

## **EXHAUST DEFLECTOR, ASSY MAINTENANCE MANUAL SUPPLEMENT**

**MODELS: BELL, 212, 412, 412EP, 412CF**

**STC Number     SH97-3**

**STC Number     SR00650NY**

Read all of the maintenance manual supplement instructions  
thoroughly prior to the inspection of this product



## **Introduction**

The following information defines the instructions for continuing airworthiness, repair allowances and airworthiness limitations for the item(s) referenced within this document.

1. Scheduled inspection for the item(s) referenced within this document shall be accomplished in accordance with (IAW) the Inspection Procedures specified.
2. Repair allowances for the item(s) referenced within this document shall be accomplished IAW the Repair Procedures specified.
3. Limitations for the item(s) referenced within this document are IAW the Airworthiness Limitations specified.
4. If changes to this document are required, Alpine Aerotech Ltd. shall revise all pages and reissue the entire document.
5. Alpine Aerotech Ltd. shall make any subsequent revisions of this document available free of charge upon request. Alpine Aerotech Ltd. also recommends that the end user of this product periodically verify the revision level of this document.

## **Description**

The following information provides a functional description of the Exhaust Deflector, Assy Installation as defined in Alpine Aerotech Ltd. drawing EXD-412-101.

1. Each Exhaust Deflector, Assy (AAL-061-203-001/-002) is comprised of an angled duct and a Vane, Assy mounted inside the duct.
2. The Exhaust Deflector, Assys are constructed of a combination of stainless steel and titanium and attach to the Exhaust Ejector using a riveted joint.
3. The Exhaust Deflector, Assys are designed to deflect hot exhaust gasses upwards and away from the tailboom to avoid potential heat related damage to the tailboom and tail-rotor driveshaft bearings.



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## **TCCA Airworthiness Limitations**

This Airworthiness Limitations section is approved by the Minister and specifies maintenance required by any applicable airworthiness or operating rule unless an alternative program has been approved by the Minister.

### **Supplement to applicable Maintenance Manual, Chapter 4, Airworthiness Limitations Schedule**

#### **Notes**

1. Refer to the applicable Maintenance Manual, Chapter 4-3, for general information on airworthiness limitations and airworthiness limitation schedules.
2. Item(s) **not** listed in the Scheduled Airworthiness Limitations section within this document have an unlimited airworthiness life.

#### **Scheduled Airworthiness Limitations**

1. There are no airworthiness limitations associated with the item(s) referenced within this document.



### **FAA Airworthiness Limitations**

This Airworthiness Limitations section is FAA approved and specifies maintenance required under Sections 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

### **Supplement to applicable Maintenance Manual, Chapter 4, Airworthiness Limitations Schedule**

#### **Notes**

3. Refer to the applicable Maintenance Manual, Chapter 4-3, for general information on airworthiness limitations and airworthiness limitation schedules.
4. Item(s) **not** listed in the Scheduled Airworthiness Limitations section within this document have an unlimited airworthiness life.

#### **Scheduled Airworthiness Limitations**

2. There are no airworthiness limitations associated with the item(s) referenced within this document.



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## **Inspection Procedures**

### **Supplement to applicable Maintenance Manual, Chapter 5, Inspection and Component Overhaul Schedule**

#### **Notes**

1. Refer to the applicable Maintenance Manual, Chapters, for general information on inspections, inspection definitions, inspection intervals, inspection methods and inspection schedules.
2. General Inspections, as indicated within this document, are defined as visual, non-thorough checks.
3. Detailed Inspections, as indicated within this document, are defined as visual and thorough, searching checks.
4. Perform Daily Inspections every day, prior to flight operation. If damage is detected, perform the 600 Hour/12 Month Inspections.
5. Perform 600 Hour/12 Month Inspections every 600 hours or every 12 months, whichever occurs first, prior to flight operation. If damage is detected, refer to the Repair Procedures section within this document.

#### **Scheduled Inspections**

1. Daily Inspections
  - i. Perform a General Inspection on the Exhaust Deflector, Assy Installation for general condition.
  - ii. Perform a General Inspection on the Exhaust Deflector, Assy Installation for proper security.

#### **Scheduled Inspections**

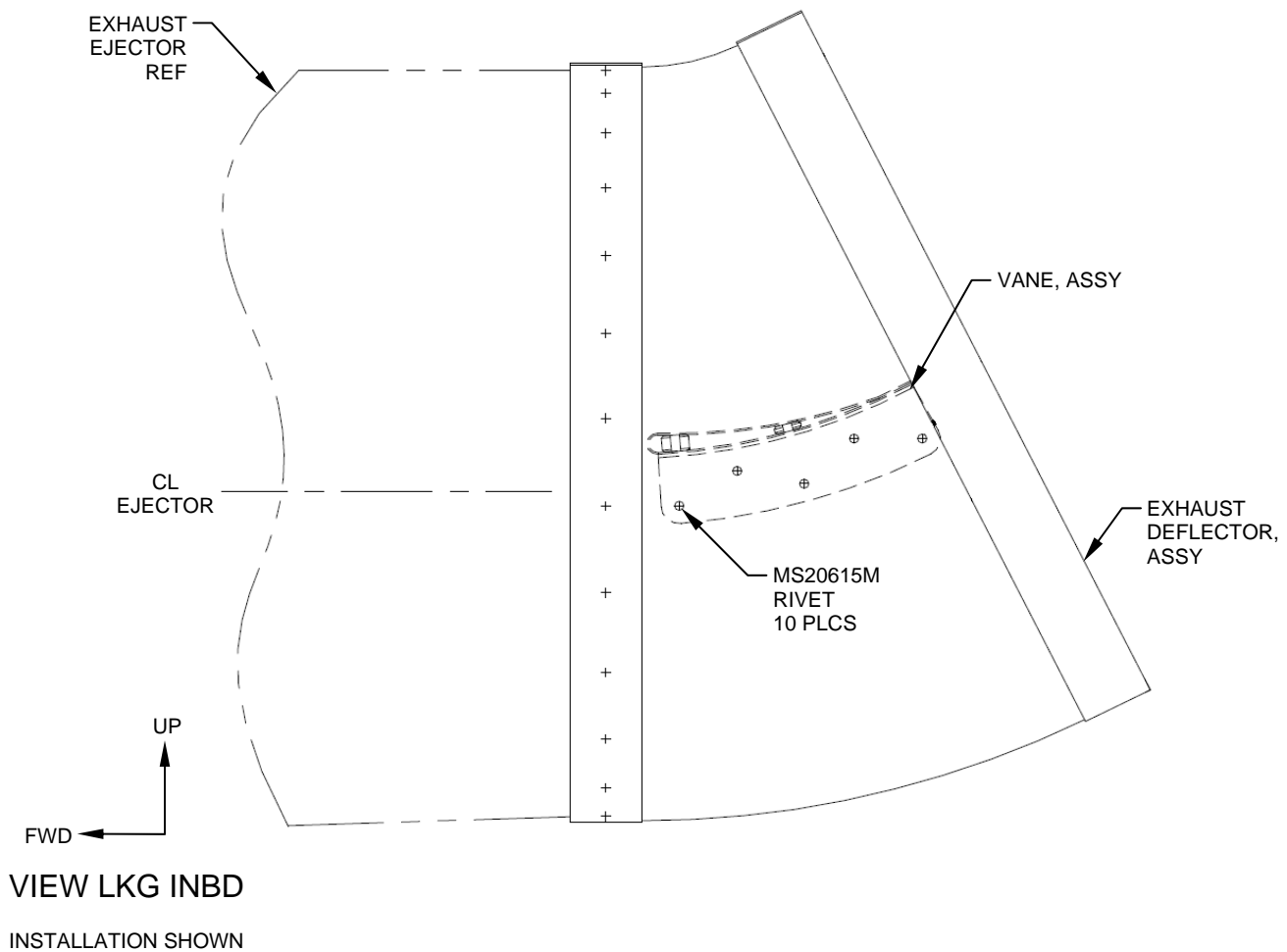
2. 600 Hour/12 Month Inspections
  - i. Perform a Detailed Inspection on all materials and finishes in the Exhaust Deflector, Assy Installation for evidence of corrosion, cracks and damage.
  - ii. Perform a Detailed Inspection on all materials and finishes in the Exhaust Deflector, Assy Installation for proper integrity and condition.
  - iii. Perform a Detailed Inspection on Exhaust Deflector, Assy Installation for proper security.



## Removal/Replacement

### Removal of Exhaust Deflector, Assy

1. Remove the Exhaust Ejector/Deflector, Assy from the aircraft to gain access to the Exhaust Deflector, Assy. Reference the applicable section of the Rotorcraft Maintenance Manual for instructions on removal of the Exhaust Ejector/Deflector, Assy.



**Figure 1**  
LHS Shown  
RHS Opposite

2. Drill out all rivets (10 places) common to the Vane, Assy (AAL-061-203-003) as shown and remove Vane, Assy from the Exhaust Deflector, Assy. Reference Figure 1.

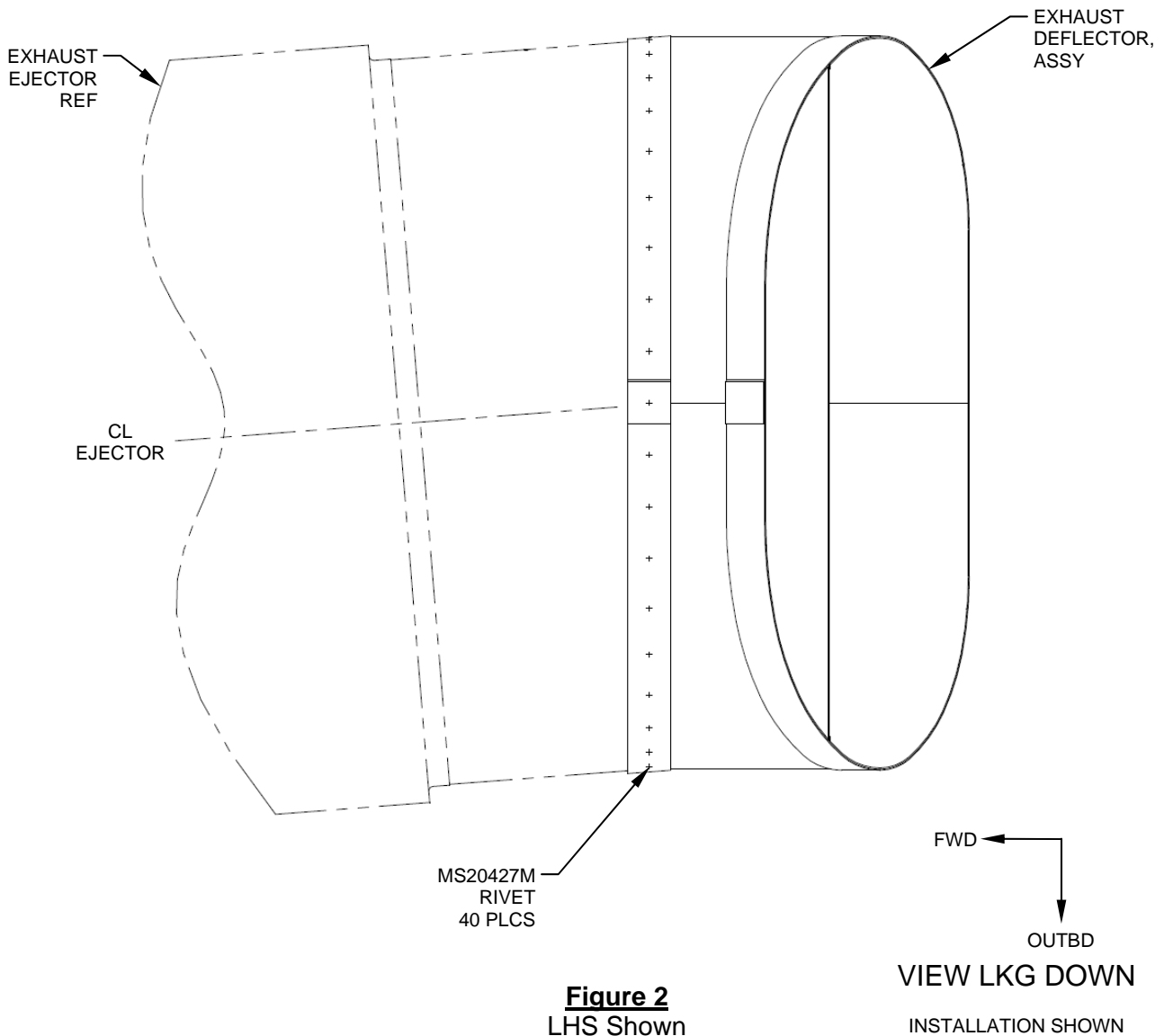


**Removal/Replacement**

**Removal of Exhaust Deflector, Assy**

3. Drill out all rivets common to the FWD doubler (40 places) as shown. Reference Figure 2.
4. Remove Deflector, Assy from Exhaust Ejector. Reference Figure 2.

**CAUTION:** Do **NOT** operate the aircraft with only one Exhaust Deflector, Assy installed.



**Figure 2**  
LHS Shown  
RHS Opposite



## **Removal/Replacement**

### **Replacement of Exhaust Deflector, Assy**

1. Align the rivet holes in the Exhaust Ejector, Assy with the existing holes in the Exhaust Deflector, Assy as shown. Reference Figure 2.
2. Install rivets of the appropriate length (40 places) as shown. Reference Figure 2.
3. Align the rivet holes in Vane, Assy with the existing holes in the body of the Exhaust Deflector. Reference Figure 1.

**NOTE:** Ensure the Vane Assy is oriented so that the leading (blunt) edge is facing forward.  
Reference Figure 1

4. Align the rivet holes in Vane, Assy with the existing holes in the body of the Exhaust Deflector. Reference Figure 1.
5. Install rivets of the appropriate length (10 places) as shown. Reference Figure 1.





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### **Repair Procedures**

1. Repairs to the item(s) referenced within this document are **not** permitted. Contact Alpine Aerotech Ltd. for further information if repairs are required to the item(s) referenced within this document.