

# IS 15542 : 2005

## Safety Requirements for Power-Operated Chaff Cutters

A **power-operated chaff cutter** is a machine used primarily in agricultural settings to chop or shred crop residues like straw, hay, and other fibrous plant materials into smaller pieces, known as "**chaff**". Consumers who buy power-operated chaff cutters are typically **farmers, agricultural contractors**, or others involved in **livestock farming**. Their expectations from the product include **safety, ease of use, durability** and **value for money**. The first and foremost of the consumer concern is safety as reports of **accidents** resulting in **loss of limb and life** due to use of poor quality power-operated chaff cutter are numerous.

**IS 15542:2005** Indian Standard on '**Safety Requirements for Power-Operated Chaff Cutters**' aims to establish safety requirements to protect users.

### Key Safety Features:

- **Materials and Construction:** Blades are to be made high-quality carbon steel or alloy steel. The standard also prescribes the materials for use in different parts of the Power-Operated Chaff Cutters.
- **Feeding Systems:** Two types of feeding systems are permitted – **Feeding Chute** and **Conveyor**.
- **Safety Guards and Covers:** All moving parts, including gears and bearings, must be covered with guards made from sturdy materials to prevent injuries. A **flywheel locking pin** is required to secure the machine when not in use.
- **Warning Features:** Devices such as a warning roller are recommended to alert operators when feeding fodder, adding an extra layer of safety.
- **Design Adjustments:** Chaff cutters must allow adjustments in the angle of cutting knives and the direction of feed rollers to avoid feed interference.
- **Operational Checks:** Chaff cutters should be run without load for at least 5 minutes to check for any unusual sounds, slippage, or wear that could indicate potential issues.
- **Operator's Manual:** Each machine must come with an operator's manual available in **Hindi/English/ Local languages** to ensure all users understand safe operating procedures.
- **Cautionary Notices:** Clear warnings must be displayed on the machine to inform users of safe practices, such as **not wearing loose clothing** and **avoiding distractions** while operating.
- **Marking Requirements:** Each chaff cutter should be clearly marked with details such as manufacturer's name or registered trademark, code and batch number, model number, power rating, rated input capacity and Recommended rpm of fly wheel or cylinder.

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