

## TABLE OF CONTENTS

| DESCRIPTION   | PAGE | DESCRIPTION  | PAGE |
|---|------|--|------|
| <b>INTRODUCTION</b> .....   | 1    | Anodes .....   | 11   |
| <b>I. General Preparations — Pre-Launch</b>                         |      | Propeller Shaft Grounding .....                          | 11   |
| Wiring Check .....  | 2    | Checking Electrical (12V DC/110V AC)<br>Systems .....    | 11   |
| Fuel Systems Check .....  | 2    | Bottom Anti-Fouling Paints .....                         | 11   |
| Stuffing Boxes .....  | 2    | Hardware Isolation—Through Hulls/Deck .....              | 12   |
| Fluid Levels .....  | 2    |  |      |
| <b>II. Pre-Launch and Initial Run Up</b> .....                      | 2    | <b>IX. Galvanic (or Voltage) Isolator</b>                |      |
| <b>III. Power Plant and Transmission of Power</b>                   |      | General Function .....                                   | 12   |
| Engine .....  | 3    | Isolator Installation .....                              | 13   |
| Reverse Gear .....  | 3    | <b>X. Hull Construction</b> .....                        | 13   |
| Propeller, Shaft and Coupling .....                                 | 3    | <b>XI. Interior Facilities</b>                           |      |
| Shaft Log and Stuffing Box .....                                    | 3    | Fresh Water System .....                                 | 15   |
| Strut .....   | 4    | Refrigeration Units .....                                | 15   |
| <b>IV. Instruments</b>  |      | Marine Toilet .....                                      | 15   |
| Ignition Switches and Master Key Switches .....                     | 5    | Dinette .....  | 16   |
| Navigation Lights and Accessory Switches .....                      | 5    | Divan/Sette .....  | 16   |
| Voltmeter .....   | 5    | Air Conditioning and/or Heating Units .....              | 16   |
| Tachometer .....  | 5    | <b>XII. Loss of Speed</b> .....                          | 16   |
| Oil Pressure .....  | 5    | <b>XIII. General Maintenance</b>                         |      |
| Fuel Gauge .....  | 6    | Teak Paneling/Trim .....                                 | 17   |
| Temperature Gauge .....   | 6    | Vinyl/Fabric Cushions .....                              | 17   |
| Engine Alarm System .....   | 6    | Britework Care .....                                     | 17   |
| <b>V. Controls</b>  |      | Plexiglas .....  | 17   |
| Steering .....  | 7    | Exterior Paint .....                                     | 17   |
| Steering Exchanger<br>(Dual Station Boats Only) .....               | 7    | <b>XIV. Repainting your MARINETTE</b> .....              | 18   |
| Throttle and Clutch .....   | 7    | <b>XV. Engine Maintenance and Trouble Shooting</b>       | 19   |
| <b>VI. Electrical System — 12V DC</b>                               |      | <b>XVI. Hull Repairs</b> .....                           | 19   |
| Batteries and Main Switches .....                                   | 8    | <b>XVII. Laying Up and Storage</b> .....                 | 19   |
| Parallel Switch .....   | 8    | <b>XVIII. Winterizing</b>                                |      |
| Breaker Switches — Overhead console,<br>Bridge console (opt.) ..... | 8    | Cabin .....  | 20   |
| Engine Room Breaker Switches .....                                  | 8    | Engine .....   | 20   |
| Accessory Breakers and Options .....                                | 8    | Generating Set (Optional) .....                          | 21   |
| Automatic Bilge Pumps .....   | 9    | <b>XIX. Spring Fitting Out</b> .....                     | 21   |
| <b>VII. Electrical System — 110V AC</b>                             |      | <b>XX. Pre-Launch Check List</b> .....                   | 22   |
| Shore Power Supply .....  | 9    | <b>XXI. Drawings</b>                                     |      |
| 110V Units and Breakers .....                                       | 9    | Typical 110V AC w/2 30 Amp<br>Service Diagram .....      | 24   |
| 110V Receptacles .....  | 10   | Typical 12V DC Wiring Diagram .....                      | 26   |
| Voltmeter .....   | 10   | Typical 12V DC Bridge Wiring Diagram<br>(optional) ..... | 26   |
| Dual 30 amp Service .....   | 10   | <b>XXII. Warnings</b> .....                              | 28   |
| Air Conditioning/Heating .....                                      | 10   | <b>XXIII. SHIP'S EQUIPMENT SUMMARY</b> .....             | 31   |
| Auxiliary Generator Unit .....                                      | 10   | Ship's Notes .....                                       | 32   |
| <b>VIII. Electrolysis Control</b>                                   |      |  |      |
| Corrosion Monitor Function —<br>refer to manual .....               | 11   |  |      |



# *Aluminum Cruisers, Inc.*

STANDIFORD FIELD • LOUISVILLE, KY. 40213

## **A LIMITED WARRANTY ACCORDING TO U.S. PUBLIC LAW #93-637**

Aluminum Cruisers, Inc. warrants the MARINETTE Cruiser under normal use and service for a period of one (1) year from delivery to the original owner. This warranty does not provide protection for subsequent purchaser.

Further, Aluminum Cruisers, Inc. warrants each new MARINETTE hull for a period of two (2) years from the date of delivery to the original owner against defects in workmanship and materials under normal use and service.

When you buy a new MARINETTE Cruiser you will be provided with a copy of this warranty and an original and duplicate Limited Warranty Registration Certificate. You will also be provided with a Federal Boating Information Sheet, which is not a part of this Aluminum Cruisers, Inc. Limited Warranty.

To validate this warranty the attached original Registration Certificate should be executed and returned to your Aluminum Cruisers, Inc. dealer at the time of delivery to you. Retain the duplicate for your files.

Protection under this warranty is provided for one (1) year as described above, however, if your MARINETTE is used for commercial purposes, rental or other income producing activities, then protection under this warranty is only provided for sixty (60) days from the date of purchase by the original owner.

All implied warranties are limited by Aluminum Cruisers, Inc. for a period of one (1) year after the date of purchase by the original purchaser except hull coverage as described above which is for a period of two (2) years.

Boats and parts manufactured by Aluminum Cruisers, Inc. which disclose defects in workmanship or materials under normal use and service, will be repaired or replaced by Aluminum Cruisers, Inc. at their option subject to the following requirements:

a) The boat or part must have been delivered by an authorized Aluminum Cruisers, Inc. dealer to the original purchaser of the boat.

b) The boat or boat part must be examined by Aluminum Cruisers, Inc. to have such defect. Aluminum Cruisers, Inc. at their option, shall have the right to have their authorized dealer inspect the boat or boat part to determine validity of claim, or to send their representative to the place where the defective boat or boat part is located or to require the owner to return boat or part to factory within a reasonable time, transportation prepaid.

This warranty is not applicable for:

a) Paints, varnishes, chrome plated, anodized, and aluminum finishes and color fastness of any material or materials used, all of which, although believed by Aluminum Cruisers, Inc. to be the best obtainable, are not warranted hereunder because of the varying effects which different climates and use conditions have on them.

(over)



b) Any Aluminum Cruiser, Inc. boat or part which shall have been altered or repaired outside the factory and without the factory's permission.

c) Any engine, engine part, or accessory, or trade accessories not of Aluminum Cruisers, Inc. manufacture, which Aluminum Cruisers, Inc. may use and sell in connection with their boats or parts, as these engines, parts, and accessories are generally warranted by their respective manufacturers.

d) Any boat or part which has been subjected to abuse or neglect, where failure has been caused by an accident or by failure as a result of improper care and maintenance.

When announced from time to time, catalogue speeds are estimated, or are obtained over a certified course under favorable conditions at sea level, and such speeds are not warranted or guaranteed.

Aluminum Cruisers, Inc. dealers are not authorized by the factory to modify this warranty in any way or to assume for Aluminum Cruisers, Inc. any liability in connection with this warranty.

Aluminum Cruisers, Inc. expressly disclaims any liability for consequential damages of any sort whether or not arising from defects, malfunctions, or failure to conform to specifications and whether or not arising from breach of this warranty or any implied warranty whatsoever.

Aluminum Cruisers, Inc. reserves the right to improve its product through changes in design or materials without being obligated to incorporate such changes in boats or parts of prior manufacture.

**FEDERAL BOATING SAFETY INFORMATION**  
**(NOT A PART OF THE ALUMINUM CRUISERS, INC. LIMITED WARRANTY)**

**IMPORTANT NOTE:** All boat manufacturers are required by Federal law to make a reasonable attempt to give notification to you, as the first purchaser of a boat, if the manufacturer finds, after the boat leaves the place of manufacture, that the boat does not conform to Federal Safety Standards, or if a defect is discovered by the manufacturer which creates a substantial risk of personal injury to the public, Aluminum Cruisers, Inc. relies on your return of the Attached Warranty Registration Certificate to maintain its list of first purchasers so that the above notification can be given to you, if necessary.

**IF YOU FAIL TO COMPLETE AND RETURN THE ATTACHED WARRANTY REGISTRATION CERTIFICATE WHICH IS TO BE COMPLETED, SIGNED BY YOU AND RETURNED TO THE SELLING DEALER AT THE TIME OF SALE TO YOU, ALUMINUM CRUISERS, INC. WILL NOT BE ABLE TO GIVE THE ABOVE NOTIFICATION AND/OR REPAIR, AT ALUMINUM CRUISERS, INC. EXPENSE, OF ANY UNSAFE CONDITION WHICH NOTIFICATION AND/OR REPAIR MIGHT OTHERWISE BE REQUIRED BY FEDERAL BOATING SAFETY LAWS.**

## MARINETTE OWNER'S MANUAL

### OPERATION — CARE — MAINTENANCE

#### INTRODUCTION

Welcome to the rapidly growing family of aluminum alloy MARINETTE Cruiser owners. Your new MARINETTE is designed to give you satisfactory service for many seasons minus the labor usually associated with keeping a boat in top condition. A small amount of care will keep your boat young as long as you wish to sail her.

Being the most advanced material in boat design, aluminum is thought of by many as also being new to the industry. This is far from the truth. The first aluminum boat was built in 1891, and for over 30 years high strength aluminum alloy, such as that used in MARINETTE Cruisers, has been employed in the construction of Navy vessels, work boats and pleasure crafts.

Aluminum Cruisers, Inc. is the pioneer in the building of all-welded aluminum cruisers. The MARINETTE is the first production all-welded aluminum cruiser in the world. This was not by accident. Many years of aircraft experience gave us the advantage over many other manufacturers in the design and construction of these unique and unusually stout crafts. The first boat was built in 1953 by the Marine Division of Falls City Flying Service under the direction of George C. Garcia. Because of the growth of this phase of our business, and the necessity to separate our boat manufacturing from the aircraft repair business, the firm of Aluminum Cruisers, Inc. was founded.

All this vast experience has been used to make your MARINETTE one of the most trouble-free and safe boats afloat.



## I. GENERAL PREPARATIONS

All MARINETTES are given exhaustive inspection and should be ready to use. Any new boat, however, should have certain precautionary checks made prior to launching.

1. Check all wiring for any loose connections. Test for short circuits. To do so, turn all switches to their "Off" positions, including all dome lights and instrument panel lights. With negative battery cable connected securely, touch the positive battery clamp to the positive battery post. If sparking occurs, a short circuit exists and should be corrected.
2. Inspect all fuel lines and overflow vent fittings to be sure they are connected and tight.
3. Examine the stuffing box hose clamp connections on propeller shaft and rudder shaft.
4. Check fuel level, engine oil level and transmission oil level. See engine manual for proper grade and type of oil and fuel. Be sure to ground nozzle to fill pipe when taking on fuel to eliminate the danger of static electricity. Fuel issuing from overboard vents indicates full tank.

## II. PRE-LAUNCH AND INITIAL RUN UP

The boat is ready to launch and water test. Operate the bilge blower five minutes to exhaust any accumulated gasoline fumes. Many people like to physically check the bilge for gasoline odor. See engine manual for starting and operating instructions. The Voltmeter needle should register on 12-14 volts to indicate the Alternator is operating properly. With engine running, make a visual check of manifold, oil, fuel and water lines for any possible leaks. Engine cooling water should be checked for flow from exhaust pipe within ½ minute of starting engine. If water does not flow from exhaust pipe, damage can result to water pump and mufflers in a short time. After warm up, operate boat at various RPM levels, noting maximum RPM and checking for any undue vibration at each level. At this point tightness of propeller shaft packing gland should be checked. A leak of a drop at a time is not undesirable. Excessive water leak indicates too loose a fit. Correct by backing off locking nut, tightening packing gland nut until excessive flow is arrested, add retightening lock nut. A twist in the packing gland hose when shaft is turning indicates too tight a fit.

**CAUTION** — The initial launching and first hour of operation is the most important in the long life of your MARINETTE. For your added protection, the following instructions will be found taped to your galley top. Read them carefully.

## CAUTION

When launching boat for first time, particular attention should be paid to the following.

1. Check hull drain plug.
2. Make sure water intake valves are open. Water pump impeller blades will disintegrate if operated without water for even a short period.
3. After starting engine, check exhaust to see if water is flowing.
4. Check oil filter for leaks.
5. Check fuel lines and fuel pump for leaks.
6. **WARNING:** In the initial few hours of operation, stuffing boxes should be checked periodically. A hot running stuffing box can seize on the shaft, turn within the rubber hose and cause serious problems. It is very desirable to have water leaking from boxes. The first indication of trouble is a high pitch squeaking sound. If this occurs, reduce power and allow box to cool. After break-in period of 5 to 10 hours, boxes should wear in and require a minimum of maintenance.

### III. POWER PLANT AND TRANSMISSION OF POWER

**ENGINE** — The power plant in your MARINETTE has been engineered and developed specifically for marine use. The operator's manual as supplied with your boat is a thorough handbook on the operation and maintenance of this engine. Proper adherence to these recommendations can insure a long, trouble-free life for it. The engine is the heart of your boat; take good care of it.

**REVERSE GEAR** — Except in special cases, engines in MARINETTE Cruisers are supplied with hydraulic reverse gears. This allows an effortless shifting of gears. Care should be taken, however, to reduce the engine speed to 1,000 RPM or less before engaging the gears. The hydraulic gear has an oil reservoir separate from the engine crankcase oil. A low oil level can cause slippage and damage to the clutch plates. Too much oil will cause foaming and erratic clutch performance. Check it regularly and keep it at proper level.

**PROPELLER, SHAFT AND COUPLING** — Stainless steel propeller shafts, Dyna Jet Cupped propellers and plastic isolation couplings are standard on all MARINETTE Cruisers. This combination provides the finest performance available from your marine engine, reduces the possibility of engine or propeller damage and aids in the control of electrolysis corrosion. Engine alignment should be checked with the plastic coupling removed. After aligning engine with no more than .003 difference, insert plastic coupling and tighten evenly and securely. This is most important to maintain alignment. If not tightened evenly, the plastic may be compressed on one side thus resulting in misalignment. See Fig. 1.

## CAUTION

**Fibre insulation washers must be installed on the face towards the transom.**

Every care should be taken to keep the propeller from being damaged. A bent or nicked propeller will cause vibration throughout the boat, and if allowed to continue, especially at high RPM's, serious damage can result to the engine, strut bearing and hull. Only competent repair stations should be used to straighten bent or nicked propellers. See your dealer for assistance. Whenever you remove and replace the propeller, use a waterproof grease, white lead or similar anti-seize compound, on the taper portion of the shaft. This prevents galling and assures easier removal of propeller the next time this has to be done.

When installing a new or repaired propeller, be sure the bore of the wheel and the shaft are free from dirt and corrosion. Any burrs in the keyways must be removed both from the shaft and wheel. The key should fit snug at the sides and have a .010" clearance at the top. See Fig. 2. A tight or driven fit at the top of the key can cause the wheel to be pulled off center and out of balance.

**SHAFT LOG AND STUFFING BOX** — The shaft log is a section of aluminum pipe welded to the bottom of the hull. The stuffing box is a brass packing gland designed to prevent water from entering the bilge. The two pieces are connected by a short length of flexible rubber hose which allows a slight misalignment. (This is not misalignment of engine to shaft.) After much wear the flax packing in the packing gland may compress and require replacing.

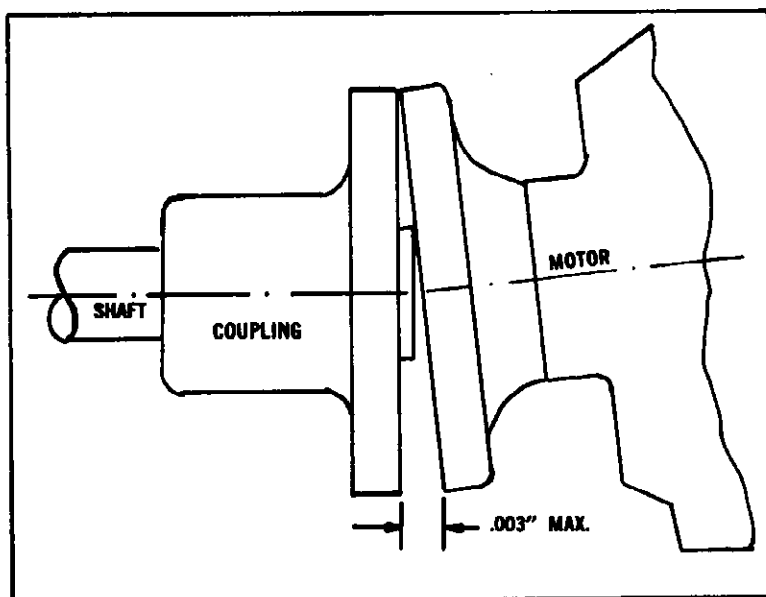
When installing a propeller shaft, or realigning it, be sure the shaft does not touch the aluminum shaft log. Check outside as well as inside. **THIS IS IMPORTANT!** Revolve the shaft a complete revolution for a positive check. The rudder post stuffing box is plastic and requires the same packing and packing procedure as the propeller shaft stuffing box.

**STRUT** — The strut for the propeller shaft is aluminum and is bolted to the strut pads in the bilge. Stainless steel nuts, bolts, and washers are used for this purpose. In the event the fasteners need replacing, always use stainless steel parts.

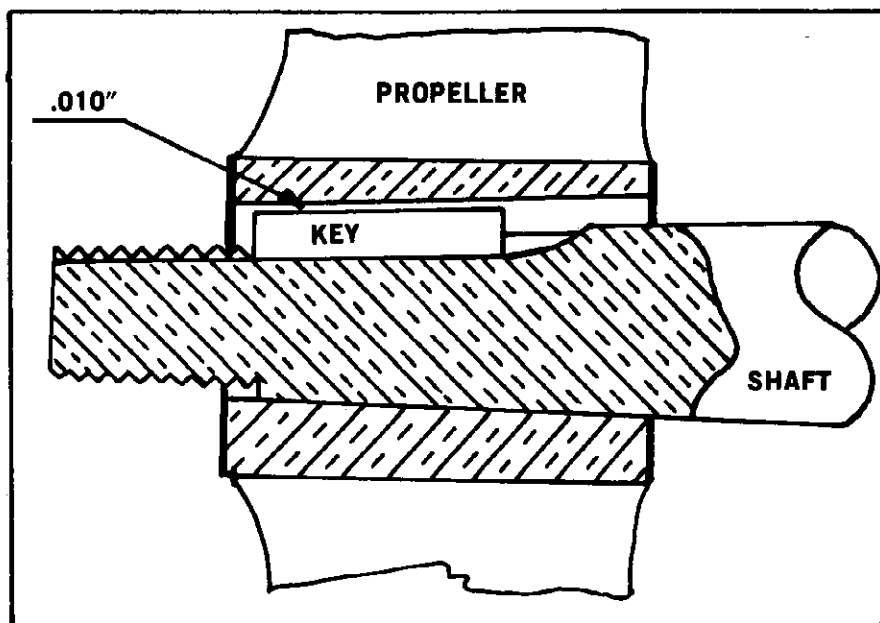
The strut holds a water lubricated rubber bearing. During lay-up periods the shaft will not "freeze" to the shaft if it is lubricated with a small quantity of castor oil. You will notice the strut bearing is in a fiber shell. Use only this type if replacement is necessary.

## CAUTION

Some rubber cutless bearings have a brass or bronze shell and should never be used in direct contact with aluminum. Always use a fiber shell cutless bearing.



**FIGURE 1** — When checking engine to shaft coupling alignment, make sure the transmission coupling and shaft coupling have no more than .003" maximum clearance between them. Plastic isolator must be removed for checking alignment and reinstalled when alignment check is completed.



**FIGURE 2** — When replacing or reinstalling the propeller/propeller shaft key, it is important that approximately .010 clearance be maintained between the key and the deepest portion of the propeller hub key slot.

## IV. INSTRUMENTS

**IGNITION SWITCHES AND MASTER KEY SWITCHES** — The ignition starter toggle switch is on the instrument panel and is operated similarly to that on an automobile. Twin engine units have a switch for each engine. The 12V master key switches are located behind the console. These must be on in order to start the engines, but need not be turned off each time the engine(s) is shut off. The ignition toggle switch is used for "Stop — Ignition — Start" positions.

For boats equipped with diesel engines consult the engine manual or installation instructions furnished by the manufacturer for starting and stopping the engine.

**NAVIGATION LIGHTS AND ACCESSORY SWITCHES** — Aluminum Cruisers, Inc. has adopted International light rules for their boats, installing Class II lights on all boats. International lights are acceptable on all waters you can expect to sail.

The International light system includes (1) a 12 point white stern light, (2) separate 10 point red and green side lights, and (3) a 20 point white bow light. The red and green lights must be visible for one mile; the stern white for two miles, and the bow white for 3 miles. The 360 degree white light is an anchor light to be shown when laying at anchor and not when under way. Lights are to be shown from sunset to sunrise. Docking lights and spotlights are to be used for short duration only.

Switches for running lights, spotlights, blowers, docking lights, etc. are marked and are an aircraft type circuit breaker toggle switch. Dome light and dinette light switches are integral with the fixtures as well as having a master switch located in the overhead panel.

Twelve volt electric lights and accessories are energized by the engine starting batteries. Excessive use of these when engines are not running can cause discharge of batteries, thus making engines difficult to start.

**VOLTMETER** — The Voltmeter (12V engine) indicates the voltage condition of the battery. Normal operation is for the voltmeter to show a reading of 12-14 volt reading. If the system is operating normal (battery in reasonably good condition and regulator functioning) the amount of charge will register 12 to 14 VDC.

**TACHOMETER** — The Tachometer is for the purpose of indicating the speed of the engine crankshaft in revolutions per minute (RPM). If you have direct drive (D.D.) engine this is also the speed of the propeller. In boats with reduction gear drive units the propeller speed is reduced by the amount of the ratio of the reduction gears.

The speed of the tachometer and the speed of the boat are related to each other only indirectly. The speed of the boat at any particular RPM of the tach will vary according to (1) the prevailing winds and currents; (2) the loading of the boat both in amount of gear and people aboard and in their distribution fore and aft; and (3) with the amount of marine growth accumulated on the bottom. Boats have a tendency to noticeably lose speed toward the end of the season.

The practical use of the tachometer by the operator is to determine if he is operating the engine at an efficient speed. This is called cruising speed, and generally it is 75% of the maximum RPM's. The RPM reading will also tell the operator when the engine speed is too great for reversing.

In the event of a sudden dropping of RPM without a change in the throttle or shift setting the operator knows something is amiss with the engine. Although it may be a result of serious engine damage, it can also be no more than a fouled spark plug. In any event, the operator would be well advised to shut down the engines and investigate.

**OIL PRESSURE** — Very little trouble of a serious nature can happen to an engine that will not be reflected on the oil pressure gauge. Maximum pressure is controlled by a pre-set valve in the oil pump. When the boat is new make a mental note of the reading which this gauge then records. This is the "Norm" with which to make comparisons during the life of the engine. If a radical



## VI. ELECTRICAL SYSTEM — 12V DC

**BATTERIES AND MAIN SWITCHES** — A high quality ignition proof master battery disconnect switch is standard equipment on MARINETTE Cruisers. These switches are located on a 12V DC accessory panel in the upper part of the engine room area. Dual battery switches may be an option on your MARINETTE. These switches are identical to the standard single "Off-On" switch except they have provisions for dual battery hook-up and switching provisions for either using Battery 1, Battery 2, or "both".

### CAUTION

Battery charging engine alternator circuits may be damaged if switches are operated or switched into an open circuit position while the alternator rotor is excited.

The electrical needs of the engine, lights, pumps, blowers, etc. are supplied by the storage battery. This is a 12 volt battery and is connected with the Negative (-) terminal as the ground and the Positive (+) terminal as the "hot" wire. ALL electrical units have a two wire hook-up. There is a (+) and a (-) wire run to each unit. In adding any new components that are operated electrically (12 volts) it is necessary to follow this two wire procedure. Grounding an electrical circuit "hot" wire (+) can cause serious problems.

In addition, any new 12 volt DC power use should be protected. If no open or spare breaker is available on the switch console, then an additional correctly rated breaker switch should be installed for these additional units.

**BATTERY PARALLEL SWITCH** — The function of this switch is to enable the starting of either engine of a twin screw installation. By depressing the momentary button while cranking either the port or starboard engine, the engine can be started in the event a low or dead battery situation should occur with either the port, starboard, or auxillary battery. This button is located on the face of the main station instrument panel at the lower right hand corner.

**BREAKER SWITCHES** — All ships 12V DC accessory units are protected by a toggle aircraft type ampere rated breaker. These breakers operate all 12 volt units and are located on a panel in the engine room. The breaker(s) marked "12 Volt Accessory" on this panel controls are 12 volt power to all 12 volt accessory breaker switches with the exception of the automatic bilge pumps and 12 volt refrigerator. These units have their own individual breakers on this same panel. If your boat is equipped with a flying bridge, it will also have a 12 volt switch panel located on the face of the bridge dash.

**ENGINE ROOM BREAKERS** — Located on an accessory panel in the engine room area are several 12 volt breaker type switches. The "12 Volt Accessory" switch controls are main power supply to all ships 12 volt units. If your boat is equipped with twin engines, you will have two of these breakers. Each of these supplying one half of the 12 volt power to the overhead console.

In addition to these switches, there are two switches marked "Bilge Pump". These supply the power for the automatic bilge pumps and are wired directly to the battery side of the main battery switch(s) allowing all 12 volt power to be shut down at the battery switches but still allowing automatic bilge pumps to function. If your boat is equipped with a 12V/110V combination refrigerator, then there will be a breaker on this same panel to allow operation of the 12 volt mode of the refrigerator in the same manner as the automatic bilge pumps.

**ACCESSORY BREAKERS AND OPTIONS** — If any addition of options are desired and installed either by the owner or MARINETTE dealer, correctly rated breaker switch must be installed for circuit protection for each additional unit.

## CAUTION

When installing optional units or any additional 12 volt units, it is very important that the correct wire size and length as well as a correctly rated breaker be used to assure proper 12 volt DC circuit protection.

**AUTOMATIC BILGE PUMPS** — Your MARINETTE is equipped with two (2) automatic bilge pumps as standard equipment. One unit is located in the bow compartment (or hatch area — some models). The second unit is in the forward end of the engine room (all models). There are two (2) main breakers located on the engine room breaker panel and two (2) breakers located on the 12V overhead panel. These supply 12V battery power to the "Auto-Off-Manual" switches located at the helm. These 4 main switches must be left in the "On" position at all times to insure proper function of the automatic pump.

The helm switches can either be operated in the manual mode (momentary on switching) or in the auto mode (constant armed switching). The manual mode provides On-Off control of the pump at any time desired. The automatic mode assures that the vessel is always pumped out, even when unattended, and also lengthens the life of the pump and battery by shutting the pump off when the water is pumped out.

**NOTE:** The red light adjacent to either the FWD or AFT main breaker switch located on the overhead panel will indicate when the pump is on.

If your boat has the optional flying bridge you will have two (2) main breakers (Bilge Pump — FWD, Bilge Pump — AFT) and two (2) red lights located on the 12V bridge accessory panel. These switches will control their respective pumps in the manual mode only irregardless of what position the lower helm "Manual-Off-Auto" switches are in.

## CAUTION

Be sure the bridge bilge pump switches are put in the "Off" position when finished pumping from the bridge control. It is good practice not to leave these switches unattended during the pump out period. Do not leave them running any longer than is necessary.

## VII. ELECTRICAL SYSTEM — 110V AC

**SHORE POWER SUPPLY** — A single 30 amp 110V circuit is standard equipment on all MARINETTE models (except 28' Sportsman). The dockside hook-up recepticle box is located on the rear deck cockpit wall (or bow seat/storage area on all 37' models). A 50 ft. 3 wire shore cord is also included as standard equipment on all models having a 110V power system. Insert the female end with sealing collar into the ship's recepticle box and the male end into the dockside power supply. Turn main breaker on (located on face of 110V accessory console box). Check voltmeter (110V — located on the same console box) for proper reading of 110-115 volts. You now have dockside 110V power to all 110V units and recepticles in your MARINETTE. The main 110V breaker controls all 110V power to the entire AC system.

**110V UNITS AND BREAKERS** — The only standard 110V items on all MARINETTES are wall recepticles. All other 110V units such as stoves, refrigerators, heaters, air conditioning, ice makers, etc. are optional equipment.

If your MARINETTE has any of these items as options, the breakers for each unit will be located in the 110V accessory console box. These breakers are aircraft type On-Off circuit breaker switches and are rated in the correct amperage as needed by their respective units. These switches control the 110V power supply to each individual unit as well as some units having an On-Off switch located at or on the unit itself.

If any additional items are installed either by the owner or dealer, make sure correctly rated breaker switches such as the factory switches, are used to protect your unit, as well as ship's wiring circuit, from an overload or shorting situation.

**110V RECEPTICLES** — Your MARINETTE is equipped with 110V recepticles located conveniently throughout the boat. These recepticles are divided into two separate circuits controlled at the 110V accessory console by two breaker switches — one marked "Port", and one marked "Starboard". These control 110V power to all recepticles located on their respective sides.

The breakers marked "Stove" and "Refrigerator" control 110V power to two recepticles located on the wall under the galley area. The stove recepticle behind the stove area and refrigerator recepticle behind the refrigerator. These units simply plug into their respective recepticles.

**VOLTMETER** — The AC Voltmeter, which is located on the 110V accessory console, is standard equipment on all MARINETTES having 110V ship to shore system.

This Voltmeter monitors your 110V power supply whether it be shore power or auxiliary generating set power. It reads input voltage from shore power and/or output voltage of an on-board auxiliary generator. On the standard 110V system, the low power is at 103.5 volts and the high is at 126.5. Refer to this for proper input and/or output voltage in your AC system.

**DUAL 30 AMP SERVICE** — A dual 30 amp 110V AC service is optional. If your boat is equipped with this option, it will have two 30 amp dockside shore cord connector recepticles mounted side by side. One will be marked "Shore" the other will be marked "A/C". One recepticle supplies power to all ships 110V AC units. The second recepticle supplies power to air conditioner and/or heaters only. There will be two main circuit breakers located at the 110V accessory console; one for each service.

**AIR CONDITIONING AND/OR HEATING** — Either roof mounted A/C units or a marine type water cooled dual cycle (heat and A/C) units are available as optional equipment on your MARINETTE. 110V wall heaters are also available as options. If equipped with any of these units, your 110V accessory console will have circuit breaker switches marked accordingly. These are protected main power supplies only. Individual on-off controls are located on or at each individual unit.

Refer to your unit's individual operator's manual for operation and care of your particular installation.

**AUXILIARY GENERATOR UNIT** — Auxiliary generators are optional equipment on MARINETTE Cruisers. The on-board generator provides an auxiliary 110V AC power supply thereby freeing the boat from dependance on a shore power cord and having to be anchored according to shore power availability.

The self-provided power from the generator allows the use of electric cooking, baking, heating and airconditioning, all of which draw more current than can be easily provided by the marina. If equipped with this option, there will be a generator off-on switch located on the face of the instrument console as well as ship to shore load transfer switch located in the 110V AC accessory console. If your MARINETTE is equipped with a dual 30 amp service as well as a generator set, then there will be two (2) transfer switches; one for each service. These switches are designed so that on-board AC generators and shore power cannot simultaneously feed the same circuit.

Familiarize yourself with the generator owner's manual for operation, care and maintenance of your unit. Refer to the manual for trouble shooting and winterizing as well.

## VIII. ELECTROLYSIS CONTROL

### Corrosion Monitor Function

Electrolysis in an aluminum boat can be serious only if ignored. Whenever two dissimilar metals are immersed in an electrolyte, and electric current is set up between the two metals, flowing from the "baser" metal to the more "noble" metal. This is the way a storage battery works. This is also the principle of electroplating. In the process metal is removed from one and deposited on the other. Continued, uninterrupted flow of this metal can be disastrous if one metal is the bottom of a boat.

Fresh water is an electrolyte — a poor one. Salt water is a strong one — the warmer the stronger. Polluted water, contaminated water and acid water can be strong electrolytes. A Corrosion Monitor installed at the console gives a reading of the potency of the hull. A reading between .9 and 1.05 is considered normal. Readings above 1.05 are acceptable, however, readings below .9 may be detrimental. Because of the high purity of some lakes and streams, it is possible to be well protected with even a 7 to 9 reading. This type water is an extremely poor electrolyte, thus the danger of electrolysis is remote. Also, extremely cold water temperature will give low readings. Read your monitor manual carefully!

### Anodes

When your boat left the factory, a system of electrolysis control was built into it that will protect the hull from this corrosive action.

On either side of the keel, on each transom electrode holder and on the rudder there are special metal plates, sacrifice elements designed to deteriorate before electrolytic action can attack the important parts of the boat — the rudder, the hull bottom, the shaft or the propeller. These are called anodes.

It is important that the sacrifice elements and the adjacent boat area are left bare and not painted. In fresh water these anodes will last for several years. In salt water it may be necessary to replace every two to three years depending on exposure.

If the Corrosion Monitor reads below the safe figure, it can be caused by one of the following.

- ① **ANODES** — Anodes have been consumed. Correction; replace anodes.
- ② **PROPELLER SHAFT GROUNDING** — Propeller shaft is grounded to engine or hull. To determine if this is the cause, ground shaft to hull. This can be done with screw driver by touching bottom of hull with point and the shaft with the side of blade. Do this in the area between stuffing box and coupling. If the shaft is not grounded, the meter will deflect downward indicating proper installation. If a grounded condition still exists, disconnect propeller shaft coupling from the engine. If the coupling was grounded to engine, then needle should deflect upwards a scale when this separation occurs.
- ③ **CHECKING ELECTRICAL (12V DC/110V AC) SYSTEMS** — A shorted 110V or 12V system. Disconnect shore current. If no deflection is noted in needle, then system is functioning properly. Disconnect battery. If no deflection is noted, then this system is okay. Check Galvanic Isolator hook up — see chapter on Isolator.
- ④ A low meter reading when docked next to a metal pier or boat is an indication that these may have stray electrical currents. It is suggested that boat be moored in another location or have corrected the discrepancies that exist in dock wiring or your neighbor's boat.
- ⑤ **BOTTOM ANTI-FOULING PAINTS** — The application of the wrong bottom anti-fouling paint can cause a needle deflection. Again, we wish to caution the owner to use only bottom paints containing TBTF or TBTO. Do not use copper bearing paints!

- ⑥ **HARDWARE ISOLATION — THROUGH HULLS/DECK** — The use of rubber cutlass bearings and isolation couplings are additional members of the electrolysis control system. The isolation coupling is an extremely important member of our electrolysis control system. This metallic isolation between engine and shaft must be maintained or hull warranty is null and void. (See paint section for additional instructions.)
- ⑦ All deck and roof hardware on your MARINETTE is installed with a neoprene gasket. This is particularly important in salt water areas to preclude the possibility of the salt accumulating between the fitting and the hull or superstructure surfaces. When installing new items which are to be attached to an aluminum surface, it is advisable to follow factory procedure and install a gasket between the surfaces to be mated. Attaching screws should be stainless steel. A small spare assortment of these screws is included in every new MARINETTE.

## CAUTION

It is especially important that this factory procedure be followed if the owner or any service department installs any through hull fittings below the water line, especially brass or bronze, in order to avoid an electrolysis situation. Always isolate both outer and inner contact surfaces of any thru-hull fitting installed below the water line. A hard rubber gasket material is best suited for this application. It is strongly suggested that plastic composition thru-hull fittings not be used below the water line.



## IX. GALVANIC (OR VOLTAGE) ISOLATOR

### General Function

In an attempt to isolate their vessels from nearby boats to lessen galvanic corrosion problems, many mariners are wrongly clipping the green ground leads at their dockside 110V AC connections, but the ground connection is there for safety reasons; it prevents the boat from becoming an electrical shock hazard in the event of an on-board wiring fault. Although clipping the ground wire may lessen the possibility of galvanic corrosion between two side-by-side vessels, it could also lead to a fatal shock.

There is available, however, a piece of equipment that will have the same effect as clipping the green wire, but still provide electric shock safety. It is called Voltage or Galvanic Isolator.

Galvanic Isolators will combat the effect of vessels acting like giant batteries. A "battery" is created when two dissimilar metals are connected via the common green ground wire. The voltage isolator is an alternative means of grounding the boat to keep it free from hazardous AC voltages, while at the same time blocking the flow of destructive low voltage galvanic DC current that is potentially destructive to active metals such as aluminum hull vessels.

Galvanic Isolators do not necessarily contribute to the complete elimination of all your corrosion problems. Galvanic corrosion occurs from dissimilar metals submerged in sea water. Voltage isolators won't help here. Electrolysis is stray current corrosion from your improperly wired ship's electrical system. Voltage isolators won't help here either. These two common corrosion problems must be tackled individually.

Voltage isolators do work to break up common wire circuits that bond your vessel to all of the other vessels in nearby slips.

The voltage isolator consists of solid state electronics, made up of large capacitors and several silicon diodes. The isolator is a special "filter" inserted only in the shore green ground wire lead. It imposes no resistance to the passage of alternating current (electrical shocking voltage) while it has an almost infinite opposition to the flow of low voltage DC galvanic current. This prevents corrosion to the boat caused by stray current flow, yet provides safety by preventing the boat from becoming a dangerous source of electrical shock.

## Isolator Installation

Your MARINETTE is equipped with a Galvanic Isolator as standard equipment. This is a most valuable piece of equipment and it serves three purposes. First, it will prevent stray currents from another boat or from an improperly wired dock to attack your boat. Secondly, it will prevent damage to your hull should your boat's 110 volt system develop leakage problems. Third, it will preclude the possibility of electrical shock should the 110 system develop electrical leaks.

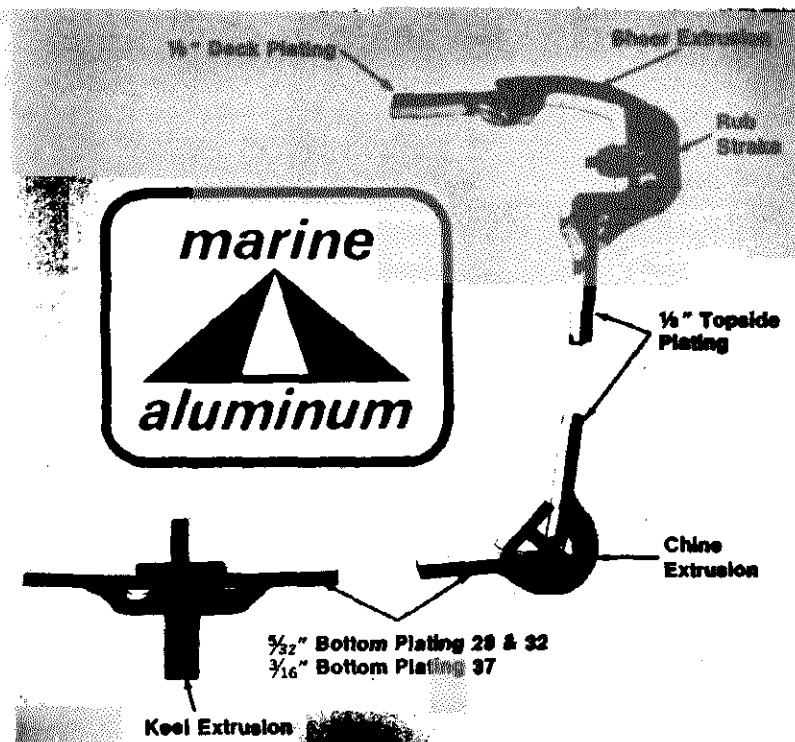
In order for this system to operate properly, the third wire of your 110 electrical system must be properly grounded to the dock power supply. This third wire grounds your hull and all your 3 wire appliances to the above source, thus any damaging currents will flow through your Galvanic Isolator and to the dock power supply.

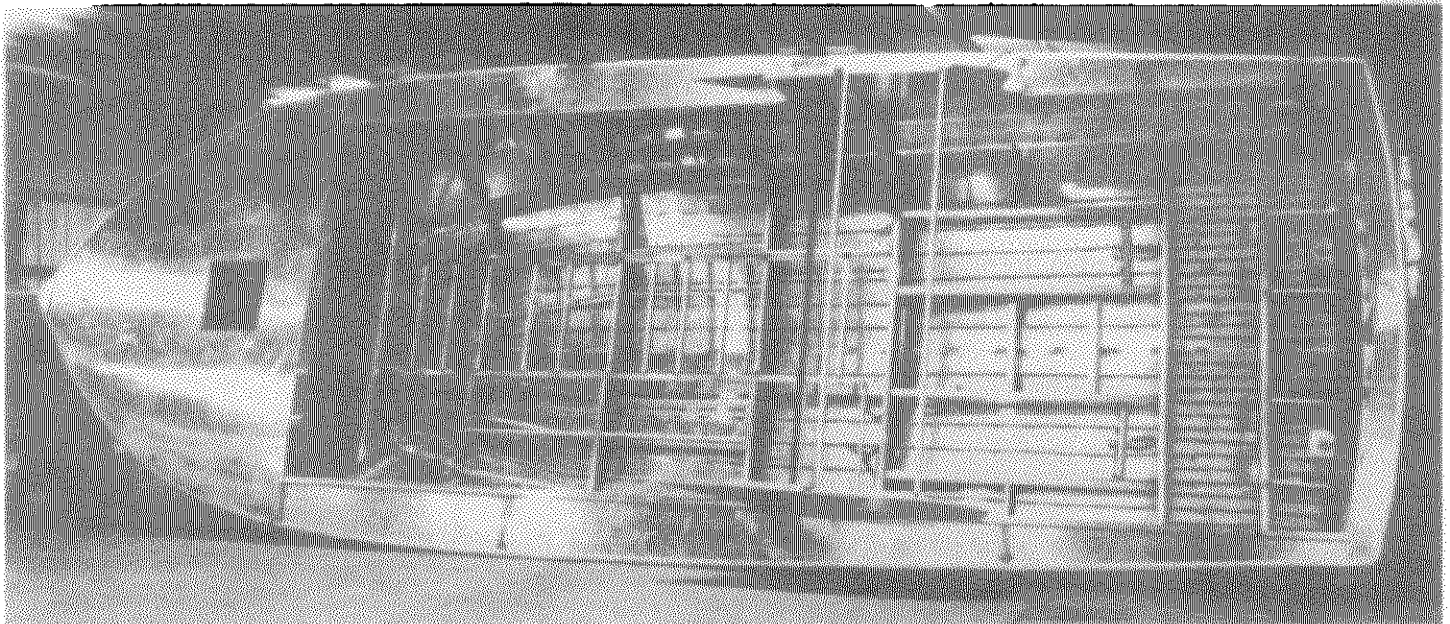
## X. HULL CONSTRUCTION

The material used in the hull of MARINETTE Cruisers is an alloy of aluminum, manganese and magnesium. This is known as alloy 5086-H116. It is highly resistant to fresh water and salt water corrosion, while its high strength compares favorably with that of steel.

A system of longitudinal framing is employed in the construction to provide a smooth hull shell plating free from warps and buckles. Close spaced stiffeners on the one piece side and bottom sheets obviate any tendency of unsupported area to "oil can". Additional stiffeners are placed in areas of exceptional stress, such as at the strut pads and over the propeller.

Heavy sections of special extrusion at the keel, stem, chine and sheer add stiffness and strength to these vital points. Full depth engine girders stiffen the hull and tends to soften engine vibration.





Hull is all welded aluminum. Skin thickness varies from a minimum of  $\frac{1}{8}$ " to  $\frac{5}{32}$ " on the 28 and 32 to  $\frac{3}{16}$ " for the 37 bottom plating. The alloy used is a designated 5086-H116. Pound for pound this special marine alloy offers the highest strength-weight ratio of any boat material. In addition, its shock resistance is unsurpassed. This is due to the fact that aluminum deflects farther than most materials when subjected to impact stress. The energy of impact is dissipated more gradually than in a less ductile material. Also, aluminum stretches many times farther before fracture than the polyester laminates, for example, hence will absorb far more impact energy before failure.

Both welded and unwelded panels of 5086 Marine Aluminum Alloys have been partially and/or totally immersed in salt water near Daytona Beach, Florida for up to seven years. After these years of continuous immersion, weldments and nonweldments of 5086 showed negligible loss of mechanical properties and infrequent pitting, none deeper than .015.

## X. INTERIOR FACILITIES

**FRESH WATER SYSTEM** — The fresh water storage is in an aluminum tank located either in the storage area under the salon floor or under the rear dinette seat, depending on the model of the boat. The fresh water fill hole is located on the cat walk and is marked "Water".

### CAUTION

Be sure to check cap markings before filling fresh water tank and fuel tank. Each tank is marked respectively either "Gas" ("Fuel" — diesel power plants only) or "Water".

On standard pressure water systems a combination "Hot" and "Cold" ("Cold" only if your boat is not equipped with a hot water system) faucet is installed at each sink position with the exception of wet bars (optional). These are always "Cold" only. The pressure water system will have an electric 12 Volt water pump adjacent to the water storage tank. This pump is equipped with an automatic pressure limit switch for automatic start and stop pumping. The opening of the water tap at the sink activates the pump and produces a steady flow.

If your boat is equipped with a hot water tank (110V or combination 110V and engine heated) you will have a hot water faucet that will operate in the same manner as the cold water. This tank is located in the storage area under the salon or under the rear deck area, depending on the model of MARINETTE.

*35+12 IS NOT "AMPLE" HEAD USES FRESH WATER*

Although the fresh water tank holds an ample amount (30 to 50 gals. depending on model), all fresh water on board a boat should be used prudently.

Freezing weather may damage a water system that has not been completely drained. The plastic water line may be disconnected to allow draining at any or all convenient connections under the cabin floor hatch. Be sure to reconnect the drain joint(s) at spring fitting out before filling the tank.

**REFRIGERATION UNITS** — As an option, your MARINETTE is either equipped with a straight 110V unit or a combination 110V/12V. The 110V unit has an On/Off breaker switch located on the 110V accessory panel.

The 110V/12V Combination model has a separate breaker for each mode of operation. The 110V breaker is located on the 110V accessory panel while the 12V breaker is on the auxiliary breaker panel located at the upper forward area of the engine compartment under the engine hatch. NOTE: Normal method of operation for the combination 110V/12V is to have the 12V breaker in the "On" position and also the 110V breaker in the "On" position. The system will then operate on 12V's as long as there is no 110V ship/shore power supply (or light plant 110V power). If the 110V shore power or light plant is operational, then the 110V power will override the 12V and operate in that mode. NOTE: Since 12V/110V (12V mode) refrigeration is hooked directly to the auxiliary battery, the 12V mode will continue to operate even with main battery switch off unless the 12V breaker on the auxiliary breaker panel is in the "Off" position (down). Refer to your unit's operator's manual for detailed care and operation. NOTE: Provisions for reversing the refrigerator door hinge direction are built into all units. Refer to your unit's owner's manual if you should desire to do so.

**MARINE TOILET** — The standard toilet facility for all MARINETTE Cruisers is a foot operated flush unit with a self contained holding tank, utilizing fresh water system flush. A single line dockside fitting on the deck is provided for pump out station removal (must be remotely pumped out at a designated waste pump out station).

However, there are many marine toilet options available for your MARINETTE and you may have a facility different from the standard equipment marine toilet system. If this is the case, refer to your unit's owner's manual for care and operation of your particular marine toilet system. NOTE: Marine toilet regulations may vary in different boating areas. Check with your MARINETTE dealer or local Coast Guard, Park Service or Environmental Protection Agency for proper marine sanitation device regulations in your area.



**DINETTE** — The dinette serves as an eating-working-playing area by day and converts to a double bunk at night. The dinette table is detachable from the wall and fills the space between the dinette seats, resting on cleats on the front side of each seat. This makes a flat surface 6'3" long to be used for a bunk.

*This conversion is accomplished on the 28 and 37 Sedan models by folding the support leg into a horizontal position under the table. A spring loaded collar at the top of the leg is pulled down approximately  $\frac{3}{8}$ " to let the leg swing outboard. With the support leg in stowed position, raise the inboard edge of the table until the socket hinge on the cabin wall is loose and the table can be lifted free. The back cushions are to be laid on the table to complete the bunk cushion. In some cases the cushions are held in place by snap buttons. In other cases the cushions hang on zee brackets. Lift straight up to free them.*

On the 32 models, the table is supported by a center post. This post has a slight taper at both bottom and top. Rotate table top slightly and lift. Remove post from bottom flange by lifting while exerting a fore and aft movement; filler cushions are stored under seat.

**DIVAN/SETTEE** — The 32 models have a divan that makes a double berth. To open berth lift inboard of base about 2 inches while steadying back board with strap provided. While base moves inboard, the back slides downward and becomes a section of berth base. Lower two legs by depressing spring loaded collars about  $\frac{3}{8}$ ". Legs will lock in down position. Reverse above procedure to return bunk to settee configuration.

**AIR CONDITIONING AND/OR HEATING UNITS** — Either a roof mounted A/C unit or a marine type water cooled dual cycle (heat and A/C) unit are available as optional equipment on your MARINETTE. 110V wall heater units are also available as options.

Refer to your owner's manual for each individual unit for proper operation and care if your MARINETTE is equipped with any of these items.

## XII. LOSS OF SPEED

Everybody wants his boat to go fast. This is important. Hours of waiting can be saved by having enough speed to get into an open lock or past a drawbridge at the right time. Fishermen who use boats prefer to spend their time fishing instead of traveling. Outrunning a storm is better than riding out a storm.

Your boat is designed to be a fast one, but many factors outside the control of the builder affect the speed of your boat.

Not the least of these factors is the temperature of the outside air. Most people fail to realize that an engine develops more horsepower in the spring and fall than in the sultry hot days of summer. This is concerned with the fact that cool air is denser than warm air, containing molecules of oxygen per cubic inch and burning the fuel hotter and more efficiently.

The same fact reduces horsepower at high altitudes such as Lake Tahoe, California or Grand Lake, Colorado. Authorities claim this reduction in horsepower can be as much as 5%. For long periods of cruising at high altitudes it is sometimes advisable to use smaller size carburetor jets and smaller pitched propellers.

Power to weight ratio is the second factor affecting the speed of your boat. As an engine is run during the season it usually loses some of its horsepower by losing the fine tune up condition prevalent at the start of the season. At the same time most owners add more personal gear as the season grows on than the amount they remove. Don't expect a boat loaded with staples, clothing, bedding, tools and people to be as fast as one in bare boat condition.

The location fore and aft of gear on board can also have a detrimental effect on speed. A change of balance creates a nose heavy boat or a squatting condition. When new weight is added, try to maintain the same balance the boat had at launching. (The boot-topping is generally higher at the bow than at the stern, so don't use this for a balance line. The oil or mud in most harbors will effectively mark a Load Water Line for you.)

**Barnacles and aquatic vegetation on the hull bottom, propeller and rudder adds drag and greatly reduces speed.**

**Damaged rudders, propellers and shafts are a very frequent source of vibration and speed loss.**

**In short, to keep your speed, keep the boat light, keep it clean, keep the motor tuned, and look to the condition of your propeller.**

### **XIII. GENERAL MAINTENANCE**

The all aluminum structure in itself requires a minimum of maintenance, however, the following general items will require periodic attention. **NOTE:** Preventive maintenance throughout the entire boat should still remain the accepted practice.

**TEAK PANELING/TRIM** — Your MARINETTE interior is finished in high quality teak trim, paneling and cabinetry. These pieces will require little to no maintenance.

There are, however, some exterior pieces of teak trim on your MARINETTE that will require some care since they are exposed to the elements. A pint of teak oil is supplied with each new MARINETTE and when exhausted can be purchased from either your MARINETTE dealer or any well stocked marine dealer in your area.

When needed, apply a thin coat and if after a few hours the surface is still oily, go over it with a dry cloth wiping up excess oil before it becomes a superficial film. You may go over the surface subsequently with the same material treating it in the same manner as the first coat. Continued treatment with teak oil will prolong the life of the wood indefinitely.

**VINYL/FABRIC CUSHIONS** — The vinyl covered polyfoam cushions and the majority of vinyl bulkheads, wall coverings, ceilings and floors can be cleaned with a mild soap or detergent. Severely soiled areas may require cleansing powder. Fabric coverings can be vacuumed or wiped with a damp cloth and allowed to dry thoroughly. Regular home laundry spot removers may be used as well. Some cushion covers are removable from the foam via a zippered opening. These may be dry cleaned or washed in cold water and air dried.

**BRITWORK CARE** — Three kinds of trim finish are used on MARINETTE Cruisers — Stainless Steel, Chrome plated Bronze, and Anodized Aluminum. Commercial polishes are available for the purpose of keeping these shining and new looking. Most of them will do a good job. Minor oxidation or pitting can be removed with any commercial polish.

**PLEXIGLAS** — Plexiglas scratches from the smallest abrasive. To clean plexiglas wash with a non-abrasive soap or detergent and floods of water. Do not rub, even with a soft cloth. Pat dry. For removing oil or grease use white gasoline or kerosene. Acetone, benzene, carbon tetrachloride, lacquer thinners and other such solvents will attack plexiglas. Wax after cleaning.

**EXTERIOR PAINT** — Careful navigation and soap and water will keep the hull and cabin paint of a MARINETTE Cruiser handsome looking for years. The vinyl paint used for this work is tough and will take a lot of abuse. It is recommended that a vinyl paint be used to touch up scraped spots as they may occur. Any good hull paint, however, can be used. Due to the great variety and composition of marine paint one would do well to carefully follow directions of each manufacturer. Where the aluminum has been laid bare it is necessary to thoroughly clean the metal before painting. Hand sanding is satisfactory if care is taken to remove all dust after sanding. In a very short time a coating of oxidation will cover the bare aluminum. (You can't see it, but it is there.) Although this oxidation does not damage the aluminum, in fact actually protects it, paint does not adhere well to it.

Before oxidation takes place, therefore, coat the metal with one coat of wash coat primer. Follow this with one or two coats of vinyl barrier paint and two coats of vinyl finish white. Light sand between coats. Most marine dealers carry paint made for this purpose.

Anti-fouling bottom paint containing TBTF is the very best for aluminum hulls. The metal particles contained in other types of anti-fouling can cause electrolysis damage if used in direct contact with the aluminum. If the bottom paint is intact, merely apply one or two coats of anti-fouling containing TBTF.

**NOTE:** It is highly recommended that the hull portion between the sheer rail and boot stripe be waxed with a good paste wax before launching for ease of maintenance during the boating season.

## XIV. REPAINTING YOUR MARINETTE

Your MARINETTE is painted at the factory with a commercial vinyl system developed by the International Paint Company of Union, New Jersey. This system is as follows:

1. Boat washed thoroughly with a phosphoric acid wetting agent solution. This cleans and etches the aluminum. Dried thoroughly.
2. Apply one coat wash coat primer. This is a two part material.
3. Apply two coats of barrier paint over the entire boat.
4. After allowing sufficient drying time, two additional barrier coats are applied from the water line down.
5. Apply two coats of semi-gloss white from the water line up.
6. Apply two coats of Wide Spectrum Tri-Lux TBTF anti-fouling from the water line down.
7. Apply trim color.

The above system is applied at the factory with heavy duty pressure spray equipment that is generally not found in the field. With this in mind and with the aid of the International Paint Company, we have developed a system compatible with field conditions where spray equipment is not available. This is as follows.

### A. Repainting Bottom

1. Clean bottom thoroughly and remove loose paint.
2. Sand bare areas and feather edges.
3. Apply very light coat of 186 Interlux aluminum primer over bare areas.
4. Using International 216 solvent, do the following: Saturate clean cloth with this solvent and wipe an area from the keel outward and approximately 3-4 feet in length. Do not wipe zinc chromated area.
5. Allow solvent to dry about five minutes and coat this area with International Wide Spectrum TBTF anti-fouling paint. It is advisable to double coat previously bare areas in order to build up film thickness.
6. Repeat Step 4 on a similar sized area and repeat Step 5. Continue with Steps 4 and 5 until entire bottom is coated.
7. TBTF anti-fouling does an excellent job but adequate film thickness is most important. A second coat of TBTF is highly recommended. Allow two or three hours of drying time for first coat and apply second coat. It is not necessary or advisable to use Step 4 before applying the second coat.

### B. Repaint above water line

1. Wash and clean entire area above water line to remove grease and grime.
2. Sand lightly to remove dead paint.
3. Bare or blistered areas require additional attention. Sand these areas to remove loose paint and to feather edges.
4. Wipe entire area with clean cloth saturated with International 216 solvent.
5. Apply light coat of 186 Interlux aluminum primer on bare areas.
6. Apply one coat of 220 International semi-gloss white paint over the zinc chromated area. Allow to dry overnight, then sand area lightly with fine grit sandpaper.

7. Apply one coat of white over entire boat. A combination of brushing and rolling should give you a good quality finish.
8. For touch up work where bare or blistered areas are evident, follow the above procedure. For painted areas that are marred but the primer is still intact, merely touch up area with white.

## **CAUTION**

In no case should copper or mercury bearing anti-fouling paints be used even over a barrier coat.

## **XV. ENGINE MAINTENANCE AND TROUBLE SHOOTING**

A detailed engine owner's manual is included with each MARINETTE. This manual provides all the pertinent information pertaining to your particular powerplant package. It not only contains the operation and maintenance of your powerplant and transmission, but a trouble shooting guide as well.

Familiarize yourself with it and refer to it often.

## **XVI. HULL REPAIRS**

When subjected to excessive impact, such as might be encountered from hitting floating debris or underwater obstructions, aluminum will stretch greatly before it will crack. This safety feature is the result of the high ductility of aluminum marine alloys, which stretch or plastically deform as much as 8 to 15% before rupture. By contrast, some materials used in boat construction stretch only 2% before breaking. Consequently, the usual hull repair on an aluminum boat is the smoothing of dents, rather than repairing cracks or tears.

Minor dents may be smoothed by judicious use of a rubber headed mallet, with a back-up mallet held against the opposite side of the plate. The dent should be hammered first around its outer periphery, thence, working with a circular motion, inward toward the center where the hump is greatest. The factory should be consulted for any repairs necessitating welding.

## **WARNING**

The interior of the aluminum hull and deck is coated with a combustible under coating. If you need to do any welding on the hull or decks, be sure to remove an area of this undercoating before attempting any such work.

## **XVII. LAYING UP AND STORAGE**

In removing the boat from the water use a trailer suited to your hull or Travel Lift type slings. Never attempt to lift the boat by attaching ropes or cables to the bow rope bit and/or aft cleats.

Two stainless steel pipe plugs in the bottom section of the hull are provided for bilge drainage. One is located in the forward bilge area and is accessible through a floor hatch located at the base of the V-Berth area. A second plug is located in the engine compartment bilge at the base of the forward engine bulkhead. Both plugs are located in the deep V portion of the hull and are removed and replaced from the inside.

The purpose of these plugs is to drain any water that has collected in the bilge. This water should always be drained when your boat is drydocked or in storage to prevent excessive accumulation of water in the bilge.

## CAUTION

It is extremely important that these plugs be reinstalled before the boat is launched. The warning tag that is provided with your MARINETTE upon delivery can be reused to remind you that the bilge plugs have been removed. Place this in a position that is easily seen either by you or your marina service department.

New anti-fouling paint may be needed in the spring. If so, this requires a clean surface for proper adherence. The easiest time to clean the bottom is immediately upon removing the boat from the water while the bottom is still wet. A wide putty knife will prove a handy tool for removing aquatic growth and barnacles.

In preparing a boat for storage whether inside or outside, the most important consideration is to provide ample ventilation. Open all hatches. Remove all cushions covering hatches. Open drawers slightly. Leave doors ajar.

A perennial debate arises over whether to store a boat with fuel tanks full, empty or with whatever fuel is left at the season's end. The adherents to full tanks predicate their argument on moisture in the air entering an empty tank, condensing as the air cools and collecting as water in the fuel tank. This water not only fouls the gasoline, but sets up corrosion. The empty tank people are mostly moved by local fire codes. Empty tanks can be protected by shutting off the valve on the pickup fitting and plugging the overflow vent.

In any case, fresh fuel is mandatory in the spring.

This is also a good time to check the condition of the propeller shaft. If they need repairing, now is the time to get it done.

This is the best time to do any other repairs or additions you contemplate for your boat.

## XVIII. WINTERIZING

### CABIN

1. Disconnect water lines at pump for drainage of pump and tank. Pressure water systems only.
2. Disconnect water line at Tee junction located in floor hatch by head door. Hot water systems will have additional Tee. Drain both.
3. Disconnect both lines on hot water heater.
4. IMPORTANT — OPEN ALL FAUCETS
5. Be sure the marine toilet is drained completely. Even a small amount of ice in a water closet can ruin it. Refer to your unit's owner's manual for proper winterization procedure.

### ENGINE

1. Remove drain plug each side lower center of engine block.
2. Remove drain plugs (4) each exhaust manifold.
3. Disconnect water hose — cooler to exhaust manifolds — at manifold end. Lay down in bilge.
5. Models with fresh water cooling — Remove drain plug in bottom of heat exchanger as well as 4 drain plugs in exhaust manifolds.
6. Remove the battery and periodically bring up to full charge.

**NOTE:** Complete instructions for winterizing the engine will be found in the engine manual. In addition to their hints, the exhaust ports should be plugged to keep moisture laden air from penetrating to the cylinders.

**GENERATING SET (OPTIONAL)**

1. Open drain petcock in the side of the engine block.
2. Open drain petcock and remove drain plugs from the bottom of the exhaust manifold on 6.5 KW models.
3. Loosen screws on seawater pump.
4. On fresh water cooled models, remove the drain plug from the bottom of the heat exchanger.
5. The Aqualift Muffler is standard equipment when a generating set is installed at the factory. A drain plug is located at the bottom of the muffler.

**NOTE:** . Complete instructions for winterizing the auxiliary generating set are described in the Light Plant Owner's Manual. Consult it for possible deviation from above procedure.

**XIX. SPRING FITTING OUT**

More pages have been written about preparing a boat for spring launching than any other phase of boating. As a result of all aluminum structure, your MARINETTE will not require the laborious maintenance tasks sometimes associated with other types of boat construction.

You will find that for the most part you have traded your paint brush for a scrub brush and hours of sanding and refinishing for hours afloat.

Basically, fitting out is reduced to washing down the boat, installing the battery(s), hooking up the water tank and lines and marine toilet and commissioning the engine(s). (refer to engine manual).

If fuel tank overflow and exhaust ports have been plugged to keep out moisture, don't forget to remove the plugs.

The pre-launch check list included in this manual will aid you in your spring fitting out.

**NOTE:** This list is merely an aid; not a maintenance schedule as such, but remember — A moment to check may save costly hours of repair and maintenance.

Preventive maintenance should always be the accepted practice.

## PRE-LAUNCH CHECK-LIST

### ENGINES: FUEL SYSTEM

De-winterized (all drain plugs installed) \_\_\_\_\_  
 Plugs (checked or changed) \_\_\_\_\_  
 Oil changed, Filter changed \_\_\_\_\_  
 Water intake hoses checked for condition and tightness \_\_\_\_\_  
 Crank or auxiliary belts checked, tightened or replaced \_\_\_\_\_  
 No apparent leakage (oil, water) \_\_\_\_\_  
 Carbs, clean & adjusted—no leakage \_\_\_\_\_  
 Flame arrestors cleaned (insolvent) \_\_\_\_\_  
 Fuel lines secure—in perfect condition \_\_\_\_\_  
 Fuel filter bowls clean and tight \_\_\_\_\_  
 All fuel lines & fittings checked, in perfect condition or replaced \_\_\_\_\_  
 Fuel tanks checked for security and soundness \_\_\_\_\_  
 Fuel tank inlets checked for leakage \_\_\_\_\_  
 Fuel tank vents in good condition \_\_\_\_\_  
 Fuel tanks checked for dirt, water, etc. \_\_\_\_\_  
 Filler necks, tanks grounded \_\_\_\_\_  
 Exhaust system tight and in good condition \_\_\_\_\_  
 Engine mounts secure and in good condition \_\_\_\_\_  
 Mufflers in good condition \_\_\_\_\_  
 Batteries fully charged and secure \_\_\_\_\_  
 Pos. and Neg. cables secure and in good condition \_\_\_\_\_  
 Battery switches in good condition \_\_\_\_\_  
 Other engine wiring in good condition \_\_\_\_\_  
 Engine controls attached and in good condition \_\_\_\_\_  
 Transmissions topped off \_\_\_\_\_  
 Shift cables tight and not binding \_\_\_\_\_  
 Transmissions checked for leakage \_\_\_\_\_

### UNDERWATER EQUIPMENT

Shaft couplings secure & aligned \_\_\_\_\_  
 Shaft couplings keyed and safety wired \_\_\_\_\_  
 Shaft logs tight and in good condition \_\_\_\_\_  
 Shaft turn freely—no binding or wobble \_\_\_\_\_  
 Props free of nicks, bends or cracks \_\_\_\_\_  
 Props nuts tight and keyed \_\_\_\_\_  
 Struts tight \_\_\_\_\_  
 Strut bearings in good condition—no binding or play \_\_\_\_\_  
 Rudders tight through hull \_\_\_\_\_  
 Rudders straight and co-ordinated in turning \_\_\_\_\_

### HULL

Bottom scraped \_\_\_\_\_  
 Bottom checked for damage, electrolysis, etc. \_\_\_\_\_

### HULL — (continued)

All through hull fittings inspected for soundness \_\_\_\_\_  
 Engine intakes \_\_\_\_\_  
 Water drains \_\_\_\_\_  
 Bilge fittings \_\_\_\_\_  
 Transducers \_\_\_\_\_  
 Other through hull fittings \_\_\_\_\_  
 Struts securely fastened \_\_\_\_\_  
 Bottom painted \_\_\_\_\_  
 Paint on hull in good condition \_\_\_\_\_  
 Paint on topsides good \_\_\_\_\_  
 Fittings on topside secure \_\_\_\_\_  
 Safety rails in good shape \_\_\_\_\_  
 All ladders sound \_\_\_\_\_  
 Windows, ports, lights checked for condition/leakage \_\_\_\_\_  
 Decks sound \_\_\_\_\_  
 Hatches sound — tight fitting \_\_\_\_\_  
 Bilges clean \_\_\_\_\_

### SAFETY EQUIPMENT

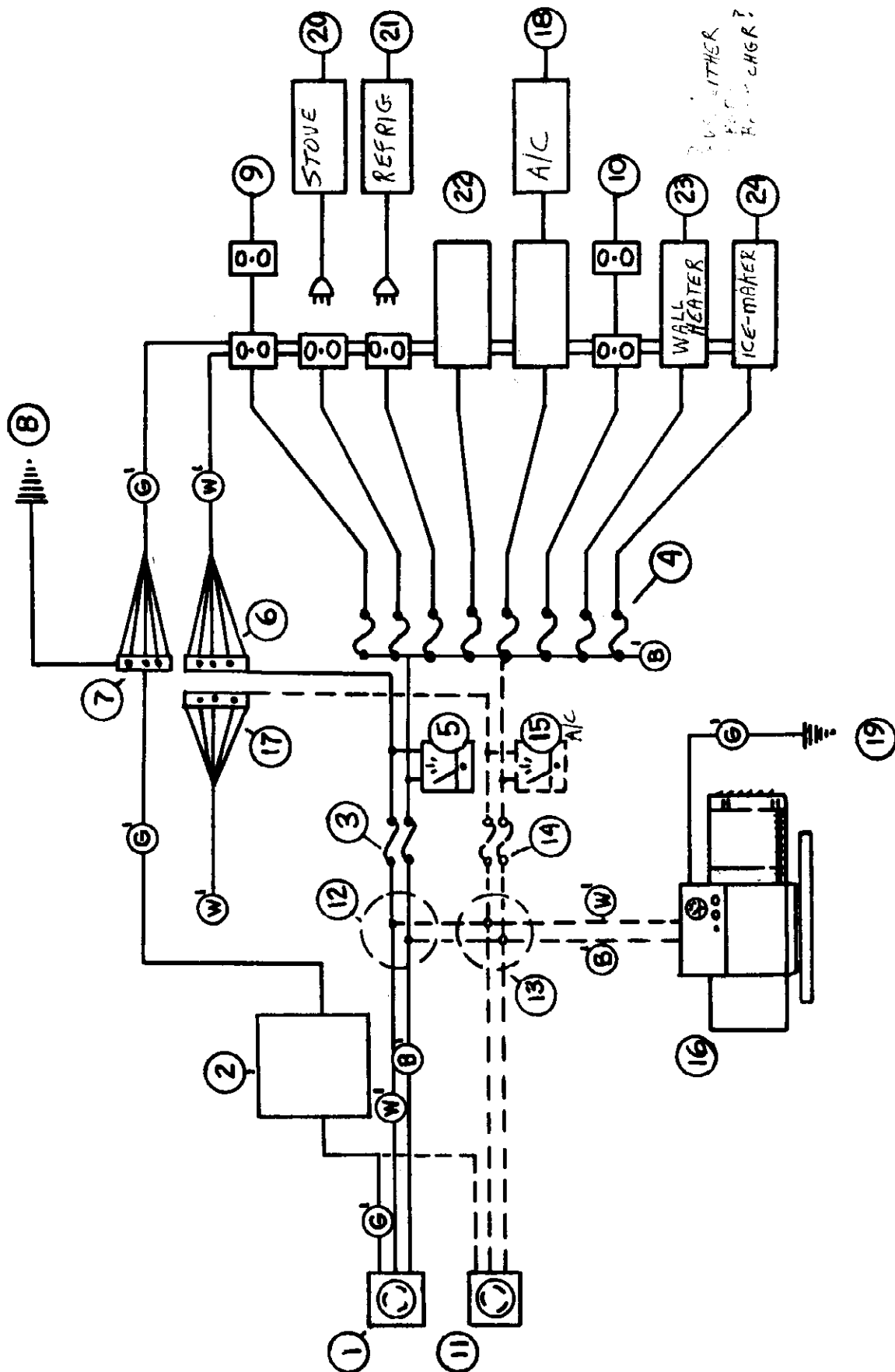
Bilge pumps secure, clean and functioning—no arcing \_\_\_\_\_  
 Blowers clean, function, no arcing \_\_\_\_\_  
 Blower vents — clear \_\_\_\_\_  
 Fire System sound \_\_\_\_\_  
 Fire System checked for charge \_\_\_\_\_  
 Auxiliary fire bottles secure and charged \_\_\_\_\_  
 Throwable devices in good condition \_\_\_\_\_  
 Anchors in good condition \_\_\_\_\_  
 Anchor lines uncoiled, checked for condition, recoiled, stored \_\_\_\_\_  
 Dock lines checked for condition \_\_\_\_\_  
 Life-saving equipment in good condition and stored properly \_\_\_\_\_

Running lights function:

|        |       |           |       |
|--------|-------|-----------|-------|
| Bow    | _____ | Starboard | _____ |
| Port   | _____ | Stern     | _____ |
| Anchor | _____ | Spot      | _____ |

### BELOW DECKS

Heads checked for operation and leakage \_\_\_\_\_  
 Showers checked for operation \_\_\_\_\_  
 Galley checked for operation \_\_\_\_\_  
 Refrigerator checked for operation \_\_\_\_\_  
 Water system checked for operation \_\_\_\_\_  
 Fittings tight \_\_\_\_\_  
 Drains clear and tight \_\_\_\_\_  
 Hoses in good condition \_\_\_\_\_  
 All chemicals flushed \_\_\_\_\_  
 Water tank secured \_\_\_\_\_  
 Hot water tank checked \_\_\_\_\_  
 Electrical outlets function properly \_\_\_\_\_  
 Lights function \_\_\_\_\_



TYPICAL MARINETTE 110V AC - 30 AMP ELECTRICAL SYSTEM








# TYPICAL MARINETTE 110V AC — 30 AMP ELECTRICAL SYSTEM

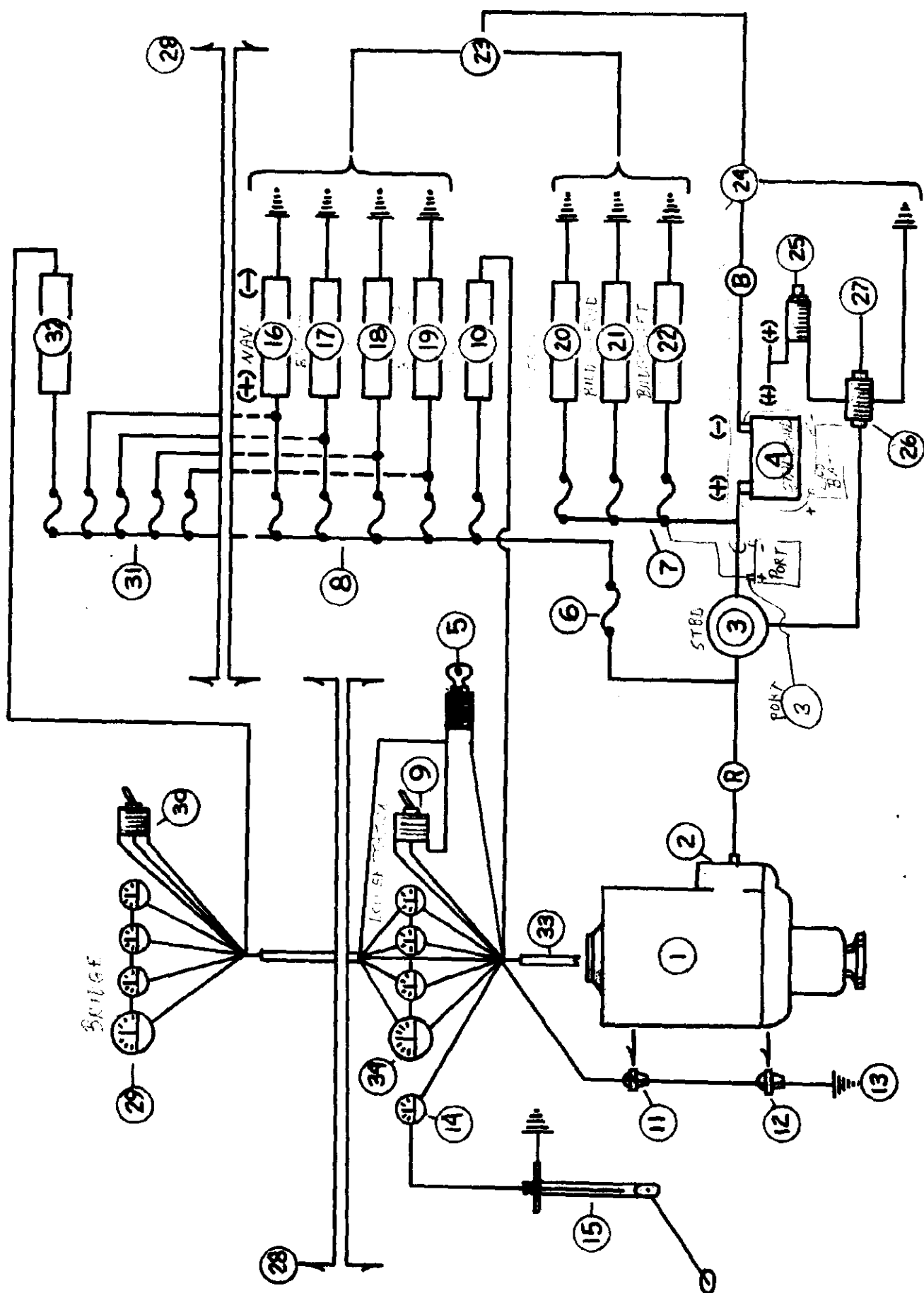
Shown w/Optional Dual 30 Amp Service and/or 110V AC On-Board Auxiliary Generator

## KEY INDEX

- |  |   |
|--|---|
| ① Ship to shore dockside receptacle  | ⑬ Load transfer switch—used with dual 30 amp service and auxiliary on-board generator (optional)  |
| ② Galvanic (or voltage) isolator   | ⑭ Main line breakers—dual 30 amp service (optional)   |
| ③ Main line circuit breakers—single 30 amp service   | ⑮ Voltmeter — dual 30 amp service (optional)  |
| ④ Circuit breakers—individual 110V accessories located on 110V accessory panel—energized by hot or ungrounded conductor (B) <sup>1</sup> | ⑯ Auxiliary on-board generator — 110V AC (optional)   |
| ⑤ Voltmeter  | ⑰ Terminal strip for neutral or grounded conductors (W) <sup>1</sup> used with air conditioning and/or heat only and dual 30 amp service (optional) |
| ⑥ Terminal strip for neutral or grounded conductors (W) <sup>1</sup>   | ⑱ Air conditioning and/or heat units (optional)   |
| ⑦ Terminal strip for equipment grounding conductors (G) <sup>1</sup>   | ⑲ Hull ground (case only) equipment grounding conductor (G) <sup>1</sup>  |
| ⑧ Hull Ground-equipment grounding conductor (G) <sup>1</sup>   | ⑳ 110V stove unit — wall recepticle (optional)  |
| ⑨ 110V Wall recepticles — Port   | ㉑ 110V Refrigerator unit — wall recepticle (optional)   |
| ⑩ 110V Wall recepticles — Starboard  | ㉒ 110V Hot water heater unit (STD all Sedan models)   |
| ⑪ Ship to shore dockside recepticle—dual 30 amp service (optional)   | ㉓ 110V Wall heaters (optional)  |
| ⑫ Load transfer switch—used with single 30 amp service and auxiliary on-board generator (optional)                                       | ㉔ 110V Ice maker (optional)   |

## SYMBOLS:

- |   |   |
|---|---|
|  | — Aircraft-type circuit breaker switch              |
| — —   | — Denotes wiring of optional 110V Service system(s) |
|  | — Hull ground                                       |
|  | — Equipment grounding conductor — Green             |
|  | — Hot or ungrounded conductor — Black               |
|  | — Neutral or grounded conductor — White             |



TYPICAL MARINETTE 12V DC ELECTRICAL SYSTEM

# TYPICAL MARINETTE 12V DC ELECTRICAL SYSTEM

Shown w/Optional Flying Bridge 12V DC Group

## KEY INDEX

- |  |  |
|--|--|
| ① Engine(s)  | ②① Automatic Bilge Pump — Forward  |
| ② Starter  | ②② Automatic Bilge Pump — Engine Room  |
| ③ Main Battery Switch(s)   | ②③ 12V Units — common ground terminal  |
| ④ 12V DC/85 Amp Battery (-) Ground   | ②④ Hull Grounding Bar and (-) Battery Ground                                       |
| ⑤ Master Key Switch(s)   | ②⑤ Battery(s) Parallel Button — located lower station instrument panel (STD/Twins) |
| ⑥ Main 12V/30 amp Accessory Breaker(s) — located engine room panel                                     | ②⑥ Parallel Button Solenoid — located engine room (STD/Twins)                      |
| ⑦ Main 12V Accessory Breakers — wired to battery side of main battery switch—located engine room panel | ②⑦ To common (or battery) side of auxiliary battery switch (STD/Twins)             |
| ⑧ 12V Accessory unit breakers—located overhead 12V console   | ②⑧ Optional Flying Bridge 12V Group (above)  |
| ⑨ Ignition Switch(s) — lower station instrument panel  | ②⑨ Instrument Panel(s) — Bridge (optional)   |
| ⑩ Engine Alarm — located overhead 12V console  | ③⑩ Ignition Switch(s) — Bridge (optional)  |
| ⑪ Oil Pressure Alarm Sending Unit  | ③① 12V Accessory Breaker Panel — Bridge (optional)                                 |
| ⑫ Water Temperature Alarm Sending Unit   | ③② Engine Alarm — Bridge (optional)  |
| ⑬ Engine Grounding (common)  | ③③ Engine Harness Group:   |
| ⑭ Fuel Gauge — located overhead 12V console  | • Ignition—Purple • Water Temperature—Tan  |
| ⑮ Tank Sending Unit  | • Oil Pressure—Light Blue • Ground—Black   |
| ⑯ Navigation Lights  | • Starter—Yellow/Red • Battery—Red   |
| ⑰ Bilge Pump   | • Tach—Gray • Engine Alarm—Pink  |
| ⑱ Wipers   | ③④ Instrument Panel — Lower Station  |
| ⑲ Bilge Blowers  | • Tachometer • Water Temperature   |
| ⑳ 12V Refrigerator (optional)  | • Oil Pressure • Voltmeter   |

Typical 12V Accessory Units  
Only—Entire 12V units not shown. These will vary w/options.

**DUAL STATION IGNITION SYSTEM:** — NOTE: Engine ignition can only be shut off from the point of origin (i.e. If engine(s) is started at lower station and helmsman desires to move to upper (or second) station for piloting, he must shut off lower ignition switch(s) first, and restart from upper (or second) station.

**TWIN ENGINE AND/OR DUAL BATTERY INSTALLATIONS:** There will be two (2) 12V/30 Amp main accessory breakers ⑥ located on engine room panel. This divides the 12V accessory power supply to overhead 12V console into port and starboard systems. This enables a balanced power draw from both batteries.

## SYMBOLS:

- |   |                                |                                |
|---|--------------------------------|--------------------------------|
|  | — Aircraft type breaker switch | (-) — Negative (or Ground)     |
|  | — Hull Ground                  | (R) — Battery Lead (+) — Red   |
| (+)   | — Positive (or "Hot")          | (B) — Battery Lead (-) — Black |

## — WARNING —

**ELECTROLYSIS** — Electrical leakage of any component and/or any adjacent 110V power supply such as shore cord or shore cord power supply can cause electrolytic deterioration (electrolysis) of hull and components, such as props, rudders, shafts, through-hull fittings, etc. This could result in leakage and consequently damage serious enough to sink a vessel. All electrical components should be checked periodically for electrical leakage. If any electrical leakage is detected, the component or source should be replaced or fault causing leakage should be corrected before the electrical system is put back into service. Your boat is equipped with a corrosion monitor metering system. It is very important that you use it as a reference as well as showing an extreme electrolysis condition. Refer to your corrosion monitor system manual for correct use and check your monitor often.

**AUTOMATIC BILGE PUMPS** — Periodically check the complete operation of all automatic bilge pump systems. Your MARINETTE is equipped with two (2) automatic bilge pumps as STD equipment, one in the FWD bilge hatch and a second one in the engine room bilge area against the FWD engine bulkhead. Make sure they are functioning in the automatic mode as well as in the manual mode. This can be easily accomplished by manually lifting the automatic float momentarily to insure proper operation in the auto mode. Make sure all automatic bilge pump floats are clear from obstructions that may hinder their correct operation.

**BRIDGE CAPACITY** — Bridge warning/capacity plates are attached on the dash face of all flying bridges. They show the proper capacity for that particular model bridge. It is in the best interest of the owner that these limitations be adhered to as well as using common sense in the event of rough seas and high winds. Avoid over-crowding.

**ENGINE(S) EXHAUST SYSTEMS** — Engines and auxiliary power plant exhaust systems should be checked periodically for leaks or possible leaks, chafing or possible chaffing conditions that may cause hose wear and consequently exhaust gas leaks. Replace or correct any leakage or possible leakage situations. At any time that these exhaust systems fail, it could result in a lethal build-up of exhaust gases. Exhaust systems checking and preventive maintenance is extremely important.

**AUXILIARY POWER PLANTS** — Thoroughly read and familiarize yourself with the auxiliary light plant owner's manual if your boat is equipped with an auxiliary generating set. **NOTE:** The light plant manufacturers manual contains warnings and precautions as well as proper maintenance procedures. It is important that you familiarize yourself with all these items and adhere to their recommended procedures.

**BELOW WATER LINE FITTINGS/HOSES** — It is extremely important that all thru-hull fittings and hoses be periodically checked for leaks or possible leak situations. Also check for hose aging (dry rot), chaffing, kinks or restrictions and loose or improper clamping. It is recommended that this be done at least once during the boating season, preferably at spring fitting out time. All hoses and fittings are accessible from the bilge areas by way of hatches or through wall panels by way of a removable inspection panel. Neglect of these items could cause a situation which may be potentially dangerous!

**FUEL SYSTEMS** — The complete fuel system, from and including the fuel tank to the carburetor, should not only be periodically checked for leaks, but should be physically checked for fuel vapors before starting the engines. This is especially critical after refueling. Visually and physically check the complete fuel system where possible. It is highly recommended that a good thorough inspection of the complete fuel system be physically and visually completed at every spring fitting out as well as several times during the boating season. Check all flare connections as well as all pipe and hose connections, especially the tank fuel fill and tank vent hoses. In the event of fuel leakage, either liquid and/or vapor, this extremely hazardous situation must be completely corrected before the boat is put back in operation. Failure to do so constitutes an extremely hazardous situation which could result in loss of life.

**FUELING PRECAUTIONS** — Extreme care must be used when refueling your boat. Make sure all open flames or probably igniters are extinguished (i.e. cigarettes, barbeque grills, gas lanterns, etc.) both on board and around the general refueling area. Shut off all auxiliary power supplies (i.e. generator sets, motors, etc.) as well as ships engines. Make sure all bilge hatches are closed and that the refueling hose from fuel supply is properly grounded to boat. Do not leave any hatches open (cockpit, bilge, etc.) during fueling operations. Gasoline fumes are heavier than air and will flow into bilges. Watch the over flow vent, not the gauge dial, as a signal of full tanks. Visually inspect the tank fill area for the first few moments of refueling to insure there is no leakage at fill hose from deck fitting to tank. After refueling is completed, wash any spillage from nozzle with fresh water. Before starting engines, lift hatches, visually inspect tank area and lines and smell for fuel vapors. Even though your boat may be equipped with a fuel vapor detector system, there is still no substitute for sniffing with your nose as well as visually checking for fuel leaks and vapors. Run your bilge blowers for approximately 5 minutes before starting engines. In the event of heavy vapors, leave bilge hatches open to allow for immediate ventilation until heavy vapors subside. Check for vapor source and correct immediately, then run bilge blowers for approximately 5 minutes. Neglect in proper refueling procedures constitutes a hazardous situation and could result in loss of life.

**STUFFING BOXES** — In the initial few hours of operation, stuffing boxes should be checked periodically. A hot running stuffing box could seize on the shaft, turn within the rubber hose and cause serious problems. It is very desirable to have a light dripping of water leaking from the boxes. The first indication of trouble is a high pitch squeaking sound. If this occurs, reduce power and allow to cool. Back off  $\frac{1}{4}$  to  $\frac{1}{2}$  turn and retighten jam nut against packing nut and recheck while running. After a break-in period of 5 to 10 hours, boxes should wear in and require minimum maintenance.

**WELDING/HULL AND DECK** — The interior of the aluminum hull and deck is coated with a combustible undercoating. If any welding must be done on the hull and/or deck it is imperative that the under coating in the immediate welding or work area be removed completely before any welding is done. Failure to do this will create a probable fire hazard and subsequent loss of property and/or loss of life.

**BILGE DRAIN PLUGS** — Your boat is equipped with 2 hull drain plugs. One under the bow inspection hatch and another in the forward area of the engine room bilge against the forward engine bulkhead. These are removed and replaced from the inside. If removed for storage and/or drainage, it is extremely important that these plugs be installed before launching the boat.

**SHIPS ACCESSORIES** — Familiarize yourself with the operation, care and maintenance procedures of accessory items not mentioned in your MARINETTE owner's manual. These booklets are supplied by the O.E.M. (original equipment manufacturers) and are included in your MARINETTE "ships papers" portfolio and deal with the operation and care of each of these units.

## — WARNING —

Never sleep in a closed area on a boat when any equipment, which functions as a result of the combustion of a volatile fuel, is in operation (such as engines, power plants, or oil fired heaters, etc.). At any time the exhaust system of such devices could fail resulting in a build-up of **LETHAL GASES** within the closed area causing loss of life.

## DISCHARGE OF OIL PROHIBITED

The Federal Water Pollution Control Act prohibits the discharge of oil or oily waste into or upon the navigable waters and contiguous zone of the United States if such discharge causes a film or sheen upon, or discoloration of, the surface of the water, or causes a sludge or emulsion beneath the surface of the water. Violators are subject to a penalty of \$5,000.

**SALT WATER OPERATION PRECAUTIONS —** Boats operating in salt waters should adhere to the following recommendations pertaining to fuel tank/propeller shaft packing nut (or stuffing box) areas: Make sure packing nuts are properly tightened as outlined on Page 29. There should be no spray coming off the shaft while cruising. As an added precaution to avoid spraying from an excessively leaking stuffing box, a rubber spray deflector is mounted directly over the packing nut. This flap deflects the shaft spray downward and *should not* be removed for any reason, except for replacement, in the event it is torn or deteriorates. A frequent fresh water "wash down" of the fuel tank and area surrounding the packing gland(s) is also recommended. This will remove the corrosive salt spray residue on and/or around the fuel tank/packing gland/rear engine area and minimize corrosion and rust situations. A frequent fresh water "wash down" of all exposed metal items/areas (i.e. control cables, ends, steering and rudder-control arms as well as rudder-posts and stuffing boxes) followed, after drying, with a generous treatment of a suitable water dispersent spray (i.e. WD-40, CRC, etc.) is also recommended. A frequent rinsing of deck hardware with fresh water will also add longer life to your MARINETTE exterior.

## SHIP'S EQUIPMENT SUMMARY

Year and Model 1988 32' FB/SEDAN Engine Make and HP CHRYSLER 240HP

Hull Serial Number ALC256411788

Engine (s) Serial Number — R.H. E 594092

L.H. E 594101

Shaft Length \_\_\_\_\_ Propeller Model and Size 16x15

Overall Length 32' Beam 12

## DEALER RESPONSIBILITY

Inasmuch as boats manufactured by the Aluminum Cruisers, Inc. may have been built at factories not located near water, they are usually not water tested nor given what is usually termed a shake down cruise.

**It is, therefore, the dealer's obligation to carefully inspect, water test, and make all adjustments and corrections required for the satisfactory operation of the boat prior to delivery.**

Particular attention should be given to the special items shown on various warning tags attached to or furnished with the boat as well as those included in the boat and engine operator manuals.

**Accepting delivery of the boat at any location other than his place of business does not relieve the dealer from the primary responsibility for inspection and warranty service.**

The processing of claims against the transportation company for damage during shipment, either by deliberate act of vandalism or by normal in-transit hazards, shall be the dealer's responsibility.

**It is the responsibility of the selling dealer during the warranty period of the boat to furnish guidance and information on matters pertaining to service and maintenance as well as to handle and process claims under the warranty.**

## OWNER RESPONSIBILITY

**The promptness with which all claims are handled depends upon the manner in which the claim is presented and the cooperation of the owner in supplying the necessary information needed by the Company to verify the claim.**

**Attention to the following will prevent delay:**

(a) Have the Warranty Registration Card properly filled out and returned within ten (10) days after taking delivery of the new boat.

(b) The owner's manual as well as instructions furnished with any accessories installed on the boat are placed in a large envelope and placed aboard the boat. make sure that this literature is delivered to you. Careful attention to these instructions will add many years to the life of your boat and equipment.

(c) All matters of service are handled with the selling dealer. It is therefore essential that the owner notify his dealer regarding any problems of Warranty Service that may arise. Circumstances of distance from the dealer do not in any way modify this responsibility.

(d) Give your dealer an opportunity to supply parts needed for all repairs for which a claim is to be made.

(e) It is assumed that the owner will use the boat in a reasonable manner. The speed at which most boats can run makes it necessary for operator to use judgement when operating boat in heavy weather.

(f) All contacts pertaining to your boat should be made with your dealer. He is competent, cooperative and carries a stock of parts and accessories for normal requirements. Factory service parts are always readily available for his additional needs.

If service assistance of any kind is ever needed, please feel free to call our plant. We are extremely proud and confident of our quality product and dedicated to making sure it performs to your expectations.

**ALUMINUM CRUISERS, INC.**  
Standiford Field  
Louisville, Kentucky 40213  
Phone (502) 366-1401