

Service Letter

Technical Aspects are FAA Approved

Number: L93-02 H
Replaces L93-02 G

Date: 10/20/2005

Subject: Overhaul and repair for SA10200-A1 Cylinder Stud Assy.

Engine Applications: (See Note)

CYLINDER/STUD ASSEMBLY	APPLICATIONS	CYLINDER/VALVE ASSEMBLY
SA10200-A1	0-200-A,B C-125-2 C-145-2, 2H 0-300-A,B,C,D	SA10200-A20
SA10200-A1	C75-8,12,14,16,8F,12F 14F, 16F C85- 8,12,14,16,8F,12F,14F,16F	SA10200-A21
SA10200-A1	C90- 8,12,14,16,8F,12F,14F,16F	SA10200-A22

Note: Due to supplier issues, Superior has elected to remove the eligibility for use of these cylinder assemblies for the GO-300 series engines (SA10200-A23).

Compliance:

This service letter covers specific differences between a Superior Air Parts, Inc. SA10200 series Millennium Cylinder®, and the original equipment manufacturer's cylinder, as it pertains to repair and overhaul. If a specific procedure is not addressed in this Service Letter, the applicable procedure in the original equipment manufacturer's current overhaul manual applies. The cylinders are identified by part number and serial number on the cylinder flange, as shown in Figure 1.

SA10200-A1 cylinder stud assemblies are exempt from AD 94-05-05 R1, rocker shaft boss inspection. Please refer to the copy of the FAA letter, dated February 14,1996, on page 5 of this Service Letter.

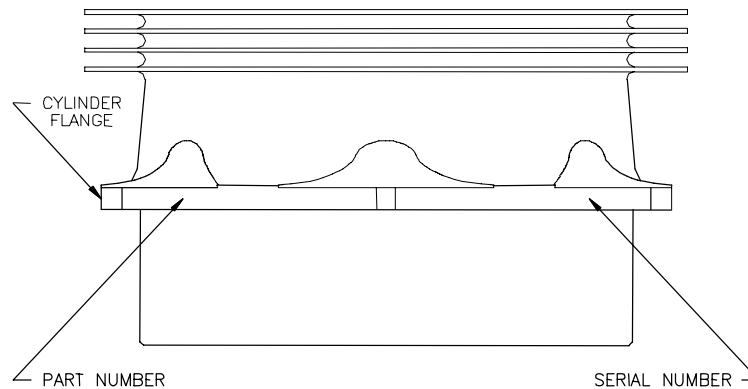


FIGURE 1

Cylinder Bore

The Millennium Cylinder® barrels are manufactured from AMS 6382 steel and through-hardened with a choke bore, which should be maintained during any boring or honing operation. See Figure 2 for standard cylinder dimensions and finish specifications.

Any time a cylinder is removed, the diameter and out-of-round condition should be checked as well as cylinder scoring, galling, low spots and ring step. Inspection results should be compared to the dimensions in Figure 2 and in the original equipment manufacturer's current overhaul manual. Worn through-hardened steel cylinders can be oversized to .015 or chrome plated back to standard dimensions. Piston rings listed for use in steel cylinder barrels must be used in through-hardened steel barrels.

Millennium Cylinder® may have the cylinder bore returned to new limits by having the cylinder barrel replaced by a Superior Air Parts licensed FAA Repair Station. The old worn barrel is removed and a new Superior Air Parts FAA-PMA Millennium Cylinder® barrel (the same high quality barrel used in new Millennium Cylinder® assemblies) is installed. This procedure returns the cylinder bore to the new steel limits shown in Figure 2, as well as, assuring that other critical dimensions, such as, compression height and cylinder barrel flange hole alignment, are returned to new limits. Superior Air Parts Customer Service may be contacted for approved sources of this repair.

Cylinder Heads

The Superior Air Parts, Inc. Millennium Cylinder® heads for the engines listed in this service letter have been manufactured using ASTM B26 Aluminum Alloy.

Valve Guide

The Millennium Cylinder[®] listed in this service letter is being manufactured with reamed Ni-Resist exhaust valve guides for improved durability. Replacement reamable or pre-reamed Ni-Resist valve guides, including oversized parts, are available from Superior. Consult the current Superior Air Parts, Inc. Service letters and price catalog for part numbers and available oversized parts.

CAUTION

Superior Air Parts, Inc. exhaust valves with chrome flashed stems must be used with the Ni-Resist exhaust valve guides.

Intake guides supplied with the new cylinders are also reamed at assembly. Intake guides are available in both reamable or pre-reamed in standard and oversized parts. Consult the current Superior service letters and price catalogue for part numbers and available oversized parts.

Valve Seats

The listed Millennium Cylinder[®] is supplied with a 30° intake valve seat and a 45° exhaust valve seat. Intake seats and exhaust valve seats are available in oversized parts for future repair. Consult the current Superior service letters and price catalog for part numbers and available oversized parts.

Rocker Boss Bushings

During manufacturing, to provide a better bearing surface and simplify the repair process, rocker boss bushings are installed in new Superior Air Parts, Inc. Millennium Cylinder[®] for the engines listed in this service letter. During the overhaul process, if bushings are worn beyond the service tolerances called out in the original equipment manufacturer's overhaul manual, they must be replaced. It is recommended that a piloted removal/installation tool be used to avoid damage to the rocker shaft bosses. A taper or pilot has been provided on one end of the Superior replacement bushing to assist in installation. Installed bushings should be reamed, as stated in the overhaul manual. Consult the current Superior Air Parts, Inc. service letters and price catalog for part numbers and available rocker boss bushing oversized parts.

Cylinder Parts Listing

SA10200-A1

SA10205-1	Ni-Resist Exhaust Guide
SA10209-1	Intake Guide
SA2106	Exhaust Seat
SA21284	Push Rod Tubes
SA22949MO5	Rocker Shaft Bushings
SA401870	Intake Studs
SA402151	Exhaust Studs
MS9018-05/2-52	Helical Coil Inserts
MS20913-1	Plug
SA641793	30° Intake Seat

Note: The SA10205 Ni-Resist exhaust guide must use the SA10204 exhaust valve with chrome plated stem.

Additional Related Cylinder Parts

SA10204	Chromed Stem Exhaust Valve
SA21361	Keepers
SA24026	Spring Seat
SA625957	Valve Spring
SA625958	Valve Spring
SA24044	Spring Seat
SA625961	Valve Spring Retainers
SA641792	30° Intake Valve



U.S. Department
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FEB 14 1996

Mr. John P. Lauer
Superior Air Parts
14280 Gillis Road
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Dear Mr. Lauer:

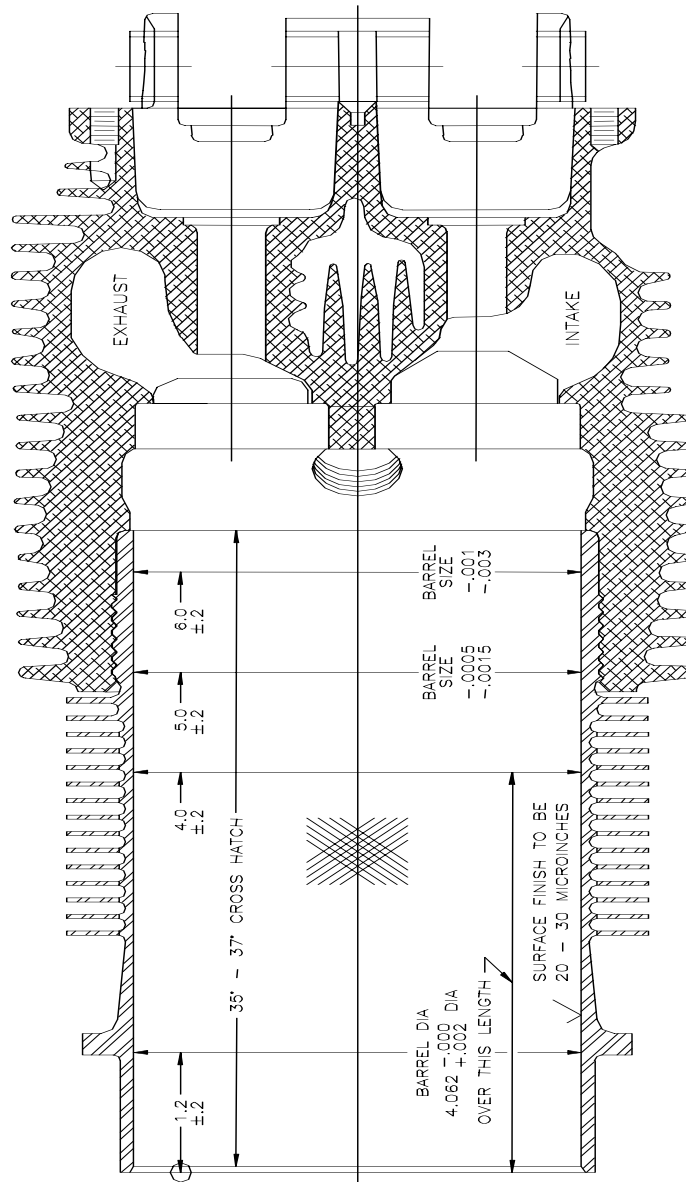
This is in response to your February 14, 1996, facsimile letter concerning the applicability of AD 94-05-05 R1. Your concern is that Superior parts are not excluded from the AD.

AD's are applicable only to the manufacturer listed on the AD. If a particular manufacturer is not listed, then the AD does not apply. This has been true since the inception of the AD process. This AD is no different than any of the hundreds of others that have been written.

Should you have any questions, please feel free to contact Jerry Robinette at (404) 305-7371 or fax (404) 305-7348.

Sincerely,

for Paul C. Sconyers
Associate Manager, Atlanta
Aircraft Certification Office



CYLINDER DIMENSIONS - STANDARD

FIGURE 2