# A Dynamic Advantage

**Dynamic Gas Blending** — your dual-fuel solution for land drilling, production, and well service







# Take Control

Use gas when it's available and continuously modulate gas substitution when needed.

Cat® Dynamic Gas Blending is optimized to handle variations in fuel quality and engine operating conditions.

You save fuel and your diesel power and transient performance is consistently maintained.

Lowering operating costs while maintaining emissions compliance with a single technology is exciting... but it's just the beginning.





## Strike a new balance

#### Where profitability...

- Lower fuel costs with up to 70%\* replacement of diesel with gas
- · Maintain existing service intervals and component life
- Increase display and diagnostic performance with the ADEM™ A4 and EMCP 4.4\* controls

#### ...Meets responsibility

- Capability to run on field gas as an alternative to flaring
- · Designed with CSA certified components
- Safety features built into the integrated controls
- Maintain original emissions certifications with retrofit kit
- \* Differs for well service applications

### **Exercise your options**

If you choose to retrofit your existing equipment, you get all the benefits of Dynamic Gas Blending and all the advantages of a complete package, including full warranty coverage and genuine parts from the global Cat dealer network.

- Bolt-on component installation
- · Consolidated parts packaging
- Ease of order with one part number for the kit

#### Be flexible

Dynamic Gas Blending automatically adjusts to changes in incoming fuel quality and pressure allowing your engines to run on a wide variety of fuels, from associated gas to gasified LNG.

- Continuously modulates gas substitution under all transient loading to optimize fuel savings
- Accepts up to 55% inerts
- Requires no recalibration when equipment is moved or gas supply changes

# Well Stimulation Product Overview

- Single ADEM A4 engine control maximizes substitution while maintaining performance and emissions compliance
- Maintains diesel engine performance while maximizing substitution throughout a wide range of speed and load conditions
- Achieves maximum substitution and maintains Tier 2 emission standards while running on a wide variety of gaseous fuels with no additional calibration
- Diesel oxidation and muffler combination designed for ease of installation
- Integrated controls and hardware designed with safety, reliability, and durability in mind

Engine Model	3512C (HD)	3512C (HD)	3512C (HD)	3512C (HD)
Rated Speed	1900 rpm	1900 rpm	1900 rpm	1900 rpm
Retrofit Offering	X	Χ	X	X
Power	1678 bkW (2250 bhp)	1864 bkW (2500 bhp)	1678 bkW (2250 bhp)	1864 bkW (2500 bhp)
Emissions	NR Tier 2	NR Tier 2	NR Tier 2	NR Tier 2
Cooling System	ATAAC	ATAAC	SCAC	SCAC





# **Drilling and Production Product Overview**

Your Cat dealer will help you implement a complete package or a retrofit kit compatible with your generator sets. Using proven gas engine hardware with no change to core diesel engine components, you can be up and running quickly with Dynamic Gas Blending.

- Optimized diesel and gas fuel system controls maximize substitution while maintaining power output and safe engine operation
- Certified retrofit kits maintain original emission standards over a wide range of gaseous fuels
- Simple integration to rig monitoring equipment to track engine health and substitution performance

Engine Model	3516B	3512C	3512B	3512B	3512B	3512B	3512B
Application	Production Prime	Drilling	Drilling	Production Prime	Production Continuous	Production Prime	Drilling
Frequency	50 Hz	60 Hz	50 Hz	50 Hz	50 Hz	60 Hz	60 Hz
Speed	1500 rpm	1200 rpm	1500 rpm	1500 rpm	1500 rpm	1800 rpm	1200 rpm
Package Offering	Х		Х	Х	Х	Х	Х
Retrofit Offering	Х	Х	Х	Х		Х	Х
Power	1.6 eMW	1045 ekW (1476 bhp)	1245 ekW (1757 bhp)	1.3 eMW	1.05 eMW	1.36 eMW	1045 ekW (1476 bhp)
Emissions	Non-regulated	Tier 2/ Non-Regulated	Non-regulated	Non-regulated	Non-regulated	Non-regulated	Tier 1/ Non-regulated
Max Gas %	70	70	70	70	70	70	70
Transient Performance	G1 ISO8528-5	G1 ISO8528-5	G1 ISO8528-5	G1 ISO8528-5	G1 ISO8528-5	G1 ISO8528-5	G1 ISO8528-5
Generator Mode	Standalone	Standalone	Standalone	Standalone	Standalone	Standalone	Standalone



# **Stay Confident**

Complete package or retrofit, when you invest in legendary equipment, you get legendary support. Caterpillar remains your partner through changing technology in a changing industry. And the Cat dealer network is where you are, when you need them, year after year. Cat parts, maintenance, repair, and experience are at your service for the life of your engine.

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Learn more about the advantages of making the switch to Dynamic Gas Blending. Visit www.catoilandgasinfo.com today.

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