

REPAIR, REBUILD & UPGRADE FIELD SERVICE



HORSBURGH & SCOTT
DELIVERING THE DIFFERENCE



BEFORE



AFTER



REBUILD, REPAIR & UPGRADE

HORSBURGH & SCOTT SPECIALIZES IN GEARBOX REBUILD, REPAIR AND UPGRADE. WE HAVE BEEN IN BUSINESS FOR OVER 135 YEARS, AND HAVE REPAIRED EVERY TYPE OF GEAR FOR MANY MARKETS AND APPLICATIONS.



APPLICATIONS

- Hot and cold, rolling, pipe, ball, rod, autogenous and tunnel boring mill gearing
- Shear drives
- BOF drives
- Coilers and uncoiler gearing
- Pulverizer gearing
- Material conveyor gearing
- Mixers and extruder gearing
- Rotating kiln drives
- Crane and winch gearing
- Railcar dumper drives
- Air pre-heater gearing
- Pump and calendar drives
- Dredge gearing
- Aerators, clarifiers and agitators
- Elevation screws
- Tainter gate gearing
- Movable bridge gearing



Rebuilt & Repaired thousands of **gearboxes**, and have a library of drawings across **120 BRANDS**.

- Detailed inspections and evaluations
- Dynamic modeling and optimization recommendations
- Emergency breakdown service and repairs
- No load spin testing
- Equipment evaluation/analysis
- Gear alignment
- Installation and startup supervision
- Lubrication system evaluation
- Nondestructive testing (NDT)
- On-site machining
- Preservation and long-term storage
- FARO Arm
- Rebuilds of all manufacturers
- Re-ratios and engineered upgrades to gears and housings
- Reverse engineering
- Spare OEM parts
- **24/7 RUSH Breakdown Service**



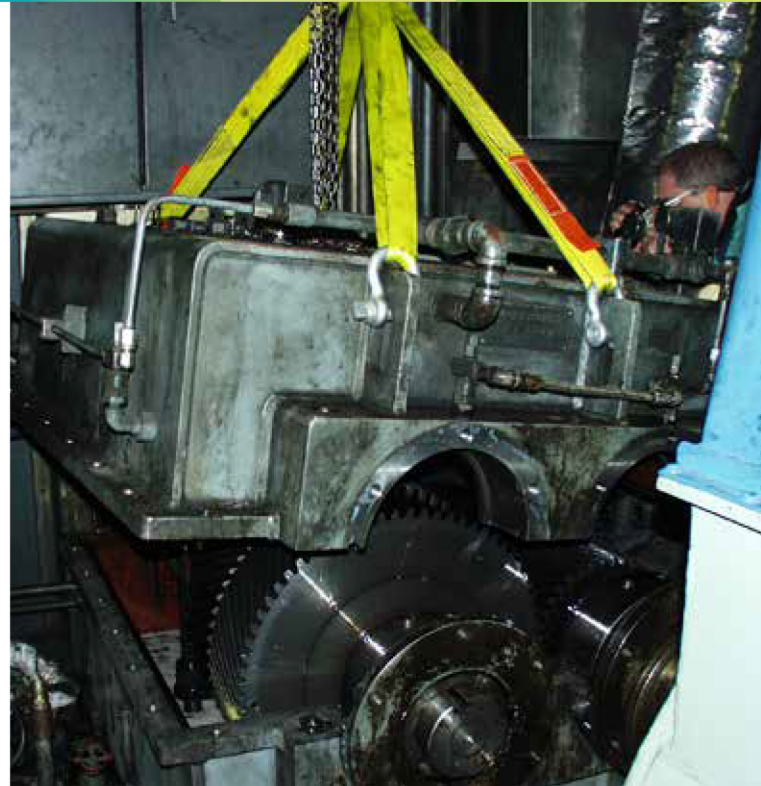
AFTER

FIELD SERVICE

COMPREHENSIVE INDUSTRIAL GEARING FIELD SERVICE

24/7 FIELD SERVICE AVAILABILITY

- Emergency breakdown service
- Installation and startup supervision
- Disassembly and reassembly
- Gear inspection
- Detailed borescope inspections
- Preventive maintenance
- Lubrication system evaluation
- Gear alignment
- FARO arm
- On-site machining
- Non-destructive testing
- Dynamic modeling and machine optimization recommendations
- Sophisticated tools and practices to follow rigorous standards including AGMA, ISO 9001:2015, AASHTO, API and MSHA
- Dynamic modeling and machine optimization recommendations



ADVANTAGES

- Increase reliability and eliminate unplanned outages
- Equipment assessment and optimization
- Custom designed maintenance plans
- Recommendations to optimize your limited maintenance budget
- Re-engineering and performance upgrades for increased productivity
- **Dedicated Field Service Team Available 24/7**



ADVANCED GEARING CAPABILITIES

KEY CAPABILITIES

- 237,000 sq. ft. of manufacturing
- 35,000 sq. ft. of heat treating
- 6,500 sq. ft. – H&S Canada (Lively, ON)

ENGINEERING EXPERTISE

- Over 25,000 hours/year
- Drawings for over 90 different gearbox brands and spare parts

INNOVATIVE EQUIPMENT

- Fellows 65-16 Shaper with full CNC controls
- Giddings & Lewis VTC 2000 vertical turning
- Gleason-Pfauter P1600/2000 hobber/gasher
- Gleason-Pfauter P2000G form grinder
- Gleason-Pfauter P2006 form grinder
- Gleason-Pfauter P2400/3000 hobber/gasher
- Hofler R1600/2000 form grinder
- Hofler R6000 form grinder
- Hofler 1600 form grinder
- Schiess horizontal boring mill
- G&L 3500 vertical turning center
- Farrel 50 ft. vertical turning center
- Aichlin pit furnace (2)



The **Gleason-Pfauter Hobber/Gasher** improves productivity with a **7x reduction in hobbing time.**



THE COMPANY MOST QUALIFIED TO HANDLE ALL YOUR GEARING NEEDS.



TURNKEY GEARING SOLUTIONS

- Design to Manufacturing
- Repair & Rebuild
- Field Service
- Reverse Engineering and Performance Upgrades
- Gears up to 24 ft. (7.3m) in diameter and 287 in.
- Gearbox Types: Planetary, Parallel Shaft, Split Shaft, Right Angle, Multi-Speed
- In-house Heat Treating and Carburizing up to 50,000 lbs. (22,000 kg)
- Induction Hardening to 5m in diameter or 30,000 lbs. (13,000 kg)
- Inspection and Testing



GEAR & SHAFT GRINDING SPECIFICATIONS

- External: outside diameter to 6.0m (237 in.)
- Internal: outside diameter to 3.5m (138 in.)
- Face width: up to 2.0m (79 in.)
- Module: up to 40 (0.63 DP)
- ISO grade: up to 4 (AGMA quality 14)

GEAR TOOTH CUTTING SPECIFICATIONS

- Spur, helical, double helical, herringbone, internal and worm gears
- External: outside diameter to 7.3m (287 in.)
- Internal: outside diameter to 4.8m (189 in.)
- Face width: up to 1.3m (50 in.)
- Module: up to 70 (.375 DP)
- ISO grade: up to 8 (AGMA quality 10)

MOST TRUSTED NAME IN METAL INDUSTRY GEARING FOR OVER 130 YEARS

WE'VE REBUILT THOUSANDS OF GEARBOXES, MORE THAN 120 DIFFERENT BRANDS



216.431.3900

inquiry@horsburgh-scott.com

horsburgh-scott.com

5114 Hamilton Avenue
Cleveland, Ohio 44114
USA

DELIVERING THE DIFFERENCE



HORSBURGH & SCOTT