REVISION	CHANGE	APPROVED	DATE
1	Provisional release	JTS	26/11/2025

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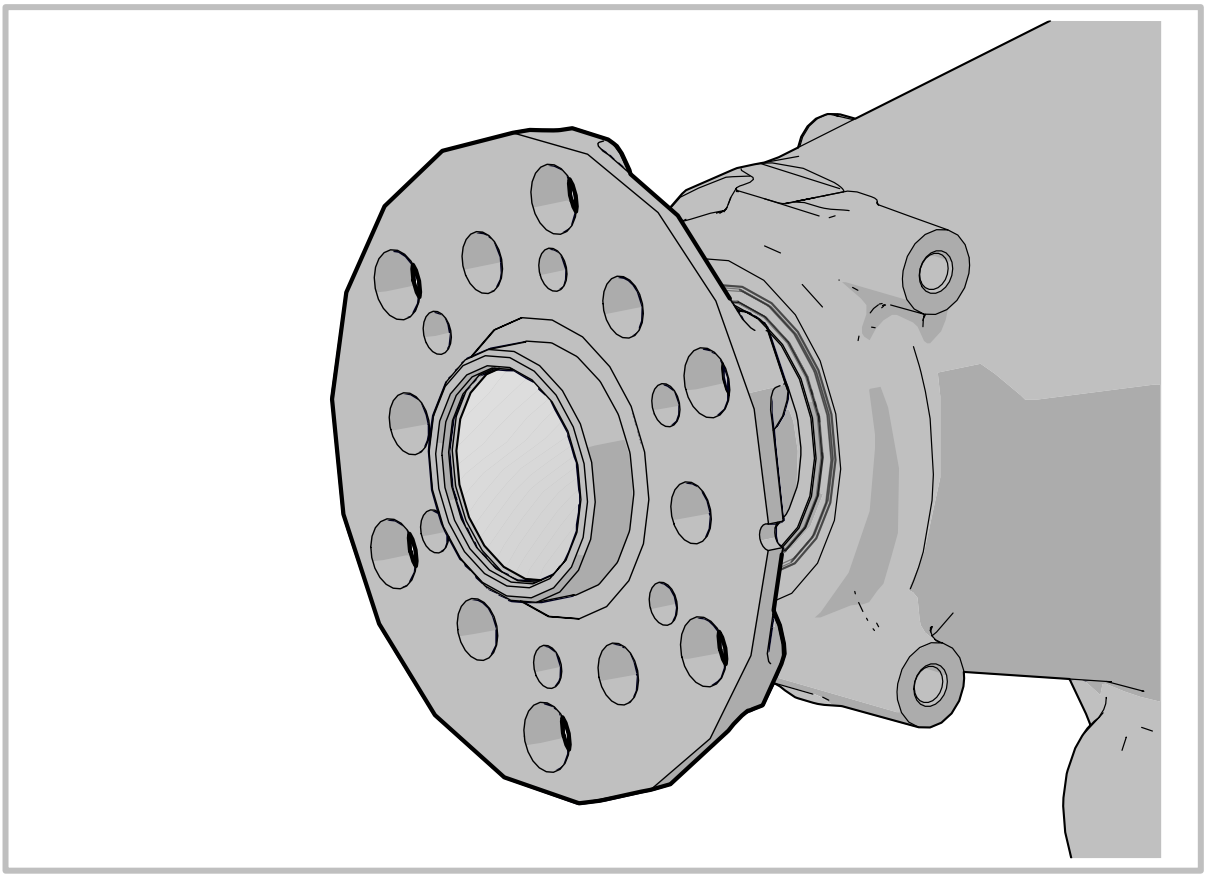
ASI-4-1-4

ENGINE FLANGE PREPARATION

PROCEDURE



SUBJECT:	
Mount Kit Installation	
ASSEMBLY NO:	**APPLICABILITY:**
-	All propeller models

1. TOPIC

1.1 Introduction

This document covers the recommended procedure for preparing the engine flange prior to installing an Airmaster propeller. Installers should refer to the engine manufacturer's manual for specific instruction pertaining to the preparation and installation of propellers onto the engine.

1.2 Prerequisites

Complete the following tasks before proceeding:

- If applicable, replace the OEM engine flange with the Airmaster-supplied engine flange.

> ⓘ *Note*
> *Currently this only applies to some Jabiru engines. The Jabiru flange is replaced with the Airmaster-supplied flange in accordance with procedure* ***ASI-4-1-1****.*

- If required, remove OEM threaded drive lugs from the engine flange in accordance with procedure ***ASI-4-1-2.*** Install alternative Airmaster-supplied drive lugs in accordance with procedure ***ASI-4-1-3***.

2. MATERIAL REQUIREMENTS

2.1 Tooling

ITEM	QTY	DESCRIPTION	IMAGE
1.	As required	Dial Indicator	

2.2 Consumables

ITEM	QTY	DESCRIPTION	IMAGE
1.	As required	Cleaning Agent (Non-Corrosive) *(e.g. Loctite® SF 7063, Methylated Spirits)*	
2.	As required	Paper Towels, Clean Cloth (or similar)	
3.	As required	Scotch Pad	

2.3 Paperwork

ITEM	QTY	CODE	DESCRIPTION
1.	As required	-	Engine Manufacturer's Manual

3. PROCEDURE

3.1 Prepare Engine Flange

WARNING

A new engine can be damaged in shipment or during installation. Do not assume that the engine flange is undamaged. Inspect engine flange for any evidence of damage or poor condition otherwise. Measure flange runout if any existing or historic damage is suspected.

PROCEDURE

Step 1 Check Engine Manufacturer's Requirements

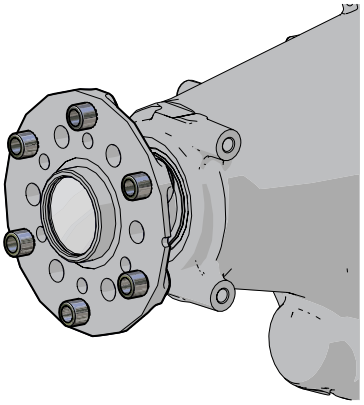
- Check whether a propeller mounting position index is specified for the engine flange.
- Check the torque setting of the engine flange mounting bolts.

Step 2 Inspect Engine Flange

- Inspect engine flange closely and check it is free from corrosion, damage or defect.

Note

Scotch pad, emery cloth or a wire brush may be used to remove light surface-level corrosion from the mounting face. If corrosion is severe or pitting is observed, seek advice from the engine manufacturer for remedial action.



Step 3 Clean Engine Flange

- Clean mounting face of engine flange with non-corrosive cleaning agent to remove any grease, oils or other contaminants and allow to air dry.

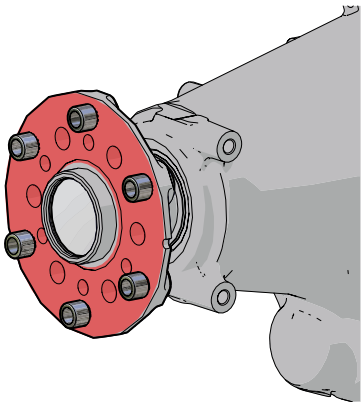
Caution

Friction between the flange and hub is important for the transmission of power to the propeller.

Attention *Cleaning agent, Clean cloth*

Note

The engine flange may be painted, or other measures taken to inhibit corrosion.



3.2 Check Engine Flange Runout (As Required)

WARNING

If the aircraft engine has been involved in a previous incident (e.g. propeller strike) and the existing propeller was damaged, the engine flange and crankshaft must be inspected by an approved engine maintenance facility. Non-destructive testing (e.g. magnetic particle inspection or dye penetrant) of the engine flange is recommended to verify the absence of cracks.

WARNING

Ensure aircraft power is turned off before rotating engine flange. One spark plug may be removed from each engine cylinder head to facilitate easier rotation of the engine flange.

PROCEDURE

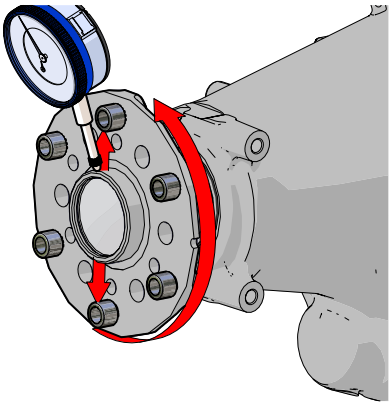
Step 1 Check Engine Flange Runout

- Measure radial runout of engine flange and verify it is within the allowable limits prescribed by the engine manufacturer.

Attention *Dial indicator*

Note

A Rotax 915iS engine flange is shown. In this case, a radial runout limit of 0.125mm (0.005-inch) is prescribed by the engine manufacturer.



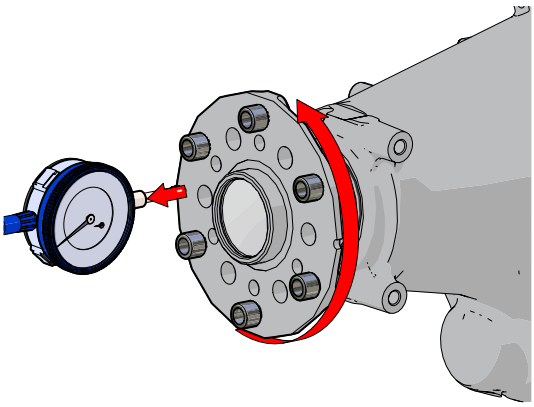
Step 2 Check Engine Flange End Float

- Measure end float (axial runout) of engine flange and verify it is within the allowable limits prescribed by the engine manufacturer.

Attention *Dial indicator*

Note

A Rotax 915iS engine flange is shown. In this case, an end float limit of 0.075mm (0.003-inch) is prescribed by the engine manufacturer.



3.3 Subsequent Action

Perform the following tasks once this procedure is complete:

- If applicable, install mini slipring assembly in accordance with procedure ***ASI-4-3-1***.
- Mount hub to engine flange in accordance with the applicable installation procedure.