



Combustion Characteristics Workshop

Problem Solving and Best Practices for Reciprocating Engines

March 6-9, 2012

El Paso Office

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**, one of the industry's most experienced and highly regarded technical instructor.

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:

Register online at www.gmrc.org or return the attached registration form.

Hotel

The following hotels are near the El Paso office. Call the hotels directly and ask for the El Paso rate. (We do not have a GMRC rate set up at any of the properties)

Hyatt Regency (closest to EP Building)

1200 Louisiana St - Houston, TX 77002 --- 713-654-1234

Rate \$171 thru 2/28/12; \$259 thereafter

The Doubletree Houston Downtown (2 blocks from EP Building)

400 Dallas St. Houston, TX 77002 --- 713-759-0202

Rate \$159

Embassy Suites (7 blocks from EP Building)

1515 Dallas St Houston, TX 77010 --- 713-739-9100

Rate \$145

Crowne Plaza Downtown (7 blocks from EP Building)

1700 Smith St Houston, TX 77002 --- 713-739-8800

Rate \$172

Club Quarters Houston (6 blocks from EP Building)

720 Fannin St Houston, TX 77002 --- 713-224-6400

Rate \$122 - \$137

Call the hotels directly and ask for the El Paso rate.

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 6-9, 2012

El Paso Office - 1000 Louisiana Street - 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