NORTHSTAR

AXIS TENDERS

OWNER'S MANUAL

AXIS 3.1 AXIS 3.4 AXIS 3.8 AXIS 4.2 AXIS 4.8 AXIS 5.3

INDEX

1. GENERAL INFORMATION, DESIGN and PRODUCTION

HIN TR-

Please write your boat's Hull Identification Number (HIN), which can be found as molded in gelcoat on the starboard side of the transom.

NORTHSTAR is a trademark of RIBTECH A.S.

All Northstar Rigid Hull Inflatable Boats are manufactured by RIBTECH A.S. (also called NORTHSTAR throughout this manual.)

www.northstarboats.com

RIBTECH DENİZ ARAÇLARI ÜRETİMİ A.S.
Address: Yazıbaşı Mh. 306 Sk. No:3/1
Torbalı / Izmir 35875 Turkey
Phone: 0 232 853 90 44 Fax: 0 232 853 90 14
E-Mail: info@ribtech.com

Northstar AXIS Tenders have been tested regarding stability, freeboard, buoyancy, and flotation according to EN ISO 6185-3 to determine the requirements for the number of persons allowed and the additional loading.

2. INTRODUCTION

This manual is intended to assist in the safe use of your Northstar AXIS Tender. Please read carefully.
This owner's manual is not a course on safe navigation and seamanship. If this is a boat type you are not familiar with, make sure you have the necessary knowledge and experience before using your AXIS Tender for your own safety.
Please make sure that your AXIS Tender is suitable for weather and sea conditions in your area of use and ensure that your crew can operate the boat in these conditions.
This owner's manual is not a detailed maintenance or troubleshooting guide. In the event of a problem, contact the boat manufacturer or your dealer.
Trained and authorized persons should always be preferred for maintenance, repairs, or modifications. Any changes that may affect the safety aspect of the boat should be assessed, performed, and documented by authorized persons. The boat manufacturer cannot be held responsible for any unauthorized changes.
Maintain your AXIS Tender at all times and understand the wear and tear that may result from faulty or excessive use of the boat over time.
No matter how strong, each AXIS Tender can be severely damaged if not handled correctly. To ensure safe navigation, always adjust the speed and direction of your AXIS Tender according to the sea conditions.
While onboard, everyone should wear a suitable life jacket.

PLEASE STORE THIS MANUAL IN A SAFE PLACE AND PASS IT ON TO THE NEXT OWNER.

2.1. INFORMATION ON DEGREES OF HAZARD

Throughout this manual, specific precautions and symbols identify safety-related information.

Following Safety Warnings are found:

DANGER	WARNING	CAUTION
Denotes an extreme intrinsic hazard exists which would result in high probability of death or irreparable injury if proper precautions are not taken.	Denotes a hazard exists which can result in injury or death if proper precautions are not taken.	Denotes the reminder of safety practices or directs attention to unsafe practices which could result in personal injury or damage to the craft or components.

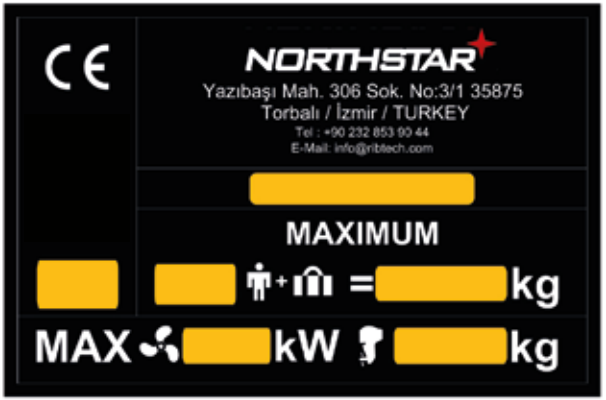
When you see one of the above marks in this manual, pay special attention to the points mentioned.

In addition, many areas of your AXIS Tender contain safety-related labels that warn the operator and passengers.

EU legislation requires the CE mark to be applied to the Manufacturer's Plate.

2.2. EXPLANATION OF MANUFACTURER'S PLATE

The manufacturer's plate, which is fixed at the console, looks like the following:



For craft with outboard engines, mass of the craft in the light craft (unladen) condition (kg) includes the weight of the heaviest recommended outboard engine, however, in some cases (a small rowing or outboard tender for example) the craft may be used with or without the outboard. In these cases, it would be useful to also know the weight without the outboard motor (perhaps to see if it is light enough to carry on a car roof).

The maximum recommended load includes the weight of all persons onboard, all provisions and personal effects, any equipment not included in the light craft mass, cargo (if any), and all consumable liquids (water, fuel, etc.).

Do not exceed the maximum 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.

When loading your AXIS Tender, never exceed the maximum recommended load. Always load the craft carefully and distribute loads appropriately to maintain the design trim (approximate level). Avoid placing heavy weights high up.

3.CLASSIFICATION, CERTIFICATION AND SPECIFICATIONS

All AXIS Tenders are manufactured in compliance with ISO 6185-3 (Standardization of small crafts less than 8 m. with an engine power rating of 15 kW and greater) which specifies the minimum safety characteristics required for the design, materials of use, manufacture and testing of inflatable boats and rigid inflatable boats.

The following Declaration of Conformity (DoC) Certificates specify the design, construction, and noise emission requirements for each AXIS Tender in compliance with EU legislation.

This section also contains principal data in accordance with ISO 8666 which applies to small craft having a length of the hull (L_h) of up to 24 meters defining the main dimensions and related data and of mass specifications and loading conditions.

Following each AXIS model's Declaration of Conformity Certificate, technical specifications and general view with dimensions will be found.

3.1. AXIS 3.1 DECLARATION OF CONFORMITY

Version in English language approved by RCD ADCO on 8th June 2016

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft manufacturer: RIBTECH DENIZ ARACLARI URETIMI A.S.

Address: YAZIBASI MAH. 306 SOK. NO: 3/1

Town: TORBALI - IZMIR **Post Code:** 35875 **Country:** TURKEY

Name of authorised representative (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____

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

Name of Notified Body for design and construction assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Module used for noise emission assessment (if applicable): ☐ A ☒ A1 ☐ G ☐ H

Name of Notified Body for noise emission assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Other Community Directives applied: _____

DESCRIPTION OF RECREATIONAL CRAFT:

Watercraft Identification Number: TIR - RIB _____

Brand name of the Recreational Craft: NORTHSTAR **Model or Type:** AXIS 3.1

Type of construction:
☐ Rigid ☐ Inflatable ☒ Rigid-inflatable (RIB)

Type of hull:
☒ Monohull ☐ Multihull

Hull construction material:
☐ Aluminium, aluminium alloys ☒ Moulded Fibre Reinforced Plastic
☐ Steel, steel alloys ☐ Wood
☐ Other (specify): _____

Recreational Craft Design category(-ies) related to the maximum recommended number of persons:

Category	Number of Persons	Max Load (kg)
A		
B		
C	4	400
D		

Length of hull L_H: 3.25 m
Beam of hull B_H: 1.81 m
Maximum Draught T: ____ m

Deck:
☒ Fully enclosed
☐ Partially protected
☐ Open

Craft main propulsion:
☐ Sail, projected sail area *As*: _____ m²
☐ Human propulsion
☒ Engine/motor propulsion
☐ Other (specify): _____

Installed engine type (if applicable):
☐ Internal combustion, Diesel (CI)
☒ Internal combustion, Petrol (SI)
☐ Internal combustion, LPG/CNG
☐ Electric
☐ Other (specify): _____

Installed propulsion type (if applicable):
☒ Outboard
☐ Inboard with shaft line
☐ Z or Sterndrive
☐ Pod-drive
☐ Sail-drive
☐ Other (specify): _____

Integral exhaust propulsion (if applicable): Yes ☐ No ☐

Maximum Recommended engine power: 22.08 kW
Installed engine power: _____ kW
Number of propulsion engines: _____ #
Maximum recommended engine mass[2]: _____ kg

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: MURAT KAYA
(identification of the person empowered to sign on behalf of the manufacturer or his authorised representative)

Signature and title: _____
(or an equivalent marking)

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

[1] The document may have a different name according to each module (A1: Stability and buoyancy report, B: EC type examination certificate, G: Certificate of conformity, etc.)
[2] For outboard powered boats only

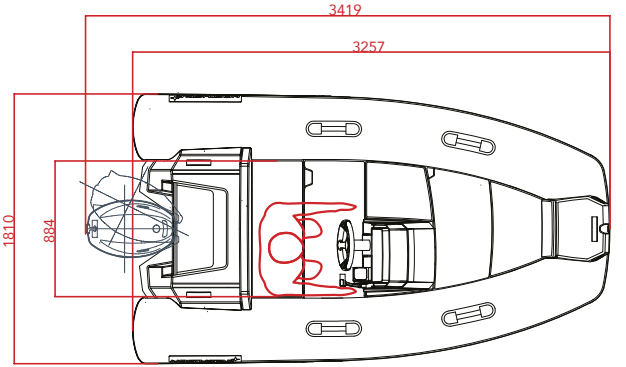
Essential requirements (reference to relevant articles in Annex IA & IC of the Directive)	Harmonised standards *Full Application*	Harmonised standards *Partial application, see tech. file*	Other reference documents [3] *Full Application*	Other reference documents [3] *Partial Application, see tech. file*	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)	☒	☐	☐	☐	☐	14945
Protection from falling overboard and means of reboarding (2.3)	☒	☐	☐	☐	☐	15085
Visibility from the main steering position (2.4)	☒	☐	☐	☐	☐	11591
Owner's manual (2.5)	☒	☐	☐	☐	☐	10240
Integrity and structural requirements (3)						
Structure (3.1)	☒	☐	☐	☐	☐	12215-1,12215-4
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	6185-3
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	6185-3
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	9093,9094-1312216
Flooding (3.5)	☒	☐	☐	☐	☐	6185-3
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	6185,-
Liferaft stowage (3.7)	☐	☐	☐	☐	☐	
Escape (3.8)	☐	☐	☐	☐	☐	
Anchoring, mooring and towing (3.9)	☒	☐	☐	☐	☐	6185-3
Handling characteristics (4)	☒	☐	☐	☐	☐	6185-3
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	
Ventilation (5.1.2)	☐	☐	☐	☐	☐	
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	
Outboard engine starting (5.1.4)	☒	☐	☐	☐	☐	11547
Fuel system (5.2)						
General – fuel system (5.2.1)	☒	☐	☐	☐	☐	7840,9094
Fuel tanks (5.2.2)	☒	☐	☐	☐	☐	10088,16147
Electrical systems (5.3)	☐	☐	☐	☐	☐	
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	8848,10592,13929,28847,28848
Emergency arrangements (5.4.2)	☒	☐	☐	☐	☐	
Gas systems (5.5)	☐	☐	☐	☐	☐	
Fire protection (5.6)						
General – fire protection (5.6.1)	☒	☐	☐	☐	☐	9094-1
Fire-fighting equipment (5.6.2)	☐	☐	☐	☐	☐	
Navigation lights, shapes and sound signals (5.7)	☒	☐	☐	☐	☐	KVR
Discharge prevention (5.8)	☒	☐	☐	☐	☐	8099
Annex I.B – Exhaust Emissions [5]						
Annex I.C – Noise Emissions [6]						
Noise emissions level (I.C.1)	☒	☐	☐	☐	☐	
Owner's manual (I.C.2)	☒	☐	☐	☐	☐	

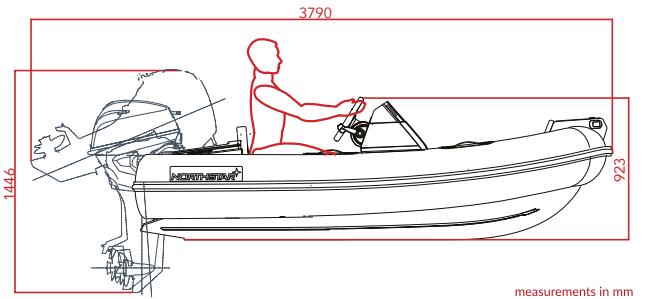
[3] Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4] Standards published in EU Official Journal
[5] See Declaration of Conformity of engine manufacturer
[6] Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust

NORTHSTAR AXIS 3.1

Specifications

Length	325 cm. / 10'7"
Beam	181 cm. / 5'11"
Weight	210 kg. / 462 lbs
Tube Diameter	0.40 m. / 15.7"
Suggested Tube Pressure	0.18 bar / 2.6 psi
No. of Chambers	3
Maximum Persons	4
Minimum Power	20 HP
Maximum Power	30 HP
Recommended Power	25 HP
Shaft Length	S / L
Fuel Tank Capacity	33 lt. / 8.7 US Gal
Design Category	CE - Cat. C





measurements in mm

3.2. AXIS 3.4 DECLARATION OF CONFORMITY

Version in English language approved by RCD ADCO on 8th June 2016

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft manufacturer: RIBTECH DENIZ ARACLARI URETIMI A.S.

Address: YAZIBASI MAH. 306 SOK. NO: 3/1

Town: TORBALI - IZMIR **Post Code:** 35875 **Country:** TURKEY

Name of authorised representative (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____

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

Name of Notified Body for design and construction assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Module used for noise emission assessment (if applicable): ☐ A ☒ A1 ☐ G ☐ H

Name of Notified Body for noise emission assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Other Community Directives applied: _____

DESCRIPTION OF RECREATIONAL CRAFT:

Watercraft Identification Number: TIR - RIB _____

Brand name of the Recreational Craft: NORTHSTAR **Model or Type:** AXIS 3.4

Type of construction:
☐ Rigid ☐ Inflatable ☒ Rigid-inflatable (RIB)

Type of hull:
☒ Monohull ☐ Multihull

Hull construction material:
☐ Aluminium, aluminium alloys ☒ Moulded Fibre Reinforced Plastic
☐ Steel, steel alloys ☐ Wood
☐ Other (specify): _____

Recreational Craft Design category(-ies) related to the maximum recommended number of persons:

Category	Number of Persons	Max Load (kg)
A		
B		
C	4	425
D		

Length of hull L_H: 3.40 m
Beam of hull B_H: 1.75 m
Maximum Draught T: ____m

Deck:
☒ Fully enclosed
☐ Partially protected
☐ Open

Craft main propulsion:
☐ Sail, projected sail area *As*: _____ m²
☐ Human propulsion
☒ Engine/motor propulsion
☐ Other (specify): _____

Installed engine type (if applicable):
☐ Internal combustion, Diesel (CI)
☒ Internal combustion, Petrol (SI)
☐ Internal combustion, LPG/CNG
☐ Electric
☐ Other (specify): _____

Installed propulsion type (if applicable):
☒ Outboard
☐ Inboard with shaft line
☐ Z or Sterndrive
☐ Pod-drive
☐ Sail-drive
☐ Other (specify): _____

Integral exhaust propulsion (if applicable): Yes ☐ No ☐
Maximum Recommended engine power: 29.44 kW
Installed engine power: _____ kW
Number of propulsion engines: _____ #
Maximum recommended engine mass[2]: _____ kg

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: MURAT KAYA
(identification of the person empowered to sign on behalf of the manufacturer or his authorised representative)

Signature and title:
(or an equivalent marking)

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

[1] The document may have a different name according to each module (A1: Stability and buoyancy report, B: EC type examination certificate, G: Certificate of conformity, etc.)
[2] For outboard powered boats only

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 [3] *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")*
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Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	6185,-
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Escape (3.8)	☐	☐	☐	☐	☐	
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Ventilation (5.1.2)	☐	☐	☐	☐	☐	
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	
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Gas systems (5.5)	☐	☐	☐	☐	☐	
Fire protection (5.6)						
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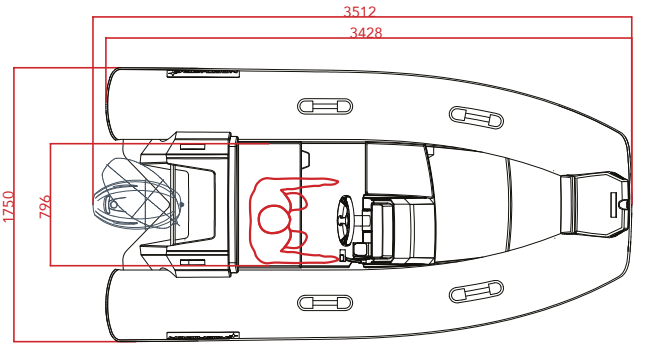
Owner's manual (I.C.2)	☒	☐	☐	☐	☐	

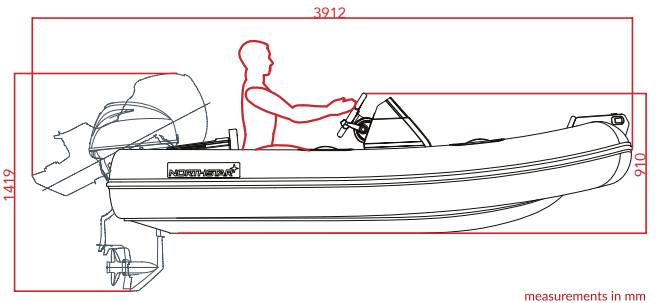
[3] Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4] Standards published in EU Official Journal
[5] See Declaration of Conformity of engine manufacturer
[6] Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust

NORTHSTAR
AXIS 3.4

Specifications

Length	340 cm. / 11'2"
Beam	175 cm. / 5'9"
Weight	210 kg. / 462 lbs
Tube Diameter	0.41 m. / 16.1"
Suggested Tube Pressure	0.18 bar / 2.6 psi
No. of Chambers	3
Maximum Persons	4
Minimum Power	25 HP
Maximum Power	40 HP
Recommended Power	30 HP
Shaft Length	L
Fuel Tank Capacity	33 lt. / 8.7 US Gal
Design Category	CE - Cat. C





measurements in mm

3.3. AXIS 3.8 DECLARATION OF CONFORMITY

Version in English language approved by RCD ADCO on 8th June 2016

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft manufacturer: RIBTECH DENIZ ARACLARI URETIMI A.S.

Address: YAZIBASI MAH. 306 SOK. NO: 3/1

Town: TORBALI - IZMIR **Post Code:** 35875 **Country:** TURKEY

Name of authorised representative (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____

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

Name of Notified Body for design and construction assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Module used for noise emission assessment (if applicable): ☐ A ☒ A1 ☐ G ☐ H

Name of Notified Body for noise emission assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Other Community Directives applied: _____

DESCRIPTION OF RECREATIONAL CRAFT:

Watercraft Identification Number: TIR - RIB _____

Brand name of the Recreational Craft: NORTHSTAR **Model or Type:** AXIS 3.8

Type of construction:
☐ Rigid ☐ Inflatable ☒ Rigid-inflatable (RIB)

Type of hull:
☒ Monohull ☐ Multihull

Hull construction material:
☐ Aluminium, aluminium alloys ☒ Moulded Fibre Reinforced Plastic
☐ Steel, steel alloys ☐ Wood
☐ Other (specify): _____

Recreational Craft Design category(-ies) related to the maximum recommended number of persons:

Category	Number of Persons	Max Load (kg)
A		
B		
C	5	520
D		

Length of hull L_H: 3.85 m
Beam of hull B_H: 1.91 m
Maximum Draught T: ____m

Deck:
☒ Fully enclosed
☐ Partially protected
☐ Open

Craft main propulsion:
☐ Sail, projected sail area *As*: _____ m²
☐ Human propulsion
☒ Engine/motor propulsion
☐ Other (specify): _____

Installed engine type (if applicable):
☐ Internal combustion, Diesel (CI)
☒ Internal combustion, Petrol (SI)
☐ Internal combustion, LPG/CNG
☐ Electric
☐ Other (specify): _____

Installed propulsion type (if applicable):
☒ Outboard
☐ Inboard with shaft line
☐ Z or Sterndrive
☐ Pod-drive
☐ Sail-drive
☐ Other (specify): _____

Integral exhaust propulsion (if applicable): Yes ☐ No ☐

Maximum Recommended engine power: 36.80 kW
Installed engine power: _____ kW
Number of propulsion engines: _____ #
Maximum recommended engine mass[2]: _____ kg

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: MURAT KAYA
(identification of the person empowered to sign on behalf of the manufacturer or his authorised representative)

Signature and title:
(or an equivalent marking)

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

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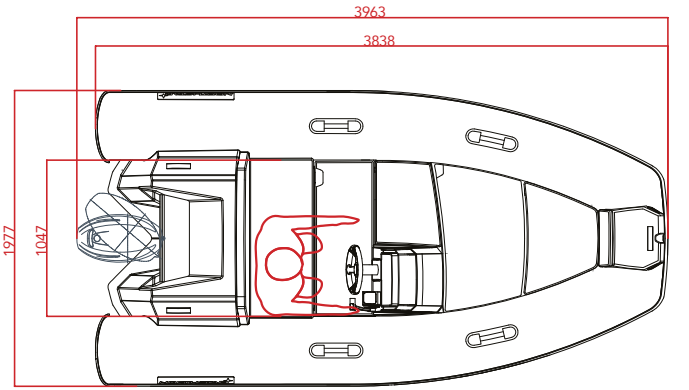
	Tick only one box per line					*All lines right of ticked boxes must be filled in*
General requirements (2)						
Principal data – main dimensions	☒					EN ISO 8666:2002
Watercraft Identification Number – WIN (2.1)	☒					EN ISO 10087:2006
Watercraft Builder's Plate (2.2)	☒	☐	☐	☐	☐	14945
Protection from falling overboard and means of reboarding (2.3)	☒	☐	☐	☐	☐	15085
Visibility from the main steering position (2.4)	☒	☐	☐	☐	☐	11591
Owner's manual (2.5)	☒	☐	☐	☐	☐	10240
Integrity and structural requirements (3)						
Structure (3.1)	☒	☐	☐	☐	☐	12215-1,12215-4
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	6185-3
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	6185-3
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	9093,9094-1312216
Flooding (3.5)	☒	☐	☐	☐	☐	6185-3
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	6185,-
Liferaft stowage (3.7)	☐	☐	☐	☐	☐	
Escape (3.8)	☐	☐	☐	☐	☐	
Anchoring, mooring and towing (3.9)	☒	☐	☐	☐	☐	6185-3
Handling characteristics (4)	☒	☐	☐	☐	☐	6185-3
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	
Ventilation (5.1.2)	☐	☐	☐	☐	☐	
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	
Outboard engine starting (5.1.4)	☒	☐	☐	☐	☐	11547
Fuel system (5.2)						
General – fuel system (5.2.1)	☒	☐	☐	☐	☐	7840,9094
Fuel tanks (5.2.2)	☒	☐	☐	☐	☐	10088,16147
Electrical systems (5.3)	☐	☐	☐	☐	☐	
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	8848,10592,13929,28847,28848
Emergency arrangements (5.4.2)	☒	☐	☐	☐	☐	
Gas systems (5.5)	☐	☐	☐	☐	☐	
Fire protection (5.6)						
General – fire protection (5.6.1)	☒	☐	☐	☐	☐	9094-1
Fire-fighting equipment (5.6.2)	☐	☐	☐	☐	☐	
Navigation lights, shapes and sound signals (5.7)	☒	☐	☐	☐	☐	KVR
Discharge prevention (5.8)	☒	☐	☐	☐	☐	8099
Annex I.B – Exhaust Emissions [5]						
Annex I.C – Noise Emissions [6]						
Noise emissions level (I.C.1)	☒	☐	☐	☐	☐	
Owner's manual (I.C.2)	☒	☐	☐	☐	☐	

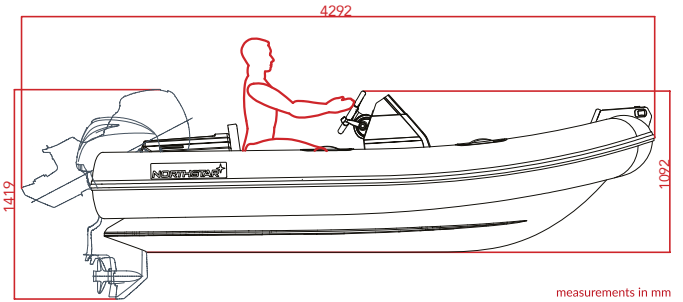
[3] Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4] Standards published in EU Official Journal
[5] See Declaration of Conformity of engine manufacturer
[6] Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust

NORTHSTAR AXIS 3.8

Specifications

Length	385 cm. / 12'6"
Beam	191 cm. / 6'3"
Weight	245 kg. / 540 lbs
Tube Diameter	0.43 m. / 16.9"
Suggested Tube Pressure	0.18 bar / 2.6 psi
No. of Chambers	3
Maximum Persons	5
Minimum Power	30 HP
Maximum Power	50 HP
Recommended Power	40 HP
Shaft Length	L
Fuel Tank Capacity	33 lt. / 8.7 US Gal
Design Category	CE - Cat. C





measurements in mm

3.4. AXIS 4.2 DECLARATION OF CONFORMITY

Version in English language approved by RCD ADCO on 8th June 2016

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft manufacturer: RIBTECH DENIZ ARACLARI URETIMI A.S.

Address: YAZIBASI MAH. 306 SOK. NO: 3/1

Town: TORBALI - IZMIR **Post Code:** 35875 **Country:** TURKEY

Name of authorised representative (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____

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

Name of Notified Body for design and construction assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Module used for noise emission assessment (if applicable): ☐ A ☒ A1 ☐ G ☐ H

Name of Notified Body for noise emission assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Other Community Directives applied: _____

DESCRIPTION OF RECREATIONAL CRAFT:

Watercraft Identification Number: TIR - RIB _____

Brand name of the Recreational Craft: NORTHSTAR **Model or Type:** AXIS 4.2

Type of construction:
☐ Rigid ☐ Inflatable ☒ Rigid-inflatable (RIB)

Type of hull:
☒ Monohull ☐ Multihull

Hull construction material:
☐ Aluminium, aluminium alloys ☒ Moulded Fibre Reinforced Plastic
☐ Steel, steel alloys ☐ Wood
☐ Other (specify): _____

Recreational Craft Design category(-ies) related to the maximum recommended number of persons:

Category	Number of Persons	Max Load (kg)
A		
B		
C	6	625
D		

Length of hull L_H: 4.25 m
Beam of hull B_H: 1.96 m
Maximum Draught T: ____ m

Deck:
☒ Fully enclosed
☐ Partially protected
☐ Open

Craft main propulsion:
☐ Sail, projected sail area *As*: _____ m²
☐ Human propulsion
☒ Engine/motor propulsion
☐ Other (specify): _____

Installed engine type (if applicable):
☐ Internal combustion, Diesel (CI)
☒ Internal combustion, Petrol (SI)
☐ Internal combustion, LPG/CNG
☐ Electric
☐ Other (specify): _____

Installed propulsion type (if applicable):
☒ Outboard
☐ Inboard with shaft line
☐ Z or Sterndrive
☐ Pod-drive
☐ Sail-drive
☐ Other (specify): _____

Integral exhaust propulsion (if applicable): Yes ☐ No ☐

Maximum Recommended engine power: 44.16 kW
Installed engine power: ____ kW
Number of propulsion engines: ____ #
Maximum recommended engine mass[2]: ____ kg

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: MURAT KAYA
(identification of the person empowered to sign on behalf of the manufacturer or his authorised representative)

Signature and title: FACTORY MANAGER
(or an equivalent marking)

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

[1] The document may have a different name according to each module (A1: Stability and buoyancy report, B: EC type examination certificate, G: Certificate of conformity, etc.)
[2] For outboard powered boats only

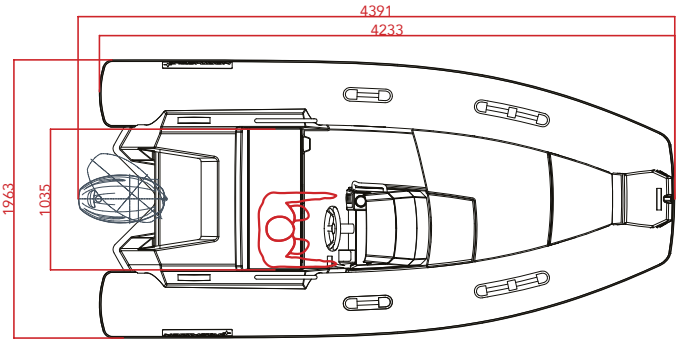
Essential requirements (reference to relevant articles in Annex IA & IC of the Directive)	Harmonised standards *Full application*	Harmonised standards *Partial application, see tech. file*	Other reference documents [3] *Full application*	Other reference documents [3] *Partial Application - see tech. 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)	☒	☐	☐	☐	☐	14945
Protection from falling overboard and means of reboarding (2.3)	☒	☐	☐	☐	☐	15085
Visibility from the main steering position (2.4)	☒	☐	☐	☐	☐	11591
Owner's manual (2.5)	☒	☐	☐	☐	☐	10240
Integrity and structural requirements (3)						
Structure (3.1)	☒	☐	☐	☐	☐	12215-1,12215-4
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	6185-3
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	6185-3
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	9093,9094-1312216
Flooding (3.5)	☒	☐	☐	☐	☐	6185-3
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	6185,-
Liferaft stowage (3.7)	☐	☐	☐	☐	☐	
Escape (3.8)	☐	☐	☐	☐	☐	
Anchoring, mooring and towing (3.9)	☒	☐	☐	☐	☐	6185-3
Handling characteristics (4)	☒	☐	☐	☐	☐	6185-3
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	
Ventilation (5.1.2)	☐	☐	☐	☐	☐	
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	
Outboard engine starting (5.1.4)	☒	☐	☐	☐	☐	11547
Fuel system (5.2)						
General – fuel system (5.2.1)	☒	☐	☐	☐	☐	7840,9094
Fuel tanks (5.2.2)	☒	☐	☐	☐	☐	10088,16147
Electrical systems (5.3)	☐	☐	☐	☐	☐	
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	8848,10592,13929,28847,28848
Emergency arrangements (5.4.2)	☒	☐	☐	☐	☐	
Gas systems (5.5)	☐	☐	☐	☐	☐	
Fire protection (5.6)						
General – fire protection (5.6.1)	☒	☐	☐	☐	☐	9094-1
Fire-fighting equipment (5.6.2)	☐	☐	☐	☐	☐	
Navigation lights, shapes and sound signals (5.7)	☒	☐	☐	☐	☐	KVR
Discharge prevention (5.8)	☒	☐	☐	☐	☐	8099
Annex I.B – Exhaust Emissions [5]						
Annex I.C – Noise Emissions [6]						
Noise emissions level (I.C.1)	☒	☐	☐	☐	☐	
Owner's manual (I.C.2)	☒	☐	☐	☐	☐	

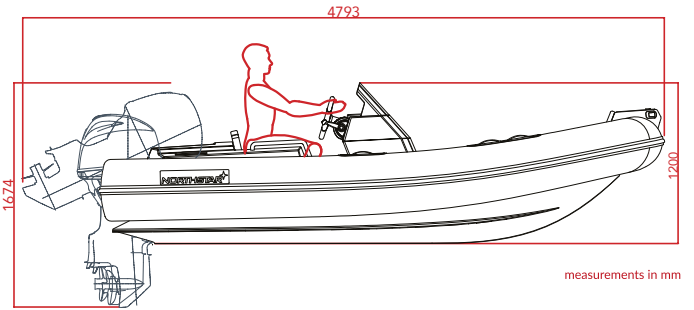
[3] Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4] Standards published in EU Official Journal
[5] See Declaration of Conformity of engine manufacturer
[6] Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust

NORTHSTAR
AXIS 4.2

Specifications

Length	425 cm. / 13'9"
Beam	196 cm. / 6'5"
Weight	282 kg. / 621 lbs
Tube Diameter	0.43 m. / 16.9"
Suggested Tube Pressure	0.18 bar / 2.6 psi
No. of Chambers	4
Maximum Persons	6
Minimum Power	40 HP
Maximum Power	60 HP
Recommended Power	50 HP
Shaft Length	L
Fuel Tank Capacity	42 lt. / 11.1 US Gal
Design Category	CE - Cat. C





measurements in mm

3.5. AXIS 4.8 DECLARATION OF CONFORMITY

Version in English language approved by RCD ADCO on 8th June 2016

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft manufacturer: RIBTECH DENIZ ARACLARI URETIMI A.S.

Address: YAZIBASI MAH. 306 SOK. NO: 3/1

Town: TORBALI - IZMIR Post Code: 35875 Country: TURKEY

Name of authorised representative (if applicable):

Address:

Town: Post Code: Country:

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

Name of Notified Body for design and construction assessment (if applicable):

Address:

Town: Post Code: Country: ID Number:

Notified Body certificate[1] number (if applicable): Date: __ / __ / ____

Module used for noise emission assessment (if applicable): ☐ A ☒ A1 ☐ G ☐ H

Name of Notified Body for noise emission assessment (if applicable):

Address:

Town: Post Code: Country: ID Number:

Notified Body certificate[1] number (if applicable): Date: __ / __ / ____

Other Community Directives applied:

DESCRIPTION OF RECREATIONAL CRAFT:

Watercraft Identification Number: TIR - RIB

Brand name of the Recreational Craft: NORTHSTAR Model or Type: AXIS 4.8

Type of construction:
☐ Rigid ☐ Inflatable ☒ Rigid-inflatable (RIB)

Type of hull:
☒ Monohull ☐ Multihull

Hull construction material:
☐ Aluminium, aluminium alloys ☒ Moulded Fibre Reinforced Plastic
☐ Steel, steel alloys ☐ Wood
☐ Other (specify):

Recreational Craft Design category(-ies) related to the maximum recommended number of persons:

Category	Number of Persons	Max Load (kg)
A		
B		
C	8	720
D		

Length of hull L_H: 4.85 m
Beam of hull B_H: 2.23 m
Maximum Draught T: ____m

Deck:
☒ Fully enclosed
☐ Partially protected
☐ Open

Craft main propulsion:
☐ Sail, projected sail area *As*: ____m²
☐ Human propulsion
☒ Engine/motor propulsion
☐ Other (specify):

Installed engine type (if applicable):
☐ Internal combustion, Diesel (CI)
☒ Internal combustion, Petrol (SI)
☐ Internal combustion, LPG/CNG
☐ Electric
☐ Other (specify):

Installed propulsion type (if applicable):
☒ Outboard
☐ Inboard with shaft line
☐ Z or Sterndrive
☐ Pod-drive
☐ Sail-drive
☐ Other (specify):

Integral exhaust propulsion (if applicable): Yes ☐ No ☐
Maximum Recommended engine power: 58.88 kW
Installed engine power: ____kW
Number of propulsion engines: ____#
Maximum recommended engine mass[2]: ____kg

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: MURAT KAYA
(identification of the person empowered to sign on behalf of the manufacturer or his authorised representative)

Signature and title:
(or an equivalent marking)

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

[1] The document may have a different name according to each module (A1: Stability and buoyancy report, B: EC type examination certificate, G: Certificate of conformity, etc.)
[2] For outboard powered boats only

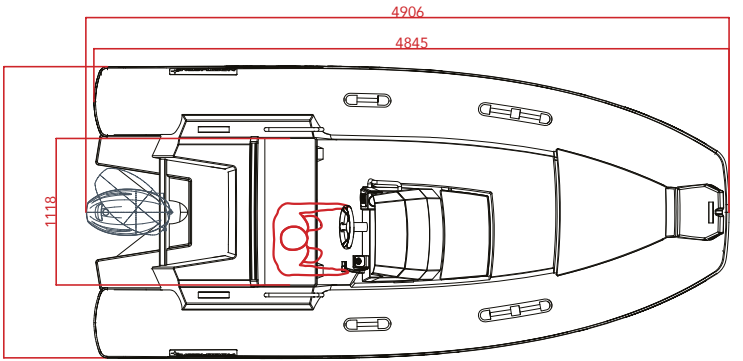
Essential requirements (reference to relevant articles in Annex IA & IC of the Directive)	Harmonised standards Full Application	Harmonised standards Partial application, see tech. file	Other reference documents [3] Full Application	Other reference documents Partial Application, see tech. file	Other proof 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)	☒	☐	☐	☐	☐	14945
Protection from falling overboard and means of reboarding (2.3)	☒	☐	☐	☐	☐	15085
Visibility from the main steering position (2.4)	☒	☐	☐	☐	☐	11591
Owner's manual (2.5)	☒	☐	☐	☐	☐	10240
Integrity and structural requirements (3)						
Structure (3.1)	☒	☐	☐	☐	☐	12215-1,12215-4
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	6185-3
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	6185-3
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	9093,9094-1312216
Flooding (3.5)	☒	☐	☐	☐	☐	6185-3
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	6185,-
Liferaft stowage (3.7)	☐	☐	☐	☐	☐	
Escape (3.8)	☐	☐	☐	☐	☐	
Anchoring, mooring and towing (3.9)	☒	☐	☐	☐	☐	6185-3
Handling characteristics (4)	☒	☐	☐	☐	☐	6185-3
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	
Ventilation (5.1.2)	☐	☐	☐	☐	☐	
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	
Outboard engine starting (5.1.4)	☒	☐	☐	☐	☐	11547
Fuel system (5.2)						
General – fuel system (5.2.1)	☒	☐	☐	☐	☐	7840,9094
Fuel tanks (5.2.2)	☒	☐	☐	☐	☐	10088,16147
Electrical systems (5.3)	☐	☐	☐	☐	☐	
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	8848,10592,13929,28847,28848
Emergency arrangements (5.4.2)	☒	☐	☐	☐	☐	
Gas systems (5.5)	☐	☐	☐	☐	☐	
Fire protection (5.6)						
General – fire protection (5.6.1)	☒	☐	☐	☐	☐	9094-1
Fire-fighting equipment (5.6.2)	☐	☐	☐	☐	☐	
Navigation lights, shapes and sound signals (5.7)	☒	☐	☐	☐	☐	KVR
Discharge prevention (5.8)	☒	☐	☐	☐	☐	8099
Annex I.B – Exhaust Emissions [5]						
Annex I.C – Noise Emissions [6]						
Noise emissions level (I.C.1)	☒	☐	☐	☐	☐	
Owner's manual (I.C.2)	☒	☐	☐	☐	☐	

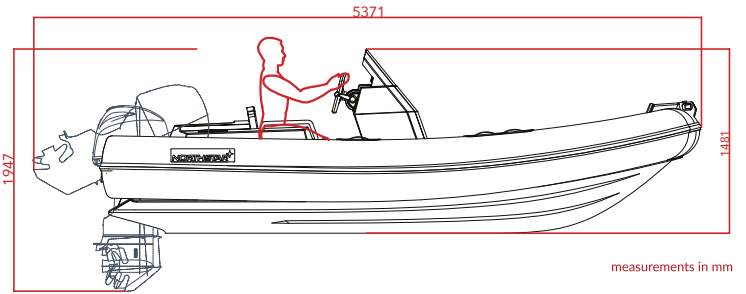
[3] Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4] Standards published in EU Official Journal
[5] See Declaration of Conformity of engine manufacturer
[6] Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust

NORTHSTAR AXIS 4.8

Specifications

Length	485 cm. / 15'9"
Beam	223 cm. / 7'3"
Weight	420 kg. / 925 lbs
Tube Diameter	0.46 m. / 18.1"
Suggested Tube Pressure	0.18 bar / 2.6 psi
No. of Chambers	4
Maximum Persons	8
Minimum Power	50 HP
Maximum Power	80 HP
Recommended Power	70 HP
Shaft Length	L
Fuel Tank Capacity	51 lt. / 13.5 US Gal
Design Category	CE - Cat. C





measurements in mm

3.6. AXIS 5.3 DECLARATION OF CONFORMITY

Version in English language approved by RCD ADCO on 8th June 2016

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft manufacturer: RIBTECH DENIZ ARACLARI URETIMI A.S.

Address: YAZIBASI MAH. 306 SOK. NO: 3/1

Town: TORBALI - IZMIR **Post Code:** 35875 **Country:** TURKEY

Name of authorised representative (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____

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

Name of Notified Body for design and construction assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Module used for noise emission assessment (if applicable): ☐ A ☒ A1 ☐ G ☐ H

Name of Notified Body for noise emission assessment (if applicable): _____

Address: _____

Town: _____ **Post Code:** _____ **Country:** _____ **ID Number:** ____

Notified Body certificate[1] number (if applicable): _____ **Date:** __ / __ / ____

Other Community Directives applied: _____

DESCRIPTION OF RECREATIONAL CRAFT:

Watercraft Identification Number: TIR - RIB _____

Brand name of the Recreational Craft: NORTHSTAR **Model or Type:** AXIS 5.3

Type of construction:
☐ Rigid ☐ Inflatable ☒ Rigid-inflatable (RIB)

Type of hull:
☒ Monohull ☐ Multihull

Hull construction material:
☐ Aluminium, aluminium alloys ☒ Moulded Fibre Reinforced Plastic
☐ Steel, steel alloys ☐ Wood
☐ Other (specify): _____

Recreational Craft Design category(-ies) related to the maximum recommended number of persons:

Category	Number of Persons	Max Load (kg)
A		
B		
C	9	900
D		

Length of hull L_H: 5.35 m
Beam of hull B_H: 2.33 m
Maximum Draught T: ____m

Deck:
☒ Fully enclosed
☐ Partially protected
☐ Open

Craft main propulsion:
☐ Sail, projected sail area *As*: _____ m²
☐ Human propulsion
☒ Engine/motor propulsion
☐ Other (specify): _____

Installed engine type (if applicable):
☐ Internal combustion, Diesel (CI)
☒ Internal combustion, Petrol (SI)
☐ Internal combustion, LPG/CNG
☐ Electric
☐ Other (specify): _____

Installed propulsion type (if applicable):
☒ Outboard
☐ Inboard with shaft line
☐ Z or Sterndrive
☐ Pod-drive
☐ Sail-drive
☐ Other (specify): _____

Integral exhaust propulsion (if applicable): Yes ☐ No ☐

Maximum Recommended engine power: 84.64 kW
Installed engine power: _____ kW
Number of propulsion engines: _____ #
Maximum recommended engine mass[2]: _____ kg

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: MURAT KAYA
(identification of the person empowered to sign on behalf of the manufacturer or his authorised representative)

Signature and title:
(or an equivalent marking)

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

[1] The document may have a different name according to each module (A1: Stability and buoyancy report, B: EC type examination certificate, G: Certificate of conformity, etc.)
[2] For outboard powered boats only

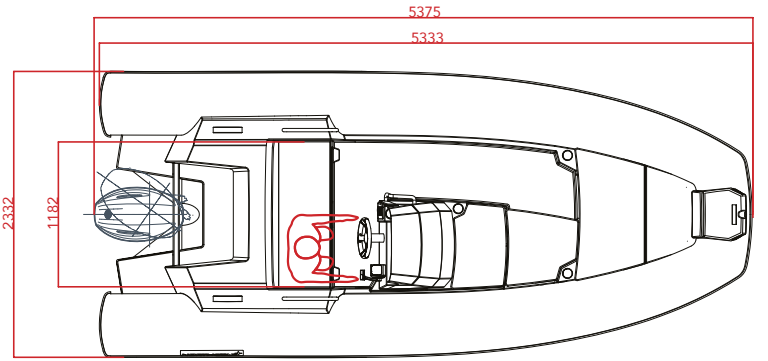
Essential requirements (reference to relevant articles in Annex IA & IC of the Directive)	Harmonised standards *Full Application*	Harmonised standards *Partial application, see tech. file*	Other reference documents [3] *Full Application*	Other reference documents [3] *Partial Application, see tech. file*	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)	☒	☐	☐	☐	☐	14945
Protection from falling overboard and means of reboarding (2.3)	☒	☐	☐	☐	☐	15085
Visibility from the main steering position (2.4)	☒	☐	☐	☐	☐	11591
Owner's manual (2.5)	☒	☐	☐	☐	☐	10240
Integrity and structural requirements (3)						
Structure (3.1)	☒	☐	☐	☐	☐	12215-1,12215-4
Stability and freeboard (3.2)	☒	☐	☐	☐	☐	6185-3
Buoyancy and flotation (3.3)	☒	☐	☐	☐	☐	6185-3
Openings in hull, deck and superstructure (3.4)	☒	☐	☐	☐	☐	9093,9094-1312216
Flooding (3.5)	☒	☐	☐	☐	☐	6185-3
Manufacturer's maximum recommended load (3.6)	☒	☐	☐	☐	☐	6185,-
Liferaft stowage (3.7)	☐	☐	☐	☐	☐	
Escape (3.8)	☐	☐	☐	☐	☐	
Anchoring, mooring and towing (3.9)	☒	☐	☐	☐	☐	6185-3
Handling characteristics (4)	☒	☐	☐	☐	☐	6185-3
Engines and engine spaces (5.1)						
Inboard engine (5.1.1)	☐	☐	☐	☐	☐	
Ventilation (5.1.2)	☐	☐	☐	☐	☐	
Exposed parts (5.1.3)	☐	☐	☐	☐	☐	
Outboard engine starting (5.1.4)	☒	☐	☐	☐	☐	11547
Fuel system (5.2)						
General – fuel system (5.2.1)	☒	☐	☐	☐	☐	7840,9094
Fuel tanks (5.2.2)	☒	☐	☐	☐	☐	10088,16147
Electrical systems (5.3)	☐	☐	☐	☐	☐	
Steering systems (5.4)						
General – steering system (5.4.1)	☒	☐	☐	☐	☐	8848,10592,13929,28847,28848
Emergency arrangements (5.4.2)	☒	☐	☐	☐	☐	
Gas systems (5.5)	☐	☐	☐	☐	☐	
Fire protection (5.6)						
General – fire protection (5.6.1)	☒	☐	☐	☐	☐	9094-1
Fire-fighting equipment (5.6.2)	☐	☐	☐	☐	☐	
Navigation lights, shapes and sound signals (5.7)	☒	☐	☐	☐	☐	KVR
Discharge prevention (5.8)	☒	☐	☐	☐	☐	8099
Annex I.B – Exhaust Emissions [5]						
Annex I.C – Noise Emissions [6]						
Noise emissions level (I.C.1)	☒	☐	☐	☐	☐	
Owner's manual (I.C.2)	☒	☐	☐	☐	☐	

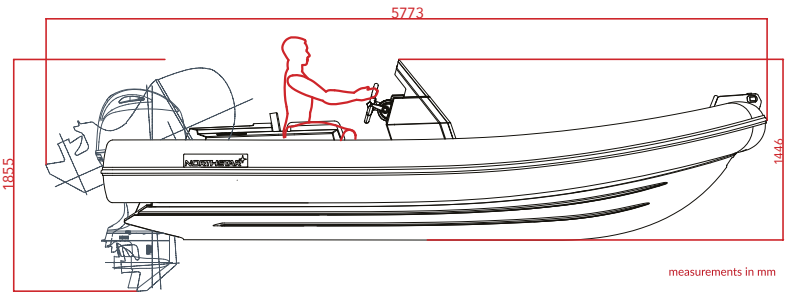
[3] Such as non-harmonised standards, rules, regulations, guidelines, etc.
[4] Standards published in EU Official Journal
[5] See Declaration of Conformity of engine manufacturer
[6] Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust

NORTHSTAR
AXIS 5.3

Specifications

Length	535 cm. / 17'5"
Beam	233 cm. / 7'8"
Weight	495 kg. / 1092 lbs
Tube Diameter	0.48 m. / 18.9"
Suggested Tube Pressure	0.18 bar / 2.6 psi
No. of Chambers	4
Maximum Persons	9
Minimum Power	70 HP
Maximum Power	115 HP
Recommended Power	90 HP
Shaft Length	L
Fuel Tank Capacity	62 lt. / 16.4 US Gal
Design Category	CE - Cat. C





measurements in mm

4. BOAT IDENTIFICATION, EQUIPMENT AND FEATURES

4.1. FRP SECTION

4.1.A. CONSTRUCTION

Northstar AXIS Tender fiberglass sections are made of polyester resin with fiberglass layers by hand lay up and/or vacuum infusion methods. The boat is manufactured using a combination of bi-directional glass fabric and bi-axial fabric type glass fiber. The hull is reinforced with longitudinal and transverse reinforcement elements. The areas between the hull reinforcements are filled with closed cell polyurethane.

The deck is solid laminate using a combination of bi-directional cloth glass, core-mat, honeycomb, and some chopped strand mat. Non-slip deck texture is built into the molding.

4.1.B. DECK FITTINGS AND CONSOLE FEATURES

There is anchor storage at the bow of the boat.

Lids can be lifted by integrated handles on them after the latches are opened.

In all AXIS tenders, aft seat lid opens to the rear storage area. In AXIS 4.2, AXIS 4.8, and AXIS 5.3, this storage area contains the battery, ladder and fuel-water separator and the 360° light (under the lid). In AXIS 3.1, AXIS 3.4, and AXIS 3.8 battery is located under the seat port side of the console.

In all AXIS models, engine wells are self-draining, the decks are self-drained underway. For draining the deck, remove the expansion plug(s) located at the bottom of the aft seat and drive your boat right below the planning speed for water to be discharged. Replace the expansion plug.

! CAUTION

A small amount of water may remain on the sides of the tube which may flow forward during deceleration.

Some accessories on the console may vary depending on the model and hardware.

4.2. INFLATABLE TUBES

4.2.A. TUBES

The tubes of Northstar AXIS Tenders are manufactured using Hypalon (CSM) fabric.
The boat has inflation chambers around the hull. Under normal circumstances, slight overpressure can be used, however, the boat should never be used while the tubes are underinflated.

CAUTION

Although the inflatable tubes of Northstar AXIS Tenders are tested by over-pressurization and will withstand up to 30 % pressure rises due to temperature differences, it is important to check the pressure of the compartments at regular intervals and adjust them to a maximum of 180 mbar (2.6 psi) to prevent premature wear of the tubes.

CAUTION

Especially in summer when the air temperature is high, tubes should be brought to working pressures during the hottest hours of the day. In this way, overpressurization of tubes due to sun's heat can be prevented.

4.2.B. INFLATION / DEFLATION

Inflation

Inflate the tubes to 60-70 % of the recommended maximum pressure in the following order – pre-inflation:

1. Port aft chamber
2. Starboard aft chamber
3. Port front chamber
4. Starboard front chamber

In AXIS 3.1, AXIS 3.4 and AXIS 3.8, there are only 3 chambers on the tube. On these models the pre-inflation order should be as follows:

1. Port aft chamber
2. Starboard aft chamber
3. Bow Chamber

Then, fill the chambers to the recommended pressure in the same order.

WARNING

Do not inflate a single section fully before pre-inflating other chambers first.

Deflation

Deflate the tubes to 25 – 35 % of the recommended pressure in the reverse of the inflation order (starting from bow chamber) – predeflation.

Then you can deflate all of the remaining air.

DANGER

The tube is slippery, especially when wet. Stepping on the tube can be dangerous in these situations. Handles are available on the tube for safety.

WARNING

Do not deflate a single section fully before pre-deflating other chambers first.

4.2.C. MAINTENANCE AND USE OF POP UP SKI PYLON (OPTIONAL)

Pop up ski pylon should be kept free of salt and kept lubricated at all times to prevent corrosion. Use of a lithium based spray grease is advised. Please apply a light coat to the bottom spring and also on the moving parts every 3 months and at the beginning of wintering.

To open the tow pylon;

1- While pressing the round section with one hand, pull the latch with your other hand. Tow pylon will release.
2- Lift the tow pylon until it locks itself.
3- To close, release the mechanism by pulling the latch. The tow pylon will drop down.
4- Finally, while pulling the latch, push down the tow pylon fully, release the latch, and ensure it is locked in place.
5- All moving parts and body of tow pylon must be lubricated with a lithium spray grease every 3 months.

! WARNING

Be careful not to get your finger caught in the latch mechanism when opening and closing the ski tow pylon.

! CAUTION

Operators need to be fully aware of their RIB's limitations and possess the skill and knowledge for skiing and other towed activities.

! WARNING

Do not use for parasailing, kiteflying or towing other watercraft.

! WARNING

Do not use the tow pylon to pull a ski tube or any inflatables exceeding the capacity of your RIB.

! DANGER

Misuse of the ski tow pylon can cause death or serious injury.

! DANGER

The use of a ski tow pylon extension, or any other device attached to the pylon, is not recommended. The use of a pylon extension will alter the load-handling characteristics of the pylon, possibly resulting in a dangerous situation that could cause loss of control, death or serious injury.

5. SYSTEMS AND CIRCUITS

5.1. PROPULSION SYSTEM

Never forget the danger that boat propellers can inflict to people in the water. Remember to shut off your engines when approaching swimmers, or you or somebody else is trying to remove debris from your propeller. When your AXIS Tender's engine is running, alert swimmers to stay clear off the stern.

DANGER

Therefore, the best and safest course of action to take is to stop your engine when people are in the water near your AXIS Tender.

CAUTION

Explanatory information about outboard motors is contained in the engine manual. Please refer to this book to learn the necessary information for your outboard.

5.2. ELECTRICAL SYSTEM

The battery is under the port side console seat in AXIS 3.1, AXIS 3.4 and AXIS 3.8, and under the aft seating in AXIS 4.2, AXIS 4.8, and AXIS 5.3.

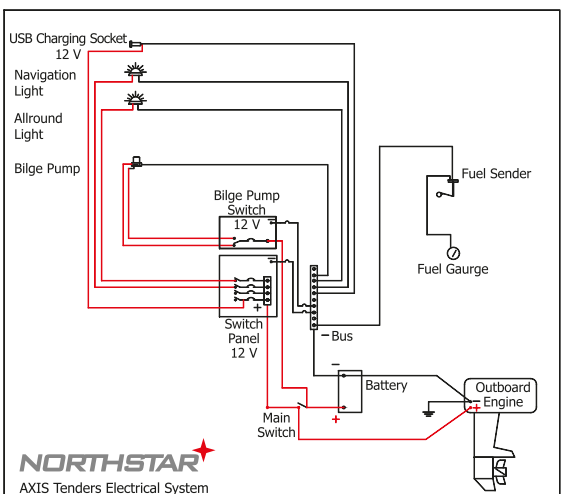
It is recommended to use a fully closed battery (maintenance-free type) with Northstar AXIS Tenders.

CAUTION

If you want to avoid expensive repairs, never disconnect the battery connections or turn the battery switch off while the engine is running!

5.2.A. ELECTRICAL INSTALLATION

The following drawing indicates electrical installation of your AXIS Tender.



If there is a problem in electrical system, using the main switch you can cut off the connection.

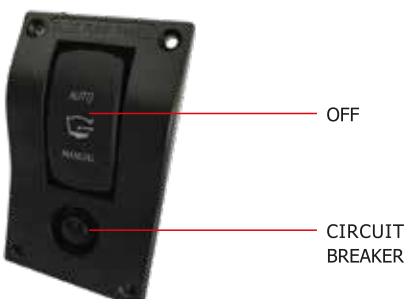
5.2.B. SWITCH PANEL

The following is the appearance of the electric switch panel. Your AXIS Tender switch panel is equipped with circuit breakers instead of fuses. In case of a problem in the electrical circuitry the breaker will cut the electrical current. To check your circuit breakers you need to remove the cover of your switch panel. There are two small holes on the side of the panel which you can use to remove the cover. Once the cover is removed you will see the circuit breakers with their amperage shown on them. If the button of the circuit breaker is out you can push it in to restore circutry.

A switch will operate the port / starboard navigation (running) light and must be used in the dark or when the visibility condition dictates while underway. A socket type allround light is used on all AXIS Tenders. The light is stored under the aft seat lid. Before use, install the light to its socket by the engine well. Allround (anchor) lights can be turned on from the switch panel.

- The circuit breakers for the Navigation (Running) and Allround (Anchor) lights 5 amps each.
- There is a spare 10 amp breaker.
- The horn has a 15 amp breaker.

Your automatic bilge pump has an individiual switch panel on the console. On this panel, the switch has both automatic and manual functions. Under normal circumstances this switch should be left on auto. If the automatic function of your bilge pump fails, you can push the manual button to run your bilge pump. The circuit breaker of this switch is right below the switch and can be reset by merely pushing on the black button in case the breaker goes off.



! CAUTION

If a breaker consistently cuts the electrical current, please have your electrical circuitry checked by a professional.

All AXIS Tenders are equipped with navigational lights that comply with the COLREGs (International Regulations for Preventing Collisions at Sea).

WARNING

When not in use, keeping the allround light at its location under the lid is highly recommended to prevent the accidental damage.

DANGER

Battery acid is corrosive, so you have to protect your eyes and skin if you have to work on it. You must rinse splashes of acid with freshwater and consult a doctor immediately. You can neutralize splashes of acid on the skin or clothes with acid transformer or soapsuds.

WARNING

Check from time to time if the battery terminals have a tight fit and if there are any corrosion patches.

WARNING

Batteries may produce explosive hydrogen gas. Keep all sparks, flames, and smoke-generating materials away from the batteries.

DANGER

Always wear eye protection near the battery and ensure adequate ventilation during installation.

5.2.C. MAIN SWITCH

Main switch of your AXIS Tender is located inside the glovebox.

This main switch is used to cut off the electrical current of all system.

5.3. FUEL SYSTEM

5.3.A. FUEL AND OIL

If your AXIS Tender is equipped with a two-stroke engine, there may be a separate oil tank depending on the model of the engine. See the engine manual for more details.

Fuel Tanks
In all AXIS Tenders, the fuel tanks are under the console. A Fuel-Water Separator is also provided within the fuel system, which must be replaced every season (or in 100 working hours – whichever comes first) and always carry a spare element in case of clogs. Fuel-water seperator is located at the aft storage.

In case repairs are necessary, the fuel tank can be removed by unbolting the console. Working on a fuel tank, especially on a partially full one, is extremely dangerous, requiring immense care and must not be tackled without proper training and is best left to the professionals.

! CAUTION

For starting and other information, please consult your outboard motor's owner's manual.

5.3.B. SAFETY ADVICE ON FILLING FUEL TANKS

! DANGER

First, you should care that your AXIS Tender is moored safely at the jetty. In every case, the engine must be switched off while filling the fuel tank. While filling and at the filling station, smoking is absolutely forbidden. After having filled up the tanks, the fuel tank area must be aired for at least 5 minutes.
Tank fill is located at the port side of the console.

Fueling Precautions

•Close all hatches and other openings before fueling.
•Extinguish all smoking materials.
•Turn off engine, all electrical equipment, radios, stoves, and other appliances.
•Remove all passengers.
•Keep the fill nozzle in contact with the filler and wipe up any spilled fuel.
•Check the bilges for fuel vapors before starting the engine.
•Do the "sniff test". Sniff around to make sure there is no odor of gasoline anywhere in the boat.

Fuel Management

Practice the "One-Third Rule" by using:
• One-third of the fuel going out
• One-third to get back and
• One-third in reserve

5.4. BILGE PUMP

Bilge pump;
- A 500 GPH automatic bilge pump is located at the very end of the aft storage.

The bilge pump should be checked periodically for its operation. The control switch of the automatic bilge pump is on the main console.

All AXIS Tenders are self-bailing boats, and they should not receive water below decks under normal circumstances. The bilge pump is provided as a safety measure on your AXIS Tender and should be used if water enters the bilges.

The bilge pump is fed directly from the batteries, and even if you turn off your main switch, it is powered on. Therefore, leave your bilge pump in the automatic position when leaving your AXIS Tender. Water which can enter the bilge for various reasons will be automatically discharged when you are not in the boat.

! CAUTION

Running the electric bilge pumps dry will damage the pump.

5.5. HYDRAULIC STEERING SYSTEM

The hydraulic steering system must be checked periodically for leaks, corrosion, and wear.

CAUTION

Check the fluid level periodically. It must be noted that periodical lubrication of the steering shaft with marine grease is necessary will prolong your steering system's life and will make it easier to operate.

5.6. CONTROL SYSTEMS

The cable and cable connections must be checked regularly for wear and corrosion.

WARNING

All electrical and steering connections must be routed through the protection tube in AXIS Tenders. Leaving these cables, hoses and connections open in the boat can cause accidents and premature wear of these parts.

6. SPECIAL MANUALS

Along with the AXIS Tenders instruction manual, you will also have manuals for the equipment installed on your boat. Please read these manuals and learn about the equipment. If you hesitate for any information on the equipment, contact NORTHSTAR or your dealer.

7. ENVIRONMENTAL CONSIDERATIONS

Boating is an activity, which interacts with the environment. It is our responsibility to be wary of the environmental risks and take precautions to prevent any damage to it.

When refueling, take all precautions to prevent spillage. Fuel and oil spillage into water contaminates the environment. Never discharge, fuel, oil, or other inorganic substance.

Remember that overfilling a fuel tank will cause spills from the air vent of the tank. Also, contaminated bilge water will pollute the waters- do not discharge contaminated bilge water unless you are required to do so due to safety reasons.

Any waste, such as garbage, plastics, food, wood, chemicals, and sewage, collected during the trip must be disposed of properly after returning ashore.

Please have your engine maintained to the necessary standards to prevent excessive exhaust emissions, which pollute water and air.

When cleaning your AXIS Tender, always try to use "biodegradable" marine products to safeguard the environment. Cleaners that contain aggressive chemicals such as phosphates, chlorine, solvents, and petroleum derivatives must not be used.

If you keep your AXIS Tender in the water, sooner or later, you will face marine growth on the bottom. Antifouling paint can be used to prevent this. Look for a suitable one to use on your AXIS Tender.

CAUTION

Please check the antifouling bottom paint regulations in your area and use a suitable one if necessary.

CAUTION

Be aware of International Convention for the Prevention of Pollution from Ships (Marpol) and respect it.

WARNING

Check the weather report to see if it is suitable for your intended trip.

8. OPERATING YOUR BOAT

8.1. PRE-OPERATION CHECKS

It is very important to check your boat and equipment regularly.

8.1.A. WHAT AND HOW TO CONTROL

The following list shows what to check and how to examine them:

Batteries and Electrical Connections
Ensure they are in safe condition. Check the cables (clean, not worn, etc.) All connections must be tight and clean; there should be no damage anywhere in the cable insulation.

Switch Panel
If any of the circuit breakers goes off reset it and investigate the cause. Check switches for their functions.

Fuel System
Fill the tank and check the fuel hoses for leakage and freedom of movement.

Inflatable Tube
The tube must be tight and fully inflated, check your pump and valves for any leak. The connection of the tubes to the hull should be checked every week.

Propulsion System
Check the engine owner's manuals for its recommendations.

Hydraulic Steering System
Turn the steering fully in both directions to check its operation.
• Check all hoses and clamps for fit and that all drain hoses are in place and are not worn out.
• Check all the equipment, including your bilge pump.
• Look for damages at the fuel hose. Does it smell like gasoline?
• Check all rubber parts periodically and change them if they are worn out and / or damaged.
• Look for damages in the cooling system and be sure that the engine is lowered into the water.
• Tightly close drain plugs before launching your Northstar AXIS Tender.
• Check the remote control and the steering system. Are the cables for the remote control and steering fixed and operating freely?
• Check the amount of fuel. Do you have enough fuel for the intended trip?
• Check your safety equipment – more on this later.
• Is the battery connected correctly? Is it charged?
• Turn ON your main electrical switch.

! CAUTION

After you have carried out the above checks, you can start the engine as described in your engine's owner's manual.

8.2. CONTROLLING ELECTRICAL SYSTEMS

Check the battery and electrical system before your trip. If you have to change something in the electrical system, you have to separate the battery from the system at first.

! WARNING

If your battery does not have enough charge for starting the engine, you should charge it on land. It is allowed to charge the batteries on board, only if the boat is equipped with a suitable appliance – a battery charger. Grease/lubricate poles of your battery to prevent corrosion and spark.
For further and detailed information, please read the operating instructions of the respective equipment manufacturer.

8.3. AT THE PORT

After starting, you should maneuver your AXIS Tender only with low speed in the port, remembering that a motorboat has no brakes. It is enough if you put the engine in gear without increasing speed (idle speed) for maneuvering. While casting off, you should always go away from the shore at right angles, and you should be keen on the speed restrictions in the area. While maneuvering, pay attention to the characteristics of the boat. Boats with a right-turning engine (RH-expression) are easier to berth on the port side, such with a left-handed propeller at the starboard side. Most outboards have right turning propellers.

! CAUTION

Making a sternway should be done at a very low speed so that there is always enough time and space for correction.

8.4. VIBRATIONS

If you feel vibrations in the hull while cruising, you should check the propeller and the shaft. Even a little piece of wood can damage the propeller, or debris may cause vibration, which needs to be removed from the propeller. A damaged propeller can lead to severe damages at the hull or the engine. Nylon bags are known to cause propeller cavitation if they come in contact while underway. Stop the engine, tilt, and remove the nylon or other debris. Please check the steering gear from time to time and lubricate as necessary with marine grease.

8.5. SHIFTING

Shifting should only be done if the engine is idling. Shifting must be done quickly for proper seating of the gears in the transmission. Slow shifting may damage your transmission. If you try to shift with engine revolutions higher than the recommended idle speed, you can cause damage to the boat, the engine, or the gears.

! CAUTION

If you want to switch off the engine, please shift into neutral and do not accelerate anymore. You may switch off the engine by turning the ignition key into its off position.

! CAUTION

Shifting must be performed in a sudden and single movement. The process of slowly shifting into gear will lead to premature wear of the gears.

8.6. TRIM

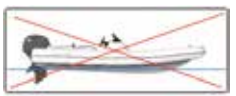
It is important to set your AXIS Tender for proper trim angle for the most efficient and safe operation. Balance the weight distribution in the boat and set your outboard's trim angle, which will produce the best outcome.

WARNING

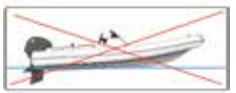
If the trim angle of your engine is kept too low, the boat may have a bow down attitude. Do not operate this craft at negative propulsion trim settings (bow down) at high speed. Craft may lean over side. Instability in turns may result. If your engine is equipped with power trim, use negative trim to accelerate to planning speed from displacement speed and at lower planning speeds in choppy water.

Proper trim angle for AXIS Tenders:

TRIM DOWN
BOW DOWN



TRIM UP
BOW UP



PROPER
TRIM ANGLE

If the trim angle is too high, the boat will have a bow up attitude and will plane much harder.

CAUTION

Typically, negative trim is useful in getting the boat up on plane. After the boat starts planing, the trim must be adjusted to the most efficient and comfortable setting.

8.7. FIRST OPERATING HOURS

Please refer to the running in tips and the period in the owner's manual of your outboard motor to get used to your AXIS Tender.
Do not operate at high speed while in congested high traffic waterways or weather and sea conditions of reduced visibility, high winds, or large waves.
Observe Right of Way as defined by Rules of the Road and required by COLREGS. Always be sure to have sufficient distance to stop or maneuver if required to avoid collisions.

9. SAFETY

Northstar AXIS Tenders can reach very high speeds. Therefore, they should be handled by trained and/or experienced persons only. Do not leave untrained persons or children without supervision on board. Do not leave the ignition key on the boat.

WARNING

Maneuverability at high speeds is limited. Sudden turns may cause loss of control. Reduce speed before making sharp turns in either direction.

CAUTION

Important safety warnings are found throughout this manual. Please read them carefully.

9.1. OPERATOR'S RESPONSIBILITIES

•Make sure your AXIS Tenders is in top operating condition and that there are no tripping hazards. Your RIB should be free of fire hazards and have clean bilges.
•Safety equipment, required by law, is on board, maintained in good condition, and you know how to use these devices properly.
•Have complete knowledge of the operation and handling characteristics of your AXIS Tender.
•Know your position and know where you are going.
•Maintain a safe speed at all times to avoid a collision.
•Avoid sudden maneuvers at speed.
•Always use the safety lanyard by attaching it to the killswitch and attach the other end to your wrist or your life jacket.
•Watch for changing weather conditions and act accordingly.
•Know and apply the Collision Prevention Regulations at Sea. (COLREGS)
• Maintain a clear, unobstructed view forward at all times. "Scan" the water back and forth; avoid "tunnel" vision.

! CAUTION

You are the safety key of your AXIS Tender!

9.2. OVERLOADING

Never overload your AXIS Tender with passengers and cargo beyond its safe carrying capacity. Too many people and/or gear will cause your AXIS Tender to become unstable. Always balance the load so that the boat maintains proper trim. Here are some things to remember when loading your AXIS Tender:
• Distribute the load evenly fore and aft and from side to side.
• Keep the load low.
• Keep passengers seated (Do not stand up in a small boat!).
• Fasten gear to prevent shifting.
• Do not exceed the capacities on the manufacturer's plate.

Remember that the distribution of load will change your AXIS Tender's center of gravity (CG). Following figures show the effect:

CG too much aft | CG on center: OK | CG too much ahead

Small inclination towards aft is an indication of a proper distribution of weight.

! WARNING

Breaking waves may cause serious stability hazard.

9.3. WEATHER CONDITIONS

You should never leave the dock without first checking the local weather forecast. You can get the weather information from the TV, radio, local, newspaper, on-line, or from one of the available applications for your smartphone.

! CAUTION

At certain times of the year, weather can change rapidly, and you should continually keep a "weather-eye" out. While you are out on your AXIS Tender, here a few signs you can look for that indicate an approaching weather change:

- Weather changes generally come from the west. Scan the sky with your weather eye, especially to the west.
- Watch the clouds, especially the rapid vertically rising ones.
- A sudden drop in temperature.
- Sudden change in wind direction and/or speed.
- If you have a barometer on your AXIS Tender, check it every 2 to 3 hours. A rising barometer indicates fair weather and a rise in wind velocity; a falling barometer indicates stormy or rainy weather.

9.3.A. WHAT IF IN SEVERE WEATHER CONDITIONS

- Reduce speed, but keep just enough power to maintain headway.
- Turn on running (navigation) lights.
- Head for the nearest shore that is safe to approach, if possible.
- Head bow of the boat into the waves at about a 45-degree angle.
- Keep bilges free of water.
- Seat passengers on the bottom of the boat near the centerline.
- If your engine fails, trail a sea anchor on a line from the bow to keep the boat headed into the waves. A bucket will work as a sea anchor in an emergency.
- Anchor your AXIS Tender, if necessary.

9.4. FIRE

Most fires are the result of gasoline and oil accumulating in the bilge from careless fueling practices. Use the fire extinguisher at the base of the flames using a sweeping motion. Prudent and accurate use of the available chemicals should contain all but the worst fires. Verify the fire has been extinguished. If so, check the damage and get assistance immediately. If not, get out by the nearest exit and swim as far as possible upwind from the boat and use the visual distress signals to get assistance.

! WARNING

Gasoline will float on top of the water and can burn. If the boat is abandoned, swim up wind, far enough to avoid fuel that may spread over the surface of the water to avoid serious injury.

9.5. CARBON MONOXIDE HAZARD

! DANGER

Do not forget that your engine produces exhaust fumes which contain the dangerous carbon monoxide (CO). Refrain from exposure to engine exhaust at all times. Passengers of boats operating.

! DANGER

Be aware of the dangers of Carbon Monoxide and avoid any direct or prolonged exposure.

10. MAINTENANCE AND STORAGE

10.1. MARINE ENVIRONMENT

It must be remembered that the marine environment is a very harsh and corrosive one. Especially salt water, sun, spray, dust, chemicals in the air, and other elements take their toll on your AXIS Tender in a short time unless it is protected and maintained properly.

! CAUTION

If your AXIS Tender is used in saltwater, it is necessary to rinse it with fresh water after each use. Also, it is highly recommended to wax your AXIS Tender regularly. All metal hardware must be cleaned and treated with chrome cleaner and / or wax.

10.2. CLEANING

Regular cleaning will keep the surface of your AXIS Tender in good condition for many years.
You are advised to use completely biodegradable boat cleaning agents. Do not use scouring powder, solvents, ammonia, and chlorine because they scratch and bleach the gelcoat surface. If the surface is very dirty, rub it with boat polish, which is free of abrasives and silicone after washing. We recommend you to take special marine products, which you can buy in boat shops and chandleries. You can use wine vinegar for removing lime patches (dried drops of hard water). You can use customary cushion cleaner or marine vinyl cleaner for cleaning cushions.
The cushions must be let dried after use and cleaning to prevent the formation of mildew. In case mildew forms on cushions, mildew removers can be used.

It is regular cleaning that will ensure the long life of inflatable boat fabric. Under normal conditions, tube fabric should be cleaned only with freshwater and without the use of abrasives, solvents, ammonia, chlorinated cleaners. You can use special inflatable boat cleaners for stubborn stains.

! CAUTION

Faulty cleaning will open the pores of the Hypalon (CSM) layer on the surface of the tube fabric, causing it to penetrate the dirt. Removal of dirt penetrating Hypalon (CSM) fabric is extremely difficult and also shortens fabric life.

10.3. BELOW THE WATERLINE

Do not clean the bottom of the Northstar AXIS Tenders mechanically (with a hard brush or sandpaper) to avoid triggering the formation of bubbles on the gelcoat (osmosis).

! CAUTION

Always apply these chemicals according to their manufacturer's instructions for use. Be careful not to harm the environment during the use of these chemicals.

10.4. COVER (OPTIONAL)

We recommend you to cover your AXIS Tender with a boat cover if you want to keep the high quality of the surfaces and the fittings. Start to uncover your AXIS Tender from the stern to the bow and do it the other way around if you want to cover it. The cover is fixed with a tightening rope around.

10.5. STAINLESS STEEL

Stainless steel is not entirely resistant to corrosion and must be looked after properly and regularly. To do this, always wash stainless steel equipment with freshwater and if necessary with soap after each use. Do not use scouring powders, abrasives, bleach, or acids when cleaning.
Whenever you see a sign of rust on your stainless steel, use chrome polish to remove them. If this is not done, these rust spots may develop into pitting, which will ruin the stainless steel. When waxing your AXIS Tender, wax your stainless hardware too.

10.6. CORRECT MATERIALS AND COMPONENTS

NORTHSTAR AXIS Tenders are designed for the harsh marine environment and are certified for applicable safety standards.
To keep these qualities, please let your dealer handle work and repairs on your boat. You could endanger your safety and lose your warranty because of improperly installed equipment or the wrong choice of equipment.
If you order spare parts, always order quoting your boat's/engine's serial number. Hull serial number (HIN), on AXIS Tenders, is found on the starboard side of the transom and is molded in gelcoat.

10.7. WINTER STORAGE

It is advisable to winter your AXIS Tender in a protected area. If you are going to winter your AXIS Tender outside, it is highly recommended to thoroughly clean and polish it before covering.
This will prevent the dirt to settle on the finish of the boat.
Take precautions so that your AXIS Tender remains ventilated during storage to prevent the formation of mildew and corrosion. Also, remember to take precautions for freezing water inside the boat, hoses, and pipes.

! CAUTION

Disconnect and remove the battery when the boat is in long-term storage. Store your battery in a dry, ventilated place and charge it according to manufacturer's recommendations.
If the boat remains on the trailer for a long time, take special care that the weight of the boat is equally distributed on the touching points of the trailer rollers or bunks.

Fuel Tank

If there is leftover petrol in the tank, you should empty it and let some air in. You should cover open tanks, conduits, and hoses with cloth or gauze at their ends. This will enable ventilation but prevent dust from settling in.
Water set in the tanks and hoses may freeze during storage, causing damage. Empty your water tank and water system before storing your AXIS Tender.

! CAUTION

It must be remembered that your AXIS Tender will not be covered for warranty due to problems associated with improper storage. It is advised that your dealer handles the storage preparation for your AXIS Tender.

11. REPAIRING

Please consult your dealer who can give you good advice and can order the suitable spare parts if you want to repair your AXIS Tender by yourself. You should leave extensive repairs at the hull or the engine to experts. Do not attempt to repairs, which you are not trained to handle. Your dealer will take over such repairs and will give the job to an expert.

11.1. REPAIRING THE FABRIC

Your AXIS Tender is provided with a tube repair kit. In case of small punctures, this kit can be used to patch these.

Repairing the Tube

First, if there is no damage, check to see if the tube holds air. This test will help locate the leaking chamber. The order of operations:

1. Inflate the chamber and apply a water/soap solution to the fabric with a brush.

2. The location of the leak is determined either by a growing chain of bubbles or by a whispering sound if large enough.

3. Leakage shall be in one of the following categories:

- valve leakage,
- seam leakage,
- hole or tear.
- cover patch leakage,
- widespread leakage,

Some holes can be repaired by yourself, but others should be repaired in an authorized service point. The following may only be repaired at an authorized service point or factory:

- Holes or tears larger than 2,5 cm. (1 inch) of any type at any point;
- Any hole or tear up to 5 cm. (2 inches) in proximity to a seam;
- All kinds of seam leakage.

All these leaks usually require both internal and external patches. The internal patch can only be done by professionals. In this case, it is recommended that this service be organized by your dealer.
A temporary patch can be applied by the procedure below. But such a patch should be properly repaired at the first opportunity.

! CAUTION

Small holes in inflatable boats can be easily patched. However, there are some essential rules that must be followed to maximize patch life.

! CAUTION

All patches should be applied in a controlled environment (relative humidity should be below 60%, and the temperature should be in the range of 18° to 25°C (64° to 77°F). If the tube cannot be protected from the sun, avoid using the adhesive. Temperature affects the strength of chemical bonds. Dampness during the bonding process is also a critical factor affecting the result. Avoid breathing directly on areas covered by the adhesive. Some chemicals (adhesive or solvent) used in the repair process can be highly toxic.

! CAUTION

The following safety guidelines must be strictly followed:

- Do not smoke in places close to adhesive or solvent, do not approach with fire. Both are flammable.

! WARNING

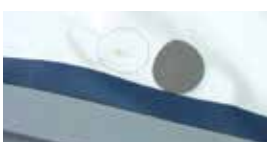
- Repairs should be made in a well-ventilated area, glue and solvents (MEK or toluene) may be very toxic.

11.2. USING THE REPAIR KIT

The Northstar repair kit should be used only for patching small holes.
Extensive damages should be repaired only by professional technicians at NorthStar Authorized Service Points or NorthStar factory.

1-Define the area around the cut or hole with margins as shown on Picture 1.

2-Cut a piece of fabric from the repair kit, shape it to the corresponding area as determined in Picture 1. Make sure that both surfaces are not damp.



3-Using the sandpaper, carefully sand the defined area and the bottom part of the patch fabric.

4-Apply the adhesive to both surfaces using a brush and wait for the glue to become tacky.

5-Carefully place the spare fabric on the surface you defined and apply pressure until it adheres completely.

! CAUTION

•Wait for at least half an hour before inflating the tube after minor repairs.
•Wait for at least 1 hour after repairing small cuts and holes.
(2-3 cm. cut or 0.5 cm. hole)
•Wait for at least 3 hours after repairing larger cuts and holes.
(6-8 cm. cut or 1-2 cm. hole)
•Inflate the tube at around 60% of the recommended pressure and go for a test at low speed.
•Recheck the air tightness of the repaired area before applying the recommended pressure value.

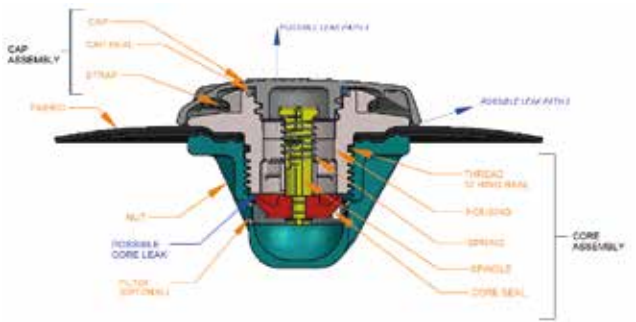
11.3. LEAKAGE AND BREAKAGE IN VALVES

The D7 valve is manufactured from quality materials and has been engineered to ensure a long life in arduous marine environments. In the unlikely event that you experience problems with this product you may find the following notes helpful.

If the problem is Leakage read section 1, if it is Breakage read section 2.

11.3.A. LEAKAGE

First identify where the leak is coming from- see diagram below.



Leakage Path 1 (from the core assembly)

This problem can be temporarily overcome by fitting the cap, as this is a secondary seal. To permanently fix the problem, carry out the following operations: -

With the buoyancy tube deflated and the valve in the closed position, remove the Cap, then fill the valve with some warm soapy water. Open the valve by pushing the Spindle down and turning anti-clockwise. Allow the water to drain through. Rinse through with plain water. Re-check the valve for air tightness.

If the leakage persists, use service tool C16605 with the buoyancy deflated and unscrew the core of the valve by turning it anti-clockwise. Check the rubber seal on the valve core for dirt or damage. Check that the sealing face on the plastic core is clean and undamaged.

Refit the valve and tighten as tightly as you can using hand pressure on the tool. Inflate the buoyancy tube and check for air tightness. We recommend that after around 24 hours the valve should be retightened to ensure it has fully seated. If the leakage persists contact your local repair shop.

Leakage Path 2 (from the edge of the valve)

Using tool C16605, ensure that the valve is as tight as possible with hand pressure only.

If the leak persists, unscrew the valve core and remove. Remove the core and inspect the thread 'O' ring seal and the condition surface of fabric around the hole where the flange of the valve contacts the fabric.

If the thread 'O' ring seal or core seal are damaged they must be replaced using the appropriate seal kit.

11.3.B. BREAKAGE

If the cap has been broken or the strap damaged, a new Cap/strap assembly can be obtained from your spares supplier. The loop securing the cap to the valve can be cut using a knife- being careful not to damage you or the raft fabric. The new loop can then be pushed over the retaining features (start with the thickest part of the strap) and will clip into place securing the cap firmly. Make sure the strap is the right way up before fitting, so there are no twists in the strap when you screw the cap on.

If the core of the valve is broken it can be replaced. See the previous section for information on how to remove and refit it.

12. TRAILERING AND TOWING

12.1. TOWING

You can tow your boat on the sea by attaching a tow line to the U bolt at the bow. Towing line rating must be at least 5 times of your Northstar RIB's total weight. Cleats or handles which are not designed for towing must not be used. When towing, a towed boat must be monitored at all times to make sure that the tow line length is appropriate for the conditions and the towed boat is not diving into the waves created. It is the skipper's responsibility to make sure that safe towing is possible at all times.

- No passengers should be allowed on the towed boat.
- Towed boat must be as light as possible with no loose items placed in it.
- The outboard motor must be tilted completely before towing.
- The boat should be towed at displacement speeds and it is the responsibility of the skipper to ensure that the boat is being towed at safe speeds.

12.2. TRAILERING

Choose the proper trailer for your AXIS Tender. More damage can be done to the RIB by the stresses of road travel than by regular operation. The hull is designed to be supported evenly by water. When transported on a trailer, your AXIS Tender should be supported structurally as evenly across the hull as possible. This will allow for even distribution of the weight of the hull, engine, and equipment. It should be long enough to support the whole length of the hull but short enough to allow the lower unit of the boat engine to extend freely.

! CAUTION

Check your vehicle owner's manual for specific information.

Use a suitable trailer for AXIS Tender and its mass.

•Rollers and bolsters must be kept in good condition to prevent scratching and gouging of the hull.

•Tie-downs and lower unit supports must be appropriately adjusted to prevent the boat from bouncing on the trailer. The bow eye on the boat should be secured with rope, chain, or turnbuckle in addition to the winch cable. Additional straps may be required across the beam of the boat.

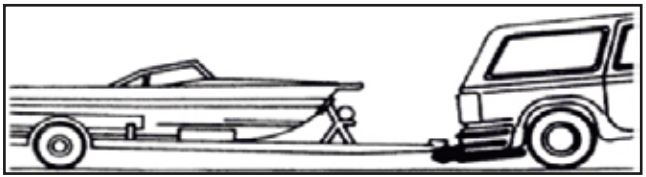
The capacity of the trailer should be higher than the combined weight of the boat, motor, and equipment. The tow vehicle must be capable of handling the weight of the trailer, boat, equipment, as well as the weight of the passengers and equipment, which will be carried inside. This may require that the tow vehicle may need to be specially equipped with a(n);

•The engine of adequate power.
•Transmission designed for towing.
•Larger cooling systems for the engine and transmission.
•Heavy-duty brakes.
•Load bearing hitch attached to the frame, not the

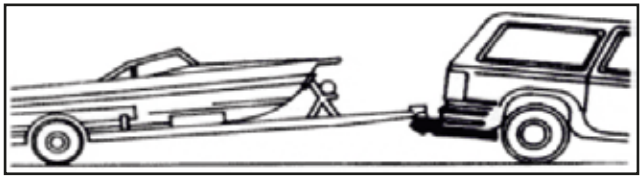
! CAUTION

Check your trailer before going out on the highway.

•The tow ball and coupler are the same sizes, and bolts with washers are tightly secured. (The vibration of road travel can loosen them.)
•The coupler is entirely over the ball, and the latching mechanism is locked.
•The trailer is loaded evenly from front to rear as well as side to side.



Too much weight on the hitch will cause the rear wheels of the tow vehicle to drag and may make steering more difficult.



Too much weight on the rear of the trailer will cause the trailer to "fishtail" and may reduce traction or even lift the rear wheels of the tow vehicle off the ground.

•The safety chains are attached crisscrossing under the coupler to the frame of the tow vehicle. If the ball were to break, the trailer would follow in a straight line and prevent the coupler from dragging on the road.

•The lights on the trailer function properly.

•Check the brakes. On a level parking area, roll forward and apply the brakes several times at increasing speeds to determine a safe stopping distance.

•The side-view mirrors are large enough to provide an unobstructed rear view on both sides of the vehicle.

•Check tires (including the spare) and wheel bearings. Improper inflation may cause difficulty in steering. When trailer wheels are immersed in water (especially saltwater), the bearings should be inspected and greased after each use.

•Make certain water from rain or cleaning has been removed from the boat. Water can add significant weight that will shift with the movement of the trailer.

Towing Precautions

•Allow more time to brake, accelerate, pass, and stop.
•Remember, the turning radius is also much greater.
•Curbs and roadside barriers must be given a wide berth when negotiating corners.
•Before operating on the open road, practice turning, backing up, etc. on a level parking area.

Pre-Launching Preparations

For the courtesy of others and prevent rushing, prepare your boat for launching away from the ramp before you approach the ramp.
•Check the boat to ensure no damage was caused by the trip.
•Raise the lower unit (remove supports) to the proper height for launching so it will not hit bottom.
•Remove tie-downs and make sure the winch is properly attached to the bow eye and locked in position.
•Put the drain plug in securely, if equipped.
•Disconnect the trailer lights to prevent shorting of the electrical system or burning out a bulb.
•Attach a line to the bow and the stern of the boat so the boat cannot drift away after launching, and it can be easily maneuvered to the docking area.
•Visually inspect the launch ramp for hazards such as a steep drop off, slippery area, and sharp objects.
When everything has been double-checked, proceed slowly to the ramp remembering that your boat is just resting on the trailer and attached only at the bow. The ideal situation is to have one person in the boat and one observer at the water's edge to help guide the driver of the tow vehicle.

Launching

•Keep the rear wheels of the tow vehicle out of the water. This will generally keep the exhaust pipes out of the water. If the exhaust pipes become immersed in the water, the engine may stall.
•Set the parking brake and place tire chocks behind rear wheels.
•Make sure someone else on shore is holding the lines attached to the boat.
•Lower the motor and prepare to start the engine (after running blowers - if equipped - and checking for fuel leaks).
•Start the boat motor and make sure water is passing through the engine cooling system.
•Release the winch and disconnect the winch line from the bow when the boat operator is ready.
At this point, the boat should be able to be launched with a light shove or by backing off the trailer under power.

Retrieval

The steps for removing your AXIS Tender from the water are the reverse of those taken to launch it. However, keep in mind certain conditions may exist during retrieval that did not exist during launching. As you approach the takeout ramp, take special care to note such factors as:
•Change in wind direction and/or velocity.
•Change in current and/or tide.
•Increase in boating traffic.
•Visibility, etc.
First, unload the boat at dock or mooring, if possible. Next, maneuver the boat carefully to the submerged trailer and raise the lower unit of the engine.

Then, winch the boat onto the trailer and secure it. Finally, drive the trailer with boat aboard carefully out of the ramp to a designated parking area for cleanup, reloading, and an equipment safety check. Practice will make launch and retrieval a simple procedure. The best advice is to retrieve your AXIS Tender cautiously with safety as your primary concern.

Storage of the Trailer

Since your Northstar AXIS Tender may be sitting on its trailer for quite some time before it is used again, it is important to store the trailer properly. To remove weight from the wheels, put cinderblocks or wood beams under the tongue and all four corners of the trailer frame.

13. WARRANTY TERMS

NORTHSTAR warrants to the original retail purchaser of this boat that it will, at its sole option, offer warranty as described hereunder;

13.1. GENERAL WARRANTY

NORTHSTAR boats are warranted to the original purchaser to be free of defects in materials or workmanship for a period of two (2) years from the date of delivery, subject to all limitations and conditions contained herein.

Limitations apply for commercial use/rental operations. Severe duty craft are not warranted by NORTHSTAR. Light duty commercial users may be entitled to a limited 1 year warranty. (Please contact Northstar or your dealer if in doubt)

13.2. STRUCTURAL HULL WARRANTY

Repair or replace the fiberglass hull if it is found to be structurally defective in material or workmanship for a period of five (5) years from the date of purchase. For this warranty, the hull is defined as the single fiberglass casting, which rests on the water and the upper deck molding connected to it. This warranty is subject to all limitations and conditions explained below.

13.3. TUBE WARRANTY

NORTHSTAR warrants to the original retail purchaser of this boat that it will at its sole option, repair or replace the Neoprene / Hypalon tube if it is found to be defective in material or workmanship for a period of two (2) years from the date of purchase.

Northstar further warrants its tube fabric and tube seams to hold air (per ISO 6185) to perform for a period of 5 years. This warranty is subject to all limitations and conditions explained below. The "air tightness" guarantee period according to ISO 6185, accepts the pressure change of max 20% in 24 hours.

Tube warranty period to hold air will commence after a maximum period of 1 year from the Bill of Lading date of the boat even if it remains in dealer inventory.

13.4. EXTERIOR FINISH WARRANTY

NORTHSTAR warrants its exterior gelcoat finish to be free from cosmetic defects, including blisters, cracks, or crazing for a period of one (1) year from the date of delivery to the original retail purchaser, subject to all limitations and conditions contained herein. Powdercoatings are warranted for 2 years provided they be washed with fresh water after each salt water use. Even the smallest of damages on the powdercoating must be repaired at once.

13.5. CUSTOMER OBLIGATIONS

The following procedures and customer obligations are conditions precedent to the availability of any benefits under warranty terms:

• Warranty coverage is available only to customers who purchased from an Authorized NORTHSTAR Dealer.

• Routine and timely maintenance and proper upkeep as outlined in the Owners Manual is the responsibility of the owner and is necessary to obtain warranty coverage.

• All warranty work is to be carried out at NORTHSTAR factory, authorized services or authorized distributors of NORTHSTAR. After it has been established that there is a valid claim under this warranty, NORTHSTAR will authorize, in writing, repairs to be made. Transportation or any other haul out or handling expenses to and from the repair facility will not be covered by this warranty and is the responsibility of the boat owner.

• The purchaser must give the dealer from whom the boat was purchased written notice of any claim under this warranty period and within a reasonable period of time (not to exceed thirty (30) days) after the defect is or should have been discovered. NORTHSTAR will not repair any condition or replace any part if a claim is not made on time.

• NORTHSTAR will not repair any condition or replace any part if the use of the boat is continued after the defect is or should have been discovered; such continued use causes other or additional damage to the boat or parts of the boat.

• Only the dealer should write or call the "warrantor", NORTHSTAR.

• NORTHSTAR will then determine whether the claim is covered by this warranty and will advise the dealer.

• The dealer will contact the NORTHSTAR Boat owner regarding instructions for delivery of boat or part for warranty repair if it is covered under warranty.

13.6. WARRANTY EXCEPTIONS

NORTHSTAR warranty does not cover the following:

• If the Hull Identification Number (HIN) molded to the transom is changed, defaced, or tampered with in any way.

• Engines, metal plating or finishes, windshield breakage, leakage, fading and deterioration of paints, canvas, upholstery, and fabrics;

• Gelcoat surfaces including, but not limited to, cracking, crazing, discoloration or blistering beyond the one (1) year warranty period;

• Routine maintenance items, adjustments, normal wear and tear, puncture, discoloration, oxidation, abrasion, mildew. Wear and tear items include but not limited to rubbing strakes, keel guards, and ropes.

• Accessories and items which were not part of the boat when shipped from the NORTHSTAR factory, and/or any damage caused thereby;

• Damage caused by misuse, accident, galvanic corrosion, negligence, lack of proper maintenance, theft, environmental corrosion, acid rain, chemical fallout, bird lime, tree sap, hail, extreme weather, mechanical shocks or improper tampering;

• Esthetical defects (stains, scratches, mold, pressure marks, dirt, deformation) on the tube surface

• Any boat used for racing, competitions, rental and commercial operations – (see 3. GENERAL WARRANTY)

• Use of the boat with improper tube inflation;

• If powdercoated surfaces are not maintained well and not rinsed after each salt water use

• Any boat operated contrary to any instructions furnished by NORTHSTAR or operated in violation of any laws, rules or regulations;

• If alterations have been made to the boat;

• If tube covers or tube sleeves are used;

• Transportation costs of the boat or parts, or any other haul out or handling expenses to and from the repair facility,

• Any published or announced catalog performance characteristics of speed, fuel, and oil consumption, and static or dynamic performance in the water;

• Any boat that has been powered beyond NORTHSTAR's power or engine weight recommendations;

• Boats damaged by accident and boats damaged while being loaded onto, transportation upon or unloaded from trailers, cradles, or other devices used to place boats in the water, remove boats from water or store or transport boats on or over land;

• Costs or charges derived from inconveniences or loss of use, commercial or monetary loss due to time loss and any other special, incidental or consequential damage of any kind or nature;

• Improper use, in particular negligent use, or rash use, misuse, or abnormal use;

• Use of damaging chemicals in cleaning, use of abrasives

• Accident or catastrophe such as but not limited to explosion, fire, flood, storm, lightning, transport, riot, theft, earthquake and collision;

• Unsuitable storage or transportation conditions including but not limited to storing in an environment suitable for mildew growth, storing wet, fouled, unprotected, overinflated, under freezing temperatures, under extremely hot conditions, unventilated conditions, transporting or storing hull unevenly supported.

• Any repair or replacement of parts covered by this warranty will not extend the life of this warranty or any downtime period for repairs will not be added to the warranty period.

NORTHSTAR AXIS TENDERS

13.7. TRANSFER OF WARRANTY

This warranty automatically transfers to subsequent owners within the warranty period offered to the original purchaser. Warranty will not be transferred on any commercially operated craft.

13.8. GENERAL PROVISIONS

ALL GENERAL, SPECIAL, INDIRECT, INCIDENTAL, AND/OR CONSEQUENTIAL DAMAGES ARE EXCLUDED FROM THIS WARRANTY. The owner's sole remedy is the repair or replacement of the vessel or it's allegedly defective parts and that no other legal or equitable remedies shall be available to the owner. Some countries do not allow the exclusion of incidental or consequential damages, so the foregoing may not apply to you. NORTHSTAR MAKES NO WARRANTY, OTHER THAN CONTAINED HEREIN; ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARISING IN COUNTRY LAWS IS LIMITED TO THE PERIOD OF THIS WARRANTY. ALL OBLIGATIONS OF NORTHSTAR SPECIFICALLY SET FORTH HEREIN. NORTHSTAR DOES NOT AUTHORIZE ANY PERSON OR DEALER TO ASSUME ANY LIABILITY IN CONNECTION WITH NORTHSTAR BOATS. NORTHSTAR's obligation concerning this warranty is limited to making repairs to or replacing the defective parts, and no claim for breach of warranty shall be cause for cancellation or rescission of the contract of sale or any boat manufactured by NORTHSTAR.

NORTHSTAR will discharge its obligations under this warranty as rapidly as possible, but cannot guarantee any specific completion date due to the different nature of claims that may be made and services that may be required. NORTHSTAR reserves the right to change or improve the design of its boats without obligation to modify any boat previously manufactured. This warranty gives you specific legal rights, and you may also have other rights which may vary from country to country.

NORTHSTAR shall in no way be responsible for any repairs, not PRE-AUTHORIZED by NORTHSTAR, in writing, or repairs performed by a repair facility, not PRE-AUTHORIZED.

Thank you for choosing a NORTHSTAR RIB.

NORTHSTAR

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ISO 9001
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