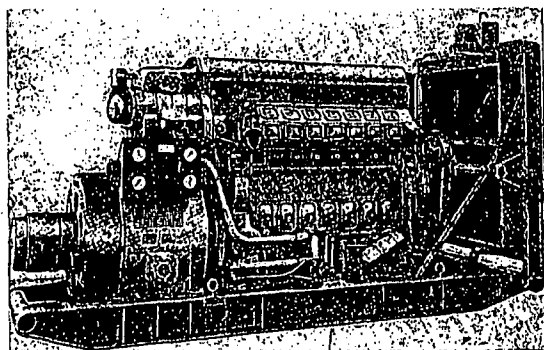


More EQUIPMENT NEWS

Begin on page 156



Heavy-Duty Diesels for 225- to 750-Hp Service

601 • Model 38FS4, opposed-piston engine, rated 75 hp per cylinder at 1200 rpm, meets demand for a compact, heavy-duty diesel for stationary, marine, railroad and other specialized applications in the 225 to 750-hp range. Full "OP" line now extends from 225 to 2400 hp. All can be equipped to operate as oil-burning diesels, dual-fuel, or spark-ignition gas engines.

New 5 1/4 x 7 1/2 engine is designed for continuous service with rugged construction and conservative piston speed and bearing loads. Yet 225-hp unit weighs only 7100 lb, can be skid-mounted. Marine units have reverse-reduction gears.

Cylinder block is welded of flame-cut steel sections, stress-relieved and magnetized. Air receivers and ducts from rotary-type scavenging blower form an integral part of the block, add to its rigidity. Bearing saddles, also an integral part of the block, are line bored. A bevel-gear-driven, flexible, vertical drive connects upper crankshaft to lower. Part of upper shaft power drives scavenging blower. Crankshafts are high-strength alloy cast iron, cored for lightness and with integral counterweights. Thrust bearing is at drive end. Precision main bearings are aluminum alloy; forged-steel caps mortise into frame.

Interchangeable cylinder liners have steel water jackets fitted around middle where they also support combustion forces. Cooling water flows through fluted passages. Scavenging air cools upper part of liners; water circulating in exhaust-manifold housing

ing cools lower part. Inlet and exhaust ports are located around entire liner circumference. Slanted inlet ports promote increased turbulence.

Upper and lower pistons are completely interchangeable. Each has three compression and three oil rings. A removable piston-pin insert supports hollow full-floating pin. Piston-cooling oil flows through passages between insert and inner piston wall.

Alloy connecting rods are drop-forged. When engine operates at part load, output of positive-displacement scavenging blower is reduced by an air bypass valve.

This minimizes blower power requirements. Blower supplies air receivers on both sides of engine; scavenging is unidirectional. Exhaust manifolds, one on each side, are water-cooled and removable.

Entire fuel system, except supply tank, is engine mounted. Positive-displacement rotary-gear-type pump supplies fuel to individual injection pumps, operated from camshaft on control side of engine. Nozzles are of the pintle type. Engine has a complete pressure-lubrication and piston-cooling system, and a closed soft-water cooling system. A raw-water system is used to cool soft water and lube oil.

One lever controls starting, running and stopping. In an emergency, a pushbutton control provides instant shutdown. Engine is fitted with a hydraulic governor and an overspeed governor. Fairbanks, Morse & Co., 600 S. Michigan Blvd., Chicago, Ill.

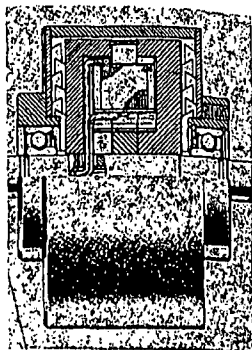
Wireway

626 • New type of wireway is designed to speed and simplify installation. Only two screws are required to fasten the cover to any one section. All other cover fasteners are of the lock type. Sections are joined by connectors, tees and elbows, each requiring only one screw which locks a hook and slot arrangement.

Connectors and other fittings have removable face plate permitting wires to be laid in after completion of wireway installation.

Available in lengths from one to 8 ft, with cross-sectional sizes 4 x 4, 4 x 6, 6 x 6, and 8 x 8 in.

Trumbull Electric Dept., General Electric Co., Plainville, Conn.



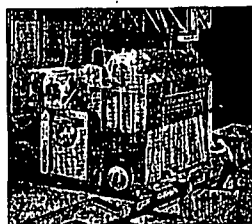
Magnetic Particle Clutch

635 • Dynamic drive consists of two independent rotating members, a driving element and a driven element. The two members are separated by a space filled with small ferro magnetic particles (stainless steel). When one member is energized, the particles polarize and bind together, binding the rotating members together with a proportional force.

Advantages claimed include smooth engagement, continuous operation with negligible wear, instantaneous response, operation as clutch or brake.

Clark Mfg Co., 1830 E. 38th St., Cleveland 14, Ohio

For more data on these items, use post card P. 165. Identify your request with item number



Packaged Boiler

620 • Type VP packaged water-tube boilers are designed to operate up to 250 psig, with capacities from 4000 to 50,000 lb per hr. Unit has two-drum, vertical-bundle arrangement with a high ratio of furnace-wall cooling to furnace volume. Firing is oil or gas or combination. Unit employs a centrifugal-type forced-draft fan, requires neither an induced-draft fan nor a high stack, manufacturer says. Automatic control system is standard.

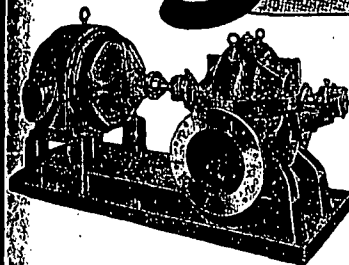
Combustion Engineering-Superheater, Inc., 200 Madison Ave., N. Y. 16, N. Y.

(Continued on page 162)

"Buffalo"

Tips on Better Pumping

3 TYPES of PUMPS and what each offers you —

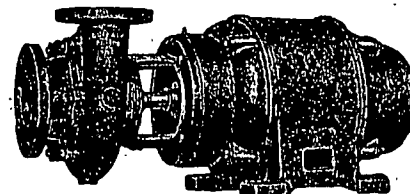


1. DOUBLE SUCTION

This "Buffalo" Pump offers a high degree of efficiency in pumping large volumes of clear water. Available in capacities for 10 to 10,000 gpm at up to 300 ft., these pumps are hydraulically balanced—water entering both sides of the impeller in equal volume and pressure. Bearings on each end of shaft mean extra long wear. Horizontally divided casing makes for extreme accessibility in inspection and servicing. Full details in BULLETIN 955-P.

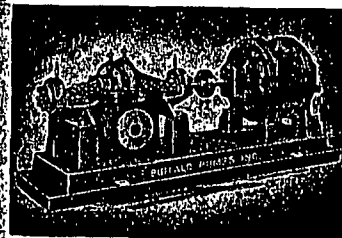
2. CLOSE-COUPLED

Here is a ruggedly compact pump for those "close-quarters" installations. Pump and motor are rigidly mounted together with impeller on motor shaft, which means permanent alignment. "Buffalo" builds these pumps in a variety of alloys for specific liquids, with threaded or flanged inlets and outlets. Pump casing may be rotated, or removed for inspection—an important maintenance factor. WRITE for BULLETIN 975-B.



3. MULTI-STAGE

Each extra stage adds pressure! That's why pumps like these "Buffalo" Type "RR" (2 and 4-stage models) operate efficiently against high pressures (500 psi or 1500 ft. heads). These "Buffalo" Pumps have proven themselves very durable in boiler feed and other clear water installations. Bearing support on both ends of the shaft—rugged, horizontally divided casing—solid, rigid base—all contribute to easy maintenance and long life. For further details, write for Bulletin 980-B.



"Buffalo" PUMPS, INC.

488 BROADWAY

Subsidiary of Buffalo Forge Company

BUFFALO, N. Y.

Canada Pumps, Ltd., Kitchener, Ont. Sales Representatives in all Principal Cities

A BETTER CENTRIFUGAL PUMP FOR EVERY LIQUID