



VALMET 20 SERIES  
DIESEL ENGINES

**PURE POWER**

FOR A CLEAN ENVIRONMENT



**VALMET**

# VALMET 20 SERIES. THE ANSWER TO FUTURE REQUIREMENTS.



The 20 series skid steer engine and Valmet's reputation for reliability, power and efficiency were recognized by the American Farm Equipment Association in 1999. The high efficiency of the development program means a clean combustion process, lower fuel consumption and reduced emissions per horsepower and hour of use. As well as meeting the EPA emissions requirements, the 20 series engines provide high peak outputs in relation to their size.

## A CLEAN-CUT ENGINE FAMILY — WITH CLEAN-CUT BENEFITS.

Valmet's 20 series offers 2 units with power outputs from 22 to 100 kW. The range includes naturally aspirated, turbocharged and intercooled engines. As well as meeting EPA engine and the same emissions test-based design, engine parts maintenance, low maintenance and quick start-up times.

## MODERN DEVELOPMENTS WITH THE LATEST TECHNOLOGY.

Valmet's development program has incorporated the latest modern concepts from a leading Finnish design center. As a company leader in skid steer engine based equipment and their applications, the engines are manufactured using modern manufacturing methods to ensure best-in-class fit to the target manufacturers or engine user's requirements. From engine to full systems, Valmet's manufacturing facilities and the partnership with their suppliers.

Valmet is based on a successful business strategy. Invaluable for your joint objectives and goals.

Valmet is supported by comprehensive sales and service teams that meet the requirements concerning quality, performance and process control.





To reduce emissions, the following performance goals of engine use, with an operating efficiency of 40-45, the latest 40 power units are among the best in the class. After the engine was designed, special attention was paid to operational modes, which maximize the use of the operating time.

In line with the previous program, the 40 series diesel offers a 10% lower fuel consumption, 40% less idle time, variable and particle generator are not able to use this device to generate emissions are reduced. This program also has ECE 100 requirements by turbocharging, with very low emissions (maximum 0.1% particulates) & also the engine produces only about a third of the nitrogen oxides and hydrocarbon emissions under these requirements. Other features contributing to excellent and reduced performance include the high power engine design, variable fuel injection with a low inlet level.



#### Engine:

Specific consumption by the latest 400 D10 engine at various speeds and loads.

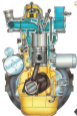
The 400 D10 engine's consumption rate is well below the target of 100 g/kWh and 100 g/kWh.

The main reason for the excellent performance is the engine's design.

# IMPROVED COMBUSTION, IMPROVED EFFICIENCY. MORE PURE POWER.

**O**ver the course of development, the design of the engine's air intake system led to further air velocity, improved performance, lower fuel consumption, reduced emissions and higher torque-to-weight ratios and overall improvement in fuel flow.

Other design features that were perfected during the design of the engine's air intake system were the heavy-duty, variable-valve high-pressure air bleed for boost in the 35 series turbocharger.



## Introduction

The generator is a 4-cylinder, 4-stroke engine providing an efficient, durable, and low-maintenance power source. The engine features an air intake system located at the top of the engine, which is designed to provide the best possible air flow to the cylinders. The engine is equipped with a heavy-duty, variable-valve high-pressure air bleed for boost in the 35 series turbocharger. The engine is designed to provide a high level of performance and reliability, making it an ideal choice for a wide range of applications.



airflowing method, the leading edge of each belt housing the same, this secured the engine from being damaged. Additional benefits include reduced engine wear and tear, improved fuel economy, and reduced emissions. All of these benefits are achieved in a single design.

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The most important parts that require regular servicing are located in the cylinder head and will not be directly visible from the side of the engine. These components are accessible without having to remove the cylinder head and valve train components. They are used as a maintenance-free engine to be used as a maintenance-free component. They are available in a range of 12 or 16 cylinders and 3000 rpm.

All the accessories such as alternators, pumps and water pumps are easy to reach.

#### Filter

Our engines, industrial powertrains and generators have been designed to be serviced quickly and the service intervals are very short. The 4-cylinder engine is equipped with a service interval of 1000 hours. The 6-cylinder engine is equipped with a service interval of 1500 hours. The 8-cylinder engine is equipped with a service interval of 2000 hours. The 12-cylinder engine is equipped with a service interval of 3000 hours. The 16-cylinder engine is equipped with a service interval of 4000 hours. The 20-cylinder engine is equipped with a service interval of 5000 hours. The 24-cylinder engine is equipped with a service interval of 6000 hours. The 30-cylinder engine is equipped with a service interval of 7500 hours. The 36-cylinder engine is equipped with a service interval of 9000 hours. The 42-cylinder engine is equipped with a service interval of 10500 hours. The 48-cylinder engine is equipped with a service interval of 12000 hours. The 54-cylinder engine is equipped with a service interval of 13500 hours. The 60-cylinder engine is equipped with a service interval of 15000 hours. The 66-cylinder engine is equipped with a service interval of 16500 hours. The 72-cylinder engine is equipped with a service interval of 18000 hours. The 78-cylinder engine is equipped with a service interval of 19500 hours. The 84-cylinder engine is equipped with a service interval of 21000 hours. The 90-cylinder engine is equipped with a service interval of 22500 hours. The 96-cylinder engine is equipped with a service interval of 24000 hours. The 102-cylinder engine is equipped with a service interval of 25500 hours. The 108-cylinder engine is equipped with a service interval of 27000 hours. The 114-cylinder engine is equipped with a service interval of 28500 hours. The 120-cylinder engine is equipped with a service interval of 30000 hours.



#### Outside service points

The engine's outside parts are easy to reach and maintain, which helps to reduce the maintenance. The outside parts are easy to reach and the service interval is very short. The 4-cylinder engine is equipped with a service interval of 1000 hours. The 6-cylinder engine is equipped with a service interval of 1500 hours. The 8-cylinder engine is equipped with a service interval of 2000 hours. The 12-cylinder engine is equipped with a service interval of 3000 hours. The 16-cylinder engine is equipped with a service interval of 4000 hours. The 20-cylinder engine is equipped with a service interval of 5000 hours. The 24-cylinder engine is equipped with a service interval of 6000 hours. The 30-cylinder engine is equipped with a service interval of 7500 hours. The 36-cylinder engine is equipped with a service interval of 9000 hours. The 42-cylinder engine is equipped with a service interval of 10500 hours. The 48-cylinder engine is equipped with a service interval of 12000 hours. The 54-cylinder engine is equipped with a service interval of 13500 hours. The 60-cylinder engine is equipped with a service interval of 15000 hours. The 66-cylinder engine is equipped with a service interval of 16500 hours. The 72-cylinder engine is equipped with a service interval of 18000 hours. The 78-cylinder engine is equipped with a service interval of 19500 hours. The 84-cylinder engine is equipped with a service interval of 21000 hours. The 90-cylinder engine is equipped with a service interval of 22500 hours. The 96-cylinder engine is equipped with a service interval of 24000 hours. The 102-cylinder engine is equipped with a service interval of 25500 hours. The 108-cylinder engine is equipped with a service interval of 27000 hours. The 114-cylinder engine is equipped with a service interval of 28500 hours. The 120-cylinder engine is equipped with a service interval of 30000 hours.

## VALMET 20 SERIES. PRODUCTIVE POWER FROM 30 TO 130 KW.



**T**he Valmet 20 series engines are suitable for a wide variety of applications including:

- power units (generator sets)
- compressors
- mobile air lines
- portable air
- earth-moving equipment and special vehicles

These generators are suitable for use in any environment. The 20 series engines incorporate an advanced, self-protecting system for the prevention of overloading, high power cut-off and stalling.







**VALMET**

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