

# ***EL~MAX***

## **User Manual**

**El-Max Nutrunner 1.5  
445 rpm**

**CE**

## Important

The El-Max Nutrunner 1.5 must only be used for loosening and removing wheel nuts.

The machine must only be used on level ground and not on a table or in an otherwise raised position.

If the body of the machine is disengaged (for instance when the machine is placed on its side for transportation) and the lifting spring is released (left handle pushed in), the wheel setting can eject with force and possibly cause bodily injury.

Therefore, the machine must be lowered to its lowest position and held in place with rope, plastic tape or the like.

Do not touch any rotating parts while the machine is in operation.

### Fastening wheel nuts

- Plug into the outlet
- Place an El-Max socket (with the proper diameter for the nut to be screwed in) in the socket spanner tube. Screw on the socket.
- Manually screw on the nut a little.
- Press the button for left or right to start the engine.
- Adjust to the proper work height by holding in and releasing the left handle.
- Place the power socket on the nut.
- Hold in the right handle to make the flywheel rotate.
- Make a distinct impact with the left thumb on the Stroke Control. The force is now transferred through the Socket Spanner Sleeve to the nut.
- Repeat the procedure with the Stroke Control until the nut has been tightened with the desired force (see table).

1st impact  $\pm 360$  Nm

2nd impact  $\pm 510$  Nm

3rd impact  $\pm 630$  Nm

4th impact  $\pm 700$  Nm

*The machine's stroke force has been tested by Chalmer's Testing Institute in Göteborg, Sweden.*

### Unfastening the wheel nuts

- Plug into an outlet.
- Place an El-Max socket (with the proper diameter for the nut to be screwed in) in the socket spanner tube. Screw on the socket.
- Press the button for left or right to start the engine.
- Adjust to the proper work height by holding in and releasing the left handle.
- Place the socket on the nut.
- Hold in the Right Handle to make the flywheel rotate.
- Make a distinct impact with the left thumb on the Stroke Control. The power is now transferred through the Socket Spanner Tube to the nut.
- On impact, the Flywheel and motor should stop because the impact mechanism locks up. **Immediately release the right handle and left button.** (By not releasing the right handle, the motor can overheat.) If the motor overheats, the thermostat is triggered. If this happens, switch off the machine and wait a few minutes. Note: An idle motor can become damaged.
- Press the right handle again and repeat the procedure until the nut loosens.

## Maintenance and Service of the El-Max Impact Wrench.

**Warning:** The power must always be off during service and maintenance of the machine.

### Lubrication

The El-Max Impact Wrench requires lubrication to ensure optimal performance and a long service life.

All moving parts require a little oil occasionally. Take care, however, not to get oil and/or grease on the brake bands.

Keep the rods on the wheel frame clean and greased, so the machine easily glides up and down when you press the left handle in.

*We recommend designating a person at the workplace to perform maintenance on this machine.*

*This will ensure proper lubrication.*

Use the lubrication nipple on the socket spanner tube to grease between the Socket Spanner Tube and Flywheel. You will find the lubricator nipple in the hole in the round cover at the front of the machine. If you can't see the lubricator nipple, turn the Socket Spanner Tube.

### Replacement of belts

The belts on the machine become worn over time. These should be replaced if the machine begins to seem worn out. Check tightened wheel nuts occasionally using a torque wrench to ensure that the machine is still putting out the desire force.

Loosen the nuts holding the axle to the flywheel. These nuts are located inside the machine under the top protective cover. The Socket Spanner Tube, Flywheel and Axle are now loose. Pull the Flywheel forward to remove these parts. Install the new belts. Uncover the upper brake on assembly. There must be 0.5-2 mm of space between the Flywheel and the Socket Spanner Tube.

When replacing belts, be sure to check the brake bands, so they do not become worn (should be at least 2 mm thick).

### Belt adjustment

Adjust the belts using the M8 adjusting screw located closest to the flywheel underneath the top protective cover. Adjust  $\frac{1}{2}$  revolution at a time until the belts are adequately taut (do not spin when the right handle is pressed).

The belts must disengage when the right handle is released.

## DATA

### Noise output

Measurements were taken in a tyre workshop under normal operating conditions for El-Max Impact Wrenches. Sound pressure levels 1 m from the machine's surface and 1.6 m from the floor.

Measuring equipment: Brüel & Kjaer type 2231 Precision Sound Level Metre.

Equivalent continuous A-weighted sound pressure level:

-Idling with flywheel in motion: 67db(A)

-Operating mode: 83 dB (A).

83 dB (A) is the mean value of 5 measurements of the equivalent sound pressure level.

Each measurement consists of 5 recoveries and 10 impacts during 85 sec.

-Maximum C-weighted sound level value: 123 dB.

123 dB is the highest value on measurement of 5 impacts.

### Vibrations

When idle (i.e. no impact), the machine is under  $2.5 \text{ m/s}^2$ .