

APPLICATION BULLETIN

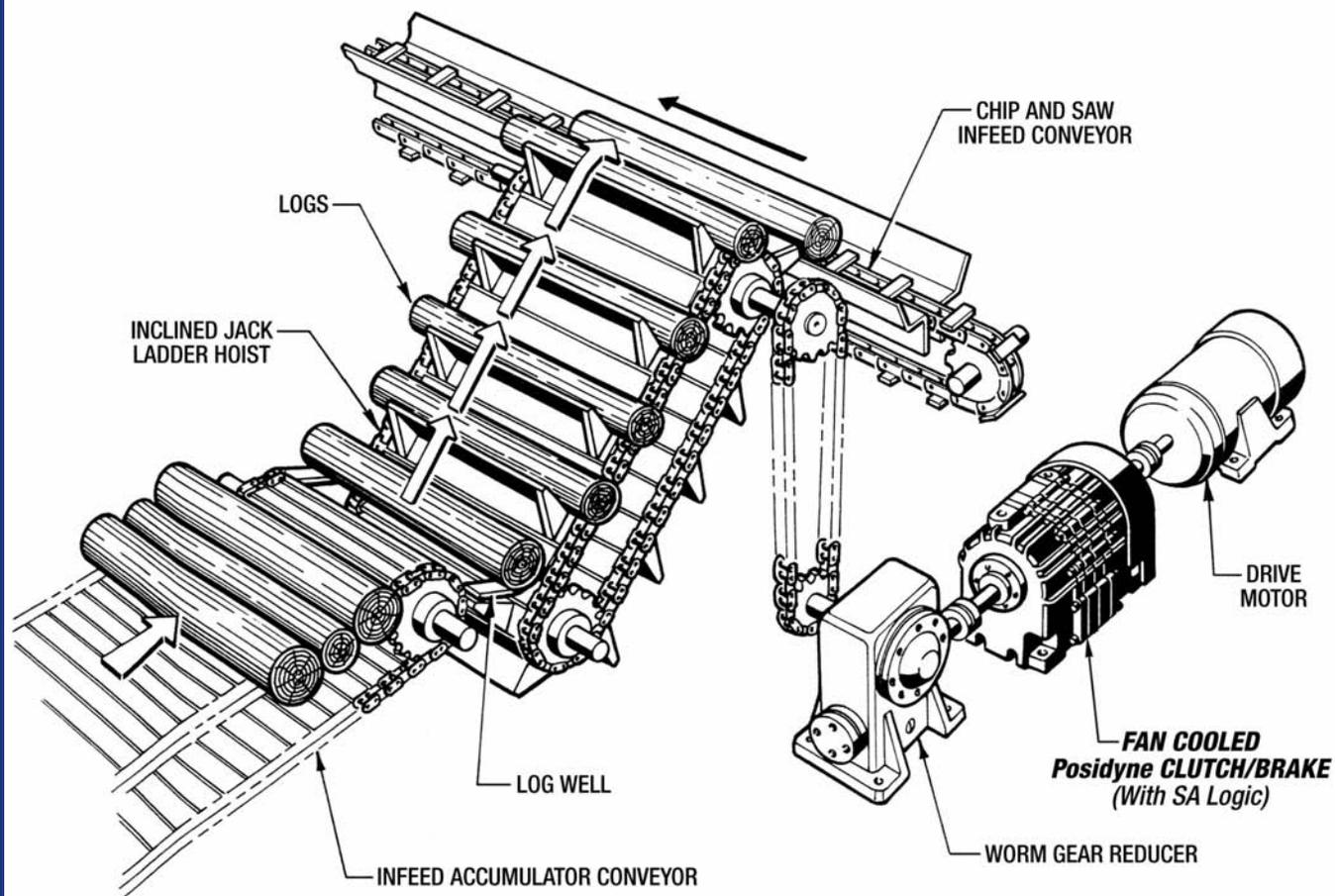


APPLICATION: Inclined (Jack Ladder) Hoist

INDUSTRY: Dimension Lumber, OSB and Plywood / Veneer Plants

PRODUCT: Oil Shear Fan Cooled *Posidyne* Clutch/Brake

INCLINED (JACK LADDER) HOIST



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WHERE THEY ARE USED: The Inclined (Jack Ladder) Hoists are used in Dimension Lumber mills, Plywood or Veneer plants, and OSB (Oriented Strand Board) plants. They are used to separate logs to be fed into the plant one at a time. Often they raise the logs out of the soaking ponds to the plant level especially in OSB and Plywood or Veneer plants. In Plywood/Veneer plants they are used to feed the logs to the peeling lathe.

HOW THEY WORK: The Jack Ladder Hoist consists of a chain conveyor set at approximately a 45 to 60 degree angle with large dogs to carry the logs. The logs float or are fed into the lower dogs and the drive indexes the conveyor up one log at a time into a conveyor, or peeling lathe.

PROBLEMS SOLVED: On some applications a motor and brake only is used to index the Jack Ladder Hoist. This requires starting the motor each index which causes several problems; (1) High current spikes which are inefficient, (2) High shock loads which can be hard on downstream drive components such as gear reducers, chain sprockets, conveyor chain etc. (3) the high inertia of the motor rotor stopping and starting each index requires more power on starting and high wear on the brake when stopping. Using a **Posidyne** Clutch/Brake with "SA" logic (Medium Spring Set Brake) solves these problems. The motor runs continuously reducing power consumption, and is disconnected when stopping so the brake does not have to stop the motor reducing brake wear. Adjusting the pressure on the Oil Shear Clutch/Brake reduces shock in the drive, and the spring set brake is engaged if power or air pressure fails.

IMPORTANT FEATURES:

- Totally enclosed, oil cooled unit for long service life with low maintenance in the harshest environments.
- Oil Shear Technology and innovative friction material provide smooth controlled torque for quick, smooth acceleration.
- Consistently accurate starts and stops with no adjustment required.
- Continuously running standard motor for long service life and lower energy consumption.
- "SA" logic used for spring set brake with air assist to hold the load in case of power or air pressure failure.



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