

# **WILLIAMS**

J E T T E N D E R S

## Owner's Handbook



### **S P O R T J E T**

**THIS MANUAL CONTAINS IMPORTANT INFORMATION AND MUST BE READ BEFORE OPERATING THIS TENDER**

ENGLISH  
4-29

FRANÇAIS  
30-55

ITALIANO  
56-81

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82-107

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**SPORTJET**

OWNER'S  
HANDBOOK



# Thank You for Choosing a Williams Sportjet

This owner's handbook has been compiled to help you operate your Sportjet with safety and pleasure. It contains details of the boat and equipment fitted, together with information on its operation and maintenance. Please read it carefully and familiarise yourself with the boat before using it.

The Williams Sportjet uses water jet propulsion. If this is your first boat or you are changing to a type of boat you are not familiar with, please ensure that, for your own safety you obtain handling and operating experience before assuming command of the boat. Maneuverability is restricted while decelerating. Your dealer, national sailing federation or yacht club will be pleased to advise you of sea schools or competent instructors.

**The Sportjet is a high performance boat. We recommend that a minimum standard of RYA level 2 or ICC (International Certificate of Competency) is attained by the operator prior to taking control of this boat. This manual assumes the operator has acquired this standard of qualification and possesses knowledge of basic seamanship.**

**On handover your Williams Sales & Service Centre will guide you through the operating functions and safety features of the boat. Remember to complete and submit your warranty registration form either by post or online at [williamsjettenders.com/warranty-submission](http://williamsjettenders.com/warranty-submission). Make a reference of the boat's HIN in the box below. Please keep this handbook in a secure place and hand it to the new owner if you sell the boat.**

## Hull Identification Number (HIN):

The HIN is located on the right hand side of the transom face below the platform step. Record it in the box above.

## Included with your Sportjet

Your Sportjet will be delivered with the following items:

- Owner's Handbook
- Warranty Registration Document
- Pre-Delivery Inspection Document
- Service Record booklet
- Ignition key (2)
- Kill switch lanyard (2)
- Battery isolator key (345, 395 and 435 only)
- Helm catch keys (460 and 520 only)
- Whistle (USA specification only)
- Foot pump
- Inflation adaptor
- 12v electric plug
- Inflatable tube repair kit

Boats fitted with optional accessories may be supplied with additional items.

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## Safety Information

Williams Jet Tenders consider the safety of our customers of great importance. We recommend people using our products exercise care and common sense, and comply with the safety information within the Owner's Handbook.

Always obey the safety labels fitted to the tender and replace them if they become unreadable.

Be aware of local laws and restrictions and never use whilst under the influence of alcohol or any substance which may affect your judgement.



This symbol appears on a number of labels fitted to the tender. The symbol draws your attention to the message and refers you to the Owner's Handbook.



This safety alert symbol appears throughout the Owner's Handbook and appears on various labels fitted to the tender. It means attention, be alert, your safety is involved! Please read and abide by the message that follows the safety alert symbol.

### **DANGER**

Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

### **WARNING**

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

### **CAUTION**

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.



## Special Safety Messages

- **Engine exhaust** contains carbon monoxide (CO), which can cause injury or death if inhaled in sufficient quantities. Educate all occupants about the risks and symptoms of CO accumulation and CO poisoning.
- **Fuel vapors can explode**, resulting in injury or death. Always use the bilge blower for a minimum of 5 minutes before starting the engine, then turn it OFF above idle speed. Use of the the bilge blower should never replace checking for fuel vapor odours.
- If at any time, **fuel leaks/odours** are found, do not start the engine. Have the boat serviced by an authorized Williams dealer.
- **Always keep in mind** that as the throttle is returned to the idle position, less directional control is available. To turn the boat, both steering and throttle are necessary.
- **This boat has no brake**. Stopping distance will vary depending on initial speed, load, wind and water conditions. Practice stopping and docking in a safe, traffic-free area to have an idea of how long it will take to stop the boat under varying conditions.
- **Do not release the throttle** when trying to steer away from objects. You need throttle to steer. Do not use the boat's reverse to stop.
- **Do not start or operate the boat** if any person is not properly seated in a seat intended for use when underway (refer to boat this manual) or if a person is nearby in the water.
- **The boat's jet thrust** can cause injury. Always accelerate slowly, and decelerate in a controlled fashion.
- **Observe the instructions** on all safety labels. They are there to help assure that you have a safe and enjoyable outing.
- **Riding with passenger(s)** or pulling other boats, tubes, a skier or a wakeboarder makes the boat handle differently and requires greater skill.
- **Rear seats must not be used** when water skiing or wakeboarding is taking place.
- **Always attach the kill cord**. Should the driver move away from, or be thrown from the helm position, the kill cord will detach from the console and the engine will stop. Detaching the kill cord also allows a crew member or passenger to stop the engine if the driver were to become incapacitated whilst at the helm, e.g. if they fainted.
- **Always check your kill cord works** at the start of each day or session and check it regularly for signs of wear.
- **Do not leave kill cords out** in the elements. Extremes of temperature and UV light will harm the kill cord in the long term.
- **If your kill cord has lost its spiral tension**, replace it.
- **When replacing kill cords**, purchase Williams's own kill cord.

## Before Getting Underway

- **Always perform the pre-use inspection** as specified in this book (see page 16).
- **Do not exceed the payload** or passenger capacities for this boat; these are listed on the capacity plate located inside the helmsman's footwell, and in the specifications in this manual.
- **Overloading or an uneven load** can affect manoeuvrability, stability and performance. Do not exceed the data on the builder's plate.
- **Regularly inspect the boat**, hull, engine, safety equipment, and all other boating gear and keep them in safe operating condition.

- **Be sure you have at least** the minimum required safety equipment, lifejackets and any additional gear needed for your trip.
- **Check that all lifesaving equipment** is in safe operating condition and easily accessible. Show all passengers where this equipment is and make sure they know how to use it.
- **Keep an eye on the weather**. Check the local weather before departure and be alert to changing conditions. **Beware of offshore winds and currents**.
- **Keep enough fuel on board** for the planned trip. Always verify fuel level before use

and during the trip. Apply the principle of  $\frac{1}{3}$  of the fuel to reach your destination,  $\frac{1}{3}$  to return, and keep  $\frac{1}{3}$  in reserve. Allow for changes due to adverse weather or other delays.

- **Keep accurate and up-to-date charts** of the boating area on board. Before getting underway, check water conditions in the planned boating area.
- **Before departure**, inform a responsible person ashore of your plans.

## Operators' and Passengers' Awareness

- **Each boat operator** has a responsibility to ensure the safety of his/her passenger(s) and of other water users. Please follow all safety instructions and operate your boat with care.
- **Operation of this boat** by a person under 16 years of age or a person with a disability that impairs vision, reaction time, judgment or operation of the controls is **not** recommended.
- **Never operate a boat** while under the influence of drugs or alcohol. They slow reaction time and impair judgement. Allow only qualified drivers to operate your boat.
- **Remember that sun**, wind, fatigue or illness may impair your judgement and reaction time.
- **At least one passenger** should be able to operate the boat in case the operator is unexpectedly unable to do so.
- **Always use the kill cord** when operating the boat and ensure that all passengers are familiar with its use.
- **Ensure that any operator** and all passengers know how to swim and how to re-board the boat from the water (Please see instructions on how to do so on page 23). If a passenger does not know how to swim, ensure that passenger wears a lifejacket at all times and take extra precautions when boating.

## Water Sports

**Taking part in any water sport requires increased safety awareness by the participant and the boat operator.**

- **If you have never pulled someone** behind your boat before, it is a good idea to spend a few hours as an observer, working with and learning from an experienced driver. It is also important to be aware of the skill and experience of the person being pulled.
- **Always have a second person** on board to observe the person in the water so the driver can concentrate on operating the boat.
- **Both the boat operator and observer** should monitor the location of the towrope when participating in watersports.
- **A slack tow rope can become entangled** with persons or objects in the boat or in the water, particularly when making a tight turn or circling and cause serious personal injury.
- **Never use the rear facing seats** when using a tow rope.

### Everyone participating in a water sport should observe these guidelines:

- **Be considerate to others** you share the water with.
- **Allow only capable swimmers** to take part in any water sport.
- **Always wear an approved personal flotation device (PFD).** Wearing a properly designed PFD helps a stunned or unconscious person stay afloat.
- **Have a second person aboard** to observe the person being towed and inform the driver about the participant's hand signals. The driver must give full attention to operating the boat and the waters ahead.
- **Do not tow a person** in any water sport on a short tow rope such that the person inhales exhaust fumes in concentration. Inhalation of concentrated exhaust fumes, which contain carbon monoxide, can result in CO poisoning, personal injury and death.

## Operating Your Tender

**CAUTION.** Operate the boat with due care and at a speed appropriate to the sea conditions. Be aware of local laws and restrictions. Always carry out a visual check of the boat and its components prior to use. Adhere to the maintenance schedule.

**WARNING.** For the safety of passengers, do not use rear facing seats above 15mph.

**WARNING.** This boat uses a water jet propulsion system which may exceed the performance and behave differently to other boats you have operated in the past. At slower speeds, maneuverability is reduced.

**WARNING.** The Operator of this boat must be of a suitable age and competence, have read and understood the owner's manual and safety labels, have been familiarised with the correct use of this boat, possess knowledge of basic seamanship and hold the necessary qualifications as required under law.

- **Give immediate attention** to a person who has fallen. He or she is vulnerable in the water alone and may not be seen by other boaters.
- **Approach a person in the water** from the lee side (opposite the direction of the wind). Turn off the motor before coming close to the person.
- **Turn off engine and anchor the boat** before swimming. Participate in water sports only in safe areas. Stay away from other boats, channels, beaches, restricted areas, swimmers, and heavily travelled waterways and underwater obstructions.
- **Swim only in areas designated as safe** for swimming. These are usually marked with a swim area buoy.
- **Do not swim alone or at night.**

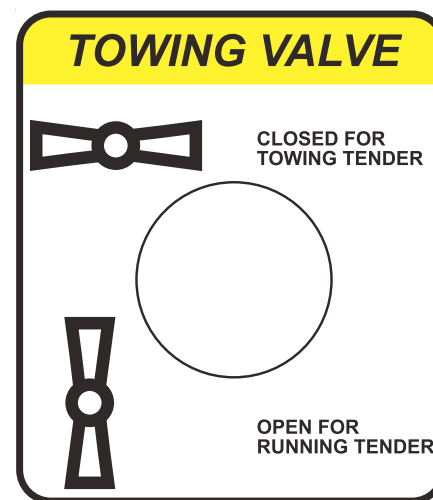
**WARNING.** Never permit a guest to operate this boat unless the guest is of suitable age and competence, has read and understood the owner's manual and safety labels, has been familiarised with the correct use of this boat, possesses knowledge of basic seamanship and holds the necessary qualifications as required under law.

**WARNING.** Never exceed maximum passenger capacity under any circumstances; doing so reduces stability and control.

**WARNING.** Always wear the appropriate buoyancy aid and ensure all passengers do the same.

**WARNING.** Always operate prudently according to visibility and water conditions.

**WARNING.** Never operate the boat under the influence of drugs or alcohol. They will slow down reaction time and impair judgment.



Above: Towing valve warning sticker.

**WARNING.** Never perform high speed and extreme maneuvers, which could result in loss of control.

**WARNING.** Always attach the kill cord to your leg. Removal of the kill cord will stop the engine in the event of an emergency.

**WARNING.** Manoeuvrability of the boat is restricted while decelerating. Familiarize yourself with the boat's handling.

This boat uses a water-jet propulsion system and has unique characteristics in steering. The throttle produces thrust from the jet pump, the directional control is provided by opening the throttle and turning the wheel in the direction of your turn. High thrust will turn the boat sharply; low thrust will produce less turning force. There is no rudder, so while underway there is no steering without thrust.

If weed or debris gets caught in the jet unit during use, cavitation can occur, causing a decrease in forward thrust. If this condition is allowed to continue the engine may overheat, resulting in serious damage. If there is any sign of debris or weeds etc blocking the jet, remove the boat from the water.

Switch off battery isolator and remove all debris from around the jet unit. **DO NOT make repeated attempts to start your**

tender if it has been blocked or jammed by debris or rope as engine damage may occur. In case of difficulty consult your Williams authorized dealer. A full list of authorized dealers/engineers is available at [williamsjettenders.com](http://williamsjettenders.com).

### RECOVERY

**CAUTION.** Do not attempt to lift or recover the tender by the transom.

Any stern-up angle will cause water to enter the engine from exhaust system and will result in serious engine damage.

### TOWING VALVE

**CAUTION.** Risk of engine flooding exists. Towing valve is fitted. The valve must be in the CLOSED position when your tender is being towed and the OPEN position when your tender is being used. When towing, the towing valve must be closed, and the reverse bucket must be in the forward/ahead position. **Failure to observe correct valve position will result in serious engine damage.**

### MOORING

**CAUTION.** Do not leave the Sportjet moored for extended periods as this may result in an accumulation of marine growth and a loss of performance.

### BEACHING

**CAUTION.** DO NOT operate in less than 0.95 m/3 ft of water as debris may enter the jet unit. **DO NOT drive the Sportjet onto the beach.** Stop the engine before beaching, as damage to the pump or engine cooling may occur.

After beaching, move the boat into deeper water and rock from side to side several times to remove sand from the intake area. Failure to do so could cause damage to the jet unit.

### TRIM

**CAUTION.** Do not overload the boat. At all speeds be aware of trim and keep weight evenly distributed.

## Warning Label Locations

- 1 Sportjet general information label
- 2 Do not block (bilge blower vent)
- 3 CE plate (*Not US*)
- 4 NMMA Sticker (*US Only*)
- 5 EPA compliant label (*US Only*)
- 6 USCG – Maintenance of the fuel system (footwell) (*US Only*)
- 7 USCG – Servicing of the engine specialist (helm/engine) (*US Only – 2 labels*)
- 8 Rotax power label
- 9 RYA kill cord label
- 10 Carbon monoxide exhaust warning (Helm) (*US Only*)
- 11 Carbon monoxide exhaust warning (Transom) (*US Only*)
- 12 Sportjet rear seat warning label
- 13 Nipping hazard (rear foot support)
- 14 Battery reconnect
- 15 Engine oil level
- 16 Flushing point label
- 17 Caution towing label
- 18 Fuel system warning label
- 19 Fire extinguisher safety label
- 20 No storage under helm label (*460 and 520 only*)



## General Specifications

Sportjet model	345	395	435	460	520
Length (OA)*	3.45 m	3.90 m	4.35 m	4.60 m	5.20 m
Beam (OA)*	1.77 m	1.77 m	1.93 m	2.01 m	2.01 m
Height (OA)	0.93 m	0.94 m	1.04 m	1.40 m	1.40 m
Draft (fully loaded)	0.33 m	0.33 m	0.36 m	0.42 m	0.42 m
Dry weight	340 kg	370 kg	435 kg/480 kg	550 kg	595 kg
Rotax Engine	900 ACE	900 ACE	900 ACE or 4-TEC 150	4-TEC 150	4-TEC 200
Top speed	46 mph/74 kph	46 mph/74 kph	41 mph/66 kph 52 mph/84 kph	48 mph/77 kph	52 mph/84 kph
Power	90 hp	90 hp	90 hp/150 hp	150 hp	200 hp
Fuel	Petrol	Petrol	Petrol	Petrol	Petrol
Fuel capacity	50 litres	50 litres	50/60 litres	100 litres	100 litres
Seating capacity	5	6	7	6	7
Maximum load capacity	500 kg	575 kg	675 kg	600 kg	750 kg
Tube compartments	5	5	5	5	5
Design category (CE)	C	C	C	C	C

\* Allow 1% tolerance in length and beam due to variation in tube pressure.

## Engine Specifications

Please refer to the Rotax Engine Operator's manual for all engine-related information.

## Classification

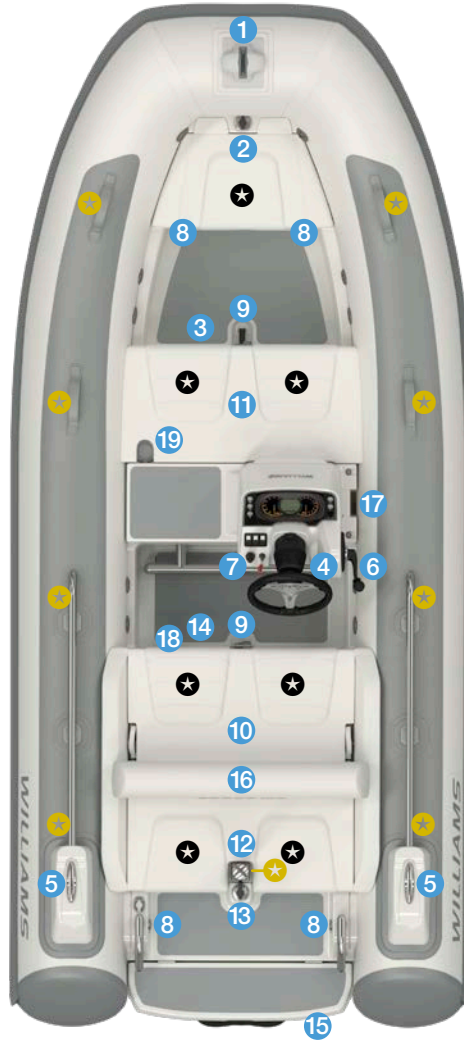
**Category C:** Considered to be designed for a wind force up to, and including 6, and significant wave height up to, and including 2 metres.

*This boat complies with ISO 6185-3. The CE plate is located in the starboard rear*

footwell. The CE plate is the certification to European Directive 94/25/CE. This boat is also compliant with US Coastguard and ABYC regulations.

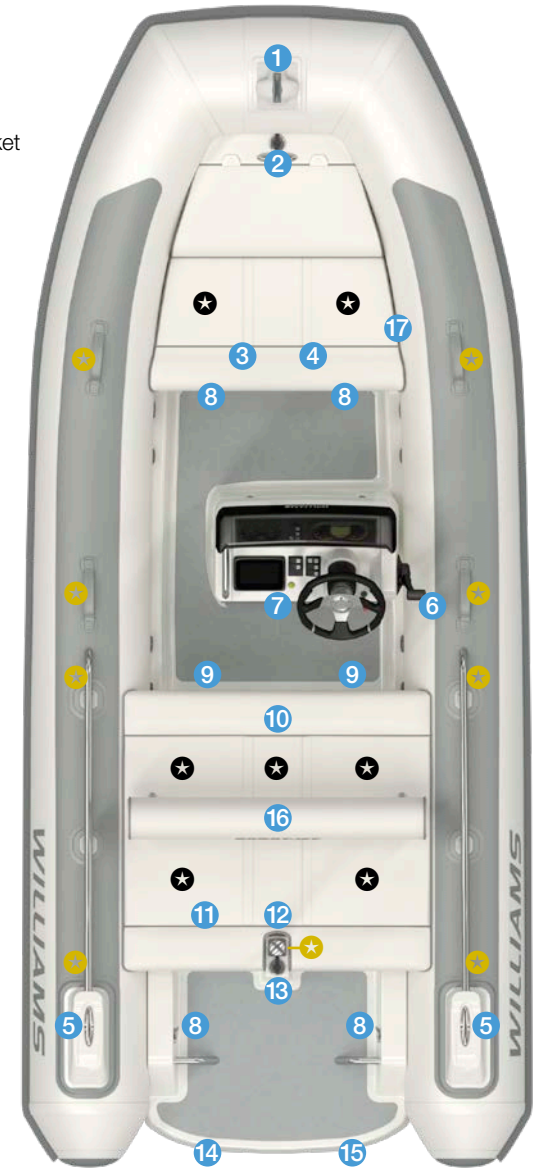
## General Layout: Sportjet 345, 395 & 435

- ★ Indicates seating position
- ★ Indicates handholds
- 1 Bow cleat/anchor point
- 2 Port/starboard navigation light socket
- 3 Stowage area (under seat)
- 4 12v auxiliary power socket
- 5 Mooring cleat
- 6 Throttle/shift control
- 7 Key switch
- 8 Lifting points
- 9 Drain plugs
- 10 Towing valve (under seat in engine bay)
- 11 Stowed ski pole – in forward stowage area (395); under engine hatch (345)
- 12 Removable ski pole
- 13 All round white light
- 14 Engine flushing attachment
- 15 Hull Identification Number (HIN)
- 16 Folding backrest (pull fabric handles on either sides of backrest arms to fold)
- 17 Fuel filler cap
- 18 Battery isolator
- 19 Boarding pole socket (if specified)



## Sportjet 460 & 520

- ★ Indicates seating position
- ★ Indicates handholds
- 1 Bow cleat/anchor point
- 2 Port/starboard navigation light socket
- 3 Splash proof storage (under seat)
- 4 12v auxiliary power socket
- 5 Mooring cleat
- 6 Throttle/shift control
- 7 Key switch
- 8 Lifting points
- 9 Drain plugs
- 10 Towing valve (under seat in engine bay)
- 11 Stowed ski pole (under engine hatch)
- 12 Removable ski pole
- 13 All round white light
- 14 Engine flushing attachment (next to jet pump)
- 15 Hull Identification Number (HIN) (under platform)
- 16 Folding backrest (pull fabric handles on either sides of backrest arms to fold)
- 17 Fuel filler cap



## Controls and Instrument Cluster Sportjet 345, 395 & 435

- 1 Gauge display
- 2 Bilge blower button
- 3 Bilge pump button
- 4 Navigation lights button
- 5 Automatic tube inflation switch (if fitted)
- 6 Key switch
- 7 Kill cord
- 8 Steering wheel tilt lever  
*Picture shows wheel tilted down.*
- 9 Music In socket (USB – if fitted)
- 10 12v auxiliary power socket
- 11 Throttle/shift control
- 12 Gauge mode switches



## Sportjet 460 & 520

- 1 Gauge display
- 2 Gauge mode switches
- 3 Boat function control switches
- 4 Engine start/stop button
- 5 Music In socket (within glovebox)
- 6 Key switch
- 7 Kill cord
- 8 Throttle/shift control
- 9 Tilting/removable steering wheel

*The helm assembly can be folded if there is a height restriction.*

**WARNING.** The area under the helm should not be used for storage under any circumstances.



## New Engine Break-in Period

Consult your Rotax engine operator's manual. A break-in period of 10 hours is required before continuous operation at full throttle. To achieve a good break-in, a maximum of  $\frac{3}{4}$  throttle should be observed, however, brief acceleration and speed variations contribute

to a good break-in. Williams suggest that after the first 10 hours of operation, the engine be checked by an authorized BRP/JPS ROTAX marine engine dealer.

**The break-in period is very important and must not be neglected.**

## Fuelling

**As part of its pre-delivery inspection your new Sportjet has been fully tested and drained of fuel.**

- Ensure ignition is in OFF position.
- Remove seat cushion to expose filler cap (460 & 520 only).
- Re-fuel in a ventilated area.
- Do not overfill the tank; be careful not to spill fuel.
- Tighten fuel cap securely after re-fuelling.
- Open engine hatch and inspect bilges after re-fuelling.
- The filler cap has an integral breather.

**Do NOT hose around the fuel filler area as water may enter the fuel tank.**

### MINIMUM OCTANE RATING

**CAUTION.** Do not use fuel from fuel pumps labeled E85. Use of fuel labeled E15 is prohibited by US EPA Regulations.

Fuel containing Ethanol can result in problems in the fuel system and engine, resulting in:

- Starting and operating difficulties.
- Deterioration of rubber or plastic parts.
- Corrosion of metal parts.
- Damage to internal engine parts

	North America		Rest of the World	
RON+MON/2:	87	91	RON:	92 95
900 (ACE)	•	•*	900 (ACE)	• •*
150 (ECT)	•	-	150 (ECT)	• -
250 (ECT)	•	•*	250 (ECT)	• •*

\* For optimum engine performance



## Before Use

Tube pressure will fluctuate with temperature. Inflate tubes in sequence to 250 mB/3.6 psi. Failure to observe this will compromise the sea-keeping ability and watertight integrity of the boat. Inflation valves are fitted with quarter-turn locks to enable rapid deflation.

**CAUTION.** Tubes must be inflated in the correct sequence to prevent over-inflation.

- Set valves to shut and inflate tubes evenly, starting at rear/right, rear/left, then forward valves.

- Check bilge for fuel or water contamination.
- Tighten footwell drain plugs.
- Ensure towing valve is set in open position.
- Check engine cover latches are secure.
- If your tender is fitted with the Auto Bow Inflate option, ensure that the boat is in the water with the engine running before operating the inflator. The inflator has a high current draw and may excessively discharge the battery if operated without the engine running.

## Safety Check!

**WARNING.** ALWAYS attach yourself to the kill cord when engine is running. As a precautionary measure before setting off, always test kill cord functionality by pulling it away from its switch. The engine should always stop.

**WARNING.** NEVER operate the boat when bathers are using the boarding ladder, as risk of serious injury exists from the reverse deflector.

**WARNING.** NEVER investigate the engine bay with the engine running or ignition on. Ensure the boat is in a depth of at least 0.95 m/3 ft of water.

## Warning Lights

**CAUTION.** Risk of engine damage. In the event that a warning lamp or buzzer activates during use, STOP engine immediately, investigate the cause and/or contact your authorized Williams Dealer.

## Starting Procedure Sportjet 345, 395 & 435

- 1 Turn battery isolator on (see page 12).
- 2 Run bilge blower for 5 minutes.
- 3 Secure any loose ropes that could get sucked into the jet unit.
- 4 Ensure the shift lever is in neutral position.
- 5 **Connect kill cord to switch.**  
**WARNING.** Personal injury may result if not attached.
- 6 Turn key to start.
- 7 Test kill cord for correct functionality (see Safety Check! section, opposite).



- 1 Bilge blower switch
- 2 Bilge pump switch
- 3 Navigation light switch

## Sportjet 460 & 520

- 1 Turn key switch to ON position.
- 2 Run bilge blower for 5 minutes.
- 3 Secure any loose ropes that could get sucked into the jet unit.
- 4 Ensure the shift lever is in neutral position.
- 5 **Connect kill cord to switch.**  
**WARNING.** Personal injury may result if not attached.
- 6 Press start/stop button to start engine.
- 7 Test kill cord for correct functionality (see Safety Check! section, opposite).



- 1 Battery isolator/ignition key
- 2 Engine start/stop button
- 3 Bilge blower switch
- 4 Music system switch (if fitted)
- 5 Navigation light switch
- 6 Bilge pump switch

## Engine Bay: Sportjet 345, 395 & 435



This view shows the engine bay looking towards the rear of the boat.

- |                                  |                                |                               |
|----------------------------------|--------------------------------|-------------------------------|
| 1 Fire extinguisher              | 5 Power limit switch           | 9 Fuse box                    |
| 2 Engine oil dipstick and filler | 6 Coolant expansion tank       | 10 Battery                    |
| 3 Bilge blower                   | 7 Engine fuses                 | 11 Bilge pump (under exhaust) |
| 4 Towing valve                   | 8 Overcurrent protection fuses |                               |

## Sportjet 460 & 520



This view shows the engine bay looking towards the rear of the boat.

- |                             |                          |                                  |
|-----------------------------|--------------------------|----------------------------------|
| 1 Fire extinguisher         | 6 Overcurrent protection | 11 Battery                       |
| 2 Engine oil dipstick       | 7 Starter solenoid       | 12 Oil fill                      |
| 3 Bilge blower              | 8 Coolant expansion tank | 13 Remote battery isolator relay |
| 4 Bilge pump (under engine) | 9 Engine fuses           |                                  |
| 5 Towing valve              | 10 Fuse box              |                                  |

## Exhaust System Flushing

To prolong engine life it is very important to flush the engine of salt water after use and prior to storage. Failure to carry out flushing will significantly reduce the life of engine components and may invalidate the warranty.

In addition, it is advised to thoroughly wash with fresh water around the jet pump area to remove all salt deposits after use.

Flushing the exhaust system with fresh water is essential to neutralize corroding effects of salt and other chemical products present in water. It will help to remove sand, salt, shells and other particles in water jackets, exhaust system, intercooler (supercharged engines) and hoses.

Exhaust system flushing should be performed when the boat is not expected to be used again the same day or when it is stored for an extended period of time.

**CAUTION.** Failure to flush the system as necessary will severely damage the exhaust system.

**WARNING.** Perform the flushing procedure in a well-ventilated area. Certain components in the engine compartment may be very hot. Direct contact with hot components may result in skin burns. Do not touch any electrical part or the jet pump area when the engine is running.

- 1 Wash the jet pump area with fresh water before commencing the flushing procedure.
- 2 Connect a water hose to either the connector located at the rear of the boat on the jet pump support (460 & 520) or to the flushing point inside the helmsman's footwell (345, 395 & 435).  
*Do not open water tap at this time.*
- 3 Start engine and immediately open the water tap.

**CAUTION.** Always start the engine before opening the water tap. Open the water tap immediately after the engine is started to prevent overheating. Never run the engine without supplying water to the exhaust system when the boat is out of the water.

- 4 Run the engine for 20 seconds between 4000 and 5000rpm.

**CAUTION.** Never run the engine for more than 2 minutes while the boat is out of the water. The driveline seal has no cooling when the boat is out of the water.

- 5 Ensure there is water flowing out of the jet pump while flushing.

**IMPORTANT:** If water does not flow freely out of the jet pump during flushing, refer to an authorized Williams dealer for service.

- 6 Close the water tap.
- 7 Allow the engine to run on for no longer than 10 seconds to allow water to exit from the cooling system.
- 8 Stop the engine.

**CAUTION.** Always close the water tap before stopping the engine.

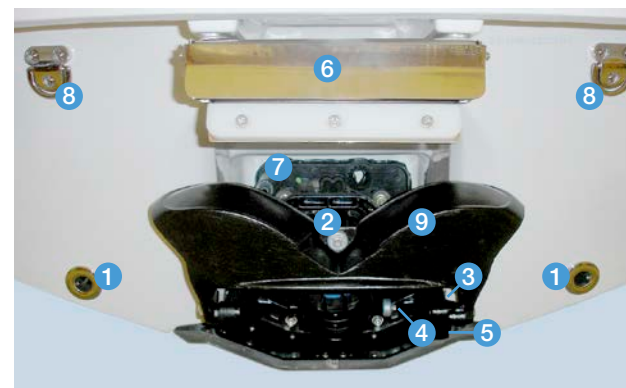
- 9 Disconnect the hose from the flushing attachment.

## Sportjet 345, 395 & 435



- 1 Footwell drains
- 2 Reverse bucket
- 3 Jet pump anode
- 4 Bilge pump & open loop coolant outlets
- 5 Ride plate anode
- 6 Extendable bathing ladder
- 7 Tie down points

## Sportjet 460 & 520



- 1 Footwell drains
- 2 Reverse bucket anode
- 3 Jet pump anode
- 4 Steering nozzle carrier anode
- 5 Ride plate anode
- 6 Extendable bathing ladder
- 7 Engine flushing attachment
- 8 Tie down points
- 9 Reverse bucket

## Fuse Identification

Fuses are located within the engine bay on the port side.



**WARNING. Explosion risk.** Only use fuses that comply with SAE J1171 (ignition protection). Overcurrent protection fuses/breakers are rated at 30 amps and located adjacent to battery isolator.

- 1 12 volt socket: 20 amp
- 2 Bilge pump: 7.5 amp
- 3 Bilge pump switch: 7.5 amp
- 4 Navigation light: 5 amp
- 5 Bilge blower: 7.5 amp
- 6 VHF: 5 amp
- 7 Chartplotter: 7.5 amp
- 8 CAN power: 5 amp
- 9 Deck lights: 5 amp
- 10 Underwater lights: 10 amp
- 11 Shower: 5 amp
- 12 Music system: 5 amp
- 13 Ignition power

## Conductor Identification

This chart sets out the corresponding colour to all abbreviations printed on cables on the craft.

Code	Colour	Code	Colour
BK	Black	VT	Violet
GN	Green	RD	Red
PK	Pink	GY	Grey
LTGN	Light green	BE	Blue
BN	Brown	WE	White
OE	Orange	YW	Yellow

## Lifting the Sportjet

Instructions for the correct use of lifting straps are contained in the strop bag; please read these carefully.

**CAUTION. Damage to the tender may result if the following procedure is not adopted.**

Tilt helm down before attempting to lift the Sportjet (460 and 520 only) when using standard Williams-supplied lifting strops. Lifting strops are available as an optional accessory. Ensure fastenings are attached correctly before lifting.



**WARNING. Risk of injury or death.** When Williams lifting strops are used please refer to instructions supplied with the strops and adhere to the Safe Working Load values as follows: **All Sportjet models: 750 kg max**

## Reboarding the Sportjet

- 1 Ensure engine is off and kill cord is removed.
- 2 Lift up retaining flap and pull out ladder from underside of transom.
- 3 Ensure ladder is fully extended.
- 4 Climb ladder to access the bathing platform.
- 5 Ensure ladder is stowed with the retaining flap folded down before moving off.



## Fuel System

**WARNING. Pressurised fuel system.** Inspect system for leaks at scheduled service intervals. All elements of the fuel system function under pressure. The system remains pressurised after engine is switched

### US SPORTJETS ONLY

**This boat complies with US Coastguard safety standards in effect on the date of certification, with the exemptions of certain fuel system requirements associated with its fuel injected engine as authorized by US Coastguard Grant of Exemption (CGB 17-011). Maintenance of the fuel system in this boat should be performed only by experienced technicians using identical fuel system components. Wear a life jacket (personal flotation device) while using it.**

off. Extreme care must be taken when removing quick connectors during filter change. Wear eye protection. Do not use naked flames.

**Service of the engine installed in this boat requires special tools, training and genuine replacement parts which are only available from Williams Tenders USA, inc. The fuel system should be serviced only by a Williams Tenders, USA inc trained certified technician. Do not attempt to service the system yourself.**

## Routine Maintenance

**To ensure a long service life and to maintain the tender in a safe and reliable condition, please follow these routine maintenance instructions. Williams cannot accept any responsibility for damage or injury resulting from incorrect maintenance or improper adjustment carried out by the owner.**

- 1 Wash the tender regularly with fresh water to remove salt deposits.
- 2 Check engine oil level. When topping up follow, the engine manufacturer's recommendations. **Engine must be at running temperature when checking oil level.**
- 3 Check coolant level.
- 4 Flush open loop cooling system.

- 5 Apply a good quality marine grease containing Teflon (eg Quicksilver 101) to all control cables, both under the helm and at the pump.
- 6 Check bilges for water ingress, oil or fuel contamination and clean if necessary.
- 7 Lightly grease the extending running light pole base using white grease or similar.
- 8 Check the condition of all anodes.
- 9 Loss of tube pressure over 24 hours is not unusual. Temperature and atmospheric pressure will affect tube pressures. Check pressures regularly.
- 10 For boats used in tropical environments, the frequency of routine maintenance should be increased accordingly.

## Windscreen Care

The acrylic windscreen (460 & 520 only) should be cleaned regularly to preserve its attractive appearance.

**NEVER use any cleaning product containing ammonia, petrol, alcohol,**

**carbon tetrachloride or acetone, which will cause the screen to craze with minute cracks.** Use a specialty cleaning product or a mild solution of detergent and fresh water.

## Winterising/Dry Storage

Store the boat covered in a clean, ventilated and dry place that is not affected by major variations in temperature or humidity. **For full information on servicing please refer to the Rotax engine service manual.**

### GENERAL

Carry out a thorough inspection of the engine compartment and bilges to ensure they are clean and completely dry. If possible, raise the front of the boat to allow any residual water to drain towards the stern where it can be easily removed.

### BUOYANCY TUBE

Prior to storing over the winter periods, the buoyancy tubes must be deflated and hosed down with fresh water, removing any small stones and weed from the luffing track, then allowed to dry. Use a proprietary tube cleaner and polish to ensure optimum condition. Store with the tubes lightly inflated where possible.

### UPHOLSTERY

Where possible, remove all upholstery from the boat and store in a dry place. Ensure upholstery is cleaned using a proprietary upholstery cleaner and is fully dry before storage.

### MAINTENANCE OF THE HULL AND DECK

Wash the deck in warm water after use, using a mild detergent and hose down to remove sand etc. The hull and deck should be regularly polished using a good quality gelcoat polish to minimise fade and UV chalking.

### BATTERY

The battery used in the Sportjet is of the dry cell type. This means that the electrolyte content is absorbed in a special fabric which requires no topping up and is leakproof in any position. When the boat is not being used for an extended period of time, disconnect the earth terminal. A trickle-charging device, such as an *Accumate*, will extend battery life.

### FUEL SYSTEM

Fuel will become stale over a period of several months. A full fuel tank prevents moisture and mildew from developing within the tank. Fuel begins to break down after approx. 30 days. Adding a fuel stabilizer in the recommended ratio will minimise this.

### COOLING SYSTEM

Flush the open loop water circuit to remove salt, sand, shells and other contaminants that may be trapped in the raw water cooling circuit (refer to Exhaust System Flushing section).

Measure the anti-freeze content of the engine coolant with a commercially available anti-freeze tester. A 50/50 mixture of distilled water to propylene glycol provides sufficient frost protection to approx. -37°C.

### ENGINE OIL CHANGE

It is important to change the oil. Used engine oil contains water, unburned fuel and small metal particles. When old oil is left in the engine for longer periods, corrosion and degradation of bearings within the engine may occur.

### CONSERVING THE CYLINDERS

Unscrew the spark plugs and fill approx. 10ml of clean engine oil directly into each spark plug bore. Crank the engine a few times with the starter. Screw in the spark plugs again.

### GREASE CABLES

Grease all control cables at both ends and exercise to ensure good coverage

### GENERAL CORROSION PROTECTION

Apply *Vaseline*, dielectric grease or a similar white grease to battery isolator switch, upholstery press studs and running light pole base. Use maintenance spray on key switch. Apply a proprietary corrosion guard to engine, electrical connections, under helm and around jet pump area.

## Full Inspection Maintenance Table

Please use this section for servicing guidance and the Rotax engine manual for all engine-related serviceable items.

These tasks require basic mechanical and/or electrical knowledge. Please refer to a qualified engineer if you are not confident in carrying them out.

	First 50 hours or 1 year	Every 100 hours or 1 year	Every 200 hours or 2 years	To be carried out by
<b>Engine</b>				
<b>Engine oil and filter</b>	Replace	Replace <sup>1</sup>		Repair Shop
<b>Rubber mounts</b>	Inspect	Inspect		Repair Shop
<b>Corrosion protection (spray an anticorrosion lubricant to metallic components in engine compartment)</b>		Lubricate (Every 10 hours in salt water use)		Operator
<b>PTO seal and sleeve</b>			Replace <sup>2</sup>	Repair Shop
<b>Exhaust system</b>				
<b>Exhaust system</b>	Inspect	Inspect, Clean <sup>3</sup>		Operator/ Repair Shop
<b>Exhaust system flushing</b>		Clean <sup>1,3</sup>		Operator
<b>Cooling system</b>				
<b>Hoses and fasteners</b>	Inspect	Inspect		Repair Shop
<b>Coolant</b>	Inspect	Inspect	Replace	Repair Shop
<b>Fuel system</b>				
<b>Throttle body</b>	Inspect	Inspect		Repair Shop
<b>Fuel lines, connections, pressure relief valve and fuel system leak test</b>	Inspect	Inspect		Repair Shop
<b>Engine management system</b>				
<b>Fault codes</b>	Inspect	Inspect		Repair Shop
<b>Air intake system</b>				
<b>Air filter</b>		Inspect, replace if required		Repair Shop

<sup>1</sup> At storage period or after 100 hours of use whichever comes first. <sup>2</sup> Replace at 200 hours of use, irrespective of the number of years. <sup>3</sup> Daily flushing in salt water or foul water use.

	First 50 hours or 1 year	Every 100 hours or 1 year	Every 200 hours or 2 years	To be carried out by
<b>Electrical system</b>				
<b>Spark plugs</b>	Inspect	Inspect	Replace	Repair Shop
<b>Ignition coils</b>	Inspect	Inspect	Inspect	Repair Shop
<b>Electrical connections and fastening (visual inspection)</b>	Inspect	Inspect	Inspect	Repair Shop
<b>Monitoring beeper</b>	Inspect	Inspect	Inspect	Repair Shop
<b>Engine cut-off switch</b>	Inspect	Inspect	Inspect	Repair Shop
<b>Steering system</b>				
<b>Steering cable and connections</b>	Inspect	Inspect		Repair Shop
<b>Steering nozzle bushings</b>	Inspect	Inspect		Repair Shop
<b>Propulsion system</b>				
<b>Carbon ring and rubber boot (drive shaft)</b>	Inspect	Inspect		Repair Shop
<b>Shifter system, cable and connections</b>	Inspect	Inspect		Repair Shop
<b>Reverse gate</b>	Lubricate	Lubricate		Repair Shop
<b>Drive shaft/impeller splines and PTO splines</b>		Inspect, Lubricate		Repair Shop
<b>Drive shaft</b>		Lubricate <sup>4</sup>		Repair Shop
<b>Impeller boot</b>	Inspect	Inspect		Repair Shop
<b>Impeller shaft seal, sleeve and O-ring</b>		Inspect	Replace <sup>5</sup>	Repair Shop
<b>Impeller and wear ring clearance</b>	Inspect	Inspect		Repair Shop
<b>Sacrificial anode</b>		Inspect each month (every two weeks in salt water) and change when necessary		Operator/ Repair Shop
<b>PTO boot</b>		Replace <sup>6</sup>		Repair Shop
<b>Hull and body</b>				
<b>Ride plate and water intake grates</b>		Inspect		Repair Shop

<sup>4</sup> Lubricate for corrosion protection. <sup>5</sup> Replace every 200 hours irrespective of number of years. <sup>6</sup> Replace every 100 hours irrespective of number of years.

# Limited Warranty Certificate

## WILLIAMS JET TENDERS LTD. LIMITED WARRANTY CERTIFICATE

Williams Jet Tenders ("Williams") undertake a PDI (pre-delivery inspection) on all new boats before shipment from factory. Williams will provide for repairs to their inflatable boats during the specific warranty periods provided herein, in accordance with the following terms, conditions and limitations. Registration of a Williams boat – Each Williams boat is supplied to the original customer with a registration card. The limited Warranty contained herein shall not take effect and shall be deemed null and void unless the original owner submits a completed registration card to Williams Jet Tenders Ltd, Unit 2 Vogue Business Park, Berinsfield, Oxon OX10 7LN UK within 30 days from the date of original registration. The registration can also be completed online at [www.williamsjettenders.com](http://www.williamsjettenders.com). Williams approved dealers shall be entitled to store boats for a period of up to 6 months prior to registration provided that: a) the boats are stored in original packaging in accordance with Williams guidelines; b) registration is recorded upon handover with delivery hours only.

### WARRANTY COVERAGE:

Williams warrants to the original private purchaser of a properly registered craft that: a) Hypalon Tubes: all seams of the tubes, inflation valves, and the fabric used in the construction of the tube shall be free from defects in material and workmanship for a period of 3 years from the date of the original registration; b) the fabric of the tube shall be free from deterioration affecting serviceability (i.e. cracking, porosity, but not discolouration, fading or chaffing) for a period of 3 years from the date of the original registration; c) the fabric of the tube shall be free from deterioration affecting serviceability (i.e. cracking, porosity, but not discolouration, fading or chaffing) for a period of 2 years from the date of the original registration; d) the fibreglass hull shall be free from defects in material and workmanship for a period of 2 years from the date of the original registration; e) deck and helm components which are spray finished shall be free from blistering for a period of 1 year provided that at no time the boat is shrink wrapped in polythene; f) all components fitted to the boat at the Williams factory or subsequently replaced under warranty shall be free from defects in material and workmanship for a period of 2 years from the date of the original registration. The warranty period for commercial use will be 4 months from the date of original registration. The obligation of Williams under this Limited Warranty is limited to repairing or replacing, as Williams may elect at its sole discretion, any parts that prove, in Williams' sole judgement, to be defective in material or workmanship. THIS LIMITED WARRANTY SHALL BE THE ORIGINAL PURCHASER'S SOLE AND EXCLUSIVE REMEDY.

### WHAT IS NOT COVERED:

This Limited Warranty shall not apply to: a) normal wear and tear; b) any minor boat damage, including but not limited to, gel coat crazing, fading or blistering; c) any damage to Williams boats due to negligence, accident, misuse, alteration, improper operation, collision, fire, theft, vandalism, riot, explosion, objects striking the boat, improper maintenance and storage; d) any damage caused by towing a Williams boat, any damage caused by lifting or recovering a Williams boat; e) tubes exposed to harsh or corrosive chemicals; f) any parts installed by anyone other than Williams factory personnel; g) any damage caused by after-market parts; h) Williams boats purchased for commercial/governmental use; i) any work carried out on a Williams boat by an unauthorised service centre and/or without Williams' prior approval; j) labour, freight, delivery, storage or other similar charges; k) defects caused or worsened by failure to adhere to the instructions concerning the treatment, maintenance and care of the boat; l) Damage caused by water ingestion. Sometimes equipment installed on a Williams boat (such as electronics) carry their own individual warranties provided by their respective manufacturers. In such cases any warranty claims regarding those parts must be directed to those manufacturers and not

Williams. Williams reserves the right to make warranty coverage contingent upon proof of proper maintenance. m) Damage caused by yacht launch systems that are not designed and installed to a Williams approved specification, or defective due to lack of maintenance.

### HOW TO OBTAIN WARRANTY REPAIR:

Prior to any work being commenced on a Williams boat, the warranty claim must be approved in writing by Williams Jet Tenders Ltd. In order to obtain warranty repair approval, the original owner must send written notification, along with a copy of the bill of sale, and photograph depicting the damage and/or defect sought to be repaired to Williams Jet Tenders Ltd, Unit 2 Vogue Business Park, Berinsfield, Oxon OX10 7LN. U.K. If Williams finds that the specific defect and/or damage is covered under this Limited Warranty, Williams will advise the owner in writing where to send (via pre-paid freight) the boat or part(s) for repair or replacement. In many cases the local authorised Sales and Service Centre may be utilised for repairs. In others the boat or parts must be repaired by Williams personnel only. Williams does not assume any liability for any work performed on a Williams boat at an unauthorised Service Centre and/or without Williams' prior approval. All parts replaced under this Limited warranty become the property of Williams.

### MISCELLANEOUS:

Williams does not authorise any person to create for it any other obligation or liability in connection with its boats. THIS LIMITED WARRANTY AND WILLIAMS' OBLIGATION HEREUNDER IS IN LIEU OF ALL WARRANTIES EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Williams will not be liable for any incidental or consequential damages resulting from breach of this limited warranty, including without limitation, loss of inflatable boat use, storage, payment for loss of time, inconvenience, boat rental expense, and local taxes required on warranty repairs. Williams reserves the right to alter models, change colours, specifications, materials, equipment, component parts, prices or cease production of certain models at any time without prior notice, and such changes, alterations, or cessation shall be made without Williams incurring any obligations to equip or modify inflatable boats produced prior to the date of such changes or alterations. This Limited Warranty shall be governed by and construed and enforced in accordance with UK Law.