

MULTIFUNCTION CHAFF CUTTER

OPERATION MANUAL AND INSTRUCTIONS

Used for cutting green and dry forage such as grass, corn stalks, and straw.





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The chaff cutter is a machine used for cutting green and dry forage such as grass, corn stalks, and straw. It chops materials evenly with high-speed blades while keeping fiber intact, helping animals digest feed efficiently. This manual outlines the machine's structure, operation steps, blade adjustment, and maintenance guidelines.

I.Product Overview

The chaff cutter efficiently cuts fresh grass, corn stalks, straw, and other forage for livestock feeding and silage making. It delivers even output for cattle, sheep, horses, and other herbivores. The standard model handles both wet and dry materials. With a kneading or crushing system, it can be upgraded for finer feed processing.

Cutting length is adjustable, and the machine can be equipped with 4, 6, or 8 blades. Power options include electric or diesel drive to suit local conditions.



Chaff Cutter



Chaff Kneading



Chaff Kneading and Crushing



Self-Suction Chaff Crushing Machine



SAFETY WARNINGS

Please make sure to operate the machine strictly according to the instructions.

- Check all bolts and parts before starting to ensure no looseness or abnormality.
- Weep hands, clothing, and tools away from the feed inlet and cutting area during operation.
- Never stand in front of the discharge outlet to avoid injury from thrown materials.
- Do not open any safety cover while the machine is running.
- Stop immediately if any abnormal sound or vibration occurs. Do not continue operation or attempt repairs while running.
- Never stand, sit, or cross over the feeding chain plate during work.
- If the feed inlet is blocked, stop the machine first. Do not clear by hand or with sticks.
- Keep metal, stones, and other foreign objects out of the feed material.
- 1 Do not change or increase rotor speed without authorization.
- Operators must wear tight-fitting work clothes; long hair should be tied and covered with a cap.
- Always shut down and disconnect power before maintenance or cleaning.
- Power must be connected through a switch or breaker, not plug boards.
- Avoid outdoor operation during thunderstorms. Cover electrical switches with waterproof protection.
- **9** Do not operate under the influence of alcohol, illness, or fatigue.
- Minors or persons with mental disabilities must operate only under supervision and after understanding the safety rules.



II.Main Model Introduction

All chaff cutter models are built for forage cutting as the basic function.

Based on this, different functional types can be extended to meet various feed processing needs, farming scales, and material handling requirements.

2.1 Chaff Cutter

The basic model is used only for cutting

It suits direct chopping of fresh grass, corn stalks, straw, and other high-fiber forage.





2.2 Chaff Kneading

This model adds kneading rollers to the cutter. The fodder is pulled and pressed after cutting, making fibers soft and easy for ruminants to digest.





2.3 Chaff Kneading and Crushing

Based on the kneading model, this machine adds a crushing system.

After cutting and kneading, the material is crushed for finer processing. Suitable for straw, hay, grains, and vegetables. Output size is adjustable by screen.



Crushing wet grass may cause blockage. Use this machine only for cutting and kneading.

2.4 Self-Suction Chaff Crushing Machine

This model adds a self-suction feeding system to the crusher.

It automatically draws in loose materials such as corn, grains, beans, and straw fragments by airflow from a fan, reducing manual feeding work.









Self-Suction Feed Pipe

Fan System

1.Air Outlet 2.Cyclone Outlet

III.Main Components Display





Forage Chopping Chamber

It consists of a forage pressing roller, a cutterhead, moving blades and fixed blades, and is used to chop the fed forage into the required length.



Kneading Device

Composed of a kneading roller and a kneading tooth plate, it kneads and loosens the chopped forage.



Crushing Device

Composed of a crushing chamber, hammer blades and a screen mesh.

The crushing particle size can be adjusted by changing the screen mesh aperture, with screen meshes of 2-30 mm apertures available.



Self-Suction Feeding System

Composed of a suction fan and a suction pipe, it realizes automatic feeding operation.



IV.Installation and Commissioning

Before use, ensure the power matches the equipment requirements and the cable is no longer than 10 meters.

Ground the machine securely and install a 60A breaker within 2 m of the power source for safety.

4.1 Equipment Installation

Step 1: Unpacking

Check all parts after unpacking. Confirm the frame, motor (or diesel engine), belt, guards, and pulleys are complete and undamaged.

Step 2: Assembly

Install the frame and motor. Adjust belt tension properly. Turn the pulley by hand to ensure smooth rotation.

Step 3: Lubrication

Before first use, lubricate bearings and gears to ensure smooth operation and reduce wear. (See 4.2 for details.)

Step 4: Tightness Check

After assembly, tighten all bolts and close the cover. Turn the pulley to confirm free rotation and correct motor direction.

Step 5: Blade Adjustment

Check bolts after transport. Adjust the gap between fixed and moving blades to 0.5–1 mm. (See 4.4 for adjustment steps.)

Step 6: Test Run

After installation, turn the pulley gently to ensure smooth movement. Check for friction, collision, or abnormal noise.

4.2 Transmission Lubrication

Before the first run, lubricate all transmission parts thoroughly.

- Remove the side guards and apply grease or oil evenly to gears and chains.
- Use a grease gun to fill the bearings until a small amount overflows.
- Apply grease to the feed gear, shift gear, and handle near the feed inlet.
- After lubrication, reinstall the guards and ensure all parts are secure for safe operation.



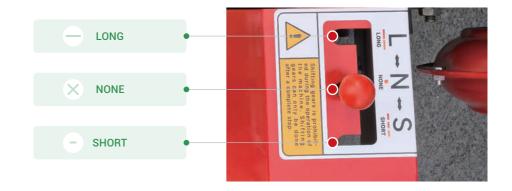




4.3 Forage Length Adjustment

The discharge length is adjusted using the Long-Short-Neutral handle.

This handle controls the transmission ratio between the feeding rollers and the main shaft (blade shaft), allowing the forage length to be changed.





Adjustment Method

Step 1

Make sure the machine is powered off or the engine is stopped before operation.

Step 2

Locate the Long-Short-Neutral handle on the side of the machine and select the desired gear.

- Long gear: larger feed rate, slower blade speed, longer forage pieces.
- Short gear: smaller feed rate, faster blade speed, shorter forage pieces.
- Neutral: disconnects the feeding system for idling.

Step 3

After adjustment, ensure the handle is firmly locked in position.

Step 4

Restart the machine and check if the discharge length meets requirements.

Cautions

- Never shift gears while the machine is running to avoid gear damage.
- Avoid frequent gear changes to keep the transmission system stable and reliable.

4.4 Blade Clearance Adjustment

The gap between the fixed and moving blades directly affects cutting performance and discharge quality.

- Too wide a gap may cause poor cutting and lower efficiency.
- Too narrow a gap may lead to blade collision or motor overload.

Adjustment Steps

Step 1

Shut down the equipment completely and disconnect power to prevent accidental startup.

Step 2

Locate the fixed blade bolts and loosen moderately with a wrench.

Step 3

When rotating the adjusting screw, place a wooden block on the fixed blade holder, tap lightly to fine-tune, maintaining a uniform gap (0.5–1 mm recommended) between fixed and moving blades.

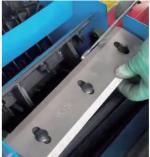
Step 4

Retighten the bolts after adjustment to secure the blade firmly.

Step 5

Manually rotate the main shaft to check for smooth operation, no abnormal noise or blade collision; readjust if any issues arise.









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Cautions

- Wear gloves during adjustment to avoid cuts.
- Do not strike the blades or holder to prevent edge damage or deformation.
- Check blade wear regularly and sharpen or replace as needed.

V.Operation

After installation and inspection, operate the machine is as follows. Note that functions and precautions may vary by model.



DANGER WARNINGS

- Do not run the kneading and crushing functions at the same time to prevent overload or damage.
- Keep away from the discharge outlet while the machine is running.

5.1 Chaff Cutting (Kneading)

Step 1

Open the cover of the chaff cutting and kneading chamber, place and secure the partition at the bottom, then close the cover.

(If equipped with crushing function, insert the partition into the crushing inlet.)

Step 2

Open the rear cover of the grass outlet, ensuring no obstacles or personnel nearby.

Step 3

Set the required cutting speed and discharge length.

Step 4

Put forage into the feed inlet, ensuring uniform feeding to avoid overload.

Step 5

After work, stop feeding and turn off the equipment power or engine.

Step 6

Clean up forage residues inside the machine to keep it clean.



5.2 Crushing

Install a screen with proper hole size to adjust particle size.

Used for crushing corn, wheat, straw, and hay with low moisture after cutting or kneading.

Before operation, keep the cutting length handle in Neutral to prevent system interference.







5.2.1 Grain Crushing

Step 1

Ensure the equipment is powered off. Install a screen mesh with appropriate aperture (2–5 mm recommended) at the bottom of the crushing chamber.

Step 2

Insert spacers into the chaff cutting feed inlet and grass outlet to seal the crushing chamber.

Step 3

Open the partition of the grain feed inlet. Feed materials evenly; do not overload at one time.

Step 4

During crushing, dust is discharged from the top of the grain crushing outlet, and powder is collected from the bottom outlet.

Step 5

After operation, stop feeding and turn off the power or engine.

Step 6

Open the crushing chamber, clean residues, and keep the equipment clean and dry.









5.2.2 Straw and Hay Crushing

Step 1

Open the crushing chamber cover, place and secure a screen mesh (5-30mm aperture recommended) at the bottom, insert a partition at the grass outlet, then close the cover. (If equipped with a grain crushing feed inlet, insert the middle partition to seal the crushing chamber.)

Step 2

Adjust and set the required cutting speed and discharge length.

Step 3

Feed straw or hay evenly into the forage feed inlet, maintain continuous feeding to avoid overload.

Step 4

Crushed materials are discharged from the grain crushing outlet; collect the finished product.

Step 5

After operation, stop feeding and turn off the power or engine.

Step 6

Open the crushing chamber, clean residues, and keep the equipment clean and dry.











5.2.3 Self-Suction Feeding Crushing

Step 1

Ensure the equipment is powered off. Check that the suction pipe, feed inlet and connecting parts are intact and unobstructed.

Step 2

Install a screen mesh (2-5 mm recommended) at the bottom of the crushing chamber. Insert partitions into the chaff cutting feed inlet, grass outlet and grain feed inlet to seal the crushing chamber tightly.

Step 3

Connect the power supply or start the power unit. Start the suction operation after the equipment runs stably.

Step 4

Aim the suction pipe nozzle at the bottom of the material pile, maintain an appropriate distance and angle for uniform material suction.

Step 5

Turn off the main unit power after operation. After the equipment stops completely, clean the residual materials in the suction pipe and crushing chamber.









VI.Common Problems and Solutions

Low Efficiency / Poor Cutting

Cause	Solution
Blades worn or dull	Sharpen or replace the blades
Blade gap incorrect	Adjust the clearance (see 4.4)
Shaft speed too low	Check and tighten the drive belt

Blockage / Machine Stops

Cause	Solution
Overfeeding overload	Stop the machine, clear blockage, and feed evenly
Feed inlet or system blocked	Power off, then remove the blockage

Material Return (Self-Suction Model)

Cause	Solution
Pipe or screen blocked	Clean the discharge pipe or replace the screen
Weak or wrong airflow	Check fan blades and air guide plate
Belt slipping	Adjust belt tension or replace if worn



Vibration / Noise

Cause	Solution
Bolts loose	Check and tighten all bolts
Frame unstable	Place machine on solid, level ground
Bearing worn or lacks grease	Replace or lubricate bearings (see 4.2)

VII. Maintenance and Care

Perform regular maintenance to keep the machine stable and extend its service life. Always disconnect power before servicing to ensure safety.

Daily Maintenance

- After each use, check lubrication of all transmission parts and add oil if needed.
- Clean the surface and inside of the machine to keep it dry and tidy.





Apply oil to the drive chain every 12 hours of work, and check bearings and gears regularly, adding grease when necessary.

Cutting and Kneading Parts

Check the fixed and moving blades, as well as kneading rollers, for wear.

Reverse or replace tooth plates when worn on both sides. If metal edges are worn, repair by welding and grind them smooth.



Rust Protection and Appearance

After operation, apply anti-rust oil to friction surfaces.

Repaint any areas with peeled coating to prevent rust and extend service life.

VIII.Technical Specifications

Chaff Cutter

Model	Motor Power	Diesel Engine Horsepower
3T	4 kw	6 HP
3.8T	4.5 kw	6 HP
4.8T	5.5 kw	8 HP
5.8T	5.5 kw	8 HP
6.8T	7.5 kw	12 HP



Chaff Kneading Machine

Model	Motor Power	Diesel Engine Horsepower
ЗТ	4.5 kw	6HP
3.8T	4.5 kw	6НР
4.8T	5.5 kw	8HP
5.8T	5.5 kw	8HP
6.8T	7.5 kw	12HP

Chaff Kneading and Crushing (with self-suction)

Model	Motor Power	Diesel Engine Horsepower	Total Weight
3.8T	4.5kw	6 HP	159 kg
4.8T	5.5kw	6 HP	190 kg
5.8T	5.5kw	8 HP	225 kg

The machine is equipped with a four-pole pure copper motor that meets national standards, with a rated speed of 1400 rpm.

The power cable should use standard copper core wire of at least 10 mm².

Voltage and frequency can be customized to match local power conditions, or a diesel-powered model can be selected as needed.

Recommended Flagship Equipment







Flat Die Feed Pellet Mill Ring Die Feed Pellet Mill

Extruder







Hammer Mill

Kernel Cracker

Stainless Steel Mixer



For Any Other Questions, Please Contact Us

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