



# simasa

- Ⓔ MANUAL DE INSTRUCCIONES ORIGINAL
- Ⓖ ORIGINAL USER GUIDE
- Ⓕ MANUEL ORIGINAL D'UTILISATION

## **COBRA 30 PRO**

## **COBRA 35 PRO**

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# "CE" CONFORMITY DECLARATION

## **SIMA, S.A.**

Polígono Industrial Juncaril, C/ Albuñol, Parcela 250 C. P. 18220 Albolote, Granada (ESPAÑA)  
The company responsible for the manufacturing and set up of the following machine:

### **EXPANSION JOINT FLOOR SAW**

#### **DECLARATION:**

That the aforementioned machine, for use in cutting expansion joints on concrete, asphalt and other road surfaces, complies with all applicable CE directives (Directive **2006/42/CE**) and the corresponding Spanish laws..

The machine also complies with the following EU directives **2000/14/CE; 2002/44/CE; 2002/95/CE; 2002/96/CE**

The machine also complies with the following directives  
UNE-EN 292-1; UNE-EN 292-2; UNE-EN 294; UNE-EN 349; UNE-EN 500-1;  
UNE-EN 13862:2002+A1=2009  
UNE-EN 1050; UNE-EN 953

#### **The licensed engineer responsible for the development of the machine**

Eugenio Fernández Martín  
**Technical Supervisor**

SIMA S.A.  
Polígono Industrial Juncaril, C/ Albuñol, Parcela 250 - 18220 Albolote, Granada (ESPAÑA)

Albolote 26.09.2012



signed: Javier García Marina

**Managing Director**

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## 1. GENERAL INFORMATION.

### **IMPORTANT: READ AND UNDERSTAND THIS SET OF INSTRUCTIONS BEFORE ATTEMPTING TO OPERATE THE MACHINE**

SIMA S.A. thanks you for purchasing the COBRA floor saw.

This instruction manual gives you all necessary information to; get the machine started, use the machine, maintain the machine, and if required, repair the machine. It also highlights the safety implications on the operator in each of the aforementioned processes. If instructions are followed then operation will be safe and the machine will require little maintenance.

For these reasons, it is obligatory for any operator or repairer of this machinery to read the instruction manual.

**It is advisable to keep this instruction manual near to where the machine is being operated for easy reference.**

## 2. GENERAL DESCRIPTION OF THE MACHINE

- Expansion joint floor saws are designed and manufactured for making cuts on horizontal surfaces of asphalt, concrete, tiling and similar surfaces using high speed diamond blades, the COBRA floor saws are of the walk-behind variety and as such should be pushed by the operator to make cuts in the floor surface. The blade is cooled by water drawn from the tank; the machine can also be connected to mains water.

**Any use of this machine for other purposes could be dangerous and is therefore prohibited.**

### **The machine incorporates;**

- Handle operated pitch control and shock absorbers with lock feature.
- Water tank, with option to connect cooling system to mains water.
- Emergency stop on the motor.
- Flexible rubber tires and aluminium rims with double pillow block bearings.
- Fitted with a blade guard and water cooling system.
- Cooling system has a socket that allows it to use mains water.
- The machine is powered by a combustion motor which can be accelerated by a lever on the engine.
- The chassis is painted with a resistant epoxy polyester paint which makes the machine resistant to rust.
- Machine is fitted with antisplash screen to avoid water from the cooling system being sprayed onto the rear axle.
- Fitted with a guide line to indicate the cutting direction.
- Flexible pulley and belt system, all transmission is fully protected to avoid damage caused by dust water.
- The chassis has elevation holes to aid in loading / transporting the machine.
- The push handle is adjustable for the comfort of the operator.

## 2.1 PICTOGRAMS.

The pictograms on the machine have the following meaning:



IT IS ESSENTIAL TO READ THE INSTRUCTION MANUAL.  
THE USE OF HARD HAT, SAFETY GOGGLES AND AUDIO PROTECTION IS ESSENTIAL.  
THE USE OF GLOVES IS ESSENTIAL.  
SAFETY SHOES MUST BE WORN.



DANGER, CUTTING AREA.  
NO ACCESS FOR ANYONE NOT WORKING ON THE JOBSITE.  
NO ACCESS FOR UNAUTHORIZED PEOPLE.



ELEVATION ZONE FOR THE MACHINE.



NOISE LEVEL GENERATED BY THE MACHINE.



DANGER ENTRAPMENT

## 3. TRANSPORTATION

When it comes to moving the machine over flat surfaces the COBRA floor saw can be manually pushed on its own wheels having elevated the machine to its highest non cutting position.

For transport that requires the machine to be elevated the machine has a hook eye at the top of the machine for safe lifting. The weight and dimensions of the machine allow for it to be transported on a light loader.



**DANGER:** Use only lifting chains that can cope with the weight of the machine (see specification sticker on the machine). The machine must be lowered slowly so as not to damage any of the components. The machine should only be elevated from the lifting ring indicated on the picture.

## 4. SETUP INSTRUCTIONS

### 4.1 HOW THE MACHINE ARRIVES TO YOU

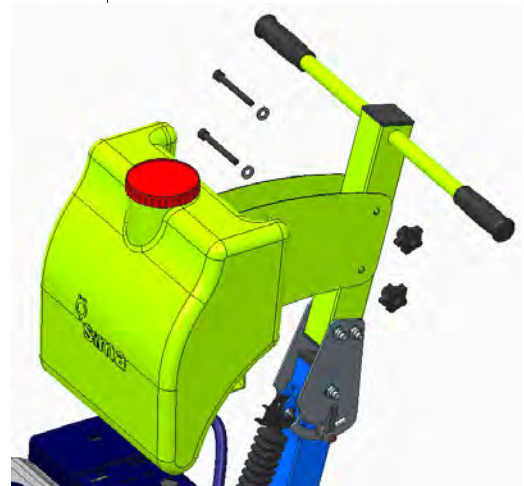
On opening up the packaging you will find the following:

- Body of the machine with the handle unfitted.
- The handle.
- cooling tank
- Bag containing documentation and instruction manuals.



### 4.2 MOUNTING TANK.

Given the ease of fitting and the advantage of reducing packing dimensions the Tank is delivered unfitted. To assemble, place and secure it with the supplied screws.

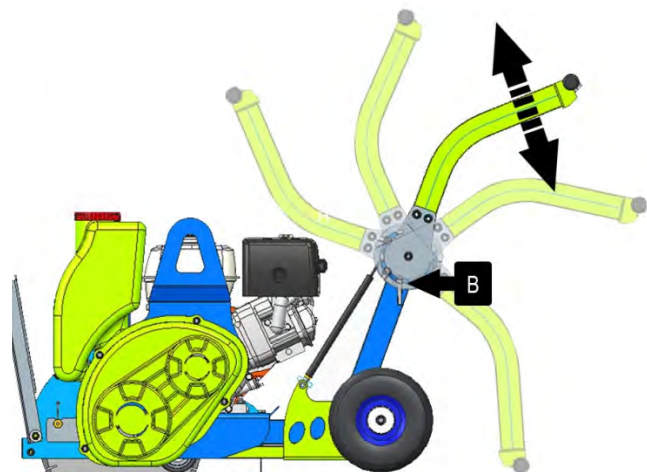
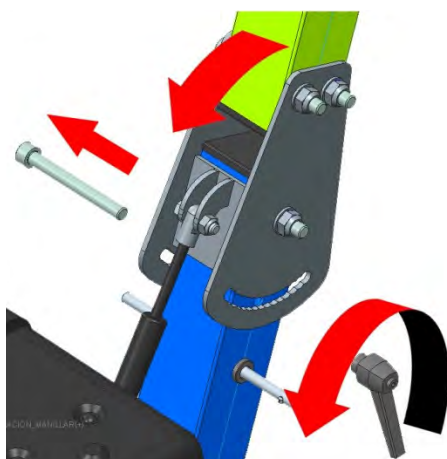


### 4.3 ADJUSTING THE HEIGHT OF OF THE PUSH HANDLE.

Once the handle is correctly installed the height can be adjusted to the comfort of the user.

#### CHANGING THE HEIGHT OF THE PUSH HANDLE

1. Loosen the quick release handle.
2. Remove the screw.
3. Change the position of the handle and reinsert the screw.
4. Tighten the quick release handle.



#### 4.4 RAISING/ LOWERING TO CUT.

The machine raises and lowers using a gas shock absorber. This is activated by the lever located on the handle bar.

##### RAISING THE MACHINE UP

1. Press the lever down all the way with your thumb.
2. Press the handle bar down at the same time to raise the cutting head.
3. When the desired height is reached release the shock absorber lever and stop pushing down on the handle bar..



##### LOWERING TO CUT.

1. Press the lever gently with your thumb to gauge the downward movement of the machine. Once the lever is fully depressed you should assume the weight of the machine and guide it down smoothly so that the machine is not 'dropped' and damaged.
2. To stop the raising and/or lowering process release the shock absorber lever.



**ADVISE: Practice this a few times before you try to use the machine with a blade.**



**IMPORTANT: When a blade is mounted the lowering of the machine should be very smooth until the blade contacts with the surface, once the blade is cutting the machine can be lowered as normal.**

#### 4.5 FITTING THE BLADE

You will always get better results by using the most appropriate blade for the surface you are cutting. The blades are cooled by water. The cooling system guarantees the correct flow for the cooling of the disc.

##### Installing the blade.

1. Please remove blade protection.
2. Lose the screw that holds the blade protection in place. **The nut loosens in the same direction as the movement of the blade.**
3. Remove the screw and the exterior flange and fit the blade against the inside flange.
4. Reassemble the exterior flange and the security device in order to avoid any skid.
5. Fit the screw with both supply keys.
6. Replace disc protector in its place and tighten the screws.



**• The screw loosens in the same direction as the direction of the blade.**

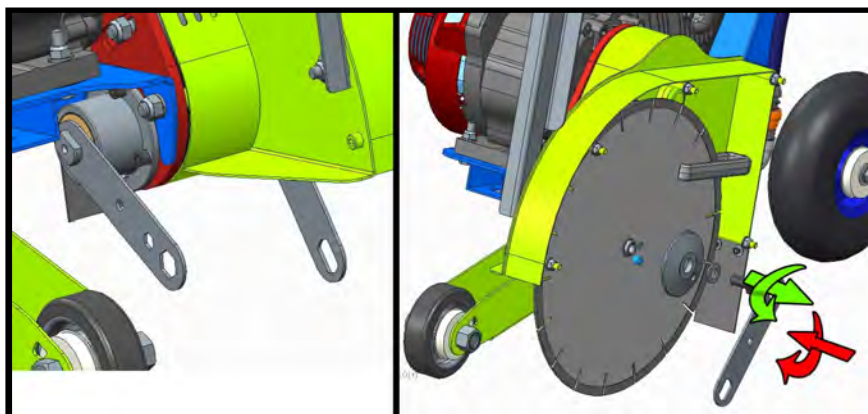


**• Never start or use the machine without the blade protector fitted.**

**• Make sure that the blade cutting direction is correct. Match the arrow on the blade and the arrow on the blade protector and make sure they are pointing the same way.**



**• Make sure that the blade is flush on the flange before tightening the screw.**





## 4.6 ADJUSTING THE REAR AXLE

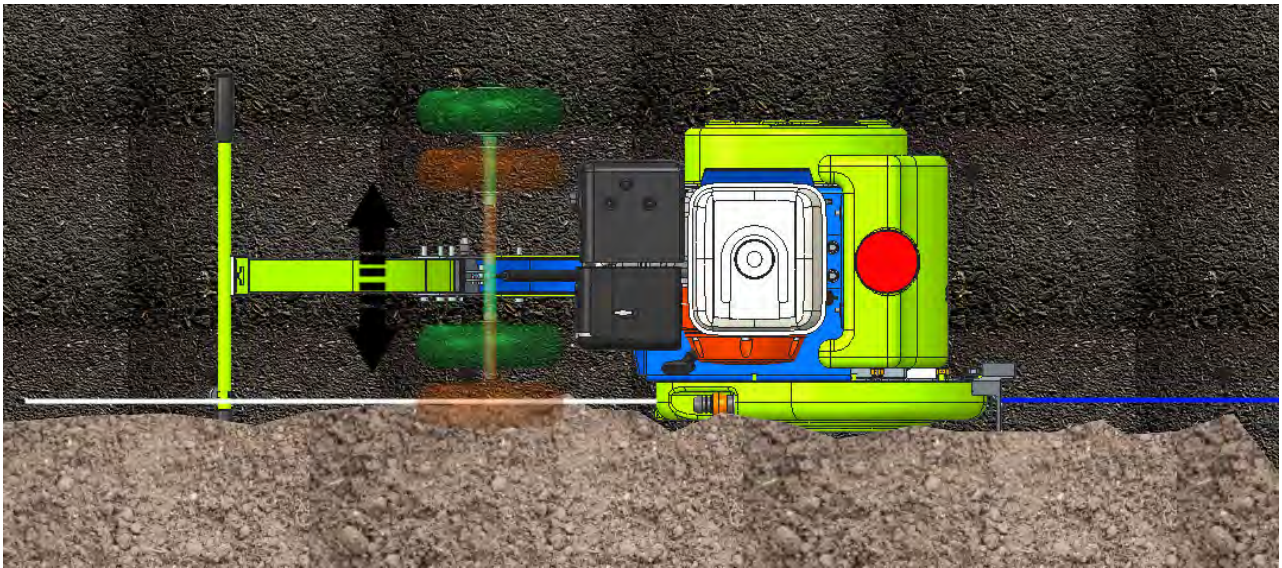
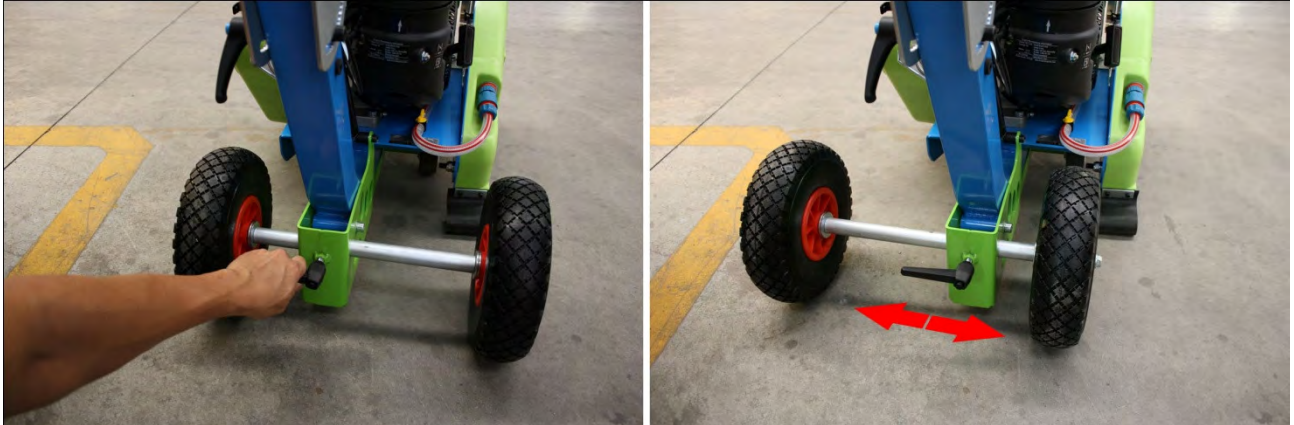
The rear axle can be moved left and right., This is to allow the machine to avoid obstacles in the road while maintaining a straight cut.

### How to change the position of the axle.

1. Loosen the quick release handle.
2. Move the axle left and right and then retighten the handle when the axle is in place.



**Only position the axle in a manner that ensures the stability of the machine**



## 5. SAFETY RECCOMENDATIONS FOR THE ENGINE

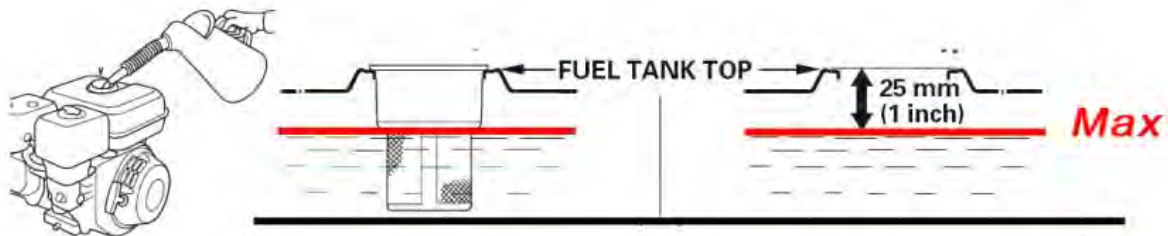
- Fill the petrol tank in a well-ventilated place and do not overfill.
- Avoid inhaling any fumes as you fill the tank.
- Avoid spilling fuel as it can be dangerous and flammable.
- Do not smoke while filling the tank. Store fuel away from naked flames.
- If petrol is spilt, clean it up and allow the fumes to evaporate before starting the motor..
- Don't put any flammable material on the engine.
- Avoid contact between petrol and skin.
- Do not permit anyone to use the engine without the instruction manual nearby.
- Do not touch the engine when it is hot. It could cause burns to the skin.
- Do not let children or animals near the engine.
- Keep petrol out of the reach of children.
- Do not fill the tank or smoke while the machine is in operation.



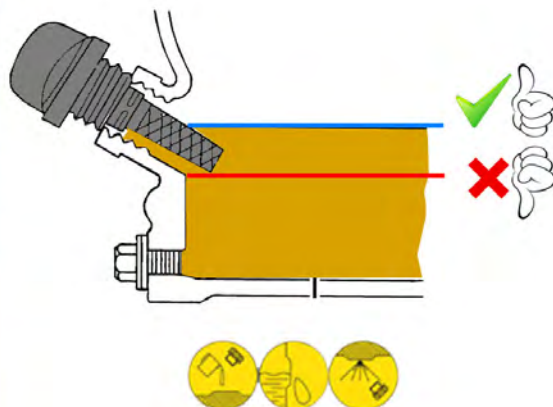
**WARNING:** All guidelines in this manual must be adhered to as well as local health and safety guidelines



**The motors are supplied with oil but without fuel.**



Before starting the engine , check the oil level using the dipstick while the machine is on flat ground, if necessary fill the engine with the appropriate oil.



## 6. INSTRUCTIONS FOR STARTING UP THE MACHINE.

### 6.1 WATER TANK.

The COBRA expansion joint saw has a water tank cooling system that cools the blade while the machine is in use. While filling the tank close the valve.



### 6.2 OPTIONAL ADD-ON TANK.

Optional extra water tank can be supply.

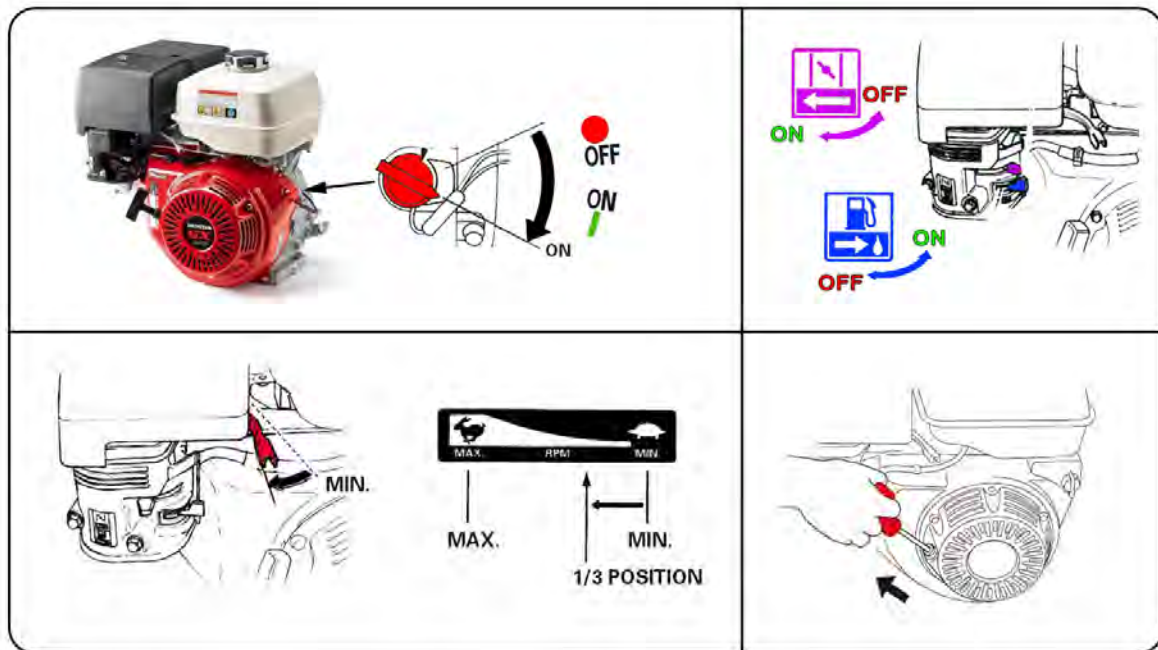


## 6.3 USING THE MACHINE CONNECTING/DISCONNECTING.

### Starting the engine:

- Manoeuvre the machine so that the blade is a few centimeters from the floor surface.
  - Turn the engine switch to **ON**
  - Open the fuel valve.
  - Open the choke. (Not necessary if the engine is warm or conditions are hot)
  - Put the gas lever in the slight acceleration position.
  - Start the engine by pulling the starter cord.
  - Let the engine warm up and then close the choke adjust the gas lever depending on the revolutions required for each project.
- To stop the motor turn the motor switch to the off position.
  - Close the fuel feed

For more details on operating the motor please refer to your instruction manual.



## 6.4 MAKING A CUT.

### Starting the motor:

1. Start the engine with the blade elevated above the cutting surface.
2. Position the machine in the direction you wish to cut, drop the metal cut guide.
3. Before you start cutting open the water valve, The blade should receive the correct amount of water to be able to cool the blade down. A badly cooled blade will not last as long.
4. With the motor at maximum throttle, lower the machine until the blade achieves the desired cutting depth. Push the machine forward slightly as you are doing this so that the initial cut is not exaggerated
5. Once the correct cutting depth is achieved, push the machine along the predetermined cutting line. The speed of cut should not exceed the limitations of the blade based on depth of cut and the material being cut. If the blade is trying to rise out of the groove it is due to excessive force.



**Don't try to correct cutting mistakes by forcing the machine as this will result in damaging the blade .**



**To stop the machine raise the blade up a few centimeters above the ground. Never stop the engine while the blade is cutting.**



**If for any reason the machine is stopped while the blade is cutting, never try to start the machine again while the blade is cutting. The blade should always be out of the ground when cutting.**



**This machine shouldn't be used in the rain or the dark.**

## 6.5 SAFETY RECCOMENDATIONS.

- The machine should only be used by experienced operators.
- Before using the machine read the safety instructions and make sure you comply with all safety regulations.
- Make sure that the machine you will use is in good working order.
- Don't start the machine unless all the Green guards are in place.
- It is advisable to use safety goggles, protective boots and hearing protection. Always use safety equipment that meets official standards..
- Only site employees to use the machine.
- Work clothing should not be loose as loose parts can get caught in the moving parts of the machine.
- When moving the machine always do so with the engine off.
- Before starting the engine make sure the blade isn't touching the surface.
- Use the machine only in well ventilated areas as the machines gives off toxic gases.
- Do not touch the engine exhaust when the engine is on as it is very hot, even for a good few minutes after use.
- Please also consider the safety procedures in the motors manual.
- Don't use a pressure hose to clean the machine.
- At the end of the days use make sure the engine is completely switched off.



**SIMA S.A. is not responsible for inappropriate use of this machine**

## 7. MAINTENANCE.

Maintenance should be carried out by technicians that are experience in these types of machines.

- Any engine maintenance should be carried out while the engine is off and cool.
- The technician should bear in mind the safety measures in this manual as well as the guidelines in the motor’s manual.
- **Grease the blade axle every 600 hours of use.**
- **Check oil level of the motor, always when the motor is horizontal.**
- Use the oil recommended by the engine manufacturer.
- **For all other maintenance instructions consult the engine manual.**
- Clean the machine when necessary and if the machine starts to underperform have a technician look at it.
- Keep the shock absorber pillion clean.
- Don’t forget to remove all tools used for maintenance on the machine before restarting.
- Cover the machine in waterproof material when not in use.
- All modifications to the machine and use of unofficial spare parts are prohibited. SIMA S.A will not be held responsible for any accidents or incidents caused by modifications made to the machine.

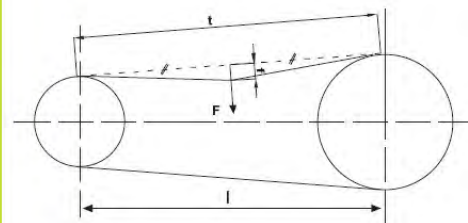
**7.1 TIGHTENING OR CHANGING TRANSMISSION BELTS.**

Poly V Transmission belts are parts that over time can become slack and fall below the permitted standards of tightness. It is necessary to check the tightness of the belts periodically by performing a simple manual test by prodding the belt with your finger to check the tightness, The ‘give’ should be around 8mm. You may check tightness by a vibrometer or for deflexion.

TENSION CONTROL BY VIBRATION METHOD



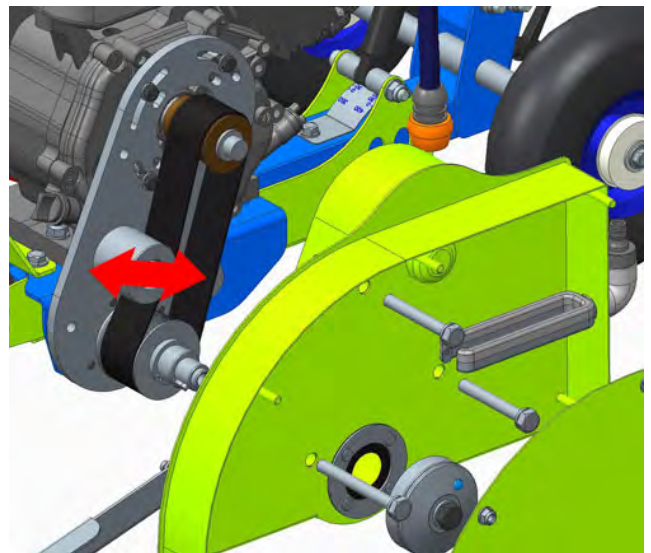
TENSION CONTROL BY DEFLECTION



The belts can also deteriorate through normal use so it may be necessary to change the belt completely

**Procedure to tighten the belt:**

1. Remove the blade guard.
2. Loosen the tension pulley screw.
3. Tighten down as shown in the picture.
4. Tighten the tension pulley screw.
5. Replace the blade guard.



**Changing the belt:**

1. Loosen the tension pulley screw.
2. Move the belt towards the outer rim of the pulley. Turn the transmission while pushing the belt up and over the lip to disconnect it.



**IMPORTANT:** The belts should be checked and tightened after a full day (8hrs ) use. It is common for the belt to stretch in the first 8 hrs of use. After this period the stretching will stop and the belt will work normally.

**8. FREQUENTLY OCCURING ISSUES**

PROBLEM	POSSIBLE CAUSE	SOLUTION
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<b>Motor won't start</b>	Low oil level alarm is activated	Add oil until the correct level is reached
	Fuel feed is dosed	Open the valve
	Motor switch in 'off' position	Turn 'on'
<b>Blade slows or stops while cutting</b>	Insufficient acceleration	Put accelerator on higher setting
	Loosen belts	Tighten belts
	Moves forward too fast	Reduce accelerator
	Incorrect blade being used	Use correct blade.
	Motor not powerful enough	Have the motor serviced
<b>Blade is wearing too quickly</b>	Insufficient cooling	Make sure the water is flowing correctly
	Machine moves too fast	Reduce throttle
	Inappropriate blade	Use correct blade, specific to the material you are cutting
<b>Belts are wearing too quickly</b>	Belts slip on the pulleys	Tighten belts
		Lower throttle
		Use appropriate blade for the surface you are cutting.
	Badly aligned belts	Align the belts



## TECHNICAL SPECIFICATIONS

Technical Specifications	COBRA 35 PRO	COBRA 30 PRO	COBRA 35 PRO	COBRA 30 PRO
Motor	HONDA GX-270	HONDA GX-200	KHOLER CH395	KHOLER CH270
Fuel	Petrol		Petrol	
Motor start	Recoil		Recoil	
Maximum power	8,4 HP / 6,3 KW	5,5 HP / 4,1 KW	8,5 HP/6,4 KW	6 HP/4,5 KW
R.P.M Motor	3600		3600	
Machine propulsion	Manual push		Manual push	
Ø Max Blade	400 mm / 16"	350 mm / 14"	400 mm / 16"	350 mm / 14"
Ø Blade bore	25,4 mm / 1"		25,4mm / 1"	
Blade Location	Left hand side		Left hand side	
Water tank capacity	20 L / 5,28 Gl		20 L / 5,28 G	
Blade cooling	Both sides		Both sides	
Nett weight	71,6 Kg / 157,87 Lb	61 Kg / 134,48 Lb	71,6 Kg / 157,87 Lb	61 Kg / 134,48 Lb
Cutting depth regulation	Pneumatic shock absorber		Pneumatic shock absorber	
Dimensions (LxWxH, mm/ inch.)	1350x696x1015 53,14x27,4x39,96	1325x696x1015 52,16x27,4x39,96	1350x696x1015 53,14x27,4x39,96	1325x696x1015 52,16x27,4x39,96

## 8.1 PERFORMANCE

Performance will vary depending on surfaces tested, type of blade used and the operator.

Model	Motor	HP/Kw	Cutting Pace	Cutting Depth in Testing	Ø Blade	Material
COBRA 30 Pro	 KOHLER CH270	6 / 4,5	46 cm/min. 18,11"/min.	10 cm 3.93"	350 14"	Asphalt
	 HONDA GX200	5,5 / 4,1	40 cm/min. 15,75"/min.			
COBRA 35 Pro	 KOHLER CH395	8,5 / 6,4	83 cm/min. 32,68"/min.	10 cm 3.93"	400 16"	Asphalt
	 HONDA GX270	8,4 / 6,3	80 cm/min. 31,50"/min.			

		
	mm	inch."
300 / 12"	105	4,13
350 / 14"	135	5,31
400 / 16"	160	6,29

## 9. GUARANTEE



SIMA, S.A. manufacturer of construction machinery, has a network of service centers, SERVÍ-SIMA. All repairs carried out by agents in our network SERVÍ-SIMA, are subject to guidelines which will guarantee their quality.

SIMA, S.A. guarantees all items against manufacturing defects, bound by the conditions set out in our CONDITIONS OF GUARANTEE.

Guarantees are invalidated if payment terms are not complied with.

SIMA S.A. reserves the right to alter its products and components without prior notice.

## 10. SPARE PARTS

All spare parts are identified in the spare parts diagram that comes along with this user manual .

To order any spare parts you should get in contact with SIMA´s aftersales department. And specify the product code, as well as the **model, serial number** and **year of manufacture** that will all appear on the serial number plate on the machine.

## 11. PROTECTING THE ENVIRONMENT.



All dust and residual byproducts should be cleaned up. All machines, spare parts, fluids and packaging should all be correctly disposed of for recycling purposes.



**R.A.E.E. Residuals resulting from electrical and electronic instruments have to be stored into specific places for selective collection.**

## 12. NOISE LEVEL DECLARATION.

Machine noise level whilst idling.	
MODELO	
COBRA-30 PRO G6	dec (dBa) 95
COBRA-35 PRO G9	dec (dBa) 95

## 13. VIBRATION LEVEL DECLARATION.

Exposure to vibration through the handle is :

MODEL	FOR LEFT HAND $m/ s^2$	FOR RIGHT HAND $m/ s^2$
COBRA-30 PRO G6	0,00510968383	0,00223113067
COBRA-35 PRO G9	0,00510968383	0,00223113067

**CERTIFICATE OF GUARANTEE****AFTER-SALES SERVICE****COPY FOR END USER****MACHINE DETAILS**

MACHINE STICKER
-----------------

**BUYERS DETAILS**

NAME	
ADDRESS	
POSTAL CODE / TOWN	
PROVINCE/ COUNTRY	
Tel.:	Fax:
e-mail	
DATE OF PURCHASE	

**Signature and stamp of distributor/seller****Signature of customer/end user****CONDITIONS OF GUARANTEE**

- 1.) SIMA, S.A. guarantees against all manufacturing defects and is responsible for repairing the machine within one year of purchase, counting from the date reflected in the obligatory CERTIFICATE OF GUARANTEE.
- 2.) The guarantee only covers labour and spare parts for the machine which is reflected in the CERTIFICATE OF GUARANTEE.
- 3.) All transport costs are excluded from claims as well as food expenses, accommodation, as well as transport costs of the machine to SIMA S.A., which will be the responsibility of the client.
- 4.) The following can not be attributed to manufacturing defects: dents caused by mistreatment, damage caused by dropping the machine, use of incorrect voltage, incorrect installation and any other causes not relating to the product.
- 5.) GUARANTEE repairs can only be carried out by SIMA or an authorised service agent for SIMA.
- 6.) This guarantee is invalidated in the following circumstances:
  - a) Altering the Guarantee certificate once completed and signed.
  - b) When repairs have been carried out or spare parts replaced by un authorised service technicians.
  - c) When third party spare parts, not authorized by SIMA, S.A.
- 7.) SIMA S.A. takes no responsibility for damages caused by fault products. This includes damages for time, transport costs, telephone calls and personal or company loss, as well as loss of salary or income.
- 8.) With regard to guarantee claims for motors during the 1 year period they should either be sent to SIMA or to an authorised repair agent for the engine in question.
- 9.) SIMA should receive the guarantee certificate within no more than 30 days from the date of purchase of the machine. To claim on guarantee the end user will require a receipt of purchase with date, the guarantee form and the serial number of the machine .

