CARE.CUMMINS.COM
CUMMINS CARE
ALWAYS ON

Diesel Power Plant Development Co.

ANY CUSTOMER, ANY QUESTION, ANY CHANNEL, ANY LANGUAGE, ANY TIME.

Cummins Care is not a typical call centre. We are a solutions centre helping to prevent issues while providing answers quickly and accurately. Our mission is to provide a whole new level of customer service that is on-call 24/7/365 to support and deliver faster personal attention with rapid results. From the moment you engage Cummins Care, you will have access to a Cummins expert with specialised skill sets, experience and in-depth knowledge to take care of military equipment needs.

- Customer Service
- Technical Support
- Connected Services

Cummins Care experts can be reached 24/7/365 by calling 1-800-CUMMINS™ (1-800-286-6467). You can also connect with our helpful experts and resources in your region/language by visiting care.cummins.com. We are here for you to keep military equipment at the ready while providing a seamless support experience in a world that's Always On.

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EXPERIENCE WITH EXPERTISE.

Cummins Inc. is the world's largest independent diesel engine manufacturer and a major supplier to defence agencies around the world. Hundreds of thousands of Cummins-powered engines and power generation units are currently in active service across a wide variety of equipment ranging from wheeled and tracked combat vehicles, to logistic vehicles, to naval vessels. Everything from heavy artillery to mobile command centres. Cummins B Series engines alone are deployed in over 30,000 pieces of military equipment worldwide.

Today, Cummins invests over $750 million annually in research and engineering to maintain our technology leadership across a wide power range extending from 74 hp (55 kW) to 4400 hp (3281 kW). Cummins manufacturing facilities are located in eight countries, with over 7,000 support locations on six continents, providing logistical parts and service support everywhere around the globe.

In addition, we actively recruit former service members. Their military experience gives Cummins an enhanced ability to understand and meet current and future military needs.

From supply lines to battle lines, on land and on sea, Cummins has proven its readiness for action with total commitment. Every aspect of design, manufacturing, and support is internally sourced for total command and control – with unparalleled reliability, efficiency, durability and quality. It's a total package you can depend on to keep your defence strong in a world that's Always On.

'42	Hundreds of YMS class wooden-hull minesweepers utilised twin Cummins Model K engines as pulse chargers.
'63	Twin Cummins V6 VIM engines were specified for U.S. Coast Guard 44-ft steel-hull "unsinkable" rescue boats.
'78	M915 line-haul truck production started with the NTC-400.
'81	Bradley Fighting Vehicle production began with the VTA903-500.
'93	Trak International selected the 6BT-152 for the 6K Variable Reach Rough Terrain Forklift.
'05	U.S. Navy 7M RHIBS switched to the QSB5.9 230 with sterndrive.
'14	U.S. Army Bridge Erection Boats (BEB) started production with the QSB6.7 250.
'17	Advanced Combat Engine (ACE) 14.3 litre, 1000 hp opposed piston engine contract awarded by TARDEC.

DISTINGUISHED SERVICE AT EVERY MILESTONE.

Cummins Inc. has been and continues to be a major supplier of diesel engines and gensets for defence purposes throughout the world. In every mission from the European Theater of Operations in WWII to peace-keeping operations today, Cummins-powered equipment has served with distinction, earning the highest commendations for durability, dependability and performance. That's why Cummins diesel engines are specified by almost every country around the world.

TOTAL COMMITMENT. TOTAL COORDINATION. TOTAL CONTROL.

You can't rely on outside sources to supply key components. Systems have to be integrated from the design phase through manufacturing and assembly for maximum efficiency, durability and quality control. That's why Cummins develops its own fuel systems, controls, air handling, filtration, emission solutions and electrical power generation units.

Cummins cross-disciplinary integration allows us to balance and leverage technology to ensure maximum reliability. Our comprehensive approach also gives us a greater ability to customise designs and modify architecture to meet specific equipment needs and regional demands.

MEETING STANDARDS.

Cummins is focused on providing the highest engine availability at the lowest possible operating costs, while meeting the latest emissions regulations. Our strategy is driven by evaluation of customer needs and market conditions in order to provide the optimum products with the appropriate technologies wherever Cummins engines operate.

Cummins offers a full portfolio of technologies such as Selective Catalytic Reduction (SCR), Exhaust Gas Recirculation (EGR) and Diesel Particulate Filter (DPF). SCR aftertreatment has been chosen to meet the Euro IV and Euro V on-highway emissions standards. For the U.S. military market, Cummins engines comply with the latest U.S. Environmental Protection Agency (EPA) emissions regulations using cooled EGR and can be used for applications where military fuels are not required. In addition, engines that meet previous emissions standards are still available. Contact your local Cummins representative to understand the emissions regulations that are applicable to you.

Cummins engines are capable of operating using a wide range of military fuels, including NATO F-34 & F-54, JET A-1, JP-8, AVTUR and F24. If high-sulphur fuels are to be used, engines can be offered either with or without the aftertreatment system, depending on customer preference. No matter where your equipment and troops are going to be deployed, you can rely on Cummins to keep them moving in a world that's Always On.

WHERE TECHNOLOGY LEADS: CUMMINS ACE.

Cummins is always attacking innovation head-on. Recently, we announced an Advanced Combat Engine (ACE) with revolutionary new capabilities. An opposed-piston diesel engine, it works on a two-stroke combustion cycle that eliminates the need for a valvetrain. ACE is projected to deliver a 21 percent reduction in thermal rejection, a 50 percent increase in power density and a 13 percent jump in fuel efficiency over engines currently in use. Testing of the ACE engine is scheduled to start in 2019 at the U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC).

RE-UPPING WITH CUMMINS.

While new vehicles and power generation units offer improved operational capabilities, military forces are also looking at cost-effective methods of upgrading existing equipment. Cummins repower capabilities dramatically extend the life of military vehicles while enhancing performance, improving fuel economy and lowering maintenance costs.

POWERING ACROSS ALL TERRAIN.

Mission success does not just happen. It starts with a detailed plan, an understanding of the requirements and the steps to achieve those requirements on time and on budget.

We start with Commercial Off-The-Shelf (COTS) engines, which provide advantages in pricing, reliability, data and improved global delivery times through economies of scale. Then, Cummins engineers tailor the design to meet your specifications. Our products are rigorously tested in test cells, on road and off road to ensure the highest quality and performance on the very first day they see action and for decades to come.

With Cummins you are supported by a worldwide sales and service network to ensure your mission is accomplished. Just as you're always on duty to protect and defend, we're always here to serve you, every minute of every day, everywhere around the globe.

ISF | ISBe 4-CYLINDER | ISBe 6-CYLINDER | ISLe

Parsian Diesel Power Plant Development Co.

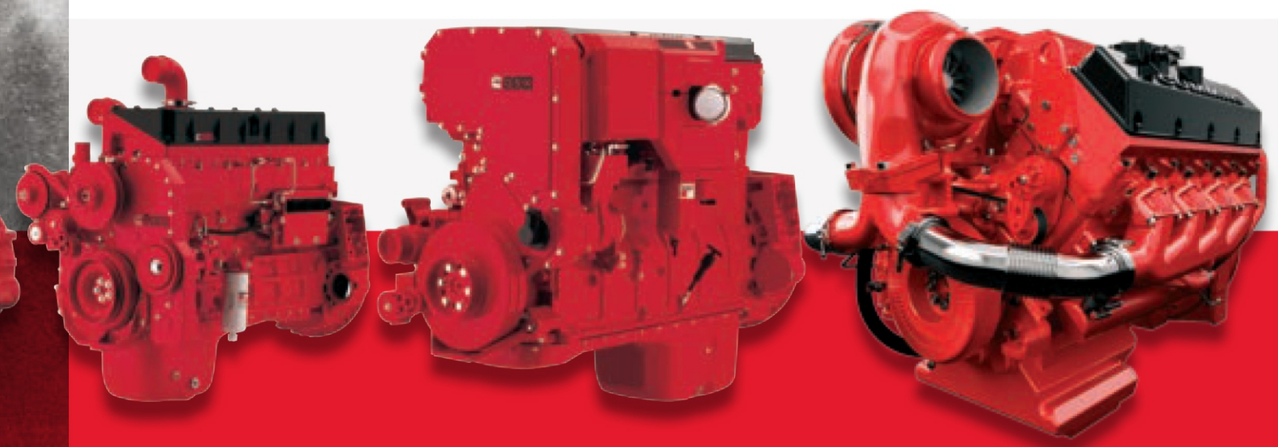
POWER WITH PRECISION.

A variety of engines ranging from 2.8 litres to 95 litres with no gaps in our power band ensures that there is always a Cummins engine right for your needs. Working with your engineering and design teams, we utilise almost 100 years of experience and technology to match your power and configuration needs. From small unmanned vehicles to main battle tanks, Cummins has you covered.

Meeting military standards, Cummins engines are first class in reliability, technology, fuel economy and ability to operate in austere environments. These highly advanced engines provide outstanding power density for ultimate performance throughout the power curve and peace of mind in hazardous operating environments.

Whether you are powering an Armoured Fighting Vehicle (AFV), Armoured Personnel Carrier (APC), tactical truck, heavy artillery or a missile launcher, the efficiency of Cummins engines can deliver greater range, which is a tactical advantage.

To help unleash the full driving potential of the vehicle, Cummins electronic technology now goes beyond the engine to fully integrate with other electronically-controlled systems on the powertrain.



ISMe/QSM | QSX | V903

TECHNOLOGY AHEAD OF THE WAVE.

Cummins marine heritage dates back to the company's start in 1919. More than 90 years later, Cummins continues its legacy of providing reliable, durable diesels to the marine market with a broad range of power from 5.9 litres to 95 litres including both propulsion and auxiliary engines.

Shipbuilders and naval operations all around the globe rely on Cummins for continuous improvement and innovation. Of course, Cummins engines and gensets are designed to meet or exceed military and security requirements.

- All Cummins marine engines are capable of running on JP-5 and JP-8 military fuels, kerosene and biodiesel. Some require additional lubricity additives.
- Many Cummins marine engines are approved by major Marine Classification Societies worldwide, including the American Bureau of Shipping. Cummins offers a full line of options including independent safety and alarm systems, dual-walled fuel lines and duplex filtration.
- Diesel electric propulsion was pioneered by Cummins utilising our own AVK alternators in 2004. Cummins also has close to 1,000 diesel electric generators currently powering PSVs in operation globally.
- Cummins Marine also helps reduce operational and support costs, which represent over 70 percent of the total lifecycle management costs of the vessel. Cummins CENTINEL™ has the potential to cut 15–20 oil changes over the life of High Horsepower (HHP) engines. Cummins ELIMINATOR™ is a combination full-flow and centrifugal system that eliminates the need for disposable oil filters with no additional load on the engine and no drain on power or fuel economy.

The B Series is ideal for lifeboats, as its seawater pump was designed to allow for 30 minutes of dry run at idle capability – far exceeding the five minute requirement of lifeboats.

SERVICE AND SUPPORT THAT'S ALWAYS ON.

Worldwide support through the Cummins distributor network is available 24/7/365 at major ports on every continent. Parts are readily available through our three distribution centres in Memphis, Singapore and Belgium. Because Cummins-powered vessels operate in every time zone around the globe, the technical experts at Cummins Care are available around the clock.

Parsian Diesel Power Plant Development Co.

BRING YOUR OWN POWER GRID.

The electrical needs of a modern military unit include everything from powering communications and command centres to mobile hospitals. In remote battle zones, generator sets need to be capable of working flawlessly after being dropped in by parachute, regardless of whether they are in sub-zero mountaintop temperatures or searing desert heat. Equipment failure is not an option, which is why these units are designed to survive everything from explosion shockwaves to electromagnetic pulse attacks. Plus, because finding a reliable fuel source in the field can be an issue, Cummins military grade electrical power generators are capable of running on multiple fuel types. They are designed for stealth operation, with a low infrared and noise signature and no tell-tale smoke.

That's why the U.S. Department of Defense has ordered more than 25,000 Advanced Medium Mobile Power Sources (AMMPS) since 2011 with additional units on procurement through 2022, and the U.S. Air Force selected Cummins to develop and produce more than 250 Basic Expeditionary Airfield Resources (BEAR) power units.

CUMMINS AMMPS SYSTEM.

Cummins has delivered more than 25,000 Advanced Medium Mobile Power Source (AMMPS) units to the U.S. Department of Defense (DOD) under the Program of Record Production contract since 2011. AMMPS offers significant benefits for all military services over its predecessor, including lower operational costs with significantly less maintenance, higher reliability and an advanced Digital Control System with microgrid capability for reduced fuel use and remote start/stop capability.

CUMMINS BEAR POWER UNIT.

The U.S. Air Force selected Cummins to develop the Basic Expeditionary Airfield Resources (BEAR) power generation unit in 2010. In addition to being compliant with all reliability, safety and regulatory standards, the BEAR power unit offers multiple fuel option capability (including JP-8), air and surface mobility, night vision control and a weather-resistant aluminium enclosure with ergonomic service access for greater efficiency in performing scheduled maintenance.

POWER TO BUILD A STRONGER INFRASTRUCTURE.

Today's peacekeeping operations are imperative and they place tremendous demands on the engines and generators powering everything from road clearing and logistics handling to airfield rebuilds.

These operations are fully dependent on the ability of the engine to operate at peak performance for long periods of time. Cummins engines are highly regarded by leading equipment manufacturers – offering higher power density with unrivalled levels of durability. For engineering, handling and airfield support equipment, a full range of engines are available that meet global low emissions standards for off-highway applications.

Cummins industrial-strength engines deliver full power in a lower rpm range with the exceptional torque needed for applications ranging from bulldozers and cranes to specialised equipment such as the High Mobility Engineering Vehicle (HMEV), which is capable of 62 mph (100 km/h) road speeds while offering generous hydraulic and earthmoving capabilities.

Another example is the Cummins-powered Rough Terrain Container Handler (RTCH), developed for the U.S. Army and powered by a 375-hp QSM11 engine. Other specialised units include Beach Recovery Vehicles, air-portable Special Forces vehicles, aircraft refuellers, tracked vehicles, articulated dump trucks and more.

CUMMINS APPLICATION ENGINEERING – MEETING BIG CHALLENGES.

Designing and building specialised equipment has a unique set of constraints and challenges. It takes experts working together to find solutions that are robust, reliable and interface cleanly with other systems on the equipment. No one brings greater resources to this task than Cummins. We can assist at every phase, from providing guidance on initial bid specifications to working with Original Equipment Manufacturers (OEMs) on installation, field testing and production.

Parsian Diesel Power Plant Development Co.

A CLEAR LINE OF SIGHT INTO THE FUTURE.

Cummins has a hard-earned reputation as a good global citizen and steward of our resources, utilising advanced technology to minimise environmental impact while constantly improving efficiency and performance. This includes Cummins Westport, the world's leading producer of natural gas engines which can operate on liquid natural gas (LNG), compressed natural gas (CNG), propane (LP) and renewable natural gas (RNG).

Another key area of development for Cummins is electrification. Utilising expertise from years of hybrid diesel/electric applications, Cummins is developing entire electrified power solutions, including the most critical components that have the largest impact on performance, quality and power of the system to deliver the most value to armed forces.

REAL-TIME INTELLIGENCE.

The 21st century isn't so much about an arms race as it is a technology war. The ability to utilise engine and equipment data on a real-time basis is critical to ensuring that the proper resources are always at the ready. Cummins gives commanders that kind of capability with Guidanz™, the INLINE™ mini-datalink adapter and our Connected Diagnostics™ tools.

GUIDANZ.

Guidanz technology integrates and streamlines every aspect of the Cummins service experience, accelerating the diagnostic and repair process through a suite of software and hardware offerings. Everything associated with a service event is linked together in a seamless, process-guided package designed to minimise equipment downtime, ensure efficiency and improve communications.

The Guidanz mobile app, when paired with the new Bluetooth®-enabled INLINE mini datalink adapter, displays Cummins fault codes and other key information anywhere you need it. Military personnel can provide this information to their certified service provider to improve communication and speed up repairs.

INSITE™.

For years, Cummins INSITE software has been making it easy for technicians to troubleshoot, repair and service electronic engines through easy-to-follow steps on any computer. This provides the kind of uptime you demand from your equipment.

CONNECTED DIAGNOSTICS.

Cummins-powered military equipment that is equipped with telematics can wirelessly connect your engine to Cummins for immediate diagnosis of an engine system fault alert, providing valuable information within seconds. Connected Diagnostics analyses fault code data, prioritising all active and recently inactive faults. This technology allows you to be confident in your decision to delay the needed service/repair in favour of completing the mission first or immediately bringing the equipment in for service.

CUMMINS ENGINE AND GENERATOR RATINGS.

CUMMINS LAND DIESEL ENGINE RATINGS

Model	Cylinders	Capacity (litres)	Max Power		Max Torque (Nm)
			kW	hp	
ISF 2.8	4	2.8	110	147	360
ISF 3.8	4	3.8	125	167	600
ISBe	4	4.5	136	182	650
ISBe	6	6.7	210	281	970
ISLe	6	8.9	336	450	1700
ISMe	6	10.8	306	410	2010
QSM	6	10.8	298	400	1898
QSX	6	15	496	665	2542
V903	Vee8	14.8	504	675	1958

CUMMINS MARINE DIESEL ENGINE RATINGS

Model	Max Power	
	kW	hp
4BT3.9*	112	150
6BT*/6BTA*/QSB5.9*	352	472
QSB6.7	404	542
6CTA*/QSC8.3	441	592
QSL9	302	404
QSM11	526	705
N855	358	480
KTA/QSK19	597	800
V28	608	815
KTA/QSK38	1119	1500
KTA/QSK50	1641	2200
QSK60	2013	2700
QSK95	3132	4200

*ReCon engines only

CUMMINS LAND DIESEL GENERATOR RATINGS

Generator Model	Frequency Hz	Power	
		kW @ 60/400 Hz	kW @ 50 Hz
MEP-1030	50/60	5	4.2
MEP-1031	400	5	-
MEP-1040	50/60	10	8.3
MEP-1041	400	10	-
MEP-1050	50/60	15	12.5
MEP-1051	400	15	-
MEP-1060	50/60	30	25
MEP-1061	400	30	-
MEP-1070	50/60	60	50
MEP-1071	400	60	-
DQBPU	50/60	800	435

CUMMINS MARINE DIESEL GENERATOR RATINGS

Generator Model	Max Power	
	kW	hp
MDKBH	5	7
MDKBJ/W	8	11
MDKBK/L	9	12
MDKBM/N	13.5	18
MDKDP/R/V	21.5	29
MDKDT/U/S	29	39
MDDCK/F/L	40	54
MDDCG/M/N	65	87
MDDCH/J	80	107
MDDCP/R and 6B-CP	99	133
6C-CP	170	228
K19-CP	460	617
K38-CP	920	1234
K50-CP	1240	1663