

June Edition of Natural Gas Engine Tech Talk

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New This Month:

New Engine Control Module (ECM) Available for ISX12G

As of June 1st, there is a new ECM available for the ISX12G. The new part ECM part number 5491911 can be installed as a replacement for the previous ECM.

Installing this new module, will require a calibration change and an authorized modification decal to be affixed to the engine.

Updated GHG Emissions Calculator Now Available

Compare the environmental impact of your fleet today vs. the benefits of operating optional Near Zero Emission RNG fueled engines, learn what your fleets GHG emission footprint is today, forecast potential carbon tax avoidance options in the future and how to generate LCFS credits. View the updated calculator [here](#).

This Month's Reminders:

1. **Ignition coils are expected to last the life of the engine** when the ignition system and engine is properly maintained. The ignition coil assembly consists of three pieces; the ignition coil, coil extension, and spark plug boot. During a normal spark plug change, the boot and spark plug should be changed; and the coil extension and coil should be inspected and tested for proper function.
2. August 2019 we released a cylinder head that has improved resistance to valve recession. Fleets may be able to predict valve recession taking place by monitoring the service interval between valve adjustments. To identify valve seat recession and possible head replacement, look for **two valve adjustments in a row that do not make it to 2000 hours to address engine misfire**. If this is the case, consider replacing the cylinder head to avoid unplanned down time.

Technical Resources:

Jason Bauer's Maintenance Tip Videos – Click Links Below

[Maintenance Intervals](#)

[Natural Gas Engine Oil](#)

[Ignition Coil Maintenance](#)

[Fuel Filter Maintenance](#)

Spark Plug Maintenance

Tips for Success

Minimum methane number requirement for Cummins Natural Gas Engines:

C Gas Plus, B Gas Plus, and L Gas Plus	65
ISL G, ISX12 G, ISB6.7 G, and all 2018 engines	75

Fuel Quality Calculator:

<https://www.cumminswestport.com/fuel-quality-calculator>

Recommended Maximum GVW for Best Performance & Efficiency:

B6.7N	33,000lbs
L9N	66,000lbs
ISX12N	80,000lbs

ISB6.7 G & B6.7N Maintenance Intervals	
	Hours
Oil & Filter* - CES 20092	750
Conventional Coolant Replacement	1,500
Hybrid Coolant Replacement	4,000
OAT Coolant Replacement	6,000
Spark Plugs	750
Fuel Filter	1,000
Valve Adjustment	1,500
Crankcase Breather	2,000
Ignition Coil Extension	5,000

ISL G & L9N Maintenance Intervals	
	Hours
Oil & Filter* - CES 20092	1,000
Standard Coolant Filter	500
Extended Service Interval Filter	4,000
Conventional Coolant Replacement	1,500
Hybrid Coolant Replacement	4,000
OAT Coolant Replacement	6,000
Fuel Filter	1,000
Valve Adjustment	1,000 / 2,000
Spark Plugs	1,500
Crankcase Breather Filter - L9N	2,000
Standard Coolant	2,000
Ignition Coil Extension	10,000

ISX12 G & ISX12 N Maintenance Intervals	
	Hours
Oil & Filter* - CES 20092	1,000
Spark Plugs	1,000
Standard Coolant Filter	500
Extended Service Interval Filter	4,000
Conventional Coolant Replacement	1,500
Hybrid Coolant Replacement	4,000
OAT Coolant Replacement	6,000
Valve Adjustment	1,000 / 3,000
Ignition Coil Extension	10,000
Crankcase Breather Filter - ISX12N	10,000

ISB6.7 G & B6.7N Maintenance Part Numbers		
Component	Cummins Part #	Fleetguard Part #
Oil Filter	4367100	LF14000NN
Fuel Filter	3607140	NG5900
Crankcase Filter	5288839	
Spark Plug Kit**	4376564	
Ignition Coil Extension	5402163	

**Kit includes spark plug and pregreased boot

ISL G & L9N Maintenance Part Numbers		
Component	Cummins Part #	Fleetguard Part #
Oil Filter	4367100	LF14000NN
Fuel Filter	3607140	NG5900
Crankcase Filter*	5288839	
Spark Plug Kit**	5473009	
Ignition Coil Extension	5265337	

* If Equipped

**Kit includes spark plug and pregreased boot

ISX12 G & ISX12 N Maintenance Part Numbers		
Component	Cummins Part #	Fleetguard Part #
Oil Filter	4367100	LF14000NN
Fuel Filter*	3607140	NG5900
Crankcase Filter*	4389517	CV53009
Spark Plug Kit**	4309391	
Ignition Coil Extension	4387015	

*If Equipped

**Kit includes spark plug and pregreased boot

CES 20092 Oil Provider Recommendations

Company Name	Product Name	Vis Grade
Valvoline	Premium Blue One Solution Gen2	10W-30
Valvoline	Premium Blue One Solution Gen2	15W-40
Valvoline	Premium Blue 9200 - One Solution 10W-30	10W-30
Valvoline	Premium Blue 9200 - One Solution 15W-40	15W-40

Alternatives

Company Name	Product Name	Vis Grade
Advanced Lubrication Specialties, Inc.	Advantage Ultra Premium Plus 92 SAE 15W-40	15W-40
Advanced Lubrication Specialties, Inc.	Gibraltar Ultra 92 NCEO	15W-40
Advanced Lubrication Specialties, Inc.	Sunoco Super C-3 Gold	15W-40
Association of Independent Oil Distributors	Purus TFO Synthetic Blend CK-4/SN	15W-40
Association of Independent Oil Distributors	Purus TFO Synthetic Blend CK-4/SN	10W-30
Castrol Ltd.	Castrol Duratec ES 15W-40	15W-40
Castrol Ltd.	Castrol Vecton Long Drain NG 10W-30	10W-30
Castrol Ltd.	Castrol Vecton Long Drain NG 15W-40	15W-40
Chevron Products Company	Delo 400 SNG	15W-40
Chevron Products Company	Delo 400 SNG-MF	15W-40
CITGO Petroleum Corporation	Citgard® CNG/LNG Engine Oil 10W-30	10W-30
CITGO Petroleum Corporation	Citgard® CNG/LNG Engine Oil 15W-40	15W-40
D-A Lubricant Company, Inc.	Reliant X-92 SAE 15W-40	15W-40
ExxonMobil	Mobil Delvac Modern 10W-30 CNG/LNG	10W-30
ExxonMobil	Mobil Delvac Modern 15W-40 CNG/LNG	15W-40
Gulf Oil International Ltd.	Guloco Fleet Premium 15W-40	15W-40
Petro-Canada Lubricants Inc	Duron GEO LD 10W-30	10W-30
Petro-Canada Lubricants Inc	Duron GEO LD 15W-40	15W-40
Phillips 66 Company	Kendall Super-D NG 15W-40	15W-40
Phillips 66 Company	Phillips 66 Guardol NG	15W-40
Reliance Fluid Technologies LLC	Maximum Performance Heavy Duty CLK 10W-30	10W-30
Reliance Fluid Technologies LLC	Maximum Performance Heavy Duty CLK 15W-40	15W-40
Safety-Kleen Systems Inc., dba Kleen Performance	EcoPower 15W-40 NGP	15W-40
Safety-Kleen Systems Inc., dba Kleen Performance	Performance Plus 15W-40 NGP	15W-40
Safety-Kleen Systems Inc., dba Kleen Performance	ProProtect 15W-40 NGP	15W-40
Shell	Shell Rimula R5 NG 15W-40	15W-40
Shell	Shell Rotella T4 NG Plus 15W-40	15W-40
SINOPEC LUBRICANT CO. LTD.	Sinopec Tulux G600 CNG/LNG/LPG 15W-40	15W-40
TongYi Petroleum Chemical Co.	TongYi Long Range Gas Engine Oil LPG/CNG	10W-30
TongYi Petroleum Chemical Co.	TongYi Long Range Gas Engine Oil LPG/CNG	15W-40
TongYi Petroleum Chemical Co.	TongYi Long Range Gas Engine Oil LPG/CNG/LNG 15W-40	15W-40
TOTAL LUBRIFIANTS	Total Rubia Gas 9M 15W-40	15W-40
TOTAL LUBRIFIANTS	Total Rubia Gas 9M FE 10W-30	10W-30

https://quickserve.cummins.com/qs3/qsol/service/serviceproducts/oil_registration_20092.html