

CREATING POWER SOLUTIONS.



Military Applications

Hatz Diesel – Made in Germany



Diesel engines are one of our core areas of expertise

With over 130 years' history, Hatz has evolved and from 1904 has specialised in diesel engines delivering up to 56 kW of power. At the heart of all of the company's activities are the development and production of high-quality and robust diesel engines. Customers all over the world appreciate our systems' performance and reliability.

Hatz is an independent specialist in 1 to 4-cylinder **Diesel Engines** and operates on a global scale. Our diesel engines are used in all manner of applications, such as construction machinery, compressors, utility vehicles, agricultural equipment, generating sets, conveying and transportation equipment and in ships. Hatz develops and produces air-cooled diesel engines in a performance range from 1.5 to 56 kW. Hatz employs around 1,000 staff, over 5% of which work in the Research and Development division. The company operates manufacturing facilities at three plants in Germany, Italy and the Czech Republic.

The Hatz **Systems** business unit develops and produces special systems based on industrial engines. Key areas of focus

include solutions relating to power and energy supply, scalable electricity stations, pumping generating sets and special applications for the maritime and military sector.

The **Components** business unit produces high-precision metal components especially for the automotive and utility vehicles industry, agriculture, mechanical engineering and industry. Hatz has acquired considerable expertise in the field of serial precision processing from titanium.

The worldwide **Service** network spans more than 500 service centres, 13 of which are the company's own branches and 94 Hatz agencies in 115 countries. This means that we can supply spare parts and replacement generating sets quickly and carry out repairs speedily.



CREATING POWER SOLUTIONS.

Diesel Engines

Single-cylinder engines
Multi-cylinder engines
Additional equipment

Systems

Power systems
Pumps
Marine applications
Special applications

Components

Automotive
Agriculture
Industry
Commercial vehicles

Service

Repairs
Conditioning
Spare parts
Training

Compact and versatile: engines for military applications

Whether it is for power generators, hydraulic pumps or other military applications, Hatz air-cooled diesel engines are robust, compact and reliable. Military forces around the world trust in our engine technology.



Technology and competence

Hatz power generators are available with 1-4 cylinder diesel engines - and the output ranges from 3.5-35 kVA at 12, 24, 110, 230 Volts.



Compact and reliable

Many customers take advantage of the reliability of Hatz engines and use them as a basis for their own developments.

Hatz diesel engines – ready for any mission

Well known for their reliability, Hatz diesel engines are the better option for applications where a long lasting and easy to maintain technology is needed. Beside the robustness, Hatz also stands for reliability and ruggedness and therefore offers advantages especially for military applications. All products are safe to use even under adverse conditions. Some of the major advantages are:

- **Air-cooling**

A big advantage when used in different climate areas around the world. Besides, air-cooled engines are more easy to integrate into existing applications.

- **Cold start**

capability as low as -56°C [-69°F] with an optional intake temperature heater.

- **Fuel efficiency**

Thanks to an ongoing development during the past years the engine is both, economical and ecological under all load conditions. The emissions level is better than the actual legislation and industries' standards.

- **Low noise level**

A Hatz engine with the optional available acclaimed and patented SilentPACK reduces the noise level by 90 % compared to a non insulated engine.

- **Multi-fuel operation**

It doesn't matter whether the tank is filled with diesel, JP4, JP5 or JP8 [NATO Codes F-40, F-44 and F-34].

- **Hand start**

and/or electric start is available to get things running under any circumstances.

- **Interference**

can be optimized according to MIL461F.

- **Camouflage paint**

with RAL6031 and RAL6014 is possible based on customer demand.

Certified and tested quality

All produced engines whether for the military or civil sector have to undergo very stringent tests in order to prove our quality levels. The Hatz engines were tested for 400h according to the NATO standard testing procedure AEP-5 in order to prove the compliance with the military requirements. The certificate was published by the Bundeswehr Technical Center for Automotive and Armored vehicles [WTD 41], an official German army testing site. Furthermore, all production processes are certified according to the quality standards of the ISO 9001.



Joint development

Together with partners Hatz develops all kind of military equipment, e.g. permanent magnet generators.

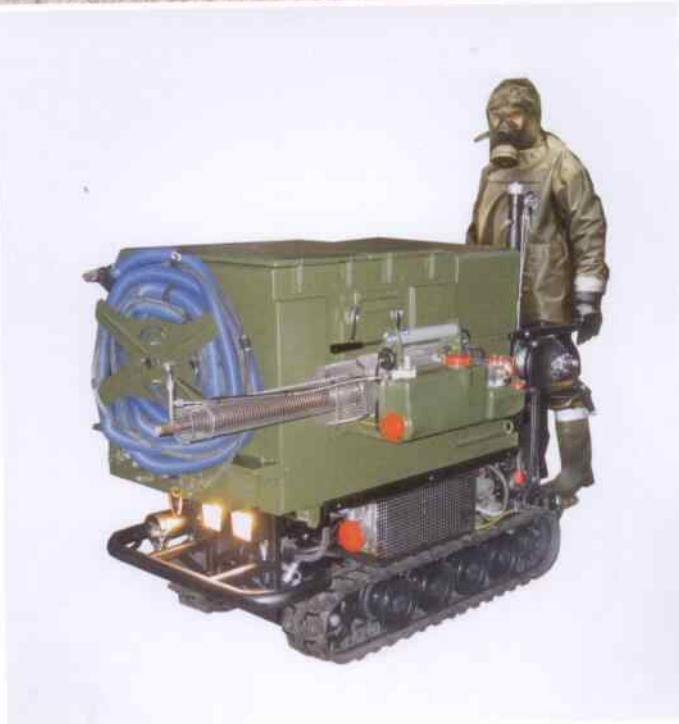


Worldwide in service

The armed forces of over 50 countries trust in the reliability of Hatz engines. In addition there are 500 services partners worldwide which guarantee a quick spare parts supply.

Professional and customized: Hatz as a development partner

The Hatz application engineers look into every detail. Together with the ministries of defense of the leading nations we develop innovative systems for military applications.



Flexible in use

Hatz engines are the perfect solution if it comes to flexibility. There is no other engine in the market which can be specified in such a level of detail.



Perfect teamwork

Together with our customers we develop tailor-made solutions, whether it be a prototype or a large scale series production.

Anything is possible

Whether it be for weapon loaders, mobile power units or water pumps, the list of possible applications for Hatz diesel engines is long.

Recognized as the world leading manufacturer for diesel engines up to 56 kW, Hatz also has broad experience in developing and producing tailor-made systems like generators, hydraulic applications and water pumps. In the developing phase the Hatz application engineers work very close with military organizations of the leading nations in order to create a perfect fitting solution for the customer. Additionally, the production of complete systems including assembly and testing is also possible.

We benefit from the experience gained through more than 130 years of company history and over 50 years of cooperation with military organizations.

Commitment to quality

The key to our success is our aim to always put the customer first. We always strive to create the added value not just for our customers but also for our development partners. Combined with our expertise with diesel engines and our degree of innovation with new technologies we are able to set new benchmarks in the industry in terms of quality and customer satisfaction.

Applications

- Mobile electric power units
- Heater units
- Weapons loaders
- Ammunition cranes
- Compressors for diving equipment
- Starting compressors for jet engines
- Fuel transfer pumps
- Water pumps
- High pressure sprayers
- Hydraulic power units
- Runway de-icing vehicles
- Vehicles for ground equipment
- Winches
- Auxiliary power units



Easy to integrate

Hatz engines come as a plug&play solution, the customer utilization is already considered during production, thus minimizing development efforts.



Dependable and failure safe

The development target of the Hatz engineers is to increase the MTBF of the products by using sophisticated and well-selected components.