

NO ILLUSTRATION AVAILABLE

**FFG-7 LM-2500 ENGINE COMBUSTION SECTION BORESCOPE TRAINER, DEVICE 19E15/1A****TRAINING CATEGORY:**

PROPULSION ENGINEERING (Equipment Maintenance)

**ORIGINATING AGENCY:**

CNET

**SECURITY CLASSIFICATION:**

Device 19E15/1A is unclassified.

**INTENDED USE:**

In gas turbine maintenance training schools, to familiarize maintenance personnel with the borescope method of internal inspection, and the types and locations of typical faults seen in the combustion section of the gas turbine.

**FUNCTIONAL DESCRIPTION:**

Device 19E15/1A shall consist of a simulated engine section to be used in conjunction with a borescope corresponding to the combustor section of the LM-2500 Gas Turbine.

The device will correspond to the Combustor Section, to include a 180° segment of the combustion liner with a half of stage 1 turbine nozzle ring attached.

A removable, clear plastic simulation of the combustion casing will enshroud the liner. Three (3) fuel nozzles, attached with slot-head screws will be mounted on bosses in the plastic casing and will extend through the combustion liner. Threaded bosses, dimensionally identical to the borescope access ports in the combustion casing will be provided in the plastic casing for inserting the training borescope. Brass closures will be provided for these ports.

Dowel pins on each end of the plastic casing will be provided to align the casing with the threaded holddown screw holes in the base plate.

A 35mm, single reflex camera system will be an integral part of the trainer. Also a fitted dust cover will be provided with the trainer. Fuel nozzles will be removable, and replacement spares supplied which depict common faults found in nozzles. The burner liner is to be removable and a spare provided which depicts an area which has been damaged by excessive heat.

Identification of parts must correspond to the identification as used on the actual Power Train. Each individual part must be identified.

**ENVIRONMENTAL CHARACTERISTICS:**

The device shall be capable of withstanding classroom use and shall not be adversely affected in any manner during storage and transportation when under ambient temperatures ranging from -5° to 125° F and relative humidity ranging up to 95%.

**INSTALLATION AREA:**

The trainer will be mounted on a modified, factory type hand cart, with heavy duty double locking casters.

**PUBLICATIONS FURNISHED:**

An instructor guide for operation and maintenance, and an instruction sheet will be provided with the device.

**PERSONNEL:**

**Instructor:** One (1)

**Trainees:** Classroom

**CONTRACT IDENTIFICATION:**

Manufactured by General Electric Company, Cincinnati, OH under NAVTRASYSCEN Contract No. N61339-80-C-0039.

**LOCAL STOCK NUMBER:**

6910-LL-C00-4986