SERVICE LIGHT LIFTING INDUSTRIAL CRANES **PROCESS CRANES** PORT CRANES LIFT TRUCKS

GEARBOX



# **HEAVY DUTY GEARBOXES**

Konecranes Heavy Duty Gear Reducers perform- day after day, year after year. Our impressive array of engineered design features ensure quality, reliability, reduced maintenance and long life.

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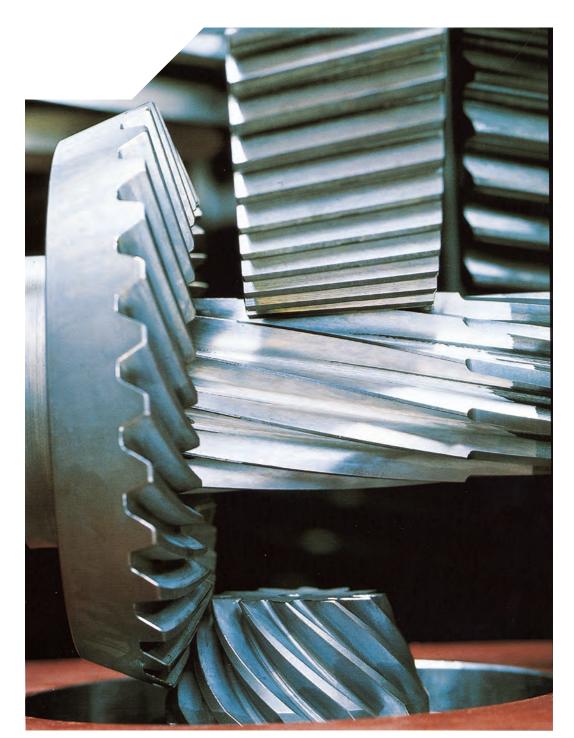
### World Leader in Gear Performance

There's a simple test of gear quality that anyone can perform. Just listen. Gears that run quietly are precision gears with excellent toothform, operating silently in straight, parallel bores. These are gears that will last the lifetime of your equipment, and more. Konecranes' heavy-duty gear reducers feature carburized, groundform gearing, machined to DIN 6 (AGMA 11) quality levels. They are hard, silent, long-wearing and ready to go to work with no initial "breaking in" period. Konecranes uses the latest generation CNC machining equipment to make certain that gears and bores are perfectly formed, ensuring quiet operation and long life.

### ISO 9001 Quality

Quality comes first at Konecranes Components Corporation, certified ISO 9001 since 1991. We believe our gear components are the best in the world. Why? Because we overlook no detail to ensure that Konecranes' comprehensive range of heavy-duty gear reducers will outperform any other brand made, worldwide.

Visit with us to learn more at: www.konecranesamerica.com



## KONECRANES® Lifting Businesses

### **UNSURPASSED GEAR QUALITY:** Features that reduce maintenance, extend equipment life.

LARGE TOOTH PROFILES

and tough core properties increase the safety factor against breakage while resisting the high shock loads common in crane applications. Final form is ground to DIN 6, (AGMA Quality Class 11) ensuring silent operation and long gear life.



GEAR QUALITY is second to none. Pinions and gear wheels are made of case-hardened, 17CrNiMo6 and AISI 8620 steels.

Gears are hobbed on Pfauter machines with computer-controlled accuracy, carburized and hardened to 60HRC.

#### SPLIT DIFFERENTIAL INPUT

allows the gearbox to drive the machine with two motors for full performance and with one motor, at half-speed, if either motor fails. With this feature, a hoist motor malfunction becomes a maintenance event rather than a total process shutdown.

GEAR INSPECTION compares the

GEAR INSPECTION compares the actual shape of a gear to that of a perfect gear. All gears must pass rigid inspection and testing procedures prior to assembly. STANDARD GEAR HOUSINGS ARE CAST IRON, a material selected for good vibration dampening properties, dimensional stability and excellent machining qualities. Castings are aged before machining to ensure removal of residual stresses. Parting surfaces are machined to a smooth finish for leak-free sealing.

Konecranes' extensive range of gear reducers ensures a custom "fit" for every industry application. Our modular design strategy and flexible production approach ensures that each customer's special needs are met.

### **GEARBOX DESIGN FEATURES**

- Standard helical and bevel gear reducers
- Widest possible range of configurations
- Output torques up to 400,000 Nm (296,000 LN-FT.)
- Gears are fully sealed, operating in an oil bath
- External oil level indicators
- · Available auxiliary lubrication pump for severe duty
- Cooling fans to increase thermal capacity
- Split differential input option allowing dual power sources for critical process applications
- Continued operation at half-speed if one power source fails

### **GEARBOX FABRICATION QUALITY FEATURES**

- Standard cast iron or stress-relieved, fabricated steel housings
- Castings aged before machining to ensure removal of residual stresses
- Roller bearings meet or exceed requirements of FEM or CMAA for specified classes of crane service
- Parallelism of bores assures full gearface contact and long equipment life
- High quality double lip oil seals, with special seals available for special environments.

### **GEAR QUALITY FEATURES**

- Pinions and gear wheels made of case-hardened, 17CrNiMo6 and AISI 8620 steels.
- Gears hobbed on computerized Pfauter machines
- Gears carburized and hardened to 60HRC
- · Gears pass rigid inspecting and testing procedures



TROLLEY AND BRIDGE DRIVE

For both end-users and crane builders, we support our component line with after-sale service and spare parts for the life-span of the equipment. In the case of a Konecranes gear reducer, this may seem like forever.