

# A/C Compressor Warranty Return Analysis Report

Part #	471-1630	Qty.	2
Installer:	Art's Automotive		
Supplier:	Worldpac		
Vehicle:	2006 Honda Odyssey		

**Reason for return:**

*A/C not cooling, Multiple failures on same vehicle*

**Inspection:**

**Unit 1 (Honda OE service part)**

<i>Item</i>	<i>Specification</i>	<i>Result</i>	<i>Judgement</i>
Shaft Rotation	Must turn freely	Seized	FAIL
Rotor Rotation	Must turn freely	Smooth	PASS
Leak test	No leaks	No Leaks	PASS
Comp Dismantle	No abnormalities or foreign material present	Sticky liquid foreign material in oil	FAIL
Clutch Dismantle	No abnormalities or foreign material present	High heat and friction from compressor seizure	FAIL

**Unit 2 (DENSO brand First Time Fit)**

<i>Item</i>	<i>Specification</i>	<i>Result</i>	<i>Judgement</i>
Shaft Rotation	Must turn freely	Seized	FAIL
Rotor Rotation	Must turn freely	Smooth	PASS
Leak test	No leaks	No Leaks	PASS
Comp Dismantle	No abnormalities or foreign material present	Sticky liquid foreign material in oil	FAIL
Clutch Dismantle	No abnormalities or foreign material present	Minor signs of heat and friction from compressor seizure	FAIL

### **Inspection Summary Unit 1:**

This compressor is a Honda reman service part. Compressor was seized as received, shaft did not spin, clutch had signs of high heat/friction and hub rubber was melted, consistent with compressor seizure. Compressor passed leak test. Recovered oil was yellow in color and very sticky, oil would be expected to be clear or green if dye was added. Dismantle of compressor revealed all components coated with a sticky substance and steel components had corrosion/rust. Missing seal caps would accelerate rust/corrosion but corrosion was excessive for a part less than 2 months old, even with no seal caps. This accelerated corrosion is common for compressor returns with sticky foreign material found in oil. Very little wear on internal components.

### **Inspection Summary Unit 2:**

This compressor is a DENSO brand 471-1630. Compressor was seized as received, shaft did not spin, clutch had minor signs of high heat/friction consistent with compressor seizure. Compressor passed leak test. Recovered oil was yellow in color and very sticky, oil would be expected to be clear or green if dye was added. Dismantle of compressor revealed all components coated with a sticky substance. Pistons were difficult to remove because piston shoes were stuck in swash plate. Pistons, shoes, and swash plate had very little wear. Some corrosion on valve plates, consistent with compressor returns with sticky foreign material.

### **Conclusion:**

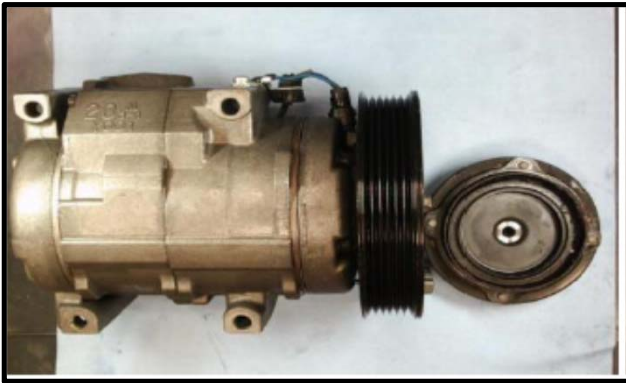
Compressor seized due to unknown foreign material which caused internal parts to stick together to the degree that it prevented the shaft from spinning. A contaminant in the system would be consistent with multiple compressor replacements within two weeks of each other.

Source and type of foreign material is unknown, possible source would be aftermarket additives (performance boosters or leak sealers), oil other than recommended type(ND-8)), or refrigerant other than recommended (R134a).

Based on available evidence and information, it is believed that foreign material was introduced into the system prior to the original compressor failure and was the cause of all subsequent compressor seizures.

It is possible that the system had a leak and as the a/c performance degraded due to loss of refrigerant, something was added to the system, a leak sealer, performance booster, or a can of freon (with leak sealer or performance booster). This could have contaminated the system with the sticky material found in both returned compressors that caused them to seize.

**Unit #1**



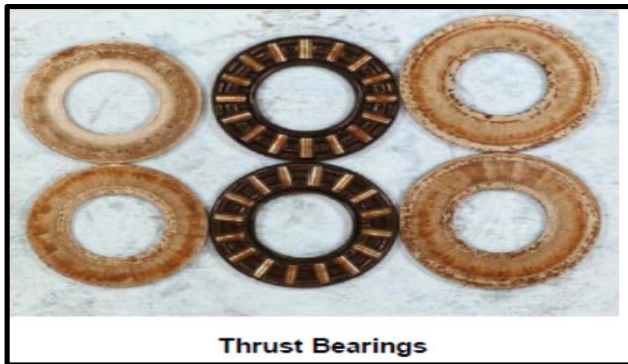
**Unit #2**



**Clutch and Stator**



**Clutch and Stator**



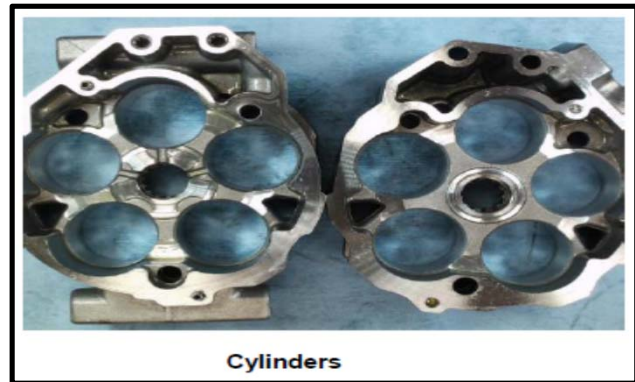
**Thrust Bearings**



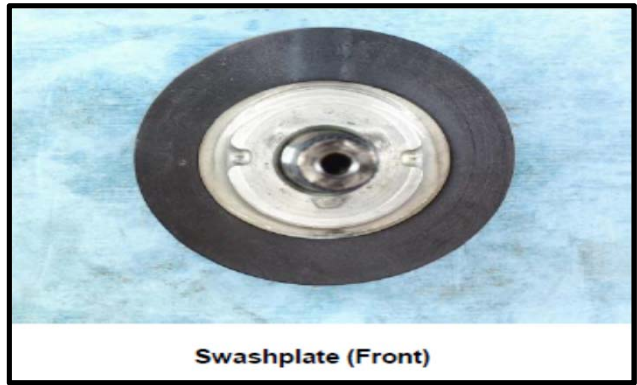
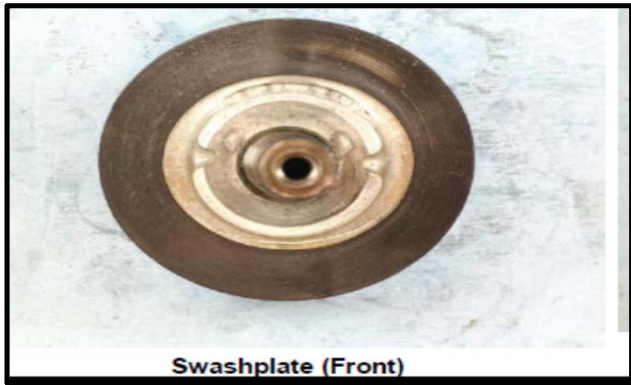
**Thrust Bearings**

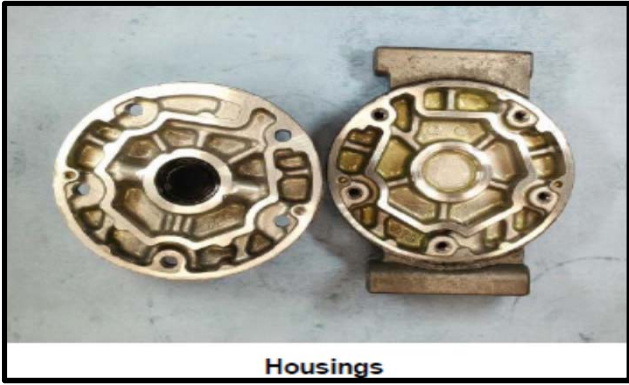


**Cylinders**



**Cylinders**





Housings



Housings

