



Choppers, grinders, and mixers

HSB, a Munich Re company, is a technology-driven company built on a foundation of specialty insurance, engineering, and technology, all working together to drive innovation in a modern world.

Equipment description

Various types of choppers, grinders, and mixers are used on farms. Most are used to prepare silage and animal feeds. Some are used for animal bedding preparation, fertilizer composting, or herbicide preparation. Choppers and grinders use a set of rotating blades, hammers, or wheels to cut, reduce the size, or grind hay bales, corn stalks, or other similar products. Though some are self-propelled and designed to be operated while moving, most are designed to be used while stationary. Most choppers, grinders, and mixers use separate drivers such as electric motors or tractor power take-offs. In addition, some are mounted on wheels or trailers to move to the point of use.

The best source of assembly, operation, maintenance, loss prevention, and safety information for this equipment is the original equipment manufacturer (OEM). If manuals are ever misplaced, copies can be obtained directly from the OEM or possibly at the OEM website.

Maintenance tips

- Choppers, grinders, and mixers are usually operated under very dirty, abrasive, and sometimes corrosive conditions. Surface dirt and rust often conceal more serious deterioration. Surfaces should be cleaned and inspected following each use to extend the life of the equipment.
- Bearings and spindles are prone to wear. All bearings and spindles should be checked for proper lubrication prior to each use.

Failure/loss prevention tips:

- It is very important to adhere to the assembly, operation, and maintenance guidelines provided by the OEM to avoid damaging the equipment.
- Gearbox lubricant helps prevent severe wear and eventual gear failure. The gearbox oil level should be checked prior to each use. The shaft seals are prone to deterioration over time and may eventually begin to leak. Replace any seals that show signs of leakage.
- All mixing surfaces and the drivetrain should be inspected for wear or cracking prior to use.
- Most failures of chopper, grinder, and mixer equipment are the result of severe and repeated jamming or shock loading. This happens when feedstock is too heavy or when foreign objects enter the moving parts. Ensure proper feedstock consistency and take measures to prevent foreign objects from entering the equipment.

Energy savings/conservation tips

- Follow OEM recommendations to avoid jamming and shock loading this equipment. This can result in higher energy demand on the drive end, and lead to less effective and inefficient operation.

Safety tips

- Equipment with moving parts presents possible pinch points and other safety hazards. Prevent potential severe injury to fingers, hands, and other body parts by keeping clear of all moving parts.
- Never approach or reach into equipment while the equipment is in operation.
- Always disconnect the unit from the power supply before performing any maintenance activity or when attempting to remove jammed material.
- Use the equipment as described by the OEM to provide the safest operation.