Low owning and operating costs. HIGH CONFIDENCE.

Get industry-leading power density, excellent product availability, global product support, and U.S. EPA Tier 4, U Stage IV emissions technology. Our solutions include diesel engines, engines with Dynamic Gas Blending™ (DGB™), well service transmissions, well stimulation pumps, and hazardous location engines. Whatever your application – pumping, workover, coil tubing, cementing, acidizing, blending – Cat® engines are backed by the global Cat dealer network with technical support, service, parts, and warranty.

Legendary dealer support

Caterpillar and the Cat dealer network stand behind your complete well service solution to make sure your operation stays up and running. Global parts distribution and more than 100,000 trained technicians make sure you’re never without the parts and support you need.
Well Stimulation (2250-3300 bhp)

Cat Dynamic Gas Blending is your dual-fuel solution to lower costs and meet emissions standards with no sacrifice to performance. Use gas when it’s available and continuously modulate gas substitution when needed.

- Lower fuel costs with replacement of diesel with gas
- Maintain existing service intervals and component life
- Increase display and diagnostic performance with ADEM™ A4 controls
- Can run on field gas as an alternative to flaring
- Designed with CSA certified components
- Embedded safety features
- Maintain original certifications with retrofit kit

Well Stimulation Engines

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>3512C (HD)</th>
<th>3512E</th>
<th>3516C (HD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Speed</td>
<td>1900 rpm</td>
<td>1900 rpm</td>
<td>1900 rpm</td>
</tr>
<tr>
<td>DGB Available</td>
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</tr>
<tr>
<td>Power</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1864 bkW</td>
<td>1678 bkW</td>
<td>2461 bkW</td>
</tr>
<tr>
<td></td>
<td>(2500 bhp)</td>
<td>(2250 bhp)</td>
<td>(3300 bhp)</td>
</tr>
<tr>
<td></td>
<td>1678 bkW</td>
<td>1865 bkW</td>
<td>2349 bkW</td>
</tr>
<tr>
<td></td>
<td>(2250 bhp)</td>
<td>(2500 bhp)</td>
<td>(3150 bhp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2237 bkW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(3000 bhp)</td>
</tr>
<tr>
<td>Emissions</td>
<td>EPA Tier 2 NR, China III NR</td>
<td>EPA Tier 4 Final</td>
<td>EPA Tier 2 NR</td>
</tr>
<tr>
<td>Cooling System</td>
<td>ATAAC and SCAC</td>
<td>ATAAC and SCAC</td>
<td>SCAC</td>
</tr>
</tbody>
</table>

You have 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 Cat dealer network.

You have FLEXIBILITY
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.

Cat 3516C (HD) Petroleum Engine

- Available in three ratings: 2,461 bkW (3,300 bhp), 2,349 bkW (3150 bhp), and 2,237 bkW (3000 bhp) @ 1900 rpm.
- Attachment options such as transmission oil coolers, alternators, air cleaners, and mufflers for simplified installation
- Improved oil and fuel filtration system for longer intervals between maintenance
- ADEM A3 Engine Control Module
- Torque curve optimized for compatibility with TH55-E70 and TH55-E90 transmissions
Well Constructed

Your transmission is as crucial to your power solution as the engine. Caterpillar engineering expertise makes sure your transmission integrates with the rest of the power train for proven exceptional power, ease of operation, and shifting options ideal for your well service operation.

Quality
Caterpillar manufacturing quality procedures meet or exceed SAE, ASTM, ISO, Class A, and DIN standards. Cat transmissions are built for your specific application needs:

- For rugged harsh-duty applications, TH transmissions are built with a robust cast iron casing.
- For highly mobile applications requiring permitted loads, CX transmissions are tough, yet extremely lightweight.

Safety
Even more important on the job site than productivity is safety. Cat transmissions and packages incorporate built-in security features to keep operators and site personnel safe on the job.

Performance
Equipment is proven in the field, and Cat purpose-built transmissions deliver more power to the well with fewer trailers. Our well service transmissions deliver continuous operation under full load, smooth shifting at any speed, and maximum uptime, with unmatched durability and easy maintenance.

CX48-P2300
- Lightest weight transmission for well stimulation applications
- Simple installation and maintenance
- Designed to match engine life
- Torque converter design eliminates wearing friction material and damaging engine harmonics during pressure testing

TH55-E90  •  TH55-E70
- Long hours to overhaul warm-up mode gets you up and running faster
- Torsional coupling protects driveline from abusive vibration
- Engine-transmission diagnostics via Cat Electronic Technician streamlines support
- Easy integration with Cat engines for optimized power train
- One-source supplier, one-source service

CX35-P800  •  CX35-P800
- Travel light, but work hard
- Highest power density in the industry
- Significant weight reduction without sacrifice in power
- The most advanced electronic controls available
### Single-source package confidence

Cat well service pumps are designed and manufactured to integrate across our product line and industry standards. Get exceptional product life and performance, supported by the global Cat dealer network.

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Max Input (bhp)</th>
<th>Max rpm</th>
<th>Number of Plungers</th>
<th>Stroke Length (in)</th>
<th>Plunger Load (lb)</th>
<th>Pump Weight (lb)</th>
<th>Gear Ratio</th>
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</thead>
<tbody>
<tr>
<td>WS223</td>
<td>Triplex Well Service Pump</td>
<td>2250 bhp (1678 bkW)</td>
<td>330</td>
<td>3</td>
<td>8 in (203.2 mm)</td>
<td>225,000 lb (102 058 kg)</td>
<td>13,000 lb (5896.7 kg)</td>
<td>6.353:1</td>
</tr>
<tr>
<td>WS255</td>
<td>Quintuplex Well Service Pump</td>
<td>2500 bhp (1864 bkW)</td>
<td>330</td>
<td>5</td>
<td>8 in (203.2 mm)</td>
<td>192,325 lb (87 237 kg)</td>
<td>16,000 lb (7257 kg)</td>
<td>6.353:1</td>
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<tr>
<td>WS273XD</td>
<td>Triplex Well Stimulation Pump</td>
<td>2700 bhp (2014 bkW)</td>
<td>275</td>
<td>3</td>
<td>10 in (254 mm)</td>
<td>275,000 lb (124 738 kg)</td>
<td>16,000 lb (7257 kg)</td>
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<tr>
<td>WS305 XD</td>
<td>Quintuplex Well Stimulation Pump</td>
<td>3000 bhp (2237 bkW)</td>
<td>275</td>
<td>5</td>
<td>10 in (254 mm)</td>
<td>250,000 lb (113 398 kg)</td>
<td>24,000 lb (10 886 kg)</td>
<td>5.55:1</td>
</tr>
</tbody>
</table>
Exceeding expectations

Your operation presents a unique set of challenges. Cat engines meet these challenges with a wide range of engine capabilities at the lowest owning and operating cost. Cat engines meet the latest Tier 4 emission standards without sacrificing performance, while consistently delivering value.

- Maximize uptime with support from the Cat dealer network
- Long life to overhaul
- Simplified aftertreatment optimized for oil and gas applications
- Designed with technology to meet the latest U.S. EPA Tier 4, EU Stage IV, and China III NR emission standards
- Up to five percent improvement in fuel efficiency

U.S. EPA Tier 4 Final Engines (>560 bkW/750 bhp)

**C18 ACERT™**
- 563-597 bkW
- 755-800 bhp
- 1800-2000 rpm

**C27 ACERT**
- 597-708 bkW
- 800-950 bhp
- 1800 rpm

**C32 ACERT**
- 839 bkW
- 1125 bhp
- 1800 rpm

**3512E**
- 1678-1865 bkW
- 2250-2500 bhp
- 1900 rpm
The ideal match
Design the solution to the operation. See how everything fits together for your application.

<table>
<thead>
<tr>
<th>Engine</th>
<th>Pump</th>
<th>Transmission</th>
<th>Input Power (bhp)</th>
<th>Hydraulic Power Units</th>
<th>Coil Tubing</th>
<th>Pumping**</th>
<th>Workover</th>
<th>Blender</th>
<th>Well Stimulation</th>
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</tbody>
</table>

*2WD and 4WD drop box option available for workover application
**Pumping includes Cementing, Acidizing, Nitrogen, and Pump Skids.
One source, one solution

Specialized solutions for your specialized industry. Caterpillar understands your high-pressure business and supplies the industry’s deepest line for well service. Cat engines can run on almost any fuel, meet the toughest emissions standards, and are backed by the expert support of the worldwide Cat dealer network. Everything you need comes from one source. We’re built to help you succeed.

See for yourself what a Cat complete power train can do for you. Visit catoilandgasinfo.com or talk to your dealer today.

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