# ZETOR FORTERRA

FORTERRA CL / HSX / HD





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## ZETOR FORTERRA

# INEXHAUSTIBLE POWER

#### FORTERRA CL

The ZETOR FORTERRA CL model has a four-cylinder engine with an output up to 136 HP. Construction of FORTERRA tractors has been adapted accordingly – to be robust, heavyweight tractors. Thanks to excellent torque parameters, FORTERRA CL is valued as powerful machines at a reasonable price at and unbeatable operating cost.

#### **FORTERRA HSX**

FORTERRA HSX is equipped with technology providing higher comfort during your daily work: the 40 ECO transmission, Power-Shuttle, five-speed gearbox with three-stage multiplier, increased rear linkage capacity, HitchTronic threepoint hitch controls, suspended front axle and cab, and much more.

#### **FORTERRA HD**

The best equipped tractor in the ZETOR model range. Reinforced axle drive, larger rear axle, an extended wheelbase for greater stability, with a suspended front axle and cab, righthand panel with electronic control, larger fuel tank etc. This combination makes FORTERRA HD a strong partner for high productivity.

#### **PERFORMANCE**

FORTERRA tractors are one of the mosts powerful machines in the ZETOR portfolio. The tractors are equipped with ZETOR engines, which are designed for maximum performance under all conditions.

#### **ENDURANCE**

Great emphasis is put on simple, smart and effective design of FORTERRA models. Our tractors have a simple design for simple maintenance and serviceability.

#### **TOTAL COST OF OWNERSHIP**

Low fuel consumption and affordable spare parts make the FORTERRA tractors one of the most economical on the market.



#### **NEW IN 2020 MODELS**



 Upgraded plastic technology ensures higher temperature resistance and UV stability of the material.



2. Better heat dissipation from the engine part of the tractor.



3. The use of new headlights allows illumination of a larger work area and offers higher luminosity.



4. Indented shape of the roof and newly shaped sunroof ensures better view on the front loader. FOPS (Falling Object Protective Structures) protection is fitted as a standard.



5. Completely new air conditioning and heating system offers a significant improvement in performance.



Safety is ensured by the wet brake system on all wheels complemented with power brakes. **ENGINE** 

## PROVEN BY GENERATIONS OF USERS

The exceptional popularity of ZETOR tractors is based on low fuel consumption, high reliability and simple design – these reward the customer not only with low operating costs but also great reliability, and low maintenance and service requirements.

Tractors with ZETOR engines therefore rank among the most economical in the market.

#### LOW CONSUMPTION LEADER

been engaged.

New engine generation brings a further consumption and emission reduction. ZETOR tractors equipped with the new engines meeting the Stage V emission standard were tested by scientists from Mendel University, Brno, Czech Republic. The study results confirmed that fuel consumption of the new engines is up to 19.2 % lower than the previous engine generation.

- In-house development and manufacture quaranteed precise workmanship using quality materials
- Mechanical pump injection reliable and trouble-free operation, long-life
- Two balance shafts reduce vibrations and make the engine run more smoothly
- Environmental friendly operation FORTERRA series use SCR and DPF system in order to meet the most stringent emission limits (Stage V)



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## **TRANSMISSION**

### PERFECT SYNCHRONIZATION OF POWER AND ACCURACY

Gearboxes for the FORTERRA range are developed and manufactured directly by ZETOR. Own production allows the company to control the quality, design and wide variability of options offered. High endurance and long life is achieved by using high quality materials.

#### **FORTERRA CL**

The classic, four-speed, fully synchronized gearbox in FORTERRA tractors, supplemented with two speed ranges and a three-stage multiplier (24/18). Gears are suitably spaced with seven speeds available within the operating range from 6-12 km/h.

#### FORTERRA HSX / HD

A five-speed gearbox with two driving speed ranges, a three-stage multiplier and a reverser under load (30/30, can be used to speed 10 km/h) satisfies the demands of users requiring a higher level of comfort. Wet disc clutches give reliable and smooth reversing.



Transmission with ECO regime allows to reach maximum traveling speed (40 km/h) at reduced engine rpm (around 1800 rpm). This optimization helps to reduce fuel consumption by approximately 15–20 %, reduce engine wear and noise. There are 13 gears within the operating range from 6-12 km/h.

- In-house production control and enforcement of high quality standards
- High-quality and durable materials ensure long service life
- Variability
- Independent PTO as standard

#### PT0

The rear PTO speed is completely independent of the travelling speed, and solely depends on the engine rpm. The tractor has the following rear PTO speed combinations: 540 / 540E / 1,000 / 1,000E. Tractor can be optionally equipped with ground speed 540/1,000.

#### INNOVATED PTO CLUTCH

The wet plate clutch in an oil bath provides long service life. Modulated switching ensures that attached implements start up smoothly.

#### **FORTERRA HD**

The rear PTO clutch has feedback controlled starting that ensures easy, comfortable and a longer life for the clutch.



**PowerShift** 

Three-stage torque multiplier



PowerClutch

Clutch button



PowerShuttle

Electro-hydraulic reverser

## **HYDRAULICS**

# HIGH EFFICIENCY OF WORK

ZETOR was the first to offer the HitchTronic function – a subsequent winner of many awards.

FORTERRA is equipped with EHR (Bosch electrohydraulics) with HitchTronic function. Two auxiliary hydraulic cylinders ensure unified three-point hitch loading and above average lifting capacity. Up to 77 kN for FORTERRA CL and up to 85 kN for FORTERRA HSX and FORTERRA HD. FORTERRA HD offers four auxiliary hydraulic quick couplers with electrohydraulic control. In combination with Category III hitches, you can enjoy a wide selection of usable implements.

#### **HEADLAND TURNING SEQUENCES**

FORTERRA HD is equipped with the possibility of combinations of automatic operation of the front driving axle 4WD, differential locks and the rear PTO – depending on the combination of travel speed, wheel turning angle and rear three-point hitch position. This significantly increases comfort during field work; to increase pulling force it is not necessary to manually switch on and again switch off at headlands to improve manoeuvrability.

#### **HITCHTRONIC**

When using system, there is no need to set up types of regulation or combinations. Only the implement working depth is set. When the implement attached to the rear three-point hitch reaches the set depth, the control system measures the soil resistance, and this value is used as the initial value for automatic hitch control.

- Option to use heavy implements
- Maximum lifting capacity is 77 kN for FORTERRA CL and 85 kN for FORTERRA HSX/HD
- High productivity thanks to HitchTronic automatic control of three-point hitch







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## CAB

# COMFORT AND ERGONOMICS

Comfort and user-friendly, ergonomic design – these are the main features of FORTERRA cabs. Every control feature has been designed with the respect to highest ergonomy, tractor operation and to increase maximum utility and comfort in all terrains and environments. The tractor can be equipped with the mechanically or air suspended swivel seat that guarantees driver comfort. FORTERRA HD is equipped with the ergonomic, multifunctional panel with various controls. Thanks to their position on the right, the driver has everything at hand, from hydraulics control to automatic headland turning.



Very good view from comfort



Completely new dashboard with color display improves clarity and awareness of information given to the driver. All important data are placed in one place.



All FORTERRA models can be optionally equipped with cab suspension system to maximize operator's comfort.



The tractor is equipped with a new controller for controlling work lights and beacons. It offers a number of advanced functions such as automatic activation of work lights according to the selected driving direction or a memory function.



The front driven axle of the FORTERRA HSX and HD models can be optionally suspended. In combination with the suspended cab, this offers a smooth and comfortable drive.

# ZETOR ORIGINAL SPARE PARTS

ZETOR TRACTORS a.s. secures the world-wide sale of original ZETOR spare parts for the warranty and post-warranty service of ZETOR tractors through its distribution network. The quality of spare parts is continually checked during production and is identical to the quality of the parts used in the assembly of new products.

The original parts include all improvements and innovations ensuring the full restoration of the operational and utility characteristics of the repaired machine. The authenticity of the supplied spare parts is secured by packing in original packing with a unique identification number.

- ZETOR spare parts attain high quality for reasonable prices.
- In order to maintain the high lifetime of the tractor, we recommend using only original ZETOR spare parts.







ZETOR original spare parts are available only through ZETOR authorised dealers. For more information, visit www.zetor.com/sales-and-service-network

## ZETOR ORIGINAL OILS

For ZETOR tractors we recommend original oils, which are identical to the oils the tractors are filled with from the factory.

ZETOR Oils may be purchased through our sales and service network.

- Engine oils
- Transmission oils
- Front axle oil
- Hydraulic oil

Extend the lifetime of your tractor by using ZETOR original oils.



# DEVELOPED AND MANUFACTURATED IN THE HEART OF EUROPE

# MORE THAN ONE MILLION CUSTOMERS CANNOT BE WRONG

#### **PRODUCTION**

The manufacturing base of ZETOR tractors, engines and transmission is concentrated in the Czech Republic. The background of our own development and manufacturing centre contributes to the ultimate quality of the offered products and enables the effective management of innovation development and application. ZETOR TRACTORS a.s. is a corporately responsible company that emphasises the quality of its products, ecology and protection of the environment. These principles are guaranteed by the ISO 9001 quality certificate, which the company has acquired.







#### **DEVELOPMENT**

The technical section forms the long-term and stable research, development and testing background of ZETOR TRACTORS a.s. It represents the high professional level of the research staff team, which uses their extensive knowledge base and experience in the field, supported by cutting-edge technologies. It secures the comprehensive and systematic research and development of the manufacturing programme – from concept, design, assembly, and the production of functional samples and prototypes all the way to lab tests and operation tests of the tractors and engines.





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# ZETOR FORTERRA

	UNITS		F0	RTERRA	CL		FOF	RTERRA	HSX	FORTERRA HD		
MODEL		100	110	120	130	140	120	130	140	130	140	150
	_			ENGIN	IE							
Туре	•						Stage V					
Max. / Rated power (ECE R120)	kW	70.4	78.4	86.2	93.2	100.2	86.2	93.2	100.2	93.2	100.2	108.2
	HP	95.7	106.6	117.2	126.7	136.2	117.2	126.7	136.2	126.7	136.2	147.1
Rated Speed	rpm	2200										
No. of Cylinders/Valves	•	4 / 16										
Aspiration	•	Turbocharged										
Displacement	cm³	4,156										
Bore / Stroke	mm		105 / 120									
Max. Torque	Nm	420.0	471.5	507.3	557.6	606.6	507.3	557.6	606.6	557.6	606.6	607.1
Torque Rise	%	42	43	40	42	43	40	42	43	42	43	32
			Т	RANSMI	SSION							
Туре	•	Reversing 4-stage with 2 ranges and automatic 3-stage multiplier					Reversing 5-stage with 2 ranges and automatic 3-stage multiplier					
Number of Gears (F/R)	•							30/	30/30			
Shifting	•	Synchronized										
Reverser	•	Mechanical (SynchroShuttle) Elelectrohydrau							ohydrauli	ic (PowerShuttle)		
Mutiplier	•	3-stage PowerShift										
Clutch Button	•	-					Clutch button located on the shift lever (PowerClutch)					
Max. Speed	km/h	40					ECO 40					
				PT0								
Туре	•	Multi-plate PTO clutch										
Rear PTO Revolutions	rpm	Independent (540/540E/1,000/1,000E) / Independent & ground speed (540/1,000)										
Front PTO Revolutions OPT	rpm	1000										
Max. Power of Front PTO OPT	kW	60							90			
				HYDRAU	LICS							
Gear Pump Capacity	l/min	70							85			
Hydraulic remotes (Quickcouplers)	•	6+1							8+1			
External hydraulic circuits control	•	Mechanically controlled							Electrohydraulically controlled sections (flow & timing)			
			THE	REE-POIN	т нітсн					(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		· 5,
Туре	•	Bosch electro-hydraulics with HitchTronic, 2 auxiliary cylinders										
Three-Point Hitch	•	Category II / Category III N OPT						Category III				
Max. Lifting Capacity	kN	77 8							5			
Lifting Capacity in full range	kN	69 75										
Operating Pressure	MPa	20										

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MODEL		F	FORTERRA HSX			FORTERRA HD						
	UNITS	100 110	120	130	140	120	130	140	130	140	150	
			CA	B								
Cab suspension	•	ОРТ							Standard			
Driver's Seat	•	Mechanical suspended / Pneumatically suspended								Pneumatically suspended		
Passenger Seat	•	Standard (with safety belt)										
Heating / Air-Conditioning	•	Standard / OPT							Standard / Standard			
Heated Mirrors and Rear Defroster	•	Standard										
Roof	•	Sunroof with FOPS protection										
Pre-Wiring for radio / radio	•	Standard / OPT										
Steering Wheel	•	Titable and telescopic										
			UNDERCA	ARRIAGE								
Drive System	•	4WD										
Front driven axle	•	Solid Solid / Suspended OPT					ded <sup>OPT</sup>	Suspended				
Steering	•	Hydrostatic										
Operating brakes	•	Independent hydraulic wet four wheel brakes							Pneumatically contro lled wet rear brakes, hydraulically controlle wet front brakes			
Trailer brakes OPT	•		Pneun	natic 2+1	hoses/H	ydraulic	and pneu	ımatic 2+	0 hoses			
Fuel tank	ι		230			270						
Urea tank	l				28							
Front Mudguards	•	Fixed / Pivoting OPT						Pivoting				
		ОТІ	HER SPEC	IFICATIO	NS							
Operating Weight 1	kg		4300-520	10			4300-531	0		4980-570	00	
Max. Front Ballast	kg	800						900				
Max. Rear Wheel Ballast	kg	472										
Max. Total Weight	kg	8000					9000			10000		
Length min max.*	mm	3980 - 5016				3980 - 5116			4115 - 5275			
Width min max.**	mm	2200 - 2383							2177 - 2496			
Height min max.	mm	2915 - 2943						3008 - 3053				
Wheelbase	mm	2490 2590							2720			

Other optional equipment: Front PTO, front 3PH with front hydraulic remotes, radio, LED working lights, beacons, wheels OPT Optional Without front and rear ballast \* Max length with 3PH and front ballast \*\* Max width without mirrors





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