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FIELD NOTE NO.: Cable Yarding--4
Previous Sheet Reference Nos.: None

SUBJECT: RADIO-CONTROLLED CHOKERS

The use of radio-controlled chokers allows for safer operations, shorter turn cycles, and increased productivity.

Johnson Industries Ltd., of Richmond, B.C., have recently announced a new product. In cooperation with Weyerhaeuser Forest Products Company, they have developed a new radio-controlled choker system to replace conventional choker bells. The new chokers are set manually and released by a digitally-encoded radio signal. Up to nine chokers can be used at the same time and released either individually or all at once.

The choker bell (Figures A and B) is constructed of a high-strength steel and aluminum alloy and weighs under 4.5 kg. Cable size is 16 mm or 19 mm. Transmitter power source is 12 or 24 volt DC. The radio operating frequency is 72.24 MHz and the transmitter is externally programmable to match specific choker codes. The receiver components are shock resistant. The chokers only draw current from their rechargeable five-volt battery when they are set.



Figure A: Choker Bell Open.



Figure B: Choker Bell Closed.

The chokers were observed in operation on a Washington 118 swing yarder near Springfield, Oregon. The machine was yarding uphill to a landing, using three (16 mm x 4.6 m) chokers and a Danabo drum lock carriage. This area was producing 280 to 340 m³ per day with a four man crew (hooker, rigging slinger, yarder operator, and loader operator).

Comments from the crew, the radio repairman, and the woods supervisor included:

- Safety is the biggest advantage of the radio-controlled choker. The yarder operator does not have to look out for the chaser in the landing.
- Can windrow logs higher at the yarder. (This will allow yarding to be more independent of loading and improve the efficiency of both).
- More production per day due to faster turn times. Landing release time is about 20 seconds compared to 1 to 3 minutes previously.
- Initially, the crew found the chokers awkward to hook up, but this was soon overcome when they became used to them.
- The battery charge will last up to a week on a normal highlead operation. However, when pre-setting chokers, they find the charge only lasts 2 to 3 days. Most of the service problems are of a minor nature and relate to the power supply, e.g. charging and battery.
- The success of the choker depends on availability of service, commitment of operators, and regular charging of batteries.
- Three to four chokers are normally used but up to nine have been tried at once. When nine were used, the unhook time in the landing was slightly longer because the chokers will not unhook until weight is off the choker bell.

PRICE: About \$17 000 (f.o.b. Richmond, B.C.) complete with nine released choker bells, transmitter, charger, antenna, operator keypad, and mounting hardware.

INFORMATION: The information contained in this report is based on limited field observation and is only published to disseminate information to FERIC member companies. More information can be obtained from:

Johnson Industries Ltd.
8500 River Road
Richmond, B.C.
Canada V6X 1Y4
Telephone: (604) 273-3737

NOTE: A video of the radio-controlled chokers is also available for viewing. Contact FERIC or Johnson Industries Ltd.

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