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# Introduction

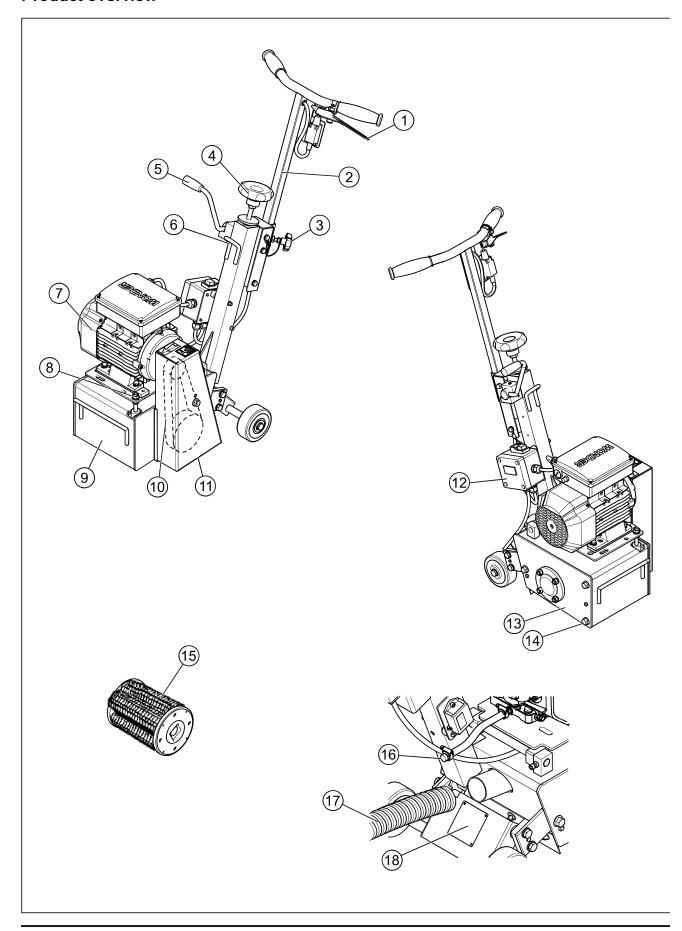
# **Product description**

To be used on concrete, asphalt, paint and other coatings, glue and steel, and should not be used for any other purpose than described in this manual.

## Intended use

For scarifying, milling grooving, texturing, and cleaning.

# Product overview



- 1. Safety lever (operator presence control)
- 2. Steering shaft
- 3. Shaft adjustment knob
- 4. Depth adjustment knob (mm)
- 5. Quick raise/lower lever
- 6. Lifting eye
- 7. Engine / Motor
- 8. Belt tensioner
- 9. Chassis
- 10. Transmission
- 11. Belt guard
- 12. On / off switch
- 13. Drum guard plate
- 14. Drum guard fasteners
- 15. 200 mm wide drum
- 16. Drain extension
- 17. Dust extractor hose
- 18. Type plate

## Symbols on the product



WARNING! The product can be a dangerous tool if used incorrectly or carelessly, which can cause serious or fatal injury to the operator or others.



Please read the instructions for use prior to operating the product for the first time.



This symbol indicates that the product is in conformance with the applicable European directive.



Wear personal protective equipment. See *Personal protective equipment on page 7* for instructions.



Noise emission to the environment according to the European Community's Directive. The product's emission is specified in the Technical data chapter and on the label.



Hot surface.



WARNING! Dust forms when cutting, this can cause injuries if inhaled. Use an approved breathing mask. Avoid inhaling exhaust fumes. Always provide for good ventilation.



Caution, risk of cutting.



Low speed.



High speed.



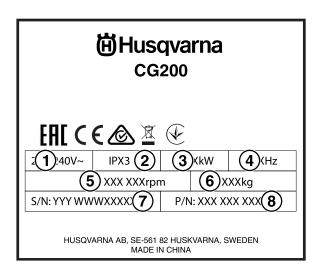
Choke control.



Environmental marking. Symbols on the product or its packaging indicate that this product cannot be handled as domestic waste. It must instead be submitted to an appropriate recycling station for the recovery of electrical and electronic equipment. By ensuring that this product is taken care of correctly, you can help to counteract the potential negative impact on the environment and people that can otherwise result through the incorrect waste management of this product. For more detailed information about recycling this product, contact your municipality, your domestic waste service or the shop from where you purchased the product.

Other symbols/decals on the product refer to special certification requirements for certain markets.

### Type plate



- 1. Voltage power supply
- 2. Water proof
- 3. Nominal engine output
- 4. Frequency
- 5. Rotations per minute
- 6. Gross vehicle weight
- 7. Manufacturing date, year, week, serial number
- 8. Product number

## **Product liability**

Before leaving our factory every product passes an exacting inspection programme in which everything is checked minutely. Following the instructions will ensure that your product gives long service, in normal operating conditions.

The manufacturer declines all responsibility for loss or damage resulting from misuse or any modification, alteration or powering that does not conform to the manufacturer's original specifications.

The user advice and spare parts mentioned in this document are given as an indication, and do not constitute an undertaking. No warrantee will be granted in the event of errors or omissions, or for damage occurring during delivery, or caused by the design or use of the product. We are very concerned about the quality of our products and we reserve the right to make any technical modifications to improve them, without warning.

# Safety

# Safety definitions

Warnings, cautions and notes are used to point out specially important parts of the operator's manual.



**WARNING:** Used if there is a risk of injury or death for the operator or bystanders if the instructions in the manual are not obeyed.



**CAUTION:** Used if there is a risk of damage to the product, other materials or the adjacent area if the instructions in the manual are not obeyed.

**Note:** Used to give more information that is necessary in a given situation.

## General safety instructions



**WARNING:** Please read the operator's manual carefully and make sure you understand the instructions before using the product.



**WARNING:** Please read the engine operation manual that is supplied with the engine and make sure you understand the instructions before using the product.

The product is designed to provide safe and reliable service in operating conditions corresponding with the instructions, but it can present dangers for the user and risks of damage, consequently regular on site inspection is necessary to ensure:

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- Perfect technical condition (use for the purpose for which it is intended and taking into account any risks, and correction of any malfunction detrimental to safety).
- That the warnings and instructions marked on the product are followed (adequate personal protection, correct use, general safety instructions, etc).
- The product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.
- Children shall be supervised not to play with the appliance.
- That the product is for commercial use.



**WARNING:** Do not allow the supply cord to come in contact with rotating brushes.

**Note:** Operator's manual should always be available at the place of work. It should be read and used by any person installing or using the product. The obligatory technical regulations in force in the country where the product is used must also be adhered to for maximum safety.

### Safety instructions for assembly

The original drums from manufacturers' should be used. Do not use any other drum whose shape, size and mounting do not fit the product.

Check that the parts are properly fixed (no abnormal vibration) and that it is correctly assembled.

No modification, transformation or addition that is detrimental to safety and that it is carried out without prior authorization from the manufacturer should be done.

## Safety instructions for operation



WARNING: This section describes basic safety directions for using the product. This information is never a substitute for professional skills and experience. If you get into a situation where you feel unsafe, stop and seek expert advice. Contact your dealer, service agent or an experienced user. Do not attempt any task that you feel unsure of!



**WARNING:** The toolshaft rotates when the engine is started.



**WARNING:** Be aware of hot muffler. Use gloves/safety gear.

Those who operate this product should be competent staff (qualifications, age, training) who have read and understood the manual in detail before starting work. Any electrical, mechanical or other problem should be investigated by a qualified maintenance engineer (electrician, maintenance manager, approved dealer, etc.).

- When the product is recived check its condition.
- Always keep the product clean.
- Always keep alert when working.

#### Electrical safety

This product should always be operated with the correct electrical supply.



**WARNING:** There is always a risk of shocks from electrically powered products. Avoid unfavourable weather conditions and body contact with lightning conductors and metal objects. Always follow the instructions in the Operator's manual to avoid damage. Never connect the product to a outlet if plug or cord is damaged.



WARNING: Improper connection can result in the risk of electric shock. Contact a qualified electrician if in doubt as to whether the appliance is properly grounded. Do not modify the plug. If it will not fit the outlet have a proper outlet installed by a qualified electrician. Make sure local regulations and ordinances are followed. If the grounding instructions are not fully understood contact a qualified electrician.

- Check regularly that the engine is serviced (fuel engine), the state of the supply cable and extension cable (for electric motor).
- Check the mains voltage. See Equipment technical data on page 13.
- Check that the motor is connected to electric cable with conductors of 4 mm<sup>2</sup> section for lengths less than 100 m. Above this length, double the section.



**WARNING:** Never use damaged cables. They can cause serious, even fatal, personal injuries.



**CAUTION:** Good motor performance depends on proper voltage. Extension cables that are too long and/or which have a gage that is too small, reduce power to the motor under load.

### Personal protective equipment



**WARNING:** You must use approved personal protective equipment whenever you use the product. Personal protective equipment cannot eliminate the risk of injury but it will reduce the degree of injury if an accident does happen. Ask your dealer for help in choosing the right equipment.



WARNING: The use of products such as cutters, grinders, drills, that sand or form material can generate dust and vapors which may contain hazardous chemicals. Check the nature of the material you intend to process and use an appropriate breathing mask. Long-term exposure to noise can result in permanent hearing impairment. Always use approved hearing protection. Listen for warning signals or shouts when you are wearing hearing protection. Always remove your hearing protection as soon as the engine stops.

#### Always wear:

- Approved protective helmet.
- · Hearing protection.
- Approved eye protection. If you use a face shield then you must also wear approved protective googles.
- · Breathing mask.
- Heavy-duty, firm grip gloves.
- Tight-fitting, heavy-duty and comfortable clothing that permits full freedom of movement.
- · Boots with steel toe-caps and non-slip sole.
- · Always have a first aid kit nearby.

#### Fuel safety

The level of the fuel and oil need be checked regularly. Consult the engine manufacturer manual if necessary.



**WARNING:** Take into account the working conditions from health and safety point of wiew.



**WARNING:** Running an engine in a confined or badly ventilated area can result in death due to asphyxiation or carbon monoxide poisoning. Use fans to ensure proper air circulation when working in trenches or ditches deeper the one meter (3 foot).



WARNING: Fuel and fuel fumes are highly flammable and can cause serious injury when inhaled or allowed to come in contact with the skin. For this reason observe caution when handling fuel and make sure there is adequate ventilation. The exhaust fumes from the engine are hot and may contain sparks which can start a fire. Never start the product indoors or near combustible material!



**WARNING:** Do not smoke and do not place any hot objects in the vicinity of fuel.

## Safety instructions for maintenance



**WARNING:** Inspection and/or maintenance should be carried out with the motor switched off and the plug disconnected.



**CAUTION:** Drum inspection is carried out through the side plate. Product tilted backwards rested on the handlebar leads to damaging oil leakage.

We recommend that the respect of the maintenance intervals and periodical checks should be obey and implemented and only genuine spare parts be used for repairs and maintenance.

# **Assembly**

#### General



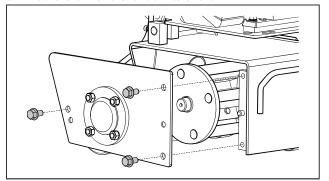
**WARNING:** The product should be switched off with the power cable disconnected from the outlet.

## To interchange the drums

- 1. Unscrew the three screws.
- 2. Remove the side plate.

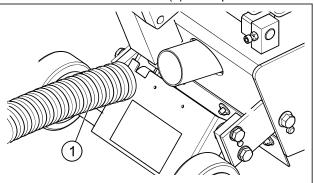
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3. Fit the drum and slid it on its shaft.



### To connect the dust extractor

Always use a vacuum cleaner to minimize dust. Make sure that the filters in the vacuum cleaner are intact and clean. Pay attention to dust during operation. 1. Connect the dust extractor (1) to the product.



# Operation

#### Introduction



**WARNING:** Please read the operator's manual carefully and make sure you understand the instructions before using the product.



**WARNING:** Wear personal protective equipment. See *Personal protective* equipment on page 7 for instructions.



**WARNING:** Make sure no unauthorised persons are in the working area, otherwise there is a risk of serious personal injury.



**WARNING:** Check that the product is assembled correctly and do not show any signs of damage.



**CAUTION:** The equipment fulfills the requirements in EN61000-3-11 and is subject for conditional connection to the mains. It may be connected in consultation with the supply authority. The equipment will only be connected to the mains supply with impedance lower than 0,26 ohm. The system impedance at the interface point may be obtained from the supply authority.

If the mains supply has higher system impedance, short voltage dips may appear when the equipment is started. This may influence the operation of other products, e.g flickering lights.

## To start up

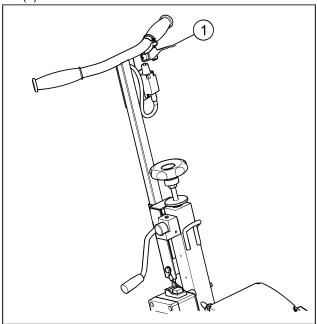


**CAUTION:** The operator position is behind the product keeping both hands on the handles. Maintain a safe distance to the rotating tool. Make sure that no pipes or electrical cables are routed in the working area or in the material to be cut. Do not leave the product unattended while the engine is running.

**Note:** When the product is engaged it will move forward uncontrolled due to the activated drum.

1. To start the product, grasp the operator presence control handle on the steering shaft.

The motor stops if operator presence control handle
 is released.



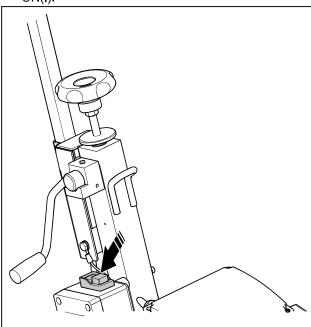
3. Check regularly that it operates correctly. Do not lock it in position.

#### To start the fuel product

- 1. To start the motor, see the motor manufacturer manual.
- 2. Let the motor warm up.

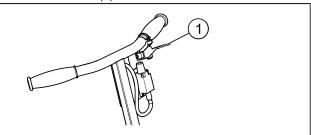
#### To start the electric product

1. To start the product, push the motor start switch to ON(I).



### To stop the product

1. To stop the product, release the operator presence control handle (1).



## To choose a cutting head

Different cutting heads can be applied to different situations. There are mainly three cutting heads you can choose to use, the star cutting head, the beam cutting head, and the carbide cutting head.

- Use the star cutting head to clean or remove the epoxy paint, oil and glazes, glue, thermo plastic road marking.
- The beam cutting head can be used for light preparation of asphalt and concrete, for cleaning out antiskid grooving such as on ramps, for descaling steel and the cleaning of roads ready for line marking.
- Use the carbide cutting head to texture the asphalt and concrete.

#### To mill the concrete

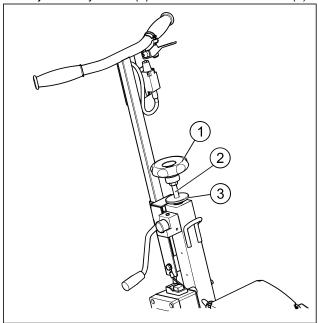
**Note:** Cutting depth is maximum 3 mm (1/8"), for deeper cuts make several passes.

- 1. Pass the product over several times according to the nature of the concrete.
- Check the concrete and stop milling if the desired result is obtained.

## To adjust the cutting depth

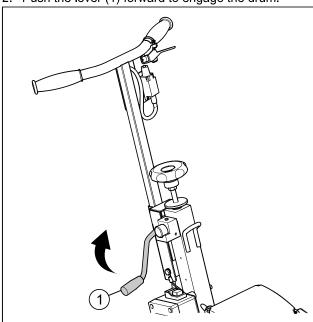
The cutting depth can be adjusted depending on the need.

1. Adjust the fly-wheel (1) that will act on the screw (2).



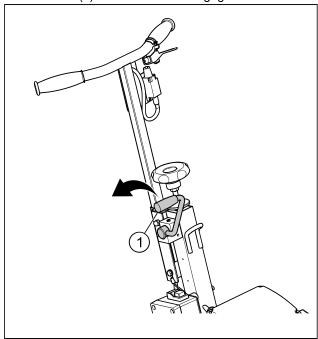
2. Turn the nut (3) to lock the screw and secure the cutting depth.

#### 2. Push the lever (1) forward to engage the drum.



## To disengage and engage the drum

1. Pull lever (1) backwards to disengage the drum.



# Maintenance

## Introduction



**WARNING:** Disconnect the product from the power supply before you do maintenance.



**CAUTION:** Maintain the tools carefully.

# To check before operation

1. Check the engine oil.

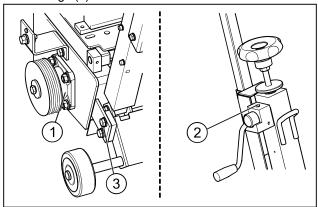
2. Carry out a general inspection checking that no nuts or bolts are loose.

## To check after operation.

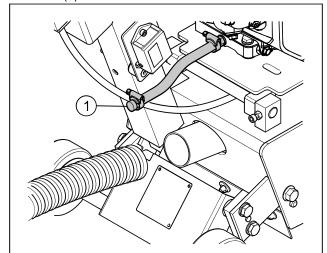


**CAUTION:** Dispose of the old oil as laid down by the regulations in force.

- 1. Clean the product.
- 2. Lubricate the grease nipples on the wheelbase (1), depth adjustment bearing (2) and on the roller bearings (3).



- 3. See the engine manual for motor oil replacement .
- 4. To drain the engine oil, place a funnel at the drain outlet (1).

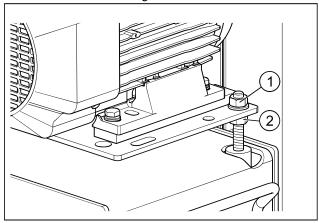


### To check the belt tension



**WARNING:** Never set belts beyond original tension.

- 1. Check the belt tension weekly.
- 2. Tight the lock nut (1) and nut (2) to set the belt tension. Do not overtighten.



# Troubleshooting

# **Equipment troubleshooting**



**WARNING:** Inspection and/or maintenance should be carried out with the motor switched off and the plug disconnected.

In the event of faulty operation refer to the tables below to find a solution.

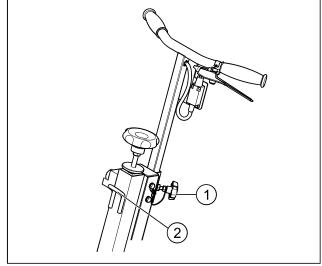
PROBLEMS	CAUSES	REMEDIES	
Motor or drum does not rotate	Not plugged in properly or cable damaged	Make sure that the supply is correctly plugged in (plug, extension lead, etc). Check the supply cable.	
	No main voltage	Test or have tested by an electrician (circuit breaker, plug, etc).	
	Switch defective, motor cable damaged	Have tested by an electrician or contact the service department.	
	Motor faulty (no power, unpleas- ant smell)	Contact the service department to have the motor replaced.	
	Does not start (petrol engine)	Refer to engine service instructions or contact after sales service if the engine stopped or find the spark plug faulty or loose.	
	Belt broken	Contact the parts department for a replacement.	
	Drum stuck	Ensure the product is disconnected from the power.	
		Check that the drum rotates, remove whatever prevents the rotation.	
Difficult to start	Drum rubs against ground	Free the drum to make it easier to start.	
	Motor start capacitor	Replace the capacitor.	
Ineffective operation with jerks and considerable vibration	Drum position too low	Check the drum (mills) fixture. Change the drum or the cutters, brush, and so on.	
	Tools worn out		
	Groove or mill makes abnormal vibration	Check the rotation of the cutters on the four shafts. Change the drum or the cutters.	
	Abnormal cutter wear		

# Transportation, storage and disposal

# Transportation

Consider the following points when transporting the product.

• The height of the steering shaft can be adjusted by rotating the knob (1).



 Upon installation at the work site, the product can be moved without running the engine simply by pushing it along on its three wheels.

A lifting eye (2) enables the lifting of the product.

### Storage



**WARNING:** Store in a dry place in an upright position, not accessible to children.

accordance with the requirements of the legislation in force

- Motor : Aluminium (AL), Steel (AC), Copper (CU), Polyamide (PA)
- Product : Steel sheet (AC), Cast iron (FT), Aluminium (AL)

## Disposal

In the event of deterioration and scrapping of the product, the following items must be disposed of in

## **Technical data**

## Equipment technical data

CG 200	Electric	Gasoline 5hp	Gasoline 9hp		
Cutting depth, max, mm	13	13	13		
Useful working width, mm	200	200	200		
Rated Voltage (V)	220-240	N/A	N/A		
Weight (no fuel, no oil excluding tools) kg	58	54	64		
Dimensions (L x W x H), mm	780 x 475 x 730	780 × 470 × 730	840 x 530 x 730		
Drum rotation speed (maximum off load), rpm	1350	1350	1350		
Oil geaerbox drive motor, Quality/Standard	See motor manu- facturer manual	See motor manu- facturer manual	See motor manu- facturer manual		
Noise emissions <sup>1</sup>					
Sound power level, measured dB(A)	112	113	114		
Sound power level, guaranteed L <sub>WA</sub> dB(A)	114	114	116		
Sound levels <sup>2</sup>					
Sound pressure level at the operators ear, dB(A)	101	100,1	101,3		
Vibration levels, a <sub>hv</sub> <sup>3</sup>					
Handle rigm/s <sup>2</sup>	6,6	12,8	10,1		
Handle left, m/s <sup>2</sup>	4,4	11,0	9,8		

<sup>&</sup>lt;sup>1</sup> Note 1: Noise emissions in the environment measured as sound power (L<sub>WA</sub>) according to EN 60335-2-72.

<sup>&</sup>lt;sup>2</sup> Note 2:Sound pressure level according to EN 60335-2-72. Expected measurement uncertainty 1.5 dB(A).

Note 3: Vibration level according to EN 60335-2-72. Reported data for vibration level has a typical statistical dispersion (standard deviation) of 1,5 m/s².

## Service

#### Product service



**CAUTION:** All types of repairs may only be carried out by authorised repairmen.

For quick supply of spare parts and to avoid any lost time it is essential to quote the data on the manufacturer's plate fixed to the product and the part number of the part to be replaced with every order.

# **EC Declaration of Conformity**

## EC Declaration of Conformity - Gasoline

Husqvarna AB, SE-561 82 Husqvarna, Sweden, tel: +46- 36-146500, declares under sole responsibility that the scarifier Husqvarna CG 200 (fuel version) dating from 2010 serial numbers and onwards (the year is clearly stated on the rating plate, followed by the serial number), complies with the requirements of the COUNCIL'S DIRECTIVE:

#### Gasoline

- of May 17, 2006 "relating to machinery" 2006/42/EC
- of February 26, 2014 "relating to electromagnetic compatibility" 2014/30/EU
- of May 8, 2000 "relating to the noise emissions in the environment" 2000/14/EC.

The following standards have been applied: EN ISO 12100:2010, CISPR 12:2007 + A1:2009, EN 50012:2008 + A1:2009, 60335-2-72:2012, EN ISO 14982:2009.

Huskvarna September 11, 2017

Joakim Ed

Global R & D Director

Construction Equipment Husqvarna AB

Joalni Cet

(Authorized representative for Husqvarna AB and responsible for technical documentation).

## EC Declaration of Conformity - Electric

Husqvarna AB, SE-561 82 Husqvarna, Sweden, tel: +46- 36-146500, declares under sole responsibility that the scarifier Husqvarna CG 200 (electric version) dating from 2010 serial numbers and onwards (the year is clearly stated on the rating plate, followed by the serial number), complies with the requirements of the COUNCIL'S DIRECTIVE:

**Electric** 

- of May 17, 2006 "relating to machinery" 2006/42/EC
- of February 26, 2014 "relating to electromagnetic compatibility" 2014/30/EU
- of February 26, 2014 "relating to electrical equipment designed for use within certain voltage limits" 2014/35/EU
- of June 8, 2011 on the "restriction of use of certain hazardous substances" 2011/65/EU
- of May 8, 2000 "relating to the noise emissions in the environment" 2000/14/EC.

The following standards have been applied: EN ISO 12100:2010, EN 55014-1:2007 + A1:2009 + A2:2011, EN 55014-2:2015, EN 61000-3-2:2014, 61000-3-11:2014, 60335-1:2012, 60335-2-72:2012.

Huskvarna September 11, 2017

Joakim Ed

Global R & D Director

Construction Equipment Husqvarna AB

(Authorized representative for Husqvarna AB and responsible for technical documentation).

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