

8641 Forterra turbo

96 41 Forterra turbo

106 41 Forterra turbo

11441 Forterra turbo

11741 Forterra turbo

2/2004

# Operator's manual

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#### **ZETOR**



The Operator's Manual accompanying the Z 8641 - Z 11741 tractors, which you have just started to read, will make you familiar with the operation and maintenance of the new tractor of yours.

Though many of you may have got rich experience with the operation of other tractors, we exhort you to study this manual as thoroughly as possible. It is for your safety and the efficiency of operation.

We are sure that you will find many pieces of new and useful information and you will get a perfect overview of the methods you can apply for the best utilization of our product for the most diverse purposes.

If you attain to the specified principles of operation and maintenance of the tractor, and observe the safety rules of its driving, the new tractor you have got will become your reliable and long-term assistant and partner.

The manufacturer of the tractor has the pleasure of wishing you thousands of hours of work accomplished to your full satisfaction.

**ZETOR** Brno





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The Operator's manual contains description, operation, and maintenance of the standard tractor version and accessories that the product may be fitted with.

The tractor Service checkbook is not a part of the Operator's manual. It is a separate booklet you receive at the moment of buying the new tractor.



This symbol marks all chapters speaking about different operation, maintenance, adjustment and safety rules at tractors Z 11741 Forterra.



## TRACTORS: Z 8641, Z 9641, Z 10641, Z 11441, Z 11741

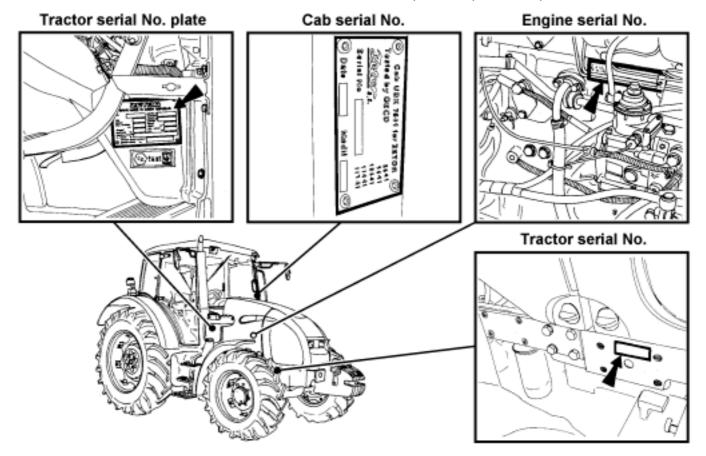
Zetor	8641	Forterra turbo	60	kW
Zetor	9641	Forterra turbo	66	kW
Zetor	10641	Forterra turbo	74	kW
Zetor	11441	Forterra turbo	81	kW
Zetor	11741	Forterra turbo	88	kW





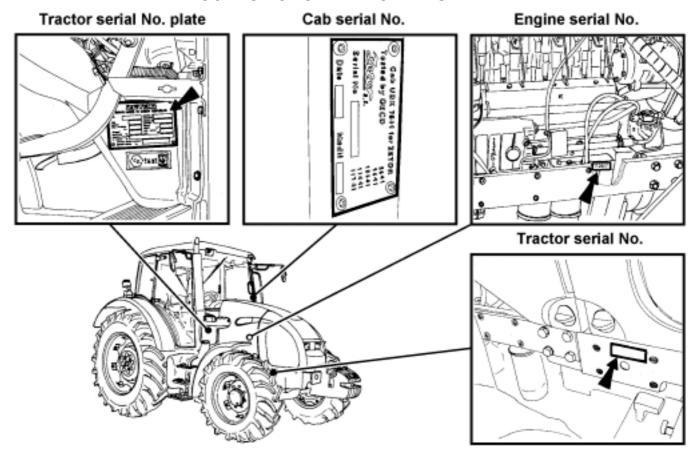


## **LOCATION OF SERIAL NUMBERS Z 8641, Z 9641, Z 10641, Z 11441**





#### **LOCATION OF SERIAL NUMBERS Z 11741**





#### **LOCATION OF SERIAL NUMBERS**

When ordering spare parts or during the contact by writing or viva voce make use of appropriate data of your tractor. For that

purpose put them down into the following frames:

**Tractor type** 

ZETOR 8641 ZETOR 9641 ZETOR 10641 ZETOR 11441

**ZETOR 11741** 

**Tractor serial number** 

Engine serial number



Ftr-02-101

The terms "to the right", "to the left", "at the front", and "at the rear" refer to the direction of the tractor move.

The manufacturer reserves the right to modify the design and outfit serving for technical progress in the course of manufacture



Please, pay special attention to those parts of the Operating and maintenance instructions, which are marked with these symbols.



You will find this symbol at all the important warnings referring to the safety of operation.

Obey these warnings and be particularly careful in those cases!

Inform your colleagues and other users on these warnings...



This symbol marks all chapters speaking about different operation, maintenance, adjustment and safety rules at tractors Z 11741 Forterra.



Before proceeding to the tractor operation, repairs, and setting, read the chapters marked with this symbol thoroughly...



You will find this symbol at all the important warnings concerning the operation, setting, and repairs of the starter.

Obey these warnings and be particularly careful in those cases!



This symbol marks those parts of the Operator's Manual that deal with the protection of living environment or the passages describing the handling of dangerous wastes.



This symbol indicates the tractor accessories mounted by the manufacturer on the customer's request.



Accessories. which are not mounted normally nor on the customer's request by manufacturer. Therefore they may not be subjects of claims!

#### **GENERAL SAFETY REGULATIONS**

- 1. Operation of the tractor may only be entrusted to a trained in operator, perfectly acquainted with operating and safety rules, and possessing valid tractor driving license.
- 2. Besides the safety warnings provided in the Operator's Manual, the driver is obliged to respect generally valid safety and traffic regulations of the country where the tractor is used...

#### PROPER CLOTHING

3. Do not wear loose, unbuttoned cloth and loose long hair.

4. Use suitable (prescribed) means of personal protection (boots, gloves, goggles and the like) during the work...

#### STARTING THE ENGINE

- 5. To start the engine by descending the hill is forbidden.
- 6. To start the engine by towing the tractor with another tractor or vehicle is only allowed when using a tow bar.



7.Tractor Z 11741 can not be started without battery, with discharged battery or without external source (see electronic governor of injection pump).

8. Start the engine from the driver's seat only and with the clutch pedal fully depressed.



Danger of death when starting the engine by short-circuiting the starter terminals!

- 9. The key in the switch box must be in the position "I".
- 10. When heating the engine \* with an electrical heater, plug the feed cable first into the electric heater and then to the mains. After the heating, unplug the device from the mains first.



Caution: Hazard of electrical shockl



#### **DRIVING OPERATION**

- 11. Check the hoses of hydrostatic steering, brakes, and fuel system for proper conditions. In case of detecting any symptoms of damage, replace the hoses immediately. Cracks on the hose surface, loss of the hose fitting pretensioning (which can be proved by its easy removal from the socket) and its mechanical damage are such symptoms, for instance. Hoses with specified service life shall be replaced as soon as their service life expires.
- **12.** In case the tractor uses bio-fuels for its operation, its fuel system shall be fitted with REP hoses. (The manufacturer furnishes the fuel system with REP 6 hoses).
- **13.** Brakes and steering shall be kept in perfect conditions.
- **14.** When driving on roads, with trailers, and implements, the pedals shall be latched together.
- **15.** Driving downhill with no speed gear engaged is forbidden!
- **16.** Special caution shall be paid in driving through slopes, muddy, sandy, icy and uneven terrain.
- **17.** Do not exceed the admissible 12°-slope sheerness.
- **18.** Do not exceed the maximum overall weight of the rolling stock as given at the

tractor rating plate or at the rear wheel mudguard.

- **19.** Do not apply the differential lock when driving through turnings.
- **20.** To get in and out the tractor during its move is strictly forbidden.
- **21.** When driving with implements attached to the rear hitches, the load of the steering axle may not drop below 18 % of the rolling stock instantaneous weight.
- **22.** When driving the tractor with the agricultural implements suspended at the front three-point hitches, reduce the tractor travel speed to 20 km/h.
- 23. When combining the Z 8641 Z 11741 tractors with the machines and implements of high hauling resistance when the engine speed decays and the motor tends to stop, it is forbidden to use the reduced speed gears 1R, 2R (because of the danger of shaft torsion).

## TRANSPORT OF PERSONNEL, OPERATION

- **24.** Tractor may only transport as many individuals as specified in the tractor technical certificate.
- **25.** Individuals not charged with the operation of the tractor additional implements, are not allowed to stay between the tractor and the suspended machine (implement).
- **26.** Before starting the tractor move, make sure that no unauthorized individ-

ual or obstacle obstructs the tractor move.

**27.** Do not exceed the specified angle of slope gradient, which for the Z 8641, Z 9641, Z 10641, Z 11441, Z 11741 tractors equals 12°.

#### TRACTOR RESCUE AND PUSHING

**28.** To recover the stack tractor use a tow bar or cable suspended at the front hook.!



## Never use chains, because their rupture represents a mortal danger!

- **29.** During the recovery, it is dangerous to stay close to the tow cable.
- **30.** It is forbidden to use the tractor axle (the individual drive wheels) as a winch for recovering the tractor.
- **31.** The front hook is intended for towing or recovering the tractor alone, i.e. without the trailer or other suspended implements.
- **32.** Never recover the tractor with the reduced speed gears engaged.
- **33.** For pushing other vehicles (trailers, implements, and the like) never put loose wooden beams or other bars between the tractor and the item to be pushed.

#### LEAVING THE TRACTOR

**34.** Do Not park the tractor with the attached implements in the lifted position.



- 35. Before leaving the tractor, do not forget to apply the parking brake (with engaging a speed gear). Remove the key from the switch box and lock up the cab with key.
- **36.** In the tractors fitted with reversing system, shift the reversing lever to the forward-drive position.
- 37. When leaving the tractor while the engine is in operation, apply the parking brake.
- 38. For getting out of the tractor, make normally use of its L.. H. side. When doing it, be sure that no vehicle, which could menace your safety, approaches. Then open the door.
- **39.** When getting out, make use of steps and handles. Pay special attention to the gearshift lever, the hand-operated fuel supply lever, and to the upper step.

#### **OPERATIONS TO BE DONE WITH THE** STOPPED ENGINE ONLY:

- 40. All the operations associated with the tractor or implement refueling, cleaning. lubrication / greasing, and setting - excepting the checks of brake, hydraulic, and electrical charging systems for proper conditions - shall be carried out with the engine and other moving parts stopped.
- 41. Before removing the bonnet side covers, stop the engine. Inside the closed buildings, the tractor motor may

only be put into operation if sufficient ventilation is ensured. Remember that the exhaust gases are harmful.

#### PRINCIPLES OF FIRE PREVENTION

- 42. Refuel the tractor preferably after concluding the work and with the engine stopped..
- 43. In summer season, do not refuel up to the top. Wipe off the spilled fuel immediately.
- 44. Do not refuel close to naked flames and do not moke
- 45. When checking the storage battery electrolyte for proper level, do not smoke, nor use the naked flames.
- 46. In the environments of enhanced danger of fire (haylofts, straw heaps, and the like) be consequent in attaining to the fire fighting safety instructions.
- 47. The manufacturer does not furnish tractors with fire extinguishers.



#### HEALTH AND LIVING **ENVIRONMENT PROTECTION**

- 48. Tractors are not furnished with special filters for cleaning the air sucked to the tractor cab. Therefore they are not designed for working with aerosols and other harmful substances.
- 49. Kerosene, gas oils, mineral oils and other crude oil products, which are used for tractor operation and servicing, can cause different skin diseases in the case

of direct contact, they have irritating effects on the mucous membrane, eves. digestive apparatus, and upper respiratory ways. Some of them - when swallowed - can cause even general intoxication.

**50.** The operators who enter in contact with oil products are obliged to attain to safety and hygienic instructions consequently, make use of appropriate protecting means, and work in wellventilated rooms.



#### MANIPULATION OF CRUDE-OIL PRODUCTS

- **51.** After concluding the work, wash yourself with a non-irritant agent and treat your hands with a suitable skin ointment or cream.
- 52. When connecting and disconnecting the hydraulic circuit quick couplers, remove - with a piece of any cloth - the residual oil, which remains in the coupler socket or plua.



#### **WASTE DISPOSAL**

**53.** When disposing the tractor or some of its parts (including the service liquids), as soon as their service life is over, every body is obliged to proceed in accordance with the provisions of the relevant laws and regulations.



**54.** The last tractor seller is obliged – by the Law on wastes – to inform the consumer – when selling the tractor – on the ways of taking back some of the consumed parts of the tractor. In question are the oils and other service liquids, storage batteries, and tires.

#### PREVENTIVE DAILY MAINTENANCE

**54.** This maintenance shall be carried out daily or at latest after every 8 to 10 operating hours.

#### **SAFETY CAB**

**55.** In case corrosion or any other accident damages the cab-protecting frame, the cab must be replaced.

#### **AIR CONDITIONING**

**56.** In no case it is allowed to disassemble, turn or manipulate in another way the screw joints of the air conditioning system, because sudden leak of the coolant and quick local cooling may occur. Contact or freezing of components in hands may result in serious injury of some tissues.

**57.** The air conditioning system is fitted with quick couplers, which allow separate the cab from the tractor body if necessary without any leak of the coolant. Entrust the interventions into the air conditioning system to the service specialists.

#### **ELECTRICAL EQUIPMENT**



58. No additional interventions into the tractor electrical equipment (connection of other electrical appliances) are allowed because of its possible overloading.

**59.** The values of electrical installation are:

Nominal voltage 12 V = Ground minus pole (-)

The use of starting trucks or starting aid devices with different voltage or polarity causes serious failures of tractor.

**60.** It is necessary to be careful when manipulating with the battery and to avoid short circuits. Turn off the battery switch at tractors equipped with this switch when manipulating with the battery.

**61.** Tractors Z 8641- Z 11741 must not run with the disconnected battery, the serious failure of tractor is possible.

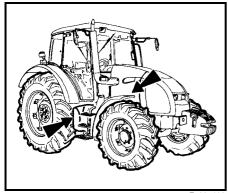


To be carried out daily or at the latest after every 8 to 10 operating hours.





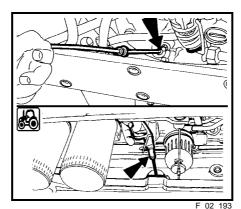
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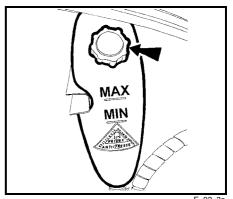
#### **FUEL SYSTÉM TIGHTNESS**

Check the fuel system, including the fuel tank, for tightness. Correct all leaks immediately. The drain-out plug for impurities in the tanks is placed in the tank bottom.



#### **ENGINE OIL LEVEL**

On unscrewing and removing the oil dipstick, check the oil for level and the engine lubrication system connections for tightness. Keep the oil level between the dipstick marks.



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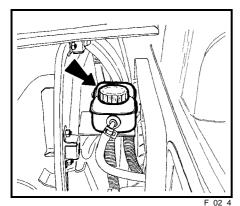
#### **COOLING SYSTEM**

Check the engine cooling system connections for tightness and for the amount of cooling liquid. In case of need complete to MAX. The minimum admissible level shall reach the bottom mark of the cooling liquid gage.



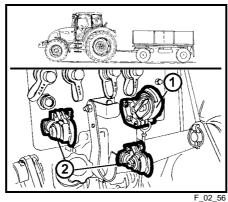
Do not remove the cooling system cap until the liquid is cold enough otherwise danger of scalding is imminent.!





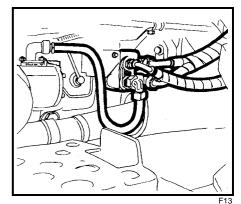
#### LIQUID-OPERATED BRAKES

Check the liquid-operated brakes, clutch for tightness, and the brake liquid recovery tank for amount. Keep the brake liquid level within the limits of 3/4 (maximum level) and 1/2 (minimum level) tank capacity.



#### TRAILER PNEUMATIC BRAKES

Check the pneumatic brake system for Check the trailer hydraulic brakes for tightness and the tractor brake with trailer efficiency. (For details see the Chapter Hints for Maintenance, part "Checking the Pneumatic Systems for Tightness" of this Operating and Maintenance Manual).

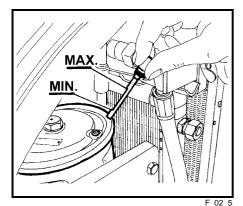


#### TRAILER HYDRAULIC BRAKES

tightness

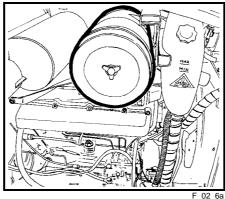


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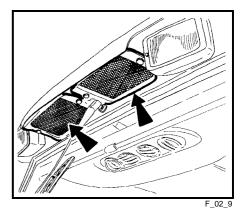
#### HYDROSTATIC STEERING

- Check the oil level for amount in the hydrostatic steering tank.
- Check the bolts and nuts of the steering rods and levers for proper tightening.
- Check all hoses of the steering hydraulic circuit for conditions and leaks.



#### **AIR CLEANER**

The air cleaner is fitted with a sensor signaling its clogging with impurities. The sensor makes switch on a signal light installed in the dashboard in case the air cleaner is heavily obstructed.



#### CAB FILTRATION

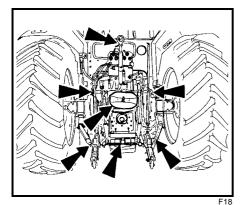
Check and clean if necessary the cab ventilation air filters installed in the front overhang of the cab.

The filter replacement depends on the amount of dust at the working area atmosphere.

You can partially regenerate them by knocking or blowing them through with compressed air.

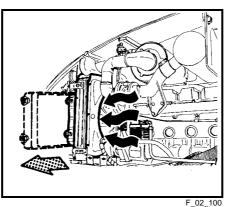
Cleaning or replacement of filter elements should be carried out after removing the covering grids in the roof overhang.







Check the tractor and trailer attaching and suspending implements for proper conditions



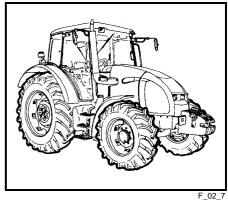
#### AFTER OPERATION WITH FRONT **IMPLEMENTS**

After operation with front implements:

- Check the connections of hydraulic control circuit of the front three-point hitch for leaks

#### Clogging of coolers:

- Remove the side part of hood
- \*Loosen and pull the air-conditioning condenser to the left-hand tractor side.
- Clean the front part of engine radiator (air-conditioning condenser) by means of pressured air (blow air in direction from the engine).
- Remove the rest of impurities from the space under the bonnet (otherwise their repeated suction might appear).



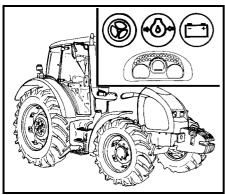
#### TIRES AND WHEELS

Check the front and rear wheel tyres for proper pressure with adjusting it to the foreseen operation. Check and tighten if necessary the bolts of the front and rear wheels (rim / wheel disk and wheel disk / wheel axle connections).



Never drive the machine with the bolts not fully tightened. I!





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## SHORT TEST FOR PROPER FUNCTION

On starting the engine, make sure the engine lubrication signal light if off as well as the light of proper electrical charging and check the steering hydraulic circuits for proper operation and tightness.



### Zetor 8641 9641 10641 11441 11741 Operators Manual

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