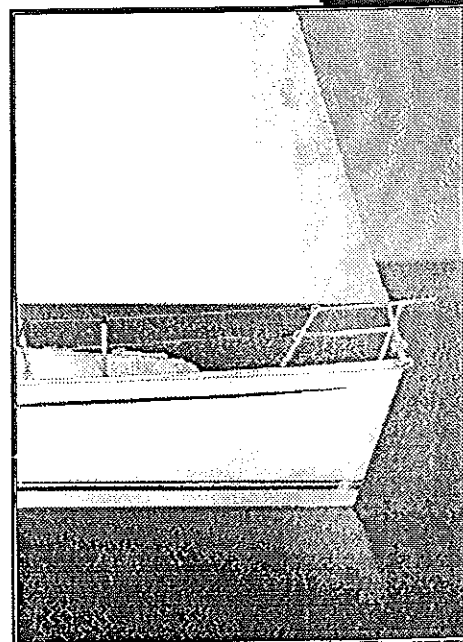


THE

Moody 36

OWNER'S
HANDBOOK



THIS CRAFT

NAME OF CRAFT:

REGISTERED PORT:

REGISTERED NUMBER:

HULL NUMBER:

DATE WHEN FIRST COMMISSIONED:

KEEL CONFIGURATION:

ENGINE NUMBER:

REGISTRATION FORM *Complete & Return*

CRAFT DETAILS

NAME _____

MODEL _____

HIN NO. _____

HOME LOCATION _____

DATE OF DELIVERY DAY/MONTH/YEAR _____

NAME OF AGENT _____

OWNER'S DETAILS

FORENAMES _____

SURNAME _____

ADDRESS _____

TELEPHONE NO. _____

FAX NO. _____

INTRODUCTION

MOODY YACHTS

Moody yachts are manufactured by Marine Projects (Plymouth) Limited in accordance with ISO 9002 standards, all design and construction processes are R.I.N.A. approved in compliance with E.C. directives.

Moody yachts are designed and built to undertake the rigours of category A 'ocean' sailing, defined as: *Craft designed for offshore voyages where conditions experienced may exceed wind force 8 (Beaufort scale) and include significant wave heights of 4m, for vessels that are largely self sufficient.*

THIS HANDBOOK

This handbook contains important information regarding the safe and enjoyable operation of the your Moody yacht and should be kept for the reference of all crew. Please pass on this handbook with the craft to any new owner.

Whilst every effort has been made to ensure the accuracy of the handbook, Marine Projects (Plymouth) Limited, their agents, distributors and publishers cannot be held responsible for any inaccuracies or omissions in this Handbook or for any injuries to any person, however caused, engaged in any activity involving a Moody yacht or its ancillary components and equipment, either on land or in the water.

The content of the handbook has been compiled, in accordance with ISO 10240:1995, to assist the reader in the pursuance of safe and pleasurable use of a Moody yacht. It contains details of the craft, the equipment supplied or fitted, its systems and information on its operation and maintenance. Please read it carefully and familiarise yourself with the craft before using it.

The preliminary pages herein contain general information regarding the safe operation of a Moody yacht.

Chapters 1 through 10 provides the reader general information on the construction, operation and maintenance of a Moody yacht and the various systems fitted therein.

Appendix A contains a detailed specification of your Moody yacht. Appendix B is provided as a log for recording the craft's ownership, safety equipment, modifications and maintenance.

Any manufacturers literature regarding ancillary components and equipment will be found under separate cover.

SAFETY ONBOARD

If this is your first craft, or you are not familiar with this type of craft, for your own comfort and safety, please ensure that you obtain handling and operating experience before assuming command. Your dealer or national sailing federation (NSF) or yacht club (YC) will be pleased to advise you of local sea schools or competent instructors.

It is the bounden duty of any individual charged with command of the craft to ensure that the craft and its crew are fit to go to sea. Information concerning safety at sea can be obtained through any NSF or YC.



CAUTION - Moody yachts are designed to carry a maximum of eight (8) adult crew (of average weight and build). This number should not be exceeded.

All instruments on your craft were commissioned prior to delivery. If required, instrument recalibration should be carried out in accordance with the instructions contained in the relevant equipment manufacturers' literature prior to undertaking any sea passage. In particular, ensure the log is accurately calibrated and that a compass deviation card, completed by a qualified Compass Adjuster, is available for reference at all times.

SAFETY AT SEA

Owners are urged to obtain the appropriate Regulations and Codes of Practice that are recognised in the areas in which the craft will be operating.



CAUTION - Remember that the use of navigational aids is not a substitute for good seamanship and watch keeping practices. In addition any electronic equipment such as radar or GPS can fail and it is therefore of fundamental importance that the owner should be familiar with using the traditional navigational aids to establish the craft's position.

ENVIRONMENTAL CONSIDERATIONS

Careful consideration must be given at all times to the environment: Strict adherence to navigational laws and requirements; Use of solvents and aggressive detergents should be kept to a minimum and wherever possible only used when the craft is layed-up and suitable drainage is provided; Discharge from marine toilets and bilge must be in accordance with local and international laws, and domestic and galley waste should at no time be disposed of overboard whilst the craft is in inshore waters.

LIFTING THE CRAFT

The craft should not be lifted in a shore cradle. Refer to Appendix A for the dry weight and dimensions of your craft. When lifting the craft, the following precautions should be observed:

1. Slings should be as close to perpendicular, fore-and-aft, as is feasible and should have spreaders athwartships, the width of the hull or greater.

2. Lifting into the water from ashore: The aft sling position is determined by the position of the stern gear and should be clear of the propeller shaft or saildrive leg. This position is visually easily determined when lifting from ashore to the water. The forward sling should be positioned forward of the keel to balance the craft fore-and-aft.
3. Single-point lift: Ideally, when using a crane for a single-point lift, a lifting frame as long and at least the width of the craft, should be utilised. Sling positions are as item 2. If a suitable frame is unavailable, a spreader bar at least the width of the craft must be utilised. The aft sling position remains the same but the distance measured forward to the forward sling position should be increased. Using warps, secure the forward and aft angled slings securely to the bow and stern mooring cleats.



CAUTION - In all cases, ensure that the slings are clear of the stern gear, keel and impellers.

TAKING ON FUEL

The main engine fitted to your craft use standard diesel fuel which is stored in one main fuel tank. There is a filler cap on the side deck or centrally located in the cockpit. Refer to Chapter 4 and Appendix A for a more detailed description of the fuel system. When taking on fuel close all windows, hatches, etc. adjacent to filler to prevent ingress of fumes into the accommodation

Avoid overfilling. Fill slowly to avoid splashing. Close filler cap and wash off any spilt fuel immediately with detergent and running water.



DANGER - Do not smoke and extinguish all naked lights when taking on fuel.

RUNNING-IN A NEW ENGINE

It is advisable that new engines be run-in for the first 20 hours usage and should be treated with care and not too excessive a use of the throttle. In the event of a warning lamp or an alarm, stop the engine immediately. All gear changes should be implemented at low engine revolution speeds, i.e. from neutral. Run the engine occasionally during long voyages to keep the batteries charged. Do not switch off the ignition and battery switch until the engine has come to a standstill. Ensure that servicing is carried out by an official service agent.

STARTING THE ENGINE

Before starting the engine ensure that there are adequate fuel tank contents, that the fuel stopcock is open and that the engine controls are in neutral. Check that the engine cooling raw water seacocks are open and that the raw water strainers are free from debris. Check that the engine freshwater coolant level is correct. Check the engine and transmission oil levels are correct. Ensure that the engine start battery is on and that the battery charger is switched off and the AC shore support is disconnected.

Check that the propeller cannot be fouled by warps, lines, etc. and on an advisory note it is good practice to have the sails free for hoisting should an engine failure occur.

For a detailed guide on engine operations refer to Chapter 4 and the engine manufacturer's literature.

USING THE SAILS

Refer to Chapter 2 for basic rig tuning and sail trim.

CAUTIONS AND WARNINGS

This handbook, including its appendices, should be read thoroughly and understood before operating the craft or carrying out maintenance or repair to any equipment or component supplied by Marine Projects (Plymouth) Limited.

The various chapters and appendices of this handbook contain a number of cautions and warnings for you, your crew and the craft's safety.



DANGER - Denotes an extreme intrinsic hazard exists which would result in high probability of death or irreparable injury if proper precautions are not taken.



WARNING - Denotes a hazard exists which can result in injury or death if proper precautions are not taken.



CAUTION - Denotes a reminder of safety practices or directs attention to unsafe practices which could result in personal injury or damage to the craft or it's equipment.

Take note of all cautions and warnings contained in proprietary equipment manufacturers literature.

CHAPTER 2 - RIGS, RIGGING AND SAILS

2.1 MAST AND BOOM

Your Moody yacht is fitted with an aluminium mast and boom which, given good support, proper handling and careful maintenance should be remarkably durable. Detailed information on mast care and stepping the mast can be found in the manufacturer's literature.

2.1.1 Rigging

Standing rigging

The entire standing rigging is constructed from stainless steel (other than bottle screws) including all terminals, toggles and wire ropes. Rigs provided with Moody yachts are mostly masthead but can also be fractional rig configuration with an adjustable backstay system. This system allows tension in the backstay to be altered, consequently care should be taken to ensure the aft swept shrouds, intermediates and lower shrouds are strongly tensioned to provide aft support for the spar when the backstay is eased. Specifications for your craft are detailed in Appendix A.

Basic rig tuning

A simple guideline is that when sailing hard on the wind the leeward shrouds should not have any visible movement in them. If the leeward shrouds become slack when on this point of sail, additional tension will be required in the athwartships rigging. The cascade adjustment, which is fitted to the fractional rigs (optional) on the Moody S31 and moody S38 in the backstay is designed in such a manner that the system cannot be released completely, thereby always retaining some backstay support.



CAUTION - The standing rigging is the only support supplied for the mast and it is vital that it is adjusted and maintained correctly. In a seaway, if the rig is too slack, the mast head or spreader area can build up movement thereby increasing the shock loading on the stays. On the other hand, over tensioned rigging puts a higher total load on the stays and can be just as damaging. Refer to either the manufacturer's literature or a suitable reference book on tuning rigs and rigging.

Running rigging

The running rigging comprises all the lines and related mechanics used to hoist and control the sails. This includes halyards, sheets, guys, lifts, downhauls and outhauls, together with their various shackles, blocks, cleats and winches.



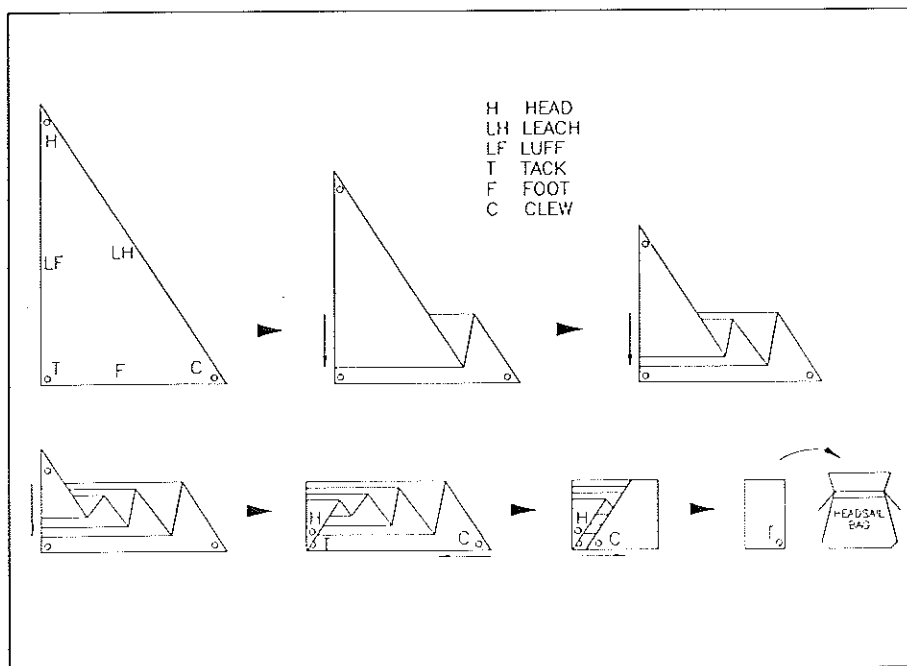
CAUTION - It is essential that all running rigging is inspected regularly for any signs of stress or wear. Information on types of cordage, wire ropes and fittings can be gained from a good chandler or rigger.

2.2 SAILS

Your Moody yacht is fitted with high-quality sails from the loft of a leading sailmaker. They are manufactured from either woven Dacron or Nylon and give good tensile strength, resistance against abrasion and are not unduly affected by moisture. However, they can be damaged by ultra violet light and should not be exposed unnecessarily to sunlight (roller furling headsails are fitted with a UV resistant leach strip). If covered when not in use, treated with care and maintained correctly the sails will give many seasons of good service.

2.2.1 Headsails

Your Moody yacht is supplied with either a roller furling headsail or a working jib as standard. See Appendix A. Headsails should be kept folded, bagged and stored when not in use or fully furled on the forestay protected by the UV strip.



2.2.2 Mainsails

Your Moody yacht is usually supplied with an extended battened mainsail fitted with a single line reefing system. On the larger Moodys however, in-mast furling and reefing systems are provided. See Appendix A for more detail.

2.2.3 Sail plan

The sail plan is detailed in Appendix A.

2.2.4 Sail areas

The sail areas are detailed in Appendix A.

2.2.5 Basic sail trim

No yacht will perform well under sail, if the sails are badly set. The following information is provided as a basis for setting sails correctly. Beyond this, sail trim, sail interaction and spinnaker handling is best explained in one of the numerous books dedicated to the subject.

Trimming the headsail

The basic rule of sail trimming is 'let it out until it flaps, pull it in until it stops'. When sailing to windward, the headsail should be sheeted tightly. However, owners should take care not to oversheet the sail, lest it bears or rubs on the spreader ends. As wind strength decreases, the sheet should be eased slightly to maintain clearance from the spreader ends.

When sailing to windward in heavy winds the main sheet should be eased to de-power the mainsail and reefed if necessary.

Reefing the mainsail

Unless your craft is fitted with in-mast furling and reefing, the mainsail utilises a slab-reefing system. The two reefs are each controlled by a single reefing line attached to the sail at luff and leach. To reef the sail, simply ease the main halyard whilst winding on the relevant reefing line. When the sail is snug along the boom, secure the reefing line and re-tension the halyard. To facilitate single line reefing, it is recommended that owners mark the mainsail halyard with a permanent marker pen showing the positions to which the halyard should be lowered to put in reefs 1 & 2. Such marks should be made at the rope clutch so that when reefing, the halyard is first eased back to the relevant mark, the reefing lines wound in, and finally, the halyard re-tensioned.

Using the kicking strap

The kicking strap controls the amount of twist in the mainsail by controlling the height of the boom independent of mainsheet tension. Keep some tension on the vang unless the mainsail is sheeted in hard. In order to maximise drive, the sail will require more twist and less vang and sheet tension in lighter winds than in moderate winds.

CHAPTER 3 - STEERING SYSTEMS

3.1 HELMS

Most Moody yachts are fitted with a pedestal steering system. Refer to Appendix A for further detail regarding the steering system fitted to your yacht.

Pedestal steering systems control the rudder movement by use of stainless steel wire and quadrant fixed to the rudder stock or by a drag-link assembly remotely operating a tiller arm on the rudder stock. Tiller steering sports an adjustable tiller extension. The tiller extension is removable and should be stowed below when the craft is not in use as deterrent against theft.



CAUTION - Wire steering will stretch when new and will need to be retensioned following the manufacturer's instructions. If this is not carried out the steering wires can jump off the steering quadrant disabling the helm.

3.1.1 Emergency tiller

Moody yachts fitted with pedestal steering systems are supplied with an emergency steering system should the wheel system fail. The emergency tiller is stowed close to the emergency helm position located directly above the rudder stock. The emergency tiller is inserted directly onto a top-end fitting on the rudder stock and is secured in place with a locking pin.

3.1.2 Autopilot

An electronic autopilot can be fitted as an option to any Moody yacht. Refer to Appendix A and the relevant manufacturer's literature if an autopilot is fitted to your craft.

3.2 RUDDERS

Moody yachts are fitted with partial skeg hung semi-balanced rudders. These consist of a long stainless steel stock passing through the hull, to which stainless steel tangs are welded and a GRP rudder moulded over both stock and tangs. The stock is connected to the steering system as explained above. The stock is mounted through the hull using low friction roller bearings/polyacetal bearings and watertight neoprene 'O' rings/lip seals and a rudder tube.

CHAPTER 4 - ENGINE AND FUEL SYSTEMS

Moody yachts are fitted with marine diesel engines. For detail on the type of engine fitted to your craft refer to Appendix A. Additional information is provided by the engine manufacturer's literature. The layout of your Moody yacht's fuel system is illustrated in Appendix A.

4.1 ENGINE COOLING SYSTEM

4.1.1 Saildrive systems

Raw seawater is drawn in as engine cooling water through the Saildrive leg, via a circular shut-off valve mounted at the top of the Saildrive leg. This valve is opened by turning anti-clockwise and closed by turning clockwise. Raw water is passed through a clear topped filter mounted in the engine space before passing through the engine heat exchanger. After passing through the Saildrive leg and filter, raw water is drawn into the engine heat exchanger, where heat is transferred from the closed circuit fresh water system. The heated raw water is then injected into the mixer box and discharged through the exhaust system.

4.1.2 Propeller shaft systems

Raw seawater is drawn into the system by the engines raw water impeller, entering the craft through a seacock. The raw water then passes through a filter/strainer before passing through the engine's heat exchanger where heat is transferred from the closed circuit fresh water system. The heated raw water is then injected into the mixer box and discharged through the exhaust system.

4.1.3 Engine compartment ventilation

All engine compartments are vented by thermostically controlled extractors and/or blower fans, these assist engine cooling and prevent the build up of noxious fumes. The Moody 36, S38 and 40 are fitted with blower fans forcing clean air into the lower part of the engine compartment and an extractor fan at the top of the compartment to remove the hot air and any noxious fumes that may exist. The Moody S31 uses a blower fan system but is vented directly topsides.

Engine compartments are fitted with an automatic BCF gas (Halon 1211) fire extinguisher.



WARNING - Do not obstruct or cover engine vents or grills.

4.1.4 Heat Exchanger

Heat is transferred from the closed circuit fresh water system to raw sea water passing through the heat exchanger. The heated sea water is then injected into the exhaust system for discharge via the exhaust system.

4.2 ENGINE EXHAUST SYSTEM

Exhaust gasses are injected into the cooling water in the mixer box to reduce their temperature and hence allow them to be discharged, through reinforced rubber hosing to a skin fitting located above the water line on the hull. The exhaust hose is fitted with a 'swan neck' to deter sea water from being forced into the exhaust and into the engine.

To avoid such an eventuality, the following precautions should also be taken:



CAUTION - SAILDRIVE ENGINES ONLY

After three or four attempts to start a stubborn engine, turn off the water inlet valve on Saildrive until the engine starts. Re-open valve immediately the engine starts.



CAUTION - ALL ENGINES

When starting the engine, check that the water is being ejected through the exhaust skin fitting within twenty seconds. If not, switch off and investigate, first checking that the water inlet valve/seacock is open.

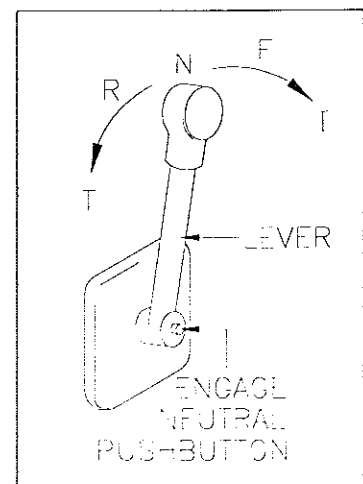
4.3 ENGINE CONTROLS

Craft are fitted with a single lever throttle and gear change control, located at the helm position.

Forward gear is selected by pushing the lever toward the bow. The further forward the lever is pushed, the higher the rate of engine revolution.

Reverse gear is selected by pulling the lever aft. The further aft the lever is pulled, the higher the rate of engine revolution.

To increase engine revolutions without selecting a gear, for engine starting or to charge batteries, press and hold the select neutral push button and move lever in either direction. The select neutral push-button will pop out when the lever is returned to neutral or next passes through the neutral position.



4.4 ENGINE OPERATION

4.4.1 Starting a marine diesel engine

- 1 Ensure that only the engine battery start selector switch is switched to the on position.
- 2 Ensure that the engine/gear select control lever is in neutral and set in a nearly full ahead or astern position.
- 3 *With the Moody S31, 36 and S38* - ensure that the engine stop is not in the pulled out position. Press the 'POWER ON/OFF' button once. Operate the pre-heater switch (labelled 'GLOW/ALARM TEST') for 20 seconds. Press the start button.

The Moody 40 only - ensure that the engine stop is not in the pulled out position. Operate the pre-heater by turning the key to position 1, wait for the pre-heat light to extinguish, then turn the key to position 2 to start the engine.
- 4 The engine should start and run. Adjust engine revolutions with the engine/gear select control lever.
- 5 Switch on all batteries so as they may be charged whilst the engine is running.



CAUTION - Do not attempt to start engine whilst in gear or with the engine stop control out. Do not use the engine start battery for domestic or ancillary use.

4.4.2 Stopping a marine diesel engine

Marine diesel engines are stopped by preventing fuel from being injected into the cylinders. This can either be achieved manually or electronically dependant on your crafts specification (See Appendix A). The electronic stop mechanism operates via the ignition key.

To stop the engine using the ignition key:

- 1 Ensure the engine/gear select control lever is in neutral and that the engine throttle has set idled the engine revolutions.
- 2 Turn the ignition key to its normal at rest position.
- 3 Turn the ignition key to the 'OFF' position.
- 4 If leaving the craft, turn the engine battery isolator switch to 'OFF'.

To stop an engine not fitted with an electronic stop mechanism, the following procedure should be followed:

- 1 Ensure the engine/gear select control lever is in neutral and that the engine throttle has set idled the engine revolutions.
- 2 Pull out fully the engine stop lever. When engine is fully stopped, return the engine stop fully.
- 3 Press the 'POWER ON/OFF' button once.
- 4 If leaving the craft, turn the engine battery isolator switch to 'OFF'.



CAUTION - Never attempt to stop an engine whilst the engine is in gear and under load.

4.5 PROPELLERS

Moody yachts are fitted with either two-bladed or three-bladed fixed propellers as standard, depending on the choice of engine. A folding propeller can be fitted in certain circumstances as an optional extra.

4.6 FUEL SYSTEM

4.6.1 Fuel tank

Fuel tank fitted to Moody yachts are constructed from aluminium. Capacities are detailed in Appendix 1. The tank is filled via a capped fitting on deck or in the cockpit.

To prevent condensation forming within the tank or air being drawn into the fuel system when heeled over, keep the fuel tank filled fully whenever possible.

The fuel feed from the fuel tank to the engine is fitted with manual and electric shut-off valves. The electric valve is operated and opened automatically by a solenoid when the engine ignition circuit is activated. The manual valve should only be closed other than when servicing/repairing the fuel system or in the event of an emergency.

4.6.2 Fuel filters

An in-line coarse fuel filter/water separator is mounted within the engine compartment in the fuel line between tank and the low pressure pump. Its bowl should be checked periodically for water and drained

as necessary. A replaceable cartridge-type fine filter is fitted in the fuel line between low-pressure and high-pressure pumps. Refer to the Chapter 10 and the engine manufacturer's literature for replacing filters.

4.6.3 Return pipe

Engines are fitted with a fuel return pipe to allow surplus diesel fuel to be returned to the fuel storage tank.

4.6.4 Fuel contents gauge

The fuel tanks current contents are displayed electronically by a fuel gauge located on the crafts electrical distribution panel. The contents gauge is activated by the ignition circuit on the engine control and instrument panel.

Consideration should be given to the accuracy of the gauge when the craft is heeled over.

CHAPTER 5 - ELECTRICAL SYSTEMS

The electrical systems on your Moody yacht comprise a 12V DC battery system as standard and an optional AC shore power system. The layout of your Moody yacht's electrical system is illustrated in Appendix A.

5.1 12V DC BATTERY SYSTEM

The 12V DC battery systems on craft vary, but generally comprise an engine driven 60A alternator charging 2 to 3 heavy duty 12V batteries wired sequentially to a battery isolator switch. Refer to Appendix A for further detail.

5.1.1 Battery isolators/changeover switches

The battery isolation switch is normally located on or near the DC distribution panel beside the navigation table. The batteries are connected to the engine charging system via an isolator/changeover switch, which directs charging supply from the alternator to the batteries. Always switch off batteries when not required or when they are being charged using the AC battery charger.

5.1.2 Circuit breakers and switches

The DC system's circuit breakers and switches are located on the 12V DC distribution panel. Each is clearly labelled with its function. The unlabelled switches are spares which may be used to control any additional electrical equipment installed on the craft.

5.1.3 Wiring looms

All craft are wired throughout using numbered preformed wiring looms.

5.1.4 Spare conduits

Conduits with pre-fed mouse lines are provided from the chart table to the garage and further to the base of the mast.

5.2 110V/240V AC SHORE POWER SYSTEM

The 110V/240V AC shore power system consists of the following: an externally mounted Input socket; a residual current device (RCD); a polarity test system; a Voltmeter and circuit breakers/switches.

5.2.1 Shore support socket

The shore support socket is sited externally on deck or on the craft's topsides and is used to connect the craft's AC systems to shore supply. The standard socket fitted is a 15A 220/240V socket.

5.2.2 Residual current device (RCD)

The RCD protects the AC system from overload. It will trip out if more AC systems are switched on than the available shore supply can tolerate or if any of the craft's electrical equipment is wired incorrectly.

5.2.3 Connecting to an AC shore supply

- 1 Check that the RCD is switched to the OFF position;
- 2 Plug in the shore supply socket and switch on shore supply;
- 3 Test RCD then reset;
- 4 Check current on ammeter and voltage on voltmeter, then
- 5 Switch on individual systems as required.



CAUTION - Never try to hold any of the switches or circuit breakers in when the supply is switched on. If a switch or circuit breaker will not stay in, this indicates a system fault or overload.

CHAPTER 6 - FRESHWATER SYSTEM

Moody yachts are fitted with a pressurised fresh water system (hot water is optional on the Moody S31) supplied by twin tanks located amidships on the Port and Starboard sides of the saloon. The tanks are constructed from either light alloy or rigid spun plastic. The tanks are connected by a balance pipe and are filled via a single pipe located amidships on deck. All fresh water systems on the craft use synthetic pipes. If any modifications or replacements are made, ensure that any new piping is suitable for use with potable water (drinking water). The layout of your Moody yacht's freshwater system is illustrated in Appendix A.

6.1 COLD WATER SYSTEM

The cold water system distributes cold fresh water from the tanks to the galley, wash basins and showers via the pressure pump. The capacity of the cold water system is detailed in Appendix A.

6.1.1 Filling tanks

Fill tanks slowly to allow the water level to stabilise across the tanks.

6.1.2 Pressurised water system

Fresh water is distributed from the tanks by an electric pump. The water is filtered prior to distribution by a strainer located in between the tanks and pump. The pump is activated automatically on a demand system through the pressure drop caused by a tap in the hot or cold water system being opened. An accumulator tank is fitted on the pressure side of the pump to even out pressure drops and reduce surging. The pump is water lubricated and maintenance free.



CAUTION - The pressure pump must not be allowed to run dry whilst in use. Always ensure that there is sufficient freshwater content for your anticipated usage.

6.2 HOT WATER SYSTEM

The hot water system draws fresh water from the cold water system via a non-return valve to a calorifier. The capacity of the hot water system is detailed in Appendix A. The calorifier will heat water whenever the engine is running, or by an optionally fitted AC immersion heater powered by the shore support system. The calorifier is fitted with a thermostat to regulate the water temperature within the pressurised hot water system and a pressure relief valve for safety. Water is distributed from the calorifier to the galley, hand basins and showers.

CHAPTER 7 - BILGE, WASTE AND MARINE TOILET SYSTEMS

7.1 BILGE

The hull of your Moody yacht contains a single bilge compartment, serviced by a hand-operated bilge pump in the cockpit. In addition, the chain locker which stores the anchor chain constitutes a bilge but, as it lies well above the water line, it drains directly over the side of the craft. The layout of the bilge system fitted to your yacht is illustrated in Appendix A.



CAUTION - Bilges should be inspected daily whilst the craft is in use, otherwise prior to getting underway and any water pumped out. Ensure all limber holes in the longitudinal and transverse stiffeners are clear of obstructions. Ensure that the strainers at the pick up end of the bilge pump suction hose are clear. Ensure that bilges are checked and pumped dry before leaving the craft. In order to reduce on-board condensation, it is recommended that any residual water is sponged out from the bilges if the craft is to be left untended for an extended period of time.

7.1.1 Bilge pumps

Craft are fitted with a manually operated bilge pump as standard and electrically pumped bilges as an option. The manually operated bilge pump is located the cockpit. Owners are advised to fit stowage clips for the bilge pump handle in the cockpit. The manual bilge pump is operated as follows:

- 1 Open the bilge pump cover;
- 2 Insert the pump handle in the socket and pump the bilge dry;
- 3 When the pump ceases to lift water, remove the handle and close the cover.

7.2 WASTE WATER DRAINS

Waste water drains from the galley sink and hand basin discharge are discharge through skin fittings/seacocks. On some craft the galley sink is electrically pumped using an electric pump, operated by a flow-sensing switch from the galley waste pipe. Shower waste is discharged directly overboard using an electric pump. Rainwater and spray drains from the cockpit through hoses and skin fittings.



CAUTION - Ensure that the cockpit drains are free obstruction or blockage.

7.3 MARINE TOILETS

Moody yachts are fitted with manually operated Brydon toilets or heads. The layout of your Moody yacht's standard marine toilet system is illustrated in Appendix A. To operate a Brydon marine toilet:

- 1 Ensure that the inlet and outlet seacocks are in the fully open position;
- 2 Move the valve lever to the 'FLUSH' position and flush the bowl;
- 3 Return the lever to the 'DRY BOWL' position and pump the bowl dry;
- 4 Repeat steps 2 & 3 above.

The valve should be left in the "DRY BOWL" position when not in use. When the yacht is left unattended, inlet and outlet seacocks must be closed.



CAUTIONS - In heavy sea conditions, marine toilet inlet and outlet seacocks should be kept closed.

Marine toilets are easily blocked, and not pleasant to clear. So be careful not to obstruct the toilet with either sanitary paper or towels. It is recommended that this disposed of separately.

7.4 HOLDING TANKS

Holding tanks are fitted as an option and are detailed in Appendix A.

7.5 SHOWER COMPARTMENTS

The shower compartment is fitted with an electric pump. Water is drawn into the shower pump through an in line filter. If the pump fails to operate correctly, check the filter is not clogged. Both pump and filter are normally mounted within the heads compartment. The pump is activated by a switch and also by a circuit breaker on the 12V DC distribution panel.

CHAPTER 8 - GAS SYSTEM

A self-draining locker on deck is provided to hold a maximum of 2 gas bottles. A regulator, situated in the locker, adjacent to the gas bottles, is connected to the gas bottle in use via a short flexible hose. The regulator reduces the gas pressure for use in the yacht's low pressure appliances. Gas is supplied to the appliances through a copper pipe, encased for protection in a clear plastic pipe which is secured to the hull to prevent movement. The copper tube is connected to the relevant appliance via a gas shut-off valve and a short flexible hose which allows (in the case of the cooker) for movement on its gimbals. The layout of your Moody yacht's gas system is illustrated in Appendix A.



DANGER - GAS LEAKS

Ensure that cigarettes and naked flames are extinguished immediately and all electrical systems are switched off, especially electric bilge pumps.



WARNING - Should you suspect a leak in the gas system, the following precautions must be taken:

- 1 Turn off the gas supply at the regulator;
- 2 Disconnect the gas bottle;
- 3 Open all hatches and portlights to allow air to circulate through the craft; Open the floor access traps and operate the manual bilge pump. Never use an electric bilge pump - if your craft is fitted with an electric bilge pump, ensure that it is switched off immediately.

As gas is heavier than air, it will tend to fall towards the bilge, and hence may be disposed of in this manner.

- 4 Always employ the services of a qualified gas fitter to undertake any repairs.

8.1 GAS APPLIANCES

For information regarding gas appliances fitted to your Moody yacht refer to the manufacturer's literature.

CHAPTER 9 - SAFETY EQUIPMENT

Your national sailing federation (NSF) or yacht club (YC) will be pleased to advise you regarding mandatory and recommended safety equipment required for inshore and offshore usage. However, the following safety equipment is either supplied with your yacht or is highly recommended for your safety and peace of mind.

9.1 FIRE EXTINGUISHERS

An automatic fire extinguisher is fitted in the engine room. This extinguisher is of internationally approved BCF gas (Halon 1211) type.

Two dry powder fire extinguishers are supplied with the craft for the owner to fit as appropriate. It is recommended that at least one of these is fitted in the vicinity of the galley.



WARNING - Owners must ensure that fire extinguishers are located for ease of access at all times. Do not place extinguishers in remote locations where it may be possible for the user to become trapped between the fire and exit.



DANGER - Do not open the engine compartment should you suspect a fire. The fire should be extinguished by the automatic Halon extinguisher in the engine compartment. Opening the compartment will stop the extinguisher from dousing the fire and will provide oxygen to spread the fire very rapidly throughout the craft.



DANGER - Never inhale Halon gas fumes. If a Halon fire extinguisher is activated all crew must be evacuated from inside the craft. Thoroughly vent the craft after any usage of Halon gas.

9.2 LIFE RAFTS AND LIFE JACKETS

9.2.1 Life rafts

Life rafts are not provided with your craft. However, when purchasing a raft for use with your Moody yacht it must be maintained, stowed and serviced regularly in accordance with the manufacturer's recommendations. It must also be able to accommodate the entire crew.

9.2.2 Life jackets and harnesses

Life jackets and safety harnesses, conforming to international safety standards, should be provided for each member of crew and be worn at all times.

9.3 VHF RADIOS

VHF Radios should only be used by competent qualified operators or persons under their supervision. Radios need to be licensed and should not be used for unnecessary and prolonged conversations. Only use channel 16 for emergencies and for hailing other craft. Check your local almanac for other professional channel usage, such as Coast Guards and Port Authorities,

9.4 EMERGENCY AND SAFETY EQUIPMENT

Flares for coastal and off-shore sailing should be carried as appropriate. these will need to be replaced periodically in accordance with their Expiry dates. Other equipment such as safety lines, EPIRBs, etc., are recommended.



WARNING - Only use emergency equipment in accordance with maritime law.

CHAPTER 10 - MAINTENANCE, CLEANING AND LAYING-UP GUIDE

10.1 PERIODIC MAINTENANCE CHECKS

The tables set out on the following pages are intended to supplement maintenance information provided by the manufacturers literature (see Appendix 5) and should be read in conjunction with such manufacturers literature.

10.1.1 Daily maintenance

EQUIPMENT

MAINTENANCE & CHECKS

Engine system

Check coolant levels and engine and gear box oil levels. Check oil pressure, oil pressure light, alternator, water pump, drive belt, and gear lever for correct operation.

Water/waste systems

Check for leaks and security of fastening. Check all components such as pumps in accordance with Manufacturer's literature. Check marine toilet for leaks & security of fastenings. Repair all leaks immediately.

Gas system

Check complete system for security and leaks.

10.1.2 Weekly maintenance

Engine

Check diesel fuel water trap.

Batteries

Check electrolyte level and battery terminals for security and freedom from corrosion.

Rigging

Inspect rigging screws to ensure no movement has occurred. Check split pins and shackles for security and ensure deck blocks are fastened correctly.

10.1.3 Two-monthly maintenance

Engine system

Check drive belt for wear and correct tension, check for water in fuel, drain water tap if necessary. Check engine for oil and water leaks, check idling speed is correct.

Water/waste system

Check shower filters are clean and free from obstruction.

10.1.4 Annual maintenance

<i>Mast and boom</i>	Check mast and boom for wear and deterioration. Clean and rinse with fresh water. Refer to the manufacturer's literature.
<i>Running rigging</i>	Check thoroughly.
<i>Standing rigging</i>	Remove and examine thoroughly.
<i>Rigging screws</i>	Check and grease threads.
<i>Ropes</i>	Check for wear, damage etc.
<i>Sails</i>	Check for wear, damage etc.
<i>Furling system</i>	Clean and rinse with fresh water. Lubricate all moving parts.
<i>Fittings</i>	Smear all aluminium fittings and anodised surfaces with wax polish.
<i>Winches</i>	Check for security, wear, corrosion and correct operation. Service in accordance with manufacturer's literature.
<i>Ground tackle</i>	Check all anchors and ground tackle for security and serviceability. Lightly grease all shackles. Check chain end lashing is secure.
<i>Cathodic protection</i>	Check sacrificial anode for erosion. Check all bonding cables for security and condition.
<i>Bilges</i>	Check limber holes are free from obstruction.
<i>Engine system</i>	The engine should be serviced by a qualified engineer in accordance with the manufacturer's warranty. Inspect engine mounts for security and signs of wear, damage and deterioration. Lightly smear fuel filler cap thread with Vaseline to prevent the ingress of water.
<i>Water/waste system</i>	Lightly smear fresh water filler cap thread with Vaseline to prevent the ingress of water. Check correct operation of water pressure pump cut-out. Refer to Manufacturer's literature as necessary.
<i>Gas system</i>	Check gas bottles for signs of corrosion. Examine regulator for corrosion. If in doubt, have it checked by a qualified fitter. Renew all

flexible hoses. Test all gas taps and controls for safe operation. Ensure that the gas bottle locker is clean and that the drain holes are free from blockages.

Electrical system Check all exposed plugs, sockets and connections for security and corrosion. Lightly smear with a silicone grease.

Electronics Check for security of mounting, freedom from corrosion and correct operation.

Safety equipment Examine all safety equipment for serviceability. Where equipment has a finite life, ensure it is not out of date. If unsure as to the condition of any safety equipment, have it checked professionally.

10.2 MAINTENANCE AND CLEANING PROCEDURES

10.2.1 Hull and decks

Minor scratches and abrasions

Minor scratches and abrasions should be attended to in their early stages, initially by using a medium grade dry rubbing compound. If this is ineffective, rub the area lightly with 400 grade wet and dry paper (used with water) until the mark disappears. Smooth the area with 800 grade followed by 1200 grade (both wet) and then apply a silicone free wax polish.

Stress cracks in the laminate should be looked at by an expert and immediate remedial action taken.



CAUTION - Rubbing the hull with abrasive compounds and materials removes the gelcoat. As this is only a thin layer, great care should be taken. If in doubt, consult a GRP repair specialist.

Annual cleaning

Wash the hull annually with warm fresh water containing a mild detergent solution. Stubborn stains and polish may be removed with an appropriate release agent or oil removing fluid. Polish the hull with a silicone free wax polish.

Seacocks

Check regularly: Security of attachment; Security and condition of hose and hose clips and free operation of valve.

Cathodic protection

The hull mounted and saildrive leg/propeller shaft anodes must be replaced before approximately two-thirds eroded. Failure to ensure the craft's catalytic protection is complete may result in serious damage to metal parts. An anode is removed from the hull by unfastening the two securing nuts and washers. It is recommended that when replacing an anode, the nuts, washers and backing sheet are also replaced. Refer to the engine manufacturer's literature for instructions on replacing the Saildrive anode.

Antifouling

Antifouling should be checked on a regular basis and replaced at least every season. Owners are advised to maintain a record of antifouling used in Appendix B, as some types of antifouling are incompatible.

10.2.2 Deck gear

Winches and windlasses

Maintenance instructions are detailed in the manufacturer's literature. It is recommended that owners carry a supply of winch spare parts and winch grease on board at all times.

10.2.3 Below decks

Furniture

There are some GRP, stainless steel and work surfaces in the accommodation which should be maintained as for hull maintenance.

Avoid the use of any abrasive cleaning agents and polish GRP and stainless steel surfaces to maintain their shine. Use cutting or chopping boards in the galley.

Small surface scratches

Small scratches breaking the topcoat finish, should have the affected area carefully rubbed down with wet 1200 grit wet-or-dry paper, then cut and polished.

Deeper scratches and digs

Rub down affected area with wet 1200 grit wet-or-dry paper. Build up three coats of sealer, rub down using 400 wet-or-dry paper between each coat of lacquer and allow to dry completely. Rub back until level with the surrounding surface using wet 1200 grit wet-or-dry paper on a small sanding block. Cut and polish.

Soft furnishings

Dust and grit should be removed frequently with a soft brush or the upholstery attachment of a vacuum cleaner.

Creases and stains

Dry cleaning is recommended for covers which can be removed. Upholstery materials and specifications change regularly and it is advised you consult your Moody dealer for recommendations regarding care and cleaning.

Curtains

Remove curtains for dry cleaning annually, or as necessary.

Carpets

Vacuum clean regularly and attend to spillages immediately. Generally maintain carpets as for normal domestic carpets. Clean thoroughly, annually or as necessary, by wet extraction process as available from professional carpet cleaning services.

Vinyl linings

Vinyl linings should be wiped clean with a cloth dampened with a mild detergent solution followed by rinsing with fresh clean water. More stubborn marks or stains should be treated with an aerosol-type proprietary Vinyl cleaner, following the instructions on the container. Never use industrial strength solvents.

10.2.4 Rigs and rigging

Mast and boom

Refer to the mast and boom manufacturers literature.

Standing rigging

During the sailing season, regular maintenance checks should be carried out, in particular before embarking on a long voyage.

- 1 Examine all steel and wire ropes for corrosion, wear or damage.
- 2 Examine all terminations for signs of wear, cracks or damage. Pay particular attention to all split pins. These should be the largest size possible to fit through the cotter pin hole, with at least 20mm protruding through the hole.
- 3 Examine all bottle screws for signs of wear or damage and ensure they are "in safety", i.e. the inner threads are visible

through both safety holes. Where bottle screws are covered with plastic tape or tubing, remove to facilitate examination. Check all split pins are in place and secure.

- 4 Ensure the ends of the spreader bars are taped or otherwise protected to prevent chaffing. Ensure that the rig is correctly adjusted.
- 5 Check all running rigging for signs of wear, paying particular attention to all eye splices and end terminations. On wire/rope halyards, check the splice.
- 6 Check over the standing rigging, paying particular attention to the wire where it enters the swage fittings. Should there be any sign of cracking in any one of the wire strands, then replace the shroud concerned.
- 7 Look for signs of wear or ridging on clevis pins where they may rock or work in chain plates or shroud tangs. At the same time, check for corresponding wear on mating fittings.
- 8 Where shrouds locate into a mast via a shroud terminal in a slot, ensure that there is no undue wear.
- 9 When recommissioning after an end of season lay-up, renew all split pins.

In-mast and roller headsail furling

Roller furling gear must be lubricated and cleaned regularly in accordance with the manufacturer's recommendations laid out in their literature.

Running rigging

All ropes should be checked regularly during the season for the following:

- 1 Signs of wear or damage where constantly cleated, clamped, or passed round sheave blocks or through fairleads.
- 2 Damage to heat shrink or cord whippings.
- 3 Damaged or unserviceable splices. This is of particular importance where polyester ropes are spliced to steel wire ropes such as halyards.

10.2.5 Sails

Sails should be checked regularly and repairs effected for the following:

- 1 Chaffing occurring mainly at spreaders and at the foot of large sails.
- 2 Tears at batten pockets and at all other attachment points, including tack, clew, head, sail and reefing cringles.
- 3 Any other damage, such as snagged or loose stitching.
- 4 If a sail is removed from the rig, it should be bagged and stowed below as soon as possible.
- 5 Furling headsails, if fitted, should be checked carefully for any signs of wear on the stitched seams.

10.2.6 Steering systems

Pedestal steering systems

These steering systems are extremely robust, reliable and relatively maintenance free. In order for the system to maintain its performance, the following measures are recommended:

- 1 Periodically wash the paint finish of the pedestal with fresh water. Wax with a conventional car polish.
- 2 Check that water is not gaining entry to the inside of the pedestal assembly. A drain hole is provided in the lower housing to allow for draining of any condensation. If large quantities of water are evident, it may be necessary to remove the top cover and reseal using a proprietary sealant. Take care to remove all old sealant from the pedestal head and top cover before attempting to apply new sealant. If a compass is fitted, check that it is also properly sealed.
- 3 Inspect system for the security of the steering wires and rudder stock quadrant. Tighten steering wires if necessary.

Rudder

Steering becomes less efficient as bearing wear increases. The bearings should therefore be checked at the end of each season and replaced if necessary. Rudders may leak slightly as the "O" rings become worn. They should also be checked at the end of each season and replaced as necessary.

10.2.7 Engine system

The cleanliness of both filter and raw water may be checked through the clear top. A custom wrench is supplied to remove this top and permit cleaning. If your craft is fitted with a Saildrive leg ensure that

the raw water valve at the top of the leg is closed before cleaning the filter.

The engine should be maintained in accordance with the instructions contained in the manufacturer's literature. The reader is also referred to the periodic maintenance schedules at the beginning of this Chapter.

The engine cooling system is filled with liquid and should be drained if the craft is moored or laid up in an area where there is risk of frost and during winterisation.



CAUTION - In some cases a syphon action may occur whilst the sea water system is being drained. Close all drainage points when the craft is not under constant supervision. Incorrect drainage can cause the yacht to fill with water and sink.

Care should be taken not to soil the rubber engine mounts with diesel or lubricants as this may cause deterioration of the rubber.

Basic engine care

The following guidelines should be observed to prolong engine life. The most critical period in a marine diesel engine's life is the first twenty - thirty running hours and owners should exercise particular caution during such period. The guidelines below should be read in conjunction with the manufacturer's literature in Appendix 5.

- 1 Do not start the engine until you are sure:
 - a) Engine oil level is satisfactory
 - b) Gearbox oil level is satisfactory
 - c) Coolant level is satisfactory
 - d) The throttle is set correctly
 - e) The fuel stopcock is turned on
 - f) The fuel is free from contamination
 - g) The raw water inlet valve is open
- 2 Immediately after starting the engine, check:
 - a) Oil pressure warning light is extinguished
 - b) Charging light is extinguished (or ammeter reading is satisfactory)
 - c) Water emission from exhaust
- 3 Avoid high engine revs.

- 4 Allow engine revs to decrease to idle before changing gear.
- 5 Do not allow the engine to run at a low idling speed for long periods - this will result in the production of black noxious fumes. As a rule, cruising speed is set at approximately 75% of maximum engine revolutions.
- 6 Monitor instrumentation while the engine is running.
- 7 Prior to stopping the engine, allow it to idle for a few minutes with the gear lever in Neutral.
- 8 Ensure that the first service is carried out by an agent recommended by the manufacturer.
- 9 Ensure subsequent services are carried out with the frequency recommended by the manufacturer.
- 10 Ensure ONLY the correct lubricants are used.
- 11 Adhere to all the manufacturer's recommendations.
- 12 Keep an engine log.

10.2.8 Marine toilets

If the craft is to be laid up for any period of time, or kept idle in a cold climate, the following precautions should be taken:

- 1 Pump the toilet clear of waste and water.
- 2 Close the inlet and outlet seacocks.
- 3 Remove the drain plug in the base of the unit and operate the hand pump until the system is dry.

In a salt water environment, flush the system through with fresh water by closing the inlet valve, filling the basin with fresh water and pumping dry. Do not use any of the following products to clean the marine toilets: antifreeze, acids, harsh alkalis, household bleach or abrasive pads.

After a long period of non use, it is recommended that the inner surface of the pump cylinder is lightly coated with Vaseline. It is recommended that toilet spares are carried at all times to allow on board servicing.

10.2.9 Gas system

If maintained correctly, gas systems are safe and trouble-free. At the

start of a season or before the commencement of a long voyage, the following checks should be carried out:

- 1 Check all rigid pipes for deterioration.
- 2 Check all rubber pipes for perishing.
- 3 Examine regulators for corrosion or damage. If in doubt, remove and take to your nearest gas stockist.
- 4 Test all gas taps and controls for correct operation.
- 5 Check all fittings for corrosion and security.
- 6 Clean the gas bottle locker thoroughly and check the drains for blockages.
- 7 Check and clean all appliances.



CAUTION - It is recommended that all rubber hoses are replaced annually. Never attempt to repair a regulator.

10.3 LAYING-UP (WINTERISATION) GUIDE

Marine Projects (Plymouth) Limited, recommend that Moody yachts are lifted ashore for the winter period to reduce the possibility of water absorption by the GRP hull. In certain circumstances, prolonged immersion can lead to the risk of osmosis. The following items list a number of reminders for laying-up (winterisation) in winter:

- 1 If hauled out and propped up check:
 - a) Security of props, shoes and wedges or security in a cradle.
 - b) Is the craft safe against likely wind direction and protected against vandals.
- 2 Check insurance covers laid up period and inform insurance company of laying up.
- 3 Ensure the yacht is adequately ventilated but secure against forced entry.
- 4 Arrange heating if possible for periods of extreme cold.
- 5 Remove cushions for cleaning and storage.
- 6 Leave lid off ice box.
- 7 Open all lockers and cabin doors to allow air to circulate.
- 8 Remove all portable equipment liable to corrode from yacht.
- 9 Drain water pipes, water tanks and calorifier to prevent freezing.

- 10 Remove batteries for cleaning, charging and storage.
- 11 For saildrive engines only: Inspect the rubber fairing gasket around the exterior of the saildrive leg where it extends through the hull. Ensure this gasket is firmly glued in place. Plan engine and saildrive maintenance such as repainting, anode replacement, etc.
- 12 Take sails ashore for cleaning and valet service. Note particular areas you wish the sailmaker to check.
- 13 Plan sail modifications - recutting or replacement is normally cheaper out of season.
- 14 Store sails ashore in a dry area after work is completed.
- 15 If possible, cover the deck, coach roof and deck joinery to reduce cleaning effort on recommissioning. Ensure covers are supported clear of woodwork to prevent chaffing and are securely fastened.
- 16 Clean and check all running rigging. Replace damaged or perished items.
- 17 Check all standing rigging. Replace rigging screws, shackles and terminals if there are signs of excessive wear.
- 18 Remove all deck blocks and wash in fresh water. Remove all sheets and tackles and store.
- 19 Check mast fittings including tracks, sheaves, spreaders and electrical cables.
- 20 Service seacocks as necessary.
- 21 Remove old or loose antifouling and apply a new coat.
- 22 Check all varnish and repair as necessary.

10.3.1 Engines

The following winterisation procedures should be carried out on your yacht's engine when it is to be laid up:

- 1 Run engine with coolant water mixed with antifreeze. Stop engine and drain completely. This must be carried out afloat, otherwise vibration damage may result.
- 2 Add antifreeze to the engine heat exchanger to Manufacturer's recommendation.
- 3 Disconnect exhaust tubing from the engine. Tape over the exhaust outlet on the engine.

- 4 Remove the air cleaner, tape up the air inlet on the engine and the inlet and outlet ports on the air cleaner itself, then store the air cleaner in a dry place.
- 5 Remove impellers from the cooling water pump and tie to pump for easy location when recommissioning.
- 6 Drain lubricating oil from the engine and refill with inhibiting oil.
- 7 Fill fuel tank completely. This step reduces the possibility of corrosion through condensation.

APPENDIX A - CRAFT SPECIFICATION

Appendix A contains information regarding the fitment of standard and non-standard equipment to the reader's Moody 36 yacht.

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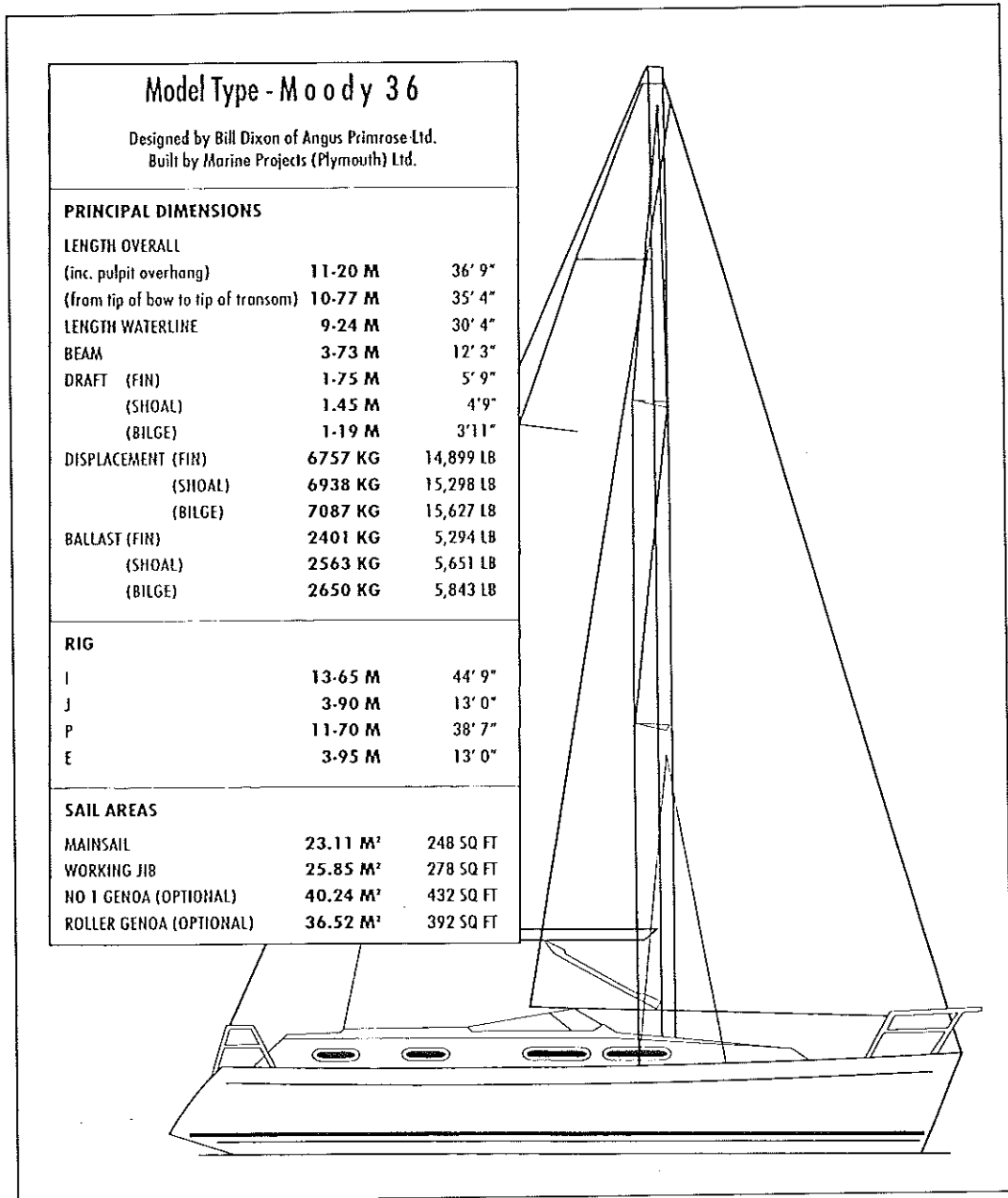
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SECTION 8 - GAS SYSTEM

SECTION 1 - HULL, DECK GEAR AND BELOW DECKS

A1.1 PRINCIPAL DIMENSIONS



Minimum air height from water line:
Maximum engine horsepower (hp):

15.86 M
39 hp