Wärtsilä 50DFD Engine maintenance cycle (GAS/LFO)

Running hour based scheduled maintenance



necessary days of outage (typ)

Every 2,000 RH

Every 4.000 RH

Every 6,000 RH

Every 8,000 RH

Every 12,000 RH

Every 16,000 RH

Every 18,000 RH

























- Check the function of the safety system and automatic stop devices
- Check the valve clearances, yokes and rotators.
- Wastegate actuator LO replacement
- Oil Mist detector fresh air filter replacement

- Check the crankshaft alignment
- Inspect the prelubrication pump
- Check camshaft contact faces Check connectors
- and cables Replace Gas filter
- cartridges
- Check the air bypass valve and the actuator

- Check the injection valves
 - Replace the injection valve nozzles
 - Clean/adjust the pilot fuel oil pump control valve
 - Check Exhaust system support, support plates and clamps
 - Check expansion bellows
 - Check mechanical overspeed trip device.

2K

 Check the vibration damper in control system cabinets









Swing set

*The information provided herein is for Maintenance schedules for individual or

- Overhaul Wastegate actuator
- Maintain Turbocharger
- Replace Turbocharger bearings
- Clean injection pump
- Replace LO pump o-rings
- Replace Oil Mist detector fresh air filter
- Clean Oil Mist detector supply air filter
- Maintain I/P converter



- Check Oil Mist detector
- Replace Cylinder pressure sensor
 - 2K 4K 8K

- Overhaul
- Check the Cylinder

Check the Hydraulic

- liners Check the thrust
- bearing clearance
- Check cooling gallery deposits one per bank
- Maintain pistons
- Replace piston rings
- Check piston pin one per bank
- Check small and big end bearing, one per bank

- Check one main bearing
- Maintain valve rotators
- Overhaul Cylinder heads
- Check intermediate gears
- Clean CAC
- Replace injection valves
- Replace main gas admission valves
- Replace turning device LO



Overhaul execution time can be reduced with existing swing set, local resources, among other factors.

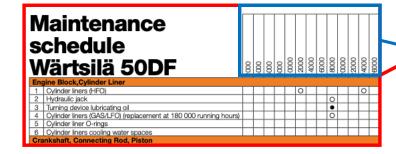






Wärtsilä 50DFD Engine maintenance cycle (GAS/LFO)

Running hour based scheduled maintenance



2	Regrease the drive shaft of turning device Regrease prelubricating oil pump	\pm											
=	Estimated downtime - HFO (days)	1	2	2	2	1	12	1	2	3	2	1	14
	Estimated downtime - LFO (days)	1	2	2	2	1	6	1	2	9	2	1	6
	Estimated downtime - GAS (days)	2	2	2	2	2	4	2	2	10	2	2	6
		_											

	_				_	_	_		
2000	4000	0009	8000	10000	12000	14000	16000	18000	20000
1	2	2	2	1	12	1	2	3	2
1	2	2	2	1	6	1	2	9	2
2	2	2	2	2	4	2	2	10	2

schedule Värtsilä 50DF	0000 0000 0000 0000 0000 0000 0000 0000 0000	2000 2000 2000 2000 2000 2000 2000 200	0000 0000 0000 0000 0000 0000 0000 0000 0000
Collection From PEPD. Johnson Device Laborating of Collection Col	uni 0	0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Oylinder Iners SAS-LPDI (applicament at 180 (00) remittiplito Oylinder Iner Ovings. Oylinder Iners (spoing water spaces.	uni IO	9	0
mekshaft Connection Bod Palon	1 171 171 121 171 171		
Patients Ch. Patients Ch. Patients regard Ch. Patients and controls of Ch. Sampling and controls of Ch. Sampling and controls of Ch. The of baseing diseases of Ch. The of baseing diseases PEC. Control series of Ch. Sampling diseases PEC. Control	8		0 0
Cooling palary disposit, one-basis (HPC) Thrust bearing plearance HPC)	8	0 0 0	0 0 0
Cooling palens deposit, one-bank SAS-LPOs Palens SPSL-LPOs Olinea come Matter DOS	0	0 0	0 0
I Small flig and bosing, one-bank GAS/LFCs	8	Š Š	0 0
Chre main bearing Thord basing blavance (0.466.PQ Corling pales, all cylinders Blavance shall Blavang shall	9		
C. So and bearing shalls 7. Shall and bearing budges			
Chica and country or was: Priced and Lessy not Southern P			0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Arise, sites (MDA Volume). Arise, sites (Arise). Arise (Aris	000000000		
Operational (SEC) Operational	0.310 610 816 616 616	8 8 8 8	5 8 8 8
Man stering value Value qualities (SAC CLPC) Value qualities (SAC CLPC) Value qualities (SAC CLPC) ship Maphanism and Garnahath		9 0	9
also Mechanism and Gemelath Constrat content to se			
Clemetral content tools Indemodate point Value taposit other bearing busines Rooker are seasonable, one			
Mocket are assemble, are Indicated a state of the state			
Photos and Description Afres. Photos and Description Afres. Photos and Maste Gate			
Lubricating of in actuator Visebupite valve and actuator Subordenore	0 0 0 0 0		
Suborheger beerings. Charge sir cooler	0 6	0 0 0	0 0
Suborteon parts Suborteon parts Suborteon parts		0 0	8
Comercia de cooles. Autoritarios Autoritarios partis Autoritarios par		0	
Injection ratios (median value rapples	0 0 0		
Pilot had oil flor certridges	9 9 9	0 0 0 0 0 0	8 8 8 8
Plot let pung			
Priection pump tappat notice gine D. Hoth pressure man and plot injection gipes			
Lube of pump and firling pear soling Water System		8	
Control of the Contro		8	
Cliffed delicity fresh at fiber Electromeumotic overgood his device	0 0 0 0 0 0 0 0 0 0		
Exhaust system is apports, is apport protes and utemps. Proposition belows	0 0 0		
Of lefter detector supply air filter As filter Oil relat detector	9 0	0 0 0	0 0 0
An titler City med delector Estimated and laids selector (Section 1990) Coloured and laids selector (Section 1990) Coloured and risks selector and seats (SASSUPO)			
1 Stading air distributor Mareatian and Brigine Controls Saluti syrium and submalic stop devices	020000000000		
Control seviers and submitted to devices Control and recritisming system Pressure control receives Version-dampe in control system cabinets Drive electronics	9 9 9	0 0 0 0 0 0 0 0	
Drive electronics Measuring electronics and display units			
Control mechanism	000000000000		
Moster area motor Disease of their see Control medianism bushes Control medianism bushes		101	
Foodispise correctors			
Progress the Shirt of Suring Books Progress the Shirt of Suring Books Progress problemating of pump			
I Regress prekting of purg I Estimated describe - HFC Ideal	11010101010101010101		
Patrated describes - PC lites Patrated describes - PC lites Estimated describes - SAS lites			
			D Ches
	nan fuel is gas and all scheduled mainter	oe is performed by Wartelli (SSM).	O Chevidusthinum/calom
Indicated obsertime is based on the assumption that engine prin Check, does and replacement activities as the done when oppo-			8 Overhaulmaistain

www.wartsila.com

Specifications are subject to change without prior nation.

