

ME 497 – Thermal-Fluid Systems Design

Presentations by five design teams

- Project: **DESIGN OF A 15L DIESEL ENGINE
EXHAUST GAS COOLER & SLEEPER CAB HEATER**
- When: Tuesday, December 10, 2002
- Time: 9:45 – 12:00 pm
- Where: SL 165

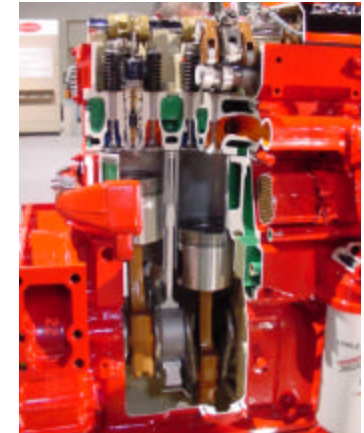
All Students and Faculty are Invited!



ME 497 – Thermal-Fluid Systems Design Project

Fall 2002

DESIGN OF A 15L DIESEL ENGINE EXHAUST GAS COOLER & SLEEPER CAB HEATER



Exhaust Gas Cooler: In an effort to reduce diesel engine exhaust emissions, cooled exhaust gas recirculation is used to control the combustion temperatures and reduce the diesel fumes harmful to environment. An exhaust gas to engine coolant heat exchanger is added on an existing truck cooling system. Exhaust Gas Cooler (EGC) thermal load demand is met while coolant and gas pressure drops are minimized.

Sleeper Cab Heater: Modern cab's spacious interior offers drivers style, comfort and an ergonomic cab design to help reduce operator fatigue. Luxurious amenities and intelligent use of space combine to improve the quality of life on the road. A heat exchanger is designed to meet the cab heating requirements under the arctic conditions of Northern USA and Canada.

