



## El Mar<sup>®</sup> Ashless Heavy Duty

Conoco<sup>®</sup> El Mar Ashless Heavy Duty is a high-quality, ashless, dispersant-detergent gas engine oil designed for use in naturally aspirated and moderately turbocharged 2-stroke cycle natural gas engines. Engines operating in this type of service typically are found on crude oil and gas transmission pipelines, electrical power generators, gas compressors, irrigation water pumps and well drilling rigs.

El Mar Ashless Heavy Duty is formulated with field-proven performance additives to meet the rigorous lubrication demands of modern, fuel-efficient, low-emission gas engines. It provides excellent resistance to oxidation and nitration, protects against ring and liner wear, minimizes the formation of sludge and piston deposits for excellent engine cleanliness, and protects against corrosion. The absence of ash-forming additives results in clean intake ports to help maintain peak engine performance, and also helps extend spark plug life in spark-ignited gas engines.

### **Applications**

- 2-stroke cycle natural gas engines that are sensitive to port deposits and require an ashless gas engine oil

El Mar Ashless Heavy Duty is recommended for use in natural gas engines manufactured by:

- Ajax
- Climax
- Colt-Fairbanks Morse
- Cooper-Bessemer
- Dresser Clark
- Dresser Rand (Category I & II)
- Worthington

### **Features/Benefits**

- Field-proven performance in providing excellent engine cleanliness
- Ashless formulation helps minimize port deposits
- Good dispersancy to protect against sludge and varnish formation
- Excellent resistance to oxidation and nitration
- Protects against scuffing and wear

**Ashless  
Natural Gas  
Engine Oil**

**U.S. Technical  
Services Hot Line:  
1-800-255-9556**

**U.S. Customer  
Service:  
1-800-640-1956**

**International:  
+1-832-486-3363**

**E-mail address:  
*conocolubricants@  
conocophillips.com***

***<http://lubes.conoco.com>***

**600 N. Dairy Ashford • 2W9000 • Houston, TX 77079**



- Protects against rust and corrosion
- Does not contain any bright stock, which can cause harmful carbon deposits

### El Mar<sup>®</sup> Ashless Heavy Duty

#### Typical Properties

SAE Grade	30	40	15W-40
Specific Gravity @ 60°F	0.879	0.880	0.870
Density, lbs/gal @ 60°F	7.33	7.34	7.25
Color, ASTM D1500	2.5	3.0	2.5
Flash Point (COC), °C (°F)	260 (500)	274 (525)	232 (450)
Pour Point, °C (°F)	-27 (-17)	-24 (-11)	-33 (-27)
Viscosity, Kinematic			
cSt @ 40°C	95.0	134	108
cSt @ 100°C	11.0	14.0	14.4
Viscosity Index	100	108	133
Cold Cranking Viscosity, cP	—	—	6,100
@ (°C)	—	—	(-20)
Sulfated Ash, ASTM D874, wt %	<0.01	<0.01	<0.01
Total Base Number (TBN), ASTM D2896	1.0	1.0	1.0
Phosphorus, wt %	0.054	0.054	0.054

#### Health and Safety Information

For recommendations on safe handling and use of this product, please refer to the Material Safety Data Sheet via <http://w3.conocophillips.com/NetMSDS>.

Typical properties are average values only and do not constitute a specification. Minor variations that do not affect product performance are to be expected during normal manufacture, and at different blending locations. Product formulations are subject to change without notification.

Copyright © 2008 ConocoPhillips Company. The ConocoPhillips logo, Conoco, and the Conoco logo are trademarks of ConocoPhillips Company in the U.S.A. and other countries.