APPLICATION BULLETIN

APPLICATION: Press Unloading Boom Clamp Drive

INDUSTRY: (OSB) Oriented Strand Board Plants

PRODUCT: All Electric MagnaShear Motor Brake

PRESS UNLOADING BOOM CLAMP DRIVE

(14) PRESSED OSB BOARDS IN THE HYDRAULIC PRESS ON CARRIER SCREENS

ECCENTRIC

PRESS UNLOADING BOOM

MagnaShear MOTOR BRAKE
(All Electric)

1 HP AC DRIVE MOTOR

PLANETARY SPEED REDUCER

BOOM MOVES IN TO CLAMP ALL SCREEN HEAD BARS. PULLS OUT ALL (14) LEVELS FROM THE PRESS TO THE UNLOADER ELEVATOR AT THE SAME TIME.

(14) BOOM CLAMPS

SCREEN HEAD BARS

PRESS LUG CHAIN CONVEYOR

AB-02C-08 - 2/2/2005
PRESS UNLOADING BOOM CLAMP DRIVE

WHERE THEY ARE USED: The Boom Clamp Drive is located on the Boom in the Press section of the OSB plants. The Boom clamp is used to clamp down on the screen heads so the boom can pull the pressed boards out of the press.

HOW THEY WORK: The Boom Clamp is driven by an AC motor with an electric brake connected to auxiliary end of the motor. The Boom clamp drive indexes a crank mechanism 180 degrees to either clamp on, or release the screen heads. The clamping “on” to the screen heads takes place when the Boom is at the press ready to pull the boards from the press. The clamping “off” takes place after the boards have been pulled to the end of the Unloader Elevator. Once clamp is opened, the boom retracts completely from the press area.

PROBLEMS SOLVED: The main problem with the dry friction brakes is they mechanically fail frequently. The atmosphere around the forming line and throughout the plant is damp. The repetitive cycling of the brakes causes frequent failures. The brake and tachometer combination makes repair of the brakes difficult.

The Force Control MagnaShear All Electric Motor Brake puts an end to the monthly maintenance of the motor brakes. The MagnaShear Brakes are drop in replacement for many of the dry friction brakes that are typically used throughout the industry. The totally enclosed Oil Shear design of the MagnaShear Brake provides a totally enclosed brake that is immune to the damp atmosphere and there are no flimsy mechanical linkages to fail due to repetitive use. No shop air is required for the MagnaShear Motor Brake. Either 110 VAC or 230 VAC is required.

The end result is a brake that will easily install to replace the typical dry friction electric brake to provide a very reliable, long life, brake with no maintenance other than an annual oil change.

IMPORTANT FEATURES:

- **Oil Shear Technology** gives the all electric MagnaShear motor brake extremely long life, as well as consistent stopping.

- The totally enclosed design provides a brake that is not effected by harsh environments.

- Special model brakes provide drop in replacements for several of the commonly used dry friction brakes. See Sizes MSB-2 or MSB-4.