

## ECi Products: TITAN® Cylinders

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# TITAN® Cylinder Assemblies STC Cylinders for TCM C-/200/300 Series Engines

### NEW HEAD – NEW BARREL – NEW PRODUCT

**Manufactured to Higher Standards for Extreme Durability™**

### Re-engineered Cylinder, Performance Upgrade

Engine Components, Inc. (ECi) re-engineers the TITAN® replacement cylinders for C-/200/300 series engines and becomes first in the industry to incorporate a CHT probe boss, a Roto-Coil to the exhaust valve and Teflon® rockershaft end plugs into the original design since the certification by the OEM. While these features are not new to the industry, they have never been utilized for the C-/200/300 series. These additions upgrade the cylinder's performance by increasing reliability and durability.



Knowing that heat is the number one enemy of cylinders, ECi now casts a Cylinder Head Temperature (CHT) thermo-couple probe boss into the C/200/300 series cylinders. This new feature accommodates the modern method of monitoring of cylinder head temperature

Valve guide sticking for these series of cylinders has become a chronic problem for the aging aircraft fleet. Lower compression engines such as these are plagued by a lead compound build-up in the valve guides and the 80/87 fuel these engines were designed to use is no longer universally available. The available fuel (100LL) has an excess of lead that does not adequately scavenge, and subsequently forms carbon/lead compound deposits in the valve guide.

To reduce the build-up of carbon and varnish due to the excess of lead, ECi now adds a Roto-Coil to the exhaust valve to allow positive rotation of the valve each time it is opened, which then presents fresh mating surfaces to the valve stem and guide. Fresh, clean mating surfaces help transfer heat to the cooling fins and reduce the likelihood of both guide wear and valve sticking.

To further combat valve stem and guide wear, high chrome Ni-resist exhaust valve guides are installed and the exhaust valve stems are chrome-plated, a proven combination used on high-output engines that has now been adapted for the C-/200/300 series engines to ensure longer life.

Finally, the rocker shafts are now machined to accept Teflon® end plugs, ending the abrasive wear of the shaft against the rocker cover which creates a safety of flight condition.

Recently voted #1 Cylinder Choice by The Aviation Consumer, the TITAN® aircraft cylinder assemblies include ECI's exclusive 'Diamond' features, clearly marked below with the TITAN® diamond, which are not found on OEM or any other PMA cylinder. Some of these features include ECI's TITAN® Advanced™ Aluminum Alloy, permanent mold casting, and increased critical wall thickness.

**The new TITAN® C-/O-200,300/GO-300 Series replacement cylinder assembly features are impressive:**

- TITAN® Advanced™ Aluminum Alloy
- Permanent Mold Casting
- Cast-in CHT Thermo-couple Probe Boss
- Teflon® Rockershaft Thrust Buttons
- Exhaust Valve Rotators
- High Chrome Cast Iron Exhaust Valve Guides
- Tru-Bore™ Valve Guide
- Nickel+Carbide™ Bore Coating
- Moly-filled Top Compression Ring

