



BFV Transmission Mount

Producing emergency replacement parts on-site to keep equipment moving.

Background

The part is a BAE-produced transmission mount for a Bradley Fighting Vehicle, typically made from cast steel. Each vehicle has two mounts that lock the transmission into place. The part is critical to the operation of the Bradley.

The Challenge

Prior to 2012, maintenance parts were plentiful, but over time, parts on demand became the norm. During an average deployment time, six to eight of these mounts are needed and often soldiers have less on hand. They are forced to wait weeks to months for replacement parts, even bargaining with other maintenance groups in swaps. The last resort is pulling vehicles out of the fight to be cannibalized for parts.

The Solution

SPEE3D's CSAM technology can 3D print metal replacement parts from design to deployment in less than 16 hours or 1 day.

The Value

Bringing on-demand manufacturing to a battlefield keeps vehicles in the fight. With CSAM technology, customers can reduce the wait time for critical spare parts from weeks to less than a day.

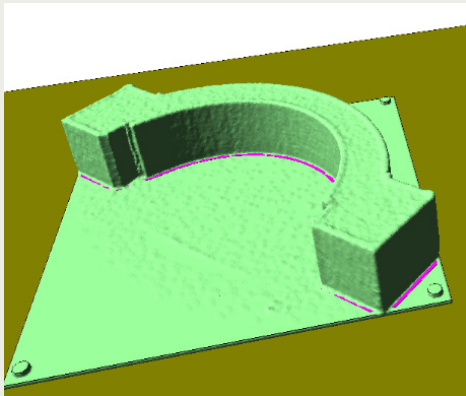
Benefits

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

Production

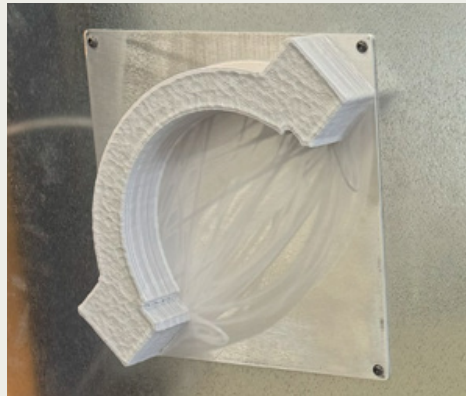
Method	Time
Supply Chain Delivery	4-12 weeks
SPEE3D CSAM Aluminum 6061	16 hours

Design to deployment in 16 hours



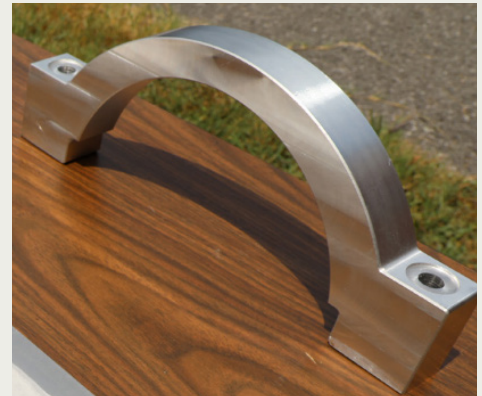
Print: 2.5 hours

Aluminum 6061, 3.9kg of material



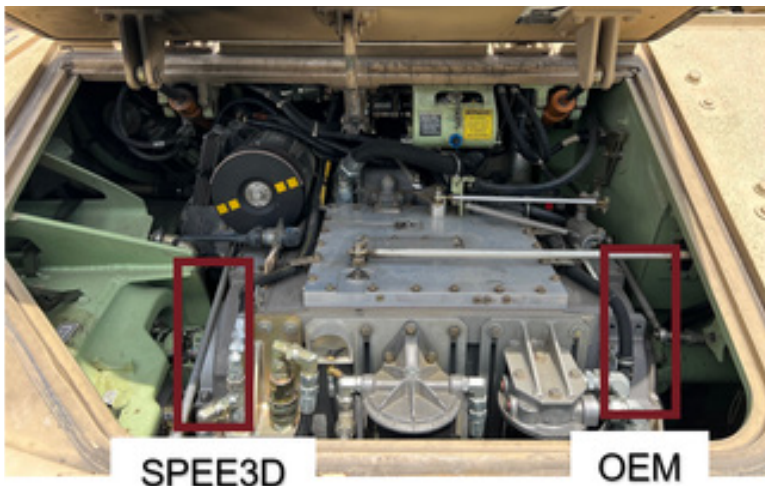
Cook: 11.5 hours

Heat treated in a standard air furnace



Cut: 2 hours

Critical surfaces machined on a CNC



About the Equipment

The Bradley Fighting Vehicle (BFV) is a tracked armored fighting vehicle developed by FMC Corporation and now manufactured by BAE Systems Land & Armaments, formerly United Defense. It is named for U.S. General Omar Bradley.

The Bradley is designed to transport infantry or scouts with armor protection, while providing covering fire to suppress enemy troops and armored vehicles. Variants include the M2 Bradley infantry fighting vehicle and the M3 Bradley reconnaissance vehicle. The M2 holds a crew of three—a commander, a gunner and a driver—along with six fully equipped soldiers. The M3 mainly conducts scout missions and carries two scout troopers in addition to the regular crew of three, with space for additional BGM-71 TOW missiles.

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