

Conoco Natural Gas Engine Oil Recommendation Guide

MANUFACTURER	ENGINE TYPE	ENGINE MODEL	MANUFACTURER'S ASH LEVEL REQUIREMENTS	RECOMMENDED NATURAL GAS ENGINE OIL
Ajax (Cooper Energy Service)	2-stroke cycle	All - Ashless Preferred	Ashless	El Mar® GEO
Caterpillar	4-stroke cycle	3000 series, 399, 398	Low Ash	HC El Mar® LA4 / El Mar® 3100
		3600 series	Low Ash	HC El Mar® LA4
C.E.S Superior (Cooper Energy Service)	4-stroke cycle	Naturally Aspirated	Low Ash	HC El Mar® LA4 / El Mar® 3100
		Turbocharged	Mid Ash	El Mar® Mid Ash Supreme
		1700 & 2400	Low Ash	HC El Mar® LA4 / El Mar® 3100
Clark Brothers (Dresser Ind.)	2-stroke cycle	All	Ashless	El Mar® Ashless Supreme / El Mar® Ashless HD
Cooper Bessemer (Cooper Energy Service)	2-stroke cycle	All - Ashless Preferred	Ashless	El Mar® Ashless Supreme
	4-stroke cycle	All	Low Ash Acceptable	HC El Mar® LA4 / El Mar® 3100
Cummins	4-stroke cycle	L10	Low Ash	HC El Mar® LA4 / El Mar® 3100
		G, GTA	Mid Ash	El Mar® Mid Ash Supreme
Deutz MWM	4-stroke cycle	Group D	Low Ash	HC El Mar® LA4 / El Mar® 3100
Ingersoll-Rand (Dresser Ind.)	4-stroke cycle	Category I, II - III	Approval based on field performance	HC El Mar® LA4 / El Mar® 3100
Jenbacher	4-stroke cycle	Leanox	Mid Ash	El Mar® Mid Ash Supreme
		Lambda	Low Ash	HC El Mar® LA4 / El Mar® 3100
M.E.P. Fairbanks Morse	2-stroke cycle	All	Low Ash	HC El Mar® LA4 / El Mar® 3100
	4-stroke cycle			
MAN	4-stroke cycle	All	Low Ash	HC El Mar® LA4 / El Mar® 3100
Perkins	4-stroke cycle	All	Low Ash	HC El Mar® LA4 / El Mar® 3100
Wartsila	4-stroke cycle	150 SG, 175 SG, 25 SG, 28 SG, 43 SG.	Low Ash	HC El Mar® LA4 / El Mar® 3100
Waukesha Engine Div (Dresser Ind.)	4-stroke cycle	VSG F11, G, GSI, GSID	Low Ash	HC El Mar® LA4 / El Mar® 3100
		F817, F1197	Low Ash	HC El Mar® LA4 / El Mar® 3100
		VHP F2895, F3521, L5108, L5790, L7042, P9390, G, GSI, GL	Low Ash	HC El Mar® LA4 / El Mar® 3100
		VGf, F-18, H-24, L-36, P-48, G, GL, GLD,GSI	Low Ash	HC El Mar® LA4 / El Mar® 3100
		AT 25/27 8L GL, AT 25/27 12L GL AT 25/27 16V GL	Low Ash	HC WEI Mar® LA4 / El Mar® 3100
		VHP F3524, L5794, L7044. GSI, L5774, L5794 LT	Low Ash	HC El Mar® LA4 / El Mar® 3100
		Clinton G2476, L3711, L3712, H2475, F1850, H884	Ashless Preferred	El Mar® Ashless Supreme
SPECIAL APPLICATIONS				
Converted Gasoline Engines	4-stroke cycle	Irrigation Service	Mid Ash	El Mar® Mid Ash HD
Various	4-stroke cycle	Dual Fuel	Mid Ash	El Mar® Mid Ash HD

INDUSTRY CLASSIFICATION	
SULFATED ASH LEVEL	ASH CATEGORY
Less than 1%	Ashless
0.1 - 0.5%	Low Ash
0.5 - 1.5%	Mid Ash
>1.5%	High Ash



GETS IT DONE.

Natural Gas Engine Oil Products

CONOCO NCEO PRODUCT	2-CYCLE	4-CYCLE	LOW ASH	MID ASH	ASHLESS	COMMENTS
Hydroclear® El Mar® LA4		X	X			Severe Service Extended Drains
El Mar® 3100		X	X			Standard Service OEM Drains
El Mar® 2000	X	X	X			Mild 4-Cycle Service
El Mar® Mid Ash Heavy Duty		X		X		Sour Gas, Dual Fuel, Converted Automotive
El Mar® Mid Ash Supreme		X		X		Sour Gas, Catalyst Compatible
El Mar® Ashless Supreme	X				X	Severe Service Extended Drains
El Mar® Ashless Heavy Duty	X				X	Standard Service OEM Drains
El Mar® GEO	X				X	Non Dispersant

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0.1 - 0.5%	Low Ash
0.5 - 1.5%	Mid Ash
>1.5%	High Ash



For more information about ConocoPhillips lubricants for the natural gas industry or for industry support, please contact your local Conoco Marketer or call 800-255-9556.

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