River 460
produced by roto

OWNER'S MANUAL

RIVER 460


MERCURY
River 460
SUSTAINABLE
NORWEGIAN BOATING


SUSTAINABLE
NORWEGIAN BOATING


TOHATSU
River 460

DEAR OWNER

We would like to **CONGRATULATE** you on the purchase of your new **RIVER 460** boat and thank you for the faith you have placed in the dealer ROTOSTØP AS.

We stand behind every boat we build with pride of craftsmanship and always strive to deliver the best boats available.

This Owner's Manual contains information you will need for proper operation, maintenance, and care of your boat. A thorough understanding of these simple instructions will help you to obtain maximum enjoyment from your new **RIVER 460**.

If you will need help, we will be happy to help you to maintain your boat and answer questions concerning operation, maintenance, warranty, performance, accessories, parts and service. Information and assistance is available via our website **riverboats.no**.

Enjoy your RIVER 460. See you at sea!

Information in this publication is based upon the latest production specifications available at printing. Roto d.o.o. reserves the right to make changes at any time, without notice, in the colours, equipment, specifications, materials and prices of all models, or to discontinue models. Should changes in production models be made, Roto d.o.o. is not obligated to make similar changes or modifications to models sold prior to the date of such changes. Minor deviations between the manual, technical specifications and the physical boat may occur.

DECLARATION OF CONFORMITY OF RECREATIONAL CRAFT

FOR 15 January 2017 “Regulations on the manufacture and sale of recreational craft and personal watercraft, etc.”
Directive 2013/53 /EU replaces Directive 94/25/ES, as amended by Directive 2003/44/ES.
(For 20 December 2004 no. 1820 is repealed by FOR 15 January 2016.)
Directive 94/25/EC and Directive 2003/44/EC are repealed with 18 January 2016. The transitional period lasts until 18 January 2017.

MANUFACTURER OF THE RECRENATIONAL CRAFT

Name of recreational craft manufacturer: ROTO d.o.o.
Address: Gorička ulica 150, Černelavci, SI-9000 Murska Sobota, Slovenia

NAME OF AUTHORIZED REPRESENTATIVE:

Name: ROTOSTØP AS

Address: Østkilen 10, 1621 Gressvik, Norway

ID Number:

NAME OF NOTIFIED BODY FOR DESIGN AND CONSTRUCTION ASSESSMENT:

International Marine CertificatIon Institute
Address: Rue Abbé Cuypers 3, B-1040 Bruxelles, Belgium
ID Number: 0609

EF TYPE TEST CERTIFICATE NUMBER: BROTP001 – 27.05.2019

Module used for design and construction assessment: ☐ A ☒ A1 ☐ B+C ☐ B+E ☐ B+F ☐ G ☐ H

DESCRIPTION OF RECREATIONAL CRAFT

Watercraft Identification Number:	SI - ROT0A
Brand name of the Recreational Craft:	460

Type of construction:	Rigid
Type of hull:	Monohull
Hull construction material:	Polyethylene HDPE

Recreational Craft

Design category:	C/D
Maximum number of persons:	4/5
Maximum load:	582 / 677 kg
Length of hull LH:	4,50 m
Beam of hull BH:	1,80 m
Maximum Draught T:	0,10 m
Deck:	Open

Craft main propulsion:	Engine/motor propulsion
Integral exhaust propulsion:	Yes
Maximum Recommended engine power:	30 kW
Maximum recommended engine mass:	124,1 kg

This declaration of conformity is issued under the sole responsibility of the manufacturer. I declare on behalf of the manufact urer that the recreational craft mentioned above fulfils the requirements specified in Article 4 (1) and Annex I of Directive 2013/53/EU.

Name and function:

Date and place of issue (dd/mm/yyyy):

Signature:

Essential requirements (reference to relevant articles in Annex IA & IC of the Directive)	**Harmonised standards** Full Application	**Harmonised standards** Partial application, see tech. file	**Other reference documents**[3] Full Application	**Other reference documents** Partial Application , see tech. file	**Other proof of conformity** See technical file	**Specify the harmonised[4] standards or other reference documents used** (with year of publication like "EN ISO 8666:2002")
	Tick only one box per line					***All lines right of ticked boxes must be filled in***
General requirements (2)						
Principal data – main dimensions	☒	☐	☐	☐	☐	EN ISO 8666:2002
Watercraft Identification Number – WIN (2.1)	☒	☐	☐	☐	☐	EN ISO 10087:2006
Watercraft Builder's Plate (2.2)	☐	☐	☒	☐	☐	EN ISO 14945:2004/AC:2005
Protection from falling overboard and means of reboarding (2.3)	☐	☐	☒	☐	☐	EN ISO 15085:2003/A1:2009
Visibility from the main steering position (2.4)	☐	☐	☒	☐	☐	EN ISO 11591:2011
Owner's manual (2.5)	☐	☐	☒	☐	☐	EN ISO 10240:2004
Integrity and structural requirements (3)						
Structure (3.1)	☐	☐	☐	☐	☒	Technical file
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	EN ISO 12217-3:2017
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	EN ISO 12217-3:2017
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	EN ISO 12217-3:2017
Flooding (3.5)	☒	☐	☐	☐	☐	EN ISO 15083:2003
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	EN ISO 14946:2001/AC:2009; EN ISO 12217-3:2017
Liferaft stowage (3.7)	☐	☐	☐	☐	☐	N.A.
Escape (3.8)	☐	☐	☒	☐	☐	N.A.
Anchoring, mooring and towing (3.9)	☒	☐	☐	☐	☐	EN ISO 15084:2003

Handling characteristics (4)	☒	☐	☐	☐	☐	EN ISO 11592:-1:2016
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	N.A.
Ventilation (5.1.2)	☒	☐	☐	☐	☐	EN ISO 11105:2017
Exposed parts (5.1.3)	☐	☐	☒	☐	☐	Directive 2013/53/EU
Outboard engine starting (5.1.4)	☒	☐	☐	☐	☐	EN ISO 11547:1995/A1:2000
Fuel system (5.2)						
General – fuel system (5.2.1)	☐	☐	☐	☐	☐	N.A.
Fuel tanks (5.2.2)	☐	☐	☐	☐	☐	N.A.
Electrical systems (5.3)	☐	☐	☐	☐	☐	N.A.
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	EN ISO 8848:2017
Emergency arrangements (5.4.2)	☐	☐	☐	☐	☐	N.A.
Gas systems (5.5)	☐	☐	☐	☐	☐	N.A.
Fire protection (5.6)						
General – fire protection (5.6.1)	☐	☐	☒	☐	☐	EN ISO 9094:2017
Fire-fighting equipment (5.6.2)	☐	☐	☒	☐	☐	EN ISO 9094:2017
Navigation lights, shapes and sound signals (5.7)	☐	☐	☒	☐	☐	1972 COLREG
Discharge prevention (5.8)	☐	☐	☒	☐	☐	Directive 2013/53/EU
Annex I.B – Exhaust Emissions[5]	see the Declaration of Conformity of the engine manufacturer					
Annex I.C – Noise Emissions[6]						
Noise emissionslevel (I.C.1)	☐	☐	☐	☐	☐	
Owner's manual (I.C.2)	☐	☐	☐	☐	☐	

[3]Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4]Standards published in EU Official Journal.
[5]See Declaration of Conformity of engine manufacturer.
[6]Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust.


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TABLE OF CONTENTS

ABOUT THIS OWNER'S MANUAL

This manual has been prepared to provide the owner/user with the information that is special for the safe use and maintenance of the vessel.

The manual only covers the vessel. Mention of other equipment, such as motor, can be found in the manual for this equipment.

It is assumed that the vessel is not used outside its area of use. It is further assumed that good seamanship is displayed, both during use and maintenance.

Please obtain sufficient expertise before using the boat.

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

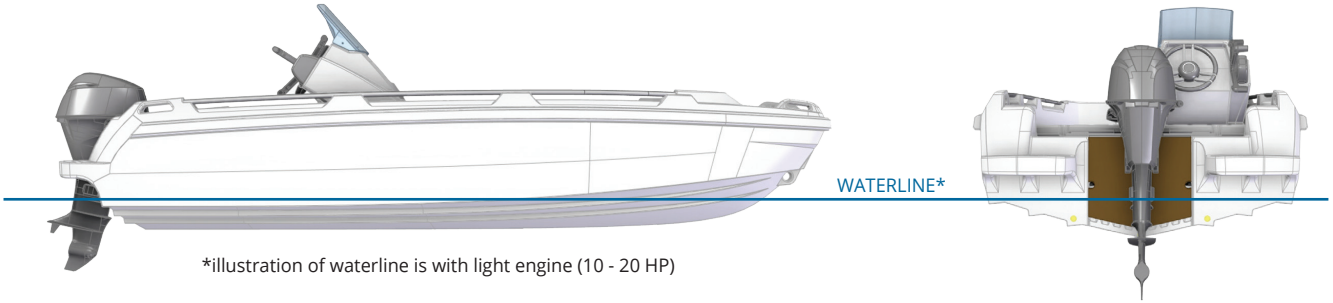
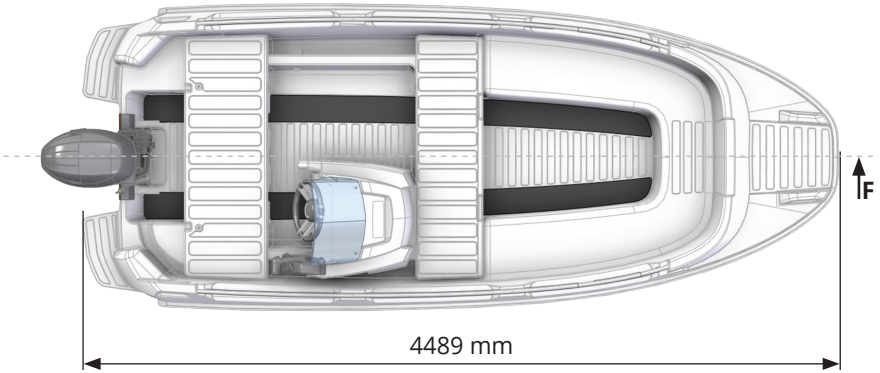
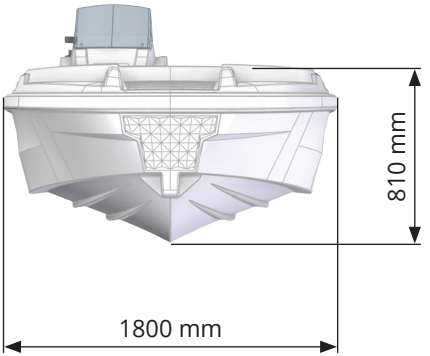
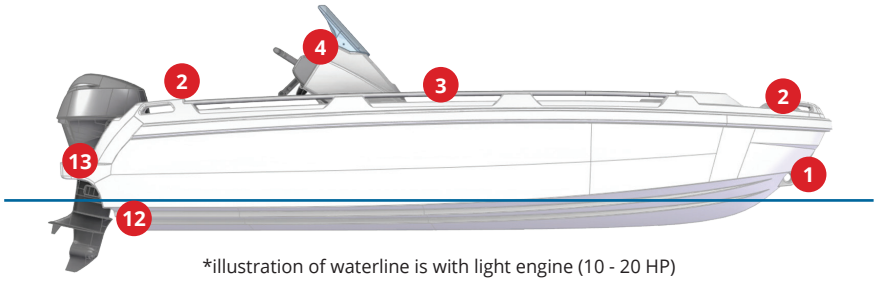


*illustration of waterline is with light engine (10 - 20 HP)







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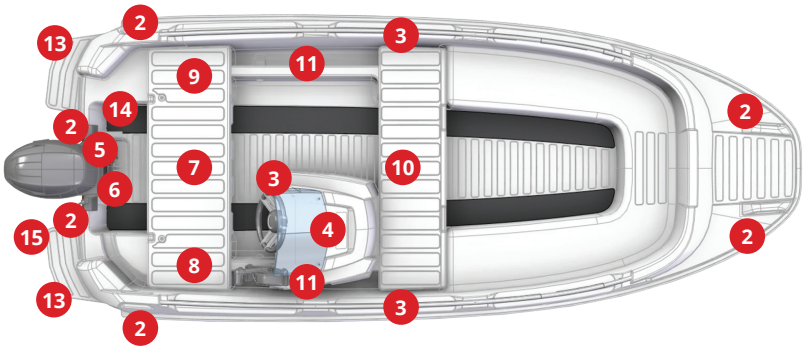


List of parts:

1. Towing point/winch point
2. Mooring points 6pcs. bow and stern
3. Handrail / handle
4. XR steering console with windscreen, steering wheel, and space for throttle / gear control, chart plotter and gauges (*all optional)
5. Transom/engine mounting plate
6. Drainage hole with expanding sealing plug
7. Large storage space for fuel tank and equipment
8. Small storage space for smaller items
9. Battery compartment
10. Large storage space for equipment
11. Open storage compartments for ropes, boat hook etc.
12. Drainage plugs 3 pcs. into chambers / double bottom. For service personnel only!
13. Bathing platforms with the possibility of mounting a rescue / bathing ladder (*optional)
14. CE sign
15. WIN number (“hull number”)

ABOUT YOUR BOAT

Your River 460 has the following main dimensions: **Length:** 4.49 m **Width:** 1.80 m

River 460 is CE approved for 4 adults in design category C and 5 adults in category D. The rules describe that one adult can be replaced with two children, as long as each on board has a secure seat with something to hold on to.

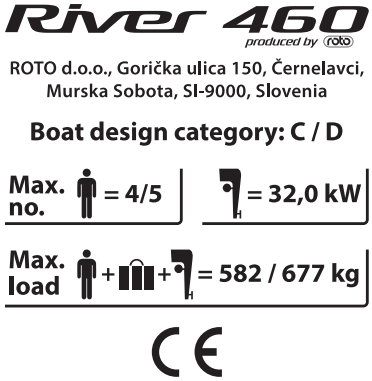
Category C allows the use of the boat up to and including the Beaufort scale strength 6, light gale (max 13.8 m/s) and significant wave height 2 meters (max wave height 3.6 m).

Category D allows the use of the boat up to and including the Beaufort scale strength 4, light breeze (max. 7.9 m / s) and significant wave height of 0.3 meters max wave height (max wave height 0.55 m).

Maximum approved engine size is 40 hp (30 kW). Recommended motorization, best compromise between weight, consumption and practical characteristics is 25-30 hp (19-22 kW).

Note! See also the engine manufacturer's introductory book.

Outboard engine shaft length:	Long
Maximum number of people:	C/D 4/5
Weight of boat (dry and empty):	205 kg
Weight of boat w/steering console:	220 kg
Maximum load:	582 kg
Persons + load + engine max:	677 kg
Draft:	0,1 m



Your River is made of high-quality polyethylene plastic. The material is very impact resistant and durable at normal temperatures. It is fully moulded with a tight cavity which gives the boat very good buoyancy. River 460 is designed with wide step/speed-rails and wide shine in the hull, which gives the boat good planning properties, very good stability, and safe driving characteristics. Holes in polyethylene plastic are difficult to close as ordinary adhesive systems do not adhere over time. Therefore, under no circumstances should holes be made in the boat to install equipment yourself, without first consulting with the manufacturer.

The maximum load of the boat must not be exceeded under any circumstances. The vessel is self-draining, but if manual draining is required, a ladle should be used. The expandable drain plug can be used to advantage with high loads to avoid water entering the floor. It is recommended that the boat is always left without the plug in, so that the boat will drain itself for shorter periods without supervision. Be aware that the insurance companies set their own requirements for supervision in order to fulfil the insurance's validity. It is recommended to check the terms of your insurance company.

CHECK BEFORE USE

Check that no damage has occurred to the vessel. If the watertight hull is punctured, so that water has entered between the inner and outer hull, the vessel has lost its sink-free properties. Make sure that paddles and life jackets for everyone on board are brought. If you have an outboard motor, follow the inspection routines for this (see the engine manufacturer's instruction manual).

USE OF THE VESSEL

Driving a boat involves a responsibility, not only for its own passengers, but also for others traveling on the sea. Your River is a very stable and safe vessel, with good seaworthiness. When manoeuvring and using the vessel, good seamanship must still be demonstrated. Always pay attention to the waters the boat is built for. Breaking waves reduce the boat's stability.

It is important to avoid sudden manoeuvres in relation to safety. It is recommended that the speed is reduced at sea and that loose objects are secured. In rough seas, precautions must be taken in relation to the boat's classification. Note that the stop length increases significantly with increasing speed. Be careful when staying in the bow at high speeds, as well as with the correct placement of passengers and cargo.

When people or loads are moved, be aware of stability changes and take this into account. Load placed high in the vessel reduces stability.

If vessels are equipped with an engine, a deadman switch with a string or electronic bracelet must always be used. Should you fall out of the boat during speed, it is vital that the boat's engine stops immediately, so that it does not continue on its own and is a danger to yourself or the surroundings. It is also important that it stops so that you can save yourself on board again.
The boat is approved and certified for self-rescue without a bathing / rescue ladder. This means that it has been tested and proven that a dressed person in the water manages to get on board again alone. This is easiest to do via the bathing platforms on each side of the stern and using the embedded handle on the railing. However, it will be much easier to get on board via a bathing/ rescue ladder that is available as optional equipment and is mounted on the port bathing platform.

When refuelling, use only an approved fuel tank. Care must be taken, and all use of open flames during filling is associated with a high risk of fire and explosion.

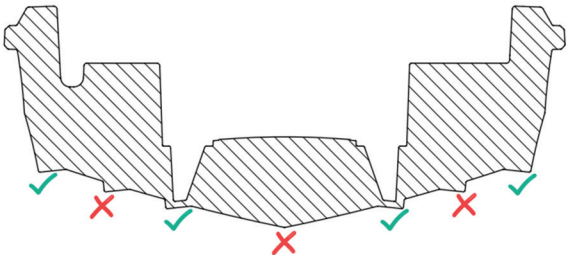
TOWING

When your River is being towed, the strong towing eye under the bow should be used. When your River tows another vessel or object, the stern pullers are to be used. By using a “cock foot”, you will distribute the load on both fasteners aft and achieve better stability and manoeuvrability, as well as a more even load on the hull. When using davit, approved fastening equipment must be used and the boat must be secured for good stability. 20 mm rope must be used for towing and the maximum load on the towing point/attachment is 1000 kg. 3-strand nylon rope with a breaking strength of 7000 kg is recommended.

LANDING, LIFTING AND TRANSPORT

The vessel should not be towed on the ground, as this could cause damage to the bottom. When transporting over land, your River should be lifted using lifting straps. When transporting on a trailer, make sure that the hull does not rest against sharp edges, and that the vessel rests in both specified places (see illustration). The boat must not be transported or stored on a standard boat trailer with a few pulleys/supports. The most ideal solution would be boat trailers adapted to rotationally moulded boats with long wheelbases on each side to distribute the point load well over a large area. The boat is secured/strapped in accordance with regulations for transport, but should not be strapped with great force or stand with force on the straps for a long time as this can cause deformations on the boat.

The illustration below shows a cross section of the boat’s bracing system, and the markers indicate where it will be suitable to support the hull. A warning sign has also been installed on board the boat as a reminder.



ORDINARY MAINTENANCE

Your River is delivered ready for use from the factory/dealer. During the season, small demands are made on maintenance beyond normal cleaning. Almost all means can be used for cleaning. The plastic can withstand everything from ordinary household products to heavier solvents. It is still recommended to test on a small visible field to see if discoloration or changes in the surface form. Minor scratches, scuffs and damage can be easily sanded down and polished up again to a nice surface. The boat can be treated with a special antifouling and primer system that adheres to polyethylene plastic. Contact your dealer or manufacturer for a detailed description.

BOAT STORAGE

In storage, the vessel should be stored dry and covered. The vessel is stored by docking under both side-shines and on inner step/speed-rails (see illustration above). The boat must not be supported along the keel. As a good rule, the storage points should be as large areas as possible so that you do not get permanent deformations at too high point load in a small area. During storage on land, the drain valve (expanding sealing plug) aft at the engine well must be open so that there is no water on the floor.

If the vessel is stored outdoors, it must be covered for snow load, so that this slips off and does not remain wet and heavy on board the boat. In such extreme cases, the boat can be deformed and damaged.

The boat can be winter stored over time on a boat trailer but note that a boat trailer with pulleys/wheels is required that runs the entire length of the boat so that the point load is spread over large parts of the hull, and is placed according to illustration. See LANDING, LIFTING AND TRANSPORT.

USE OF HEAT

Polyethylene loses its strength when heated significantly beyond normal temperatures. Therefore, do not use open flames or other heat on board the boat. In the event of ignition or excessive heating, it will produce heavy smoke (non-toxic), the plastic will become shiny, brittle and lose its mechanical properties, and the boat will no longer meet the current requirements and rules for safe use at sea.

REPAIRS AND DISPOSAL

In the event of minor damage to the hull, these can be repaired by melting plastic into the damage. This work should be performed by qualified professionals. When your River is condemned, it must be delivered to a reception for plastic waste. Rotostøp AS can assist in such a process with a mortgage scheme, so that everything is secured in as environmentally friendly way as possible. In the future, a condemned River will be seen as a resource and possible raw material for new recycled production, and thus take part in a circular economy with a minimal climate footprint.

WARRANTY

Your River is delivered with a guarantee against manufacturing and material defects in accordance with the Norwegian Consumer Purchase Act. For other countries other guarantee rules may apply. This will be stated by your local dealer.

SALVAGE / FIRE

The vessel is suitable and approved for rescue without a bathing ladder. The boat's bathing platforms in combination with handles and hooks can be used for rescue in the event of a fall overboard.

It is recommended that the boat owner retrofits approved fire extinguishing equipment suitable in accordance with the selected motorization.

WARNING

- Do not exceed the maximum approved number of people.
- The total weight of persons and equipment must not exceed the maximum approved weight.
- Approved buoyancy aids/vests are required..
- Never stand several people upright in the boat at the same time.
- Never use an engine with greater power than stated on the CE-sign.
- Always stop the engine before inspecting the propeller.
- When the boat is in motion, no one should sit on the sides of the boat.
- In the event of an explosion or fire on board, post-installed fire extinguishing equipment can be used and/or the vessel must be abandoned.
- Do not drill or screw into the boat, the floor or near/below the waterline to install equipment yourself.

One must be aware of local and international laws and regulations on the environment (cf. Marpol).

ROTOSTØP AS
Østkilen 10, 1621 Gressvik, Norway
+47 918 38 820 | post@rotostop.no

www.riverboats.no