Model: Fusion 17 / Fusion 19 / Fusion 21

FUSION POWER BOATS
OWNER'S MANUAL

Please keep this manual in a secure place, and hand it over to the new owner when you sell the boat.

FUSION POWER BOATS

KNYSNA SOUTH AFRICA

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Introduction

Congratulations on the purchase of your Fusion Power Boat!

This instruction manual contains all the necessary information for using and maintaining your boat. Detailing information about the boat, systems installed, general information about handling, maintenance, assembly, safety and taking care of the boat. Read the manual carefully and familiarize yourself with your boat before you start to use it.

Ensure that the anticipated wind and wave conditions correspond to the design category of your boat, and that you and your crew can handle the boat in these conditions. This owner's manual is not a substitute for boating safety skills or good seamanship. If this is your first boat or if this boat type is new to you, ensure that you can handle the boat before you set out for the first time.

For information about local sea schools and approved instructors, please ask your boat dealer, the local boat clubs and national motorboat or yacht federations for advice.

This owner's manual is not a detailed maintenance or troubleshooting guide. If problems occur, contact the boat manufacturer or its local representative. When you need maintenance or repair and alteration work, always turn to competent and trained professionals. Changes that can affect the boat's security features must be assessed, carried out and documented by competent professionals. The boat manufacturer cannot be held responsible for unauthorized modifications. Every change to the boat's centre of gravity (from highly mounted heavy equipment or a new engine type etc.) significantly affects the stability, trim, and performance of the boat.

In case something does not work satisfactorily with your boat or its equipment, you can check the service documents for possible service and repair measures. If uncertain, always contact your dealer or the Fusion Power Boats factory for advice.

It is important to check your buoyancy foam every 5-years and service your motor annually or as recommended by your local representative.

Safety Symbols

This manual uses the following safety alerts to draw your attention to special safety instructions that should be followed.

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

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

Denotes a reminder of safety practices or directs attention to unsafe practices which could result in personal injury or damage to the craft or components or to the environment.

Information that is important but not hazard related.

Disclaimer

The material in this manual is for information purposes only.

Fusion Power Boats reserves the right to change the products without prior notice to improve reliability, function, design, or other characteristics of the products. Fusion Power Boats assumes no liability for any damages, losses, costs, or expenses arising out of or relating to the use of this manual or the products described herein.

Fusion Power Boats makes no representations and warranties with respect to this manual, either express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose.

1. Boat Safety Recommendations

- The boat owner is responsible for making sure that the safety equipment on the boat meets the rules and regulations of the local authorities.
- The boat owner is responsible for making sure they are aware of and follow local environmental laws.
- Always keep the necessary safety equipment up to date and on the boat.
- When loading the boat, never exceed the maximum recommended load of the boat, as shown on the builder's plate.
- Always load the boat carefully and distribute loads appropriately to maintain design trim.
- When out on the water, always use the seats intended for the passengers.
- Do not exceed the maximum number of persons allowed in the boat for the allocated category, as shown on the builder's plate.
- The total weight of the persons on board and their personal luggage must never exceed the maximum load of the boat as shown on the builder's plate.
- Local authorities require that you carry a life jacket, for each person aboard your vessel. We recommend always wearing a life jacket while boating.
- The operator of the boat must always wear a switch lanyard while driving. In the event of accidental ejection or loss of balance, the boat will shut off automatically.

1.1. Required Safety Equipment per Category

*** The below safety equipment requirements are based on the South African Marine Authority's specifications***

IMPORTANT

- A valid certificate of competency is required *(Skippers Licence).*
- The skipper must have completed a valid radio course should he/she register for category D/C or B. The VHF radio must be registered with ICASA.
- The registration numbers issued must appear on both sides of the vessel in a highly visible contrasting colour:
  maximum – 150mm x 25mm
  minimum – 100mm x 20mm
- The road trailer is clearly marked with:
  - the owner's name,
  - the owner's telephone number, and
  - the registration number of the vessel.
- All safety equipment is clearly marked with the vessel's registration number.
- Tool kit should contain at least 2 screw drivers (flat and star), water pump pliers, Q20 and duct tape.

Required extra equipment for night operation – skipper to be night rated:

- Appropriate navigation lights.
- All-round White Light.
- Waterproof torch with spare batteries and bulb.
- Illuminated compass.

1.1.1. Fusion 17

Category C

Power Driven Vessels operating more than 5 nautical miles but not more than 15 nautical miles from shore.

**** The vessel must be equipped with two motors for this category. ****

- Approved 100N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- Two (2) hand-held red distress flares.
- Two (2) parachute flares.
- One (1) floating orange smoke marker.
- One (1) sound signalling device (other than a life jacket whistle). Only on vessels operating West of Port Alfred.
- Marine VHF Radio – Channel 16 and 1 other working channel OR 29MHZ Radio – channel A, B, and C.
- Suitable magnetic compass (with which bearings can be taken).
- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Capsize bottle and rope: rope to be minimum 1.5 times the length of the vessel.
- Two (2) space blankets.
- One (1) litre water per person.
- First Aid kit.
- Spares and tools.
- Emergency steering.
- Suitable 3kg anchor, 3m chain and 100m 3-strand rope.
- ID sheet – where vessel is not of highly conspicuous colour.
- Navigation chart for area of operation – corrected or renewed every six years.

Category D

Power Driven Vessels operating more than 1 nautical miles but not more than 5 nautical miles from shore.

- Approved 100N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- Two (2) hand-held red distress flares.
- Two (2) parachute flares.
- One (1) floating orange smoke marker.
- One (1) sound signalling device (other than a life-jacket whistle) – only on vessels operating West of Port Alfred.
- Marine VHF Radio or VHF 5 watt handheld acceptable.
- Suitable magnetic compass (with which bearings can be taken).
- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Capsize bottle and rope: rope to be minimum 1.5 times length of vessel.
- Two (2) space blankets.
- One (1) litre water per person.
- First Aid kit.
- Spares and tools.
- Emergency steering.
- Two (2) paddles or oars (Only required with a single engine installation).
- Suitable anchor 3kg, 3m chain and 100m 3-strand rope.
- ID sheet – where vessel is not of highly conspicuous colour.

Category E

Power driven vessels operating not more than one (1) nautical mile from shore.

- Approved 100N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- One (1) projectile flare set.
- One (1) hand-held smoke marker.
- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Two (2) oars or paddles (Only required with a single engine installation).
- Capsize bottle and rope – rope to be minimum 1.5 times length of vessel.
- Spares and tools.
- One (1) sound signalling device.
- Suitable anchor 3kg, 3m chain and 50m rope.
- Emergency steering.
- ID sheet – where vessel is not of highly conspicuous colour.
- First aid kit.

Category R

Vessels operating solely in sheltered waters. This includes tidal lagoon, tidal river, dams, lakes, and rivers.

- One (1) 50N life jacket, with whistle attached, per person on board.
- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Two (2) paddles or oars (Only required with a single engine installation).
- Capsize rope– minimum 1.5 times length of vessel.
- Spares and tools.
- Minimum two (2) litres fresh water.
- Suitable 3kg anchor, 3m chain and 50m 3-strand rope.
- Emergency steering.
- First Aid Kit.

1.1.2. Fusion 19 / Fusion 21

Category B

Power Driven Vessels operating more than 15 nautical miles but not more than 40 nautical miles from shore.

**** The vessel must be equipped with two motors for this category.****

- Approved 150N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- Four (4) hand-held red distress flares.
- Four (4) red rocket parachute flares.
- One (1) floating orange smoke marker.
- One (1) sound signalling device (other than a life jacket whistle). Only on vessels operating West of Port Alfred.
- Marine VHF Radio – Channel 16 and 1 other working channel OR 29MHZ Radio – channel A, B, and C.
- Suitable magnetic compass (with which bearings can be taken).
- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Capsize bottle and rope: rope to be minimum 1.5 times the length of the vessel.
- Two (2) space blankets.
- One (1) litre water per person.
- First Aid kit.
- Spares and tools.
- Emergency steering.
- Suitable 5kg anchor, 5m chain and 100m 3-strand rope.
- ID sheet – where vessel is not of highly conspicuous colour.
- Navigation chart for area of operation – corrected or renewed every six years.

Category C

Power Driven Vessels operating more than 5 nautical miles but not more than 15 nautical miles from shore.

**** The vessel must be equipped with two motors for this category.****

- Approved 100N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- Two (2) hand-held red distress flares.
- Two (2) parachute flares.
- One (1) floating orange smoke marker.
- One (1) sound signalling device (other than a life jacket whistle). Only on vessels operating West of Port Alfred.
- Marine VHF Radio – Channel 16 and 1 other working channel OR 29MHZ Radio – channel A, B, and C.
- Suitable magnetic compass (with which bearings can be taken).
- Suitable approved fire extinguisher – 1 per engine – serviced annually.
- Capsize bottle and rope: rope to be minimum 1.5 times length of vessel.
- Two (2) space blankets.
- One (1) litre water per person.
- First Aid kit.
- Spares and tools.
- Emergency steering.
- Suitable 5kg anchor, 5m chain and 100m 3-strand rope.
- ID sheet – where vessel is not of highly conspicuous colour.
- Navigation chart for area of operation – corrected or renewed every six years.

Category D

Power Driven Vessels operating more than 1 nautical miles but not more than 5 nautical miles from shore.

- Approved 100N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- Two (2) hand-held red distress flares.
- Two (2) parachute flares.
- One (1) floating orange smoke marker.
- One (1) sound signalling device (other than a life-jacket whistle) – only on vessels operating West of Port Alfred.
- Marine VHF Radio or VHF 5 watt handheld acceptable.
- Suitable magnetic compass (with which bearings can be taken).

- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Capsize bottle and rope: rope to be minimum 1.5 times the length of the vessel.
- Two (2) space blankets.
- One (1) litre water per person.
- First Aid kit.
- Spares and tools.
- Emergency steering.
- Two paddles or oars (Only required with a single engine installation).
- Suitable anchor 5kg, 5m chain and 100m 3-strand rope.
- ID sheet – where vessel is not of highly conspicuous colour.

Category E

Power driven vessels operating not more than one (1) nautical mile from shore.

- Approved 100N life jacket per person – S.A.M.S.A approved (Refer to builders' plate).
- One (1) projectile flare set.
- One (1) hand-held smoke marker.
- Suitable approved fire extinguisher – one (1) per engine – serviced annually.
- Two (2) oars or paddles (Only required with a single engine installation).
- Capsize bottle and rope – rope to be minimum 1.5 times the length of the vessel.
- Spares and tools.
- One (1) sound signalling device.
- Suitable anchor 5kg, 5m chain and 50m rope.
- Emergency steering.
- ID sheet – where vessel is not of highly conspicuous colour.
- First aid kit.

Category R

Vessels operating solely in sheltered waters. This includes tidal lagoon, tidal river, dams, lakes, and rivers.

- One (1) 50N life jacket, with whistle attached, per person on board.
- One (1) suitable approved fire extinguisher per motor (serviced annually).
- Suitable oars or paddles (Only required with a single engine installation).
- Capsize rope (plus snap ring) – minimum 1.5 times length of vessel.
- Tool kit.
- Minimum two (2) litres fresh water.
- Suitable 5kg anchor, 5m chain and 50m 3-strand rope.
- Emergency steering.
- First Aid Kit.

1.2. Boat owners' and users' responsibilities

It is your responsibility as the boat owner and user to ensure that the fire control equipment is always accessible.

- Check the fire extinguishing equipment regularly at the intervals specified for the equipment.
- Check that the annual fire extinguishing equipment service is signed off and that the new service date interval is written on the fire extinguishing equipment.
- Service fire extinguishers on a yearly basis, as indicated on your equipment.
- Replace faulty fire extinguishers.
- Refill discharged / expired fire extinguishers.
- Advice the crew and guests of the location and instructions for use of the fire control equipment.
- Ensure that you have an emergency steering fitted to your engine(s) with a handle for it easily accessible.

Never obstruct access to fire safety equipment.

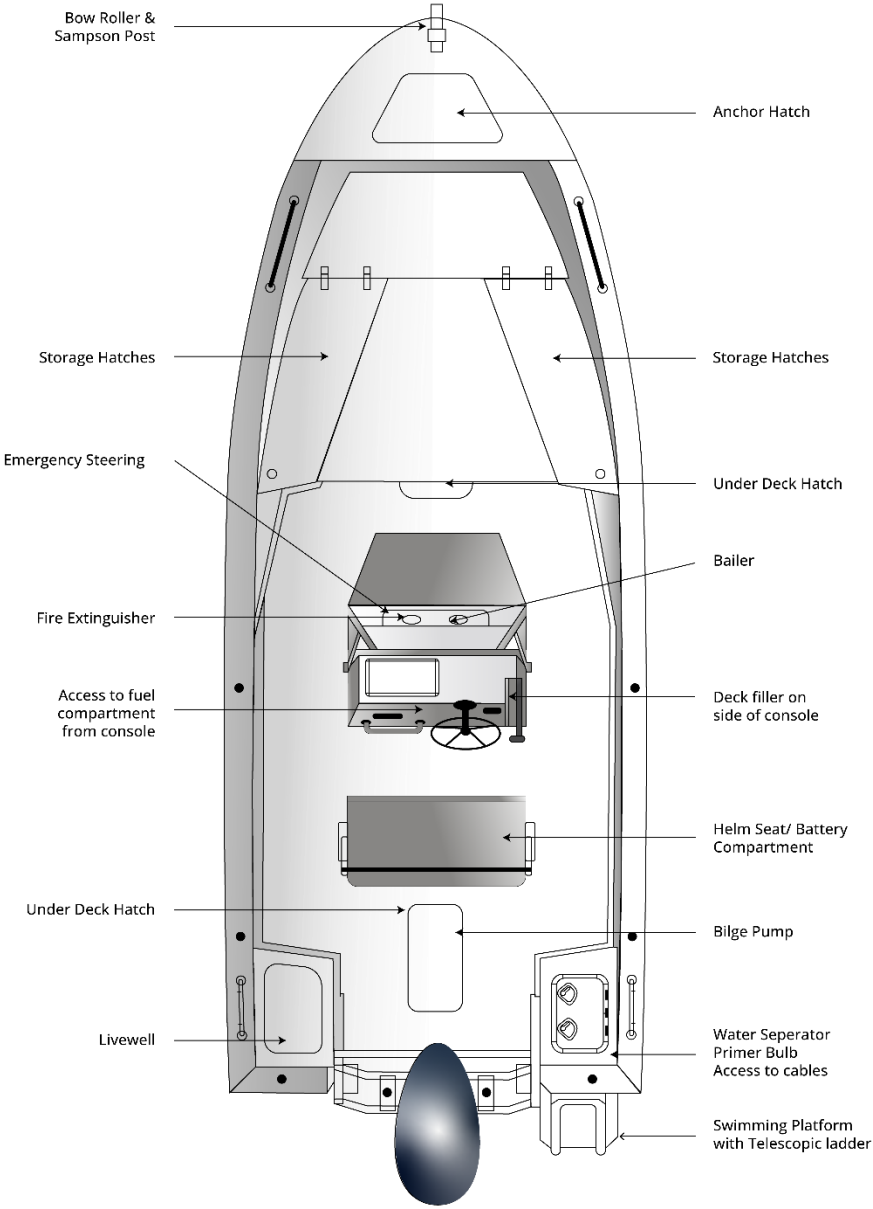

Bow Roller &
Sampson Post
Anchor Hatch
Storage Hatches
Storage Hatches
Emergency Steering
Under Deck Hatch
Bailer
Fire Extinguisher
Access to fuel
compartment
from console
Deck filler on
side of console
Helm Seat/ Battery
Compartment
Under Deck Hatch
Bilge Pump
Livewell
Water Seperator
Primer Bulb
Access to cables
Swimming Platform
with Telescopic ladder

Figure 1

1.3. Pre-operation Check List

1. Make sure every passenger is wearing a suitable personal flotation device.
2. If boating with passengers, instruct at least one passenger on the basics of boat handling, starting, and operating the outboard motor(s).
3. Check that every passenger is securely seated and holds a safe line, grab handle or rope.
4. Make sure that there is a 4m towing rope in the boat.
5. Make sure the load in the boat is distributed evenly.
6. Make sure you respect the maximum load specified for the boat as described on the builder's plate.
7. Make sure that all safety gear is on board, e.g. whistle, floating ropes, waterproof flashlight, first aid kit, fresh water, tool kit.
8. Check that the boat is equipped with two (2) paddlers or oars. Unless the boat is fitted with two motors.
9. Make sure the outboard motor(s) is securely fastened to the transom.
10. Ensure that you have your emergency steering on board for the motor(s).
11. Make sure the drain plug(s) is fully functional and tightened.
12. Check fuel tank level and make sure it suits your plan.
13. Start the outboard motor(s) and make sure it stops when the lanyard is disconnected from the lanyard switch.

1.4. Man Overboard Prevention and Recovery

- Do not stand while the boat is under way. Use the allocated seating areas on the vessel.
- Moving about in the aft deck and on the front deck while the boat is under way is not recommended.

In case of man overboard, the easiest way to get back on board is by using the swim ladder. The ladder can be pulled down from the water.

Standing in the bow of the boat is not recommended in speeds exceeding 30 knots.

If the bow cushions are in place, observe the maximum speed of 30 knots (55.56km/h) to avoid the cushions from coming off.

A revolving propeller is life-threatening to a swimmer or a person who has fallen overboard.
- Use the dead man's switch.
- Turn off the engine when someone is climbing on board.

2. Product Overview

2.1 Model Comparison

DESRIPTION	FUSION 17	FUSION 19	FUSION 21
Internal Volume	3.04cu	4.19cu	5.95cu
LOA	5.69m	5.981m	6.68m
BOA	2.1m	2.4m	2.42m
Freeboard (Amidship)	0.46m	0.68m	0.75m
Draft (Light Condition mass)	0.33m	0.41m	0.392m
Deadrise	13.9 degrees	15.6 degrees	15.4 degrees
Transom	15 degrees	15 degrees	15 degrees
Transom Height	580mm	765mm	765mm
Electronic trolling motor	80 pound thrust 60-inch shaft	105/115 pound thrust 60/70-inch shaft	115 pound thrust 72-inch shaft
Min HP and Shaft lengths	Single: 60 HP L Twin: 30hp L	Single: 90 HP XL / Twin: 50 HP XL	Single: 150 HP XL / Twin: 70 HP XL
Max HP and Shaft lengths	Single 130 HP L Twin: 2 x 40 HP L	Single: 225 HP XL / Twin: 100 HP XL	Single: 350 HP XL / Twin: 130 HP XL
MAX KW	115KW	170KW	260KW
GRP Construction	Yes	Yes	Yes
Wet deck	Yes	Yes	Yes
CAT C Buoyancy	106.78%	89.04%	101.52%
SAMSA CAT R	7 People	9 People	10 People
SAMSA CAT E	5 People	6 People	8 People
SAMSA CAT D	5 People	6 People	6 People
SAMSA CAT C	4 People	6 People	6 People
Trailer Wheels	14" Single	14" Double	14" Double
LOA on trailer with motor up	7910mm	8290mm	9027mm
LOA on trailer with motor down	7590mm	8098mm	8487mm
HOA overall on trailer	2150mm	2375mm	2545mm

Gross Vehicle Mass	1600kg	2500kg	2500kg
Weight of boat	540kg	780kg	880kg
Weight of trailer (Tare)	380kg	460kg	460kg
Boat and trailer weight combined (Dry)	920kg	1240kg	1340kg

Maximum and Minimum load capacity based on design category;

Model	Craft Design Category	Vessel Weight	Outboard Engine	Load	Optional Equipment & Fittings	Crew& effects weight	Provisions inc personal affects	Light Craft Condition Mass	Maximum Load Condition Mass
Fusion 17	C	540kg	230kg	120kg	118.6kg	300kg	10kg	890kg	1318.6kg
Fusion 19	C	780kg	330kg	120kg	280kg	450kg	10kg	1230kg	1970kg
Fusion 21	C	880kg	360kg	120kg	243.6kg	450kg	15kg	1360kg	2068.6kg

A craft given design category c is designed to operate in typical steady winds of Beaufort Force 6 or less and the associated significant wave heights of up to 2m.

Do not exceed the maximum recommended number of persons. Regardless of the number of persons on board, the total weight of persons and equipment must never exceed the maximum recommended load. Always use the seats/ seating spaces provided. Refer to the builders' plate or buoyancy certificate for maximum recommended number of people.

When loading the boat, never exceed the recommended maximum load. Always load the boat carefully and distribute loads appropriately to maintain design trim. Avoid placing heavy weights high up.

Do not install an engine on this boat with a higher rated power than that indicated on the Builder's plate or buoyancy certificate.

Do not operate the boat with an engine of rated power greater than the maximum recommended power. Overpowering a boat can result in serious injury, damage, or death.

2.2. Stability and Buoyancy

Pay attention to the stability and buoyancy of the boat. All weight dispositions (for example installing a tower, trolling motor, or engine) can have a significant impact on the stability, trim, and performance of the boat.

In severe weather and sea conditions, all hatches, compartments, and doors must be kept closed to minimize the risk of flooding.

Breaking waves represent a significant danger to stability.

2.3. Builders Plate

Builders Plate – Part of the information is given on the builder's plate affixed on the craft. A full explanation of this information is given in the relevant sections of this manual. Refer to the below diagram for a detailed explanation;

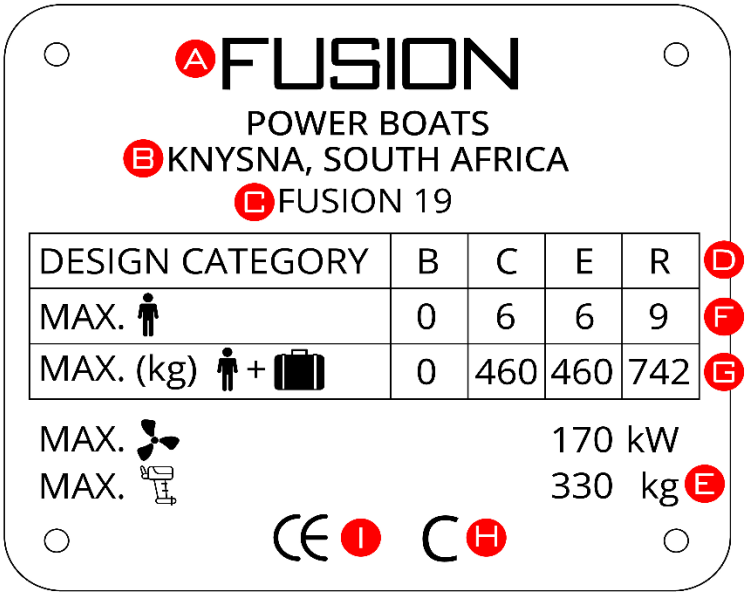


Figure 2

a- Name of manufacturer
b- Location where manufactured
c- Model
d- Design Category
e- Maximum motor power
f- Maximum number of persons
g- Maximum load capacity
h- Craft Design Category
i- CE Certified

2.4. Identification

Each boat has a unique identification code, containing fourteen (14) characters and a hyphen. The vessel's unique hull identification number can be found as follows;

1. Buoyancy certificate (This is supplied by the factory on handover off your vessel. Please ensure that this is handed to the owner and or new owner of this vessel).
2. An affixed plate is located on the starboard side, on the outer of the transom.

Below an explanation of the unique hull identification number;

EXAMPLE: ZA - FPB17145C323

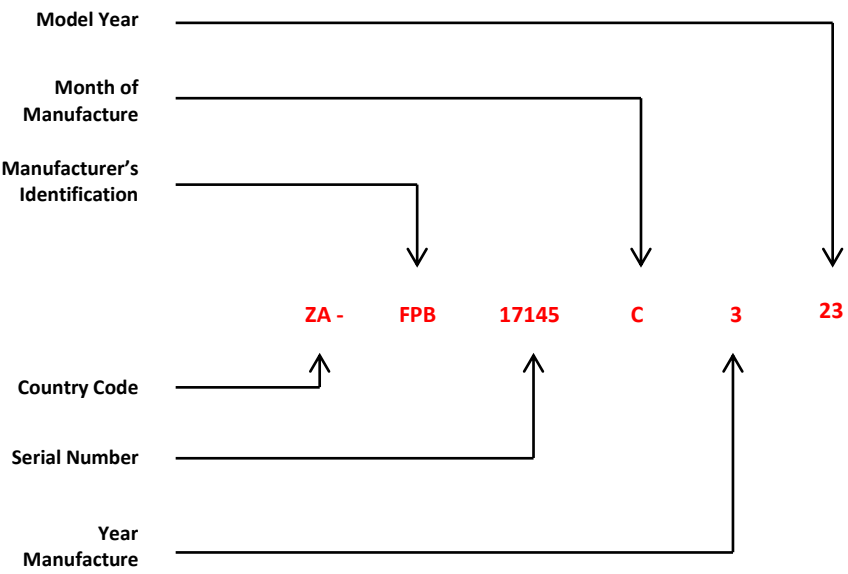


Figure 3

3. Manufacturing Breakdown

Fusion 17	**Hull**	The keel of the hull is 13mm thick and reinforced with Kevlar all along the keel. The side panels are 5-6mm thick. The hull is reinforced with 600g Double Biaxal.
	Deck	The deck is 6mm thick and reinforced with coremat.
Fusion 19	**Hull**	The keel of the hull is 16mm thick and reinforced with Kevlar all along the keel. The side panels are 6-7mm thick. The hull is reinforced with 600g Double Biaxal.
	Deck	The deck is 6mm thick and reinforced with coremat.
Fusion 21	**Hull**	The keel of the hull is 18mm thick and reinforced with Kevlar all along the keel. The side panels are 7-8mm thick. The hull is reinforced with 600g Double Biaxial.
	Deck	The deck is 7mm thick and reinforced with coremat.

3.1. Transom Board

The transom of the boat is strengthened using Coosa board; CoosaBoard is a high-density, closed-cell polyurethane foam, layered with fibreglass. This board is used as an alternative to plywood and other traditional unreinforced core materials ensuring a longer lifespan.

3.2. Transom Heights

3.2.1. Single Installations

Model	
Fusion 17	Longshaft
Fusion 19	Extra Long / Ultra Long Shaft
Fusion 21	Extra Long / Ultra Long Shaft

3.2.2. Twin Installations

Model	
Fusion 17	Longshaft
Fusion 19	Extra Long Shaft
Fusion 21	Extra Long Shaft

4. Conduit Layout

View the below diagram to see the access points and layout of pipes and gutter in the hull of the boat.

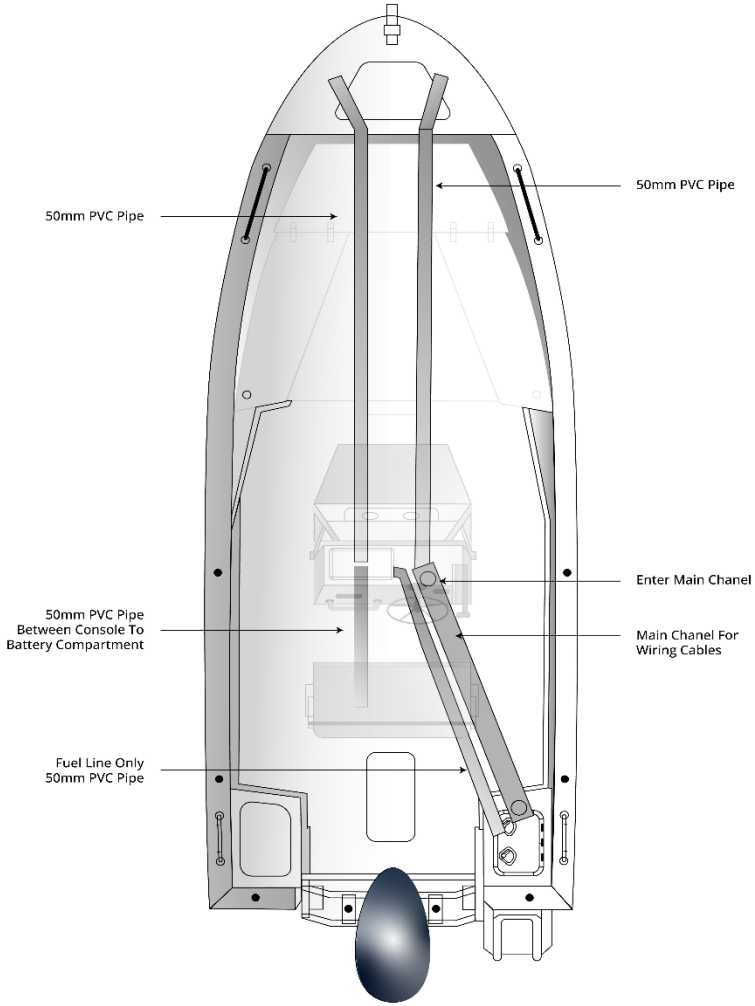


Figure 4

5. Drainage

5.1. Bungs

Fusion 17

The Fusion 17 has one bung located on the keel of the transom, as per the below image. When removing the drain plug any water in the hull of the boat will be drained.

Should you experience any irregular volume of water please check the following:

- Was your bung plug secured.
- Check that the rubber/plastic seal is still on the threaded cap.
- Check that no sand or dirt is on the thread when securing the cap to the affixed housing.
- Should you still experience irregular volumes of water contact the factory for further default checks.

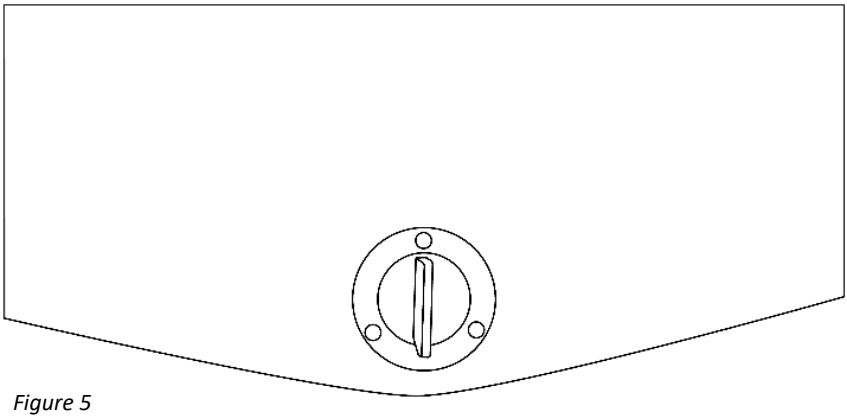


Figure 5

Fusion 19 / Fusion 21

The Fusion 19 and 21 have three drain plugs on the keel of the transom. One for each under deck compartment, refer to image below.

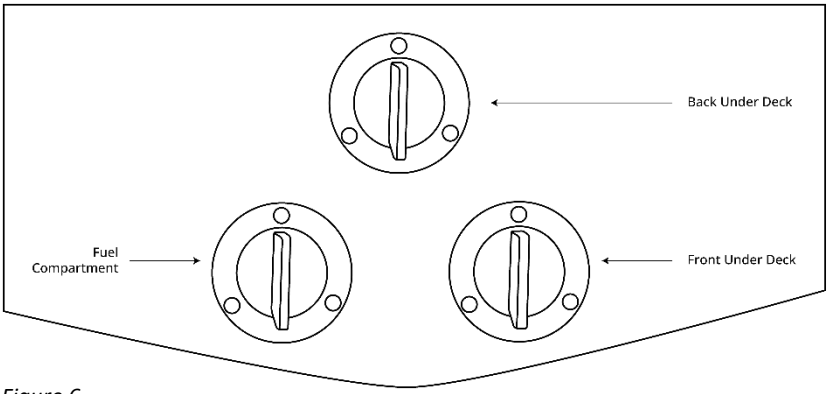


Figure 6

Should you experience any irregular volume of water please check the following:

Was your bung plug secured.

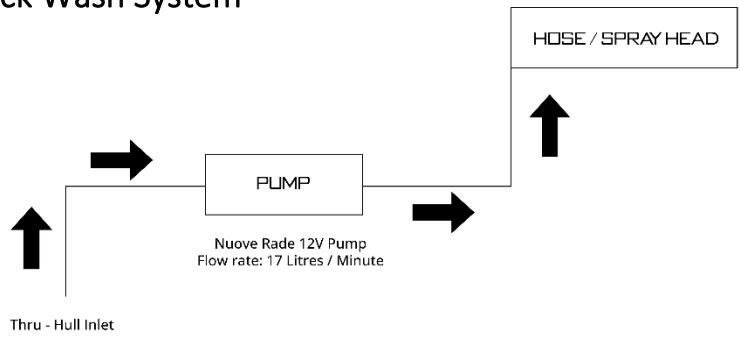
- Check that the rubber/plastic seal is still on the threaded cap.
- Check that no sand or dirt are on the thread when securing the cap to the affixed housing.
- Should you still experience irregular volumes of water contact the factory for further default checks.

CAUTION

Do not open the drain plug when the boat is afloat.

Do not try to access the drain plug when motor is running. The propeller may cause serious injury.

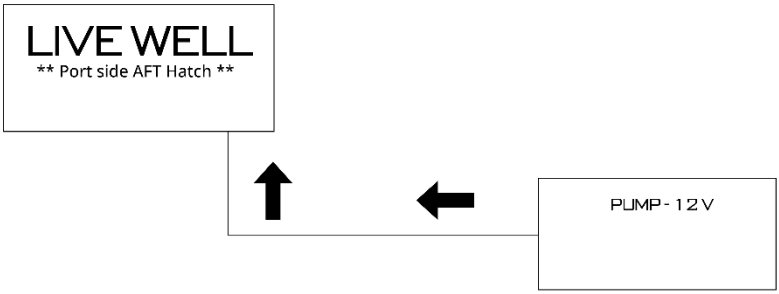
6. Deck Wash System



*Keep close when not in use.

Figure 7

7. Live Bait Water Aeration System



** Keep close when not in use.

The 2 top holes must not be closed during use.

Figure 8

8. Thru Hull and Seacock Location

8.1. Fusion 17

The thru hull for the deck wash system is located in the outer starboard corner of the starboard aft hatch.

The thru hull for the Livewell is situated in the same location.

8.2. Fusion 19 and 21

The thru hull for the deck wash system is located in the inner starboard corner of the under deck aft hatch.

The thru hull for the Livewell is situated on the opposite side of the deck wash system. It can be found on the port side of the inner hatch.

9. Bilge Pump

Each Fusion 19 and 21 are equipped with an electric bilge pump located in the rear under deck hatch of the boat.

The bilge system is designed to enable keeping the bilge water level at a minimum. The submersible electric bilge pumps are equipped with a float which triggers them automatically if there is water in the bilge space. The electric bilge pumps can also be controlled manually from the switches on the steering console.

The bilge system is not designed for damage control.

The combined capacity of the bilge system is not designed to pump out the boat in the event of hull damage.

Do not run the pumps dry for a long time. The pumps will be damaged.

Before every use, make sure that:

The bilge pumps can operate freely, and there are no objects blocking operation.

Water can flow through the strainer, and there is no muck or material restricting the water flow. Clean the strainer by pushing the lock tabs in the pump motor and lifting the motor unit off.

9.1. Bilge pumps and outlets

9.1.1. Fusion 19

- Minimum bilge pump output of six hundred (600) litres per hour (158.50 gallons).

9.1.2. Fusion 21

- Minimum bilge pump output of nine hundred (900) litres per hour (237.755 gallons).

10. Deck Hatch

Under deck Hatches:

- The Front under deck hatch can be filled for more stability in rough waters.
- The Back under deck can be filled for skiing.
- If by chance you get water in the gunnels or rigging convoy it will drain out into the fuel tank compartment *(Refer to image 6).*

The Deck hatches can be used as:

- Fish Hatch
- Storage space

11. Fuel Tank Layout

11.1. Fusion 17

The Fusion 17 can be fitted with either a built in 60l fuel tank or two jerry cans fitted in the helm seat.

11.1.1. Built in 60L Fuel Tank

The fuel tank is located underneath the console and can be accessed via a hatch in the console. The tank is 3mm thick and pressure tested by the manufacturer and factory. Each tank is epoxy coated and comes with a service drainpipe. On a single installation one of the outlet pipes to the motor must be blocked off. The fuel filler can be accessed on the starboard side of the console and has a breather situated above it, which allows fuel vapours to release.

11.1.2. Jerry Cans

The helm seat allows for enough space to fit two 25L Jerry Cans. With this option it is important that the jerry cans have breathers, and the helm seat compartment has enough ventilation for the fuel vapours to evaporated.

11.2. Fusion 19 & Fusion 21

Each Fusion 19 and 21 are manufactured with a built in 200L Aluminium Fuel Tank accessible from a hatch in the console. The Tank is 3mm thick and pressure tested by the manufacturer and factory. Each tank is epoxy coated and comes with a service drainpipe. The fuel filler can be accessed on the starboard side of the console and has a breather situated above it, which allows fuel vapours to release. On a single installation one of the outlet pipes to the motor must be blocked off.

The fuel tank needs to be serviced annually.

Service Checklist:

Year Serviced:	**Signature:**

Refer to the below fuel tank design:

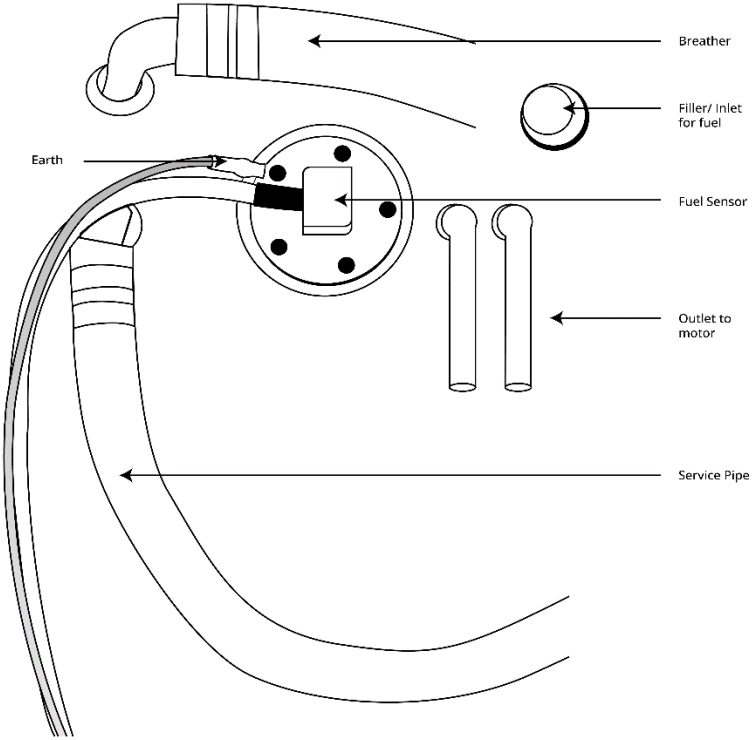


Figure 9

NOTICE

- Never obstruct access to fuel shut-off valves.
- Never obstruct fuel or fuel compartment ventilation or access to your fuel tank compartment.
- A nominal fixed fuel tank(s) capacity may not be usable according to trim and loading and a 20% reserve should be kept.

CAUTION

- Do not fill the fuel tank with engines running.
- Never smoke while handling fuel or working in the fuel tank compartment.
- Do not store fuel containers in any compartment that is not designated for it.
- Never install batteries directly above or below fuel tank.

12. Swimming Platform

Once your boat is stationary in the water your stepladder can safely be opened. As a precaution do not open your ladder while the boat is operated. The Maximum weight that the swimming platform can safely take is 110 kg.

13. Casting Platform

Steps to remove your casting platform.

- Loosen the two wing nuts at the bottom of the casting platform.
- Lift the casting platform ninety (90) degrees to the seating area.
- Each casting platform is fitted with two stainless-steel free-swinging hinges. When casting deck is upright, slide to starboard side to remove.

14. Stainless Steel Ski Bar

Max tow load capacity is 110kg.

15. Windscreen

The best way to clean your windscreen is by using warm water with a drop of sunlight liquid and a clean, soft cloth.

***Please make sure the cloth is clean from dust before cleaning, this can cause the screen to scratch.**

Don't use any kind of chemical. The chemicals in the silicone and other chemicals cause crazing to the Polycarb.

16. Wiring Diagram

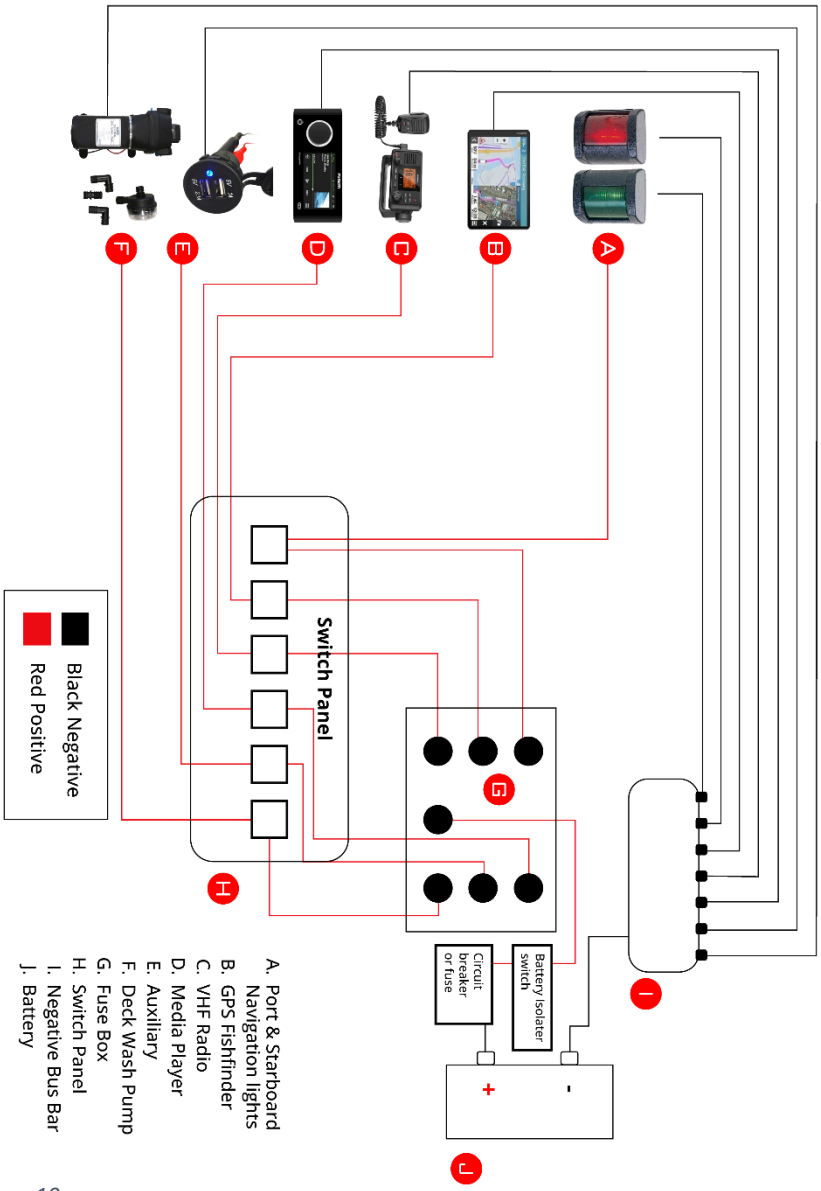


Figure 10

Each Fusion Power Boat has a custom manufactured six- or nine-way switch panel included.

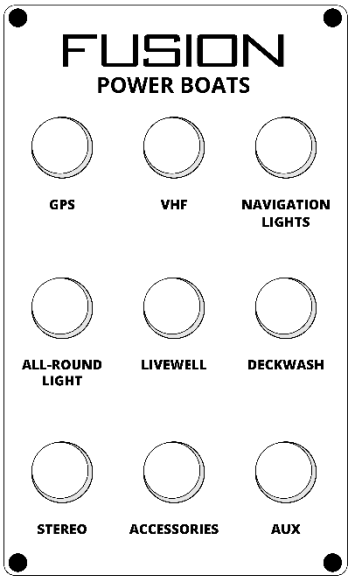


Figure 11

- Never work on an installation while it is energized.
- Never alter the rated current amperage or overcurrent protective devices.
- Never leave the craft unattended with the electrical system energized.

17. Battery

Battery (s) need to be placed within the helm seat of the boat (refer to figure 1). If a Fusion 17 is fitted with a Jerry can (s), the battery (s) must be placed inside the console.

Should you require additional battery storage it is recommend placing your batteries in the front storage compartment to allow for weight distribution.

We recommend that the battery isolator switch is mounted inside of the helm seat and that a fuse or circuit breaker are also connected.

- It is important that the compartment that your battery (s) are placed in has ventilation.
- Never obstruct the battery compartment ventilation.

17.1. Cleaning the batteries

The top of the batteries needs to be cleaned regularly to avoid current leakage between the cells. The terminals and cable terminals must be lubricated to prevent deposits and corrosion.

18. Mounting of the Outboard

This is a brief outline – please consult your engine manual and follow the instructions on mounting.

- Place the engine on the transom, well centred, on the bow-stern axis of the craft.
- For best outboard engine performance, it is essential to position the engine at the correct transom height (refer to transom heights – pg 17).
- Please consult your engine manual or dealer.

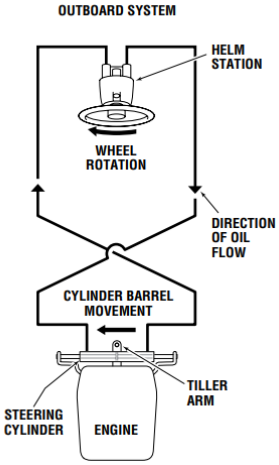
Any holes drilled through the transom must be properly sealed to prevent water penetrating the boat.

19. Hydraulic Steering System

We recommend using the Baystar Hydraulic steering system for motors up to 150hp. For motors above 150hp we recommend using the Seastar Hydraulic system.

For fitment of your hydraulic steering please follow the detailed guide. For further information regarding fitment contact a qualified Seastar dealer or representative.

Figure 12



The hydraulic steering system or any other steering system should be fitted by an authorized person only.

20. Engine Start

Before starting the engine, it is imperative:

a) To open the fuel supply valve.
b) To switch on the battery supply by using the battery isolator switch.
c) To put the control lever in neutral.
d) To attach the circuit-breaker/ kill switch lanyard to the pilot.
e) Make it a habit of looking to see if sea water is pumped out the telltale of your outboard engine. If no water squirts out, stop the engine immediately. Check the coolant flow.

21. Trailer Maintenance

21.1. Unbraked Axle Maintenance Instructions

21.1.1. Bearing Maintenance

1. A maintenance inspection must be completed every 6 months or 10 000km's at which time each hub must be checked.
2. Jack up the trailer and remove the wheels.
3. Remove the grease cap.
4. Remove the split pin and castle nut (& washer if present).
5. Slide the hub assembly off the spindle.
6. Remove the seal and the inner and outer bearing from the drum.
7. Wash the bearing races and the inside of the drum machined surfaces thoroughly with thinners or other grease solvent.
8. Carefully inspect both the bearing races and the bearing shells inside the drum for signs of wear (chips on rollers etc.) and / or overheating (blue colour on rollers and bearing surfaces). If there are no signs of damage to the bearings, proceed with the steps.

Alternatively, If the bearing has worn or overheated, refer to the next section - REPLACEMENT OF BEARINGS.

9. Smear both the bearing shells in the drum with a generous layer of wheel bearing grease. Also rub a generous portion of the same grease carefully into each bearing race.
10. Replace the bearing races into the bearing shells in the drum.
11. Fit a new seal.
12. Slide the drum assembly back over the spindle.
13. Fit the washer (if present) and castle nut; screw the castle nut down tight (use a suitable spanner), then loosen until the drum can be easily rotated by hand, then loosen or tighten until the new split pin can be fitted. There should be no lateral play ("rocking ") in the drum.
14. Fit the new split pin and bend the legs open around the outside of the castle nut.
15. Replace the grease cap into the drum; tap lightly with a hammer and suitable punch until properly seated.
16. After each drum has been serviced and replaced onto the axle(s), replace the wheels - ensure that the wheel nuts / bolts are properly tightened (check them again after the first 10 km have been covered).

21.1.2. Replacement of Bearings

(To be done when bearings show signs of wear / overheating etc. Both bearings in a hub must be replaced at the same time - even if only one appears to be damaged. Each bearing is to be replaced as a unit i.e. the bearing shell and race).

Follow steps 1 to 7 of the MAINTENANCE INSPECTION.

Remove both the bearing shells from the hub - use a suitable punch and hammer to carefully knock them out; take care not to damage the bearing housings (machined surfaces in the hub). Wash inside of the hub thoroughly with grease solvent. Fit the new bearing shells - the tapered face must point toward the outside of the hub. Use a press or else a pipe and hammer (the pipe should have outside diameter slightly less than the diameter of the bearing housing, tap carefully to prevent the bearing shell from cocking in the hub). Follow final steps from MAINTENANCE INSPECTION using the new bearing races.

NOTES:

- Perform a regular external inspection of wheels and hubs - look for leaking / defective seals, missing grease caps and wheel nuts / bolts, etc. If a grease cap or wheel nut / bolt is missing, replace it immediately.
- If the axle is exposed to fresh or salt water, or if it is to operate under particularly severe conditions, the maintenance inspection must be performed more frequently, e.g. every three months (or more often).
- Do not exceed the rated load of the axle - remember that the load carried by the axle is the load on the trailer plus the mass of the trailer itself. To do so will result in damage to the axle material or the bearings.
- Use only one type of grease. Do not mix different brands or types of grease, as this may prove detrimental to the bearings.

21.2. Braked Axle Maintenance Instructions

21.2.1. Bearing Maintenance

A maintenance inspection must be completed every 6 months or 10 000km's at which time each hub must be checked.

Follow same steps as per 20.1.1. and 20.1.2. for bearing maintenance and replacement thereof (Unbraked Axle Bearing Maintenance).

21.2.2. Brake System Maintenance

1. **A maintenance inspection must be completed every 3 months or 3000km's.**

   - Grease all sliding points on the system.
   - Allow for brake lining wear as follows:
     1. Jack up trailer.
     2. Ensure that the brake lever is in the released position and that there is no tension in the brake cables.
     3. Turn adjustment pin until the wheels lock, then release till the wheels rotate freely.
     4. Check uniformity on all brakes.

2. **A maintenance inspection must be completed every 3 months or 3000km's.**

   - Jack up trailer and remove the drums.
   - Check the linings of the brake shoes - reline or replace if necessary (if the shoes need replacement, replace the springs as well).
   - Examine the cables and drawbar assembly and repair / replace accordingly.

22. Trailer Warranty

We offer a one-year limited warranty for any product found to have a defect part due to poor workmanship or material defect. This warranty covers the original owner and is subject to a warranty approval by us after an inspection of the part(s) involved, for Multi-Trail to decide whether the components are not consistent with our norms (form, fit, function and quality).

The following are not included in the warranty:

- Damage due to application out of the norm, negligence, misuse, or abuse.
- Damage due to incorrect fitment or repairs done by owner or unauthorized party.
- Damage after modifications or repairs done by owner or unauthorized party.
- Damage through accident.
- Damage due to overloading (with reference to trailer data plate information).
- Damage due to negligence by the owner to perform reasonable maintenance on the trailer.
- Deterioration of cosmetic finishes (e.g. paint colour fastness, galvanising, aluminium or stainless steel surface brightness or discolouration, synthetic material cracking).
- Normal wear and tear of components (e.g. tyres, shock absorbers, gas struts, hinges, locks, latches, bearings, brake cables, brake linings, seals, pins, bushes, lights, couplers).
- Recovery costs from point of breakdown.
- Transport costs to workshop for repairs.
- Secondary costs due to breakdown (e.g. delay costs).
- A warranty offered by an authorized party will not be covered by Fusion Power Boats or Multi-Trail.
- A warranty offered by a Multi-Trail/Fusion Power Boats supplier will not be covered by Fusion Power Boats or Multitrail. Such warranty is covered by the supplier.

The warranty is applicable from the date of sale, for the mentioned period, if reported by the original owner within the warranty period. The defect will be replaced according to the discretion of Fusion Power Boats/Multi-Trail.

23. Factory Warranty

Fusion Power Boats provide the following 5-year limited warranty to the registered owner. The warranty covers use under normal conditions and applications.

5 YEAR STRUCTURAL LIMITED WARRANTY

Any structural defect in the hull, deck and or any components manufactured by Fusion Power Boats whether in material and or workmanship. The hull being the under section and the deck the top section, which are permanently attached together. This defect must be reported to an authorised Fusion Power Boats dealer or the Fusion Power Boats factory, within the stipulated 5-year period. It is at the sole discretion of Fusion Power Boats to determine whether said mentioned defect is covered as part of the 5-year structural warranty. A structural defect shall mean a defect that may either render the boat unsafe, under normal use for which it was designed, or which may not be acceptable standards that are consistent with the Fusion Power Boats norm. It is at Fusion Power Boats sole discretion, to a point, whom must do the repair of said defect.

EXCLUSIONS

- The warranty shall not apply to any product that has been damaged through accident, modified, salvaged, or declared a total loss through damage or negligence.
- Cost of transport to and from an authorized Fusion Power Boats dealer or authorized repair shop, or to the Fusion Power Boats factory for any warranty work. This includes any recovery costs that may be involved.
- Damage resulting from misuse, abuse, improper rigging, or fitting done by the owner or any authorized or unauthorized party.
- Damage resulting from overloading or overpowering according to the specified maximums as shown on the Fusion Power Boats specification sheet.
- Equipment fitted by Fusion Power Boats or an authorized dealer, the owner or an unauthorised party that carries its own manufacturer's warranty. The warranty of such manufacturer shall apply.
- Windscreen breakage and deterioration.

- Deterioration of cosmetic gelcoat finishes, painted and epoxy coated surfaces which includes fading, chalking, crazing and discolouration, stress lines, stainless steel finishes and acrylic or plastic crazing and cracking.
- Failure by the owner to use and maintain the boat in a reasonable manner.
- Normal wear and tear and maintenance items are excluded from warranty coverage – these include, but are not limited to, batteries, bulbs, filters, bungs, finishes, cables, and wiring.
- Any Fusion Power Boat that has been altered, added to, or modified in any way, unless such changes have been authorized by Fusion Power Boats or been done by Fusion Power Boats.
- Any representation or implication relating to speed, performance, handling characteristics, fuel consumption and range.
- The boat trailer is covered under its own manufacturer's warranty.

OWNER OBLIGATIONS

All warranty claims must be initiated by the owner as soon as possible after a fault or defect is detected which may result in a warranty claim. Notice of intention to initiate a claim should include a description of the nature of the defect (with photos where possible), together with the boat serial number, date of purchase and dealer from where the boat was purchased. The authorized Fusion Power Boats dealer, should the claim be initiated through the dealer, must notify the Fusion Power Boats factory as soon as a claim is lodged by the customer. Fusion Power Boats will give written consent as well as advice on the remedial action that should be taken. No remedial work is authorised without the written consent of the Fusion Power Boats factory. Any unsatisfactory repair work that has been done by an authorized Fusion Power Boats dealer should be brought to the attention of the Fusion Power Boats factory within the shortest possible time of such repair work being carried out.

As with any purchase, the owner has a responsibility to take the necessary care and maintenance of his purchase, to ensure that they get the full benefit and pleasure from the purchase.

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