



AST- Planned Maintenance System

Designed by Marine Engineers for Marine Engineers

The AST-Planned Maintenance System is a powerful organisational software tool that enables vessels to reduce their operational expenses.

The maritime heritage is apparent as the application was originally designed specifically for the Gardline fleet of vessels by a frustrated Chief Engineer over a decade ago, and substantially enhanced ever since. Today, it is in use throughout the Gardline fleet and now commercially released for the first time through AST.

The AST-Planned Maintenance System is a sophisticated, but easy to use, modular application designed for Marine Engineers and Operations Managers to cost effectively manage their vessel(s) maintenance tasks.

The software enables users to plan, monitor, record and implement complex maintenance tasks, including compliance reporting and innovative predictive maintenance monitoring.

The AST-Planned Maintenance System contributes towards improved maintainance on the vessel(s) increasing efficiencies by avoiding downtime and preventing part(s) malfunction.

From medical supplies to the main engine, every piece of equipment on board can be listed together with any associated work procedures.

Already used on a number of vessels around the world, including tankers and crew transfer vessels, the software allows both the ship's crew and the office based team(s) to manage daily checks, stock levels and routine procedures for the whole vessel.

Key Benefits:

- Planned, scheduled, predictive and condition based maintenance
- Analysis of maintenance history and reporting
- Cross fleet job standardisation
- Cross fleet KPI's
- Defect reporting and management
- Stock / spare part management
- Records when work is complete
- All ships equipment listed with associated work procedures
- Class surveys and certificate management
- Plan vessel dry dock visits/refits
- View on vessel, and from shore
- Saves time and money
- Compatible with iRAMS for vessel data collection automation
- Compatible for DNV approval certification



The software has modular architecture and as such can be introduced in 'simple to implement' modules, with optional added value functionality to meet the needs of individual vessels.

The AST-Planned Maintenance System home page uses a simple traffic light system to highlight any equipment that requires attention, and indicates dates when tasks are due.

Crew on board the vessel can use the system to record when tasks have been completed, attach comprehensive history, pictures, notes, request new parts, or maintain stock (if required).

Any update made on the ship's system is automatically made available to view in the shore based office application, ready for the Operations Manager to review and monitor.

Traffic light system enables easy identification of items requiring attention:

PM No.	Item	Work procedure	Tag	Department	Priority	Frequency	When due (remaining)	Status	Counter	Item Code	Proc Code	Chr Code	Last Order	Alarm
14	Doosan Generator No.1 (Port Fwd)	Engine Service Schedule A	Engine	Engine	Normal	8000 hours	12774 (473)	Not_Due	12774	DG1000	EV0100	DG1	17504	
15	Doosan Generator No.1 (Port Fwd)	Engine Service Schedule E	Engine	Engine	Normal	8000 hours	15508 (3202)	Not_Due	15508	DG1000	EV0500	DG1	11359	
16	Doosan Generator No.1 (Port Fwd)	Engine Service Schedule F	Engine	Engine	Normal	20000 hours	20000 (7690)	Not_Due	20000	DG1000	EV0600	DG1	0	
22	Doosan Generator No.1 (Port Fwd)	Oil and filter change	Engine	Engine	Normal	500 hours	12774 (473)	Not_Due	12774	DG1000	GL0100	DG1	17502	
23	Volvo Generator No.2 (Port Aft)	Engine Service Schedule A	Engine	Engine	Normal	500 hours	65322 (498)	Not_Due	65322	DG3000	EV0100	DG2	17393	
45	Volvo Generator No.2 (Port Aft)	Engine Service Schedule C	Engine	Engine	Normal	8000 hours	72822 (7998)	Not_Due	72822	DG3000	EV0300	DG2	17421	
46	Volvo Generator No.2 (Port Aft)	Engine Service Schedule D	Engine	Engine	Normal	8000 hours	72822 (7998)	Not_Due	72822	DG3000	EV0400	DG2	17057	
77	Volvo Generator No.2 (Port Aft)	Engine Service Schedule E	Engine	Engine	Normal	8000 hours	72822 (7998)	Not_Due	72822	DG3000	EV0500	DG2	17059	
85	Volvo Generator No.2 (Port Aft)	Engine Service Schedule F	Engine	Engine	Normal	20000 hours	67119 (2292)	Not_Due	67119	DG3000	EV0600	DG2	11281	
91	Volvo Generator No.2 (Port Aft)	Oil and filter change	Engine	Engine	Normal	500 hours	65322 (498)	Not_Due	65322	DG3000	GL0100	DG2	17394	
32	Doosan Generator No.3 (Stbd Fwd)	Engine Service Schedule A	Engine	Engine	Normal	500 hours	12227 (274)	Not_Due	12227	DG3000	EV0100	DG3	17087	
44	Doosan Generator No.3 (Stbd Fwd)	Engine Service Schedule C	Engine	Engine	Normal	8000 hours	15624 (368)	Not_Due	15624	DG3000	EV0300	DG3	11319	
45	Doosan Generator No.3 (Stbd Fwd)	Engine Service Schedule E	Engine	Engine	Normal	8000 hours	15624 (368)	Not_Due	15624	DG3000	EV0500	DG3	11320	
87	Doosan Generator No.3 (Stbd Fwd)	Engine Service Schedule F	Engine	Engine	Normal	20000 hours	20000 (5047)	New Job	20000	DG3000	EV0600	DG3	0	
39	Doosan Generator No.3 (Stbd Fwd)	Oil and filter change	Engine	Engine	Normal	500 hours	12227 (274)	Not_Due	12227	DG3000	GL0100	DG3	17088	
40	Volvo Generator No.4 (Stbd Aft)	Engine Service Schedule A	Engine	Engine	Normal	500 hours	94699 (500)	Not_Due	94699	DG4000	EV0100	DG4	17459	
47	Volvo Generator No.4 (Stbd Aft)	Engine Service Schedule C	Engine	Engine	Normal	8000 hours	66207 (2008)	Not_Due	66207	DG4000	EV0300	DG4	14234	
43	Volvo Generator No.4 (Stbd Aft)	Engine Service Schedule E	Engine	Engine	Normal	8000 hours	66207 (2008)	Not_Due	66207	DG4000	EV0500	DG4	14235	
44	Volvo Generator No.4 (Stbd Aft)	Engine Service Schedule F	Engine	Engine	Normal	8000 hours	66207 (2008)	Not_Due	66207	DG4000	EV0600	DG4	14236	
45	Volvo Generator No.4 (Stbd Aft)	Engine Service Schedule F	Engine	Engine	Normal	20000 hours	69641 (5442)	Not_Due	69641	DG4000	EV0600	DG4	14288	
47	Volvo Generator No.4 (Stbd Aft)	Oil and filter change	Engine	Engine	Normal	500 hours	64669 (500)	Not_Due	64669	DG4000	GL0100	DG4	17460	
508	Doosan Generator No.1 (Port Fwd)	Doosan Engine Service Schedule D	Engine	Engine	Normal	8000 hours	15508 (3202)	Not_Due	15508	DG1000	EV0410	DG1	11361	
509	Doosan Generator No.1 (Port Fwd)	Doosan Engine Service Schedule E	Engine	Engine	Normal	8000 hours	15624 (368)	Not_Due	15624	DG3000	EV0410	DG3	11321	
510	Doosan Generator No.1 (Port Fwd)	Doosan Engine Service Schedule B	Engine	Engine	Normal	1000 hours	12804 (503)	Not_Due	12804	DG1000	EV0110	DG1	16742	
511	Doosan Generator No.3 (Stbd Fwd)	Doosan Engine Service Schedule B	Engine	Engine	Normal	1000 hours	12727 (774)	Not_Due	12727	DG3000	EV0110	DG3	17094	
512	Volvo Generator No.2 (Port Aft)	Volvo Service Schedule B	Engine	Engine	Normal	1000 hours	65822 (998)	Not_Due	65822	DG2000	EV0120	DG2	17412	
513	Volvo Generator No.4 (Stbd Aft)	Volvo Service Schedule B	Engine	Engine	Normal	1000 hours	64631 (452)	Not_Due	64631	DG4000	EV0120	DG4	17062	

Work procedures can be viewed on board prior to any work being undertaken:

EN0100 Engine Service Schedule A

Work procedure:
Post warning notice and disable starting gear.

Refer to makers instruction manual for correct methods of servicing

- Inlet and Exhaust valves - Check and re-set tappet clearances
- Clean Glacier by-pass filters
- Change primary and secondary fuel filters'
- Air inlet filters - clean
- Clean seawater suction strainer
- Clean fuel supply line filter
- If fitted check tension and condition of all vee belts.
- Check seawater pump impeller.

Used by:-

- 1 Main Engine
- 14 Doosan Generator No.1 (Port Fwd)
- 23 Volvo Generator No.2 (Port Aft)
- 32 Doosan Generator No.3 (Stbd Fwd)
- 40 Volvo Generator No.4 (Stbd Aft)