

## SOLAS 2553-141-19

# SOLAS HR Titan 4 Stainless Steel 4-Blade Propeller User Manual

Model: 2553-141-19

Brand: SOLAS

## 1. INTRODUCTION AND PRODUCT OVERVIEW

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This manual provides essential information for the proper installation, operation, and maintenance of your SOLAS HR Titan 4 Stainless Steel 4-Blade Propeller. Please read this manual thoroughly before installation and use to ensure safe and efficient performance.



This image displays the SOLAS HR Titan 4 propeller, featuring four highly polished stainless steel blades. The central hub, designed for shaft attachment, is visible with its internal splines, indicating a right-hand rotation propeller.

The SOLAS HR Titan 4 propeller is engineered for powerful thrust and smooth performance. Constructed from a high-grade stainless steel alloy with an optimal percentage of chromium, nickel, and molybdenum, it offers superior strength, corrosion resistance, and durability. Its high-rake and cupped-blade design contributes to excellent stern lift and acceleration, while also enhancing speed and fuel economy in the mid-range.

### **Key Features:**

- Powerful thrust and smooth performance
- Increased speed and economy in the mid-range
- Great stern lift and acceleration
- 14-1/8" Diameter, 19" Pitch
- Right Hand Rotation

## **2. SAFETY INFORMATION**

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Always prioritize safety when handling and installing marine propellers. Failure to follow safety guidelines can result in serious injury or damage to equipment.

- **Engine Off:** Ensure the engine is completely off and the ignition key is removed before approaching the propeller.
- **Secure Boat:** Always secure the boat to prevent movement during propeller work.
- **Protective Gear:** Wear appropriate protective gloves to prevent cuts from sharp propeller edges.
- **Clear Area:** Keep hands, feet, and loose clothing clear of the propeller blades.
- **Professional Installation:** If you are unsure about any step, consult a qualified marine technician.

### 3. SETUP AND INSTALLATION

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Proper installation is crucial for optimal performance and safety. Refer to your engine's service manual for specific torque specifications and additional instructions.

#### Required Tools:

- Propeller wrench or socket set
- Cotter pin pliers
- Grease (marine grade)
- New cotter pin (always use a new one)

#### Installation Steps:

1. Ensure the engine is off and the boat is securely positioned.
2. Remove the old propeller (if applicable) by straightening and removing the cotter pin, then unscrewing the propeller nut. Carefully slide off the old propeller, thrust washer, and any other components.
3. Inspect the propeller shaft for any damage or corrosion. Clean the shaft thoroughly.
4. Apply a thin layer of marine-grade grease to the propeller shaft splines.
5. Slide the new SOLAS HR Titan 4 propeller onto the shaft, ensuring the splines align correctly.
6. Install the thrust washer, propeller nut, and any other components as per your engine manufacturer's instructions.
7. Tighten the propeller nut to the manufacturer's specified torque.
8. Insert a new cotter pin through the propeller nut and shaft hole, bending the ends to secure it. Never reuse an old cotter pin.
9. Verify that the propeller is securely fastened and rotates freely without obstruction.

### 4. OPERATING INSTRUCTIONS

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The SOLAS HR Titan 4 propeller is designed for optimal performance. Observe the following guidelines during operation:

- **Initial Test:** After installation, perform a cautious test run in calm waters to ensure proper function and no unusual vibrations.
- **RPM Range:** Ensure your engine operates within its recommended wide-open throttle (WOT) RPM range with the new propeller. An incorrect RPM can lead to engine damage or inefficient performance.
- **Avoid Obstructions:** Always be aware of your surroundings and avoid striking submerged objects, which can damage the propeller and lower unit.

- **Trim Adjustment:** Experiment with engine trim to find the optimal angle for your boat's load and water conditions, maximizing efficiency and speed.

## 5. MAINTENANCE

Regular maintenance extends the life and performance of your propeller.

- **Regular Inspection:** Periodically inspect the propeller for nicks, bends, or cracks. Even minor damage can affect performance and fuel efficiency.
- **Cleaning:** Clean the propeller regularly, especially after use in saltwater, to prevent corrosion and marine growth.
- **Shaft Lubrication:** Annually remove the propeller, clean the shaft, and reapply marine-grade grease to the splines to prevent corrosion and seizing. Always use a new cotter pin upon reinstallation.
- **Repair:** If damage is found, have the propeller professionally repaired by a qualified propeller shop. Do not attempt to repair it yourself, as improper balancing can cause severe vibration and damage to your engine's lower unit.

## 6. TROUBLESHOOTING

This section addresses common issues related to propeller performance.

### Common Issues and Solutions:

Problem	Possible Cause	Solution
Excessive Vibration	Damaged or unbalanced propeller, bent propeller shaft, worn hub.	Inspect propeller for damage; have it repaired or replaced. Check propeller shaft for straightness. Inspect hub for wear.
Poor Acceleration/Top Speed	Incorrect propeller pitch, damaged propeller, engine issues.	Ensure propeller pitch is suitable for your boat/engine. Inspect propeller for damage. Consult engine manual for troubleshooting engine performance.
Engine Over-revving	Propeller pitch too low, propeller cavitation, hub slipping.	Consider a propeller with higher pitch. Check for propeller damage or hub issues.
Engine Under-revving	Propeller pitch too high, engine overloaded.	Consider a propeller with lower pitch. Reduce boat load.

## 7. SPECIFICATIONS

Specification	Detail
Model Number	2553-141-19
Brand	SOLAS
Material	Stainless Steel
Number of Blades	4





Specification	Detail
Diameter	14-1/8 inches
Pitch	19 inches
Rotation	Right Hand (RH)
Item Weight	16 pounds
Product Dimensions	15.5 x 15.5 x 8 inches




## 8. WARRANTY AND SUPPORT

For information regarding product warranty, returns, or technical support, please contact SOLAS customer service directly or refer to the official SOLAS website. Keep your purchase receipt as proof of purchase. While extended protection plans may be available from third-party providers, these are separate from the manufacturer's warranty.

For further assistance, please visit the [SOLAS official website](#).

### Related Documents - 2553-141-19

 <b>Making a Complaint to SOLAS</b>  <b>What is the complaints process?</b> The SOLAS Complaints Process provides a way for you to make a complaint to us regarding our products or the services we provide. We will work with all complaints fairly. We will protect the quality and reputation of our products and services. We will also ensure that your complaint is handled in a timely and effective manner.  <b>Before you make a complaint</b> Before you make a complaint, you should check if your complaint is about: - A product or service we have provided to you. - A service we have provided to you. - A service we have provided to you. If we receive a complaint about a product or service, we will give you the complaint details to ensure that you are happy with the service we provide. If you are not sure if your complaint is about a product or service, we will give you the details to ensure that you are happy with the service we provide. Contact details for each of our products are listed on the <a href="#">SOLAS website</a> .  <b>Can I make a complaint on behalf of someone else?</b> Yes, but you may be asked to provide written permission in writing or email. We will then be able to act on your behalf with you or their behalf. We will respond to you as soon as possible.	<a href="#">SOLAS Complaint Process Guide: How to Make a Complaint</a>  This guide explains the SOLAS complaints process, detailing how to make a complaint, what information is needed, and what happens after a complaint is submitted, including information on the Disability Act and the Office of the Ombudsman.
 <b>AI USAGE GUIDELINES FOR CANDIDATES</b>  <b>Purpose</b> These guidelines are designed to ensure integrity, fairness and authenticity in the recruitment process for candidates.  <b>AI Usage</b> We strongly encourage the use of AI tools (including AI and Generative AI) during the recruitment process. We encourage you to use AI tools to help you with your application and to ensure that you are able to provide a high quality response to the questions asked.  <b>Our Values</b> These guidelines are underpinned by the values of SOLAS, the SOLAS values are: Integrity, Respect, Innovation, Diversity and Excellence. We encourage you to use AI tools to help you with your application and to ensure that you are able to provide a high quality response to the questions asked.  1	<a href="#">AI Usage Guidelines for Candidates - SOLAS Learning Works</a>  Official guidelines from SOLAS Learning Works for candidates on the appropriate use of Artificial Intelligence (AI) and Generative AI (GenAI) during the recruitment process, emphasizing authenticity and personal contribution.
 <b>ELECTRIC FIREPLACE INSERT/BUILT-IN FIREPLACE</b> <b>INSTALLATION &amp; OPERATION MANUAL</b> <b>MODEL 26E-FI</b>    <b>SAFETY</b> Read and understand the safety instructions carefully before installing or operating the fireplace. Failure to follow the instructions may result in fire, electric shock, or serious personal injury.  <b>WARNING</b> Do not use the fireplace unless you have read the installation and operation instructions carefully and understand them completely.  © 2023 SOLAS. All rights reserved.	<a href="#">SÓLAS 26E-FI Electric Fireplace Installation and Operation Manual</a>  Comprehensive guide for installing and operating the SÓLAS 26E-FI electric fireplace, covering safety precautions, technical specifications, and usage instructions.

	<p><a href="#">SÓLAS 26E-FI Electric Fireplace Insert/Built-in Installation &amp; Operation Manual</a></p> <p>This manual provides comprehensive instructions for the installation, operation, maintenance, and warranty of the SÓLAS 26E-FI Electric Fireplace Insert/Built-in. It covers essential safety precautions, technical specifications, parts identification, installation procedures, operating modes, and care guidelines.</p>
	<p><a href="#">National Skills Bulletin 2025: Ireland's Labour Market Analysis and Outlook</a></p> <p>An in-depth analysis of Ireland's labour market in 2024, including employment trends, unemployment rates, skills shortages, and future outlooks for 2025, published by SOLAS.</p>
	<p><a href="#">SÓLAS Self-Calibrating Power Vent Control and Termination Kit Installation Manual</a></p> <p>This manual provides comprehensive installation and operation guidelines for the SÓLAS Self-Calibrating Power Vent Control and Termination Kit. It details components, termination types, venting configurations, installation procedures for various mounting options, electrical connections, calibration, normal operation, troubleshooting, replacement parts, and warranty information.</p>