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At the heart of each cooling cell



LUFKIN

TYPE "VB" SPIRAL BEVEL GEAR REDUCER

for Cooling Towers

BULLETIN G-7A

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Designed to keep going longer-trouble free

Cooling Tower Fan Duty is generally recognized to be one of the most severe tests to which a gear reducer can be subjected. Heat, high frequency fan shock loads, the continuous flow of saturated air, corrosive atmospheres and 24-hour duty are all conditions which deal out terrific punishment to the gears. Cooling tower engineers are generally agreed that Cooling

C.T.I.-A.G.M.A. STANDARDS

Lufkin Type "VB" Gears meet or exceed all minimum requirements specified by C.T.I. and A.G.M.A. standards. In a majority of 15 sizes, B-10 bearing life will exceed 100,000 hours.

GEARS

Spiral Bevel, cut on Gleason Generators. For utmost quiet and smooth operation, the pinion is lapped-in with the mating gear and both are carefully checked for accuracy of tooth contact. Gears are cut from forged alloy SAE-4620 and case hardened to Rc 58-60.

BEARINGS

C.T.I. 20,000-hour B-10 minimum life Timken tapered roller bearings used in the simplest and most rugged design possible. Pinion input shaft cantilever type, rigidly mounted on two bearings with optimum spread. Main shaft mounted on two bearings widely separated. Lufkin provides more than the minimum bearing design required by A.G.M.A.

SHAFTING

Highest quality chrome-nickel steels. Forged alloy S.A.E.-4620 pinion shaft Rc 58-60. Slow speed shaft — S.A.E.-4145H 260-290 Brinell heat-treated and precision ground.

DURABILITY AND RUGGEDNESS

Up to 40% greater case weight — iron (Lufkaloy) case heavily ribbed, removable bearing cartridges and rigid bearing mounts — gives rigidity for permanency of shaft alignment and accuracy of gear mesh. *Example: Lufkin's* 115-VB weighs 2015 lbs., as against the 1350 lbs. of a comparable competitive unit.

SUMP-BOTTOM CONDENSATE TRAP

The reverse curve of the sump bottom, like the bottom of a champagne bottle, assures lower main bearing supply of clean uncontaminated lubricant at all times. Sweat, condensate, or water poured in inadvertently from make-up oil drum to gear box, will gather in the sump below main bearing level, where it can be drained after being allowed to settle.

LUBRICATION SYSTEM

Standard Units — splash-slinger lubricated. Top main bearings and pinion bearings provided for by oil slinger mounted on pinion shaft. *Extra large diameter slinger* of special design gives added protection in event of low oil level. *Optional*—Forced lubrication system—for conditions of extreme cold with slow speed operation, or half speed reverse rotation for de-icing of tower louvres, or in intermittent operation. Gear box designed to take positive displacement Tuthill Pump . . . simple and rugged in its construction . . . automatically reversible.

OIL SEALS

Patented oil seals provided — two seals mounted in tandem above upper main bearing provide extra protection against water intrusion; grease filled labyrinth for added water seal. High speed shaft seal rides on replaceable wear sleeve.

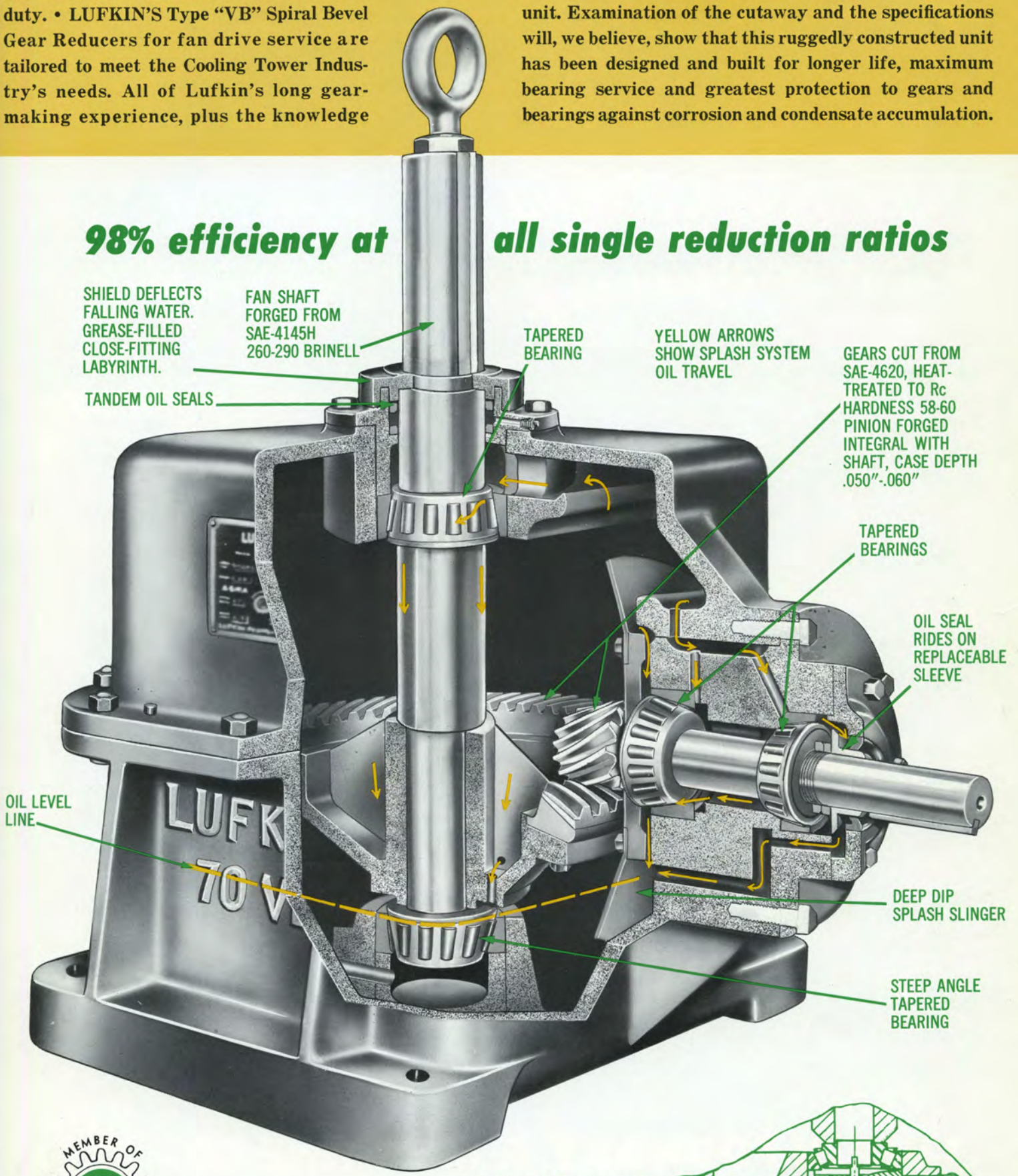
CONVENIENCE FEATURES

Large inspection plate mounted on side of case • Oil level sight gage • Drain vents at sump bottom • Air vent on top of box; tapped hole takes connection for pipe extending outside saturated air stream • Oil filler ell for remote filler line extending outside fan stack.

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Tower Service demands a special type of gear reducer, designed specifically for this duty. • LUFKIN'S Type "VB" Spiral Bevel Gear Reducers for fan drive service are tailored to meet the Cooling Tower Industry's needs. All of Lufkin's long gear-making experience, plus the knowledge gained from thousands of cooling tower installations, has been utilized in the advanced engineering of this unit. Examination of the cutaway and the specifications will, we believe, show that this ruggedly constructed unit has been designed and built for longer life, maximum bearing service and greatest protection to gears and bearings against corrosion and condensate accumulation.

98% efficiency at all single reduction ratios



MEMBER OF AGMA

Optional Equipment: Tuthill Positive Displacement Pump for Forced Feed Lubrication

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AIR CONDITIONING COOLING TOWER

LUFKIN "VB" SPIRAL BEVEL GEAR REDUCERS SERVE INDUSTRY THROUGHOUT THE WORLD

Lufkin Type "VB" Gears for cooling towers are the product of an organization with a reputation for the manufacture of trouble-free precision equipment since 1901. Lufkin Reduction Gears of various types are serving in all kinds of industry. A notable example is the famous Herringbone Geared Lufkin Pumping Unit . . . the world's foremost Oilfield Pumping Unit.

All Lufkin Gear Units are made by skilled workers, assembled under most rigid inspection and laboratory control, and are thoroughly tested for satisfactory operation.

MEMBER OF AGMA



CHEMICAL PLANT COOLING TOWER



INDUSTRIAL COOLING TOWER

SERVICE . . . Lufkin Foundry and Machine Company maintains factory sales and service branches strategically located throughout the United States and through its Canadian subsidiary, Lufkin Machine Co., Ltd. of Canada, with offices at Edmonton, Alberta, and Esteran, Saskatchewan. In South America, it's Lufkin International, with offices at Maracaibo and Anaco, Venezuela. With the main office and plant centrally located in Lufkin, Texas, this network combines to give the Lufkin gear user swift and reliable service whenever needed.

QUALITY SINCE 1902 EQUIPMENT

LUFKIN FOUNDRY & MACHINE CO. LUFKIN, TEXAS

Branch offices: Dallas, Houston, Tulsa, Los Angeles, New York, Oklahoma City, Chicago, Cleveland, Pittsburgh, Corpus Christi, Kilgore, Wichita Falls, Casper, Wyo., Great Bend, Kan., Odessa, Tex., Shreveport, Lafayette, La., Pampa, Sidney, Mont., Edmonton, Alberta, Canada, Bakersfield, Denver, Estevan, Hobbs, Midland, Natchez.

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