SERVICE BULLETIN: JSB 005-2

Issue: 2

Date: 14th Dec 2017

Subject: Early Jabiru 6 Cylinder Engine Muffler

Issue 1 of this Service Bulletin (JSB005-1) which was released on 13th Oct 2004 is now super-ceded by JSB005-2

1. Applicability:

All Jabiru 6 cylinder engines fitted with a Jabiru Muffler Single Inlet P/No.4683083, 4795003 & 4A061A0D.

Figure 1: Bulletin applies to these inlets.

Figure 2: This bulletin does not apply to mufflers with these inlets.

2. Background:

Some mufflers fitted to Jabiru 6 cylinder engines in tractor configured aircraft failed in 2004 due to the inlet socket cracking and breaking free of the muffler body. When a failure of this type occurs the muffler body falls away from the exhaust manifold and drops down onto the lower cowl, but it does not fall away from the aircraft. The failures were traced to

mufflers which had had their inlet pipes welded in using a MIG welder in place of the TIG welder that is normally used. Refer to the figures below for pictures of a MIG-welded stub and a TIG-welded part.

Figure 3. Typical Muffler Failure.

Figure 4. Example MIG-Welded Inlet Stub

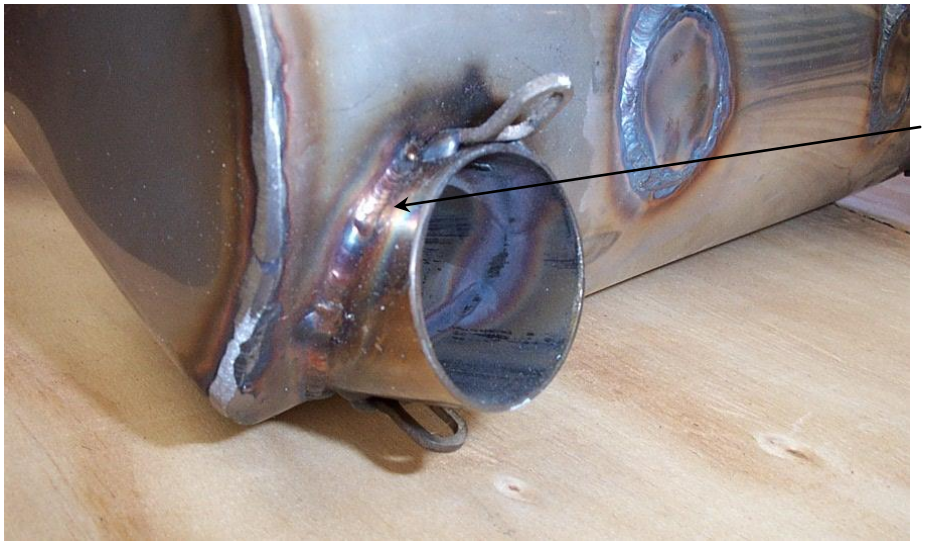
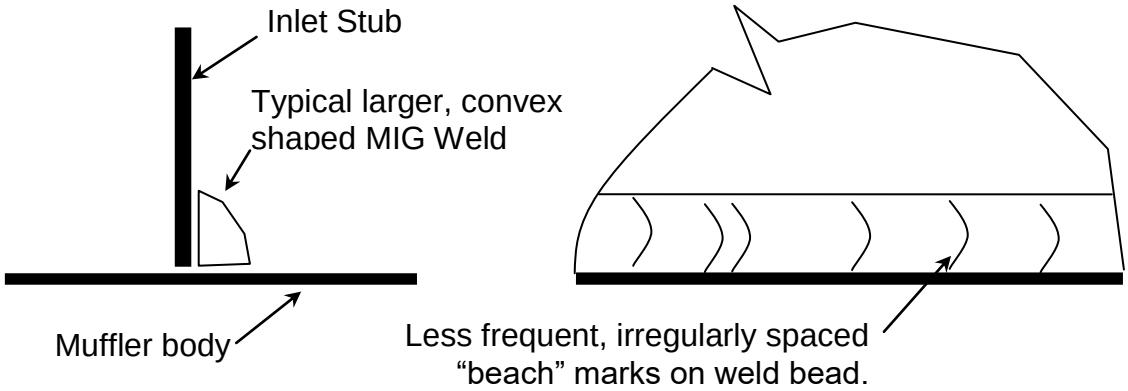
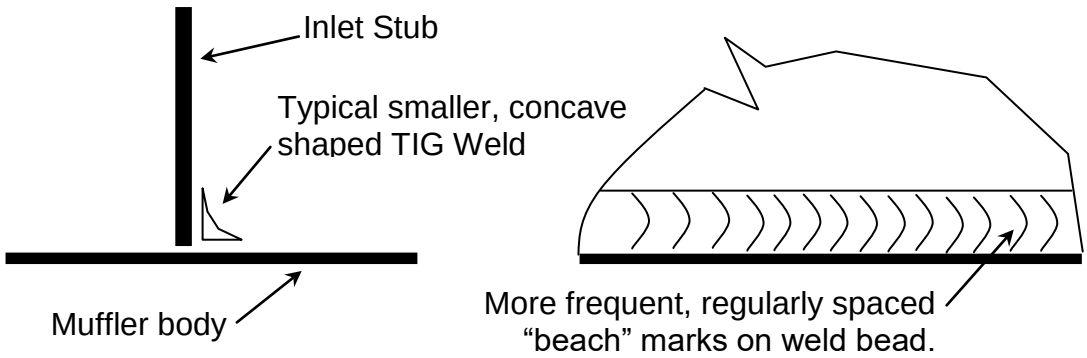


Figure 5. Example TIG-Welded Inlet Stub



Typical MIG Weld Features



Typical TIG Weld Features

Figure 6. Typical Features of MIG and TIG Welds

3. Recommendations:

Visually inspect the muffler as soon as possible. Check for cracks in the areas indicated and determine if the welds are MIG or TIG type (if the owner is in doubt, a qualified welder will be able to tell which process was used). If any cracks are found they should be repaired using a TIG welder before further flight. If no cracking is found and the welds are TIG type, the aircraft can be continued to be flown as normal, with normal scheduled inspections of the exhaust system every 50 hours as described in the maintenance manual.

If no cracking is found but the welds are MIG type, the aircraft may continue to be flown, but the muffler should be inspected for cracks at 5 hour intervals until the muffler is repaired. To repair MIG welded mufflers, the MIG bead should be ground back to allow room for a TIG weld bead around the perimeter of the existing MIG weld. The TIG welding should then be carried out by a qualified TIG welder.

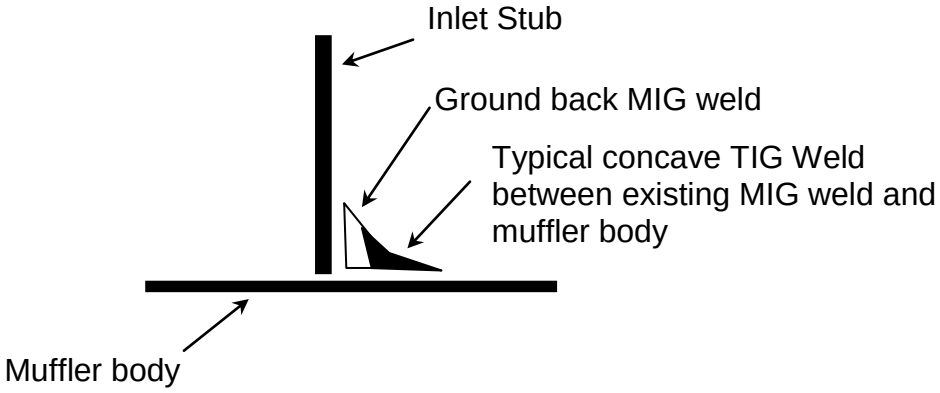


Figure 7. MIG Weld Re-Work

Once the repair has been carried out, the aircraft may return to normal maintenance schedules of an inspection of the exhaust system every 50 hours, as required by the maintenance manual.