OWNER'S MANUAL

River 420

Rotostøp as
Manufacturer of River Boats

PRODUCER:	**ROTOSTØP AS**
ADRESS:	**ØSTKILEN 10,**
	1621 GRESSVIK
	NORWAY
PHONE:	**+47 918 38 820**
E-MAIL:	**post@rotostop.no**
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DOGA MERKET
Design og arkitektur

NORSKE BÅTBYGGERS LANDSFORENING 1945

NORBOAT

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(For 20 December 2004 no. 1820 is repealed by FOR 15 January 2016.)
Directive 94/25/EC and Directive 2003/44/EC are repealed with 18 January 2016.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.

NAME OF PRODUCER: ROTOSTØP AS
ADRESS: ØSTKILEN 10, 1621 GRESSVIK
COUNTRY: NORWAY

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NAME OF NOTIFIED BODY FOR DESIGN AND CONSTRUCTION ASSESSMENT:
DNV-GL Notified Body No.: 0098
ADRESS: HEMVÄRNSGATAN 9, 17154 SOLNA, STOCKHOLM SWEDEN

DNV·GL

EF TYPE CERTIFICATE NUMBER: RCDB0000066 - 04.07.2017.

Module used for design and construction assessment:

☐	☐	☐	☒	☐	☐	☐	☐
A	**B**	**C**	**B+C**	**B+D**	**B+F**	**G**	**H**

Description of Recreational Craft

Watercraft Identification Number: NO-RTS 4

Brand name of Recreational Craft: RIVER Model 420

Type of construction: ☒ Rigid
Type of hull: ☒ Monohull
Hull construction material: ☒Other: POLYETHYLENE

Recreational Craft

Design category:	C
Max. number of persons:	5
Max. load:	510 kg
Length of hull Lh:	4,20 m
Beam of hull Bh:	1,73 m
Max. draught T:	0,1m
Deck:	Open

Craft main propulsion:	Engine/motor
Integral exhaust propulsion	Yes
Max. recom. engine power:	22,4 kW
Max. recom. engine mass	124 kg

DEALER – DATE AND STAMP

This declaration of conformity is issued under the sole responsibility of the manufacturer. I declare on behalf of the manufacturer 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:

Signature

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

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
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)	☒	☐	☐	☐	☐	EN ISO 12215-5:2008
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	EN ISO 12217-3:2015, Option 1, Category C
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	EN ISO 12217-3:2015, Option 1, Category C
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	EN ISO 9093-2:2002
Flooding (3.5)	☒	☐	☐	☐	☐	EN ISO 15083:2003
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	EN ISO 14946:2001
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 11592:2016
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	N/A
Ventilation (5.1.2)	☐	☐	☐	☐	☐	N/A
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	N/A
Outboard engine starting (5.1.4)	☐	☐	☐	☐	☐	N/A
Fuel system (5.2)						
General – fuel system (5.2.1)	☒	☐	☐	☐	☐	EN ISO 10088:2013
Fuel tanks (5.2.2)	☐	☐	☐	☐	☐	N/A
Electrical systems (5.3)	☒	☐	☐	☐	☐	EN ISO 10133:2012
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	EN ISO 9775:1993
Emergency arrangements (5.4.2)	☐	☐	☐	☐	☐	N/A
Gas systems (5.5)	☐	☐	☐	☐	☐	N/A
Fire protection (5.6)						
General – fire protection (5.6.1)	☐	☐	☐	☐	☐	N/A
Fire-fighting equipment (5.6.2)	☒	☐	☐	☐	☐	EN ISO 9094-201
Navigation lights, shapes and sound signals (5.7)	☐	☐	☐	☐	☐	N/A
Discharge prevention (5.8)	☐	☐	☐	☐	☐	N/A
Annex I.B – Exhaust Emissions [5]						
Annex I.C – Noise Emissions [6]						
Noise emission level (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

TABLE OF CONTENTS

1. Introduction

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.

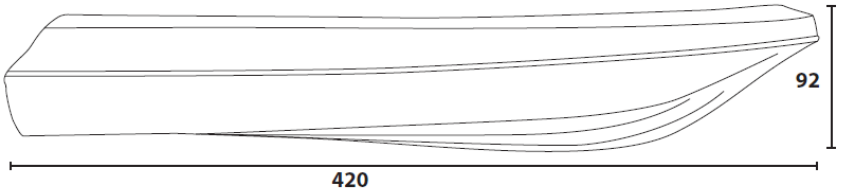
It is assumed that the vessel is not used outside its area of use. It is further assumed that good seamanship is displayed, both during use and maintenance.

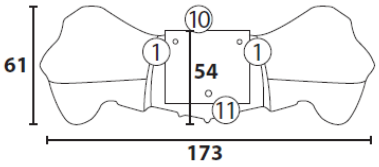
Please obtain sufficient expertise before using the boat.

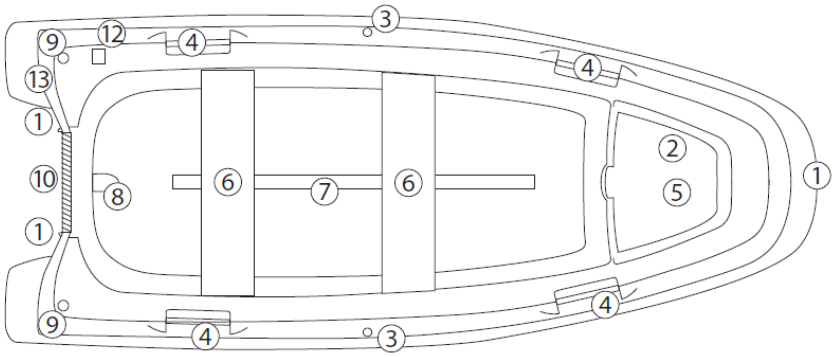
Please keep this manual in a secure place, and hand it over to the new owner when you sell the craft.

2.Drawings / parts list

River 420 STD







Deleliste / Partslist:

1. Slepe og fortøyningsfester / Towing and Mooring facilities
2. Passasjersete / Passenger Seat
3. Åregaffelholder / Rowlock
4. Bære/redningshåndtak / Rescue handle
5. Luke / Oppbevaringsrom / Storage
6. Tofter / Landing board
7. Deksel skrogstøtte / Hull support cover
8. Dreneringshull med lenseplugg / Cocpit draining with bilge plug
9. Kondensplugg / Condensation plug
10. Bakplate/motorfeste / Engine Support Plate
11. Dreneringshull / Cocpit draining
12. CE merking / CE marking
13. CIN nummer / CIN number

* Skrogtykkelse 4 mm

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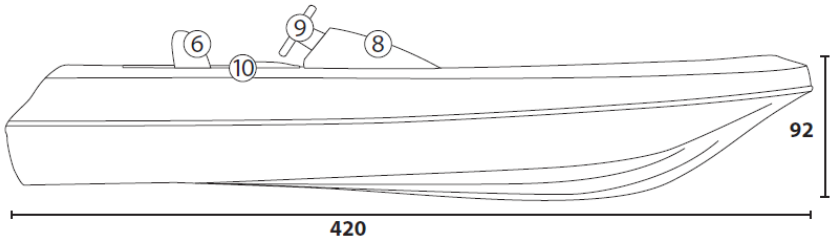
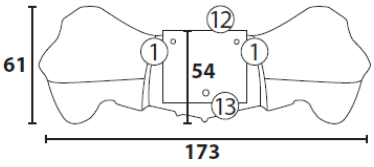
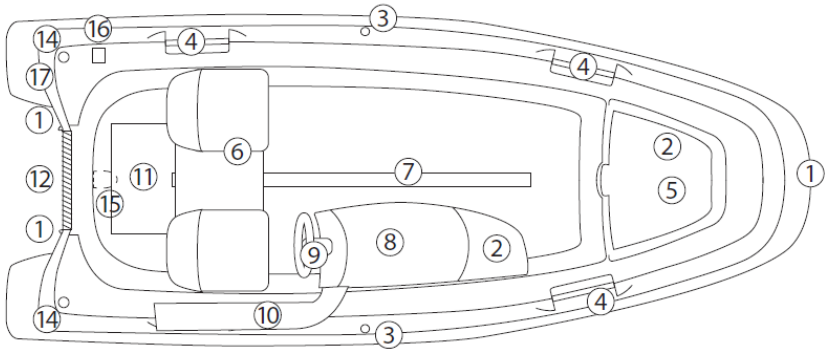
River 420 XR







Deleliste / Partslist:

1. Slepe og fortøyningsfester / Towing and Mooring facilities
2. Passasjersete / Passenger Seat
3. Åregaffelholder / Rowlock
4. Bære/redningshåndtak / Rescue handle
5. Luke / Oppbevaringsrom / Storage
6. Dobbelt sete / Double seat
7. Deksel skrogstøtte / Hull support cover
8. Styrekonsoll / Steering console
9. Ratt / styresnekke / Steering wheel
10. Kabeldeksel / Cable cover
11. Lastekasse / Storage box
12. Bakplate/motorfeste / Engine Support Plate
13. Lensehull / Bilge plug
14. Kondensplugg / Condensation plug
15. Dreneringshull med lenseplugg / Cocpit draining with bilge plug
16. CE merking / CE marking
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* Skrogtykkelse 4 mm

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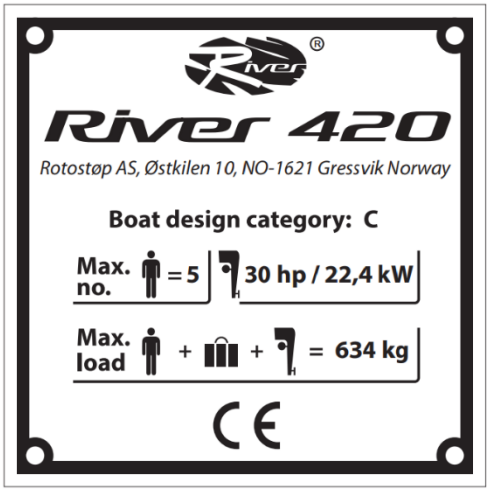
3. Vessel description
Your River 420 has the following main dimensions:
Length: 4.20 m Width: 1.75 m

River 420 is CE approved for 5 adults in design category C. 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.

Construction category C - Vessel for use along the coast - (Maximum wind strength: Beaufort strength 6, light gale (10.8 - 13.8 m / s), maximum wave height 3.6 m).

Maximum approved engine size is 30 hp (22,4 kW).
NOTE! See also the engine manufacturer's user manual.

Outboard engine shaft length:	Long
Maximum number of people:	5
Weight of boat (dry and empty):	180 kg
Weight of boat w/steering console:	195 kg
Maximum load:	510 kg
Persons + load + engine max:	634 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. The River 420 is designed with a hybrid-hull existing of both a V-shaped hull and catamaran-pontoons on each side, which gives the boat good planning properties, sporty driving characteristics and extremely good stability.
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 to fulfil the insurance's validity. It is recommended to check the terms of your insurance company.

4. 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).

5. 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.

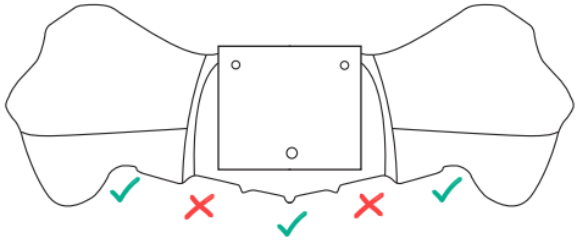
6. Towing
When your River is being towed, the strong towing eye under the bow should be used. When your River tows another vessel or object, the stern pullers are to be used. By using a "cock foot", you will distribute the load on both fasteners aft and achieve better stability and manoeuvrability, as 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.

7. 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, which gives a high point load and can lead to permanent deformation. The most ideal 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 must be secured / strapped properly for transport but should not be strapped with great force or stand with tightened straps over time as this can cause deformations on the boat.

Since the boat in practice stays almost straight and stably resting on the two side pontoons, a standard goods trailer can also function as a perfect means of transport.

For transport and storage long longitudinal beams, or wheel tracks, should be used in the designated places shown in the illustration. If the two outer positions are used, nothing is needed along the keel.



8. 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.

Any condensed water inside must be drained from the drain valves on each side aft.

9. Boat storage

In storage, the vessel should be stored dry and covered. The vessel is stored by supporting under the side keels at the rear and the centre keel at the very front so that the rest of the centre keel is hanging in the air. 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 a point load in a small area.

Before placing the vessel in storage, check that the space between the inner and outer hull does not contain significant amounts of water. If the vessel contains significant amounts of water, the drain plug must be removed, and the vessel tilted up so that the water flows out of the two upper drain-plugs in the aft. If necessary, use the siphon principle or a pump. During storage on land, the drain valve / condensate plug should be open.

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 ultimately be deformed and damaged.

The boat can also be stored over time on a boat trailer. But note that a boat trailer with pulleys / wheels that runs in the entire length of the boat is required so that the point load is spread over large parts of the hull. See point 7.

10. 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.

11. Repairs and disposal

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

12. 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.

13. Salvage / fire

The vessel is suitable and approved for rescue without a bathing ladder. The boat's outside and inside mounted handrails can be used for self-rescue in the event of a fall overboard. There are 2 inside mounted handrails on each side of the boat as standard equipment. Both outside mounted handrails and bathing ladder can be mounted as extra equipment.

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).

River Boats