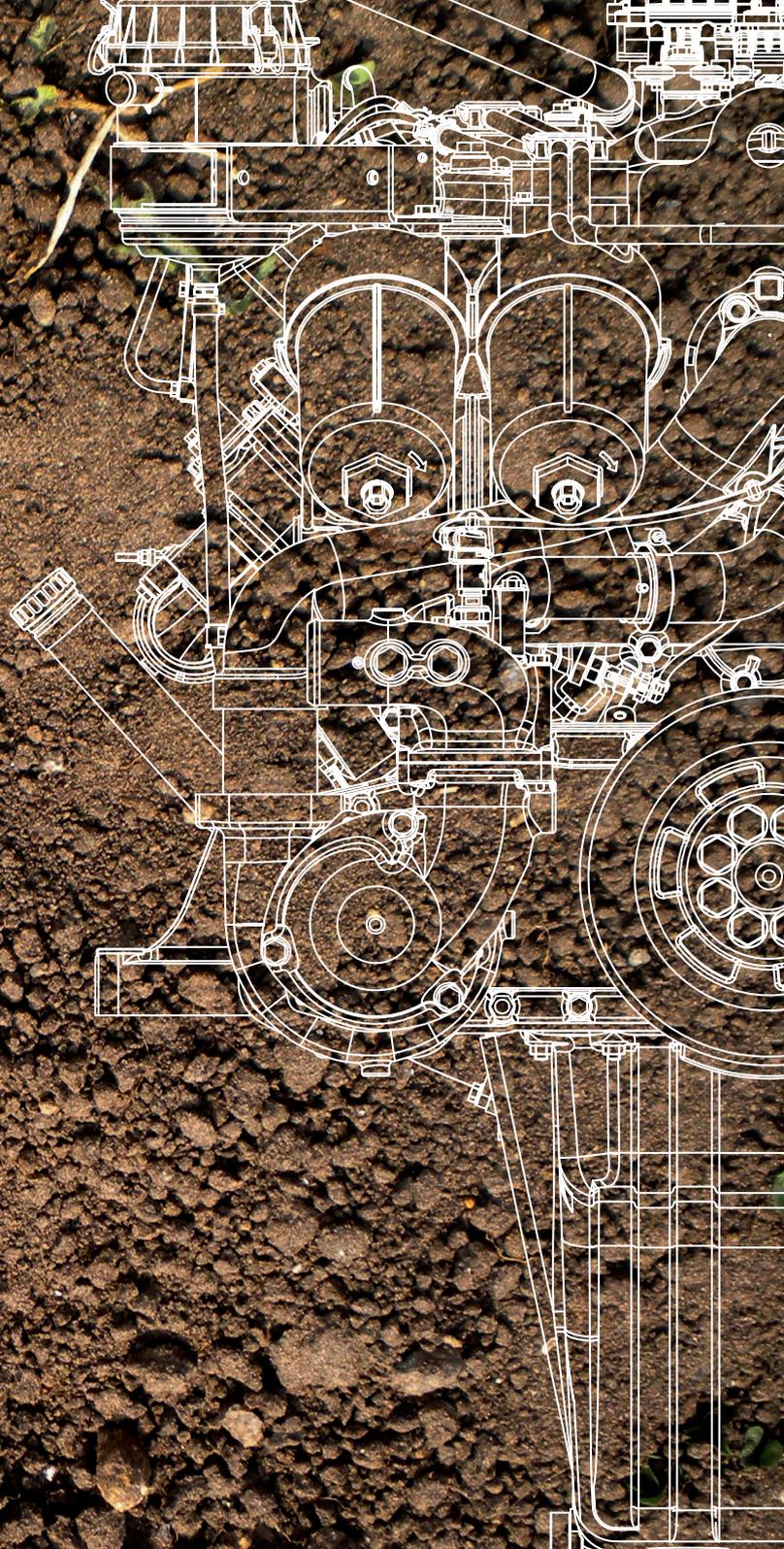


V20 FOR OFF-ROAD APPLICATION



DESIGNED TO GO BEYOND

In its continuous commitment to provide hi-tech reliable products designed for the toughest missions, FPT further extends its offering with the new V20, a compact yet high-performing engine with up to 670kW power output

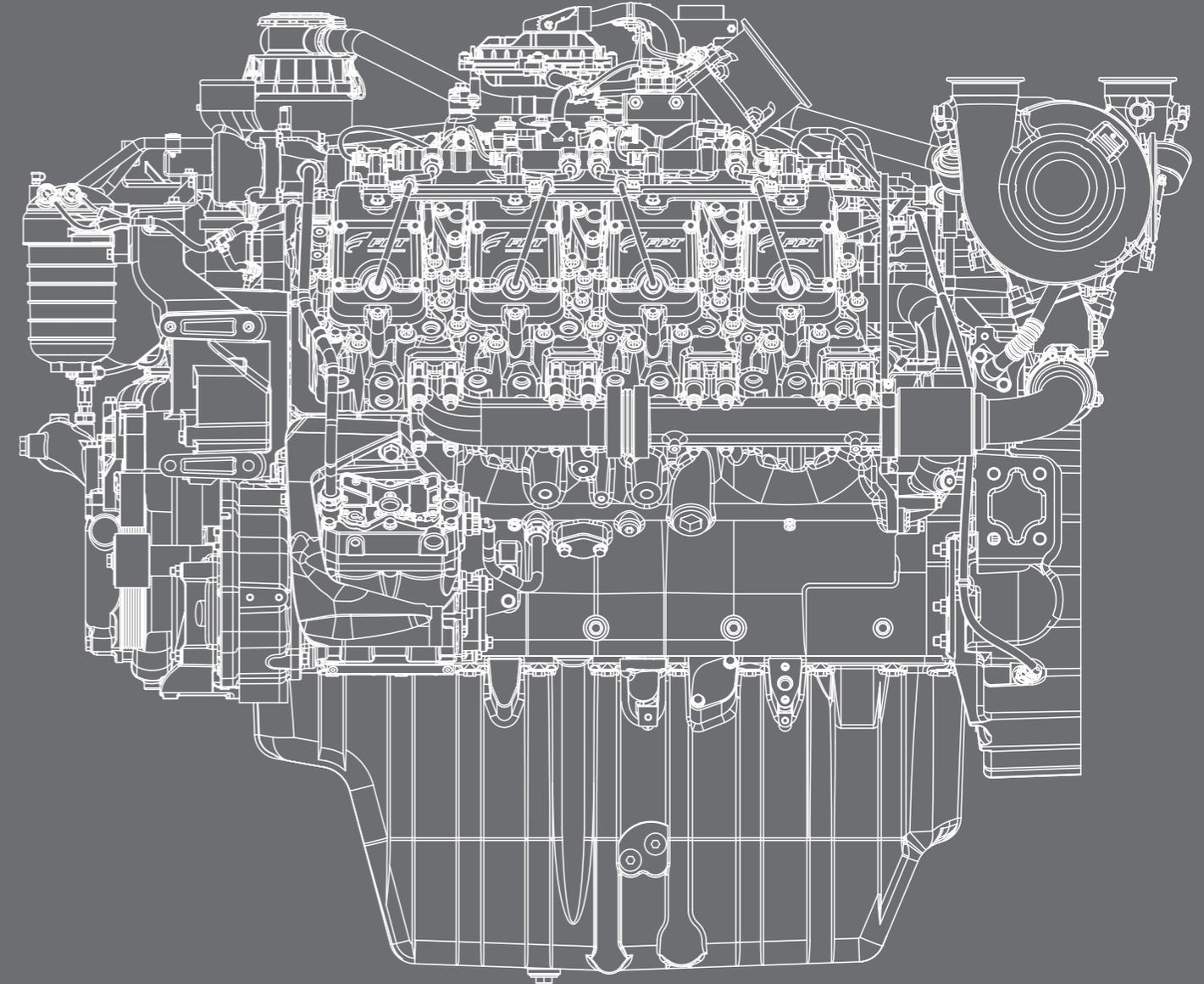
The new flagship 20 liter engine features a lean V8 architecture, with a 90° angle between cylinder banks, resulting in highly compact layout and low engine weight to ensure space-optimized installations while guaranteeing the right power is available in every condition, thanks to advanced engine hardware and two turbochargers optimized for any working point

With its EGR-free, optimized combustion, the V20 boasts superior efficiency, together with V8 layout reducing engine friction compared to more complex V12 architectures. Operating costs and

uptime are ensured by the maintenance-free and regeneration-free Tier 4 Final and Stage V-ready after-treatment solution, an SCR-only system based on longstanding FPT experience in SCR technology, requiring no need for maintenance over lifecycle nor any machine stop during operation for filter regeneration

To grant the highest robustness, engine design shares 2200-bar common rail system and key components with reliability-proven Cursor engine family; furthermore, the newly designed 220 bar in-cylinder pressure-capable engine structure adopts new cast-iron components and advanced materials on valves, crankshaft and compressor wheel.

The new V20 comes with a 670 kW power and a max torque of 4095 Nm, ensuring unfailing performance output in all conditions



The new V20: Lean V8 architecture for high performance and efficient output



PERFORMANCE AND COMPACTNESS

The most compact high-performance engine, with a 0,6 hp/kg power-to-weight ratio (+13 % Vs. average V12 competitors)
 NO EGR and 220 bar of in-cylinder pressure for optimized combustion
 High-temperature resistant turbochargers for uncompromised performance output in all conditions

EFFICIENCY AND TOTAL COST OF OWNERSHIP

Its EGR-free architecture and 2220 bar-capable Common Rail system allows for maximum engine efficiency
 Cross-bank turbocharger configuration for optimized fluid dynamics
 Features a "Fit and Forget" DPF-free and regeneration-free after-treatment system with no need for maintenance for maximum uptime

ROBUSTNESS AND RELIABILITY

Steel pistons and high-pressure injection system from Cursor family for tried-and-tested reliability
 Design-optimized engine structure with advanced materials on valves, crankshaft, turbochargers, head
 SCR-only and DPF-free after-treatment solution for effective emission-compliance

DIESEL ENGINE FOR OFF-ROAD APPLICATION

MODEL	CYL ARRANGEMENT / AIR HANDLING	TURBOCHARGING	INJECTION SYSTEM	DISPLACEMENT (LITERS)	POWER			TORQUE			EMISSION STANDARD	EXHAUST SYSTEM
					(kW)	(HP)	(RPM)	(Nm)	(Kgm)	RPM		
V20	8V / TCA	WG (1 x bank)	Common Rail	20.1	670	910	1800	4095	418	1500	Tier 4 Final	SCR

LEGEND

ARRANGEMENT

V V-configuration (90°)

TURBOCHARGING

WG Fixed geometry turbocharger with WasteGate valve

AIR INTAKE

TCA Turbocharged Aftercooler

EXHAUST SYSTEM

SCR Selective Catalytic Reduction



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