

# Extendor Kit for FR5 DLN

## Benefits

- ■ □ Increased production
- □ □ Higher efficiency
- □ □ Compliance with environmental regulations
- ■ ■ Availability and Reliability
- ■ ■ Life extension

Gas turbine combustion inspection intervals can be extended by reducing wear on combustion system components. Customer savings are realized by increasing unit availability and augmenting productivity and production; eliminating the labor costs associated with combustion inspections; reducing component repair costs.

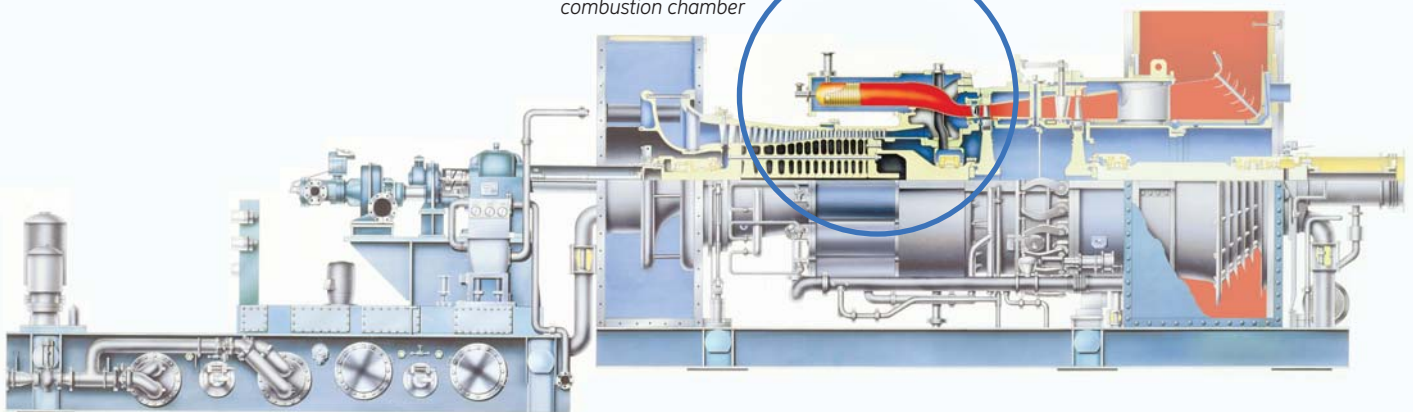
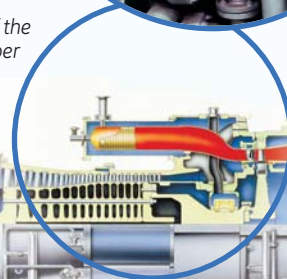
*Detail of the DLN liners, redesigned and internally coated*



*External view of the DLN combustion chamber*



*Section drawing of the combustion chamber*



FR5 gas turbine



## What it is

GE FR5 DLN heavy-duty gas turbines require periodic combustion inspections. For any given machine, the duty cycle and type(s) of fuel(s) used are the key factors in determining the recommended

combustion inspection intervals. The Extendor Kit can increase combustion inspection intervals by significantly reducing combustion component wear and by reducing transition piece creep.

*Internal (below) and external (aside) view of DLN Extendor Kit combustion chamber equipped with the new coating*



## How it works

The Extendor Kit can be applied to combustion components by modifying hardware at an authorized GE Service Center or by having extendor features built into (or “pre-applied” to) new combustion components during the manufacturing process.

The Extendor Kit consists of a hard coating and part redesign intended to reduce wear on various combustion system components. Upon installation of the full Extendor package, GE can

recommend an extension of the combustion system inspection interval.

The Extendor Kit reduces combustion component wear by:

- Reducing the relative movement between combustion components
- Reducing forces and vibrations at wear interfaces
- Providing for critical clearance control at wear interfaces
- Using proven wear-resistant material couples developed by GE

The Extendor Kit was developed to reduce the effects of wear at the following key interfaces:

- Liner stops
- Fuel nozzle tip to combustion liner
- Fuel nozzle collar
- Crossfire tube to combustion liner tube collar
- Combustion liner hula seal to transition piece forward sleeve
- Transition piece forward supports and bracket
- Transition piece aft picture frame seal



GE imagination at work