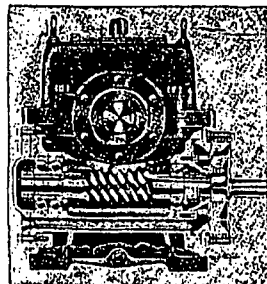


NEW EQUIPMENT CONTINUED

output 320 hp; D375, a V8 engine with blower, maximum output 334 hp, rated output 300 hp and continuous output 268 hp; D364, a V8, maximum output 267 hp, rated output 240 hp and continuous output 214 hp.

All four engines are designed for 100% power takeoff at either end. Parts are interchangeable between engines of like number of cylinders. Lubrication, fuel-injection, cooling and starting systems are similar in all four units, as are the governor flywheel housing, crankshaft and bearings, connecting rods, pistons and rings, cylinder liners and head, valves and cylinder block. Choice of electric or air starting is offered.

Crankshaft is drop-forged high-carbon steel with hardened journals. Drop-forged steel connecting rods have crankpin bearings of solid aluminum alloy and precision-bored bronze wristpin bushings. Main bearings are also precision type, of solid aluminum alloy. Trunk pistons are aluminum alloy with three compression and two oil rings. Full-floating carburized and hardened ground piston pins are provided. Removable wet-type hardened alloy-cast-iron cylinder liners are chemically treated for superior "break-in." Single inlet and exhaust valve for each cylinder are of in-head type. Engines are full pressure lubricated. A gear transfer pump supplies fuel through replaceable absorbent filters to individual fuel-injection pumps with the fuel delivered under pressure to the single-orifice fuel-injection valves. A hand-operated pump permits priming the fuel system before starting the engine. Caterpillar Tractor Co., Peoria, Ill.



Worm-Gear Drives E468

HYPOID DRIVES have high thermal capacity permitting smaller, less expensive reducers, saving on original cost. Leakage of oil is prevented by carbon lap ring type seal. Drives are available in horizontal and vertical types, single and double worm-

gear, reduction, with a wide range of standard ratios to meet practically any need. Units comply with the speed-ratio standards adopted by the American Gear Manufacturers' Association, and the National Electrical Manufacturers' Association. Foote Bros Gear & Machine Corp., 400 W Madison St., Chicago 6, Ill.



Pressure Indicator E420

HEART OF THE ATCOTRAN SYSTEM is based on applying a differential transformer, which develops a linear output, to standard primary measuring elements such as bourdon tubes or bellows. The indicator eliminates objectionable inherent characteristics of the bourdon tube because tube is not loaded with instrumentation gear. Only armature of the differential transformer is connected to tube tip. There are no jewel bearings, pivots, springs or similar movements. The tubes, which may be loaded to full rated range, constantly return to zero position within accuracy limitation of the Atcotran system. Instruments are accurate to within one-quarter of 1% reading; sensitivity is one part in 4000, or better.

Any number of pressure transmitters, of either the same or different ranges, may be read from one common indicator equipped with selector switch stations. Pressure pickup transmitters consisting of K-Monel bourdon tubes mounted in dust-tight enclosures are suitable for corrosive applications. Comes in six standard ranges from 0 to 10,000 psi. Automatic Temperature Control Co., 5212 Pulaski Ave., Philadelphia 44, Pa.

Welder E435

LIGHTWEIGHT, engine-driven, dc welder weighs 660 lb, has a maximum welding current of 250 amp. An air-cooled engine, speed-ratio-coupled by a steel core V-belt to a generator with a 50% duty cycle, powers the 44½ in. by 24½ in. by 35½ in. high welder. General Electric Co., Schenectady 5, N. Y.

Turbine-Type Pump E467

DESIGNED FOR industrial and domestic applications requiring pressures to 175 psi and speeds to 3600 rpm, capacities to 150 gpm and viscosities to 550 csu, this pump handles liquids under extreme temperature variations without stalling through use of an automatic, self-adjusting impeller. Very hot liquids can be pumped without vapor binding.

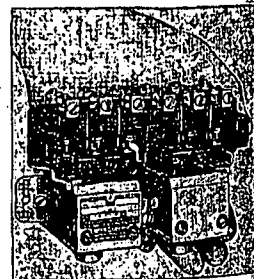
This turbine-type pump has a single multivane impeller that develops high pressures in single-stage construction. Both heads and impeller, available in either bronze or stainless steel, are renewable in case of wear or whenever pump capacity is to be changed. Roy E Roth Co., Rock Island, Ill.

Drying Agent E429

RELATIVELY HARD, granular drying agent has high absorptive properties for oil, grease and water droppings. Industrial Floor-Dry is also said to give high coverage and increase light reflectivity because of its color wheel spread over the floor. Industrial Floor-Dry Dept., Eagle-Picher Co., American Bldg., Cincinnati 1, Ohio.

Welding Electrode E434

HIGH TENSILE-STRENGTH WELD results from use of Airco No. 394, a low-hydrogen coated electrode designed to prevent underbead cracking in weld deposits. Electrode operates on either ac or dc and is said to give good service with hardenable steels. Air Reduction Sales Co., 60 East 42nd St., New York 17, N. Y.



Reversing Contactor E439

DESIGNED TO CONTROL small ac and dc motors used in connection with hoists, overhead doors, monorail cranes, mechanical speed changers, and other intermittent duty applications, this new contactor is compact and well-insulated between all live parts. (Continued on page 134)

No matter how small your chemical needs . . .

Complete Nalco WATER TREATMENT SERVICE

Nalco Laboratories' equipment and services for water treatment, including analysis, testing, and control systems.

ONE or more of these conditions usually cut chemical needs for water treatment:

- ✓ Evaporated feedwater
- ✓ Low make-up
- ✓ Low steam requirements
- ✓ Soft raw water

Filling the large demand for expert water treatment analysis and advice on control and testing procedures in plants where these conditions exist, the Nalco Service Agreement gives you:

- A complete plant water treatment survey; with detailed reports and recommendations on your water treatment problems.

- Supervision of control and testing procedures to assure continued water treatment efficiency; and to minimize possible shut-downs due to water treatment troubles.

- Regular Nalco Service calls to check results; and Nalco Laboratories' analysis reports to detect and correct for changes in raw water characteristics or altered plant operating conditions.

To get a prompt start toward the security from water treatment difficulties a Nalco Service Agreement provides, call your Nalco representative today, or write direct.

NATIONAL ALUMINATE CORPORATION

6232 West 66th Place Chicago 38, Illinois
Canadian inquiries should be addressed to Alchem, Limited, 555 Eastern Avenue, Toronto, Ontario



... Serving Industry through Practical Applied Science

Use convenient reply cards on page 178a to secure additional information on these new equipment items. Please be sure to identify your request with the new-equipment key letter, E, and number, as shown on the items above.