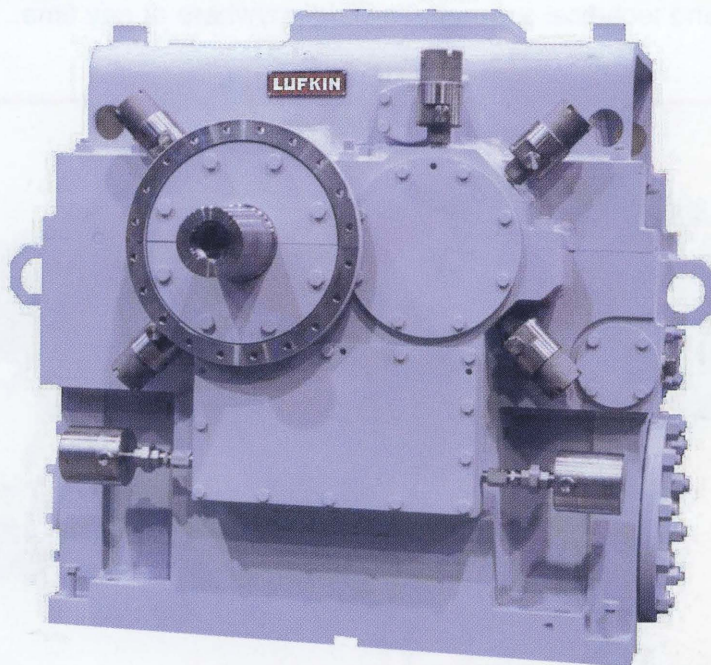




LUFKIN INDUSTRIES INTRODUCES N-D LINE HIGH-SPEED GEAR UNITS AN INNOVATION IN GEAR PERFORMANCE AND RELIABILITY



Benefits and Features of the Lufkin N-D Line High-Speed Gear Unit

Extremely Low Noise Levels

- Lowest sound pressure level guarantees in the industry.
- Sound level guarantees are routinely achieved without blankets or enclosures.
- An NF1819D gear unit operating at 25 MW (33,580 HP) and 153 m/s (30,075 fpm) pitch line velocity measures 82 dB(A) under full load.

Low Vibration Levels

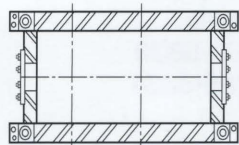
- All shaft and casing vibration levels meet API 613 5th Edition requirements (1.0 mil maximum).
- All rotating elements are balanced to meet stringent API 613 5th Edition requirements.

No Seal Leaks

- Bearing drains are isolated and pressure-controlled.
- Labyrinth oil seals are protected from oil splash and air pressure differentials.

High Casing Stiffness

- Main casing sidewalls are solid with extra-thick construction which extends directly from the bearings to the foundation, as this sectional view illustrates.
- Foundation bolt holes are integral with primary bearing support walls.
- Housing wall design is based on new API 613 5th Edition requirements for rotordynamic performance.



Overspeed Testing Standard on All API 613 Units

- API 613 gear units are over-speed tested at 120% of maximum continuous speed during mechanical test.

Specifically Designed for High-Performance Applications

- Designs utilize state-of-the-art materials and manufacturing technologies.
- Conservative gear tooth ratings are employed in all areas—strength, durability, and scuffing.
- Additional material and process controls are incorporated for rotating elements operating above 152 m/s (30,000 fpm) pitch line velocities.

Exceptional Material Cleanliness

- All pinion and gear materials are certifiable to SAE-AMS 2304 vacuum arc remelt cleanliness with documentation per ASTM A-866, inclusion ratings.

Excellent Forging Integrity

- All gears and pinions meet forging requirements of API 613 5th Edition, including traceability on all rotating elements.

Reduced Delivery Lead Time

- Lufkin is the industry leader in short engineering and manufacturing cycle times.

Easy Gearbox Installation and Maintenance

- Casing design eliminates poor gear tooth contact at installation and is less susceptible to the negative effects of “soft foot.”
- “Best Practices” assure easy instrumentation access, dowel pin hole access, disassembly, and reassembly.
- Designs enable trouble-free vibration probe and temperature sensor replacement in the field.
- Lufkin leads the gear industry in after-sales support and customer service.

LUFKIN

Lufkin Industries' integrated manufacturing facilities in the United States and Europe combined with worldwide service and sales offices create a network of experienced professionals committed to providing the highest quality products and technical support available anywhere at any time.



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