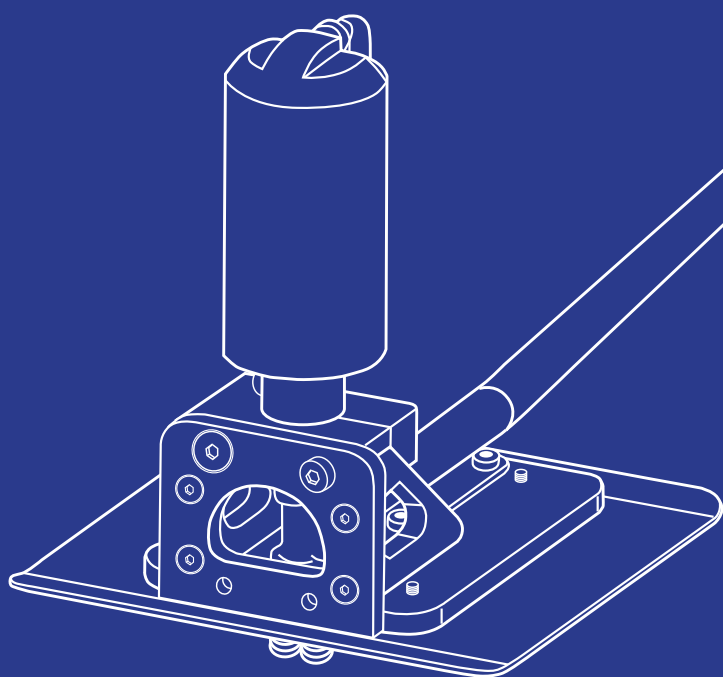


# MANUAL FOR COPPER GRID CLEANER



**WELAND**



# Cutting Grid Cleaner

## Technical data

<b>Type</b>	<b>Cutting Grid Cleaner Type 6</b>
Engine No	8367 Pat. #0203315-5
Manufacturing No	_____
Working Medium	Dry and clean compressed air
Working pressure	6 bar = 600 kPa (6 kgf / cm <sup>2</sup> )
Air consumption	
Idling approximately	8 l / s
Rec. Min. hose size min.	6.3mm (1/4")
Connection	1/4" BSP
Frequency approximately	120 Hz
Vibration level: Below	2.5 m/s <sup>2</sup>
Noise Level:	82 dBA
Weight:	17 Kg

## General description

Simple and easy to use cleaner for profile cutting machines, where slag build up on the cutting grids must be removed. Used along the length of the cutting grids it is an ideal preventative maintenance tool.

Suitable for cutting grids up to 3mm thick. (For larger sizes, contact Weland AB)

The machine is equipped with cleaning function.

## NOTE:

**IMPORTANT!** Please read the instructions book before the machine is used.

**WARNING!** - The machine can be hazardous to work with if the instructions on care not strictly adhered to.

**EAR AND EYE PROTECTION MUST BE USED WHEN OPERATING THE GRID CUTTING MACHINE.**



# EC declaration of conformity according to EC Machinery Directive 2006/42/EC, Section 2A

**WELAND AB**

Malmgatan 34  
SE-333 30 Smålandsstenar.

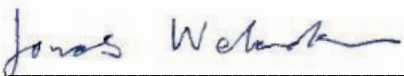
Declare under sole responsibility that the product: Cutting Grid Cleaner  
With machine code:8367

Type of equipment	Air pressure cutting grid cleaner for laser machines.
Model.	Type 6
Machine No.	8367
Machine Name	Cutting Grid Cleaner

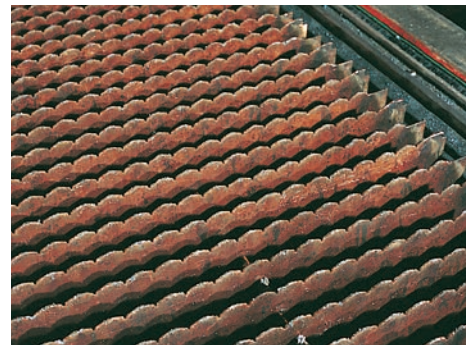
Is manufactured in conformity with Council Directive relating to machinery, 2006/42/EC with special reference to the section 1 of the essential health and safety in the design of machines.

The following corresponding standards. EN ISO 12100:2010 Safety of machinery, general principles for design, risk assessment and risk reduction.

Smålandsstenar 2012-02-18

**WELAND AB**

Jonas Welandson  
CEO



## User Instructions

### Connection

The machine is connected with  $\frac{3}{8}$ " tubing - the appropriate length to suit existing compressed air network.

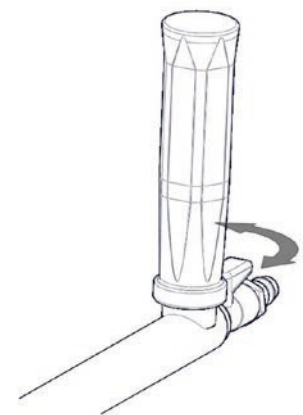
The hose is connected on the handle end (at the tap) with a  $\frac{1}{4}$ " nipple.

### ON/OFF

Place the machine over the cutting grid and turn the tap to the **ON** position.

The machine should **NOT** be idled unnecessarily.

To temporarily stop and when not in use, the machine should be depressurized by turning the tap to the **OFF** position (tap pointing along the length of the tube) or the air should be disconnected.



### Operation

The machine fork must be placed over a cutting grid, and then moved backwards and forwards until all the slag is clear. When current cutting grid is clear move along to the next until all cutting beds are clear.

**Be careful!** Do not push or ram the machine onto the cutting grid. The machine will clean by moving forward or backwards along the cutting grid - **do not** force by pulling faster than is needed to travel.

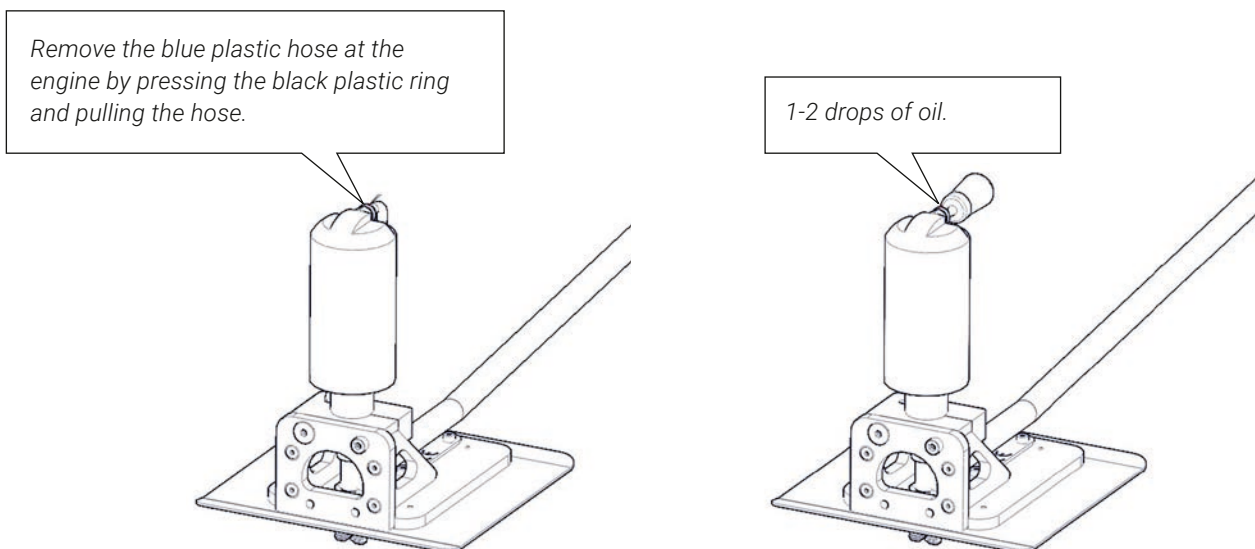
# Maintenance Instructions

## IMPORTANT!

Before repairs or service begins, make sure that machine is **NOT** connected to the air pressure system. Repairs or service must never be started with the machine running or when a risk of harm exists.

## Lubrication

The motor must be lubricated after approximately 8 hours of operation. Remove the blue plastic hose at the engine by pressing the black plastic ring and pulling the hose. Pour 1-2 drops of good quality hydraulic oil into the clutch, re attach hose into the connector and test.



## Cleaning the machine

Check for and remove any slag that has built up around the fork. Scrape and blow out any debris that has collected inside the rack.

**IMPORTANT!** Make sure that the machine is not connected to a compressed air supply during work/inspection or cleaning.

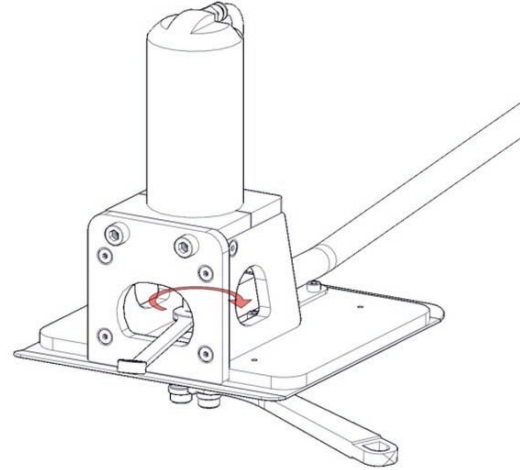
## Control of the fork

The fork should always be free in its guide. This can easily be checked by shutting off the air valve with the engine running and observing if the fork moves in relation to the base plate. Make sure the fork is not worn out or broken.

# Repair Instructions

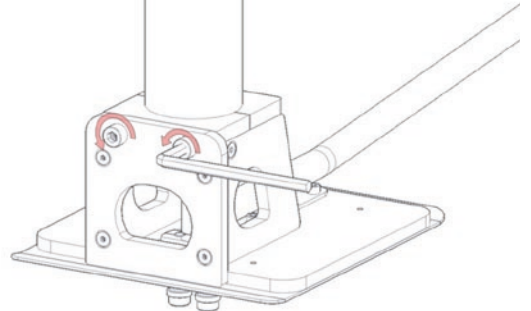
## When replacing the fork

- 1st Unplug the machine from the compressed air network.
- 2nd Loosen the nut / clamp ring on the engine (see spare parts list 30-01). Use the wrench Nr14 and hold the fork with the proper tools.
- 3rd Pull out the fork / shaft (see spare parts lista1) from the nut / clamp sleeve. If you can remove the shaft - unscrew the nut / clamp sleeve completely
- 4th Insert the fork holder in the nut/compression ring as far as possible. Tighten the nut. Make sure the fork is perpendicular to working direction.



## The repair / maintenance of compressed air motor.

- 1st Unplug the machine from the compressed air network.
- 2nd Loosen the hose connection on top of the engine (see lubrication).
- 3rd Loosen "Screw Clamps for engine".
- 4th Lift the engine from the stand.





# Repair Instructions

## The repair / maintenance of motor

Threaded connections between the different parts are locked with Loctite and can, in necessary, be heated to 200° c to ease disassembly. Begin with rear part pos 10.

Great cleanliness should be taken when the engine is disassembled / assembled. Check that all parts especially all O rings and springs are intact and well lubricated and not worn. *See exploded view of the air motor.*

Make sure all the moving parts move freely.

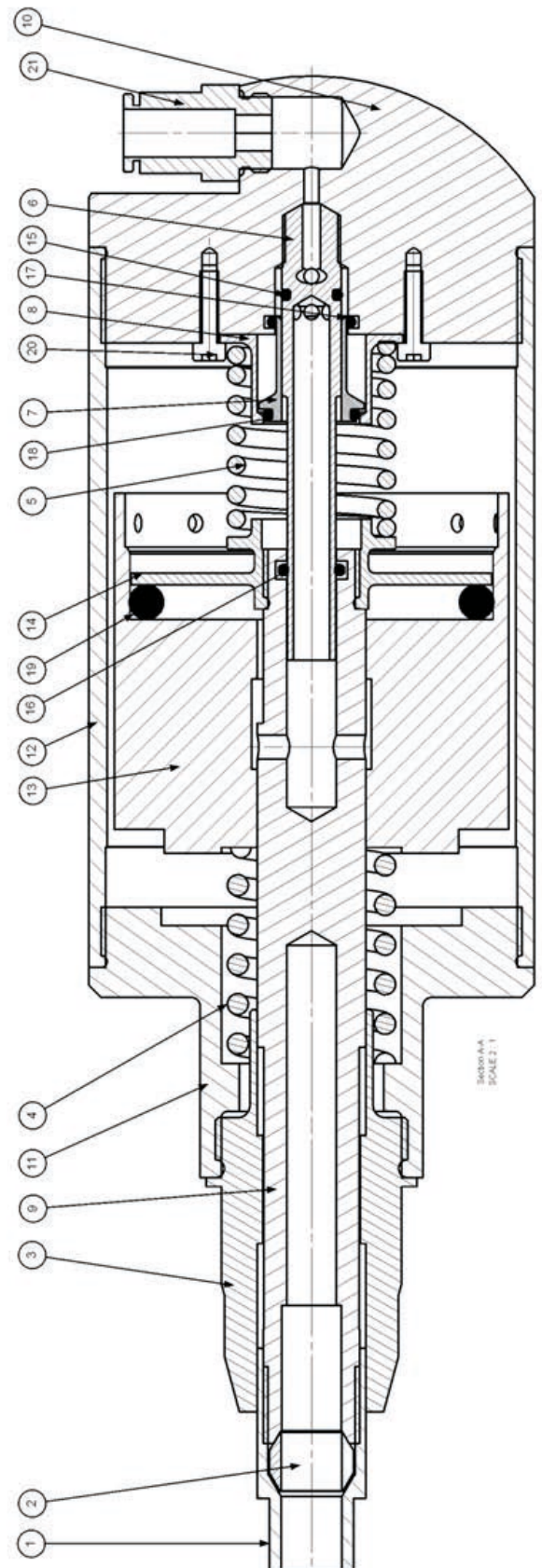
When re assembling, a small amount of thread lock should be used Loctite 2701 apply to all threads. Apart from item 10 and item 12 where Loctite 243 is applied.

**NOTE:** Check that the fork moves freely in its housing.

## Spare parts list airmotor

exploded wiew AIRMOTOR 30-XX

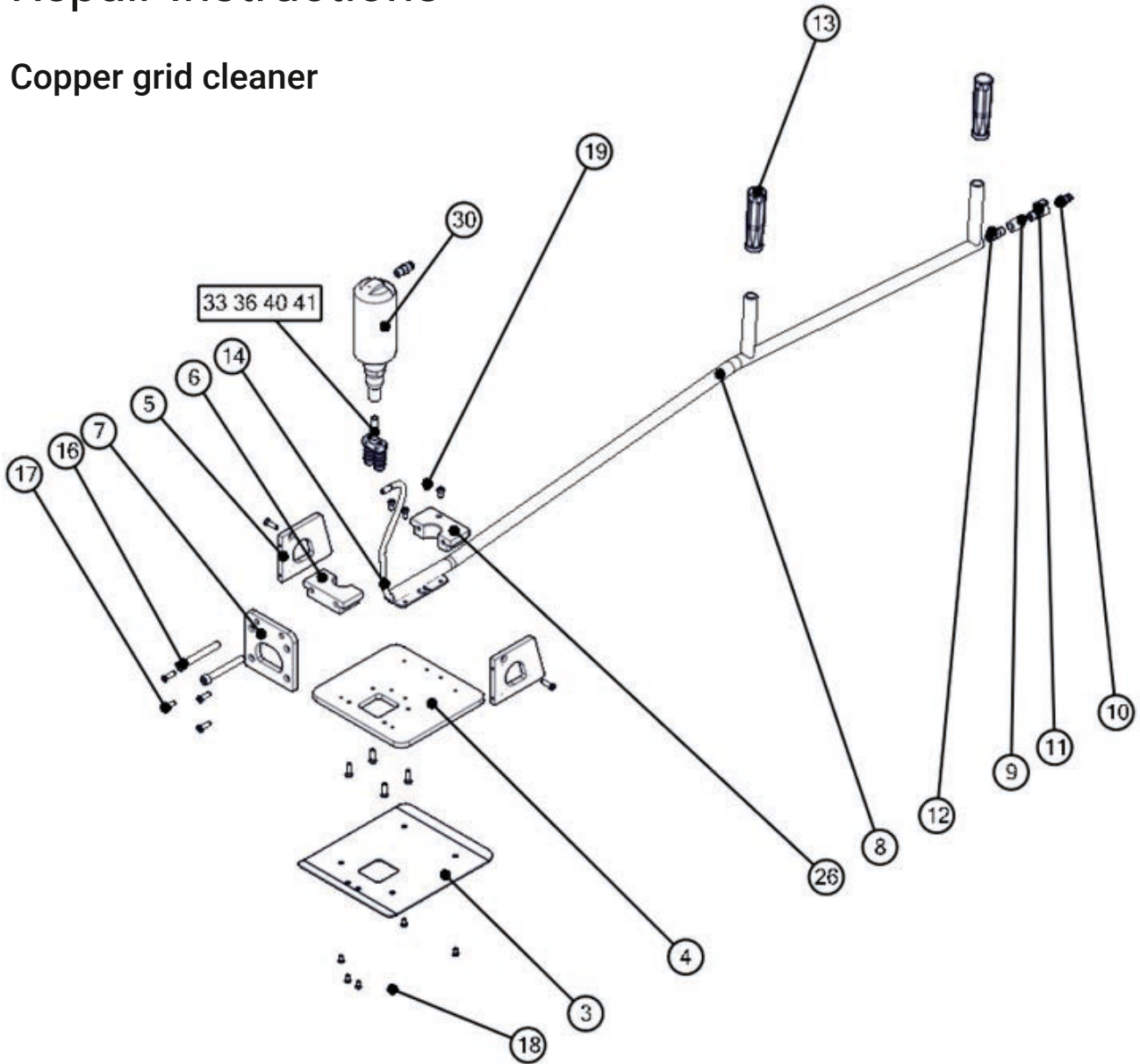
Item no:	Detail:	Quantity:
30-01	Nut	1
30-02	Compression ring	1
30-03	Body front	1
30-04	Balance Spring anterior	1
30-05	Return spring	1
30-06	Inlet	1
30-07	Shuttle	1
30-08	Spring Seat	1
30-09	Punch Piston	1
30-10	Body rear	1
30-11	Connection part	1
30-12	Body central part	1
30-13	Body Balance	1
30-14	Drive Flat	1
30-15	O-ring 7.1x1.6	1
30-16	O-ring 7.66x1.78	1
30-17	O-ring 11.11x1.78	1
30-18	O-ring 12.42x1.78	1
30-19	O-ring 49,2x5,7	1
30-20	Allen screw	1
30-21	Hose Connection	1





## Repair Instructions

### Copper grid cleaner

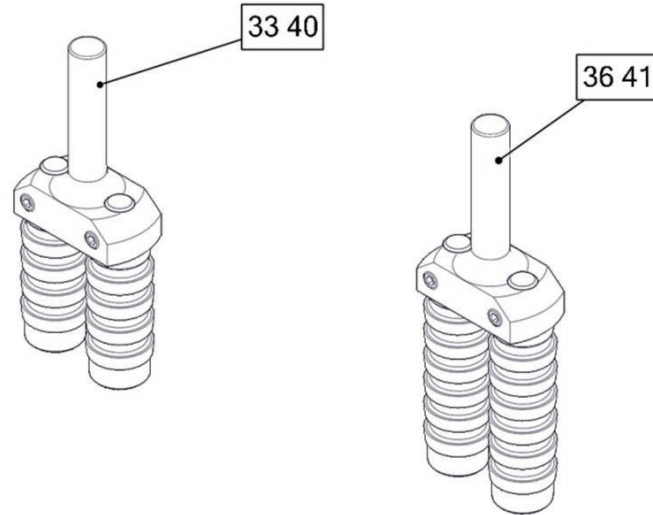


### Spare parts list copper grid cleaner

Item no:	Name:	Art. Nr	PartNo:	Item no:	Name:	Art. Nr	PartNo:
3	Wear plate	193136673	1	12	Straight coupling	193098603	2
4	Base plate	193141017	1	13	Plastic handle	193098600	2
5	Support plate	193141016	2	14	TPU Hose	193098598	1
6	Motor bracket	193136672	1	16	Hex bolts	193141013	2
7	End plate	193141015	1	17	Allen screw	193121035	10
8	Handle	193141036	1	18	Allen screw	193103524	6
9	Crane attachment	193141014	1	19	Hex bolts	193103520	4
10	Coupling	193098604	1	26	Motor bracket	193136671	1
11	Mini ball valve	193098601	1	30	Engine	193104257	1

# Repair Instructions

## Fork



## Reservdelista för rasterrensare

Item no:	Name:	PartNo:	Pieces:
33	Standard fork.	193143853	1
36	Fork high grid.	193143854	1
40	Standard fork fine.	193143857	1
41	Fork high grid fine.	193143859	1





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