

FEED HAMMER GRINDER

OPERATION MANUAL AND INSTRUCTIONS

This efficient grinder is built for small farms and feed plants.

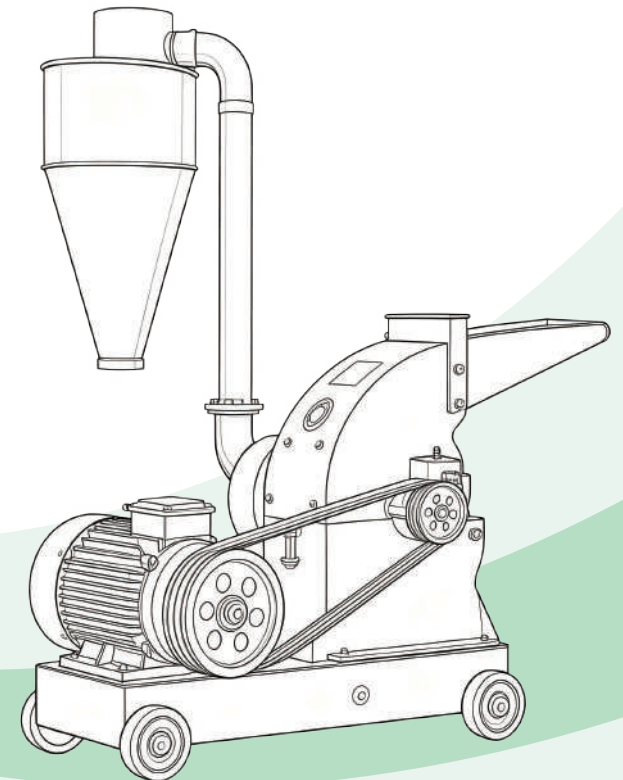


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I. Product Overview

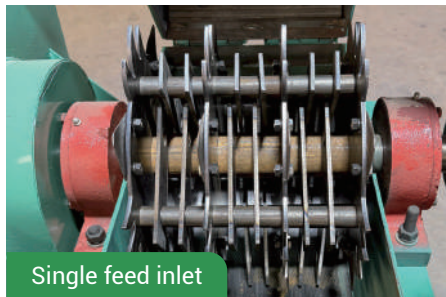
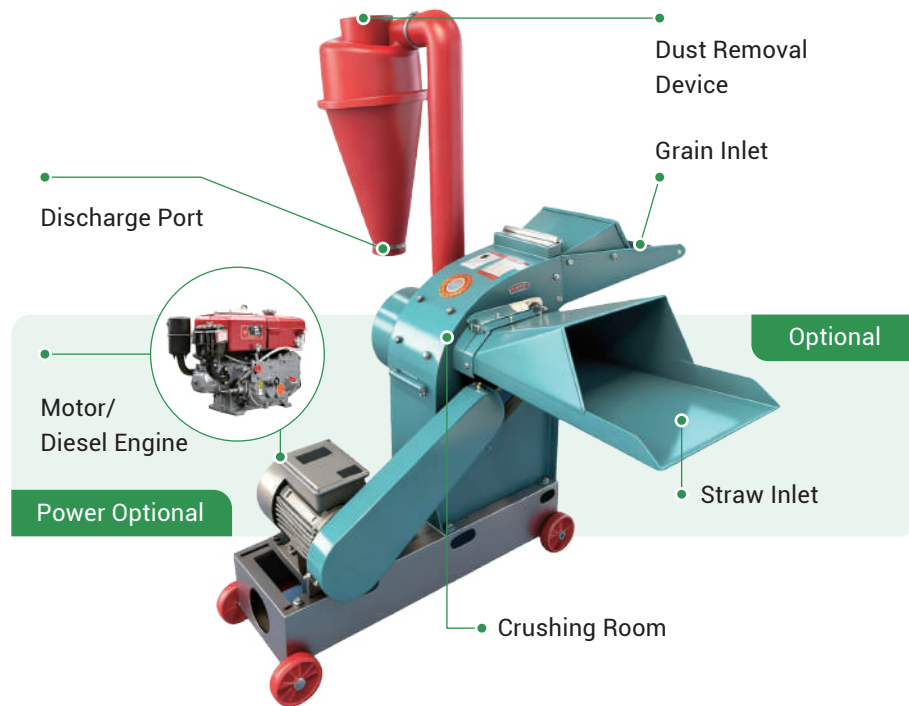
The hammer mill is a high-efficiency crushing equipment, suitable for grinding grains, forage and agricultural raw materials such as corn, beans, wheat straw and rice straw. It is available in single-feed and double-feed inlet models, with optional electric motor or diesel engine power. Driven by high-speed rotating hammer blades, materials are strongly impacted in the crushing chamber and quickly crushed to the required particle size. The crushing granularity can be adjusted by replacing screens with different apertures to meet various processing demands. Featuring simple structure, easy operation and convenient maintenance, the machine is widely used in feed processing, grain grinding and various agricultural material crushing.



SAFETY WARNINGS

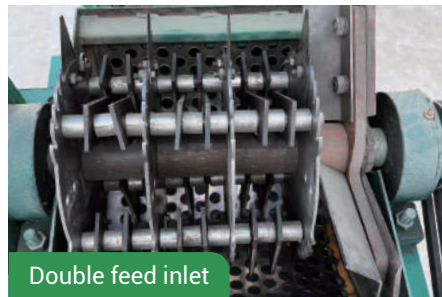
- ❗ Wear safety helmet and protective equipment during operation to avoid injury from material splashing or machine failure.
- ❗ Do not feed hard objects such as iron blocks and stones into the machine to prevent equipment damage and personal injury.
- ❗ The machine shall only be operated by trained professional personnel for correct use.
- ❗ Keep hands and any objects away from rotating parts to avoid accidents.
- ❗ Cut off the power supply completely before cleaning or maintenance to ensure safety.
- ❗ Install the machine firmly on flat ground to prevent malfunction caused by vibration.
- ❗ Keep well ventilated during high-temperature operation and check machine temperature regularly to prevent overheating.
- ❗ Stop the machine immediately for inspection once abnormality occurs to avoid further faults.

II. Equipment Structure Display



Single feed inlet

Hammer blade, Screen mesh



Double feed inlet

Hammer blade, Cutter blade, Screen mesh

III. First Operation Procedure

Motor Wiring / Diesel Engine Starting

Ensure the motor power cable is connected correctly, and the fuel system & starting mode of the diesel engine comply with the equipment operation requirements.

- **Electric Motor Version:** Connect to a stable power supply (220V single-phase or 380V three-phase). Before power connection, confirm the power cable and ground wire are properly installed, and complete wiring in accordance with motor wiring specifications.

- **Diesel Engine Version:** Fill with sufficient diesel fuel and check the fuel system for no leakage before starting.

Ensure Correct Motor Rotation Direction

Before startup, check whether the rotation direction of the motor main shaft conforms to the design mark near the pulley. Normally, the motor shall rotate counterclockwise, and the rotation direction shall be consistent with the feeding direction of the main inlet.



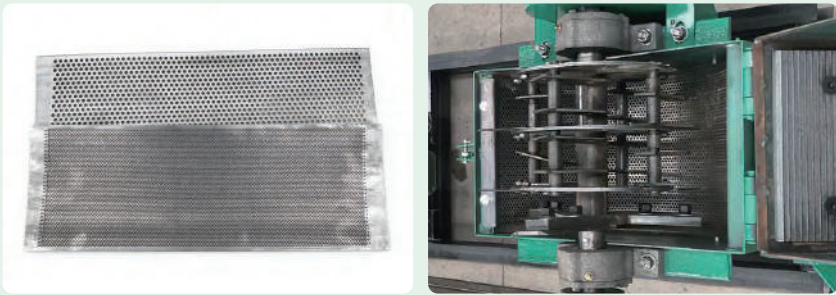
Wrong rotation direction will cause abnormal operation, equipment damage and even personal injury. It is recommended to run the motor no-load for the first time to confirm the correct rotation direction before formal operation.

Component Installation

Some components are disassembled before delivery for transportation purposes. Please assemble the components according to the structural drawing and the following operation steps.

Screen Mesh

Select the appropriate screen model, place the screen correctly into the screen groove of the machine. Ensure a tight fit without gaps and fix it firmly in position.



Dust Removal Device Installation

Position the dust removal device according to the structural drawing, connect it to the equipment interface, and fasten with bolts. Ensure tight connection to prevent looseness and air leakage.



Feed Hopper

Align the feed hopper with the machine inlet as shown in the structural drawing, then fasten it securely with bolts.



IV. Operation for Different Materials

Grain Crushing Operation

Use the main feed inlet when crushing grains. Adjust the shifting plate to a proper position to ensure smooth feeding and prevent material splashing during crushing.

For double-feed inlet models, close the baffle of the side feed inlet during crushing to avoid material splashing.



Main feed inlet

Close the side feed inlet

Forage Crushing Operation (Only for double-inlet model)

For double-inlet models when crushing high-moisture materials such as green straw and grass, cover the main feed inlet with a baffle to avoid adhesion and accumulation of wet materials, and prevent material splashing during operation. Control the feeding speed during feeding to ensure crushing uniformity and working efficiency.



To ensure safe operation of the equipment, do not use both feed inlets at the same time during operation.



Side feed inlet



Close the main feed inlet



Crushing performance for grains



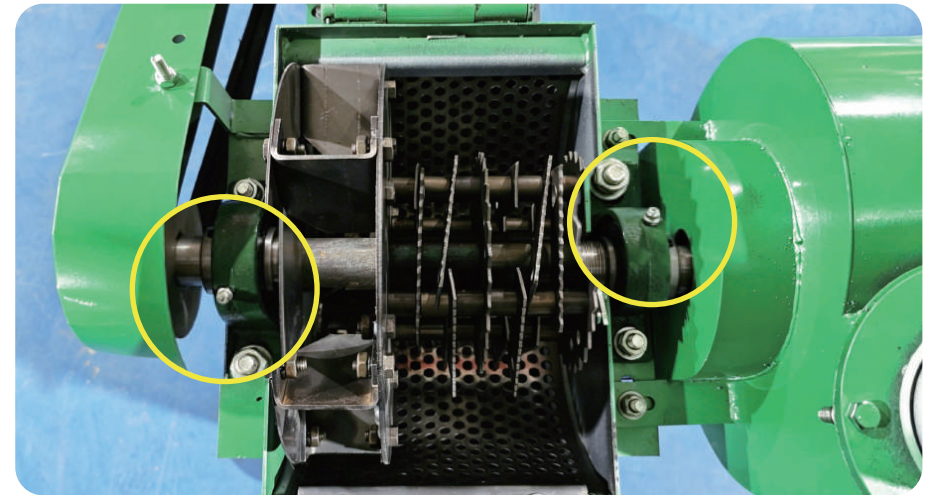
Crushing performance for forage materials

V. Equipment Maintenance

Make sure all the following operations are carried out when the equipment is completely stopped.

Bearing Lubrication

Maintain the bearing during initial use and regular maintenance. Add an appropriate amount of grease at the position shown in the diagram to ensure smooth operation of the bearing and prolong its service life.

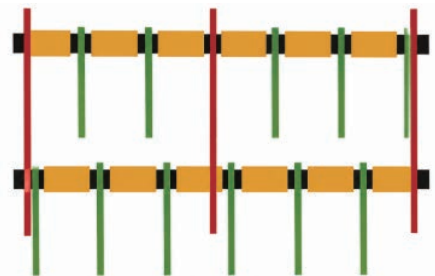


Hammer Blade Replacement

- 1 Before operation, ensure the equipment is powered off and completely stopped. Remove the cotter pins on both sides of the hammer blade shaft, then take off the old hammer blades.
- 2 Install and fix new hammer blades one by one with the sleeve in a staggered arrangement. Make sure each hammer blade is correctly positioned and firmly mounted.
- 3 After installation, refasten the cotter pins. Start the equipment for trial operation, check whether the hammer blades run normally, and ensure there is no abnormal vibration or noise.



- When replacing hammer blades, ensure the quantity on the cutter disc is consistent (complete set replacement is recommended).
- If the weight deviation between hammer blade shafts exceeds 3 grams, it will cause center of gravity offset, increase machine vibration, and even damage bearings and other components.

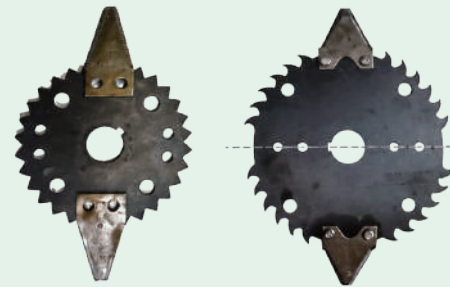


Staggered Arrangement of Hammer Blades

- Cutter disc
- Hammer blade shaft
- Hammer blade
- Sleeve

Cutter Blade Replacement

Triangular blades must be installed in a diagonally symmetrical arrangement. Ensure the number and position of diagonally installed blades are symmetrical to avoid weight imbalance, which would cause center of gravity offset during operation, increase centrifugal force, and result in machine vibration.



Install in a diagonally symmetrical position



- Do not install hammer blades inside the screws of triangular blades; otherwise, the hammer blades cannot rotate freely, which may cause machine jamming and vibration.
- When crushing hard materials such as corn cobs, corn ears and branches, remove the triangular blades to prevent damage to the blade serrations and avoid screen damage caused by blades propping against materials.

Screen Replacement

- 1 Before replacing the screen, make sure the equipment is powered off and completely stopped, then open the outer guard cover.
- 2 Take out the old screen, insert the new screen along the inner wall of the screen groove, and ensure it fits closely with the groove wall. Push the screen all the way to the top until it is fully fixed in place.
- 3 Check that the screen is installed in place without looseness or deviation, then close the guard cover again.



Open the guard cover and remove the old screen



Insert the new screen along the inner wall of the screen groove



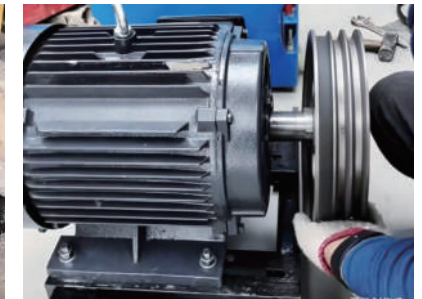
Close the guard cover again

Motor Pulley Installation and Adjustment

First check whether the main engine pulley and the motor pulley are aligned. If not aligned, gently tap the motor pulley with a hammer to make it flush with the motor shaft end; be careful not to strike it too deep.



- **Note:** Use tools such as angle iron, iron rod and steel ruler to assist in checking whether the pulleys are parallel. Keep the pulleys parallel to avoid accelerated belt wear or belt falling off caused by misalignment.





Regular Inspection



Regularly add grease to the bearings to ensure smooth operation and prolong service life.



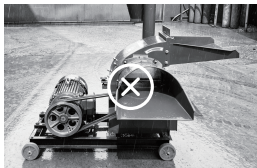
Check all component screws for looseness before use. Fasten loose screws and eliminate abnormalities before starting the equipment.



Regularly inspect the wear of hammer blade shafts, cotter pins, hammer blades and cutters, and replace them in a timely manner.



Clean residual materials inside the equipment promptly after each use to prevent damp caking and avoid affecting subsequent operation.



When the equipment is not in use, store it in a dry and rainproof place to prevent rusting or motor damage caused by rainwater.



Do not place heavy objects on the feed hopper, so as to avoid cracking or damage.

VI. Common Faults and Solutions

Equipment not working

Cause Analysis	Solutions
Motor or diesel engine not started	Check the motor power supply or diesel engine fuel system to ensure normal power supply or sufficient fuel
Starting system failure (motor button, diesel engine starting system)	Check and repair the start button or circuit to ensure the starting system works normally
Overload protection device triggered	Clean the materials, reset the overload protection device, and ensure the load is within the safe range

Abnormal machine noise

Cause Analysis	Solutions
Loose or improperly installed hammer blades/cutters	Check and fasten the hammer blades or cutters to ensure they are securely fixed
Motor/diesel engine bearing wear or insufficient lubrication	Check and replenish lubricating oil; replace worn bearings if necessary
Worn or damaged internal components	Inspect and replace worn or damaged parts to ensure stable equipment operation

Excessive equipment vibration

Cause Analysis	Solutions
Asymmetric or unbalanced installation of hammer blades/cutters	Install hammer blades or cutters in a symmetrical manner and ensure balance
Misaligned pulleys or motor	Adjust the position of pulleys and motor to ensure parallel alignment
Unstable equipment foundation	Ensure the equipment is installed on a flat and stable ground
Uneven wear of hammer blades or cutters	Inspect and replace unevenly worn hammer blades or cutters in a timely manner

Unstable crushing fineness

Cause Analysis	Solutions
Unsuitable screen aperture	Replace the screen with a proper aperture to ensure material screening effect
Severe hammer blade wear affecting crushing performance	Inspect and replace worn hammer blades to ensure normal material crushing
Excessive feeding speed resulting in insufficient material crushing	Adjust the feeding speed to ensure materials are fully crushed before entering the equipment

Recommended Flagship Equipment



Flat Die Feed Pellet Mill Ring Die Feed Pellet Mill Extruder



Grain Cracking Machine Forage Chopper Stainless Steel Mixer



For Any Other Questions, Please Contact Us

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