

# User's manual

## LIFAN 2-cylinder Petrol Engine 92671

# wiltec



Illustration similar, may vary depending on model

Please read and follow the operating instructions and safety information prior to initial operation.

Technical changes reserved!

Illustrations, functional steps, and technical data may deviate insignificantly due to continuous further developments.



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## Introduction

Thank you for choosing to purchase this quality product. To minimise the risk of injury, we ask you to always take some basic safety precautions when using this product. Please read this operating manual carefully and make sure that you understand it.

Keep these operation instructions in a safe place.

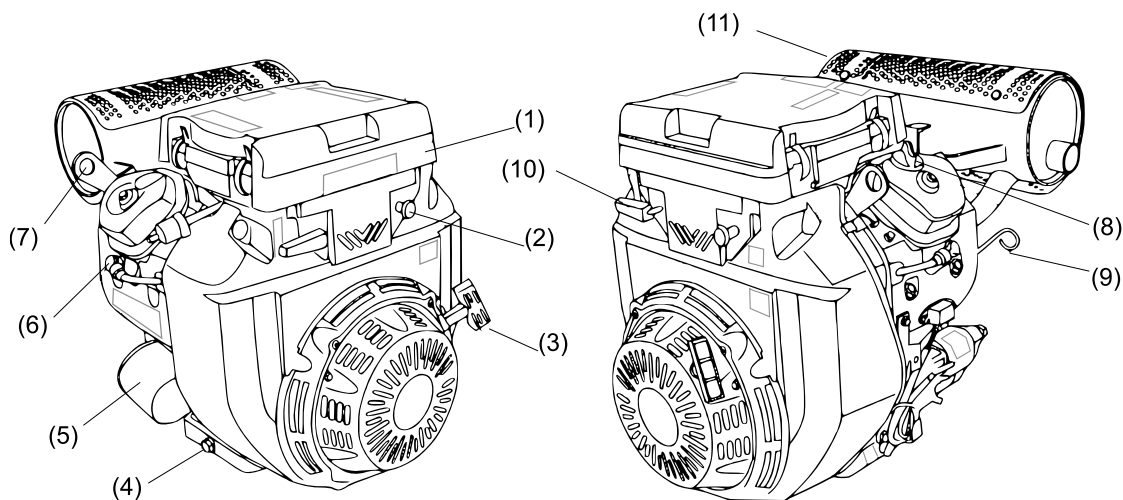
### This petrol engine offers you:

- 2 cylinders, 4 strokes
- Hand starter and electronic starter
- Powerful cooling system
- TCI ignition module
- Fan guard made from special low-noise steel sheet

The leading point in the development of our series of air-cooled 4-stroke petrol engines has been protection of material and saving of energy. By their compact design, the devices are easy to transport to every location and comfortable to handle. They offer the user a broad range of application, including artisanry, industry, horticulture, agriculture, and household.

This user's manual will assist you in optimally using the engine. Read it thoroughly before putting the device into operation. This will increase the life time of your device considerably.

Do not hesitate to contact us if you have any question or proposal concerning this user's manual. In some cases, the equipment of the device might vary from that described in the user's manual present.



No	Name	No	Name
1	Air filter	7	Attachment element
2	Choke	8	Oil screw
3	Starter handle	9	Oil level gauge
4	Drain screw	10	Throttle lever
5	Oil filter	11	Exhaust
6	Spark plug		

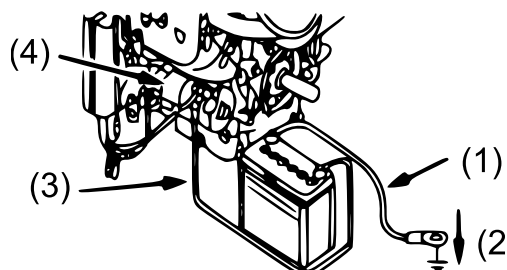
## Safety instructions

For your own safety, obey the following instructions, for otherwise material damage and/or personal injuries might result.

- Make sure that the engine is only operated in well-aired conditions; otherwise, the exhaust gases might be harmful to your health.
- Near other persons, only operate the engine with greatest care. Make sure that the exhaust pipe is free; it must not be covered, obstructed, or blocked.
- Before filling fuel into the tank, make sure to cut the engine off.
- The tank must not be filled to overflowing.
- In case fuel is spilled onto the casing of the device during filling fuel in, absolutely remove it before starting the engine.
- When exchanging the oil, make sure that the tank cover is closed lest oil get into the tank.
- Do not operate the device near open flames, flammable or explosive materials or gases, and flying sparks.
- There should be a minimum distance of 1 m between the engine and the wall of a house or another permanent installation.
- Make sure that all moving and rotating parts are safely covered.
- During operation, certain components of the device (e.g., exhaust pipe) will heat up. When you touch these components, there is a risk of burns.
- Only operate the device in safe conditions and keep children away during operation.
- Only operate the engine on a level, solid surface. If inclined, fuel might leak.
- A major inclination (the device standing aslope) might impair the lubrication of the gearing mechanism even with full oil level.
- When transporting the engine, make sure that no fuel can escape. It is advisable to empty the tank and to close the fuel supply cock.

### Connecting a battery (optional)

Only use 12 V batteries with a minimum of 45 Ah. Connect them to the positive cable of the relay and the negative cable to the housing of the engine. Make sure that there is no corrosion on the cable. Should there be corrosion on the cable, remove it first.



No	Name	No	Name
1	Negative cable (-)	3	Positive cable (+)
2	To housing	4	Starting relay

### Attention!

- Only operate the engine in a well-ventilated area – with or without battery.
- Avoid any kind of flying sparks, open flames, or the like. **Explosion hazard!**
- Batteries contain sulphuric acid (electrolyte). Any contact with your skin or eyes can cause serious injuries. Wear suitable protection clothing. Contact the furnisher of the battery used to read up on suitable measures.



**Connecting a remote control (optional)**

Throttle and choke levers have holes for optional cable accessories. The diagram shows the installation method of single strand cable and woven cable.

a) *Remote-controlled choke valve and remote-controlled throttle valve*

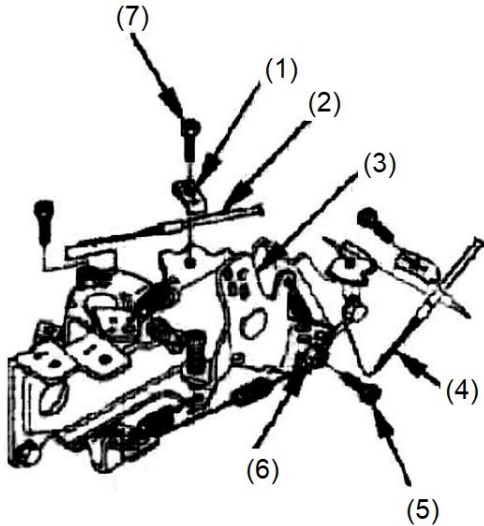


Figure 2 – woven cable / left control type

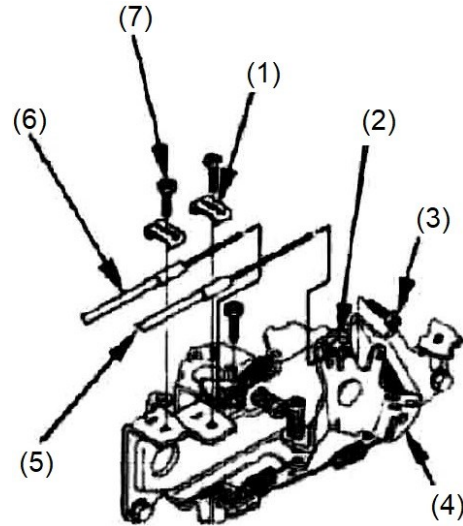


Figure 3 – woven cable / right control type

No	Name	No	Name
1	Cable clip (2)	1	Cable clip (2)
2	Choke cable	2	Steel-wire clip
3	Control lever	3	M4×6 mm (2)
4	Throttle cable	4	Control lever
5	M4×6 mm (2)	5	Throttle cable
6	Steel-wire clip	6	Choke cable
7	M5×16 mm (2)	7	M5×16 mm (2)

b) Remotely controlled throttle valve and manually controlled choke valve

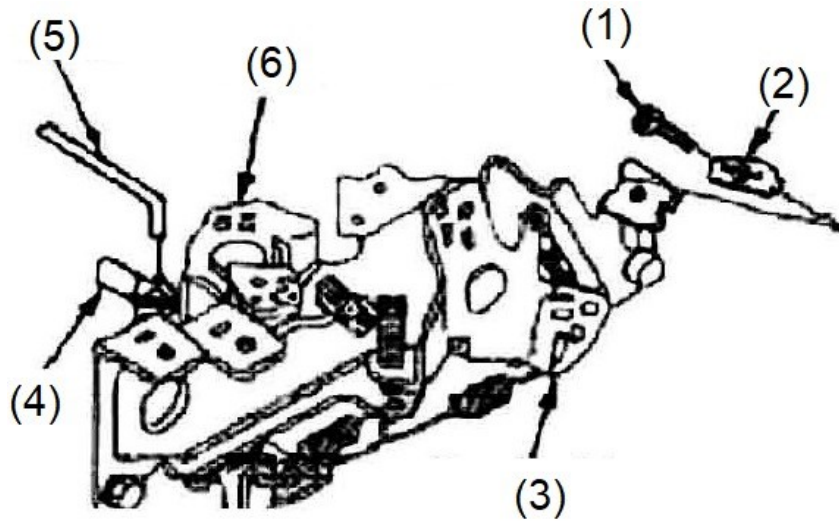


Figure 4

Nº	Name	Nº	Name
1	M5×16 mm	4	Rod link bush
2	Cable clip	5	Choke lever
3	Control lever	6	Choke handle

c) Manually controlled throttle valve and manually controlled choke valve

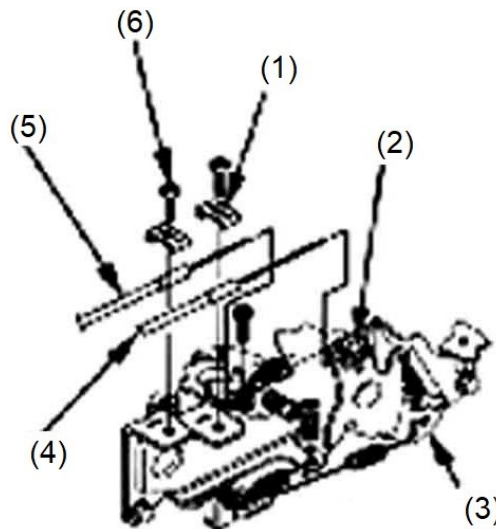


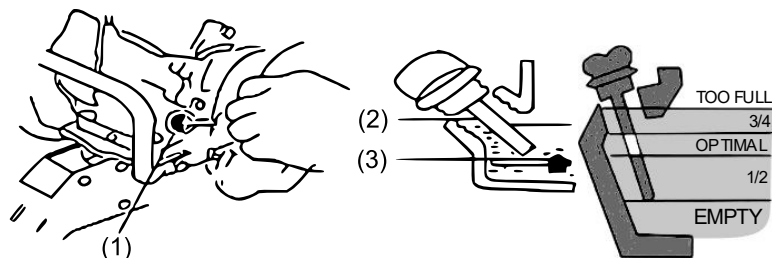
Figure 5 – single strand cable / right control type

Nº	Name	Nº	Name
1	Cable clip (2)	4	Throttle cable
2	Steel-wire clip (2)	5	Choke cable
3	Control lever	6	M5×16 mm (2)

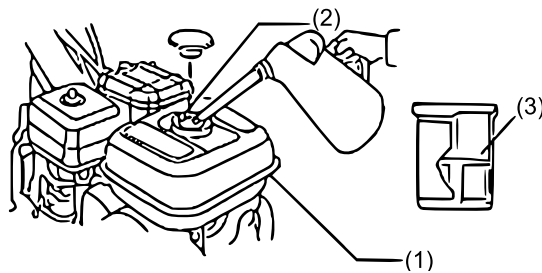
Put the levers of both the choke and throttle to control position.

**Before operating the device**

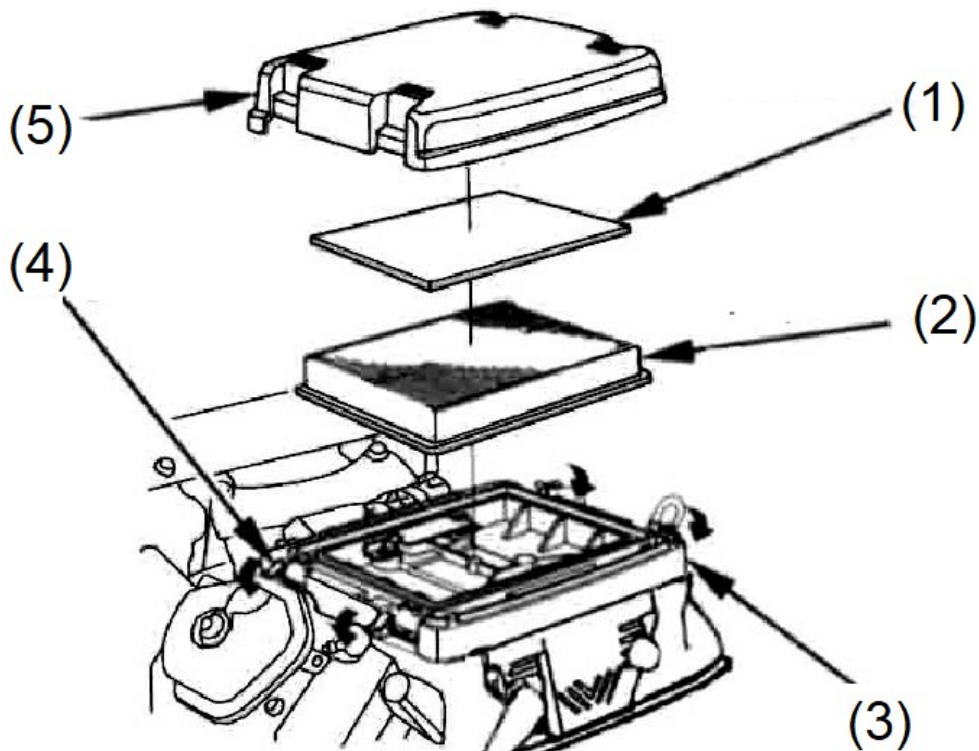
1. Make sure that all fuel lines are properly connected and safely fixed lest there be a fuel leak.
2. Make sure that all fixing screws and nuts are well tightened.
3. Check the fuel and oil levels and top up oil or fuel if necessary.



No	Name	No	Name
1	Oil level gauge	3	Min. oil level
2	Max. oil level		

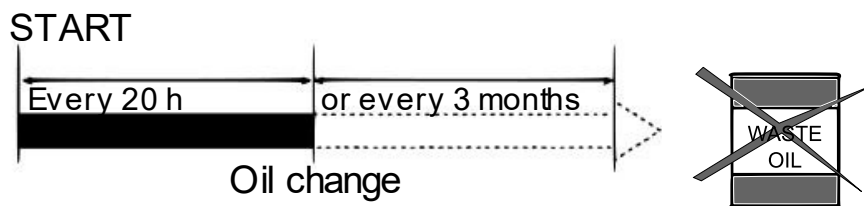


No	Name	No	Name
1	Fuel tank	3	Red marking for max. fuel level
2	Tank opening		



Nº	Name	Nº	Name
1	Foam filter	4	Hinge
2	Paper filter	5	Air filter cover
3	Air filter housing		

The air filter is to be checked and, if necessary, to be cleaned or replaced regularly.



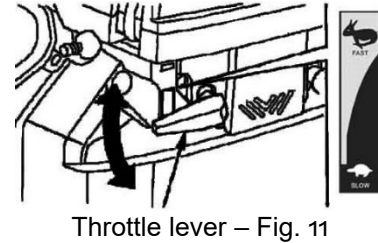
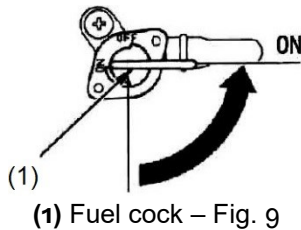
<b>Inclination of output shaft</b>		
<b>Allowable inclination</b>	≤20°	
<b>Inclination of motor</b>		
<b>Allowable inclination</b>	≤20°	



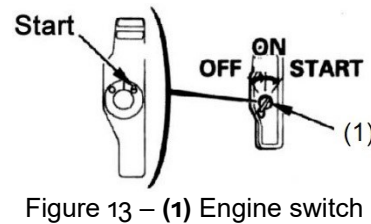
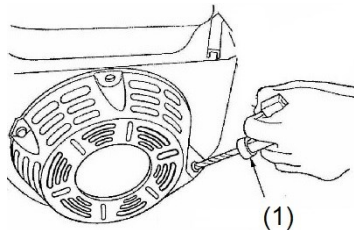
## Starting the motor

**Caution!** You should put on a protective equipment before starting the motor (hearing protection, gloves).

1. Put the fuel cock to the "ON" position (Fig. 9) (optional).



2. Put the choke lever to the "CLOSE" position (Fig. 10).
3. Put the throttle to the "FAST" position slowly.
4. Start the motor as follows:
  - a) Hand starter: Slightly pull the starter rope handle upwards until you feel that it resists, then pull rapidly.



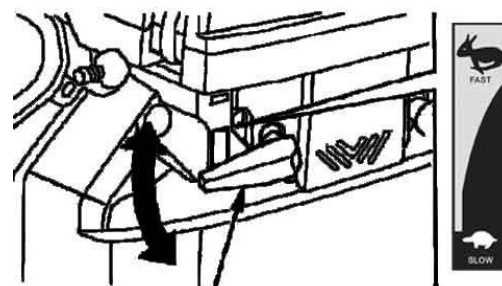
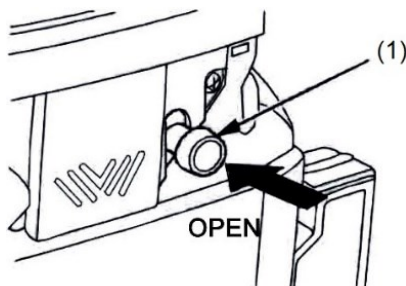
**Attention!** Should you let go the handle suddenly, it might hit the motor. Instead, allow the starter rope to slide back slowly.

- b) Electric starter

Push the engine switch to the "START" position and keep it pushed during 5 s until the motor starts.

**Caution!** Do not push the engine switch more than 5 s per start to avoid damages to the motor. Wait 10 s before re-trying to start the motor, should the start be unsuccessful. As soon as the motor starts, put the engine switch to the "ON" position.

- c) If the motor dies off when the choke is set to "CLOSE" position, immediately set the choke to "ON" as soon as the motor runs smoothly.



Set the throttle lever in proper position to ensure the engine runs at the required velocity.

### Oil deficiency switch/alarm

The oil deficiency switch reacts to an insufficient quantity of motor oil in the crankcase. Lacking motor oil may damage the motor. As soon as the oil level in the crankcase is too low, the motor oil alarm stops the engine automatically to protect it from damages during operation.

**Attention!** Should you not be able to restart the motor, first check the oil level before checking any other possible cause of defect.

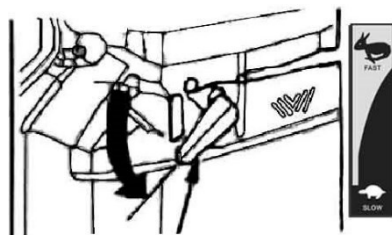
### Motor protection switch

The protection switch that protects the charging circuit of the battery switches off automatically if there is a short circuit or if the battery poles are connected improperly. The green indicator, jumping out, interrupts the circuit. Re-set the indicator to its initial position after you have resolved the error that has triggered the indicator.

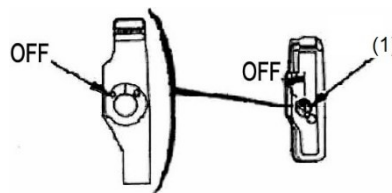
### Stop/emergency stop

If there is an **emergency**, stop the motor by putting the engine switch to the “OFF” position. – To stop the engine in **normal operation**, proceed as follows:

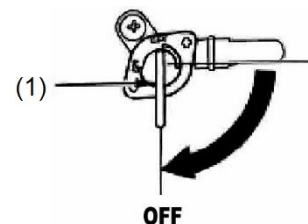
1. Put the throttle lever to “SLOW” position slowly (Fig. 16).
2. Put the engine switch to the “OFF” position (Fig. 17).
3. Put the fuel cock to the “OFF” position (Fig. 18) (optional).



Throttle lever – Fig. 16



(1) Engine switch – Fig. 17



(1) Fuel cock – Fig. 18

**Attention!** Never stop the motor suddenly when it operated with the throttle fully opened. Motor damages might result.

### Exhaust regulation system

To keep the exhaust as low as possible, follow the steps mentioned below.

#### Maintenance

Maintain the motor regularly and according to the maintenance schedule of this manual. The maintenance schedule has been established on the basis of a normal operation and normal conditions. If using the motor under heavy conditions, with a lot of dust generated, with ongoing humidity, or with high temperatures, you should maintain the motor more frequently.

#### Exchanging components

It is advisable to use spare parts produced by our establishment or with identical quality. Poor-quality parts might provoke an increase of exhaust.



*Modifications*

Modifying the exhaust regulating system might lead to the actual exhaust emissions exceeding the legal values. The following are examples for inadmissible modifications:

- Dismantling or modifying any part of the air intake or exhaust system
- Modifying or taking off speed – adjusting connection device or speed adjustment device to result in the engines running beyond the set parameters

**Regular maintenance – maintenance schedule**

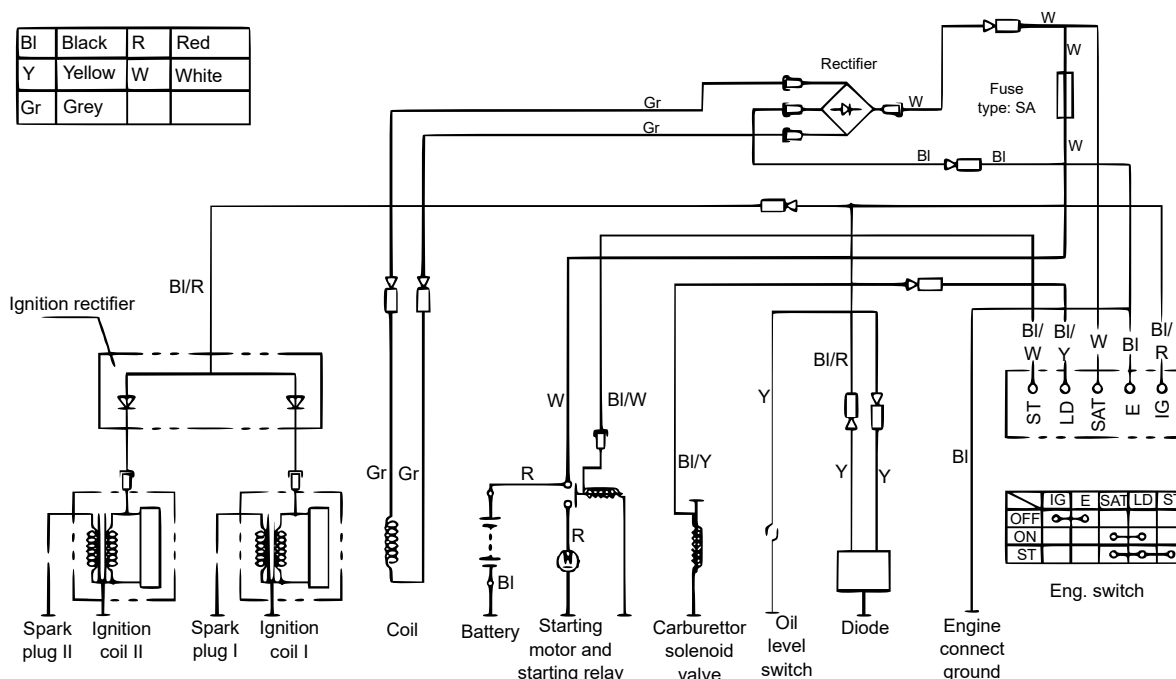
Type of intervention		Frequency				
		Every time	During the 1st month or after 20 hours	Every time or after 50 hours	After 6 months of 100 hours	Every year or after 300 hours
Motor oil	Check oil level.	X				
	Replace.		X		X	
Air filter	Check.	X				
	Clean.			X		
	Replace.					X
Spark plug	Clean, adjust.				X	
	Replace.					X
Ignition sensor	Clean.				X	
Idling	Check, adjust.					X
Play of valves	Check, adjust.					X
Oil filter	Replace.					X
Petrol filter	Clean.					X
Fuel supply line	Check.	After 2 years (replace if necessary)				

Technical data

<b>Engine type</b>	Air-cooled 4-stroke V2 engine
<b>Bore×stroke (mm)</b>	80×74
<b>Displacement (cm<sup>3</sup>)</b>	744
<b>Compression ratio</b>	8.5:1
<b>Net power (kW/rpm)</b>	16/3600
<b>Net torque (Nm/rpm)</b>	50/2500
<b>Ignition type</b>	Non-contact transistorised ignition (TCI)
<b>Starting system</b>	Electric start
<b>Air cleaner</b>	Semi-dry
<b>Oil capacity (ℓ)</b>	1,4
<b>Engine oil type</b>	SAE 15 W/40 mineral for winter/summer
<b>Fuel consumption (ℓ/kWh)</b>	≤ 370
<b>Net weight (kg)</b>	48

Connection diagram

Bl	Black	R	Red
Y	Yellow	W	White
Gr	Grey		



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