

NEW EQUIPMENT CONTINUED

mechanical-power takeoff, and marine propulsion.

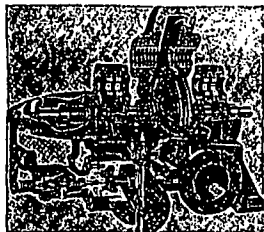
As shown, design is marked by full enclosure. Cylinder heads are cast of Meehanite, cylinder block is welded steel, furnace stress-relieved, and liners are wear-resisting iron. Pistons are forged of aluminum and crankshaft of alloy steel. Bearings are precision type. Jumpers between head and block are claimed to prevent leaks into the combustion space; cooling water passes around liner over entire area of piston-ring travel.

Intake and exhaust valves are all same size; valve gear is arranged so it doesn't have to be removed for cylinder-head tightening. Rods can be taken out without removing cylinder liners. All working parts are readily accessible through crank-pit covers.

Over-all height is 6 ft 7½ in., width 4 ft 3½ in., and length 11 ft 2½ in. for 6 cylinders and 13 ft 5½ in. for 8 cylinders. Hooven, Owens, Rentchler Co. Div., Lima-Hamilton Corp., Hamilton, Ohio.

Oil-Well Motor E506

A 3-PHASE, squirrel-cage *Life-Line* induction motor is provided with self-sealed, pre-lubricated ball bearings offering protective lubrication for five years or longer without repacking. Type CSP motor is available for 60 cycles, 3 phases, 220-440 v., 900-1800 rpm, from 1 to 15 hp. Westinghouse Electric Corp., P O Box 868, Pittsburgh 30, Pa.



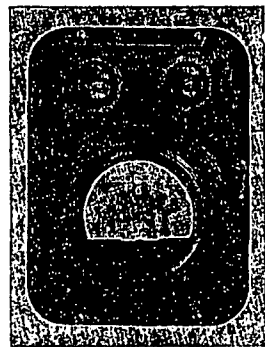
All-Weather Turbine E507

NEW ALL-WEATHER general-purpose turbine. Types for driving industrial pumps, fans, blowers, paper machinery and small generators is available in 16-, 20- and 25-in. wheel sizes to develop 5 to 1500 hp with steam up to 600 psig, 750 F., and speeds from 1000 to 7000 rpm. With heavy-duty parts turbine can use 1500-psig 950-F steam. Many parts are interchangeable between wheel sizes.

Combination felt and labyrinth bearing seals protect lubricating system from con-

tamination by heavy rain and abrasive dust. Corrosion-resistant materials are used throughout.

An overspeed trip simultaneously controls governor valve and a heavy butterfly valve. An improved free-expansion center-line support transmits pipeline reaction to the foundation. Entire governor assembly mounted on shaft end protected by casing can be replaced without disturbing shaft. Governor is interchangeable between wheel sizes. Special wide-speed-range governors are available. Westinghouse Electric Corp., P O Box 868, Pittsburgh 30, Pa.



Overfire-Jet Control E508

A LIGHT BEAM projected across a boiler or furnace flue shines on a photo tube that measures smoke density. When this density increases beyond a predetermined amount, a red warning light flashes and a timer relay circuit closes. This starts the over-fire jets.

Light source and eye box come in an aluminum, dust-tight construction. Lens are sealed and covers gasketed. A tripod support on the light source permits adjusting light-beam direction. Brooke Engrs. Co., 4517 Wayne Ave., Philadelphia 44, Pa.

Shielded-Arc Electrodes E509

TUBULAR-TYPE, shielded arc electrodes, the manufacturer says, give a higher consistency to the deposited alloy. Faceweld No. 1 deposits a chromium-carbide-alloy surface for hard-facing plain carbon, low alloy or manganese steel exposed to impact. Single-layer deposits have a hardness of 40 to 52 Rockwell C.

Faceweld No. 12 is the same general type but its service is on surfaces withstanding extreme abrasion as well as some impact. Single-layer deposits have a hardness of 45 to 55 Rockwell C but are not as tough as those from Faceweld No. 1. Lincoln Electric Co., Cleveland 1, Ohio.

Synchronizing System E510

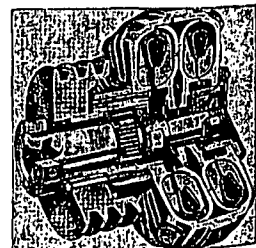
SYNCHRONIZER AND PHASE CONTROLLER is designed to (1) provide automatic and continuous synchronization of rotating speeds of any number of independent engines and (2) hold their crankshafts in any desired phase relation regardless of relative changes in load. These control effects are obtained by use of a differential synchronizer. It operates through an air-servo system connected to the fuel-valve linkage of each engine being controlled.

Device eliminates sympathetic vibrations and exhaust heat often produced by unsynchronized engines and minimizes effect of massive rotating unbalances by holding them out of phase so they tend to neutralize each other. For two or three engines, as in boats or locomotives, one engine is used as a speed reference; where several engines are involved a speed reference such as a synchronous motor may be used.

Rotative speed and phase position of engine being controlled is picked up by flexible shaft or Selayn motor. Air output from synchronizer controller is piped back to an air motor attached directly to the engine's fuel control. The air servo operates from any convenient source reduced to 20 psi. Synchro-Master, Seneca Falls, N. Y.

Boiler-Return E511

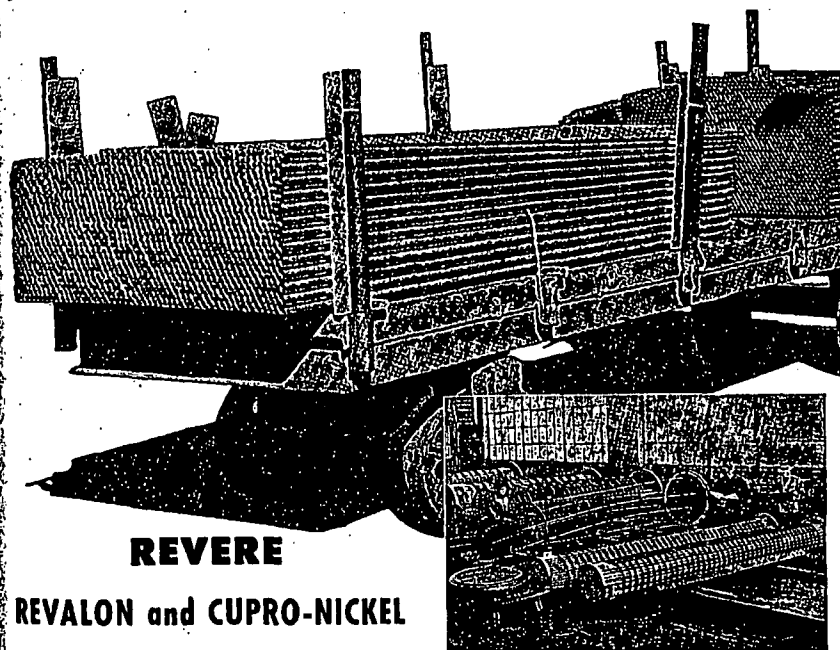
PACKAGE BOILER-RETURN UNITS contain a turbine-type pump in single-stage construction. Type XA, available in different sizes for boilers from 35 to 700 lb of steam per hr and up to 100 psi, comes equipped with an automatic makeup valve and a 20-gal tank. Roy E. Roth Co., Rock Island, Ill.



Hydro-Sheave Drive E512

A SMALL HYDRAULIC COUPLING with a V-belt sheave is the basis of a hydraulic conversion unit for small electric motors and internal-combustion engines in the 1- to 25-hp range. Oil is the power-transmission medium. Incoming power from the electric motor or internal-combustion engine drives the hydraulic coupling's inner mem-

MEETING SPECIAL CONDITIONS



REVERE REVALON and CUPRO-NICKEL

Because each condenser and heat exchanger presents its own special combination of conditions, no blanket recommendations for condenser tube alloys are possible. However, this much can be stated authoritatively: there are three Revere Metals which deserve special consideration in cases of limited or unsatisfactory tube life. Here they are:

Cupro-Nickel, 30%. Withstands high operating temperatures. A tenacious surface film forms on this metal, which resists impingement attack and erosion, salt water, and waters containing organic material. Widely used in marine and seaboard installations, the tropics and sub-tropics.

Cupro-Nickel, 20%. Similar to Cupro-Nickel, 30%, but lower in price and somewhat less resistant to certain types of corrosion.

Revalon (Aluminum Brass). This Revere Metal contains a small proportion of aluminum, which

gives it a long life in applications where water velocities are high or water is saline. The film formed on this tube is tenacious and self-healing, rendering it highly resistant to impingement attack.

Which of these types to select, or which of the five other types of Revere Condenser Tubes should be chosen, depends on individual conditions. The Revere Technical Advisory Service will gladly collaborate with you in arriving at a decision as to the most economical tubes for your plant.

REVERE

COPPER AND BRASS INCORPORATED

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