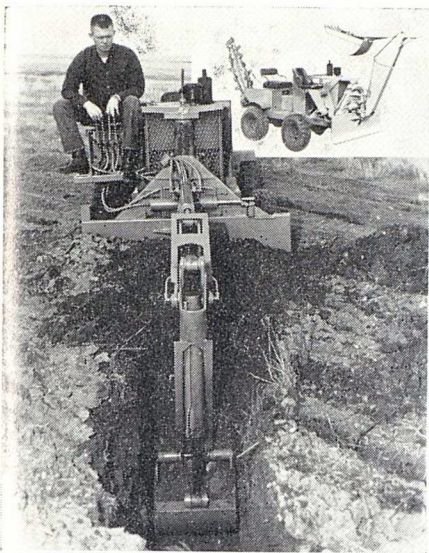
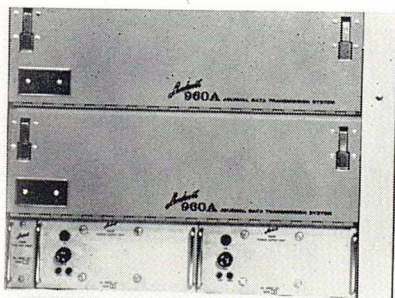


PRODUCT NEWS



Backhoe Attachment RS&C 3-1

A hydraulic backhoe attachment for V series trenchers is now available. One of the features is the double action in the backhoe arm, which permits the bucket to be folded back over the trencher. When required, the backhoe is easily and quickly detached from the trencher. Buckets in 12", 18" or 24" are available. *The Charles Machine Works, Inc.*



HB Transmission RS&C 3-2

A new hotbox detection transmission system permits the transmission of sensor information and recorder controls and system alarms from three dual trackside locations over a 3 kc bandwidth. Designated the 960A journal data transmission system, the fully transistorized equipment meets both GRS and Servo trackside and recorder interface requirements, and the system works equally well on all transmission facilities including wire line, cable and microwave radio.

The supervisory feature of the 960A can be used to actuate a recorder when a train approaches its associated sensor. It may also be utilized in such a manner that a small number of recorders, located in a centralized control center, could serve a large number of sensors. If desired, the 960A can transmit sensor information from one trackside location and in addition carry a voice channel through the utilization of Lenkurt's 5249A speech plus data panel.

The temperature of each wheel journal is measured by an infrared sensor which produces an amplitude pulse proportional to temperature. The 960A converts this pulse to a duration-pulse and transmits it as frequency shift data over a communication channel. It is then converted back to an amplitude-pulse at the receiver. A permanent record is made of the information on a stylus recorder tape. An inordinately high amplitude pulse indicates a defective journal or hotbox.

The 960A uses frequency shift keying so the pulse amplitude at the receive terminal is free from errors due to minor changes in transmission path attenuation. The short duration voltage peaks from the infrared detector are reproduced at the receive terminal as flat-topped pulses of uniform duration. This shaping of the pulse is done in such a manner that the recorder presents a more accurate and consistent chart record. The frequency shift signals using pulse-duration modulation have a tolerance for circuit irregularities such as noise, level changes, impedance mismatches and coding pulses normally found on open wire lines. *Lenkurt Electric Co., Inc.*

- **BATTERIES:** Bulletin 6770 describes nickel-iron storage batteries and includes charts, physical and electrical characteristics, operating principles, charging procedures, voltage characteristics during charge and discharge, maintenance and storage. *Exide Industrial Marketing division, ESBC(CP-3-10)*

- **CONNECTORS:** Catalog G103 provides descriptions, mechanical