Jaguar J60 Exhaust Manifold

Solving long lead time issues for small bath manufacturing of custom designed parts.

Benefits

Minimizing downtime and cost; keeping operations moving without waiting for parts to be delivered

Production Method	Production Time
Manufacturing (Casting or Machining)	6-8 weeks
SPEE3D CSAM Aluminum Bronze	21 hours

Background
The CVR(T) is a small reconnaissance armored vehicle utilized by NATO forces and their allies. The petrol variant is powered by a Jaguar-derived J60 engine, which is based on the XK engine found in the E Type. The exhaust system is custom designed to fit the engine within the hull of the vehicle.

The Challenge
Since the exhaust system is custom designed, no OEM parts are manufactured to replace failed components. Consequently, the available options are limited to sourcing “new old stock,” which is scarce, or commissioning small-scale production runs. These alternatives can be both expensive and involve lengthy lead times.

The Solution
SPEE3D’s CSAM technology can 3D print metal replacement parts from design to deployment in less than 21 hours or 1 day.

The Value
Maintaining custom equipment is often expensive due to scarce replacement parts and slow small batch manufacturing. With CSAM technology, customers can print needed parts on-site in less than a day, bypassing these traditional methods.

Design to deployment in 21 hours

Print: 126 minutes

Aluminum Bronze, 13kg of material

Cook: 17 hours

Heat treated in a standard air furnace

Cut: 2 hours

Critical surfaces machined on CNC

About The Equipment

The Combat Vehicle Reconnaissance (Tracked) CVR(T) is a family of armored fighting vehicles (AFVs) developed in the 1960s and is in service with the British Army and others throughout the world. They are small, highly mobile, air-transportable armored vehicles, originally designed to replace the Alvis Saladin armored car.

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