

# Mechanical Engineering

Mechanical design projects have included mine hoist installations, hydraulic controls, pumping systems, vacuum systems, slurry handling, mobile equipment design, automated material handling systems, pneumatic controls, compressed air systems, failure analysis, emergency repairs to equipment, equipment evaluation, maintenance systems and feasibility studies.

- Mine hoist system design
- Evaluation of used equipment
- Selection of used mine hoist equipment
- Hydraulic and pneumatic control design
- Failure analysis
- Training
- Hoist system feasibility study
- Emergency repair of equipment
- Finite element analysis
- Accident investigation
- Bearing design and troubleshooting
- Gear design and inspection
- Special purpose equipment design
- Material handling equipment
- Design of conveyances
- Maintenance systems and training
- Inspection and testing of equipment
- Project management
- Troubleshooting and commissioning of new and existing systems