



***Maintenance
and
Spare Parts
Management***

Contents

1	Main Menu.....	4
2	Equipment Items.....	5
2.1	Adding Equipment	6
2.2	Editing Equipment.....	6
2.3	Deleteting Equipment	6
2.4	Moving Equipment.....	6
2.5	Spare Parts Required For Maintenance	6
2.6	Maintenance Instructions	8
2.7	Field Definitions	9
2.8	Equipment History	11
2.9	Equipment Reports	12
3	Spare Parts	13
3.1	Adding Spare Parts.....	13
3.2	Editing Spare Parts	14
3.3	Deleting Spare Parts.....	14
3.4	Linking Spare Parts to Equipment.....	14
3.5	Adjusting Inventory.....	15
3.6	Spare Parts Reports.....	15
3.7	Ordering Parts	16
3.7.1	New Order.....	16
3.7.2	Edit Order	17
3.7.3	Delete Order	17
3.7.4	View Orders/ Order List	17
3.8	Receipting Parts Orders	18
3.9	Spare Parts Orders Reports.....	19
4	Maintenance	19
4.1	Maintenance Forecast/Completion	19
4.2	Viewing Maintenance Jobcards/Maintenance Task Sheet	20
4.3	Completing Maintenance.....	21
4.4	Early Maintenance/Breakdown	22
4.5	Entering Running Hours	22
4.6	Maintenance Reports.....	23

5	Surveys.....	24
5.1	Surveys Due.....	24
5.2	Survey status.....	25
5.3	Survey Reports	26
6	System.....	26
6.1	System Settings	26
6.2	System Utilities	26

1 Main Menu



2 Equipment Items

Equipment Items are arranged in a Tree Structure to eliminate the need of giving each item a code.

At the top level are the systems such as 'Electrical Power Generation', 'Compressed Air System' or 'Propulsion System'.

Below each system there can be sub systems and so on.

Sample of system layout:

Compressed Air System

Air Compressors

Air Compressor No.1

Air Compressor No.2

Emergency Air Compressor

Air Receivers

Main Air Receiver No.1

Main Air Receiver No.1

Emergency Air Receiver

Each Equipment Item has an entry for Survey Period as well as up to 7 levels of Maintenance.

Equipment Data Window.

Equipment Treeview

Sort By : Treeview

- Boilers
- Compressed Air System
 - Air Compressor 1
 - Air Compressor 2
 - Aux Diesel Start Air Reservoir
 - Main Start Reservoir #1
 - Main Start Reservoir #2
- Cooling Pumps
- Deck Machinery
- Fire & G.S Pumps
- Fuel Oil System
- Heat Exchangers
- LPG/LNG Equipment
- Lube Oil System
- Navigation & Communication
- Power Generation
- Propulsion System
 - Main Engine
 - Fuel Pumps/Injectors
 - M/E Bearings
 - M/E Cam Shaft Driving Gear
 - M/E Cylinder Covers
 - M/E Liners
 - M/E Pistons
 - M/E Turbos, Blowers & Cooler
 - Propeller

Equipment Identification | Maintenance Details | Spare Parts | Equipment History

Equipment Description		Make / Model	Serial No.
Air Compressor 1		Matsubara MH108	

Installation Date	Account Code	Location	Group	Responsible Person
01/04/2011		Frame24 Port	Compressor	3rd Engineer

Inventory No.

General Details Of Equipment

Vertical 2 stage watercooled.

Link to Manufacturers Equipment Data Manual:

View Manufacturers Manual	Locate Manufacturers Manual
Related Document No. 1	Page in Document (applies to PDF documents)
NK8135-40_2_3_03-eng_kpl.pdf	4

Equipment Supplier

MAN B&W

Address

Telephone

Fax

Contact Person

Supplier Code

4

Email

2.1 Adding Equipment

To open the Equipment details Window click on the Main Menu Button labelled 'Equipment Database'.

On the left hand side of the Equipment Database Window is the Equipment Tree Structure.

To add an Equipment Item, click on the System/Subsystem where it is to be attached. If you are adding a System, click on the 'Main System' at the top of the Tree Structure Window.

While holding the cursor above the selected Equipment click on the right mouse button and select 'Add'.

Once 'Add' has been selected the Cursor will move to the Description Field ready to enter Equipment details.

Equipment Details are located on the first 2 tabbed pages.

Once all of the details have been entered Click on the 'Save' button.

For Information on entering Maintenance Instructions see Section 2.6.

For Information on Linking Spare Parts see Section 3.4.

2.2 Editing Equipment

To Edit an Equipment Item, select the Item in the Treeview Window.

Click on the 'Edit' Button.

When Editing is Complete click on the 'Save' Button.

2.3 Deleteting Equipment

To Delete an Equipment Item, select the Item in the Treeview Window.

Right Click while cursor is on top of selected Equipment and select Delete from popup menu.

Only Equipment at the lowest level can be deleted. If an Equipment has items attached the items attached must be deleted first.

2.4 Moving Equipment

To move Equipment Item in the Tree Structure:

Drag & Drop

Select Equipment Item in the Tree View Window.

While Cursor is on top of selected Equipment Hold the Left mouse button down.

Drag Cursor to Equipment Item that the Selected Equipment is to be attached.

Cut & Paste

Select Equipment Item in the Tree View Window.

Right Click while cursor is on top of selected Equipment.

Select 'Cut' from popup menu.

Select Equipment Item where previous Equipment Item is to be moved to.

Right Click while cursor is on top of selected Equipment.

Select 'Paste' from popup menu.

2.5 Spare Parts Required For Maintenance

Select Equipment Item in the Tree View Window.

Click on the 'Maintenance Details' Tab.

Click on the 'Parts Req.' Button below the required Maintenance Level.

The screenshot shows a software window titled "Add/Edit/Delete Equipment and Maintenance Details". It has a treeview on the left listing various equipment categories like Boilers, Compressed Air System, Cooling Pumps, etc. The main area has tabs for "Equipment Identification", "Maintenance Details", "Spare Parts", and "Equipment History". The "Maintenance Details" tab is selected, showing a form for "Air Compressor 1" (Make/Model: Matsubara MH108). Below the form, there are sections for "Maintenance Scheduling Active" (Yes/No), "Maintenance Periods in:" (Hours/Months), and a table for "Maintenance Last Performed" with columns for Levels 1 through 7. Under each level, there are buttons for "Instructions" and "Parts Req.". A yellow arrow points to the "Parts Req." button for Level 1. At the bottom, there is a "Survey" section with fields for "Survey Code", "Survey Type", "Period (Months)", and "Survey Instructions".

Parts Required
Button for 250
Hour Service

In the Parts Required Window, Parts linked to the Selected Equipment will appear in the bottom table. To view all available parts in this table, click on the 'View All Parts' Button.

To select Parts Required for selected Maintenance Task either double click on the part or Right Click and select 'Add Required Part to List'.

If a part, not linked to the equipment, is selected as required part, it will automatically link to the equipment.

All parts selected for the particular Maintenance Task will appear in the top table.

To complete selection of parts click on the 'Edit' button enter the required quantities and click on the 'Save' button.

To remove a Part from Required Spares Right Click on the Part and select either, 'Remove and Unlink Part from Equipment' or 'Remove Part'.

Parts Required

Equipment Description	Make / Model	Maintenance Period
Air Compressor 1	Matsubara MH108	250 Hours

Required Spares List.

Description	Make/Model	Part Number	Drawing	In Stock	Qty Required
Air Filter	Matsubara	111001112	MH108	4	1

Double click on Part Below to ADD to Required Spares List. To Remove Parts from Required Spares List Enter 0 Qty. Required and click on Save

Description	Make/Model	Part Number	Drawing	In Stock
L.P. Piston Ring	Matsubara	1110011101	MH108	2
H.P. Piston Ring	Matsubara	1110011301	MH108	2
H.P. Piston Oil Scraper Ring	Matsubara	1110011322	MH108	2
L.P. Suction Valve	Matsubara	1110014041	MH108	2
L.P. Delivery Valve	Matsubara	1110014051	MH108	2
L.P. Delivery Valve Spring	Matsubara	1110014051	MH108	24
H.P. Suction Valve	Matsubara	1110015041	MH108	2
H.P. Suction Valve Spring	Matsubara	1110015051	MH108	2
Air Filter	Matsubara	1110011112	MH108	4

Parts Required
Button for 250
Hour Service

Parts linked to
Equipment

2.6 Maintenance Instructions

Select Equipment Item in the Tree View Window.

Click on the 'Maintenance Details' Tab.

Click on the 'Instructions' Button, below the required Maintenance Level.

Maintenance Task Instructions

Equipment Description	Make / Model
Air Compressor 1	Matsubara MH108

Maintenance Level	Maintenance Period
1	250 Hours

Maintenance Instruction

BEFORE STARTING - Read the attached Job Safety Analysis and save it to history once the task is complete.

Perform checks as set out in attached spreadsheet and save to history.

Procedures can be viewed in the linked PDF document.

Word Processing Document

Compressor Job Safety Analysis.doc

Spreadsheet Document

Air Compressor 250 Hour Check List Form.xls

☐ Copy spreadsheet completed for History back to instructions. (Function to accumulate data for trends)

PDF Document

Compressor Maintenance Instructions.pdf

Maintenance Instruction can be entered in up to 4 different formats:

1. Memo Field - Plain text stored in Database.
2. Word Processing Document – Can be used for Job Safety Analysis, Confined Space Permit, Hot Work Permit etc.
3. Spreadsheet – Generally forms for things like crankshaft deflections, Engine Performance etc.
4. PDF Document – These are generally extracts from manufacturers manuals.

The Memo Field, Word Document and Spreadsheet can be copied to History and comments added on completion of Maintenance Task.

The above document formats are only recommended and the system will accept any format type as long as there is an installed application to manage that format.

2.7 Field Definitions

Description	Unique description of equipment
Make/Model	Make and or Model of Equipment
Serial No.	Serial No. of Equipment
Installation Date	Date when equipment was installed
Account Code	Account for costing (Optional)
Inventory No.	Assigned Inventory No. (Optional)
Location	Location of equipment on site
Group	Used to identify/group equipment when viewing maintenance requirements e.g. Critical Equipment, Fuel Injectors etc.
Responsible Person	Person responsible for the maintenance of the equipment.
Detailed Description	Field for detailed description of equipment.
Related Document No. 1	Link to related external Document e.g. drawings, manuals.
Page In Document No. 1	Page in related document if PDF format
Related Document No. 2	Link to related external Document e.g. drawings, manuals.
Page In Document No. 2	Page in related document if PDF format
Supplier	Link to Supplier Database
Scheduling Active	Turns scheduling ON or OFF.
Hourly/Monthly	Hourly or Monthly Maintenance Period
Total Running Hours	Total Running Hours
Taken On	Date when last total running hours was entered
Average Daily Running Hours	Estimated daily running hours of equipment. Used to forecast Maintenance.

Maintenance Level/Interval 1-7	Expressed in Hours or Months.
Maintenance Last Performed 1-7	Date or Hours when maintenance was last performed.
Survey Code	Survey Code as issued by Class.
Survey Type	Survey type e.g.
Survey Interval	Interval between Surveys
Last Survey	Date when last survey was completed..
Port	Port where last survey was completed.
Surveyor	Surveyor who performed last survey.

2.8 Equipment History

When logged in as administrator it is possible to edit History records.

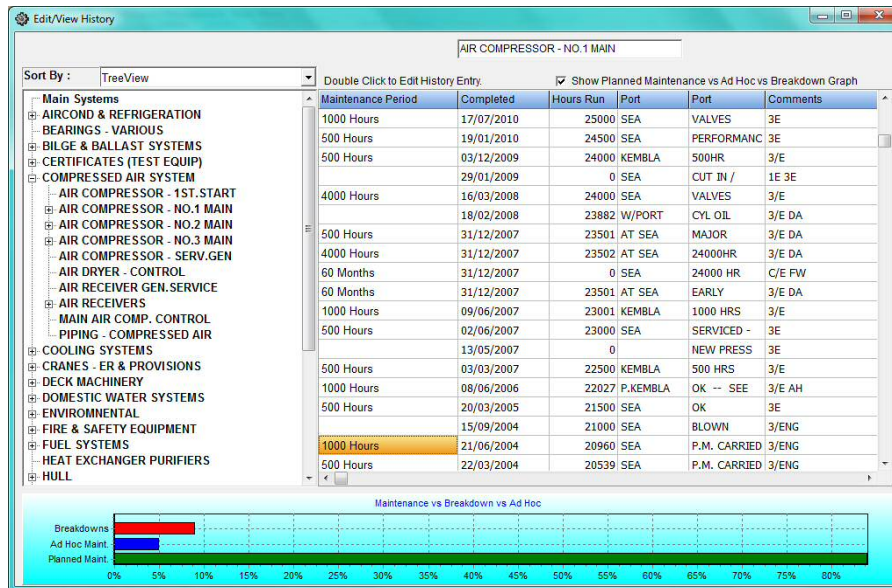
From the Main Menu Click on the 'View/Edit History' Button.

Select the Equipment Item you wish to View/Edit in the Treeview Panel on the left hand side of the screen.

When an Equipment Item is selected the Historical Maintenance Events are displayed.

To view or edit the details of a particular maintenance event double click on the event in question.

To Delete a History event click on the event and the right click and select delete.



History Details Window

The screenshot shows the 'Edit History' window with detailed maintenance information for 'AIR COMPRESSOR - NO.1 MAIN'.

Equipment Description	Survey Code	Maintenance Level	Maintenance Period
AIR COMPRESSOR - NO.1 MAIN		2	1000 Hours

Hours Run	Job Completed	Completed By	Hours Taken	Port
25000	17/07/2010	3E	2	SEA

Condition: Good/Fair condition
Comment: VALVES O'HAULED

☐ Surveyed ☐ Breakdown

Maintenance Report

1000 hr service carried out
HP and LP valves o'hauled
Performance test carried out (pump up time 5m 40 sec)
Cut in press 20 bar / cut out press 24 bar)

Word Processing Document

Spreadsheet Document

Attachments (Double click on file name to open).

Part Description	Manufacturers Part No.	Inventory	Location	Stock	Qty. Req'd.	Qty. Used
GASKET, VALVE TOP (1) REF	4027	3282-0146	DA0506	8	0	1
GASKET (LP VALVE COVER)	4025	3282-0199	DA0506	6	0	1
GASKET, H.P VALVE	3933	3282-0244	DA0506	5	0	1
PACKING, W/V H.P. (1) REF NO	3913	3282-0245	DA0506	6	0	1
LINEP, PROP SHAFT SEALS	ITEM 04	4512-2004	EE0404	0	0	1

2.9 Equipment Reports

Equipment Reports

Exit

Report	Sort By	Filter	Operator	Value		
Equipment Summary					Print	Export
Complete Equipment Details					Print	
Complete Equipment Details Incl. Instructions					Print	

Equipment History Reports

Select Equipment Select All Equipment

Report	Selected Equipment	From Date	To Date			
Summary of Equipment History	AIR COMP - STARTING NO. 1	25/10/2010	25/10/2011	Print	Export	<input type="checkbox"/> Incl. Subequipment
Detailed History of Equipment	AIR COMP - STARTING NO. 1	25/10/2006	25/10/2011	Print		<input checked="" type="checkbox"/> Incl. Attachments

Equipment by Treeview

Select Equipment Select All Equipment

Selected Equipment		
All	Print	Export

3 Spare Parts

To locate desired part click on the table header of your choice and use keyboard to enter search string.

E.g. to find a part by Manufacturers Part Number click on the column header 'Man. Part No.' and then enter the Manufacturers Part Number using the keyboard.

The screenshot shows the 'Spare Parts' window with a table of parts. Yellow arrows point to specific features:

- Column Headers:** Points to the top row of the table with headers: Part Description, Make/Model, Man. Part No., Drawing No., Part Type, Location.
- List of Parts:** Points to the list of parts, including 'Air Filter', 'Air Venting Plug', 'Body, Filter', 'Case', 'Cock Ass'y for blow off', 'Element, Notch Wire', 'Fan Belt', 'Fuel Oil Filter Assembly', 'Gasket', and 'Gasket'.
- Details of Selected Part:** Points to the details section for the 'Air Filter' part, showing fields for Inventory No., Material, Weight, Unit, In Stock, Qty. In Use, Location, and Supplier.
- Linked Equipment:** Points to the 'This Part is Linked to:' section, showing a table with columns: Equipment Description, Make/Model, Serial No., Order No., Date Ordered, Qty Ordered, Date Recvd, and Qty Recvd.
- Purchase History:** Points to the 'Purchase History' section, which is currently empty.

3.1 Adding Spare Parts

Click on the 'Add' Button on the Spare Parts Window.

The screenshot shows the 'Equipment Selection to Link Parts' window. It features a tree view on the left for selecting equipment, a central table of equipment details, and a right panel for linking equipment to the part.

Select Equipment that Parts will be linked to:

- Main Systems
 - AIRCOND & REFRIGERATION
 - BEARINGS - VARIOUS
 - BILGE & BALLAST SYSTEMS
 - CERTIFICATES (TEST EQUIP)
 - COMPRESSED AIR SYSTEM
 - AIR COMPRESSOR - 1ST.START
 - AIR COMPRESSOR - NO.1 MAIN
 - AIR COMPRESSOR - NO.2 MAIN
 - AIR COMPRESSOR - NO.3 MAIN** (Selected)
 - AIR COMPRESSOR - SERV.GEN
 - AIR DRYER - CONTROL
 - AIR RECEIVER GEN.SERVICE
 - AIR RECEIVERS
 - MAIN AIR COMP. CONTROL
 - PIPING - COMPRESSED AIR
- COOLING SYSTEMS
- CRANES - ER & PROVISIONS
- DECK MACHINERY
- DOMESTIC WATER SYSTEMS
- ENVIRONMENTAL
- FIRE & SAFETY EQUIPMENT
- FUEL SYSTEMS
- HEAT EXCHANGER PURIFIERS
- HULL
- LO SYSTEM - STEERING
- LUBRICATING OIL SYSTEMS

Equipment that will be Linked:

Equipment Description	Make/Model
ACCUMULATOR - BALLAST	VICKERS
AIR.VIVA & RESUSCITATOR	
AIR COMP SAFETY V/V NO.1	
AIR COMP SAFETY V/V NO.2	
AIR COMP SAFETY V/V NO.3	
AIR COMPRESSOR -	INGERSOLL 7T
AIR COMPRESSOR - BA	BAUER UTILUS
AIR COMPRESSOR - NO.1	SPERRE
AIR COMPRESSOR - NO.2	SPERRE
AIR COMPRESSOR - NO.3	SPERRE
AIR COMPRESSOR -	COMPAIR
AIR COND - ACCOMODATION	
AIR COND - CONTROL ROOM	HITACHI
AIR COND. COMPRESSOR	CARLYLE
AIR COND. COMPRESSOR	CARLYLE 5H40
AIR CONDITIONING	
AIR CONDITIONING ITEMS	
AIR COOLER - M/E PORT NO.1	WARTSILA
AIR COOLER - M/E PORT NO.2	WARTSILA
AIR COOLER - M/E STBD NO.1	WARTSILA

Select Equipment linked to the part to be added and click on the right arrow.

Repeat process if part is linked to more than one Equipment Item.

Once all Equipment Items are selected click on the 'Add Parts' button.

If the part is general and not specific to any Equipment click on the 'Add Parts' button without selecting any Equipment.

3.2 Editing Spare Parts

Click on the 'Edit' button and edit fields as required on the bottom part of the Window.

On completion click the 'Save' Button.

3.3 Deleting Spare Parts

Select spare part to be deleted and click on the 'Delete' button.

3.4 Linking Spare Parts to Equipment

To link a part that has already been added click on the 'Link To' button.

Select the Equipment that the part is to be linked to and click the 'Add Equipment' button.

Any number of Equipment Items can be added.

Select the part that is to be linked to the Equipment and click on the 'Link Part' button.

Parts can be located by clicking on any of the Parts Column Headers and entering search criteria.

To unlink a Part, select the Part and the linked Equipment, at the bottom of the window, then click on the 'Remove Link' button.

Link Spares with Equipment

Select Equipment to Link Parts to, then Select Part and click on the Link Part Button.

Tree View:

- MAIN ENGINE EXHAUST MANIFD
- MAIN ENGINE INDICATOR
- STARTING AIR DISTRIBUTOR
- TURBO/AIR COOLERS - M/E
- UNITS - M/E
 - UNIT - M/E NO.1
 - UNIT - M/E NO.2
 - UNIT - M/E NO.3
 - UNIT - M/E NO.4
 - UNIT - M/E NO.5
 - UNIT - M/E NO.6
 - UNIT - M/E NO.7
 - UNIT - M/E NO.8
 - UNIT - M/E NO.9

Description	Make/Model
UNIT - M/E NO.5	WARTSILA VAS
UNIT - M/E NO.6	WARTSILA VAS
UNIT - M/E NO.7	WARTSILA VAS
UNIT - M/E NO.8	WARTSILA VAS
UNIT - M/E NO.9	WARTSILA VAS
UNITS - M/E	
UNLOADING - DE-DUST PIPING	VENCLIM
URNS - WATER BOILERS	BURSHAW BE2
V/V'S	

Add Equipment →

Remove Equipment ←

Link Part ↗

Selected Equipment

UNIT - M/E NO.1
UNIT - M/E NO.2
UNIT - M/E NO.3
UNIT - M/E NO.4
UNIT - M/E NO.5
UNIT - M/E NO.6
UNIT - M/E NO.7
UNIT - M/E NO.8
UNIT - M/E NO.9

Part to be Linked

Part Description	Make/Model	Man. Part No.	Drawing No.	Part Type	Location
SEALING RING	WARTSILA VASA 9R46A	337 0137 120		SEAL RING	A602
SEALING RING	WARTSILA VASA 9R46A	337 0143 120		SEAL RING	A602
O-RING	WARTSILA VASA 9R46A	337 0908 120		O RING	A602
O-RING	WARTSILA VASA 9R46A	337 1130 107		O RING	
SEALING RING	WARTSILA VASA 9R46A	337 1361 107		SEAL RING	
GASKET	BOLL & KIRCH, 2.06.5.4	3380001		GASKET	A300-2C
GASKET, 172 X 189 X 1.5	BOLL & KIRCH, 2.06.5.4	3380008, ITEM 5	2-22100 BL 1	GASKET	A300-2C

Selected Part Currently Linked to:

Equipment Description	Make/Model	Serial No.	Inventory No.	Account
MAIN ENGINE	WARTSILA VASA 9L46A	9831		5300.600

Remove Link

3.5 Adjusting Inventory

From the Main Menu click on the 'Stocktake' Button.

Sort Parts by clicking on the column Headers.

Locate Parts by entering search criteria in the Search field at the top of the window.

Enter new stock level in the 'New Stock Level' column.

When all adjustments have been made, click on the 'Update' button.

Stocktake window showing a table of inventory items. The table has columns: Part Description, Make/Model, Man. Part No., Drawing No., Part Type, Location, Current Stock, and New Stock Level. The 'Update' button is highlighted in the top left corner.

Part Description	Make/Model	Man. Part No.	Drawing No.	Part Type	Location	Current Stock	New Stock Level
AUX RELAY 24VAC 3 POLE	DAMEN	60.13.8.024		RELAY BASE	C52 BOX 1	2	2
AUX RELAY 24VDC 3 POLE	DAMEN	60.13.9.024		RELAY BASE	C52 BOX 1	2	2
BALL BEARING	SIHI SLKD 32-125	43000942		BEARING	C82 BOX 1	1	1
BALL BEARING HLH	SPERRE HLH/119	3870		BEARING		2	2
BALL BEARING HLH	SPERRE HLH/119	3870		BEARING	C72 BOX 2	2	2
BAND FILLER	CATERPILLAR 3516	8N-4707		BAND	C23 BOX1	15	15
BATTERY CLAMP -	DAMEN	0188.0001		CLAMP	C53 BOX 1	1	1
BATTERY CLAMP -	DAMEN	0188.0001		CLAMP	C53 BOX 1	1	1
BATTERY CLAMP +	DAMEN	0188.0002		CLAMP	C53 BOX 1	1	1
BATTERY NIMH 7.2 V	DAMEN	28.37.0026.1		BATTERY	C73 BOX 1	2	2
BEARING BUSH P241	SIHI ACHA	012161430/275		BUSH	C82 BOX 3	1	1
BEARING BUSH P242	SIHI ACHA	037761400/275		BUSH	C82 BOX 3	1	1
BEARING CONNECTING ROD	CATERPILLAR 3516	107-7330		BEARING	C32 BOX 1	1	1
BEARING CONNECTING ROD	CATERPILLAR 3516	230-2520		BEARING	C23 BOX1	0	0
BEARING HEAD & OIL PUMP ASSY	HEINEN &	06EA-660-157		BEARING	C12 BOX 1	1	1
BEARING SLEEVE	CATERPILLAR 3516	230-2519		BEARING	C23 BOX1	1	1
BEARING SLEEVE	CATERPILLAR 3516	1W-6005		BEARING	C32 BOX3	3	3
BEARING, BALL	QUINCY 325HP-L	63082ZC3		BEARING	C74 BOX 4	2	2
BEARING, BALL	SIHI SLKD 32-125	43000942		BEARING	C82 BOX 2	1	1
BEARING, BALL P32.10	SIHI AKHA6101	43000857		BEARING	C83 BOX 1	2	2
BEARING, FAN	HEINEN &	YET 205		BEARING	C12 BOX 1	2	2
BEARING,BALL	SIHI ZLKD 32.160	43000942		BEARING		1	1

3.6 Spare Parts Reports

Spare Parts Reports window showing a list of reports and options to generate reports by selected equipment or usage reports.

Report	Sort By	Filter	Operator	Value		
Spare Parts List					Print	Export
Spare Parts Below Reorder Level					Print	Export
Spare Parts Value Report					Print	Export
Spares Stock Take Form					Print	Export
Spares Below Critical Level					Print	Export
Spares Not Linked to Equipment					Print	Export

Spare Parts By Selected Equipment

Select Equipment Select All Equipment

Selected Equipment	Sort By		
All		Print	Export

Spare Parts Usage Reports

Select Equipment Select All Equipment

Selected Equipment	From Date	To Date		
All	17/01/2013	17/07/2013	Print	Export

3.7 Ordering Parts

From the Main Menu click on the 'Spare Parts Order' button.

Item	Description	Part_No	Drawing	Unit	Qty
1	DISC VALVE	1846		Each	1
2	DIAPHRAGM	1855		Each	2
3	SUCTION VALVE ASSEMBLY	7277XU		Each	3

Description	Make/Model	Part Number	Drawing	Part Type	In Stock	Inventory No.
SUCTION VALVE ASSEMBLY	QUINCY 325HP-L	7277XU		VALVE	1	
DISCHARGE VALVE ASSEMBLY	QUINCY 325HP-L	7271X02		VALVE	1	
DISC VALVE	QUINCY 325HP-L	1846		VALVE	4	
UNLOADER ASSEMBLY	QUINCY 325HP-L	110827-002		UNLOADER	1	
DIAPHRAGM	QUINCY 325HP-L	1855		DIAPHRAGM	2	
GASKET SET	QUINCY 325HP-L	7126		GASKET	1	
PRESSURE GAUGE	QUINCY 325HP-L	W2135306300250D		GAUGE	1	
PISTON RING SET	QUINCY 325HP-L	8166A		PISTONRING	1	
UNLOADER ASSEMBLY	QUINCY 325HP-L	110827-002		UNLOADER	1	

3.7.1 New Order

To Create a new Order click on the 'New Order' button.

Select the Equipment linked to Parts to be ordered and click on the 'Select' button.

If the Parts to be ordered are not linked then click on the 'Skip' button.

Description	Make/Model
A/C BAG PLANT/WEIGH DECK	NOVENCO
A/C BAG REFRIG PLANT NO.1	SABROE SAB-1
A/C BAG REFRIG PLANT NO.2	SABROE SAB-1
A/C SYSTEM BAG - OIL ANAL	SABROE SAB-1
A/C SYSTEM MAIN - OIL ANAL	SABROE
AC - REGULATING SYSTEM	NOVENCO
ACCOMMODATION / DOMESTIC	
AIR CIRCUIT BREAKER	MITSUBISHI
AIR COMP - STARTING NO.1	ATLAS COP LT
AIR COMP - STARTING NO.2	ATLAS COP LT
AIR COMP - WORKING NO.1	ATLAS COPCO
AIR COMP - WORKING NO.2	ATLAS COPCO
AIR COMP EMERG HAND	SPERRE HLH 11
AIR COMPRESSORS	
AIR COND ACCOMMODATION	NOVENCO
AIR COND CONTROLROOM	CARRIER
AIR COND REFRIG PLANT	SABROE
AIR COND REFRIG PLANT	SABROE
AIR COND REFRIG PLANT	SABROE
AIR COND WORKSHOP AC-4	CARRIER
AIR CONDITION/VENTILATION	
AIR COOLER - M/E	WARTSILA VAS
AIR DRIER NO.1 (WORKING)	ATLAS COPCO

On the main Parts Order page Parts that are linked to the Equipment selected will appear at the bottom of the window.

Parts can be located by clicking the column header.

To add a Part to the Order either double click on the part or right click and select Add Part.

To view parts that are not linked to the selected Equipment, click on the 'View All Parts' button.

Once Part has been copied to the Order fill in the Unit and Quantity required.

To remove a Part from the Order right click on it and select 'Remove Part'.

To select a Supplier click on the down arrow next to the Supplier name field.

3.7.2 Edit Order

To edit an Order, select the Order to be edited and click the 'Edit' button.

Parts can be added/removed in the same method as in a New Order.

This should only be done on Active Orders.

3.7.3 Delete Order

To Delete an order, select the Order to be deleted and click on the 'Delete Order' button.

3.7.4 View Orders/ Order List

To view a summary of Orders, click on the 'View Orders' button.

Order Status	Description
Active	Open and can be edited.
Transferred	Order has been sent for processing.
Part Recvd	Some Items have been received.
Completed	All items received.



The screenshot shows a software window titled "Select Requisition." with a standard Windows interface (minimize, maximize, close buttons). Below the title bar is a toolbar with three buttons: "View Active" (highlighted with a dashed border), "View All", and "Select and Continue" (which has a small icon next to it). Below the buttons is a table with the following data:

Requisition No.	Date	Equipment	Supplier	Status
V18-1067	10/12/2010	AIR COMP - STARTING NO.1		Active
V18-1073	19/01/2011	DIESEL PRIME MOVER - NO.1		Active
V181085	01/04/2011	CRANE - STORES		Active
V181093	16/04/2011	MAIN ENGINE	WARTSILA DIESEL	Active
V181098	03/05/2011	AIR COMP - STARTING NO.2		Active

3.8 Receipting Parts Orders

To enter Parts received against an Order click on the 'Parts Received' button.
Select the Order to receive Parts against and click on the 'Enter Rcpts' button.

The screenshot shows the 'PartsRecv' window. At the top, there are buttons for 'Enter Rcpts', 'Save', 'Cancel', and 'Exit'. Below these is a table of orders:

Order No.	Order Date	Equipment	Make/Model	Supplier Name	Status
V18-1067	10/12/2010	AIR COMP - STARTING NO.1	ATLAS COP LT		Active
V18-1073	19/01/2011	DIESEL PRIME MOVER - NO.1	CAT 3508 DITA		Active
V181085	01/04/2011	CRANE - STORES	EFFER 31/SB 10MT		Active
V181093	16/04/2011	MAIN ENGINE	WARTSILA VASA 9L46A	WARTSILA DIESEL AUSTRALIA LTD	Active
V181097	17/04/2011	PUMP - FIRE NO.1 - New	AZCUE CA 100/80-20A		Active
V181098	03/05/2011	AIR COMP - STARTING NO.2	ATLAS COP LT		Active

Below the orders table is an 'Items' table:

Item	Description	Man. Part No.	Drawing	Unit	Qty Ordered	Qty. Prev. Recvd.	Cost
1	THROWER	2540.1			4		
2	THROWER	2540.3			2		
3	IMPELLER	2200			1		
4	SHAFT	2100			1		
5	IMPELLER NUT	2192			1		
6	WASHER	2915			1		
7	O RING	4610.1			4		
8	O RING	4610.2			4		
9	CIRCLIP	6544.1			4		
10	CASING WEAR RING	1500			2		

If Parts have previously been received for this Order they will appear in the 'Qty. Prev. Recvd' column.

Enter quantity received in the 'Qty. Recvd' column and Cost in the 'Cost' column.
When all entries are complete click on the 'Save' button.

The screenshot shows the 'PartsRecv' window with the 'V181097' order selected. The 'Items' table now includes 'Qty. Recvd' and 'Cost' columns:

Item	Description	Man. Part No.	Drawing	Unit	Qty Ordered	Qty. Prev. Recvd.	Qty. Recvd	Cost
1	THROWER	2540.1			4		4	\$45.00
2	THROWER	2540.3			2		2	\$60.00
3	IMPELLER	2200			1		1	\$125.00
4	SHAFT	2100			1		0	
5	IMPELLER NUT	2192			1		0	
6	WASHER	2915			1		0	
7	O RING	4610.1			4		0	
8	O RING	4610.2			4		0	
9	CIRCLIP	6544.1			4		0	
10	CASING WEAR RING	1500			2		0	
11	MECHANICAL SEAL	4200			2		0	
12	BEARING	3011.1			2		0	
13	SPACER RING	2510			1		0	
14	BEARING COVER	3260.1			4		0	
15	DIFFUSER	1410			1		0	

3.9 Spare Parts Orders Reports



Report	From Date	To Date	
Open Spare Parts Orders	N/A	N/A	Print
Outstanding Spare Parts Orders	N/A	N/A	Print
Spare Parts Received	17/04/2013	17/07/2013	Print
Summary of Spare Parts Orders	17/01/2013	17/07/2013	Print

4 Maintenance

4.1 Maintenance Forecast/Completion

To view required Maintenance or enter a completed Maintenance Task click on the 'Maintenance Due/Completed' button on the Main Menu.

Only Equipment with Maintenance due within the next 12 months or overdue will be displayed. Each level of Maintenance can be displayed in a different colour.

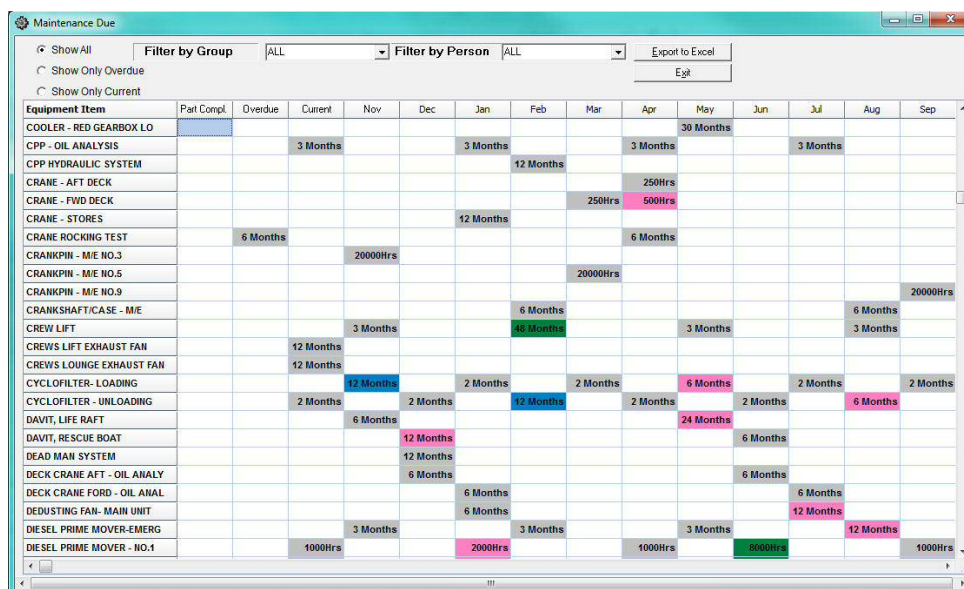
To view the Equipment details double click the Equipment description.

To view the Maintenance Task or enter details of a Completed Maintenance Task double click or right click on the relevant Maintenance Period.

Equipment requiring Maintenance can be filtered by either Group or Responsible Person.

Commonly used Groups

- Critical Equipment
- Safety Equipment
- Certificates
- M/E Fuel Injectors
- M/E Units
- Generators
- Purifiers
- Compressors
- Hatches



Equipment Item	Part Compl	Overdue	Current	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
COOLER - RED GEARBOX LO										30 Months				
CPP - OIL ANALYSIS			3 Months			3 Months			3 Months			3 Months		
CPP HYDRAULIC SYSTEM							12 Months							
CRANE - AFT DECK								250Hrs						
CRANE - FWD DECK								250Hrs	500Hrs					
CRANE - STORES														
CRANE ROCKING TEST		6 Months							6 Months					
CRANKPIN - M/E NO.3				2000Hrs										
CRANKPIN - M/E NO.5								2000Hrs						
CRANKPIN - M/E NO.9														2000Hrs
CRANKSHAFTCASE - M/E								6 Months					6 Months	
CREW LIFT			3 Months				40 Months			3 Months			3 Months	
CREWS LIFT EXHAUST FAN			12 Months											
CREWS LOUNGE EXHAUST FAN			12 Months											
CYCLOFILTER - LOADING				12 Months		2 Months		2 Months		6 Months		2 Months		2 Months
CYCLOFILTER - UNLOADING				2 Months			12 Months		2 Months		2 Months		6 Months	
DAVIT, LIFE RAFT				6 Months						24 Months				
DAVIT, RESCUE BOAT					12 Months						6 Months			
DEAD MAN SYSTEM					12 Months									
DECK CRANE AFT - OIL ANALY											6 Months			
DECK CRANE FORD - OIL ANAL							6 Months					6 Months		
DEDUSTING FAN- MAIN UNIT													12 Months	
DIESEL PRIME MOVER-EMERG				3 Months				3 Months		3 Months			12 Months	
DIESEL PRIME MOVER - NO.1			1000Hrs			2000Hrs			1000Hrs	2000Hrs				1000Hrs

The 'Part Compl.'" column is maintenance completed by engineers but not yet posted to history by the administrator.

4.2 Viewing Maintenance Jobcards/Maintenance Task Sheet

To view the Maintenance Task or enter details of a Completed Maintenance Task double click or right click on the relevant Maintenance Period.

Maintenance Task Description.

The Jobcard window displays the following information:

Equipment Description		Make / Model	
AIR COMP - STARTING NO.1		ATLAS COP LT 1230KET	
Maintenance Level	Maintenance Period	Due Date	Due at Hours
Level 2	500 Hours	15/11/2012	8753

Maintenance Instructions

SAFETY: ENSURE MACHINE IS ISOLATED & LOCKED OUT.

CHANGE LUBRICATING OIL.

CHANGE AIR FILTER

INSPECT DRIVE SPIDER COUPLING

ENSURE OUTLET CHECK VALVE IS WORKING CORRECTLY

Word Processing Document Open

Spreadsheet Document Open

Air Comp LT1230KET Checklist.xls

PDF Document View

Atlas 500Hours Service.pdf

Parts/Tools Required for Maintenance Task.

Part Description	Manufacturers Part No.	Drawing	Inventory No.	Location	Stock	Qty. Reqd.
VALVE KIT	1503 6141 60			M201	14	1
AIR FILTER KIT	1503 6130 60			M203	16	1
FLEXIBLE COUPLING	1503 2846 00			COMP.FLA	2	1
VALVE SEAT	1503 0017 00			M202	4	1
VALVE SEAT	1503 0028 00			M202	3	1

Print/Preview Options.

The Print Selection dialog box allows users to choose which document to print:

Select Document to Print

- ☒ Equipment Description and Maintenance Instructions
- ☐ Word Processing Document
- ☐ Spreadsheet Document
- ☐ PDF Document

Print Exit

4.3 Completing Maintenance

Fill in details as required.

Comments will appear on the next 5 Maintenance Task Sheets

General instructions can be copied from the Maintenance Task sheet and added to. The task instruction can be set out a form to filled in. e.g. liner measurements, cut in/out pressures etc.

Instructions made in a Word processing document or a spreadsheet can also be copied and edited and become part of History.

Other documents can be attached to the History record such as photos, inspection certificates, contractor reports.

If the administrators password was used to log in you have the option of posting the completed maintenance task directly to history. If not the details will be kept on file and an entry will appear in the "Part Compl." column in the "Maintenance Due/Completed" screen.

Completed Maintenance Jobcard - Not Saved to History Until Approved

Equipment Description		Make / Model		Post to History	Save and Exit	Cancel and Exit
AIR COMP - STARTING NO.1		ATLAS COP LT 123				
Installation Date	Account Code	Inventory No.	Responsible Person	Maintenance Task Completed		
01/07/1996	700		3rd Engineer	500 Hours		
Maintenance Due	Task Completion Date	Hours Run When Compl.	Completed By	Port		
9000	29/10/2012	8978	GUH	Singapore		
Condition	Comments			<input type="checkbox"/> Breakdown?		
Good/Fair condition	Routine Maintenance			Copy Instruction		
Notes on Task Performed						
Routine Maintenance						
Copy Word Document Instructions to History		Edit Word Document		Remove Word Document		
Copy Spread Sheet to History		Edit Spread Sheet		Remove Spread Sheet		
1_Air Comp LT1230KET Checklist.xls						
Attach Relevant Documents (Double Click on file name to view)						
Attach Document	1_P1010006.JPG		Attach Document	1_P9300031.JPG		
Attach Document			Attach Document			
Attach Document			Attach Document			
Add Spare Parts			Remove Part			
Part Description	Manufacturers Part No.	Inventory	Location	Stock	Qty. Reqd.	Qty. Used
AIR FILTER KIT	1503 6130 60		M203	16	1	1
FLEXIBLE COUPLING	1503 2846 00		COMP.FLAT	2	1	1
VALVE SEAT	1503 0017 00		M202	4	1	1
VALVE SEAT	1503 0028 00		M202	3	1	1

4.4 Early Maintenance/Breakdown

To register a Breakdown, Ad Hoc or early maintenance click on the 'Early Maint/Brkdns' button. Select the Equipment.

If it was a breakdown and a service was performed while Equipment was being repaired this can be noted by selecting the service level performed.

Select Equipment

- ACCOMMODATION / DOMESTIC
- AIR CONDITION/VENTILATION
- AIR WHISTLE - MAIN MAST
- AUTOMATION & CONTROL
- BALLAST TANK VENTS
- BEARING - MAIN
- BILGE & BALLAST SYSTEMS
- CARGO EQUIPMENT
- CARGO PLC'S-MAIN&AC/DDUST
- CENTRAL HEATING SYSTEM
- CERTIFICATES
- COMPRESSED AIR SYSTEMS
 - AIR COMPRESSORS
 - AIR COMP - STARTING NO.1
 - AIR COMP - STARTING NO.2
 - AIR COMP - WORKING NO.1
 - AIR COMP - WORKING NO.2
 - AIR COMP EMERG HAND DRIVEN
 - AIR FILTERS AND DRIERS

Description

Description	Make/Model
A/C SYSTEM BAG - OIL ANALY	SABROE SAB-110 SF
A/C SYSTEM MAIN - OIL ANAL	SABROE SAB-128 HF
AC - REGULATING SYSTEM	NOVENCO
ACCOMMODATION / DOMESTIC	
AIR CIRCUIT BREAKER	MITSUBISHI
AIR COMP - STARTING NO.1	ATLAS COP LT
AIR COMP - STARTING NO.2	ATLAS COP LT
AIR COMP - WORKING NO.1	ATLAS COPCO GA
AIR COMP - WORKING NO.2	ATLAS COPCO GA
AIR COMP EMERG HAND DRIVEN	SPERRE HLH 119
AIR COMPRESSORS	

Maintenance Levels Last Performed

250	0
500	7000
1000	6500
2000	0
0	0
0	0
0	0

Maintenance Periods in:
☒ Hours ☐ Months

Hours Run: 7491 on 01/06/2011

☒ Breakdown?

Cancel Continue

No Routine Maintenance Performed (Ad Hoc)

4.5 Entering Running Hours

If an Equipment Item is maintained using hours and there are Items attached (See Treeview in Equipment Database), hours will be automatically updated.

I.e. Entering the running hours for the Main Engine will also update the Units, Fuel Injectors, Turbo Charger etc.

The average Daily Running Hours is used to forecast Maintenance.

Runhours

If an Equipment Item is maintained using hours and there are Items attached (See Treeview in Equipment Database), hours will be automatically updated.

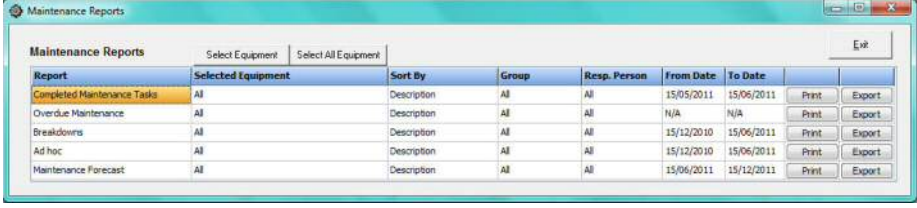
Update Running Hours Exit

Equipment	Last Update	Last Hours	Date of Current	Current Hours	Avg. Daily Hours
AIR COMP - STARTING NO.1	01/06/2011	7491	15/06/2011		1
AIR COMP - STARTING NO.2	01/06/2011	7011	15/06/2011		1
AIR COMP - WORKING NO.1	01/06/2011	6553	15/06/2011		6
AIR COMP - WORKING NO.2	01/06/2011	6925	15/06/2011		6
AIR COND REFRIG PLANT NO.1	01/06/2011	5095	15/06/2011		10
AIR COND REFRIG PLANT NO.2	01/06/2011	5360	15/06/2011		7
AIR COND REFRIG PLANT NO.3	01/06/2011	6612	15/06/2011		24
CRANE - AFT DECK	01/06/2011	2933	15/06/2011		1
CRANE - FWD DECK	01/06/2011	736	15/06/2011		1
DIESEL PRIME MOVER - NO.1	01/06/2011	3302	15/06/2011		7
DIESEL PRIME MOVER - NO.2	01/06/2011	3325	15/06/2011		7
DIESEL PRIME MOVER - NO.3	01/06/2011	2963	15/06/2011		7
DIESEL PRIME MOVER - NO.4	01/06/2011	2629	15/06/2011		7
MAIN ENGINE	01/06/2011	6508	15/06/2011		13
PURIFIER - FO NO.1	01/06/2011	3221	15/06/2011		3
PURIFIER - FO NO.2	01/06/2011	3296	15/06/2011		3
PURIFIER - LO	01/06/2011	1042	15/06/2011		10
PURIFIER - MDO	01/06/2011	5371	15/06/2011		13

← →

TIMING BELT, NO. 1
 TIMING BELT, NO. 2
 TURBOCHARGER - M/E
 UNIT - M/E NO.1
 UNIT - M/E NO.2
 UNIT - M/E NO.3
 UNIT - M/E NO.4
 UNIT - M/E NO.5
 UNIT - M/E NO.6
 UNIT - M/E NO.7
 UNIT - M/E NO.8
 UNIT - M/E NO.9
 VIBRATION DAMPER - ME
 WEAHER, GRAVITY, NO. 1
 WEAHER, GRAVITY, NO. 2
 WEAHER, GRAVITY, NO. 3
 WEAHER, GRAVITY, NO. 4
 WEAHER, GRAVITY, NO. 5
 WEAHER, GRAVITY, NO. 6
 WEAHERS, GRAVITY NOS. 1-6

4.6 Maintenance Reports



The screenshot shows a software window titled "Maintenance Reports". It contains a table with columns for Report, Selected Equipment, Sort By, Group, Resp. Person, From Date, To Date, and buttons for Print and Export. The "Completed Maintenance Tasks" row is highlighted in orange.

Report	Selected Equipment	Sort By	Group	Resp. Person	From Date	To Date	Print	Export
Completed Maintenance Tasks	All	Description	All	All	15/05/2011	15/06/2011	Print	Export
Overdue Maintenance	All	Description	All	All	N/A	N/A	Print	Export
Breakdowns	All	Description	All	All	15/12/2010	15/06/2011	Print	Export
Ad hoc	All	Description	All	All	15/12/2010	15/06/2011	Print	Export
Maintenance Forecast	All	Description	All	All	15/06/2011	15/12/2011	Print	Export

Complete Survey

Save and Exit Cancel and Exit

Equipment Description		Make / Model		Serial No.
PUMP - STEERING NO.1		SAUR 6P505 R		07090
Installation Date	Account Code	Inventory No.	Responsible Person	Maintenance Task Completed
01/07/1996	210666		1st Engineer	Survey
Survey Code	Survey Due	Survey Type	Task Completion Date	Hours Run
0624	03/08/2011	CSM	17/06/2011	
Completed By	Port	Condition	Comments	
GUH	Sydney	Condition of Class exists	Failed Survey	

Notes on Task Performed

Repairs required and will be Surveyed again next port.

Attach Relevant Documents (Double Click on file name to view)

Attach Document

Attach Document

Attach Document

Attach Document

Attach Document

Attach Document

5.2 Survey status

To view Surveys Status click on the 'Surveys Status' button on the main menu.

Survey Status

Filter by Survey Type:

Equipment with a Condition of Class

Equipment	Make/Model	Survey Code	Last Survey	Surveyed By	Survey Type	Survey Port

Equipment with Overdue Survey.

Equipment	Make/Model	Survey Code	Last Survey	Surveyed By	Survey Type	Survey Port
AIR COMP - WORKING NO.2	ATLAS COPCO GA37W	729	25/05/2006	C/E	CSM	SEA
EXTINGUISHER 58, CO2 5KG	SEPTEMBER 2006		27/02/2006	CHUBB		SYDNEY
EXTINGUISHER 59, CO2 5KG	SEPTEMBER 2006		27/02/2006	CHUBB		SYDNEY
EXTINGUISHER 60, CO2 5KG	SEPTEMBER 2006		27/02/2006	CHUBB		SYDNEY

Other Surveyable Equipment.

Equipment	Make/Model	Survey Code	Last Survey	Surveyed By	Survey Type	Survey Port
AIR COMP - STARTING NO.1	ATLAS COP LT 1230KET	693	28/06/2006	LLOYDS	CSM	SINGAPORE
AIR COMP - STARTING NO.2	ATLAS COP LT 1230KET	705	28/06/2006	LLOYDS	CSM	SINGAPORE
AIR COMP - WORKING NO.1	ATLAS COPCO GA37W	712	03/02/2011	C/E	CSM	
AIR COOLER - M/E	WARTSILA VASA 9R46	0448	18/09/2009	L.R.	CSM	SINGAPORE
AIR RECEIV EM-GEN START 1	SPERRE 3918	0774	03/02/2011	LLOYDS	CSM	Sydney
AIR RECEIV EM-GEN START 2	SPERRE 50023	0781	03/02/2011	LLOYDS	CSM	Sydney
AIR RECEIVER ME START NO.1	INTEGASA	0736	03/12/2010	LR	CSM	Sydney
AIR RECEIVER ME START NO.2	INTEGASA	0743	03/02/2011	LLOYDS	CSM	Sydney
AIR RECEIVER, WORKING NO.1	METAL PRODUCTS	0750	03/12/2010	LR	CSM	
AIR RECEIVER, WORKING NO.2	METAL PRODUCTS	0767	28/06/2006	LLOYDS	CSM	SINGAPORE
AIR RECEIVER, WORKING NO.3	METAL PRODUCTS		23/02/2007	L.R.		SEMBAWANG

5.3 Survey Reports

Survey Reports

Report	Sort By	Filter	Operator	Value		
Equipment With a Condition of Class	Survey Type				Print	Export
Equipment With Overdue Surveys	Survey Code				Print	Export
Equipment Requiring Surveys	Model				Print	Export

Survey Forecast

Selected Survey Type	From Date	To Date		
All	15/06/2011	15/03/2013	Print	Export

6 System

6.1 System Settings

System Settings

Company: SeaWulf Location: MV Sample

Registration Key: Must be in format xxxxx-xxxx-xxxx-xxxx
0000-0000-0000-0000

Admin Password: User Password

Arrangement: (e.g. 'Equipment Numbered for'd to aft Port to Stbd.')

Equipment Numbered For'd to Aft Port to STBD:

Location Prefix: 01 Date Format: dd/MM/yyyy

Spares Requisition Prefix: V01 Current Spares Requisition No.: 6

Spares Requisitions Transfer Folder: Maintenance History Folder

Transfer: History

Maintenance Tasks Instructions Folder: Instruction Manuals Folder

Maintenance: Manuals

Equipment Condition:

Recommend longer service period: Malfunctioning - now OK

Good/Fair condition: Malfunctioning - Repairs incomplete

Condition of Class exists: Malfunctioning - Temporarily repaired

Guarantee claim: Procedural change

Field Name for Additional Information: Maintenance Level Colour

Location:

Buttons: Cancel, Save and Exit

6.2 System Utilities

System Utilities

Before proceeding with Repair or Compacting of database make a backup and make sure all other user are logged out of the application.

Buttons: Repair Database, Compact Database, Exit

Log