



HIGHLIGHTS

- Spiral bevel gear sets
- Hardened steel
- Improved gear mesh
- Increased tooth contact
- Quieter operation

Application Success Story



Spiral Bevel Gear Sets

Military/Law Enforcement Robots

PROBLEM

A leading North American robot manufacturer needed replacement gear sets for use in one of its popular robot models. The tracked vehicles are utilized by military and law enforcement personnel for explosive device disposal, reconnaissance, communications and other tactical operations. The robots are relatively fast with a high speed of 6 mph. The vehicles have a high payload capacity and are capable of climbing stairs and overcoming other obstacles.

Over time, the original standard gearing used to transmit motion from the robot's drive shaft to the drive axles began to wear excessively due to high torque loads.

SOLUTION

Boston Gear, working closely with a distribution partner, supplied the robot powertrain subcontractor with special hardened steel spiral bevel gear sets to meet newly established torque specifications. The spiral bevel gears provide improved gear mesh, increased tooth contact and quieter operation. One gear set is installed on each of the robot's two drive axles.

US (Application Assistance)

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