

**ZIPPER MASCHINEN GmbH**

**Gewerbepark 8**

**4707 Schlüsslberg | AUSTRIA**

**+43 (0) 7248 61116-700 | FAX 7248 61116-720**

**info@zipper-maschinen.at | www.zipper-maschinen.at**

Originalfassung

**DE BETRIEBSANLEITUNG**

Übersetzung / Translation

**EN USER MANUAL**

**CZ NÁVOD K POUŽITÍ**

**SK NÁVOD NA POUŽITIE**

**BETONTRENNSCHNEIDER**

**CONCRETE CUTTER**

**REZAČKA BETÓNU**

**REZAČKA BETÓNU**



**ZI-BES350Y**

**EAN: 9120039231624**



**ACHTUNG: Öl kontrollieren!**

**Motor startet nicht bei Ölmindermenge!!**



**ATTENTION: Check Oil!**

**Engine don't start with low oil!!**



## 13 PREFACE (EN)

### Dear Customer!

This manual contains information and important instructions for the installation and correct use of the ZIPPER ZI-BES350Y.

Following the usual commercial name of the machine (see cover) is substituted in this manual with the name "machine".



This manual is part of the product and shall not be stored separately from the product. Save it for later reference and if you let other people use the product, add this instruction manual to the product.

### **Please read and obey the security instructions!**

Due to constant advancements in product design, construction pictures and content may diverse slightly. However, if you discover any errors, inform us please.

Technical specifications are subject to changes!

**Please check the product contents immediately after receipt for any eventual transport damage or missing parts.**

**Claims from transport damage or missing parts must be placed immediately after initial product receipt and unpacking before putting the product into operation.**

**Please understand that later claims cannot be accepted anymore.**

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### Customer service contact

**ZIPPER MASCHINEN GmbH**  
Gewerbepark 8, A-4707 Schlüsslberg  
AUSTRIA  
Tel.: +43 7248 61116-700  
Fax: +43 7248 61116-720  
Mail: [info@zipper-maschinen.at](mailto:info@zipper-maschinen.at)



## 14 SAFETY

This section contains information and important notices for safe commissioning and handling of machine.



For your own safety, read these operating instructions carefully before putting the machine into operation. This will enable you to handle the machine safely and prevent misunderstandings as well as possible damage to property and persons. Also observe the symbols and pictograms used as well as the safety instructions and hazard warnings!

### Intended use of the machine

The machine is intended exclusively for the following activities:

Concrete, asphalt and bitumen cutting

**ZIPPER-MASCHINEN assumes no responsibility or warranty for any other use or use beyond this and for any resulting damage to property or injury.**

#### 14.1.1 Technical Restrictions

The machine is intended for use under the following ambient conditions:

Relative humidity:	max. 65 %
Temperature (for operation)	+5° C bis +40° C
Temperature (for storage and/or transport)	-20° C bis +55° C

#### 14.1.2 Prohibited Use / Forseeable Misuse

- Operation of the machine without adequate physical and mental aptitude
- Operating the machine without appropriate knowledge of the operating instructions (machine + motor).
- Changes in the design of the machine
- Operating the machine in wet and rainy conditions
- Operating the machine in a potentially explosive environment
- Operating the machine indoors or in closed areas
- Operation of the machine without functioning or missing guards
- Remove the safety markings attached to the machine.
- Modify, circumvent or disable the safety devices of the machine.
- Use of the machine for the transport of persons

**14.2** The prohibited/hazardous use or disregard of the information and instructions presented in this manual will result in the voiding of all warranty and damage claims against Zipper Maschinen GmbH.

### User Qualification

**14.3** Prerequisite for the use / operation of the machine is a corresponding physical and mental aptitude as well as knowledge and understanding of the instruction Manual.

**Please note that local laws and regulations may determine the minimum age of the operator and restrict the use of this machine!**

Put on your personal protective equipment before working on the machine.

**Work on electrical components or equipment may only be carried out by a qualified electrician or carried out under the guidance and supervision of a qualified Electrician.**

### Safety instructions

In order to avoid malfunctions, damage and health hazards when working with this machine, in addition to the general rules for safe working, the following measures in particular must be observed UNCONDITIONALLY:



- Check that the machine is in perfect condition before each use. Ensure that all guards are in place and working properly and that all nuts, bolts, etc. are securely tightened. Do not take the machine into operation if you notice that parts are missing or damaged!
- Ensure sufficient lighting conditions in the working and surrounding areas of the machine.
- Keep hands and feet away from moving machine parts and always ensure a safe stand when working.
- Ensure that the area to be tamped does not contain any electric cables, gas or water lines which could be damaged by vibration.
- Remove the adjustment tool from the machine before operation.
- Never leave the running machine unattended (always stop the machine before leaving it).
- Ensure that unauthorised persons maintain a safe distance from the machine and keep children away from the machine.
- The machine may only be operated, serviced or repaired by persons who are familiar with it and who have been informed of the dangers arising during this work.
- Always wear suitable personal protective equipment (ear protection, gloves, safety shoes, close-fitting protective clothing, etc.)!
- Do not work with the machine if you are tired, not concentrated or under the influence of medication, alcohol or drugs!
- Never operate the unit in the presence of flammable liquids or gases (danger of explosion!).
- Carry out maintenance, adjustment and cleaning work only when the engine is switched off.
- Only use spare parts and accessories recommended by Zipper machines.

**14.4****Special safety instructions for the operation of ZI-BES350Y**

- The machine is designed to be operated by one person. Always operate the machine from behind. Never stand next to or in front of the machine when the engine is running.
- Keep safety distance of 15m to other persons.
- Keep away from edges and trenches and avoid situations where the vibratory plate could tip over.
- Excessive noise can cause hearing damage and temporary or permanent hearing loss. Wear hearing protection certified to health and safety regulations to limit noise exposure.
- Do not increase the regulated idle speed of the engine above 3,500 rpm. This could result in damage to the machine or personal injury.
- DO NOT APPLY ANY PRESSURE TO THE SIDE OF THE ROTATING CUTTING BLADE! THIS RUINS THE DRIVE MECHANISM!
- DO NOT PERFORM TOO LONG CUTS IN A ROW

**14.5 THE MAX ALLOWED OPERATING TIME FOR CUTTING WITHOUT WATER COOLING IS 30 SECONDS.**

- NEVER CUT DRY WITH CUTTING BLADES THAT ARE SUITABLE FOR WATER COOLED WET CUTTING ONLY.

**Safety instructions for machines with combustion engine**





- Do not touch the engine and/or muffler during operation or immediately after switching off! These areas become hot during operation and can cause burns.
- Do not touch the spark plug connector when the engine is running (electric shock!).
- Do not operate the unit in closed areas or in poorly ventilated rooms unless there is adequate ventilation through exhaust fans or hoses. (Risk of suffocation from carbon monoxide!)
- Do not smoke while the machine is in operation.
- Do not smoke when refuelling the machine.
- Refuel the machine only in a well ventilated area.
- Do not refuel the machine when the engine is running or the machine is still hot.
- Do not refuel the machine near naked flames.



- Do not spill fuel when refuelling.
- Do not crank a gas flooded engine as long as the spark plug is removed- fuel in the cylinder sprays out of the spark plug opening.
- Do not carry out an ignition spark test on engines if the engine is flooded or gas can be smelled. A stray spark could ignite the vapours.
- Do not use fuel to clean machine parts, especially indoors. Vapours from fuels may explode.
- Always keep the area around the muffler free of foreign substances such as leaves, paper, cardboard, etc. A hot muffler could ignite these substances and cause a fire.
- Close the filler cap after refuelling.
- Check the fuel line and tank regularly for leaks and cracks. Do not operate the machine if leaks in the fuel system are known.
- Store fuel only in designated and approved containers.

### Hazard warnings

Despite intended use, certain residual risks remain. Due to the design and construction of the machine, hazardous situations may occur which are identified as follows in these operating instructions:

DANGER	
	A safety instruction designed in this way indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
WARNING	
	Such a safety instruction indicates a potentially hazardous situation which, if not avoided, may result in serious injury or even death.
CAUTION	
	A safety instruction designed in this way indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
NOTICE	
	A safety note designed in this way indicates a potentially dangerous situation which, if not avoided, may result in property damage.

Irrespective of all safety regulations, their sound common sense and corresponding technical suitability/training are and remain the most important safety factor in the error-free operation of the machine. **Safe working depends first and foremost on you!**





## 15 OPERATION

### Check scope of delivery

After delivery, check the machine immediately for transport damage and missing Parts.

#### Checklist before each use

#### NOTICE

15.1



The use of paint thinners, petrol, aggressive chemicals or abrasives leads to material damage to the surfaces! Therefore use only mild detergents for cleaning!

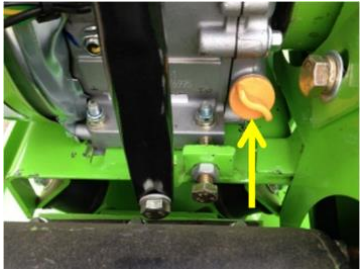
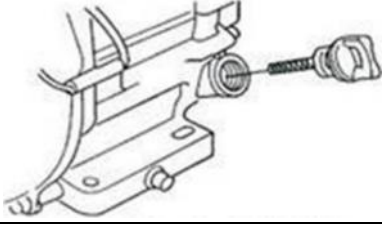
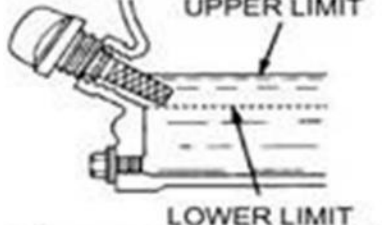
- Clean the machine and remove dirt and dust if necessary.
- If the air filter is dirty, blow the filter cartridge from the inside by moving a jet of dry compressed air up and down. Continue until all dust has been removed. Replace the air filter with a new one if necessary.
- Check the carburettor for external dirt and dust and clean it with dry compressed air if necessary.
- Check the nuts and bolts for tightness. (Screws or bolts loosened by vibrations can lead to accidents!)

#### 15.2.1 Checking the engine oil level

#### NOTICE



Too low an oil level will damage the engine and shorten the life of the machine. Therefore, check the engine oil level before every start and top up the engine oil if necessary.

	<ol style="list-style-type: none"><li>1. To check the engine oil level, place the machine on a safe, level surface. Switch off the engine and allow the machine to stand for ten minutes so that the circulating oil can collect in the oil pan.</li><li>2. Unscrew the oil dipstick and wipe with a clean, lint-free cloth or a non-fibrous paper towel.</li></ol>
	<ol style="list-style-type: none"><li>3. Push the dipstick into the opening, but do not screw it in. (Make sure that the dipstick has really been pushed in completely).</li></ol>
	<ol style="list-style-type: none"><li>4. Pull out the oil dipstick again and read off the oil level. There are two markings for this - see illustration on the left.</li><li>5. If the oil level is low, refill the recommended oil up to the upper edge (maximum filling volume: approx. 0.5 litres).</li><li>6. Push in the oil dipstick again and tighten.</li></ol>



### 15.2.2 Checking the fuel tank level

#### NOTICE



**Observe the safety regulations for fuel control.** Filter the fuel during refuelling to prevent foreign particles from entering the combustion chamber. Wipe up leaked fuel.

1. Screw on the tank cap (sits on the fuel tank).
2. Level check in the form of a visual inspection. If necessary, top up with fuel with the appropriate octane number (RON 95).
3. Close the fuel filler cap tightly after refuelling.

## 16 OPERATION

- Save the working environment before you start working.
- Only put the machine into operation after you have read and understood the safety instructions and carried out the necessary measures before initial commissioning.
- Proper preparation and consistency of the concrete are essential for a good working.
- Transport of the machine onto the concrete to be processed: Mount the transport bar into the bar holder at the front side of the machine. Minimum two persons lift the machine onto the concrete surface. Attention! The machine is heavy. Be sure to proper lifting technique to avoid injuries.

### Information on Initial Start-up

#### NOTICE



**Note that the machine is delivered without engine oil and fuel.** Make sure that this equipment is filled up before the machine is put into operation for the first time.  
**ATTENTION: The machine does not start until the engine oil has been refilled to the upper limit.**

#### 16.1.1 Test Run Initial Start-up

- Let the machine run idle for about 3 minutes.
- Pay attention to abnormal noises.
- Pay attention to the exhaust fumes (too black, too white)?

#### 16.1.2 Notes on the first 20 operating hours

In order to optimize the life expectancy of your machine, the following points should be observed:

- 16.2**
- Do not operate the engine for the first 20 operating hours @ maximum load (this also applies to used engines after extensive maintenance). This means lower speed and lower maximum working load than during normal operation.
  - Change the engine oil after the first 20 hours of operation.

### Operating Instructions

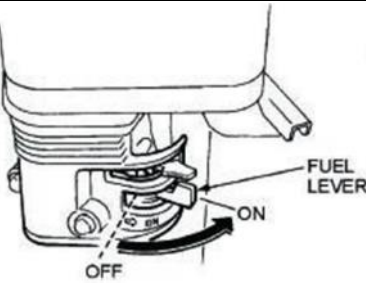
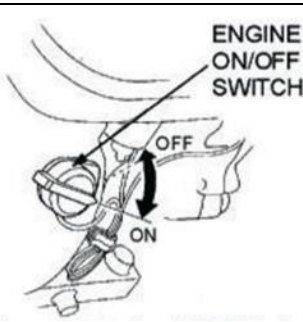
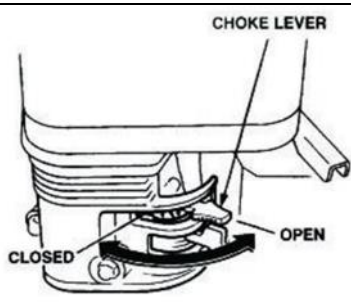
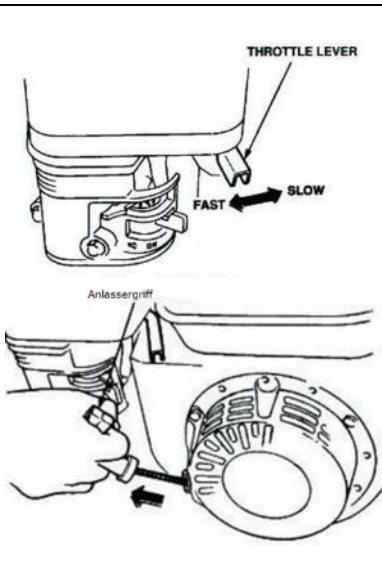
- Never use the recoil-starter while the engine is running. This will damage the engine.
- The pull mechanism for changing the engine speed is limited by an adjusting screw. This is factory set. Never change this setting on your own, you could overload the motor.
- Do not operate the machine on slopes of more than 20°, as even with an optimum oil level the engine may not be supplied with sufficient lubrication.
- In the direction of the machine and within a range of one meter around the machine, nobody but the operator must stand.
- Bring the cutting blade in uppermost position, hinge the cutting line marker (rod with red wheel) down and bring the marker and blade into cutting line.
- Adapt your cutting speed to the material.
  - If you see that the cutting blade does not hold the cutting depth but comes up, you push the machine too fast.



- If you see that the saw blade is getting slower – you push the machine too fast
- Cuts with cutting depth of more than 90mm should be performed in two consecutive working steps.

## Starting the Machine

16.3

	<ol style="list-style-type: none"> <li>1. Turn the fuel valve to the "ON" position.</li> </ol>
	<ol style="list-style-type: none"> <li>2. Set the engine ON/OFF switch (ignition switch) also to the "On" position.</li> </ol>
	<p><b>Note:</b> The closed position of the choke lever enriches the fuel mixture for starting a cold engine. The open position provides the correct fuel mixture for normal operation after starting and for restarting a warm engine.</p> <ol style="list-style-type: none"> <li>3. Turn the choke lever to the "Closed" position, only for cold engine.</li> </ol>
	<ol style="list-style-type: none"> <li>4. Set the throttle lever to "half throttle" (= middle position between "fast" and "slow").</li> </ol> <p><b>Note:</b> Do not pull the starter rope through to the end and do not let it rewind after pulling, but only rewind it quickly.</p> <ol style="list-style-type: none"> <li>5. Grab the starter handle and pull it out slowly. The resistance becomes strongest at a certain point. This point corresponds to the compression point. Let the rope roll back a little from this point and then pull it out powerfully.</li> <li>6. Turn the choke lever to "Open" when the engine is running.</li> <li>7. Open the shut-off valve on the bottom of the water tank.</li> <li>8. Crank the cutting blade slowly down, until it has reached the desired cutting depth in the material.</li> </ol>





## Stopping the Machine

### 16.4.1 Emergency Stop

In case of danger and/or in an emergency situation, you can quickly switch off the machine with the speed governor by pushing it completely into the STOP position.

### 16.4.2 Normal switch-off

- 16.4**
1. Bring the cutting blade in uppermost position
  2. Set the upper throttle lever to "minimum" and let the engine run idle for approx. 3 minutes at low engine speed.
  3. Then set the engine ON/OFF switch (ignition switch) to the OFF position.
  4. Close the shut-off valve on the bottom of the water tank.
  5. Close the fuel switch.
  6. Wait until the engine has cooled down before storing the machine.

## 17 MAINTENANCE

### WARNING



Hot surfaces and rotating machine parts while the engine is running can cause serious injury or even death. Always stop the machine before carrying out any conversion, adjustment, cleaning or maintenance work and secure it against unintentional restarting.

## Maintenance and Servicing Plan

### 17.1 17.1.1 Table of Measures

Checks and activities to be performed	
Check fuel level	Always before operation
Loose or lost screws and nuts	Always before operation
Damage of any machine part	Always before operation
Check for fuel or oil patch/spot under the machine. Check fuel pipe, fuel tank and fuel tank cap for leaks.	Always before operation
Check motor oil level / fill-up if necessary	Always before operation
Belt tension	Always before operation
Belt condition	Always before operation
Clean air filter	every 100 working hour/ monthly
Check spark plug/ event. clean	every 50 working hour/ weekly
<b>17.2</b> CHANGE motor oil (SAE 10W40 or similar)	20 working hours after 1st operation /every 200 working hours

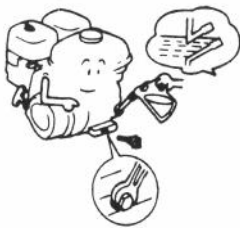
*The specified intervals refer to working under "normal" operating conditions. Depending on the load, a change/exchange may also be necessary at an earlier point in time.*

## Changing the engine oil

### NOTICE

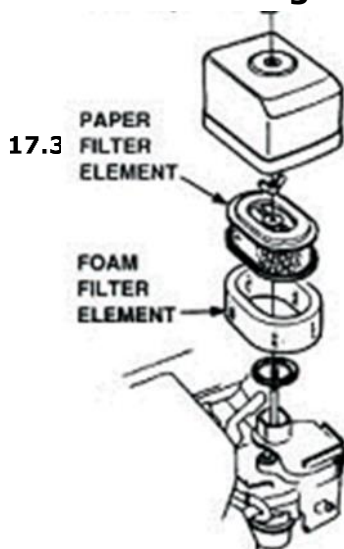


**Waste oils are toxic and must not be released into the environment!** Contact your local authorities for information on proper disposal.



1. Loosen oil drain plug on the rear of the engine.
  2. Open oil tank cap . Collect the draining oil in a collecting container and dispose of it properly!
  3. Tighten oil drain plug again after emptying.
  4. Top up with fresh oil via the filling opening (K) (see section Checking the engine oil level).
- Only use high-quality engine oil, e.g. SAE30, 15W40 or similar!

### Cleaning the air filter



A contaminated air filter can contribute to problems starting the machine, loss of performance during operation and shorten engine life. Zipper Machines does not accept any liability for engine damage caused by failure to clean the air filter regularly.

To clean the air filter, first loosen the wing nut on the air filter housing, remove the cover (foam filter element) and remove the air filter cassette (paper filter element). Clean both elements mechanically with a soft brush.

If only the air filter cassette is to be cleaned, blow a dry jet of compressed air from the inside against the filter until all dust has been removed.

An air filter change is necessary when:

- The engine power drops and the fuel consumption increases at the same time.
- the oil consumption increases
- the starting of the engine becomes more difficult

17.4

### Cleaning the spark plug

1. Pull out the spark plug cap and remove impurities from the outside of the spark plug.
2. Unscrew the spark plug using the spark plug wrench.
3. Check the ceramic insulation, clean the electrodes (metal tips) and check the distance between the contacts. It should be 0.7 to 0.8 mm.
4. Reinstall the cleaned (or replaced) spark plug and replace the spark plug cap.

## 18 TRANSPORT

18.1

### WARNING



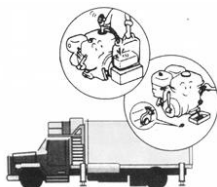
Never lift or transport the machine with the engine running!

### Lifting and transporting with separate devices

### NOTICE



There are two persons required to lift and park the machine on another transporting devices.  
- one person to operate the hoist and one person to keep the machine in balance.



Dismount the throttle on the handle. Drain fuel, engine oil and transmission oil. Then pack the machine into the packing box, lift it onto the transport trolley with forklift trucks, then fix it in place to avoid displacement and machine damage.



## 19 STORAGE

If the machine is not used for a longer period of time (>30 days):

1. Empty the oil tanks or fuel tank.
2. Remove the spark plug and pour a few drops of engine oil into the cylinder. Using a rope starter, turn the engine a few times so that the oil is well distributed inside the cylinder. Clean the spark plug and replace it.
3. Cover the cooled machine and store it out of the reach of children and unauthorised persons in a well-ventilated, dry and frost-free environment.

## 20 RECYCLING



Do not dispose of your machine in residual waste. Contact your local authorities for information on available disposal options. If you buy a new vibratory plate or equivalent from your dealer, he is obliged in certain countries to dispose of your old machine properly.

## 21 TROUBLESHOOTING

### WARNING



Hot surfaces and rotating machine parts while the engine is running can cause serious injury or even death. Always stop the machine before carrying out troubleshooting work and secure it against unintentional restarting.

Failure	Possible root-cause / measure
<b>If the engine does not want to start:</b>	<ul style="list-style-type: none"><li>▪ Check the ON/OFF switch if it is „ON“</li><li>▪ Check the fuel cock if on</li><li>▪ Check for fuel, check the fuel pipe for leaks</li><li>▪ Cold start / warm start difference</li><li>▪ Spark plug</li><li>▪ Carburetor or air filter polluted.</li></ul>
<b>When the engine stops:</b>	<ul style="list-style-type: none"><li>▪ Check fuel supply chain.</li><li>▪ Check motor oil level.</li><li>▪ Check air filter.</li></ul>
<b>When engine output drops:</b>	<ul style="list-style-type: none"><li>▪ Check the air filter.</li></ul>
<b>Diamond cutting disc vibrates</b>	<ul style="list-style-type: none"><li>• Nut/flange not tightened/ set cor-rectly → tighten</li><li>• Nut flange is dirty → clean and tighten</li><li>• Cutting disc not mounted correctly → check</li></ul>
<b>Diamond cutting disc does not cut</b>	<ul style="list-style-type: none"><li>• Cutter disc is dull → renew</li><li>• Wrong cutter disc → choose suitable one</li></ul>