



A MERCOID UNFAILING ADVANTAGE

Whatever your control requirements may be, it is conceded that the switch in a control warrants first consideration, due to its functional characteristics. All Mercoide Controls are equipped exclusively with hermetically sealed mercury switches of special design and selected materials.

Mercoide mercury switches are known the world over for their dependable service. They are not affected by dust, dirt or corrosion; nor are they subject to open arcing with its attendant consequences of pitting, sticking or oxidized contact surfaces, all of which, are likely to interfere with normal switch operation.

That is why among other things, Mercoide Controls on the whole give you assurance of better control performance and longer control life—a distinct and unfailing advantage—the reason why they are also the choice of America's leading engineers for many important industrial applications.

MERCOIDE CONTROLS are available in a variety of types for sensitive control of Pressure, Temperature and Lever actuation.



MERCOIDE
APPROVED CONTROLS

THE MERCOIDE CORPORATION
1901 BELMONT AVENUE • CHICAGO, ILLINOIS

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NAPE Starts Long-Range Educational Program

National education committee has in its final meeting established the preliminary outline of what, it is hoped, will be a long-range project for the National Association of Power Engineers. This program consists of five separate projects as follows:

1. Records are to be made of round-table discussions on various phases of power-plant operation and maintenance. The men who will collaborate in these discussions are the best operating engineers and representative manufacturers' engineers available in metropolitan New York area. These recordings will be on four 12-in. records with an approximate playing time of 50 min. As many copies of such recordings as are necessary are to be made and they will be available to chapters desiring to use this project in their educational programs. There will be no charge for the material.

2. Sound-alike films are to be made on various operations of power-plant procedure. Specific power-plant operations will be selected, for example, operation and maintenance of all oil-burning equipment. Again, this material is available without charge to all NAPE chapters wishing to use it in their local educational program.

3. Representative committees will be formed from outstanding manufacturers of specific power-plant equipment and materials, for example, there will be sections on turbines, centrifugal pumps, water treatment, and steam boilers. Each section will release impartial monthly bulletins relative to operation and maintenance of particular types of equipment represented by the respective section. Such releases will go direct to educational chairman of individual chapters. There will be no charge for this service.

4. A bulletin on questions and answers, covering all phases of power-plant operation, will be released each month. This will also go direct to educational chairmen without charge.

5. Each state where NAPE chapters are located will have a state coordinator of education who will in every way possible aid, facilitate and expedite the national education program.

The program, as outlined above, will be offered to those chapters desirous of using its services. A bulletin will also be released listing most successful local educational plans now in use, so that a chapter without a definite plan may choose a pattern from those that trial has proved most effective.

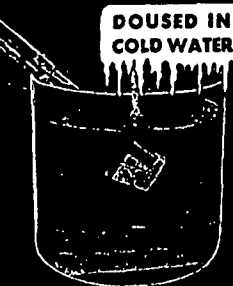
The City of Jacksonville, Fla. will spend about \$15,000,000 for rehabilitation and expansion of the municipally owned electric system. The expansion calls for a new power plant, equipped with two 50,000-kw generating units. A second program involves modernizing the water system and installing water-softening equipment. Reynolds, Smith and Hills, architects and engineers, are consultants for both programs.

Demonstrating BRICKSEAL REFRACTORY COATING



Brickseal provides a crackproof, vitrified armor for furnace linings. The small firebricks shown in the furnace were bonded and painted with Brickseal and heated to 2250°. Directly from the furnace they were plunged into cold water as shown below—a test for any material subject to expansion and contraction.

Brickseal is semi-plastic when hot, yet hard and tough when cold. Brickseal is made in grades suitable to heats ranging from 1400° to more than 3000°. It will make any furnace last longer by giving new life to your refractories. Write or call local dealer for a demonstration.



BRICKSEAL REFRACTORY COMPANY

5800 S. Hoover St., Los Angeles, Cal.
158-14th St., Hoboken, N. J.

POWER • January 1948

Engine performance at its best with crankshafts on Timken bearings

By using Timken bearings at both ends of the crankshaft in their heavy-duty air-cooled engines, Wisconsin Motor Corporation insures trouble-free operation. End play is eliminated. Crankshaft and attached parts are held accurately in line, resulting in better performance and longer life. Lubrication is simplified.

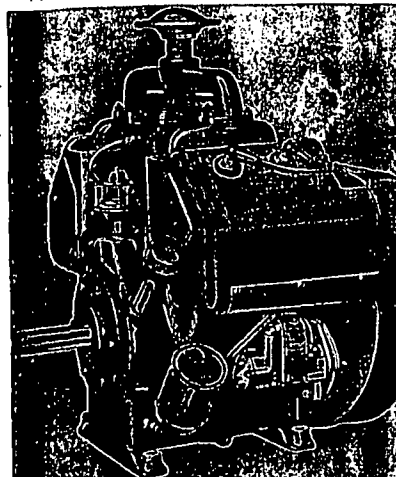
Timken bearings hold moving parts in proper alignment because their tapered construction carries

both radial and thrust loads and eliminates end play. Maximum support is provided by the line contact between rolls and races.

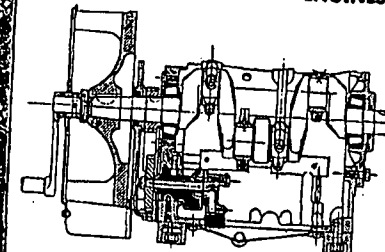
With Timken bearings, friction is negligible. Timken bearings are manufactured to extreme accuracy, with amazingly smooth surfaces. They retain this friction-free precision because of their true rolling motion and the Timken fine alloy steel of which they are made.

To be sure of long-time, trouble-free crankshaft performance, make sure the trade-mark "Timken" is on every bearing you use. Timken bearings are backed by 49 years of bearing research and development. No other bearing can give you all the advantages of Timken bearings. The Timken Roller Bearing Company, Canton 6, Ohio.

 This symbol on a product means its bearings are the best.



Timken bearing crankshaft application in
WISCONSIN HEAVY-DUTY ENGINES



GREATER LOAD AREA
Because the load is carried on the face of contact between rollers and races, Timken bearings carry greater loads, hold shafts in line, wear longer.
The Timken Roller Bearing Company is the acknowledged leader in: 1. advanced design; 2. precision manufacturing; 3. rigid quality control; 4. special analysis steels.

TIMKEN
TAPERED
ROLLER BEARINGS



NOT JUST A BALL • NOT JUST A ROLLER • THE TIMKEN TAPERED ROLLER BEARING TAKES RADIAL AND THRUST LOADS OR ANY COMBINATION

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