

Tubes

All standard sizes
and extra gauges

ACCURATELY
FABRICATED

BOILER TUBE CO. OF AMERICA

McKEESROCKS, PA.

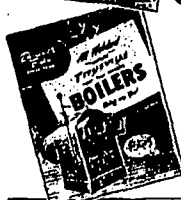
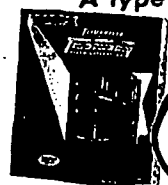
(Pittsburgh District)

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Meet the TITUSVILLE Boiler Family

A type and capacity for every
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THE TITUSVILLE IRON WORKS COMPANY

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**Swathers
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TITUSVILLE, PENNA.

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BEARING FAILURES

Continued from page 220

away heat, helps sealing and protects against corrosion.

How Much Lubricant? How lubrication affects friction of a rolling-contact bearing depends on what kind of bearing we have in mind. Remember that commercial bearings are available costing only one-fourth to one-sixth as much as the well-known precision type. These may be used for lighter loads and slower speeds. Lower cost comes from greater tolerances, lack of retainers or ball spacers, etc.

The research boys have found that a precision bearing will show slightly greater friction when lubricated than when dry. But just the opposite may be true for the low-cost type, where lube helps cut the greater sliding friction at the start. Generally, though, precision bearings are the type used in electric motors. In either case, friction is lowest when but a thin film of oil covers contacting surfaces.

MARMADUKE

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"Old chief Drummerhauser barged in about then with his assistant in tow. Jake was as gay as a lark and felt all hopped up about the way I had prepared for this job. When I told him our trouble, he turned purple around the gills and let out a blast heard across the bay in Alameda.

"What stupid jackass caused this mess?" he roared, the words almost choking him.

"After blowing a few gaskets he threatened, 'I'll see the dirty bum gets a year in Alcatraz for planning to wreck a public utility.'

"By then his smart young assistant was checking the condenser tube order in the office. And what do you think he found? Why, he discovered that the chief himself made that mistake, that's who. Evidently Jake had gotten the tube information from the wrong condenser blueprint.

"Here it is in black and white," said the assistant, showing the boss the order. Right then old Drummerhauser blew his one remaining gasket. He sank slowly down on a condenser tube packing box and wiped the beads of perspiration from his forehead. All the steam was out of him by then. He just sat there, wilted, like a dry boiler tube in a live furnace.

"On your toes, gang," I ordered. "Back to the machine shop. I've been in worse hurricanes than this without (Continued on page 224).

"Indianapolis Power & Light Company's

large new White River plant uses

Shell Alvania Grease

on every one of these

grease applications!"



Check the multiple qualities
of this remarkable lubricant

Shell Alvania Grease is effecting important improvements in plant maintenance and purchasing practice. In plant after plant, this one grease is replacing the many special purpose greases formerly used . . . for every grease application in the plant!

Look at these advantages:

1. Shell Alvania Grease flows freely in cold temperatures, yet will

not run out of bearings under excessive heat.

2. Ideal for wet, humid applications . . . it resists water emulsification.

3. Shell Alvania Grease has extremely high oxidation stability.

4. You'll find that Shell Alvania Grease extends time between greasings . . . a substantial saving in labor and grease.

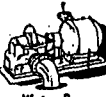
5. Simple inventory . . . just the one grease to stock and apply.

The economy of handling just one grease instead of many is an established fact. Write for the new booklet on Shell Alvania Grease . . . to Industrial Lubricants, Shell Oil Company, 50 West 50th Street, New York 20, N. Y.—or, 100 Bush Street, San Francisco 6, Calif.

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