

## **EXHAUST DEFLECTOR, ASSY INSTALLATION INSTRUCTIONS**

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

Read all of the installation instructions thoroughly  
prior to the installation of this product



## **Weight & Balance**

<u>Part Number</u>	<u>Description</u>	<u>Weight</u>	<u>Long. Arm</u>	<u>Lat. Arm</u>
AAL-061-203-001/-002	Exhaust Deflector, Assys	7.93 *	241.52	0.00
		3.59 (Kg)	6.13 (m)	0.00 (m)

\* Total increase in weight to aircraft for an installed pair.

## **Aircraft Applicability**

1. Model: Bell Helicopter 212  
Serial No: All
2. Model: Bell Helicopter 412, 412EP & 412CF  
Serial No: All

## **General Notes**

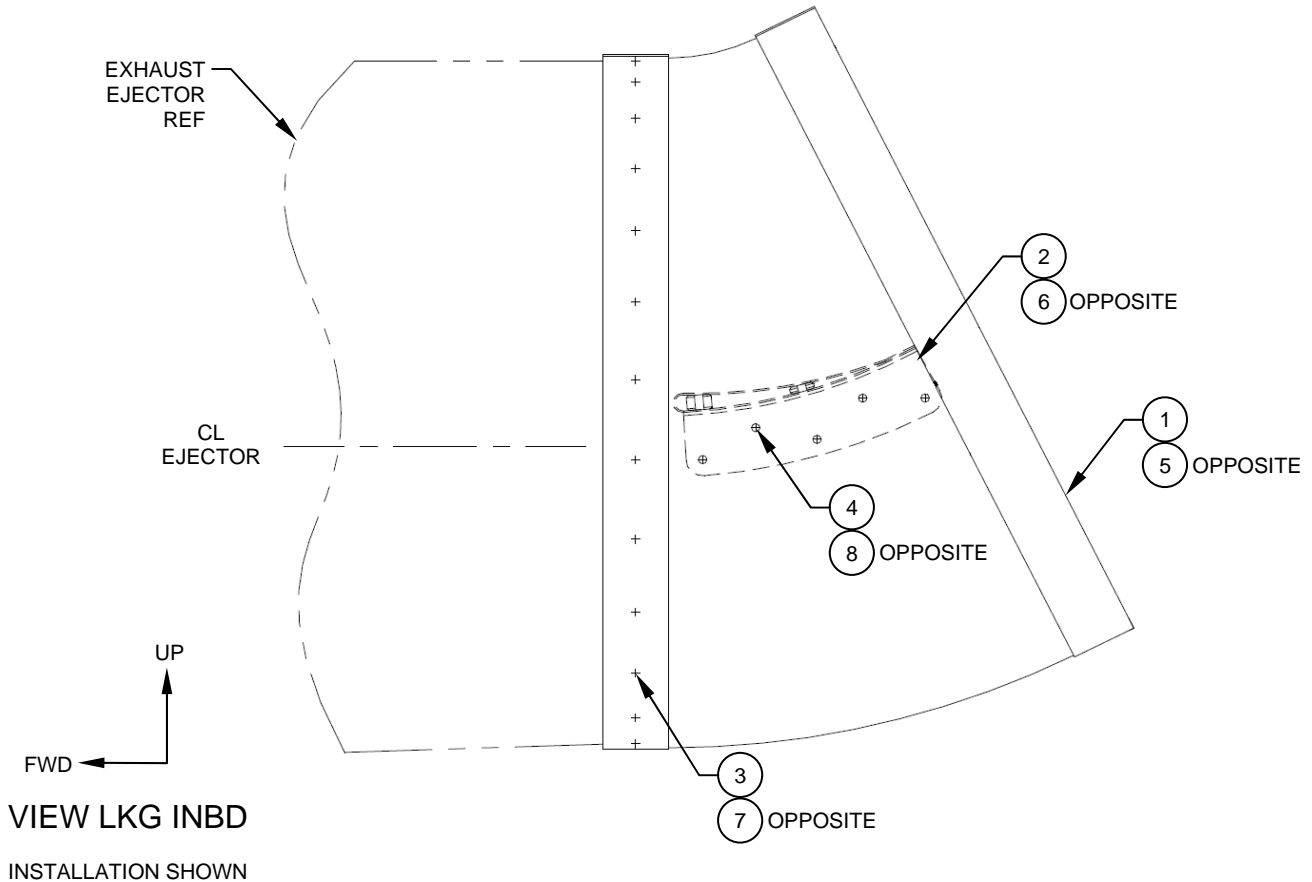
1. All Installation Instructions shall be accomplished in accordance with (IAW) standard aircraft practices. Refer to the current revision of the FAA publications AC 43.13-1B and AC 43.13-2B for details on standard aircraft practices.
2. Riveting and dimpling shall be in accordance with MIL-STD-403.
3. All Dimensions are in imperial measures (inches/pounds) unless otherwise specified.
4. Refer to the current revision of the Exhaust Deflector, Assy Illustrated Parts Breakdown (AAL-255-015-201) for the part numbers of the item(s) referenced within this document.
5. Refer to the current revision of the Exhaust Deflector, Assy Maintenance Manual Supplement (AAL-255-015-101) for instructions on continuing airworthiness for the item(s) referenced within this document.
6. The Exhaust Deflector, Assy shall only be installed in pairs (LHS & RHS).
7. If changes to this document are required, Alpine Aerotech Ltd. shall revise all pages and reissue the entire document.
8. 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.



**Installation Instructions**

1. Gain access to the existing exhaust ejector. Reference Figures 1 & 2.
2. Inspect the doubler on the aft end of the exhaust ejector for tooling holes or rivets.

**NOTE:** Both the LHS Exhaust Deflector, Assy (Item 1) and RHS Exhaust Deflector, Assy (Item 5) have been provided with **three** undrilled locations in their respective FWD doublers. The undrilled locations are evident on both sides and the bottoms of the Exhaust Deflector Assys. These locations have been left blank to accommodate various exhaust ejector designs that may have tooling holes or rivets in these locations. Use standard aircraft practices to determine if these holes may be utilized.



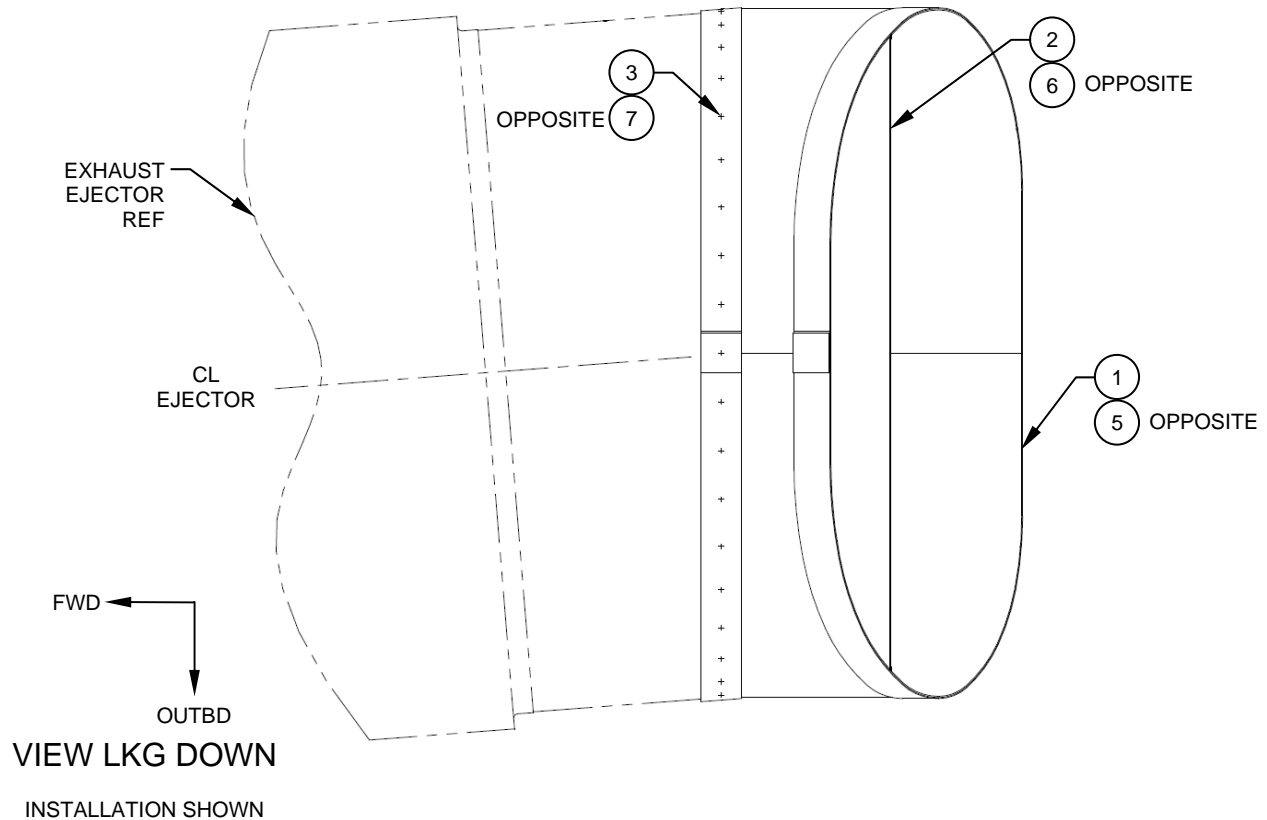
**Figure 1**  
LHS Shown  
RHS Opposite

3. Remove the clecos and Vane, Assy (Item 2) from the Exhaust Deflector, Assy. Reference Figure 1.



### Installation Instructions

- Align the Exhaust Deflector, Assy (Item 1) with the aft end of the exhaust ejector oriented so that the exhaust gases will deflect upwards. Reference Figures 1 & 2.



**Figure 2**  
LHS Shown  
RHS Opposite

- The Exhaust Deflector, Assy (Item 1) must be pushed FWD to cover the doubler on the AFT end of the exhaust ejector. Reference Figures 1 & 2.
- Clamp the Exhaust Deflector, Assy (Item 1) in place if necessary.
- Drill through the pilot holes in the Exhaust Deflector, Assy FWD doubler using a 1/8" dia. drill. Install clecos as you go.



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## **Installation Instructions**

8. Centralize the hole locations in the **three** blank areas and drill 1/8" dia. or use existing holes as previously determined (3/32 rivets are permissible in lower location). See Note above.
9. Remove the Exhaust Deflector, Assy (Item 1) and de-burr all holes in the Exhaust Deflector, Assy and the exhaust ejector.
10. Dimple the holes in the Exhaust Deflector, Assy (Item 1) and the exhaust ejector so that the **flush head of the rivet will be on the inner side.**
11. Re-install the Exhaust Deflector, Assy (Item 1) onto the exhaust ejector and rivet together with the supplied rivets (Item 3).
12. Install the Vane, Assy (Item 2) into the Exhaust Deflector, Assy (Item 1) with the rolled leading edge facing FWD into the exhaust flow.
13. Rivet the Vane, Assy (Item 2) to the Exhaust Deflector, Assy (Item 1) with the supplied rivets (Item 4) **with the round universal head positioned on the outer side.**
14. LHS Installation complete. Repeat installation on RHS.
15. Perform a General Inspection of all items to ensure proper installation.
16. Update the aircraft logbook for the installation of the Exhaust Deflector, Assys.