

»» Service Letter

Technical Aspects are FAA Approved

Number: L18-01 B
REPLACES L18-01A

Date: 9/19/2019

Subject: Superior PMA Replacement Cylinder Assemblies With Corrosion Resistant Steel Exhaust Port Studs for Continental Motors, Inc. 520 and 550 Series Engines

Revision B:

The initial release of this Service Letter referenced Superior's SA470 series cylinder assemblies which do not use the ring lock (Rosan) exhaust studs. Therefore the replacement exhaust studs referenced in this Service Letter do not apply to those cylinders. The original SA401893 exhaust studs will continue to be installed in Superior's SA470 cylinders.

Application:

As a product improvement, Superior has begun installing P/N SA657985-1.38 corrosion resistant steel (CRS) exhaust port studs in its PMA replacement cylinder assemblies for Continental Motors, Inc. (CMI) 520 and 550 series engines, replacing the P/N SA638125 and SA640482 alloy steel studs. These cylinder assemblies and their engine eligibilities are listed in the table below. The P/N SA657985-1.38 stud is also available in the P003, P007 and P012 oversizes for repair purposes. Figures 1 and 2 provide photos of installed P/N SA657985-1.38 and P/N SA638125 (same as the P/N SA640482 except installation height) studs for identification purposes.

Caution: The P/N SA657985-1.38 and oversize interference fit studs are not interchangeable with the SA638125 and SA640482 ring lock studs.

Cylinder Assemblies	CMI Engine Applications
SA52006-A1 (formerly used P/N SA638125 or SA640482 ring lock, alloy steel stud)	IO-520-A,-B,-BA,-BB,-C,-CB,-D,-E,-F,-J,-K,-L,-M,-MB,-N,-NB TSIO-520-A,-AF,-B,-BB,-C,-CE,-D,-DB,-E,-EB,-G,-H,-J,-JB,-K,-KB,-L,-LB,-M,-N,-NB,-P,-R,-T,-U,-UB,-VB,-WB IO-550-A,-B,-C IOF-550-B,-C
SA55006-A1 (formerly used P/N SA638125 or SA640482 ring lock, alloy steel stud)	IO-550-D,-E,-F,-L IOF-550-D,-E,-F,-L

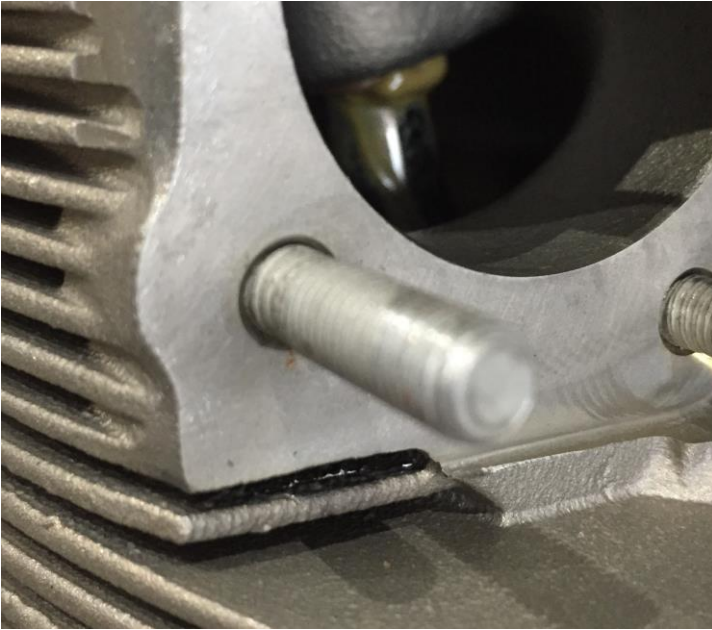


Figure 1 SA657985-1.38 CRS Stud



Figure 2 SA638125 Ring Lock Alloy Steel Stud

Compliance: Any time that exhaust studs require replacement.

As noted above, the P/N SA657985-1.38 (and oversizes P003, P007, and P012) is an interference fit stud as opposed to the P/N SA638125 and P/N SA640482 ring lock type studs formerly used in the CMI 520 and 550 series Superior PMA replacement cylinder assemblies. The type of studs in your 520 or 550 cylinder(s) may be identified by referring to figures 1 and 2.

Exhaust Port Stud Replacement:

Damaged or corroded exhaust port studs may be replaced as follows:

Cylinder Assemblies SA52006-A1 and SA55006-A1 with P/N SA657985-1.38 exhaust studs:

- 1) Using a suitable stud removing tool, remove the damaged studs.
- 2) Chase the threads with a ¼-20 UNC-3B tap.
- 3) Apply Lubriplate 105 or equivalent to the ¼-20 threads on the P/N SA657985-1.38 stud and, using an appropriate stud driving tool, drive the stud to a height of .875 ± .030 inch. The minimum allowable driving torque is 15 in-lbs. If this minimum torque is not achieved, repeat the installation using a P/N SA657985-1.38 P003 stud. The holes may also be tapped to ¼-20 P007 or ¼-20 P012 and the corresponding oversize stud installed.

A minimum driving torque of 15 in-lbs must be achieved.

Cylinder assemblies with P/N SA638125 or SA640482 ring lock studs must be repaired using P/N SA638125 or SA640482 ring lock studs. Do not replace either the P/N SA638125 or P/N SA640482 ring lock stud with a P/N SA657985-1.38 interference stud.