

1	SPECIFICATIONS
2 2-1 2-2	INTRODUCTION  WARRANTY  OWNER'S TOURNAMENTS
3 3-1 3-1 3-2 3-2 3-3	OPERATION  GENERAL  BOATMAN'S CHECKLIST  GROUNDING & TOWING  TRAILERING  DRIVING UNDER THE INFLUENCE  POST-CRUISE
4 4-1 4-2 4-2 4-3 4-3	MAINTENANCE & CLEANING CLEANING REPAIRS BOTTOM PAINT STRIKING THE WATERLINE ADDING OPTIONAL EQUIPMENT STORAGE & WINTERIZING
5 5-1 5-2 5-3 5-4 5-5	ARRANGEMENT PLANS  GENERAL ARRANGEMENT PLAN  TRANSOM STATION DETAIL  CABIN ARRANGEMENT PLAN  HELM ARRANGEMENT PLAN  TRANSOM ARRANGEMENT PLAN
6 6-1 6-2 6-3	MAKO ON BOARD SYSTEMS  DECK DRAINAGE DETAIL  PORT & STBD DRAINAGE DETAIL  FISHBOX SYSTEM

6	MAKO ON-BOARD SYSTEMS (CONT)
6-4	LIVEWELL SYSTEM
6-6	BILGE PUMP SYSTEM
6-7	FUEL SYSTEM
6-9	HEAD SYSTEM
6-11	FRESHWATER SYSTEM
6-11	SALTWATER SYSTEM
6-12	TRIM TABS
6-13	ELECTRICAL SYSTEM
6-13	SWITCH PANEL SCHEMATIC
6-15	BATTERY SWITCH DETAIL
7	PROPELLER CHART
8	NAVIGATION LIGHTS



# MAKO 253 SPECIFICATIONS

24' 9" **CENTERLINE LENGTH** 

8' 6" **BEAM** 

14" **HULL DRAFT** 

1 x 30" TRANSOM HEIGHT SINGLE

> 2 X 25" **TRIPLE**

23 Degrees **DEADRISE AT TRANSOM** 

130 Gallons **FUEL CAPACITY** 

4,000 lbs **DRY WEIGHT** approx

400 HP or 920 lbs MAX RECOMMENDED H.P.

# Mako Marine

#### INTRODUCTION

### Congratulations and Welcome to the MAKO Family

We appreciate your investment in MAKO and are confident that many years of boating pleasure lie ahead of you. You're most likely aware that your MAKO has been designed and constructed with many carefully engineered features to provide maximum performance, comfort and utility. This manual is intended to help you better understand these features as well as the general use and maintenance of your vessel. We recommend that you read this manual thoroughly and stow it on board your vessel

Equipment such as engines, pumps, stereo ... are not manufactured by Mako Marine. We recommend that this manual be used in conjunction with the accompanying material provided by the manufacturers of these products.

Please be advised, "Rules of the Road" exist on the water just as they do on land. We strongly urge that you attend a boating safety course to familiarize yourself with these regulations and that you keep a seamanship reference guide on board at all times. Contact your local dealer or Coast Guard office for course information.

At MAKO we adhere to a policy of ongoing product improvement. Unit specifications as well as standard and optional equipment are subject to change without notice.

# MAKO MARINE

# WARRANTY

See enclosed warranty brochure for Mako warranty information.

See you engine manufacture's owner's manual for engine warranty information.



#### OWNER'S FUNAMENT

#### What is a Mako Funament?

A Mako Funament is a Mako sponsored fishing tournament just for fun. The only rules are to fish from a Mako and to have fun. No preregistration is necessary. Simply attend the Captains and Mates Meeting to participate. A per boat entry fee is required and in return you receive T-shirts, great food, trophies and other Mako items. All anglers are on the "Mako Honor System" and no one goes home without a trophy.

Because the tournaments are held in some of the "fishiest" spots in the world, serious fishing and catching is to be expected. However, the Mako funament is intended to be a fun, relaxing, family oriented event.

The Funament program was started by Bill Munro in 1970 with fishing locations from the Bahamas to New England to Texas and the Great Lakes. Bill continues to lead the Funaments today and can be reached at (561) 842-2474 or faxed at (561) 848-5538.

Contact Bill for entry fees and Funament schedules.

# MAKO MARINE

#### **OPERATION**

**GENERAL** Prior to your first cruise please ensure that you have read your owner's manual thoroughly, that you have familiarized yourself with the "Rules of the Road" as suggested, and that you have all of the necessary safety gear on-board required by the Coast Guard.

**Boatman's Checklist** For your safety and the safety of your passengers, ensure that you have properly attended to the following items prior to leaving the dock.

WEATHER CONDITIONS - Check the weather forecast to ensure that the intended cruise can be made safely

SAFETY EQUIPMENT - All necessary safety gear is on-board and operational (Lights, horn, life saving devices, bailing device, etc...)

SUFFICIENT SUPPLIES - Sufficient water and provisions are on-board for the intended cruise

FUEL SYSTEM - The fuel tank is full, fuel hoses are free of cracks and apparent leaks, hose clamps are in place, bilge is free of fuel and no fuel odors are present.

OIL - Oil tanks are full

SYSTEMS - All mechanical and electrical systems are functioning properly (Steering, pumps, bilge pumps, batteries, lights, etc...)

ENGINE - The engine is functioning properly and mounted securely

BILGE - The bilge has been checked for water and bilge pumps are operating properly

TRANSOM DRAIN PLUG - The transom drain plug has been installed in the low point drain and is free from leaks

CAPACITY PLATE - The recommended capacity of the vessel has not been exceeded

ITINERARY - details of your intended cruise have been left with a close friend or relative on shore

# \_MAKO MARINE

#### **OPERATION**

**GROUNDING & TOWING** - Improper towing of a boat can result in significant stress and possible damage to your vessel. We strongly suggest that this task be left to the U.S. Coast Guard or a commercial towing company.

In the event that your vessel has been grounded, we strongly suggest that, once free, you proceed to nearest safe harbor at slow speed (if boat is capable of limited operation) and have your vessel inspected for any possible damage. Contact your local dealer for assistance.

NOTE: The cleats on your vessel are not intended to be used for towing purposes.

**TRAILERING YOUR BOAT -** We recommend that you contact your dealer to evaluate your towing vehicle and hitch as well as for loading, fastening, and launching instructions.

Ensure that the trailer is the proper style and rating for your vessel. The gross vehicle weight rating of the trailer must be greater than the combined weight of your boat, engine, and gear.

Due to your Mako's "V" hull design, your trailer should be equipped with bunk type chocks on the rear end of the frame. Keel chocks and side balancing chocks should be adjusted to the proper hull shape.

NOTE: The hull should be supported properly to prevent hull damage or warping.

Keel chocks and entry rollers should be used only to unload and retrieve. Side rollers should be used only for balance - not as weight bearing members. The stern section should bear about two inches inside the edge of the bunks.

Prior to towing, ensure that your tires are the proper rating, are properly inflated, that the wheel bearings are properly greased and that you have a spare trailer tire.

Ensure that the vessel is properly fastened and that the trailer lights and brakes are operational. Also, check that the trailer is properly balanced. The weight exerted on the towing hitch should not exceed ten percent of the weight of the boat and trailer for a single axle trailer.

# \_MAKO MARINE

### **OPERATION**

**DRIVING UNDER THE INFLUENCE -** Operating a boat entails great responsibility. The safety of the vessel and the passengers is in your hands. Take this responsibility seriously. NEVER OPERATE YOUR BOAT WHILE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.

Alcohol and drugs severely reduce judgment and reaction time as well as vision and the ability to judge depth, distance, and speed.

Nearly half of all boating accidents are linked to drugs and alcohol.

It is a federal offense to operate a boat while under the influence of drugs or alcohol.

**POST-CRUISE** - wash your vessel and equipment with soap and water - especially if you have been operating in salt water.

Turn off all electrical equipment and set your battery switches to off.

Close all sea-cocks.

Ensure that the vessel is properly moored or fastened.



#### **CLEANING**

**HULL & DECK FIBERGLASS** - For removing dirt, salt, or grease it is recommended that a mild detergent be used. For stubborn stains, apply a small amount of concentrated liquid cleaner and work into the stained area with a soft, moist cloth. Rinse with water. We recommended that you thoroughly wash your vessel after each use or at least twice per month.

Harsh chemicals or abrasives are not recommended as they may dull or scratch your fiberglass finish.

A marine grade wax will help restore and protect your boats gloss finish. Waxing is recommended at least twice per season.

NOTE: DO NOT WAX THE NON-SKID AREAS OF YOUR DECK AS THIS COULD CAUSE THEM TO BECOME SLIPPERY AND INCREASE THE POSSIBILITY OF INJURY.

A stiff brush can be used to clean the non-skid areas of the deck.

NOTE: NEVER USE GASOLINE, BENZENE, ALCOHOL, ACETONE OR LACQUER THINNER AS CLEANING AGENTS. THESE TYPES OF CLEANERS MAY DAMAGE THE FINISH OF YOUR BOAT.

**BELOW THE WATERLINE** - It is recommended that you clean below the waterline immediately after use as dirt and marine growth are easier to remove while the bottom is still wet. If the boat is to remain in the water, the hull should be coated with an epoxy barrier coat such as the Interprotect System from International Paint Co.

**UPHOLSTERY & CANVAS** - Both upholstery and canvas should be cleaned with mild detergent and water. Although all canvas and upholstery is made of mildew resistant material, it is very difficult to prevent it from forming entirely in a marine environment. Keeping the fabrics clean and allowing them to dry prior to folding and storing will aid in preventing mildew formation.

NOTE: DO NOT USE BLEACH AS A CLEANING AGENT FOR CANVAS OR UPHOLSTERY.



#### **CLEANING**

**UPHOLSTERY & CANVAS (Cont)** - All materials used in cushions in covers are pre-shrunk. However, fabrics will set as they weather, causing slight stretching and shrinking where necessary, gradually shaping themselves to a form fit. Tightly wrapped, wrinkled, cold or wet materials may prove difficult to snap. Fabric will regain original size under tension.

Fasteners are made of nickel plated brass or stainless steel. A light coating with silicone spray will assure trouble-free operation. Apply to zippers as well.

Clear vinyl Windows should be cleaned with warm soapy water and a clear water rinse. Denatured alcohol and non-lemon furniture polish can also be effective for cleaning clear vinyl.

**WINDSHIELD** - The windshield should be kept clean with mild soap and water. Be careful to use a soft cloth (non-abrasive) for applying soap and water to the windshield. It is recommended that the windshield be lightly waxed with a clear commercial wax to fill minor scratches and prevent further scratching.

#### **REPAIRS**

Repairs to small nicks and scratches in the gel-coat finish can be accomplished with the MAKO gel-coat repair kit included with your vessel. For damage deeper than the gelcoat layer, it is recommended that you contact your MAKO dealer.

#### **BOTTOM PAINT**

Your MAKO's entire skin surface is coated with a very durable, low porosity gel-coat finish. If bottom paint is desired, this finish must be prepared properly. A three step cleaner, primer and bottom paint system for fiberglass (Interlux or Petit for example) is recommended. SANDING YOUR HULL BOTTOM IS STRONGLY DISCOURAGED. Consult your dealer for the type of bottom paint which is best suited for your particular area.



#### STRIKING THE WATERLINE

The precise waterline will vary with each boat and will depend on the gross weight of your vessel. For best results, the waterline should be determined while the vessel is in the water (a calm day is essential) with all equipment on board that you typically carry. Ensure that the vessel has a proper attitude - no list and no excessive rise at the bow or stern. Mark the waterline on both sides of the boat with a soft lead pencil at the stern and bow.

Level the boat on a smooth, hard surface so that all pencil marks are equidistant from the floor. Scribe a pencil line which connects your bow and stern waterline marks and runs parallel to the floor.

#### ADDING OPTIONAL EQUIPMENT

Not all areas of your MAKO are intended for mounting of optional or after-market equipment. Where possible, additional hardware should be mounted in reinforced areas and installed with back-plates and thru-bolts. If thru-bolting is not possible, toggle bolts should be used. Consult your dealer prior to any installation of optional equipment.

#### **STORAGE & WINTERIZATION**

**STORAGE PREPARATION -** When decommissioning your vessel for an extended period of time, the following precautions are recommended:

Thoroughly clean your entire vessel and wax fiberglass surfaces.

Remove any oxidation from all hardware, faucets, electrical components and coat with a protective lubricant.

Completely drain and clean all fishboxes, storage spaces, livewells, etc..

Remove all possible cushions and upholstery from your vessel.

Remove all removable hatches and open any appropriate hatches and doors to facilitate ventilation.

Spray enclosed areas such as the refrigerator, head compartment, storage spaces, etc... with a spray disinfectant.

Remove low-point drain.



#### STORAGE & WINTERIZATION

#### STORAGE PREPARATION (CONT)

- Remove batteries and store in a cool, dry place. Clean battery terminals and ensure that batteries have sufficient water. Keep batteries charged throughout the storage period. NOTE: Do not store batteries on a concrete surface.
- Remove propeller and grease propeller shaft SEE ENGINE MANUFACTURE'S OWNER'S MANUAL FOR PROPER STORAGE AND WINTERIZATION PROCEDURES FOR YOUR ENGINE.
- Completely fill the fuel tank. In areas where freezing might occur, a gas treatment is recommended. Run engine for several minutes after adding gas treatment to ensure that all lines, filters, and engines contain treated gas.
- Pump out the holding tank and flush system with soap, water, and deodorizer. In areas where freezing might occur the head system including all tanks, hoses, pump, head unit, etc.. should be filled with a non-toxic, freshwater anti-freeze.

  SEE HEAD MANUFACTURE'S OWNER'S MANUAL FOR PROPER STORAGE AND WINTERIZATION PROCEDURES FOR YOUR HEAD UNIT.
- Drain all fresh and saltwater systems. In areas where possible freezing might occur, fresh and saltwater systems should be treated with a non-toxic, freshwater anti-freeze. Add anti-freeze mixture to freshwater tank and immerse all raw water intake lines in a container of anti-freeze mixture. Run all pumps and systems until anti-freeze is visible in all drains or at all fresh and saltwater discharge fittings. This will ensure that all pumps and fitting are filled with anti-freeze mixture.
- Clean and dry all bilge and sump areas.
- Dry any and all possible drainage areas and gutter systems as freezing in these areas can cause cracking.
- If your MAKO is to be stored outside, a properly supported storage cover is recommended. NOTE: Cover must be vented to ensure proper ventilation and air circulation while your vessel is in storage.

Do not use T-top, bimini-top, dodger or other factory supplied canvas covers as winter storage covers.

#### STORAGE & WINTERIZATION

**SUPPORTING YOUR MAKO** - Ensure that bunks, pads, rollers, cradle properly support the hull and that the weight of the vessel is properly distributed throughout these supports. NOTE: Cradle supports should extend aft under the transom to avoid the possibility of hull distortion.

Your trailer or cradle should rest on a level surface with a bow-high attitude to ensure proper draining of your bilge.

Ensure that your hitch is properly supported and that tire pressure is adequate

#### **RECOMMISSIONING**

Install low-point plugs.

Install batteries.

Consult your engine manufacture's recommendations on recommissioning your engine.

Pump anti-freeze from all systems and flush repeatedly with fresh water.

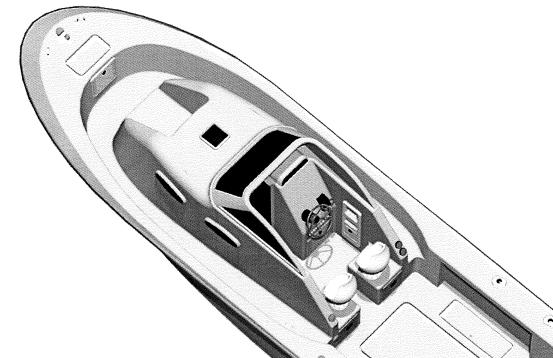
Perform all routine maintenance procedures on all systems.

Verify proper operation of all systems prior to launch.

Thoroughly inspect and test your fuel system (SEE FUEL SYSTEM MAINTENANCE).

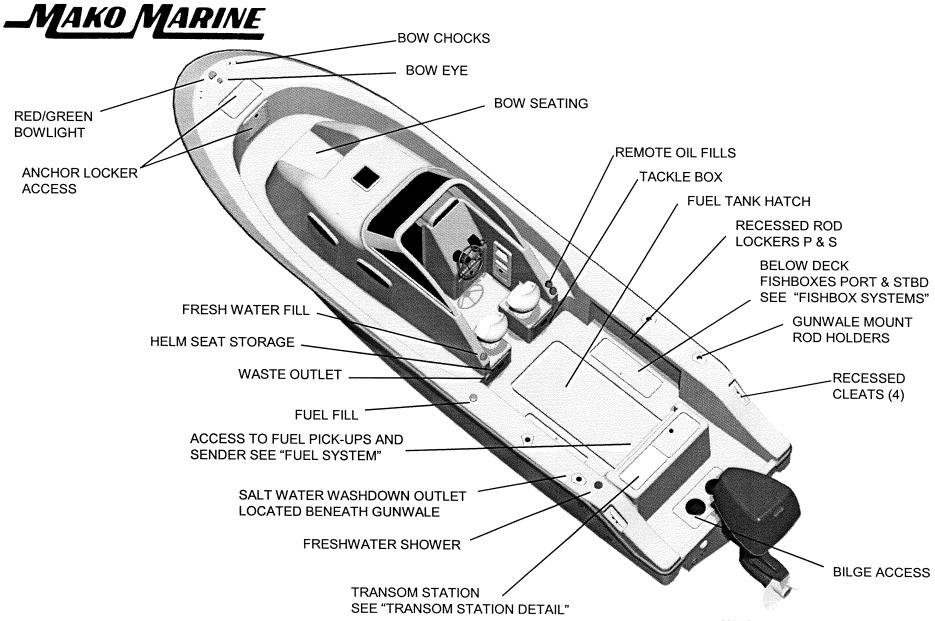
NOTE: IMMEDIATELY UPON LAUNCHING YOUR VESSEL, RE-TEST ALL SYSTEMS FOR PROPER OPERATION AND INSPECT BILGE AND ALL HOSES FOR LEAKS.





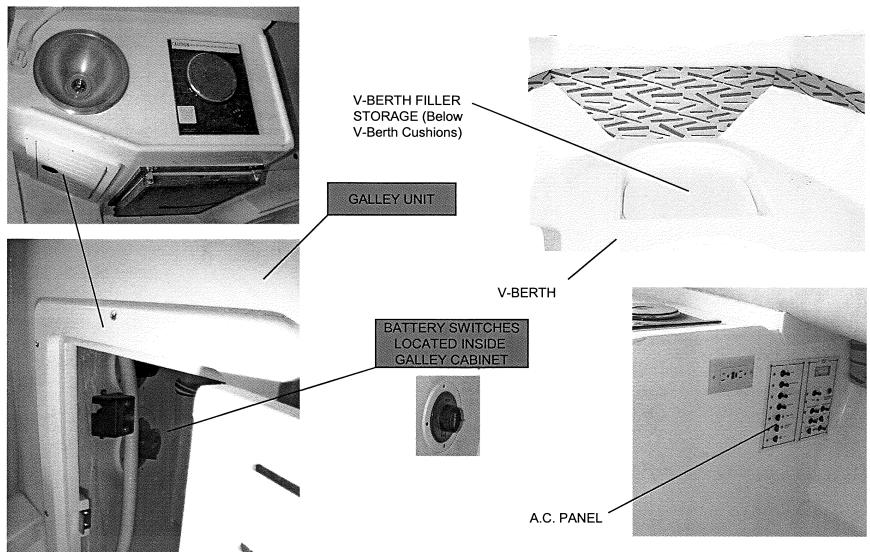
# MAKO 253 ARRANGEMENT RLANS

# MAKO 253 GENERAL ARRANGEMENT PLAN



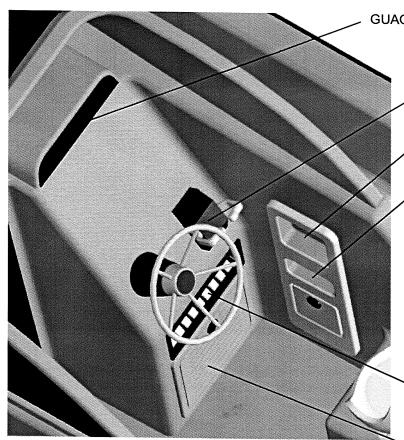


### MAKO 253 CABIN ARRANGEMENT PLAN





# MAKO 253 HELM ARRANGEMENT PLAN



**GUAGE PANEL** 

**THROTTLE** 

STORAGE

**DRINK HOLDERS** 

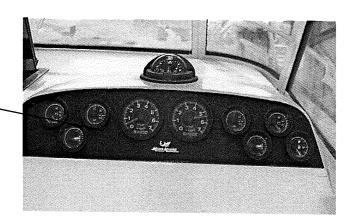
TRIM TAB CONTROLS SEE "TRIM TAB FEATURES"

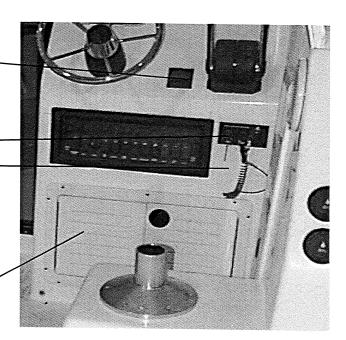
> KEY **SWITCHES**

CAPACITY PLATE

**SWITCH PANEL SEE** "SWITCH PANEL DETAIL"

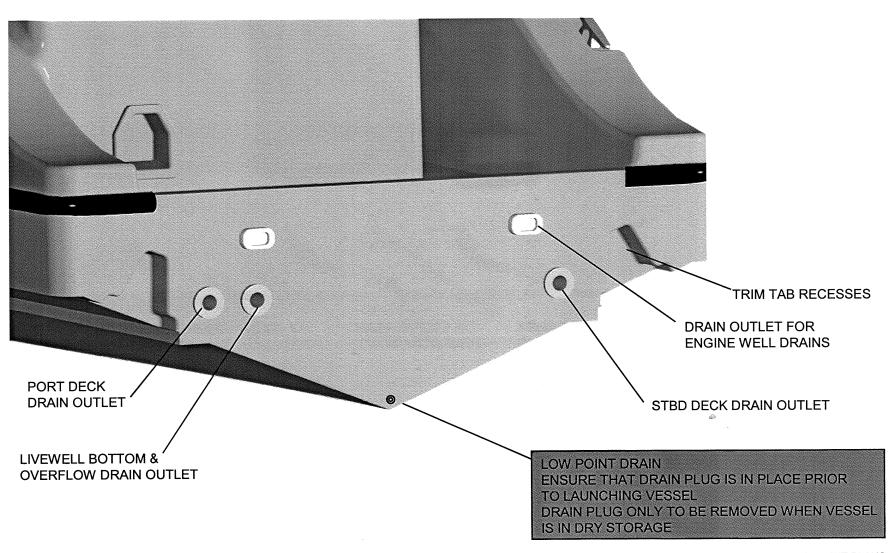
**ACCESS TO HELM** STORAGE, BATTERIES



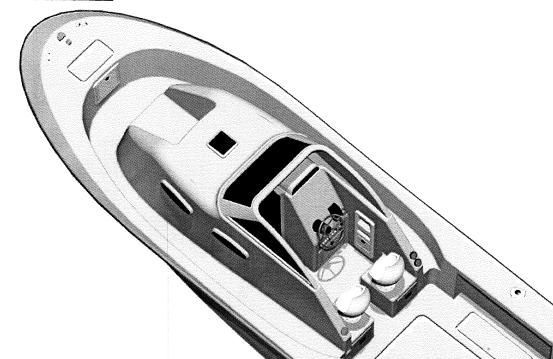




# MAKO 253 TRANSOM ARRANGEMENT PLAN



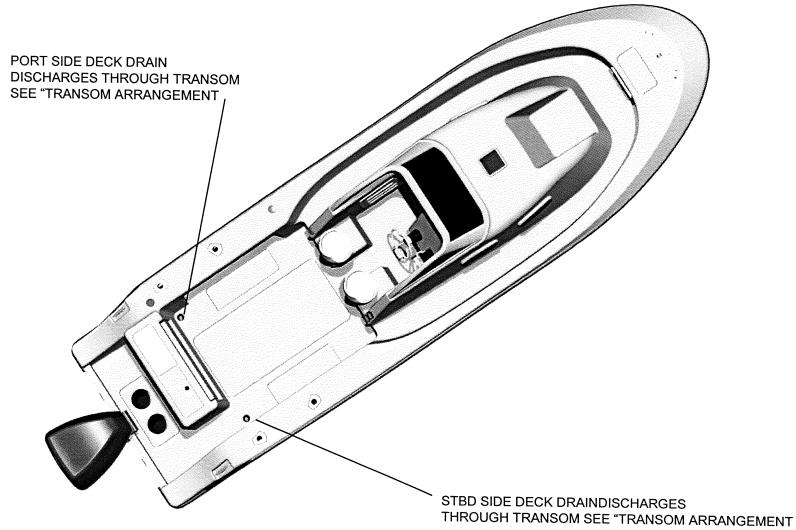




# MAKO 253 ON BOARD SYSTEMS



# MAKO 253 DECK DRAINAGE DETAIL



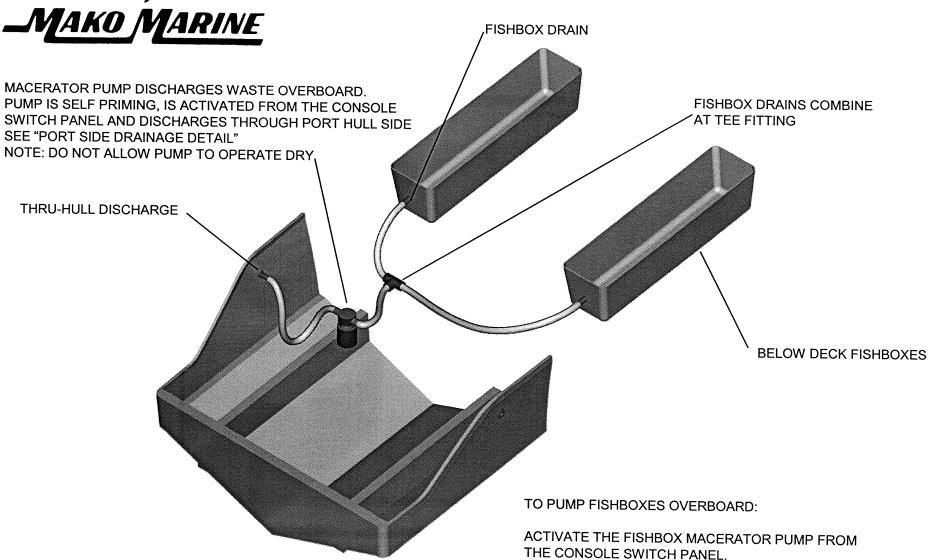
# MAKO MARINE MAKO MARINE **ANCHOR LOCKER DRAINS DIRECTLY THROUGH HULL** SIDE **GALLEY SINK DRAIN CABIN BILGE PUMP DISCHARGE** BILGE PUMP DISCHARGE

FISHBOX OVERBOARD PUMPOUT DISCHARGE SEE "FISHBOX SYSTEM"

SEE "BILGE PUMP SYSTEM"

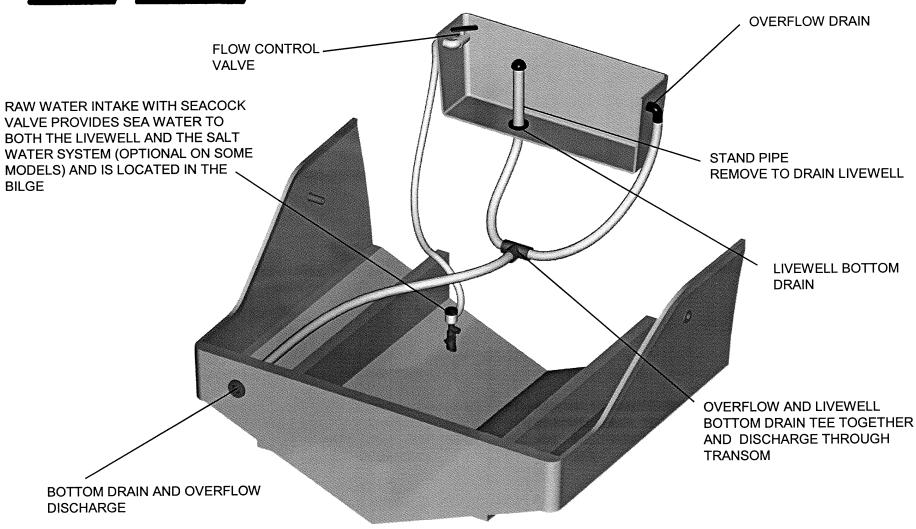
# MAKO MARINE

# MAKO 253 FISHBOX SYSTEM





# MAKO 253 LIVEWELL SYSTEM



#### **SLOW SPEED AND AT REST OPERATION**

While operating your vessel at slow (trolling) speed engage the Livewell Pump from the console switch panel to fill livewell. The Livewell Pump Sea-Cock (see "Main Machinery Space Detail") should be in the open position. Use the Flow Control Valve to regulate the volume of raw seawater discharged through the Spray Bar. As livewell begins to fill, the Stand Pipe will maintain a minimum water level while the Overflow Drains will remove any excess sea water. Both the Stand Pipe and the Overflow Drain gravity feed through the transom.

#### AT SPEED OPERATION

At moderate speeds and higher (typical cruise speed to fishing grounds) it is not necessary to operate the Livewell Pump. The livewell raw water intake is fitted with a high speed scoop on the hull bottom. The forward momentum of your MAKO will force water into the intake - filling the Livewell. Again, the Livewell Sea-Cock Valve should be in the open position and the Flow Control Valve should be used to control the volume of seawater discharged through the spray bar. The Stand Pipe and the Overflow Drains will maintain proper water level in the livewell as described above.

#### **DRAINING THE LIVEWELL**

Turn off the Livewell Pump from the console switch panel and close the Flow Control Valve and/or the Livewell Sea-Cock. Remove the Stand Pipe and livewell water will gravity drain through the transom.

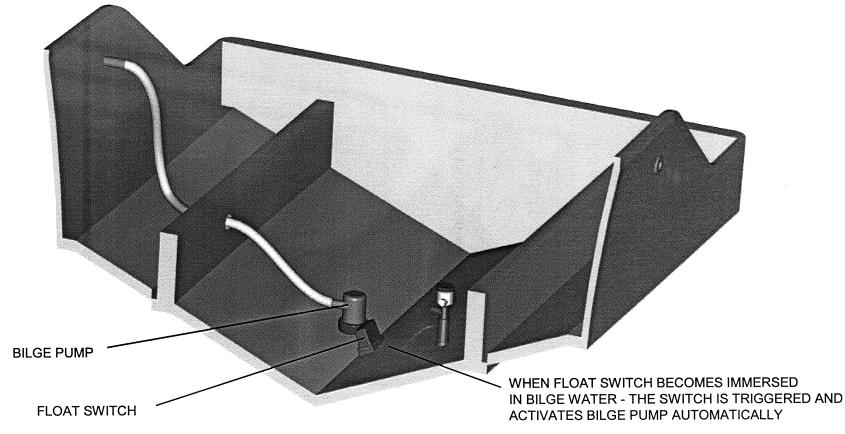
#### IF LIVEWELL DOES NOT APPEAR TO BE FILLING PROPERLY

Ensure that both the Livewell Sea-Cock and the Flow Control Valve are in the open position. Also, ensure that the livewell pump is not air locked. Lack of available sea water may, on occasion, cause the pump to air lock. Disengage pump for several seconds allowing air bubbles to escape and then re-engage the pump. If air lock persists, disengage the pump and operate your vessel at a moderate speed. This will force sea water through the high speed scoop and re-prime your livewell pump.

**NOTE:** Excessive speed or sea conditions may cause your vessel to "bounce", removing the livewell intake from the water and causing the pump to inhale air instead of water. This condition may result in a possible air lock in the livewell pump.



### MAKO 253 BILGE PUMP SYSTEM

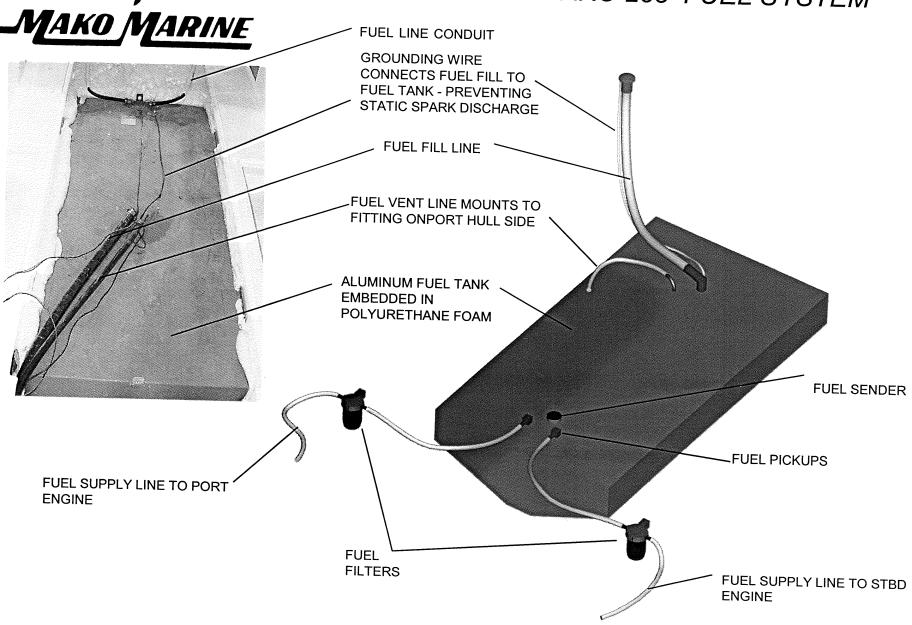


NOTE: ANY OIL OR FUEL SPILLED IN THE BILGE SHOULD BE REMOVED AND PROPERLY DISPOSED OF. IT SHOULD NOT BE PUMPED OVERBOARD. FEDERAL LAW PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE OVERBOARD. CONTACT YOUR LOCAL COAST GUARD FOR DETAILS ON THIS REGULATION.

NOTE: BILGE PUMPS ARE WIRED DIRECTLY TO
BATTERY. SETTING BATTERY SWITCHES TO
OFF WILL NOT DEACTIVATE THE AUTOMATIC
BILGE SYSTEM. THE MANUAL OVERRIDE
SWITCH ON THE CONSOLE PANEL WILL SET
BILGE PUMPS TO RUN CONTINUOUSLY BUT
WILL NOT DEACTIVATE THE AUTOMATIC
BILGE SYSTEM. BECAUSE OF THIS FEATURE,
BOATS LEFT IN THE WATER SHOULD BE
MONITORED REGULARLY FOR PROPER BATTERY
VOLTAGE.

# MAKO MARINE

# MAKO 253 FUEL SYSTEM





# MAKO 253 FUEL SYSTEM

#### **GENERAL**

Your MAKO's fuel tank is made of aluminum and is mounted below deck. All fuel fittings and connections can be accessed, inspected and maintained through the circular access ports located on the deck floor and gunwale side. Additional access to your fuel tank and system components can be obtained by removing the fuel hatch on your deck. WE RECOMMEND THAT THIS BE DONE BY YOUR DEALER ONLY.

#### **FUELING INSTRUCTIONS**

First, ensure that your engine and all electrical equipment are off (set battery switches to off position), the boat is tied securely and that all passengers have left the vessel. Turn and remove the fuel fill cap with the special key provided with your vessel. Opening your fuel fill cap with anything other than the fuel fill key may result in damage to the cap. Insert the pump nozzle into the fuel fill making sure that the nozzle itself rests firmly on the fuel fill. This will help prevent possible static spark discharge while fueling the boat. Begin fueling your boat slowly at first - this will allow the air in the tank to escape through the vent establishing a proper flow air current out of the system and fuel flow into the system. When the fuel tank is full, fuel will discharge through the vent fitting on the hull side. Monitor the vent throughout the process to minimize the amount of fuel discharged through the vent. For this reason, it may be a good idea to estimate the amount of fuel you will require prior to fueling. Clean any fuel spillage from your vessel immediately. Reinstall your fuel fill cap, making sure that the fuel cap gasket is in place on the fuel cap and that it is seated properly in the fuel fill ensuring a water tight seal. NOTE: improperly replacing the fuel cap may allow water into your fuel system - follow previous instructions carefully. Inspect bilge and fuel fittings after fueling and ensure that fuel odors are not present prior to starting your vessel.

#### **MAINTENANCE**

All fuel fittings, connections, hoses, clamps and ground wires should be inspected periodically for any damage, corrosion, or leaks. Replace items as needed.

Periodically replace your fuel filter/water separator as contaminated fuel can cause damage to your engines.

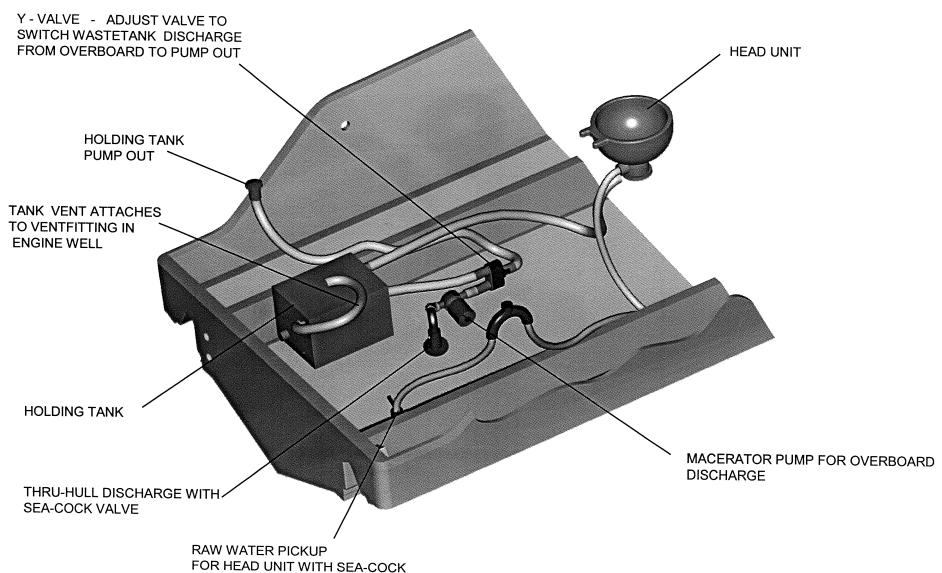
Fuel fill and vent lines should be replaced at a minimum of every three to five years.

Your fuel system should be pressure tested annually. This process involves sealing your fuel system at its termination points and pressurizing the entire fuel system - tank, hoses, & fittings. The pressure within the system should not exceed 3 p.s.i. and the system should hold the pressure steady in excess of 15 minutes. A visual inspection for leaks at all fittings should be performed by applying a soapy water solution to the fittings and inspecting for any bubbles. NOTE: WE RECOMMEND THAT THIS TEST BE PERFORMED BY YOUR DEALER



**VALVE** 

# MAKO 253 HEAD SYSTEM



Raw sea water is supplied through the Raw Water Pick - Up. Ensure that the sea-cock for this valve is open prior to operation. A macerator pump contained within the head unit pumps the waste water from the head unit to the holding tank.

The holding tank should be emptied as needed at an approved dock side pumpout. Overboard discharge of waste is an option only when offshore and where legal.

For dockside pumpout - Set Y-Valve to the appropriate position for dockside pump-out and remove waste through the Holding Tank Pump Out. See the pump station attendant for proper connection of pump out unit. Flush the system several times by engaging the head unit pump and filling the holding tank with raw sea water. Remove the "flush" water with the pump out unit. Repeat this process until holding tank is properly flushed.

For thru-hull discharge - Set Y-valve to appropriate position for thru-hull discharge and open the sea-cock valve on the Thru-Hull Discharge fitting. Engage the macerator pump and waste tank will discharge over board. Flush the system several times by engaging the head unit pump and filling the holding tank with raw sea water. Remove the "flush" water by re-enaging the macerator pump. Repeat this process until holding tank is properly flushed.

NOTE: IT IS UNLAWFUL TO DISCHARGE WASTE OVERBOARD IN MANY INSHORE WATERS. CHECK WITH YOUR LOCAL COAST GUARD FOR REGULATIONS ON OVERBOARD WASTE DISCHARGE IN YOU AREA. IN ORDER TO PREVENT ACCIDENTAL OVERBOARD DISCHARGE OF WASTE, IT IS RECOMMENDED THAT THE THRU-HULL DISCHARGE VALVE REMAIN CLOSED WHEN NOT IN USE.

#### FRESHWATER SYSTEM

The freshwater tank is located in the main machinery space (see "Main Machinery Space Detail") and is filled from the Water Fill located on the gunwale (see "General Arrangement Plan"). The Freshwater Pump is a self-priming pump and is activated from the Console Switch Panel. Once engaged, the pump will run continuously until the system is adequately pressurized. The pump will then activate and deactivate automatically as needed to maintain proper pressure within the freshwater system.

NOTE: DO NOT ALLOW THE FRESHWATER PUMP TO RUN DRY.

See Storage and Winterization for proper system winterization procedures.

#### SALTWATER SYSTEM

The saltwater system operates in much the same manner as the freshwater system only it draws its water supply from the ocean through the intake thru-hull located in the Main Machinery Space. The saltwater pump is a self-priming pump which is activated from the Console Switch Panel and activates and de-activates automatically as needed to maintain proper pressure throughout the saltwater system.

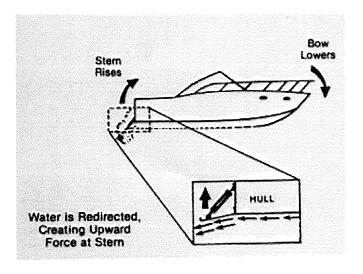
NOTE: THE SALTWATER PUMP SHOULD NOT BE ALLOWED TO RUN DRY.

See Storage and Winterization for proper system winterization procedures.

# MAKO .

### MAKO 253 TRIM TAB SYSTEM





ADJUST TRIM TABS INDIVIDUALLY TO CORRECT A LIST

ADJUSTING BOTH TRIM TABS TOGETHER WILL ALTER THE OVERALL ATTITUDE OF THE VESSEL

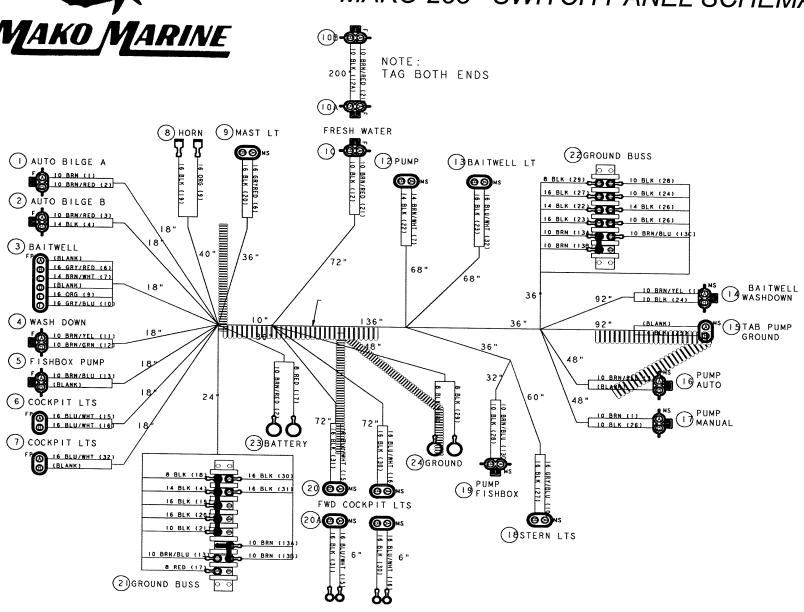
TRIM TABS ALTER YOUR VESSEL'S RUNNING ANGLE AND ATTITUDE BY REDIRECTING THE MOMENTUM OF THE FLOW OF WATER AS IT PASSES THE STERN. THEREFORE, TRIM TAB ADJUSTMENTS ARE MOST NOTICEABLE WHEN VESSEL IS ON PLANE

PUSHING THE PORT TRIM TAB SWITCH UP LOWERS STBD TRIM TAB, RAISES STBD STERN AND LOWERS PORT BOW

PUSHING THE STBD TRIM TAB SWITCH
UP LOWERS PORT TRIM TAB, RAISES
PORT STERN AND LOWERS STBD BOW
PUSHING THE SWITCH DOWN REVERSES
THIS PROCESS

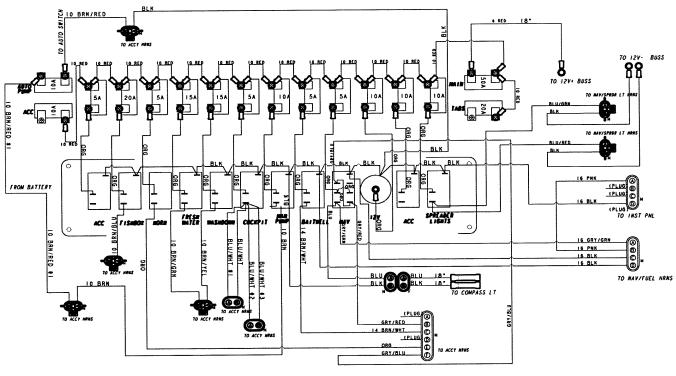


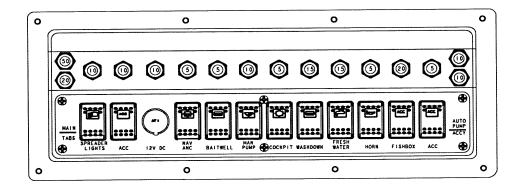
# MAKO 253 SWITCH PANEL SCHEMATIC





## MAKO 253 SWITCH PANEL SCHEMATIC





# MAKO MARINE MAKO 253 BATTERY SWITCH DETAIL **BATTERY BATTERY SWITCH 2** SWITCH 1 **BATTERY 1 BATTERY 2** SINGLE ENGINE, DUAL BATTERY BOATS SHOULD BE OPERATED ON BATTERY 1 OR 2. **DUAL ENGINE, DUAL BATTERY BOATS** SHOULD OPERATE ON ALTERNATE SWITCH **SETTINGS - PORT ENGINE ON BATTERY 1** STBD ENGINE ON BATTERY 2 **MOTOR 1 MOTOR 2** AND VICE VERSA. MAKO 253 ON BOARD SYSTEMS 6 - 15



# MAKO 253 PROPELLER SPECIFICATIONS

EXACT PROPELLER SPECIFICATIONS VARY DEPENDING ON TYPICAL VESSEL LOAD, **VESSEL WEIGHT, AND ENGINE HORSEPOWER.** 

RECOMMENDED PROPELLER PITCH IS 17" OR 19" DEPENDING ON FACTORS ABOVE.

DIAMETER VARIES ACCORDING TO PROPELLER MANUFACTURER.

SEE YOUR LOCAL DEALER FOR COMPLETE PROP SPECS.



# MAKO 253 NAVIGATION LIGHTS

**RED / GREEN BOW LIGHT** 

