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Analytical Solution to Bending and Contact Strength of Spiral Bevel Gears in Consideration of Friction

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Highlights

- Analytical solution to tooth strength of spiral bevel gear with friction is proposed.
- Shear strength check of gears is necessary to be implemented with poor lubrication.
- Exact determination of gear strength is beneficial in load capacity and performance.
- The solution can be extended to investigate load capacity of other mechanism.

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