

LAARMANN[®]

Innovators in Solids



LMC50 JAW CRUSHER USER MANUAL

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IMPORTANT

Please read this manual thoroughly before initial commissioning, and comply with the safety instructions!

The operating manual contains important information for operation, maintenance, Care and safety of the machine to guarantee the best possible preservation of your Investment.

Subject to changes in design, features and accessories in the interests of on-going developments. It is therefore not possible to derive any claims from the data, illustrations and descriptions contained in the manual.

Subject to errors.

Contents	Page
1 Installation	4
2 Operation	
2.1 Materials to be crushed	5
2.2 Before starting	5
2.2 Altering the crushing setting	5
3 Description	
3.1 technical specifications	6
4 Maintenance	
4.1 Lubrication	7
4.2 Jaw replacements	7
4.3 Electrical connection	7

1 Installation

1. Ensure that the support structure is capable of safely supporting the weight of the crusher.
2. The crusher should be positioned to allow safe, easy access for operation & maintenance and dynabolted to a suitable concrete floor.
3. Securely fasten the unit to the support structure
4. Connect to power supply
5. Provide dust extraction to the outlet.

Before starting

1. Check to see jaws are free.
2. Check direction of rotation.
3. Set the gap for the product required.
4. Grease the outer bearings and toggle bushes.

Prior to full time operation

1. Run the machine empty for approximately 2 (two) hours.
2. Adjust the tension on the Vee belts to give no slip (Check this regularly)
3. Check bearing temperatures. Initially these will run quite hot, but after running in, should get to a stage where the housings are warm to touch.
4. Feed the crusher slowly for one or two days until the cast wear surfaces have been worn smooth, the feed at Full Rate.

2 Operation

CAUTION

Wear suitable eye and hearing protection when operating this crusher.
All guards must be installed correctly. Keep hands clear of all moving parts.

2.1 Materials to be crushed

The LMC50 Jaw Crusher will crush most types of crushable materials and will accept particles with dimensions up to 85% of the jaw openings. However, wet and sticky materials, which have a tendency to pack or extrude, should be avoided as these will induce heavy loads on the machine with risk of damage to the crusher mechanisms. Likewise, slipper self-lubricating materials similar to talc should be avoided. Although these will crush, lengthy periods of time are required.

2.2 Before starting

1. Check that jaws do not touch during rotation.
2. Check direction of rotation;
3. Check the drive belt adjustment.

2.3 Altering the crushing setting

The distance between the crusher jaws may be varied by adjusting the jacking bolt P/N 137131 to suit the product requirements.

CAUTION

Do not allow jaw plates to touch in operation.
Adjustment is best done whilst the crusher is running and free of material

3 Description

The LAARMANN laboratory Jaw Crusher is a robustly constructed single-toggle type with one fixed jaw plate and one moving jaw plate. Designed for the smaller laboratory, or use by prospectors. It is capable of quickly crushing materials up to 85% of the jaw opening (65 mm x 65 mm). It is robust and long wearing and made of parts and materials easily serviced in a remote area.

3.1 technical specifications

Jaw Inlet	65 x 65mm
Max feed size	50-60mm
End fineness	< 1,5mm (depending on material size and characteristics)
End fineness setting	1,5 – 15mm
Capacity	50kg/u (depending on material size and characteristics)
Electrical requirements	1.1 kW (3x 400V/50Hz)
Dimensions (LxWxH)	±400x700x700mm
Weight	110kg
Material jaw plates	manganese(standard), tungsten carbide
Material side liners	manganese(standard), hard plastic variant (for minimal wear)

4 Maintenance

To ensure long life and trouble free operation frequent, regular checks of the equipment must be made.

Check the belt tension and condition. The belt should have no more than 11.5mm deflection at the centre with a 2 kilogram of force (spring balance will suffice).

Inspect belt condition for cracks, swelling or softening.

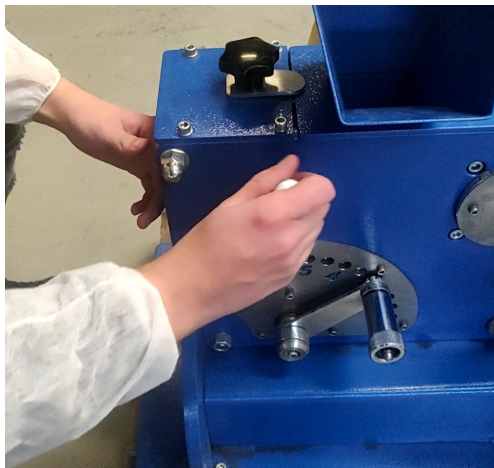
Inspect toggle seats and main bearings for any signs of wear and excessive movement.

4.1 Lubrication

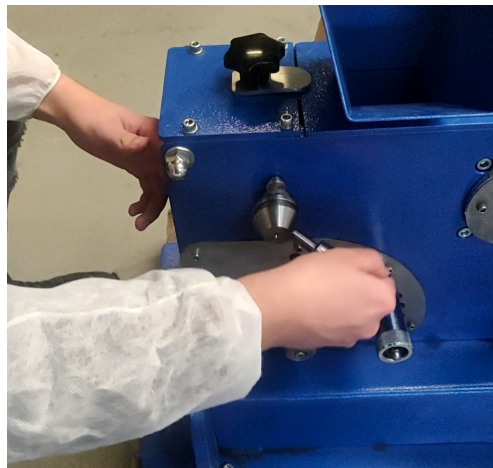
Prior to applying grease, wipe the grease nipples, apply grease to all points, then leave a layer of grease on the nipple to protect against entry of dirt until the next lubrication time.

4.2 Jaw replacements

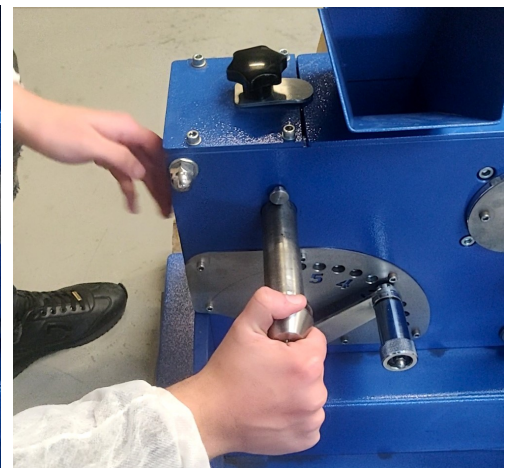
Jaw plates should be replaced when crushing product is no longer satisfactory and insufficient adjustment available.



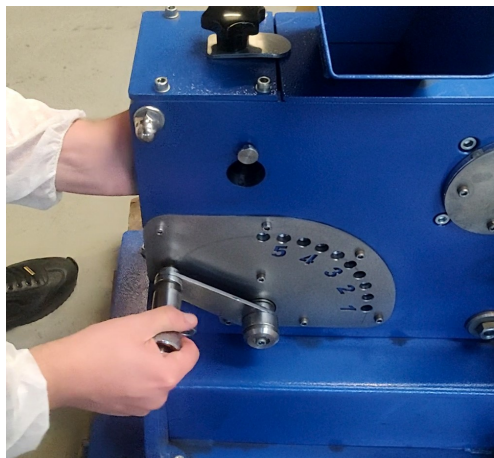
Step 1) the pin that is connected to the jaw plate



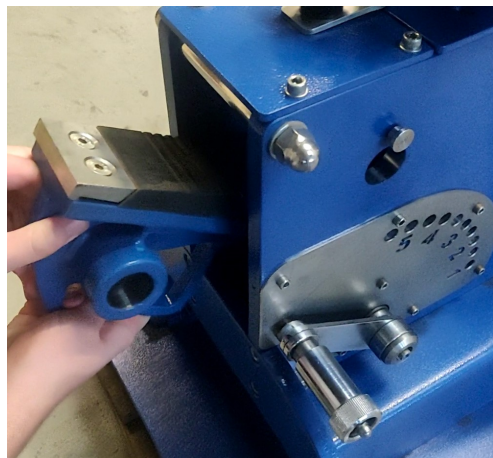
Step 2) pull the lever down



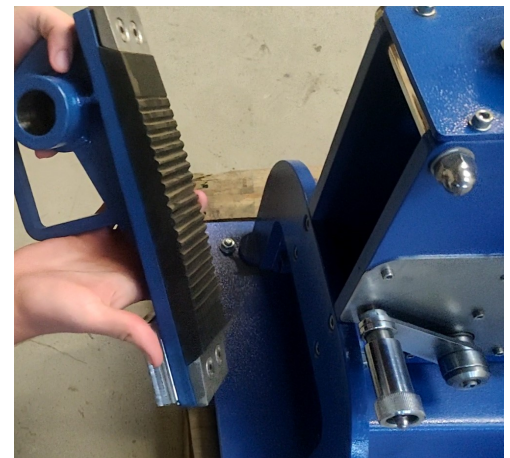
Step 3) remove the pin



Step 4) move the size measure lever all the way down



Step 5) pull the jaw plate out



Step 6) jawe plate is now removed