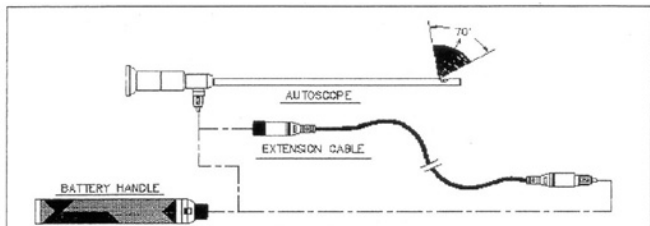




LENOX
INSTRUMENT
COMPANY, INC. 265 Andrews Road Scottsville Industrial Park Treviso, PA 19053-3427

(215) 322-9990
FAX (215) 322-6126

AUTOSCOPE



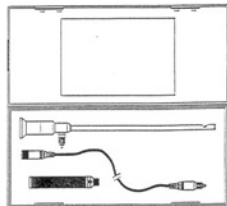
Kit includes:

- Autoscope.....A side viewing borescope with an 8 mm (5/16") diameter and 9" or 15" working length
- Battery Handle.....Heavy duty metal, holds three "C" cells, variable intensity rheostat controls Autoscope lamp output, connects to Autoscope directly or by means of Extension Cord
- Extension Cord.....6-1/2 foot long cord allows Battery Handle to be placed in pocket while using Autoscope
- Case.....Plastic foam-lined case holds all components

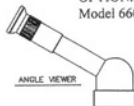
MODEL	6600K-900	6600K-1500
WORKING LENGTH	9"	15"
KIT PRICE	\$995 \$895.00	\$1,595 \$1,386.00

GENERAL SPECIFICATIONS

- Field of View-----70 Degrees
- Focus Range-----1/4" to Infinity
- Angle of View-----70 Degrees
- Diameter-----5/16" Diameter
- Working Length-----9" or 15"



OPTIONAL ANGLED VIEWER
Model 6600S-300.....



\$325.00

PRODUCT REVIEW

Autoscope by Lenox Instrument Co.

Borescopes are easy-to-use optical diagnosis instruments that view, magnify and illuminate hard-to-reach areas. They can be extremely valuable tools for detecting problems in general aircraft engines.

Gary Seabert, president of Island Aviation Services, Fernandina Beach, Florida, found that out when his FBO hosted an ABS/ASF Service Clinic last March.

Tedyne Continental Motors (TCM) sent two field engineers, an accident investigator and a field supervisor to the clinic as part of an ongoing effort to improve customer service. This team used two battery-powered portable borescopes to inspect TCM engines.

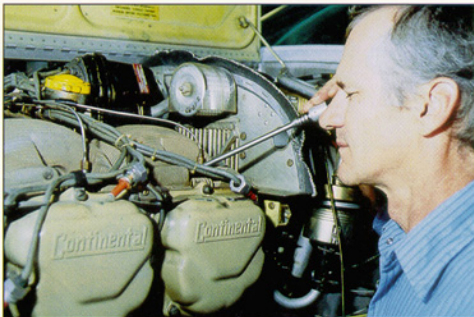
"We used the scopes ourselves as part of the inspection, and spotted defects in the walls of a new cylinder that had only 15 hours service," says Seabert, who is an ATP-rated pilot and authorized aircraft inspector.

"The walls were shedding microscopic pieces of metal, which eventually would have gotten into the oil and contaminated it. This could have seriously damaged the bearings on the Bonanza engine.

"If we hadn't caught the problem in that inspection, we wouldn't have known about it until the metal showed up in the oil filter in the next 50-hour oil change. In that time, the metal could have caused a lot of damage.

"The borescopes also showed us that cylinders on another engine, which we thought might have some problems, were perfect. So we got some good news and some bad news. Essentially, it all amounted to the same thing—the scopes allowed us to provide good information to customers and save them money."

After the clinic, Seabert ordered a scope similar to TCM's from the manu-



Island Aviation Services "scopes" engines as part of regular maintenance inspections.

facturer, Lenox Instrument Co., Inc., Treviso, Pennsylvania. Originally developed for inspecting automobile engines, the portable borescope, which weighs only a few pounds, is called the "Autoscope." The model purchased by Seabert cost \$895.

"All of our engine inspections are now borescoped. Any time we remove the spark plugs for engine work, we take a few extra minutes to look at the cylinder walls and valves," Seabert said. "If we're doing a compression check, for instance, on a 50-hour, 100-hour or annual inspection, we'll always view the walls with the scope. And we will certainly scope the engine if a pilot has an oil consumption problem or other specific problem with an engine."

The Autoscope includes a nine-inch-long stainless steel probe that fits into any opening larger than 5/16 inch, including spark plug holes. The scope magnifies 3X through an optical lens system and illuminates through a high-intensity quartz halogen light source at its tip. A stainless steel battery pack, which serves as a handle during inspections, holds three standard C batteries.

Rigid borescopes like the Autoscope are used where a straight line path is



Cylinder wall as seen through the Autoscope

available between the maintenance inspector and the area to be viewed. Flexible fiber optic scopes, on the other hand, are snaked through engines when obstructions and curves don't allow a straight path. In these, thousands of individual glass fibers carry light to the point of inspection and also convey the image back to the viewer's eyepiece.

"It's important to get a scope that gives you the results you need," Seabert noted. "I previously used several other much more expensive scopes, but I could never see anything no matter how I squinted or repositioned it," he says. "I didn't use them much. We found the right scope, which allows us to really view the valves and cylinder walls with great clarity. The people in our maintenance shop love the scope." 