



Combustion Characteristics Workshop

Problem Solving and Best Practices for Reciprocating Engines

March 1-4, 2011
Doubletree Guest Suites Hotel
Houston TX

Combustion Characteristics is a comprehensive troubleshooting and problem-solving class covering the effects of operating conditions and control adjustments on engine combustion, plus a detailed discussion related to issues affecting the development and use of horsepower performance curves.

The workshop includes 48 different operating scenarios and problems. It covers pure turbocharged 4-stroke cycle, turbocharged 2-stroke cycle, piston scavenged 2-stroke cycle, and naturally aspirated 4-stroke cycle engines.

Course topics include:

- *In-depth discussion of combustion characteristics including*
 - peak firing pressure
 - MEP
 - exhaust temperatures
 - turbocharger speed
 - fuel consumption
 - NOx and CO emissions on various engines.

- *Effects of changes in*
 - air/fuel ratio
 - ignition timing
 - fuel composition
 - torque
 - speed
 - mechanical problems

- *Advanced ignition theory and ignition schematics*

- *Horsepower performance and compressor curve use and development*

Who Should Attend:

The class is intended for all job classifications involved with the operation, repair, analysis, engineering, and supervision of reciprocating engines.

The workshop is sponsored by the **Gas Machinery Research Council** (www.gmrc.org). The class instructor is Randy Anderson, **CECO Training Services** (www.tryceco.com). Mr. Anderson is a highly regarded technical instructor who brings a wealth of experience to the class.

Each participant will receive a comprehensive workbook, a valuable resource that will provide ongoing benefits long after the completion of the class.

Professional Development Hours

The workshop qualifies for 28 Professional Development Hours (PDH)

Course Fee

\$1395 GMRC member company employees

\$1695 Non-members

The fee includes course materials, lunch and refreshment breaks each day.

Schedule

8:30 a.m. to 5:00 p.m. Tuesday through Thursday; 8:30 a.m. to Noon Friday.

To Register:

Go to the GMRC website <http://gmrc.org/events/index.php> and complete the online registration form.

Or return the attached registration form.

Hotel

A block of rooms has been reserved at the Doubletree Guest Suites, 5353 Westheimer Rd., Houston TX 77056. For reservations call 800-222-8733 and request the Gas Machinery Research Council rate of \$159. The cutoff date for reservations is January 31.

All sessions of the workshop will be held at the hotel.

Questions?

Contact Patrick Downey, GMRC at pdowney@gmrc.org or email memberservices@southerngas.org Phone (972) 620-4026.



GMRC REGISTRATION FORM

Combustion Characteristics Workshop

March 1-4, 2011

Doubletree Hotel - Houston TX

Name _____

Company _____

Title _____

Mailing Address _____

City/State/ZIP _____

Email _____

Phone _____ Fax _____

REGISTRATION FEE: \$1395 per person GMRC or SGA Member Company employee
\$1695 Non Member ([view company list](#))

PAYMENT METHOD:

Credit card

___ American Express ___ MasterCard ___ Visa

Card # _____ Exp. Date _____

Name on Card _____

Please invoice me ___

Check here if you have a disability and may require accommodation to fully participate. ___

Return to: GMRC Member Services memberservices@southerngas.org
Fax: 972-620-1613

Registration is also available online at <http://www.gmrc.org>

Questions? Contact Patrick Downey, GMRC, pdowney@gmrc.org (972) 620- 4026 or email memberservices@southerngas.org