



SERVICE BULLETIN

Title: Inlet Guide Vane Assembly Procedure
Models Affected: 19XL/XR

Number: C9710
Date: 4/21/97
Supersedes: New

Purpose:

To advise the field the factory has implemented a new procedure for ensuring that the guide vane assembly is properly adjusted that may be used in the field.

File: Compressor-Motor-Drive-Gears

Prepared By: Tom Pietrowicz

Approved By: Alan M. Johnson

This document and the material contained herein are the property of Carrier Corporation and may not be copied, reproduced, or released without written permission of Carrier Corporation.

Background:

Without proper adjustment, the Inlet Guide Vanes will not fully close. This will present itself as difficulty in running at low load conditions, or may result in higher than normal start-up amperage.

Information:

New procedures are in place in the factory to ensure the proper adjustment of the Inlet Guide Vanes. As a precaution, the factory has changed the bolt (Item 11 in [Figure 1](#)) which fastens the hub to the IGV shaft. The new bolt is a grade 8, 1/4"-20 x 5/8" bolt. This was done to provide for the possibility of excess torque being applied during the procedure. The bolt should also be changed in the field. Obtain the hardware locally.

1. To ensure the IGV closure, operate the actuator to open the IGV and signal the actuator to close until the actuator stops on the vane closed switch.
2. Apply a drop of locking compound, Loctite AA Grade to the 1/4" bolt (Item 11) fastening the hub to the IGV shaft and tighten the bolt.
3. Loosen the large sprocket cap screws (Item 14) and recheck the vane closed position of the hub by turning it clockwise using a bar or lever across the two cap screws. This action will close the vanes.
4. Apply a drop of locking compound, Loctite AA Grade to the cap screws (Item 14) and tighten them using 31 ft-lbs of torque while applying 10 ft-lbs of torque clockwise to the 1/4" bolt (Item 11) to ensure closure. Applying the 10 ft-lbs of torque will perform the same function as in step 3.

5. Once complete, operate the actuator through its full travel. The Inlet Guide Vanes should turn approximately 110° (between the limit switches of the actuator. Adjust the vane open limit switch if required.

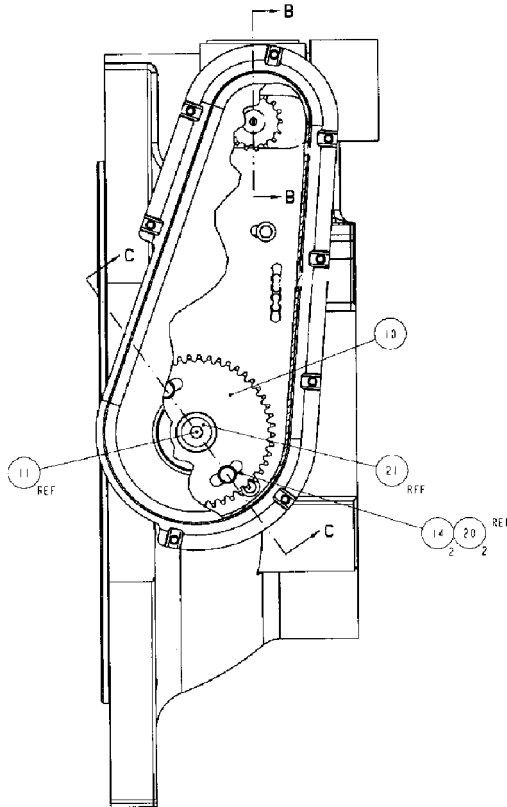


Figure 1 - 02XR34002701 IGV Actuator Assembly Shown