5
			2		3
			0		1
DESIGNATION		Date	By	Appr	Rev

CUSTOMER :		ITEM :		SPECIF.		
LOCATION :		Nbr. of units :				
JOB N° :		UNIT :		Page : /		
1	COOLERS (§ 2.5)					
2	☐ Service application	☐ Lube oil system 1	☐ Lube oil system 2	☐		
3	☐ Purchaser's Item numbers					
4	☐ Twin units (§ 2.5.1, A17-A18) & option Nos					
5	☐ Water side for steam heating (§ 2.5.7)					
6	☐ Full details on data sheet					
7	☐ Water side corrosion allowance					
8	☐ Manufacturer / Model					
9	☐ Tema class					
10	☐ Fouling factor Water / Oil side	/	/	/		
11	☐ Duty : kjoule/hr					
12	☐ Tube : L.x OD x BWG					
13	☐ Design/Test pressure shell side : Barg	/	/	/		
14	☐ Design/Test pressure tube side : Barg	/	/	/		
15	☐ Code: Construction / Stamp (§ 2.1.18)	/ ○	/ ○	/ ○		
16	☐ Tube water velocity & capacity : m/s - m3/h	/	/	/		
17	☐ Material: Shell					
18	☐ Channel & covers					
19	☐ Tube sheet/Tubes	/	/	/		
20	☐ Removable tube bundle (§ 2.5.3)					
21	☐ U-bend tubes permitted (§ 2.5.4)					
22	☐ Oil temperature control valve (§ 2.5.6)					
23	☐					
24	☐					
25	FILTERS : (§ 2.6)					
26	☐ Service application	☐ Lube Oil 1 ☐ & Control Oil	☐ Separate Control Oil	☐ Lube Oil 2 ☐ & Hydraulic Oil	☐ Separate Hydraulic Oil	☐ Separate Coupling Oil
27	☐ Purshaser's Item Nos					
29	☐ Twin filters (§ 2.6.1, 2.6.7)					
30	☐ second for control oil (§ 2.6.8)					
31	☐ Including option Nos					
32	☐ Nominal microns					
33	☐ Manufacturer					
34	☐ Model					
35	☐ Design / test pressure Barg	/	/	/	/	/
36	☐ Code: Construction / Stamp	/ ○	/ ○	/ ○	/ ○	/ ○
37	☐ Clean / Fail delta pres. Bar	/	/	/	/	/
38	☐ Material: Case & Top					
39	☐ cartridges					
40	☐					
41	☐ Furnish sets of extra cartridges:	☐ Per Service ☐ Per Filter (extra over other Spares)				
42						
43	CONTINUOUS TRANSFER VALVES : (§ 2.5.1, 2.6.1, 2.7)					
44	☐ Service application	☐ Lube Oil 1 ☐ & Control Oil	☐ Separate Control Oil	☐ Lube Oil 2 ☐ & Hydraulic Oil	☐ Separate Hydraulic Oil	☐ Separate Coupling Oil
45	☐ Separate or Common for Coolers and Filters (§ 2.7.1)	☐ Separate ☐ Common	☐ Separate ☐ Common	☐ Separate ☐ Common	☐ Separate ☐ Common	☐ Separate ☐ Common
46	☐ Tight shutoff required (§ 2.7.4)	○	○	○	○	○
47	☐ Spectacle blinds required	○	○	○	○	○
48	☐ Type (§ 2.7.2)					
49	☐ Manufacturer					
50	☐ Model					
51	☐ With lifting jack	○	○	○	○	○
52	☐ Design / Test pressure Barg	/	/	/	/	/
53	☐ Material: Body (§ 2.7.3)					
54	☐ plug or ball (§ 2.7.3)					
55	☐ Trim					
56	☐					
57	☐					
58						
59						
60	Notes :					
61						
62						
63						
64						
65				4		
66				2		
67				0		
68	DESIGNATION	Date	Bv	Appr	Rev	DESIGNATION
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JOB N° :		UNIT :		Page : /	
1 ACCUMULATORS : (§ 2.8)					
2	☐ Service application	☐ Lube Oil 1	☐ Control Oil	☐ Lube Oil 2	☐ Hydraulic Oil
3	☐ Purchaser's Item numbers				
4	☐ Required : YES or NO & quantity				
5	☐ Service combined with				
6	☐ Direct contact (A16) Type	○	○	○	○
7	☐ Bladder (A15) Type	○	○	○	○
8	☐ Including option Nos.				
9	☐ Rundown (§ 2.1.20 & 2.8.1), minutes				
10	☐ Oil temperature control (§ 2.8.3.4)				
11					
12	☐ Constant pres. regulator (§ 2.8.3.5)				
13	☐ Manufacturer				
14	☐ Model				
15	☐ Nominal / Usable capacity : m3	/	/	/	/
16	☐ Material: Shell (§ 2.8.3)				
17	☐ bladder				
18	☐ Design / Test pressure : Barg	/	/	/	/
19	☐ Code: Construction/Stamp (§ 2.1.18)	/ ○	/ ○	/ ○	/ ○
20	☐ Include: Charge pressure gauge plus	☐	☐	☐	☐
21	Manual charge valve or	☐	☐	☐	☐
22	Gas supply regulator (§ 2.8.3)	☐	☐	☐	☐
23					
24	☐				
25	☐				
26 OVERHEAD TANKS : (§ 2.9, figures 2, A13, A14)					
27	☐ Service application	☐ Rundown lube	☐ Control Oil	☐ Hydraulic Oil	☐
28	☐ Required : YES or NO				
29	☐ Service combined with				
30	☐ Direct contact tank type (A14)	○	○	○	○
31	☐ Tank plus bladder Type (§ 2.9.1.5)	○	○	○	○
32	☐ Including option Nos.				
33	☐ Capacity (§ 2.1.20; § 2.9.1.2; fig.2) Min.				
34	☐ Blowdown connection (§ 2.9.1.4, fig.3)				
35	☐				
36	☐				
37 RUNDOWN TANKS (A13a, A13b) Item N°					
38	☐ Capacity (§ 2.9.2.1) m3/h				
39	☐				
40	☐				
41 OVERHEAD TANK (fig. A13, A14) Item N°					
42	☐ Corrosion allowance				
43	☐ Material (§ 2.9.1.1 & § 2.9.2.1)				
44	☐ Total capacity, m3				
45	☐ Design / Test pressure Barg	/	/	/	/
46	☐ Code: Construction/Stamp (§ 2.1.18)	/ ○	/ ○	/ ○	/ ○
47	☐				
48 ACCUMULATOR UNIT (fig. A14) Item N°					
49	☐ Corrosion allowance				
50	☐ Manufacturer & Quantity				
51	☐ Model				
52	☐ Material: Shell (§ 2.9.1.1 & 2.8.3)				
53	☐ bladder				
54	☐ Nominal / Usable capacity : m3	/	/	/	/
55	☐ Design / Test pressure Barg	/	/	/	/
56	☐ Code: Construction/Stamp (§ 2.1.18)	/ ○	/ ○	/ ○	/ ○
57	☐				
58	☐				
59 Notes :					
60					
61					
62					
63					
64					
65				4	5
66				2	3
67				0	1
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LOCATION :		Nbr. of units :			
JOB N° :		UNIT :		Page : /	
1 INSTRUMENT AND CONTROLS : (§ 3.1 & 3.3 to 3.5)					
2 SWITCH ACTIONS : (§ 3.3.5)					
3	☐ Contacts to	☐ Open	☐ Close	to Alarm	and be Normally ☐ Energized ☐ De-Energized
4	☐ Contacts to	☐ Open	☐ Close	to Trip	and be Normally ☐ Energized ☐ De-Energized
5	☐ Contacts to	☐ Open	☐ Close	to Permit start	and be Normally ☐ Energized ☐ De-Energized
6	☐ Contacts to	☐ Open	☐ Close	to Start Standby pump	and be Normally ☐ Energized ☐ De-Energized
7	☐ Contacts to	☐ Open	☐ Close	to Start Emergency pump	and be Normally ☐ Energized ☐ De-Energized
8	NOTE : Normal condition is with equipment operating				
9	☐ Switch enclosures :	☐ Eex"d"	☐ Eex"i"	☐ Explosion proof	☐ Weather proof ☐ Other :
10	☐ Calibrations :	☐ English (USA) system	☐ SI	☐ Metric	☐ Other :
11	☐ Air signal	☐ 0.21 to 1.04 Barg	☐		
12	☐				
13	☐ Connections	☐ Terminal at edge (§ 3.2.5)	of	☐ Base ☐ Panel ☐ By purchaser direct to instrument	
14	☐ Substitute pneumatic-operated (for direct-acting) control valves				☐ All valves ☐
15	☐ Positioners required on pneumatic-operated valves				☐ All valves ☐
16	☐ Valve failure position : ☐ Fail open for				
17	☐ Fail closed for				
18	☐ Fail locked for				
19	☐ Include thermal relief valves on (§ 3.4.8.4 & A.1.4)				
20	☐ Additional oil system instruments (not included in figures and option)				
21	☐ All items locally mounted, except : ☐ See page For panel mounted items ☐				
22	☐ Locally mounted instruments: Electrical area classification : ☐ Safe ☐ Zone1 ☐ Zone2 ☐ IIA ☐ IIB ☐ T3 ☐ T4				
23	☐ Manufacturers and models ☐ Vendor's standard ☐ Per page details ☐ Purchaser's vendor list				
24	☐ Continuous oil throughflow (§ 2.13.14)				
25	☐				
26	☐				
27	PANELS : (§ 3.2 & § 3.5.1)				
28	☐ Service	Console gage board		Equipment panel	Equipment panel
29	☐ Panel identification				
30	☐ Location				
31	☐ Supplied by				
32	☐ Type : Free standing	☐		☐	☐
33	☐ Mounted on				
34	☐ Open or fully enclosed				
35	☐ Weather-tight	☐		☐	☐
36	☐ purge or pressurised				
37	☐ purge or pressure gas				
38	☐ Shut-off valves for shutdown				
39	sensing devices (§ 3.2.5)				
40	☐ Annunciator system (§ 3.3.6)	☐		☐	☐
41	☐ Rear access doors / Walk-in facility	☐	/ ☐	☐	/ ☐
42	☐ Sun and weather roof extension	☐		☐	☐
43	☐ Light : Panel front / Interior	☐	/ ☐	☐	/ ☐
44	☐ Interior heater (and control)	☐		☐	☐
45	☐ Limits : Maximum height above floor				
46	☐ Lowest item above floor				
47	☐ Spare terminals required	☐		☐	☐
48	☐ Minimum wire size				
49	☐ Material: Front panel				
50	☐ Other panel & doors				
51	☐ Chassis				
52	☐ Vibration isolators	☐		☐	☐
53	☐ Electrical area classification				
54	☐ Panel power supply voltage				
55	☐ Panel mounted Items see page				
56	☐ Extra cutouts required				
57	☐				
58	☐				
59	Notes :				
60					
61					
62					
63					
64					
65				4	5
66				2	3
67				0	1
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1 PANEL MOUNTED ITEM DETAILS : OIL SYSTEM INSTRUMENTATION (§ 3.2.3) 2 Use the following code letters to show details (refer to general notes on first page of appendix B API Std 614) 3 G = Flush mount on front H = Purchaser remote mount (in control house) Vendor's Nema enclosed item 4 S = Surface mount on front P = Purchaser supply and mount C = Cut-out for Purchaser's item 5 R = Rear of panel mount V = Vendor supply and mount M = Mount by vendor of purchaser's item 6 7 L = Locally mounted on piping A = Console gauge board B = Equipment control panel 8																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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