MODEL 372
MODEL 320

OWNER'S MANUAL

sea-doo* '69

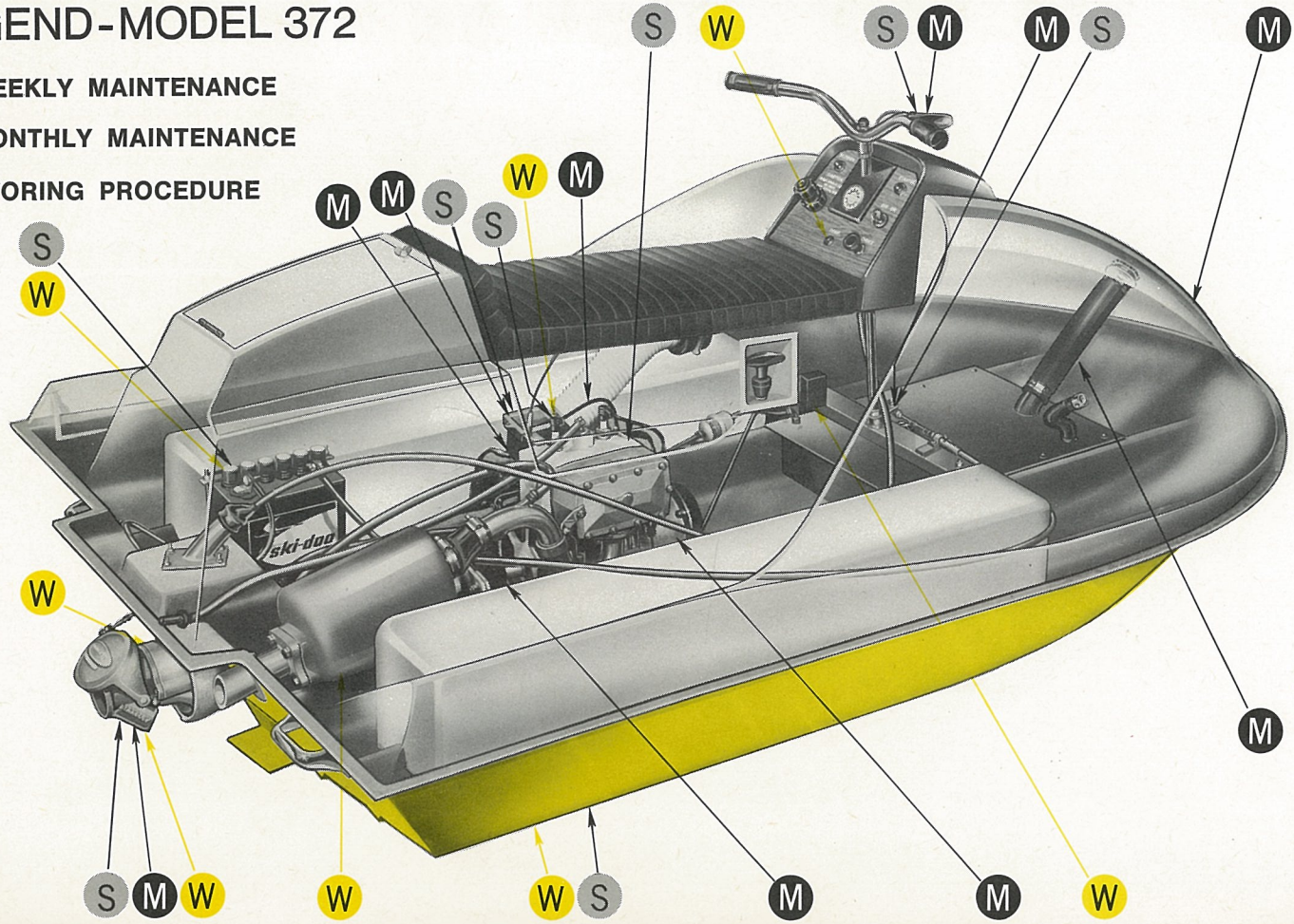
Bombardier

*T.M. BOMBARDIER LTD.

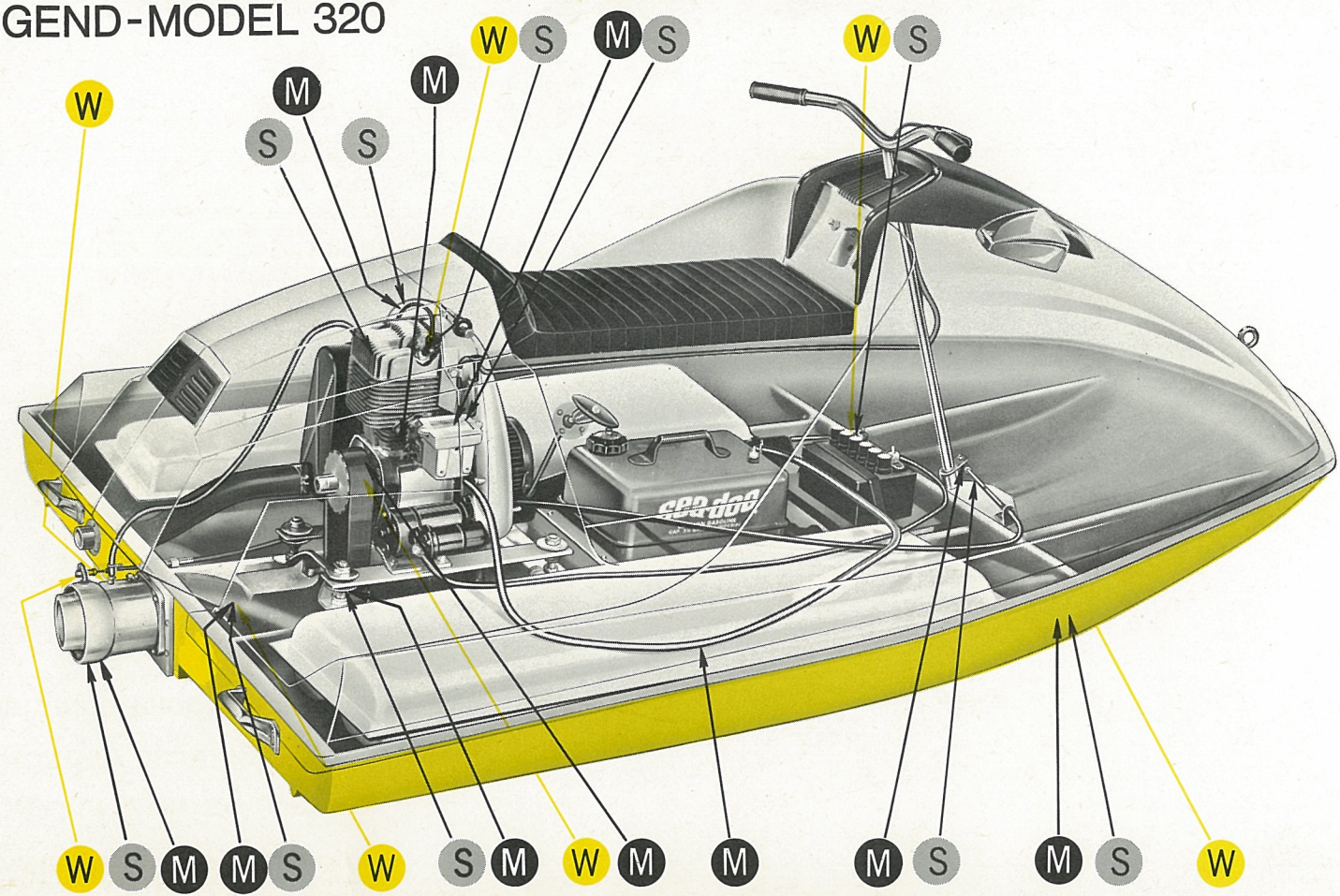
SEE UNDERSIDE OF COVER FLAP FOR CUTAWAY VIEWS OF MODELS 372 AND 320. LEAVE FLAP OPEN AND USE AS CROSS REFERENCE WITH BREAK-IN, MAINTENANCE AND STORAGE SECTIONS.

LEGEND - MODEL 372

- **W** WEEKLY MAINTENANCE
- **M** MONTHLY MAINTENANCE
- **S** STORING PROCEDURE



LEGEND - MODEL 320



Congratulations on your purchase of a '69 Sea-Doo and welcome to a new concept in water sports — jet boating.

What's new about Sea-Doo? Well, practically everything. First, there's no keel, no rudder and no propeller. Instead, your Sea-Doo operates on a pure jet principle. Water is taken in at a grate flush with the underside of the hull, an impeller accelerates it and a turbine nozzle directs the force. To steer, the turbine nozzle turns in direct relation to the rotation of the handle bars.

Second, without keel or rudder there are no projections to cause drag. Almost from the word "Go" these high-spirited performers accelerate to planing speed, maneuver and respond as quickly as you can change your mind.

Third — its appearance looks like nothing else in the boating world. Aerodynamically inspired, this classic hull design appears to be racing even when its standing still.

Safety too had to be a major consideration before we put our name to it. With sealed floatation chambers, moulded fiberglass hull and forced-draft ventilation, you can be assured that your Sea-Doo is one of the safest crafts afloat.

Whichever model you have purchased, you will find it built to the highest standards of quality and craftsmanship, by the people whose name is synonymous with winter sports, Bombardier Ltd. — backed by an international Distributor and Dealer organization.

Like all precision equipment however, it requires a certain amount of care to return maximum performance and enjoyment to its owner.

This manual lists all of the things you should know and do to get years of safe, care-free enjoyment from your Sea-Doo. We suggest that you read it thoroughly, even before taking your first ride, then keep it handy at all times for quick reference when required.

MODEL 372

Brand new, outside and in, for '69, this deluxe Sea-Doo is powered by a water cooled, **368** c.c. Rotax engine that develops 24 h.p. Directly coupled to an advanced **6JA** Berkeley Turbine that features FORWARD - NEUTRAL - REVERSE as standard equipment, this exciting model is easier to maneuver, easier to dock, and can reach speeds of up to 35 mph.

All controls are conveniently grouped in a handsome console panel with simulated wood grain finish; while storage compartments fore and aft allow you to carry tools, safety equipment, picnic lunches, skin dining or fishing gear.

STANDARD FEATURES INCLUDE — Electric Starting • 6JA Berkeley Turbine with Reverse Thrust • Stationary Gas Tank with Fuel Filter • 12 Volt Electrical System with Spill-proof, Anti-leak Battery • Filtered Intake System • Chrome Bow Ring and Grip Handles • 4 Air Intakes to provide continuous air circulation throughout engine compartment • Front and Rear Storage Compartments.

MODEL 320

The Model that became the start of a brand new sport, now modified and improved for 1969. Classic in design and carefree in performance, you simply press a button to start, squeeze the throttle to go.

Tuning and servicing are just as easy. Tilt-up engine cover gives full access to the craft's exclusive air-cooled, **318** c.c. Rotax engine, the same reliable performer that Bombardier uses on its world famous Ski-Doo Snowmobiles.

STANDARD FEATURES INCLUDE — Electric Starting • Sealed floatation Hull • Spill-proof Battery • Automatic Syphon System • Water Cooled Muffler • Portable Gas Tank • Filtered Fuel System • 5J5 Berkeley Turbine • Front Air Scoop • Chrome Bow Ring and Transom Handles • Storage Compartment.

WARNING: Immersion in salt water causes rapid corrosion of your Sea-Doo's metal parts and may invalidate your warranty. If used in salt water, immediately flush entire Sea-Doo, including internal parts, with clean fresh water.

INDEX

BREAK-IN PERIOD

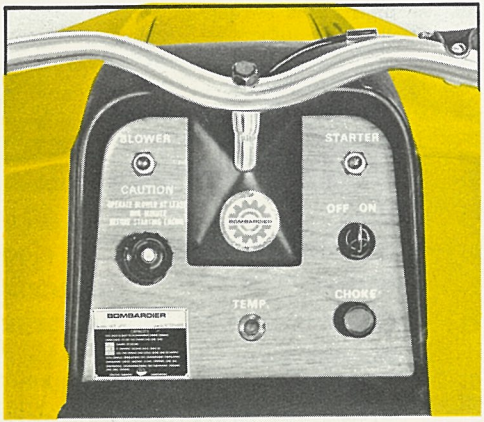
Like all high performance engines, a break-in period is necessary before running at full power. Manufacturer's recommendation for the Rotax engine is 10 operating hours.

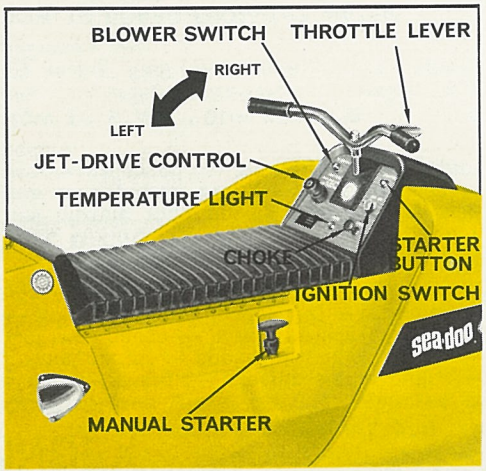
Because of the differing sizes of the fuel tanks in the 2 models the equivalent fuel consumption for this period is 2 full fuel tanks for Model 372, 3 full fuel tanks for Model 320. Maximum throttle opening during this period should not exceed ¾ full open.

When your Sea-Doo is delivered from your dealer, the carburetor has been adjusted for a rich fuel mixture. Do not readjust carburetor during break-in period.

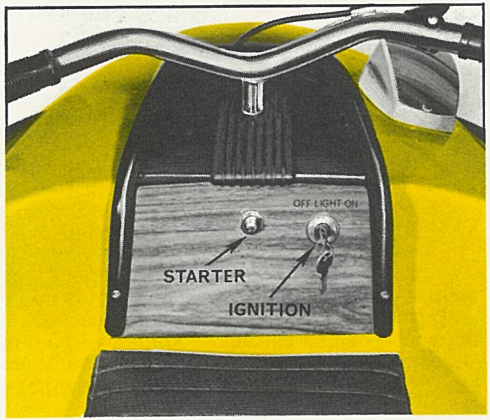
After break-in, your Sea-Doo should be returned to your dealer for its first inspection. If it is impossible to contact an authorized Sea-Doo dealer in your vicinity, you can complete the necessary procedure, by referring to the Maintenance section of this manual (See Page 25) and following the steps carefully detailed under the heading "Break-in".

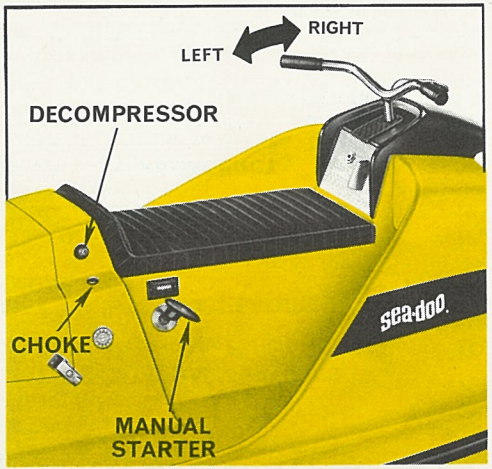
CONTROLS 372





CONTROLS 320





STEERING

The Sea-Doo follows the direction in which the handle bars are rotated. To turn to the right, rotate handle bars right. To turn to the left, rotate left.

THROTTLE

The throttle is hand operated and when the lever is depressed,the engine speed increases. When the lever is released, it automatically returns to the idle position.

ELECTRIC STARTER BUTTON

This is a push-type button which when depressed engages the starter motor and engine. When released it returns to the OFF position, disengaging the starter motor.

MANUAL STARTER

An automatic rewind manual starter is provided for engine starting in cases of emergency (i.e. low or dead battery.)

CHOKE

The choke should always be used for easier cold engine starts. When the knob is pulled out, the choke is activated and when pushed in, it is closed.

Note: The purpose of the choke is to reduce the amount of air flowing through the carburetor. However, leaving choke pulled out after engine has started activates carbon formation inside the engine. Therefore, never leave the choke knob pulled-out when the engine is running.

IGNITION SWITCH

A key operated switch controls the ignition system. Identified key positions are OFF-ON. A third key position between those identified is provided to control a lighting system obtainable at most authorized Sea-Doo dealers.

Note: On Model 320, the center position is identified by the word LIGHT.

FUEL LEVEL GAUGE

On both models, a gauge is provided to indicate the quantity of fuel in the fuel tank. On Model 372, it is located on the top of the fuel tank, visible by opening the forward hatch cover, while on Model 320, it is an integral part of the fuel tank filler cap.

Note: (Model 320 only) — A knurled knob, located in the center of the fuel gauge, controls the fuel tank vent. When knob is rotated counter clockwise, vent is open to atmosphere. When fuel tank is installed in Sea-Doo, vent knob must be fully opened. Close vent knob when transporting Sea-Doo, to prevent escape of fumes.

BLOWER SWITCH — (Model 372 only)

Depressing the switch dispels any fuel fumes in the engine area.

Note: Always depress switch for at least 1 minute prior to starting engine.

JET-DRIVE CONTROL — (Model 372 only)

The main function of this push-pull control is to direct the FORWARD-NEUTRAL-REVERSE motion of your Sea-Doo. To go forward, depress the hold button located in the center of the knurled knob and pull control fully out; to reverse, press hold button and push control fully in.

The Control is locked in any pre-selected position by turning the lower knurled collar fully clockwise to lock (HOLD), counter clockwise to RELEASE. For maneuvering the craft in confined areas or for docking, it is not necessary to lock the Control, but once underway the selected position should be secured.

Depending on the idling speed of the engine, the NEUTRAL position can be found by pulling the shaft of the Control handle approximately ½" to 1" from the knurled collar.

Finer Neutral tuning can be obtained by turning the knurled Control knob (vernier) in or out. Rotating the knurled knob at the end of the Control raises or lowers the turbine gate.

Note: Although the practise is not recommended, it is neither harmful nor dangerous if the control is accidently reversed at top speed. The Sea-Doo should gradually slow to a full stop then start to reverse direction.

TEMPERATURE LIGHT — (Model 372 only)

This red warning light comes on in case of excessive engine temperature.

WARNING: IF LIGHT ILLUMINATES, SHUT OFF ENGINE IMMEDIATELY AND INVESTIGATE FOR CAUSE. (SEE LOW PERFORMANCE DIAGNOSIS SECTION).

DECOMPRESSOR — (Model 320 only)

This control provides easier starting when using the manual starter. The decompressor is activated when knob is fully pulled out.

Note: The decompressor valve is a device used to reduce engine compression. The engine can be ruined however, if it runs for a long period of time with the decompressor valve "ON". Push in valve immediately engine starts.

FUEL MIXING

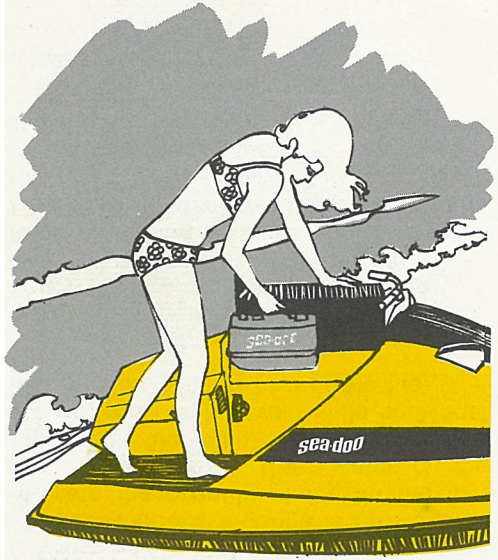


Fig. 1

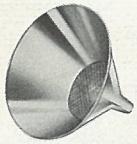


Fig. 2

Fig. 3

The Rotax 2-cycle engine which powers the Sea-Doo is a lightweight, high performance machine of proven reliability and maximum output. As with all precision machinery however, the engine requires adequate and continuous lubrication while running.

This is done by adding oil in pre-measured amounts to the gasoline. The resulting fuel mixture, in addition to powering the engine, lubricates the cylinder(s) and aids in internal cooling.

The accompanying chart shows the manufacturer's recommended gas/oil ratio to ensure the proper running and long life of your engine. Follow it faithfully and your engine will give you all the power and performance for which it was designed.

FUEL MIXTURE RATIO (Model 372 only)

The correct gasoline to oil mixture ratio for the Sea-Doo Model 372 is 20 parts gasoline to 1 part oil.

Note: A mixture containing too little oil will cause overheating of the engine, which could result in serious internal damage, (such as piston seizure or even a broken connecting rod or crankshaft). A mixture containing too much oil will cause excessive carbon formation resulting in pre-ignition, fouled spark plug(s) and loss of power.

FUEL MIXTURE RATIO (Model 320 only)

The correct gasoline to oil mixture ratio for the Sea-Doo Model 320 is 16 parts gasoline to 1 part oil.

WHICH GASOLINE TO USE

The choice of a correct gasoline is very important. It is recommended that regular gasoline, available at all service stations, be used, but not less than 75 octane. If this is not available, use white (marine) gasoline. Do not use high octane gasolines (premium grades). Their high lead content can harm your engine.

WARNING: NEVER USE RED GASOLINE, NAPHTHA, METHANOL OR SIMILAR PRODUCTS.

WHICH OIL TO USE

Use only Sea-Doo/Ski-Doo Oil (See Fig. 1) available at your authorized Sea-Doo dealer. This oil, specially blended for the Rotax engine, has high carbon resistance, excellent anti-wear characteristics and reduces engine deposits to a minimum.

WARNING: UNLESS ABSOLUTELY NECESSARY (IN CASE OF EMERGENCY) DO NOT USE OUTBOARD OR STRAIGHT MINERAL OIL. NEVER UNDER ANY CIRCUMSTANCES USE MULTI-VISCOSITY OILS.

FUEL MIXING PROCEDURE

1. To mix the gasoline and oil always use a separate, clean container. Never mix in your Sea-Doo tank.
2. Pour the full amount of Sea-Doo/Ski-Doo oil required for the total mixture into the container, add approximately half the amount of gasoline to be mixed and shake thoroughly.
3. Add the remainder of the gasoline and once again thoroughly agitate the container.
4. Using a funnel with a fine mesh screen (See Fig. 2) to prevent the entry of water and foreign particles, transfer the fuel from the container to the Sea-Doo tank.

WARNING: ON SEA-DOO MODEL 320, ALWAYS REMOVE TANK FROM CRAFT BEFORE FUELING.

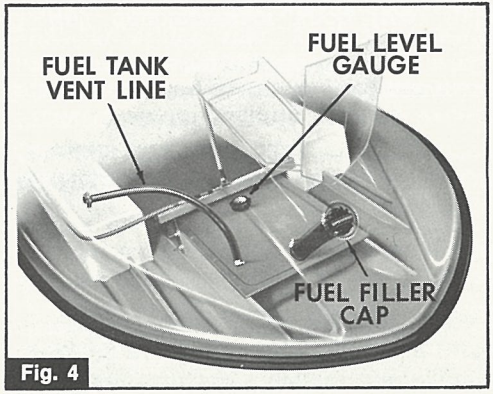
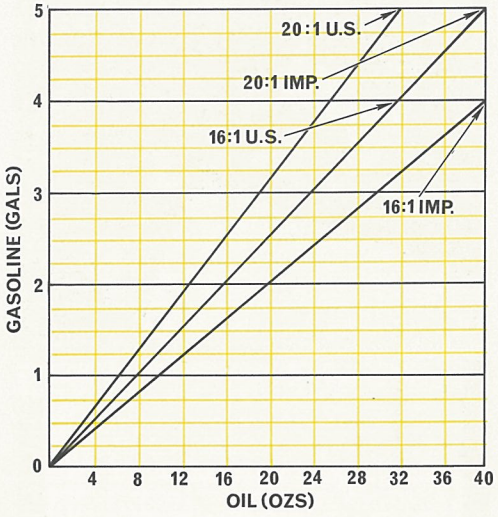


Fig. 4

FUEL MIXING CHART



FUEL CONSUMPTION TABLE

MODEL 372			MODEL 320	
GALS/HR	RUNNING TIME	THROTTLE POSITION	GALS/HR	RUNNING TIME
2.5 gal.	2 hrs	Full	1⅝ gal.	2 h/30 m
1¾ gal.	2 h/51 m	¾	1¼ gal.	3 h/12 m
¾ gal.	6 h/40 m	½	⅝ gal.	6 h/24 m
⅝ gal.	8 hrs.	¼	½ gal.	8 hrs.

h = hours m = minutes

HOW TO START YOUR SEA-DOO

ELECTRIC STARTING — (Model 372 only)

1. Adjust Jet-Drive Control to NEUTRAL position. (knurled knob should be approximately ½″ to 1″ away from locking collar.)
2. Insert key in ignition and turn to ON.
3. Depress blower switch for a period of at least one minute.
4. Pull choke knob fully out. (It is not necessary to use choke if engine is warmed up.)
5. Depress starter button and apply throttle slightly. Release button and throttle immediately engine has started.
6. Push choke knob fully in when engine has started, if choke was used for a cold engine start.

Note: Do not keep starter engaged for a period exceeding 30 seconds. After 30 seconds, allow starter to cool for a period of 2 minutes (Both Models).

ELECTRIC STARTING — (Model 320 only)

1. Insert key in ignition and turn to ON.
2. Pull choke knob fully out. (It is not necessary to use choke if engine is warmed up.)
3. Depress starter button and slightly apply throttle. Release button and throttle immediately engine has started.
4. Push choke knob fully in when engine has started, if choke was used for a cold engine start.

MANUAL STARTING — (Models 372 and 320)

Proceed as for electric starting except instead of using starter button, use manual starter as follows:

1. Pull decompressor knob (red) fully out, (Model 320 only). (See Fig. 7).
2. Assume any convenient position and grasp the manual starter handle firmly. (See Fig. 7).
3. Pull slowly until a resistance is felt. This indicates that the starter is engaged. Then pull vigorously and engine will start. If engine does not start, allow handle to return slowly to its original position and repeat the procedure.

Note: Do not pull starting rope to its fullest extent or allow starting handle to "fly back" to its original position.

4. Push decompressor in immediately engine has started, (Model 320 only).

WARNING: DO NOT LEAVE DECOMPRESSOR KNOB OUT WHILE ENGINE IS RUNNING.

Fig. 5

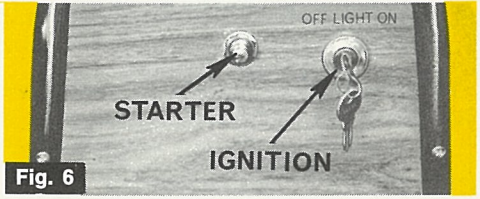


Fig. 6

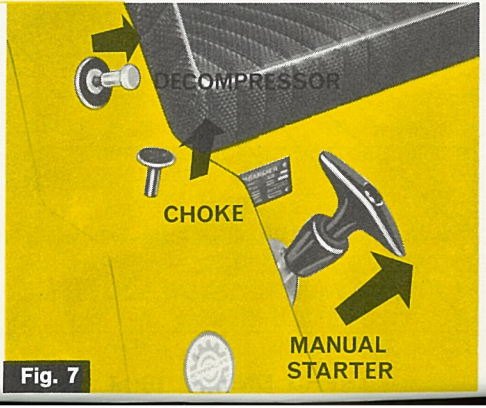


Fig. 7

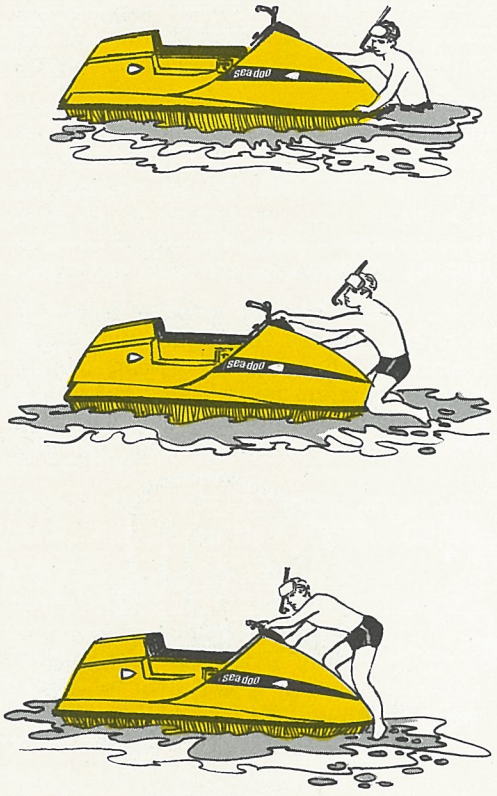


Fig. 8

HOW TO BOARD FROM THE WATER

Being the owner of a new Sea-Doo, you will certainly want to use it to go swimming or skin diving. It then becomes very important for you to know how to remount your craft.

Method 1 — The most common way to climb onto your Sea-Doo is shown on Fig. 8. Placing your body directly in front of the craft, grasp any forward projection and carefully ease yourself up on the nose, then pivot yourself onto the seat.

Method 2 — Placing yourself up forward but to either side, firmly position one knee on the rubber bumper, take hold of the handle bar, or any side projection, and pull yourself up onto the seat.

Note: The engine makes your craft heavier at the rear, keep your weight toward the front therefore. Added weight behind the center of gravity places your Sea-Doo off balance.

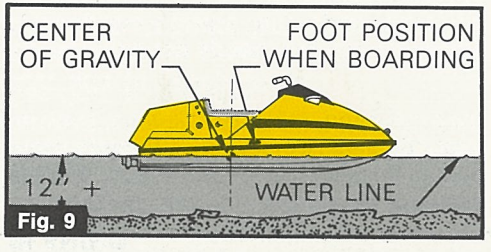


Fig. 9

HOW TO BOARD FROM THE WHARF

There are two easy rules to remember when boarding your Sea-Doo from the wharf or dock.

Rule 1 — Always board your Sea-Doo at the appropriate foot positions, as shown in Fig. 9 Board only from the front or either side. Never board from the rear.

Note that the center of gravity of your craft is located toward the rear. Adding additional weight behind the center of gravity will upset the nature balance causing water to flood the foot deck.

Rule 2 — Always ensure that your Sea-Doo is sitting in at least 12 or more inches of water. If not, push the craft away from shore as you board.

WARNING: ENGINE SHOULD NEVER BE STARTED IN LESS THAN 12" OF WATER. REMEMBER THAT WHEN IDLING, THE TURBINE DRAWS WATER FROM DIRECTLY BENEATH THE HULL. SUFFICIENT DEPTH OF WATER WILL ELIMINATE THE POSSIBILITY OF SAND, SMALL PEBBLES OR OTHER FOREIGN MATTER CAUSING IMPELLER DAMAGE AND POSSIBLY NECESSITATING MAJOR REPAIR.

DRIVING HINTS

You can start secure in the knowledge that your Sea-Doo, properly handled, is one of the safest water crafts afloat. The classic Sea-Doo hull design is virtually untippable and the sealed floatation chambers make it virtually unsinkable.

Until you become thoroughly familiar with your new Sea-Doo however, it is wise not to venture far from shore or at top speed. During your first few runs accustom yourself to the uses and responses of the various controls and get the feel and balance of your craft.

As you gain confidence you may start to add the one basic ingredient that makes the Sea-Doo unique — driver control. No other craft responds so readily, or becomes so much a part of you as your new Sea-Doo.

PLANING

On start-off, use full throttle to increase engine torque and attain planing speed more quickly. For fastest planing, lean forward slightly over the cowl as your Sea-Doo accelerates.

To maintain top speed it is not necessary to keep the throttle fully open. Ease the throttle slightly OFF until craft starts to lose speed then increase throttle ON slightly above this point. Properly tuned, your Sea-Doo should maintain top speed at about ⅞ full throttle.

Note: A literal definition of planing, as applied to power boats, could be — to skim the surface of the water!

The primary goal in designing a fast boat is to reduce friction and resistance between hull and water.

A planing hull succeeds in cutling this resistance, by taking advantage of the principle that water flowing faster and faster under the boat creates a dynamic force that lifts the hull to the surface.

Normal draft of your Sea-Doo, for example is 3" Adding the weight of a driver increases the draft at rest, to 5". When planing however, the draft again becomes 3", including the weight of both Sea-Doo and driver.

TURNING

Shifting your weight during turns is a sure way of improving your maneuverability. Turns can be made smooth and fast — all its needs is a little practise.

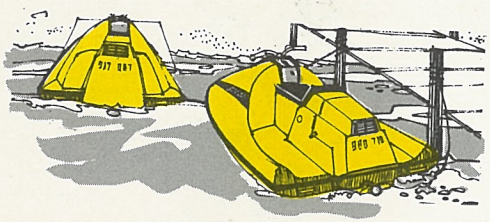
At low and medium speeds lean your upper body and move your weight to the side closest to the direction of the turn. Then turn the handle bar and increase the throttle. Your Sea-Doo will virtually turn on a dime.

High speed turns, without losing efficiency, are only possible with accurate weight shifting, timing and throttle control. If your weight shift is inaccurate or not timed correctly, your Sea-Doo may slide and spin out. When you are coming into the turn, reduce the throttle, turn the handle bars and open the throttle as the Sea-Doo commences to turn. The short reduction of speed increases the draft of the Sea-Doo and your weight shifting forces the water to a supporting bank under the hull.

DRIVING POSITIONS

To provide variety and to prevent tiring, change your position frequently, especially to adapt to different surface conditions. You may ride sitting astride, standing, with knees flexed or in almost any position in which you feel comfortable. However, always be assured that the controls are facing you and in easy reach. Most of all — ride relaxed.

DOCKING

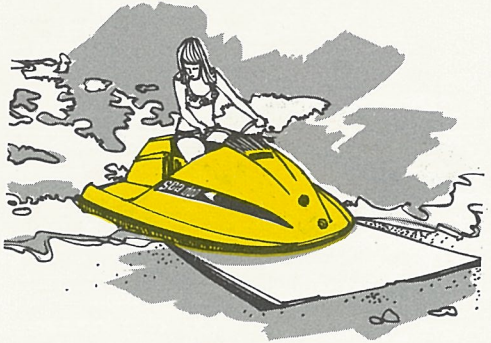


As in beaching, similar precautions should be taken when cruising the Sea-Doo in toward a wharf or dock. When approaching, gradually reduce speed a short distance from the dock and coast in slowly. This will prevent waves created by the wake of the Sea-Doo from washing over the foot deck or carrying the craft in too fast.

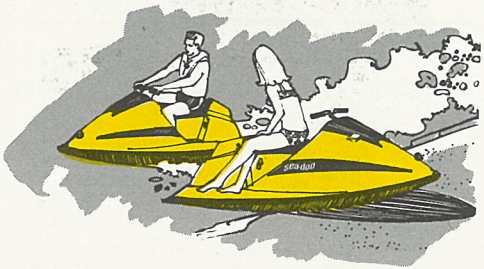
When sufficiently close to the wharf, turn the ignition switch OFF and glide in.

If disembarking, moor your Sea-Doo securely to the dock with lines from both the bow ring and rear carrying handle. The craft should not be tied up for long periods of time unless the wharf affords adequate protection. Continuous rubbing against the wharf may cause damage.

Instead, haul your Sea-Doo completely out of water, particularly overnight, to prevent damage and the formation of algae and foreign substances on the hull.

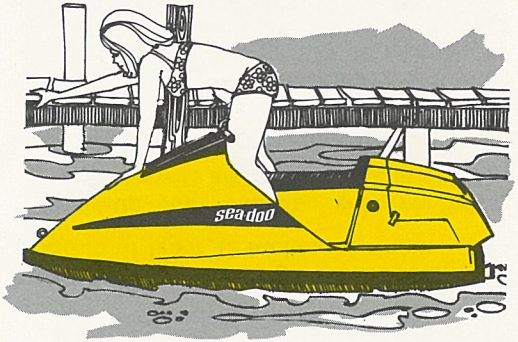


BEACHING



As the Sea-Doo does not have a rudder or propeller protruding beneath the hull it is possible to travel through shallow water and to beach easily.

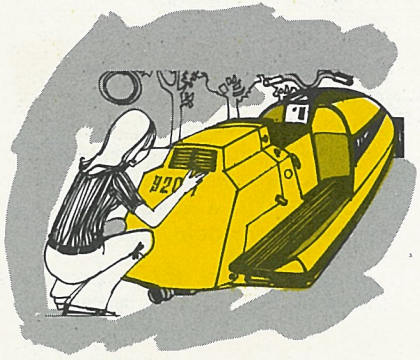
The technique is simple and after a few practise attempts you will become proficient. Turn toward the beach at cruising speed, gradually reducing speed as you close the distance. Estimate the point at which your Sea-Doo will reach the shoreline without engine power, then turn the ignition switch OFF and glide up to the shore.

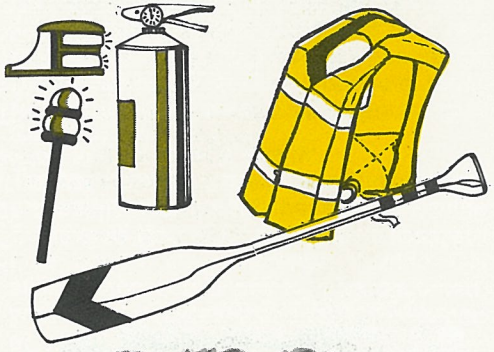


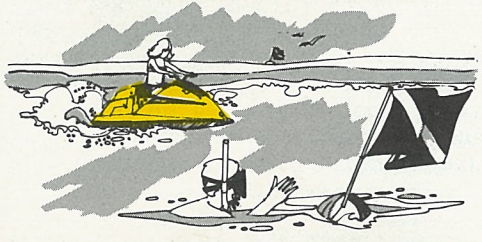
When beaching, do not travel through shallow water (less than 12″) with the engine running; otherwise sand or debris may be drawn into the turbine. Do not glide onto sand too often or too fast as frequent abrasion may damage the fiberglass hull. Always head in bow first, do not turn steering sideways or attempt to wash in stern forward.

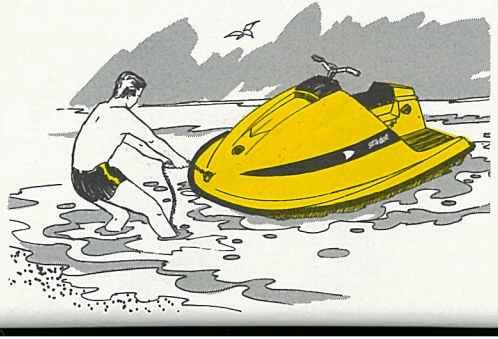
If beaching location is one that is frequently used, you may prepare it in advance by laying a piece of marine grain plywood or a tarpaulin at the edge of the water onto which the Sea-Doo may be run up. This will afford protection for the hull during beaching.

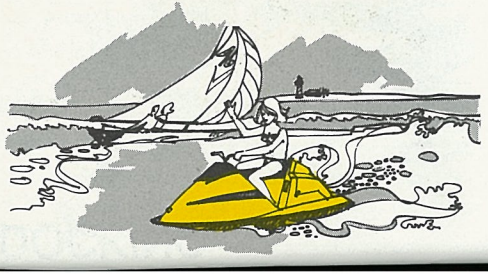
DO'S











Register your Sea-Doo at your nearest Licensing Bureau, where State or Provincial laws require it and affix Registration plate to hull where it can be readily viewed. Bolt securely to avoid vibration noise or rattles.

Familiarize yourself with local navigation and marine regulations, where Sea-Doo is to be operated.

Observe all water safety precautions.

Always wear only government approved lifejackets and equipment.

Always beach craft carefully, otherwise damage to the hull may result.

Install lights and auxiliary equipment if craft is to be used for night cruising.

Respect swimmers, other craft and skin-diving signs at all times.

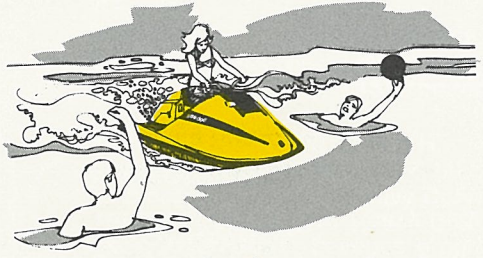
Give right of way to rowboats, sailboats and less powerful or smaller craft.

Always start your engine with your Sea-Doo in at least 12 inches of water.

Do tie-up your Sea-Doo securely when going ashore, and haul completely out of water every night.

Do keep your Owner's Manual, wrapped in its moisture proof envelope, with your Sea-Doo at all times. In the event of breakdown or poor performance while cruising, it can be of invaluable aid.

DONT'S



Never operate your engine with Sea-Doo out of water. Serious damage could result.

Don't vacate your Sea-Doo in heavy currents.

Never overload your craft. The Sea-Doo loses performance and maneuverability when overloaded.

Don't ride in the vicinity of swimmers.

Never glide over logs or rocks.

Don't leave your Sea-Doo unattended with ignition key in switch.

Do not smoke while refueling.

Never loan your Sea-Doo to anyone who is unfamiliar with principles of operation.

Do not leave your engine idling when going ashore or when craft is at rest.

WARNING — THE SINGLE MOST COMMON HAZARD TO YOUR SEA-DOO IS STARTING OR IDLING IN WATER THAT IS TOO SHALLOW. THE INTAKE OF A CRUISING SEA-DOO SKIMS WATER FROM THE SURFACE, WHILE AN IDLING SEA-DOO CREATES A SUCTION UNDER THE GRATE THAT CAN CAUSE SAND, PEBBLES AND OTHER DEBRIS TO BE DRAWN INTO THE TURBINE. CRUISE IN SHALLOW WATERS, WHERE SAFE, BUT NEVER START OR IDLE WITH LESS THAN 12″ UNDER THE HULL.

SPECIFICATIONS MODEL 372

OVERALL DIMENSIONS

Length: 96″
Width: 57¾″
Height: 34½″

WEIGHT

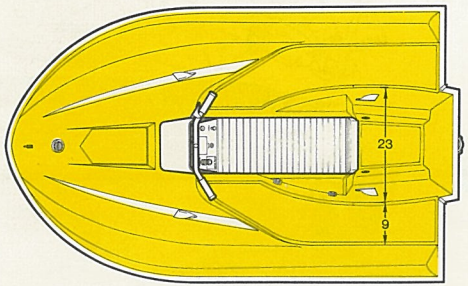
Dry weight: 360 pounds
Engine weight: 67 pounds
Turbine weight: 15 pounds
(Excluding Jet-Drive Mechanism)

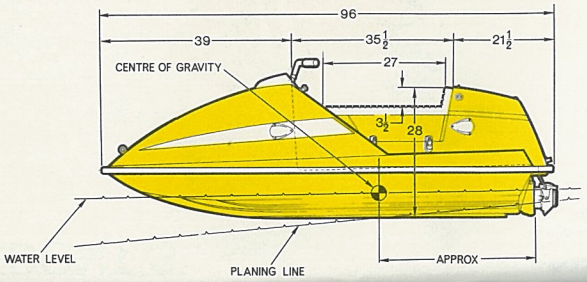
LUBRICATION

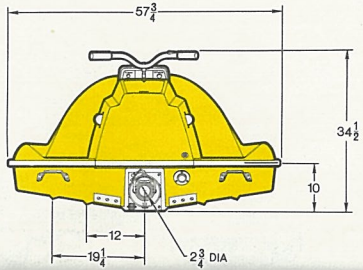
Engine: Mixture of gasoline & oil
Turbine: SAE 20 (Non Heavy Duty)

PERFORMANCE

Maximum Speed: 30-35 M.P.H.







ENGINE

Type: Aluminum 2-cycle water-cooled
Cylinders: Two
Displacement: 368 c.c. or 22.4 c.i.
Bore X Stroke: 62 mm or 2.42″ X
61 mm or 2.40″
Compression ratio: 9:1
Horse power: 25.3 HP @ 6,000 R.P.M.

SPARK PLUG

Type: Bosch M240T-1
Gap: 0.020″

FUEL SYSTEM

Fuel Mixture ratio: 20 parts gas:
1 part Sea-Doo/Ski Doo oil
Fuel Tank Capacity: 4.75 (IMP) gals.
5.93 (U.S.) gals.
Carburetor: Tillotson
Air Filter: Bendix-Flame Arrester type*

ELECTRICAL EQUIPMENT

Battery: 12 volts 32 amps
Ignition: Flywheel magneto
Charging system: Flywheel generator
(75 watts)
Starter: Electrical and Manual

DRIVE

Coupling (Direct)

TURBINE

Type: Berkeley 6JA
Ratio: Engine to turbine: 1 to 1

**Coast Guard Approved.*

SPECIFICATIONS
MODEL 320

OVERALL DIMENSIONS

Length: 94⅛″
Width: 58″
Height: 32½″

WEIGHT

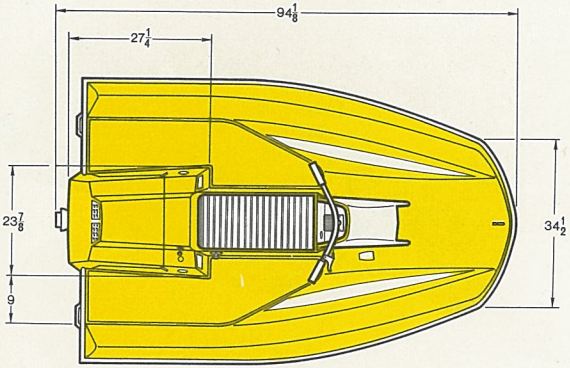
Dry weight: 289 pounds
Engine weight: 50 pounds
Turbine weight: 13½ pounds

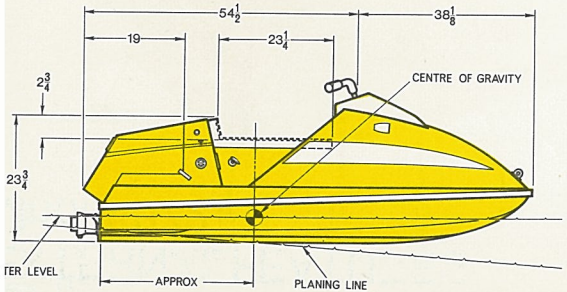
LUBRICATION

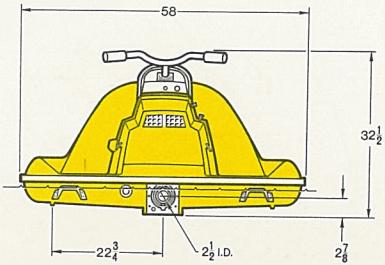
Engine: Mixture of gasoline & oil
Turbine: SAE 20 (Non Heavy Duty)

PERFORMANCE

Maximum Speed: 25-30 M.P.H.







ENGINE

Type: Aluminum 2-cycle air-cooled
Cylinder: One
Displacement: 318 c.c. or 19.385 c.i.
Bore X Stroke: 76 mm or 2.992″ X
70 mm or 2.734″
Compression ratio: 8.8:1
Horse power: 18 HP @ 6,000 R.P.M.

SPARK PLUG

Type: Bosch M240T-1
Gap: 0.020″

FUEL SYSTEM

Fuel Mixture ratio: 16 parts gas:
1 part Sea-Doo/Ski-Doo oil
Fuel Tank Capacity: 3.0 (IMP) gals.
3.75 (U.S.) gals.
Carburetor: Tillotson
Air Filter: Bendix-Flame Arrester type*

ELECTRICAL EQUIPMENT

Battery: 12 volts 32 amps
Ignition: Flywheel magneto
Charging system: Flywheel generator
(50 watts)
Starter: Electrical and Manual

DRIVE

Timing belt

TURBINE

Type: Berkeley 5J5
Ratio: Engine to turbine: 1 to 1:1

**Coast Guard Approved.*

EXTERNAL FEATURES
Model 372

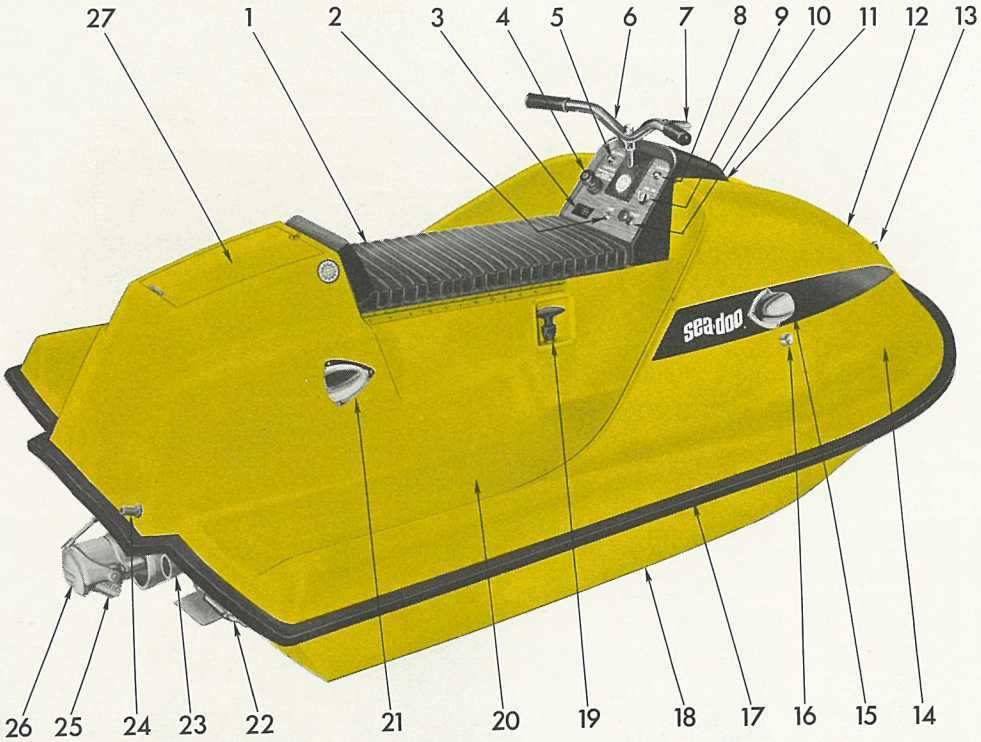


Fig. 10

1. Seat and Engine Cover
2. Temperature Light
3. Sea-Doo and Engine Nameplate
4. Jet-Drive Control
5. Blower Switch
6. Handle Bars
7. Throttle Lever
8. Starter Button
9. Ignition Switch
10. Choke
11. Main Air Scoop
12. Fuel Tank Access Door
13. Bow Ring
14. Body
15. Secondary Air Scoop
16. Fuel Tank Vent Outlet
17. Rubber Bumper
18. Hull
19. Manual Starter Handle
20. Non Slip Deck
21. Rear Air Vent
22. Carrying Handles (Transom)
23. Muffler-Water Exhaust Pipe
24. Engine Water Outlet Hose.
25. Turbine and Steering Nozzle
26. Jet-Drive Gate
27. Stowage Compartment Access Door

EXTERNAL FEATURES
Model 320

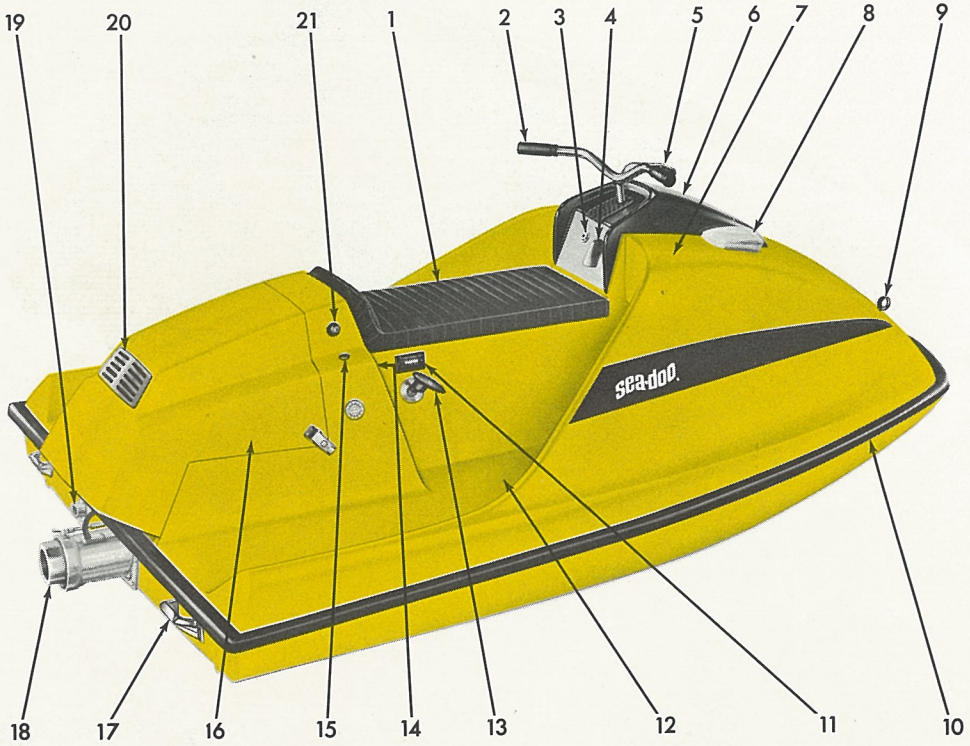


Fig. 11

1. Seat
2. Handle Bars
3. Starter Button
4. Ignition Switch
5. Throttle Lever
6. Main Air Scoop
7. Fiberglass Body
8. Secondary Air Scoop
9. Bow Ring
10. Rubber Bumper
11. Sea-Doo and Engine Nameplate
12. Non-slip Deck
13. Manual Starter Handle
14. Side Air Scoop
15. Choke
16. Engine Cover
17. Carrying Handles (Transom)
18. Turbine and Steering Nozzle
19. Water Exhaust Pipe
20. Rear Air Vent
21. Decompressor Knob

INTERNAL FEATURES
MODEL 372

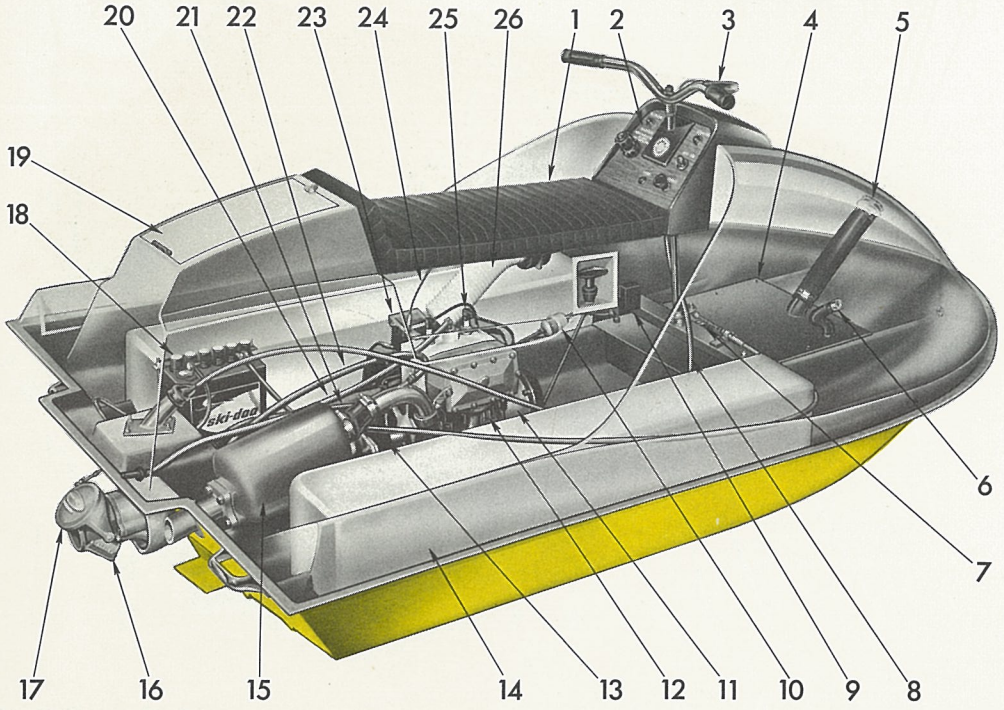


Fig. 12

1. Seat and Engine Access Cover
2. Control Panel
3. Handle Bars and Throttle Lever
4. Fuel Tank
5. Fuel Filler Cap
6. Fuel Tank Vent Line
7. Fuel Tank Gauge
8. Jet-Drive Cable
9. Rectifier and Fuses
10. Fuel Filter and Fuel Line
11. Manual Starter Rewind Unit
12. Engine
13. Engine to Turbine Shaft Coupling
14. Floatation Chamber (Typical)
15. Muffler and Exhaust Pipe
16. Turbine and Steering Nozzle
17. Jet-Drive Gate
18. Battery
19. Stowage Compartment
20. Engine Water Outlet Hose
21. Engine Water Inlet Hose
22. Muffler Water Cooling Hose
23. Carburetor and Flame Arrester
24. Throttle Cable
25. Spark Plugs
26. Blower Unit

INTERNAL FEATURES
Model 320

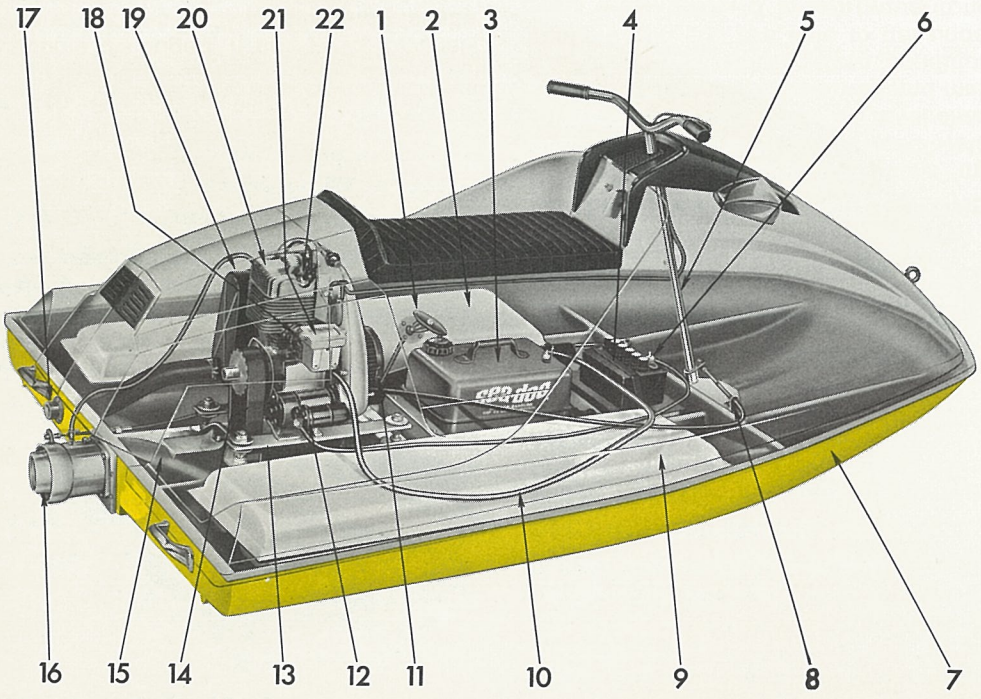
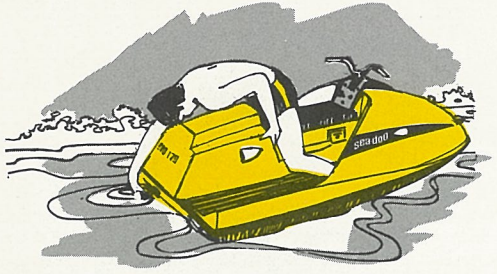


Fig. 13

1. Manual Starter Handle and Rope
2. Port Floatation Chamber
3. Fuel Tank and Fuel Level Gauge
4. Battery and Tool Compartment
5. Steering Column
6. Battery positive terminal
7. Hull
8. Steering Cable and Conduit
9. Starboard Floatation Chamber
10. Fuel Line
11. Manual Starter Rewind Unit
12. Starter Motor
13. Engine Support Bracket
14. Timing Belt
15. Turbine
16. Steering Nozzle
17. Exhaust Pipe
18. Carburetor
19. Muffler
20. Engine
21. Flame Arrester Unit
22. Spark Plug

IN CASE OF EMERGENCY



All moving vehicles encounter emergency situations. Ranging from minor inconvenience to major misfortune, your surest safeguard is a thorough knowledge of your Sea-Doo and its capabilities.

CLOGGED TURBINE

If your cruising speed is suddenly reduced, a clogged turbine may be the cause. When this occurs, turn the ignition switch OFF. This will release turbine suction and the obstructing material may become dislodged. If not, head for shallow waters, shut off engine and visually inspect turbine. Clean turbine entrance grate and/or impeller by hand, or with a long thin bladed screwdriver.

Note: It is entirely safe to insert hand into turbine nozzle, with ENGINE TURNED OFF. For added security, be sure that key has been removed from ignition switch.

HANDLE BARS DIFFICULT TO TURN

If your handle bars are difficult to turn, check for small stones or other foreign material lodged between the turbine and the steering nozzle. Removing the obstructions permits free movement and normal rotation of handle bars.

SERIOUS ACCIDENT

If due to misfortune, your hull is punctured by a large rock or floating log, do not abandon your Sea-Doo. Remain with your craft until help arrives. With built-in, internal floatation chambers your Sea-Doo is designed to float indefinitely and will not become water logged. If close enough to shore and in known waters, tred water while pulling your Sea-Doo ashore by means of the bow ring.

ADVERSE WEATHER CONDITIONS

Unsatisfactory weather conditions may necessitate you leaving known water. In this case reduce speed to a minimum while still maintaining headway and make for the nearest shore. When conditions improve and you are able to get underway, head back to known water once again at reduced speed.

Note: Safety regulations require that all drivers of small craft wear life jackets when operating on water. Use only government or Coast Guard approved safety equipment.

ASSISTING STRANDED CRAFT

Always carry a rope in case it is necessary for you to tow another small craft. When towing never run your engine at full speed, use only the amount of throttle necessary for you to maintain a reasonable headway. Never attempt to tow another craft heavier than your Sea-Doo for more than short distances.

EMERGENCY MATERIALS

In addition to the tool kit supplied with each Sea-Doo, it is recommended that you acquire any or all of the following, to avoid the chances of being stranded.

A short handled Paddle — Useful in the event that you (a) run out of gas, (b) have engine failure, or (c) encounter a stretch of shallow water where a turbine may be damaged. Until required, the paddle should be stored inside the body compartment.

A manually operated Water Pump — Extremely large waves or heavy downpour while the Sea-Doo is vacated could cause the engine compartment to ship water. Pump out compartment to nominal water level before starting engine.

Fire Extinguisher — CO_2 type or Dry Chemical (for gasoline and electrical fires).

Flashlight — Flares — First-Aid Kit.

The importance of proper and regular maintenance cannot be overstressed. For best results, set aside a regular time each week, then follow the simple procedures under the headings "Weekly" or "Monthly". The few minutes spent will pay you handsome dividends with years of trouble-free service from your Sea-Doo.

PRE-START CHECK (Daily)

FUEL TANK QUANTITY

Check that there is sufficient fuel in the tank for your trip. Agitate fuel by rocking your Sea-Doo from side to side.

THROTTLE OPERATION

Check that throttle opens easily and smoothly and returns to idle position swiftly when released.

STEERING OPERATION

Check steering by rotating handle bars from side to side. If roughness or binding is felt, check for small pebbles between turbine body and steering nozzle.

TURBINE INLET

Check that there are no weeds on other materials wrapped around turbine shaft or blocking turbine inlet.

JET-DRIVE CONTROL OPERATION (Model 372 only)

Select Jet-Drive control to its extreme positions checking that nozzle shut-off gate operates accordingly.

MAINTENANCE

(W) TURBINE OIL LEVEL

Remove plugs and check oil is about ½ inch below plug holes. If not, fill to this level using grade SAE 20 oil (non heavy duty type). Replace plugs. (See Fig. 14).

Note: On Model 320, there is only one oil hole plug.

On Model 372 only, put Jet-Drive control in forward position to permit access to rear oil filler plug.

Raise rear end of Sea-Doo 30 inches. Remove red plug. Turbine oil should be visible at lip of hole. If not, fill to this level using grade SAE 20 oil (non heavy duty type). Reinstall plug. (See Fig. 15).

(W) TURBINE TO ENGINE AND MUFFLER WATER CIRCULATION

With Sea-Doo engine operating, check that there is a steady flow of water from exhaust pipe. (See Fig. 10, item 23), for Model 372 and (Fig. 11, item 19) for Model 320. On Model 372, also check for a steady flow of water from engine water outlet hose.

(M) THROTTLE LEVER

Lubricate cable at entrance of conduit. (See Fig. 16). Cable must operate smoothly with no signs of binding. Lubricate cable end (ferrule) so it rotates freely in lever clip. Use light machine oil.

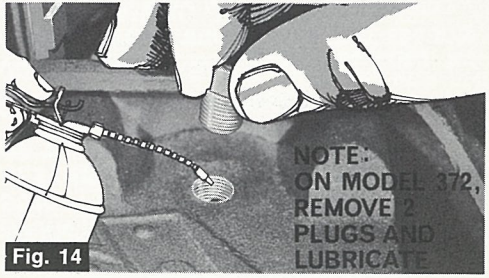


Fig. 14

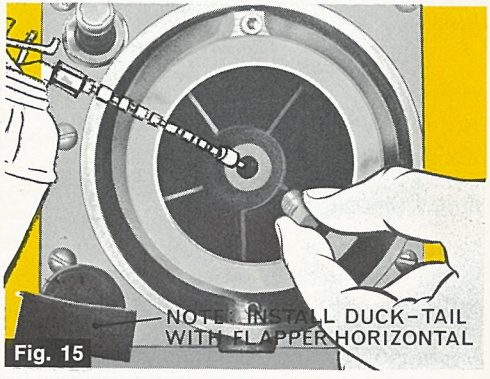


Fig. 15

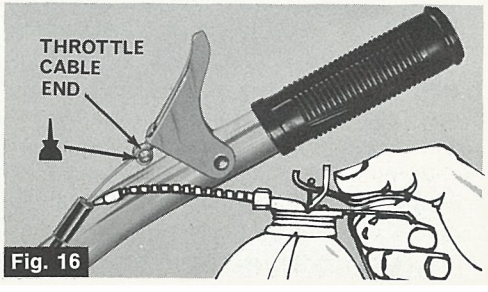


Fig. 16

(M) CARBURETOR LEVERS (Shafts)

Lubricate carburetor levers using light machine oil. (See Fig. 17).

CARBURETOR ADJUSTMENTS

There are four (4) different adjustments for the carburetor — (1) Idle speed, (2) Idle speed mixture, (3) High speed mixture, and (4) Maximum throttle opening.

Note: A relationship exists between adjustments (1) and (2) and also between (3) and (4). Do not attempt to correct one adjustment without checking the corresponding adjustment. (See Fig. 18).

IDLE SPEED ADJUSTMENT

Using a screwdriver, turn the adjustment screw clockwise to increase the speed, or counterclockwise to decrease the speed. For better control at low speed, idle speed should be set very low.

IDLE SPEED MIXTURE ADJUSTMENT

The idle speed mixture adjustment must be performed carefully because too rich a mixture will activate carbon formation inside the engine. Too lean a mixture will result in a lack of lubrication at idle speed. Turning the idle speed mixture screw clockwise gives a lean mixture and counterclockwise a richer mixture. A primary adjustment can be made by turning the screw ¾ of a turn counterclockwise.

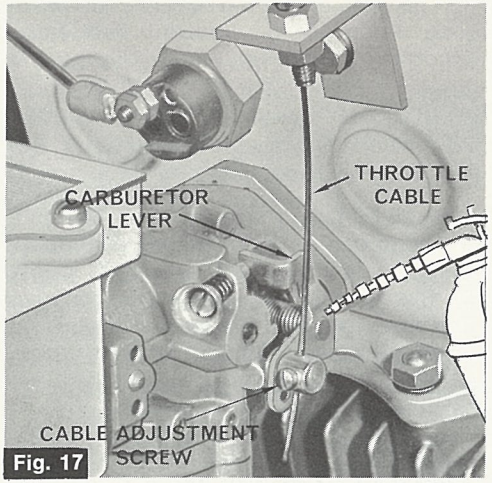


Fig. 17

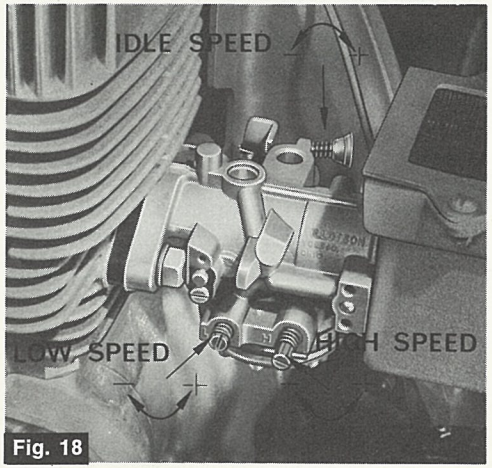


Fig. 18

HIGH SPEED MIXTURE ADJUSTMENT

As with the idle speed mixture (turning clockwise or counterclockwise), the high speed mixture screw gives a lean or rich mixture. For primary adjustment, open the high speed mixture screw 1⅛ turns.

MAXIMUM THROTTLE OPENING

Press down the throttle lever, the throttle should be completely opened before the lever touches the handle bar. Minimum gap ¼". To adjust the throttle for maximum opening, loosen screw securing throttle cable ferrule. Pull cable downward to shorten upper part of cable. Tighten screw (See Fig. 17).

(W) BATTERY

Check electrolyte level at each cell. Electrolyte must touch ring at bottom of filler hole. If necessary add DISTILLED WATER up to this level.

Check that battery connections are tight and free of corrosion. Remove corrosion with a solution of baking soda and water.

WARNING: DO NOT ALLOW CLEANING SOLUTION TO ENTER BATTERY. IT WILL DESTROY THE CHEMICAL PROPERTIES OF THE ELECTROLYTE.

(M) HOSES AND LINES

Visually check all hoses and lines for cracks, deterioration, leaks and security at connections. Tighten as necessary.

(M) ENGINE SHAFT COUPLING — (Model 372 only)

Check security of engine shaft coupling. There must be no gap existing between distance sleeve and coupling or between distance sleeve and flywheel. Check that there is no rotational free play between shafts and coupling. Tighten Allen screws as necessary. (See Fig. 19).

(W) TIMING BELT — (Model 320 only)

Check timing belt tension. Belt free play must not exceed 1/16" with light finger pressure. If necessary, adjust belt as follows:

To increase belt tension; back-off four locknuts (1) and turn four adjusting nuts (2) equally counterclockwise until belt is correctly tensioned. Tighten locknuts (1).

To decrease belt tension; back-off four locknuts (1) equally and four adjusting nuts (2) until belt is correctly tensioned. Tighten locknuts (1). (See Fig. 20).

(M) FLAME ARRESTER AND CARBURETOR FLANGE

Check the tightness of the three flame arrester bolts (See Fig. 21).

Make sure that the two nuts attaching carburetor flange to engine are tight. (See Fig. 21).

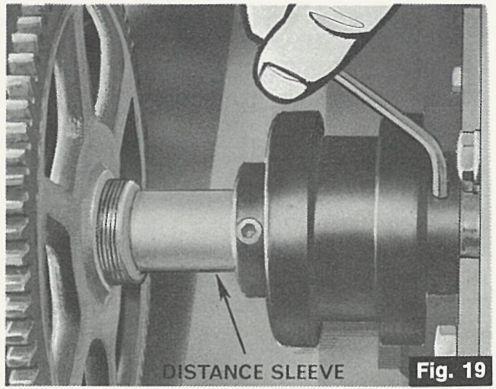


Fig. 19

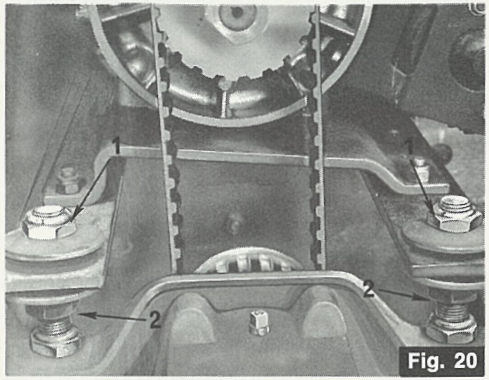


Fig. 20

(M) ENGINE AND TURBINE MOUNTING BOLTS

Check that all bolts and nuts securing the engine to its mounting brackets are secure. Check security of turbine attaching bolts and nuts.

(W) HULL AND TURBINE

Check hull for possible damage (i.e. cracks or holes). For minor repairs use the special fiberglass repair kit available at your authorized Sea-Doo dealer. Follow all instructions provided with this kit. It is recommended that large repairs be done by your dealer.

Visually inspect turbine for general condition and impeller blades for possible damage. If damaged, contact your dealer.

(W) TEMPERATURE LIGHT — (Model 372 only)

Turn ignition switch ON. Using a screwdriver ground sensor wire to metal part of carburetor. Temperature light should come on. If not, replace bulb and retest. Turn ignition OFF. (See Fig. 21).

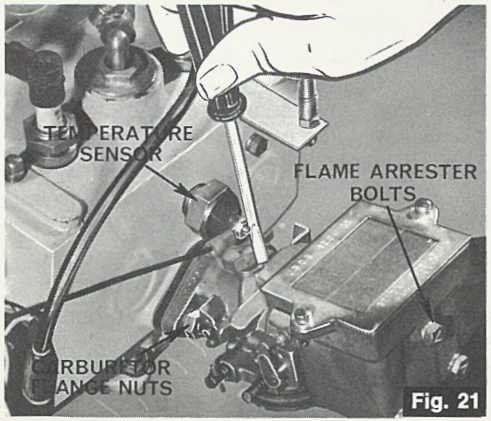


Fig. 21

W SPARK PLUGS

Remove and check spark plugs as follows:

a) Remove spark plugs, using box wrench and handle supplied in tool kit. (See Fig. 22). Model 372 has 2 spark plugs, Model 320 has 1 spark plug.

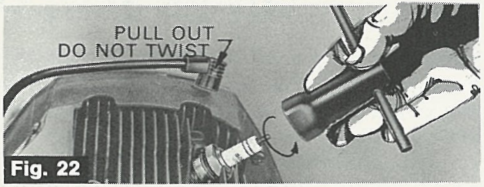


Fig. 22

b) Check condition of spark plugs against Fig. 23. If color is normal (brownish), check gap using a wire feeler gauge. Gap must be 0.020″. Adjust if necessary and reinstall plugs.

If spark plug color is abnormal (black or white), the engine is not running under ideal conditions, due to either.

(i) Incorrect fuel mixture has been used. (See Fuel Mixing Chart, page 7).

(ii) Carburetor incorrectly set. (See Carburetor Adjustments, page 22).

(iii) Wrong spark plug heat range.


Fig. 23

NORMAL CARBONIZED BURNED

W RECTIFIER FUSES

Check condition of rectifier fuses. If filament is broken or appears defective, replace fuse. (See Fig. 24).

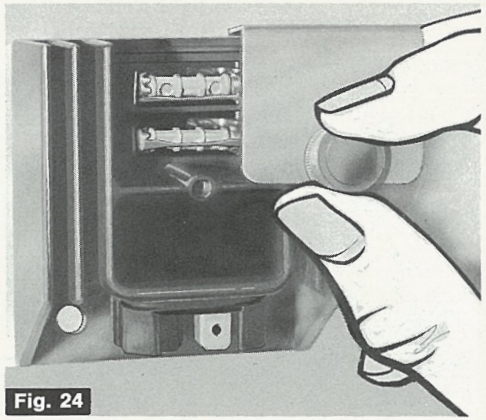


Fig. 24

W "DUCK-TAIL" (Water Bailing Device)

Remove clip securing duck-tail to pipe and remove duck-tail. Insert a small rod or wire into hole in hull to ensure it is not obstructed. Clean duck-tail with clear water and flush hole if necessary. Reinstall duck-tail and ensure flapper is positioned horizontally (See Fig. 15).

M STEERING MECHANISM

Lubricate steering column bushing and quick-disconnect ball-joint using light machine oil (See Fig. 25).

M STEERING ADJUSTMENT

The steering mechanism can be adjusted at 2 locations by increasing or decreasing cable length. (See Figs. 25 and 26).

1. Disconnect the quick-disconnect ball-joint located at the steering nozzle.
2. Center the steering nozzle and the handle bars.
3. Keep the nozzle and handles at right angles to each other and adjust the length of the cable by turning ball joint + or — as required.
4. Reconnect the rear ball-joint to the nozzle steering arm.

Note: To properly adjust the steering cable length, it may be necessary to disconnect the ball-joint located at the steering column arm. (See Fig. 25).

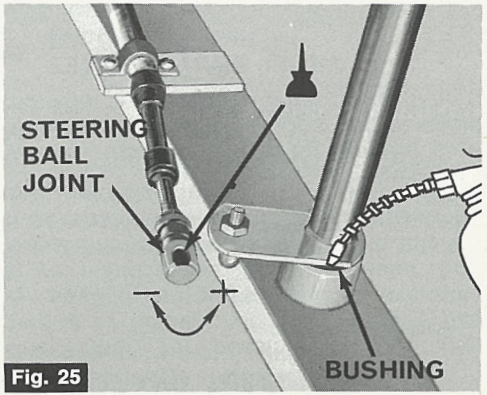


Fig. 25

(M) ELECTRICAL WIRING AND COMPONENTS

Check that all electrical wiring connections are tight. Inspect wire insulation for deterioration. Check all wiring and components for signs of overheating. Tighten or replace as required.

(M) JET-DRIVE MECHANISM

Lubricate Jet-Drive control mechanism as indicated, using light machine oil. (See Fig. 26).

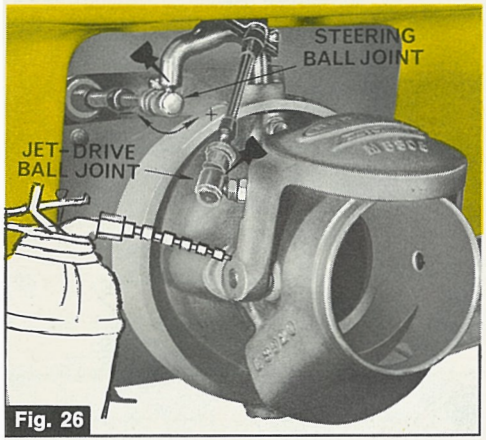


Fig. 26

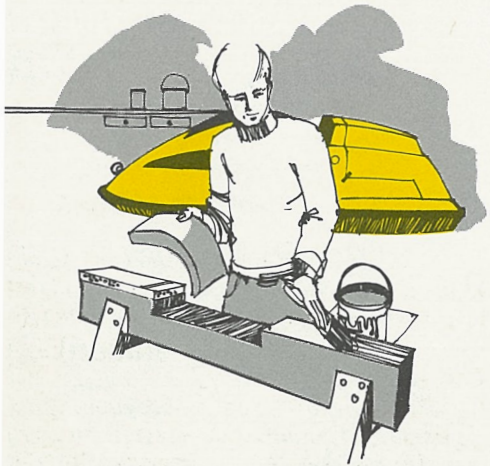
(M) HULL AND BODY

Wash down hull and body with clean water. Using Sea-Doo wax, available at your authorized Sea-Doo dealer, wax the complete hull. This will protect the fiberglass and reduce friction to a minimum.

Daily — Prior to first run of the day
Break-In — After first 10 operating hours
Weekly — Every 10 operating hours
Monthly — Every 40 operating hours

INSPECTION/CHECK	DAILY	BREAK-IN	WEEKLY	MONTHLY
Fuel Tank Quantity	✓			
Throttle Operation	✓			
Steering Operation	✓			
Turbine Inlet — Operation	✓			
Jet-Drive Control Operation	✓			
Turbine Oil Level		✓		✓
Turbine to Engine and Muffler — Water Circulation		✓	✓	
Throttle Lever and Carburetor Levers — Lubrication		✓		✓
Carburetor Adjustments		✓		
Battery — Electrolyte level and Connections		✓	✓	
Hoses and Lines — Condition and Security				✓
Engine Shaft Coupling — Security (Model 372)		✓		✓
Timing Belt — Tension (Model 320)		✓	✓	
Flame Arrester and Carburetor Flange		✓		✓
Engine and Turbine Mounting Bolts — Security		✓		✓
Hull and Turbine — General Condition		✓	✓	
Temperature Light — Operation			✓	
Spark Plug(s) — Condition			✓	
Rectifier Fuses — Condition			✓	
Duck-Tail — Obstruction			✓	
Steering Mechanism — Lubricate		✓		✓
Steering Mechanism — Adjustment				✓
Electrical Wiring and Components Condition and Security		✓		✓
Jet-Drive Mechanism — Lubricate		✓		✓
Hull and Body — Clean and Wax				✓

STORING PROCEDURE



In those areas of the country where the Sea-Doo will be out of service during the winter season, or if for any reason your Sea-Doo will not be used for a month or more; then proper storage of the craft is a necessity. You can be sure that your Sea-Doo will be in perfect condition when you come to use it again, if you carry out the following:

S CARBURETOR DRY-OUT

To prevent gum formation, all fuel must be drained from the carburetor.

a) Remove flame arrester from carburetor body.

b) Disconnect fuel line at fuel tank.

c) Start engine and allow to run until it stops, out of gas.

Note: Switch ignition OFF when engine stops. Do not reinstall flame arrester or reconnect fuel line at this stage.

S CYLINDER LUBRICATION

During the storage period, the cylinder walls may become rusted. To prevent this, the cylinders must be lubricated initially, and once a month thereafter.

a) Disconnect spark plug wires and remove spark plugs.

b) Reconnect spark plug wires and ground spark plugs to cylinders, as shown in Figure 27.

Note: This action is necessary to prevent plugs sparking in the open during the following steps when engine is rotated.

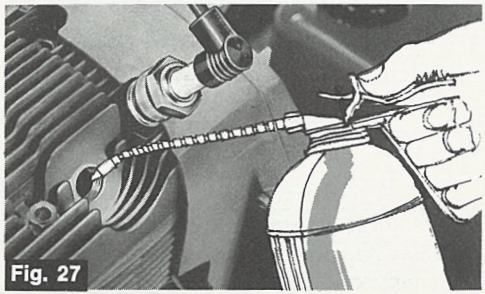


Fig. 27

c) Pour approximately one tablespoon of Sea-Doo/Ski-Doo oil through each spark plug hole into cylinders.

d) Block carburetor throat (air intake orifice where flame arrester fits). First pull out choke control, then pack opening using a clean piece of cloth.

e) Turn engine over for approximately 30 seconds, using electric starter. This will distribute the oil throughout the cylinders.

f) Remove cloth from carburetor throat and reinstall flame arrester. Reinstall spark plugs in cylinders and reconnect spark plug wires. Reconnect fuel line to fuel tank.

S BATTERY

It is essential that the battery is stored in a clean and fully charged condition.

a) Disconnect leads and remove battery from Sea-Doo.

b) Using a solution of baking soda and tap water, wash outside surfaces of battery particularly around connection posts. After cleaning, thoroughly wash off all cleaning solution using tap water.

WARNING: DO NOT ALLOW CLEANING SOLUTION TO ENTER INTERIOR OF BATTERY. IT WILL DESTROY CHARACTERISTICS OF ELECTROLYTE.

c) Check electrolyte (liquid) level of each cell. It should be just touching ring at bottom of filler neck. If necessary, add DISTILLED WATER to bring to this level.

d) Coat connection posts with Sea-Doo Metal Protector LPS 1. (If unavailable, use petroleum jelly).

e) Fully charge battery and store in a cool, dry place.

Note: The stored battery will gradually lose its charge and begin to sulphate. If allowed to continue, the battery will become useless and cannot be salvaged. Fully recharge at least every 40 days.

S TURBINE

a) Drain oil in turbine rear section and replace, using grade SAE 20 oil (non heavy duty type). (See Fig. 15).

S THROTTLE CABLE

Lubricate throttle cable. (See Fig. 16).

S STEERING MECHANISM

Lubricate steering mechanism. (See Figs. 25 and 26).

S ALL ELECTRICAL CONNECTIONS AND SWITCHES

Apply a protective coating of LPS 1 at rear of control panel and at all wire connections.

S JET-DRIVE CONTROL — (Model 372 only)

Lubricate jet-drive control. (See Fig. 26).

S TIMING BELT — (Model 320 only)

Relieve the timing belt tension and thoroughly inspect belt for tears, cracks and deterioration. Replace if necessary. Leave belt in a slack condition. (See Fig. 20).

S FUEL TANK

The interior of the fuel tank must be protected against corrosion during the storage period.

a) Thoroughly clean tank interior.

b) Using a spray can of Sea-Doo Metal Protector LPS 1, spray the tank interior ensuring that all surfaces are coated.

Note: On Model 320, remove fuel tank for cleaning and protective spraying operations. Reinstall in Sea-Doo, reconnect fuel line and close (screw-in) vent in fuel tank cap.

S HULL

Prepare the hull for storage as follows:

a) Drain off all water which may have accumulated in the hull.

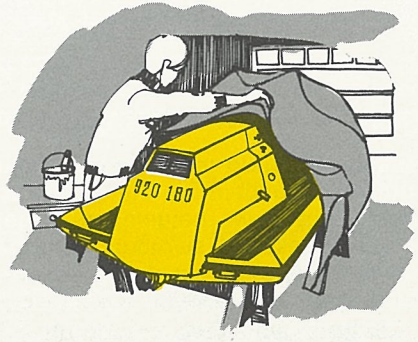
b) Thoroughly check fiberglass hull for damage. Special repair kits are available at your authorized Sea-Doo dealer.

c) Using Sea-Doo wax, polish complete hull.

d) It is recommended that the Sea-Doo be mounted on trestles throughout the storage period. Such trestles should be notched at the center and ribs to prevent hull center section from supporting the full weight of the Sea-Doo. Also, the trestle surfaces which contact the hull should be covered with felt, rubber or other similar material.

e) Completely cover Sea-Doo with a protective cloth or sheet to avoid dust accumulation.

Note: If you cannot comply with all of the requirements, it is recommended that you consult the local authorized Sea-Doo dealer in your vicinity.



LOW PERFORMANCE DIAGNOSIS

Even a well designed, properly maintained craft, such as your Sea-Doo, may unexpectedly run into minor troubles caused by worn or damaged components, faulty adjustments, etc.

THE CHART

The low performance diagnosis chart is provided to assist you in determining the cause of unsatisfactory operation of your Sea-Doo. Relating such information to your dealer will help him to readily and economically restore your craft to maximum efficiency. Do not attempt to rectify serious "Symptoms" unless you are completely acquainted with the technical content of the Maintenance Section; or unless you and your craft are stranded.

The information contained in the chart is tabulated in "most likely to occur" order.

SYMPTOMS	POSSIBLE CAUSES	WHAT TO DO (REMEDY)
ENGINE DOES NOT TURN	1 — Starting system, engine, turbine	Try to turn engine with manual starter. a) If engine turns, check items 2, 3 and 4 under "Possible Causes" of "Engine does not turn". b) If engine cannot be turned, check items 5 and 6 under "Possible Causes" of "Engine does not turn".
	2 — Wire connections (Starting System)	Check for loose battery and starter connections. Tighten if necessary.
	3 — Battery	Battery may be completely discharged or defective. To know if the battery is faulty, try to start the Sea-Doo manually. Refer to "Battery does not charge" under "Symptoms".
	4 — Starter	If the starter seems defective, contact your dealer for quick repair or replacement.
	5 — Seized engine	In the case of a seized engine, contact your dealer. Seizure is a direct result of poor lubrication.
	6 — Turbine	a) Make a visual check of the turbine, and clean if necessary. b) Contact your dealer if the turbine internal parts seem broken or defective.
ENGINE TURNS OVER SLOWLY BUT DOES NOT START	1 — Wire connections (Starting System)	Refer to item 2, under "Possible Causes" of "Engine does not turn".
	2 — Battery or starter	Refer to items 3 and 4 under "Possible Causes" of "Engine does not turn".

ENGINE TURNS OVER, BUT FAILS TO START OR STARTS WITH DIFFICULTY	**1 — No fuel to the engine**	Check the tank level and fill up with correct gas-oil mixture. Refer to "Fuel Mixing Chart". On Model 372, check that tank vent outlet is not blocked. On Model 320, unscrew vent on top of fuel gauge. Refer to item 8, "Clogged fuel line" in "Possible Causes".
	2 — Faulty ignition	Remove the spark plug wire(s), and hold at about ⅛" from the cylinder head. Apply the starter, and if no sparks appear, it means a faulty ignition system. Do not attempt to repair. Contact your dealer.
	3 — Spark plug(s)	Check for fouled or defective spark plug(s). Replace if necessary.
	4 — Engine overheated	On Model 372, refer to "Temperature light ON" under "Symptoms".
	5 — Flooded engine	Press down the throttle lever, push the choke knob to its normal position, (on Model 320, pull the decompressor knob) and try to start engine. Do not keep starter engaged for a period exceeding 30 seconds. After 30 seconds engagement, allow starter to cool off for a period of 2 minutes.
	6 — Too much oil in fuel	Drain the fuel tank and fill it with correct gas-oil mixture. Refer to "Fuel Mixing Chart".
	7 — Low speed adjustment incorrect	Screw in the low speed adjuster, and turn it back ¾ of a turn. Make final adjustment when engine is running.
	8 — Clogged fuel line (water or dirt)	Remove and clean the fuel filter. Replace filter if necessary. Check the cleanliness of the fuel tank. Clean tank if necessary.
	9 — Faulty carburetor	Contact your dealer for quick repair.
	10 — Breaker points	Breaker points may be worn or out of adjustment. In this event contact your dealer.
	11 — Poor engine compression	Running with improper fuel mixture may produce excessive engine wear resulting in poor engine compression. If this problem occurs, contact your dealer at once. On Model 320, operating engine with decompressor knob pulled out will result in the above condition. Ensure knob is fully pushed in.
ENGINE LACKS ACCELERATION OR POWER	**1 — Fouled spark plug(s)**	Change the spark plug(s). Fouled spark plugs may be cleaned, regapped and tested by your dealer.
	2 — Defective spark plug(s)	Check for defective spark plug(s) and change if necessary.
	3 — Clogged fuel line (water or dirt)	Refer to item 8, under "Possible Causes" of "Engine turns over, but fails to start or starts with difficulty".
	4 — Defective ignition	If the ignition system seems defective, contact your dealer for the necessary repairs or adjustment.
	5 — Carburetor	Readjust the carburetor, if the trouble persists contact your dealer.
	6 — Engine	If the engine seems defective, contact your dealer.

TEMPERATURE LIGHT "ON"	**1 — Incorrect fuel mixture**	Drain the fuel tank and fill it with correct gas-oil mixture. Refer to "Fuel Mixing Chart".
	2 — Faulty engine or muffler water hose	Tighten leaking connection(s). Replace damaged hose(s). After engine has cooled, start and check that there is a steady flow of water from rear exhaust. If not, contact your dealer immediately.
	3 — Low speed adjustment too lean	Turn low speed mixture screw counterclockwise ¾ of a turn. Make final adjustment when engine is running.
	4 — High speed adjustment too lean	Turn high speed mixture screw counterclockwise 1⅛ of a turn. Make final adjustment when engine is running.
	5 — Defective engine	Contact your dealer.
BATTERY DOES NOT CHARGE	**1 — Rectifier fuse(s) faulty**	Check and replace burnt fuse(s).
	2 — Rectifier defective	Contact your dealer.
	3 — Battery	Refer to item 3 under "Possible Causes" of "Engine does not turn".
ENGINE CONTINUALLY BACKFIRES	**1 — Faulty spark plug(s)**	Check for defective spark plug (s) and change if necessary.
	2 — Engine timing incorrectly set	Contact your dealer.
SEA-DOO DOES NOT GET ITS FULL SPEED, WHILE ENGINE TURNS MAXIMUM	**1 — Overloaded**	Overloading of your Sea-Doo will degrade the performance of your craft and will cause engine overheating.
	2 — Jet-Drive control incorrectly positioned (Model 372)	Check that Jet-Drive control is pulled fully out. Lock control in this position.
	3 — Turbine	a) Make a visual check of the turbine, and clean if necessary. b) Contact your dealer if the turbine internal parts seem broken or defective.
EXCESSIVE WATER INSIDE SEA-DOO HULL	**1 — Cracked or punctured hull**	Repair if damage is slight using repair kit available at your authorized dealer. If damage extensive, contact your dealer.
	2 — Fractured engine or muffler water hose(s)	Replace broken or fractured water hose(s).
	3 — Rough water cruising or frequent spin-outs	Drive straight for a minute or two, at half speed, this will permit duck-tail to clear excess water.
	4 — Duck-tail not operating properly	Remove duck-tail and ensure hole at bottom of hull is not obstructed. Clean duck-tail and hole if necessary. Reinstall duck-tail with flapper horizontal.

TOOLS AND SPARE PARTS

Bombardier Ltd. equips each Sea-Doo with the following tools, as standard equipment.

Large Box Wrench — Use to remove or install spark plug(s).

Small Box Wrench — Use for cylinder head bolts.

Bar — Use as handle for either box wrench.

Screwdriver — Use for carburetor screw adjustments.

Angled Key (13mm) — Use for carburetor flange bolts of 320.

Key (13 mm end) — Use for carburetor flange bolts of Model 372. Battery cable to starter bolts.

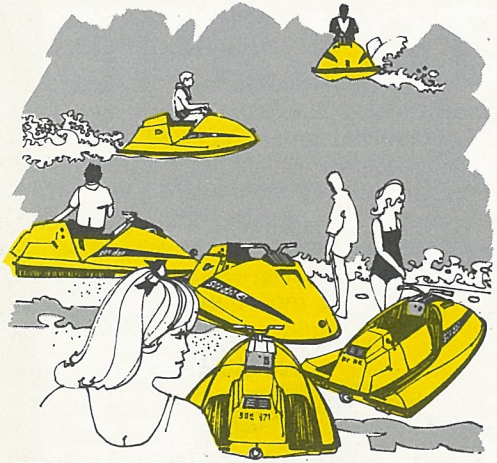
Key (10 mm end) — Use for manual starter rewind unit nuts. Throttle cable at engine nut.

In addition, it is recommended that you acquire the following, in case of emergency:

TOOLS Long, thin bladed Screwdriver — General Purpose Pliers — Adjustable Wrench.

SPARE PARTS 2 Rectifier Fuses — Spark Plug(s) 1 Fuel Filter — 1 Timing Belt. (Model 320 only).

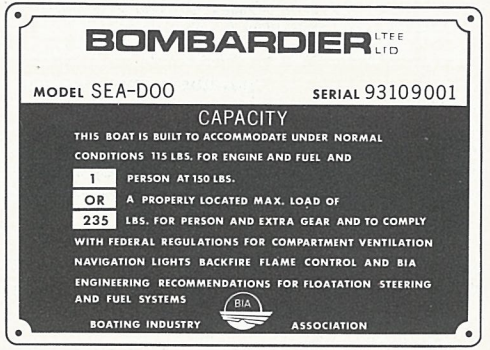
HOW TO IDENTIFY YOUR SEA-DOO

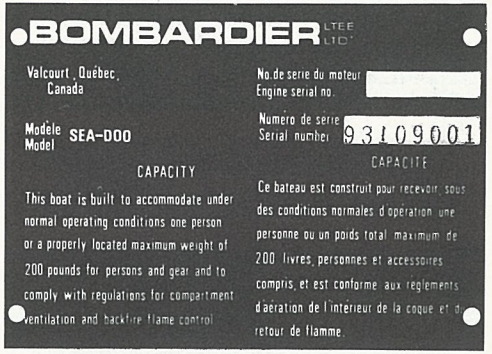


SEA-DOO BODY AND ENGINE SERIAL NUMBERS

Model 372 — A single nameplate, containing both the Sea-Doo body and engine serial numbers, is located on the left of the control panel. In addition, the engine serial number is repeated on the top of the manual starter rewind unit.

Model 320 — The identification plate, with both body and engine serial numbers, is located on the right side of the body above the manual starter handle. The engine serial number is repeated on the surface of the engine fan cowl.





WARRANTY CLAIMS

Before delivery of your Sea-Doo, Bombardier Ltd. requires its authorized dealers to complete a 26 point pre-delivery and to fill out at the time of sale, (1) The Sales Contract, (2) The Sea-Doo Predelivery & 15 hours Inspection Check List, (3) The Registration Certificate, and (4) The Manufacturers' Record of Ownership.

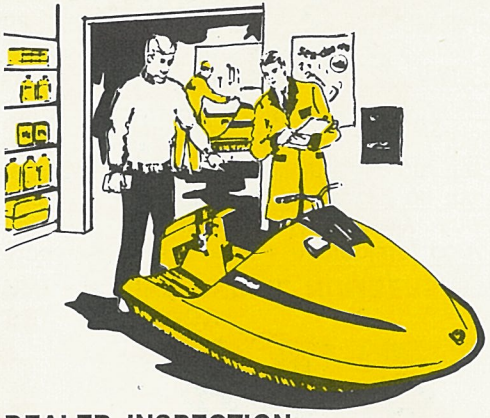
To validate your Warranty be sure and retain the Owner's copy of your Sales Contract and Registration Certificate. They clearly list all the information pertinent to your purchase and are proof positive of ownership.

To make a claim under this warranty, contact the dealer from whom you originally purchased the craft, or any authorized Sea-Doo dealer. Repairs performed by other than authorized Sea-Doo dealers render the warranty void.

When completing warranty claim papers, a duplicate copy is provided by the dealer for your records. As owner of the Sea-Doo, your signature is required on all claim papers to authorize repairs.

IBM CODE NO: 270-0001

PARTS AND SERVICE



DEALER INSPECTION

Following the break-in period, (see Page 3) be sure to bring your Sea-Doo back to the dealer for its first inspection. He has the trained personnel, proper equipment and material necessary to carry out the required 18 point check. This primary inspection combined with consistent periodic maintenance thereafter will ensure maximum performance and years of carefree enjoyment.

SEA-DOO DEALER SERVICE RECORD

On your behalf, your dealer maintains a duplicate of your Registration Certificate. The reverse side of this certificate is a Service Record on which he records all repairs. Whenever your craft is repaired or serviced, be sure you check that the information is properly recorded and initial the Service Record. Correct records could save you time and money in the event of a further claim.

Be sure to specify only authorized Sea-Doo dealers for genuine Bombardier parts and service, optional equipment and accessories.

Bombardier Ltd. reserves the right to make changes in design and specifications, and/or to make additions to or improvements in its products without imposing any obligations upon itself to install them on its products previously manufactured.

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GLOSSARY

DUCK-TAIL — a bailing device used to evacuate shipped water from the hull interior. Operates only when the craft is in forward motion.

VERNIER — a small auxiliary device used to obtain fine adjustment.

DRAFT — the depth of water that a boat displaces, measured from the water line to the lowest projection. Draft varies with forward speed.

RECTIFIER — an elecrical device used to convert alternating current, to direct current, needed to keep the battery charged.

Warranty

BOMBARDIER LIMITED, as manufacturer, warrants to the original retail purchaser, that each new Sea-Doo aqua-scooter is free from defects in material and workmanship for a period of ninety (90) days from the date of purchase by said original retail purchaser.

The manufacturer's obligation under this warranty is strictly limited to the repair or replacement of any defective part which has been returned to the manufacturer, shipping cost prepaid, and which part has been determined by the manufacturer to be defective.

It is essential for the application of this warranty that the Sea-Doo aqua-scooter has been periodically inspected and maintained by an authorized dealer in accordance with instructions set forth in the operator's manual. Explicitly excluded from this warranty are damages caused by salt water corrosion or damages caused by negligent maintenance. To qualify for this warranty, the Sea-Doo aqua-scooter must not have been subjected to any accident or misuse and must always have been repaired with genuine BOMBARDIER replacement parts and by an authorized Sea-Doo service dealer. A modified Sea-Doo aqua-scooter will not be warranted unless such modification has been previously approved in writing by the manufacturer.

This warranty does not apply if the Sea-Doo aqua-scooter has been used by an authorized Sea-Doo dealer or any other person prior to the original retail sale.

This contractural warranty, limited to the afore-mentioned period, replaces all other legal warranties and the manufacturer will not be responsible, under any circumstances, for any loss or damages as a result of any hidden defects, accident, misuse or other fault. No one is authorized to modify the conditions of this warranty.

BOMBARDIER

BOMBARDIER LIMITED,
VALCOURT, QUEBEC, CANADA

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