



Visco Lok® LSD

GKN Driveline's progressive-locking speed-sensing Visco Lok® LSD (Limited Slip Differential) is proven in front and rear axle applications. The Visco Lok® LSD is a traction optimised speed-sensing limited slip differential design.



Benefits

- > Tuneable and progressive locking characteristics
- > Provides maximum torque transfer in excess of skid torque
- > Self-actuating with no external controls required
- > In production since 1999

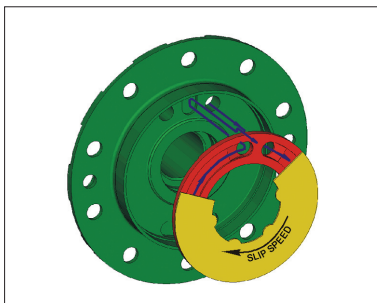
Operating Principle

- > A self-contained silicone-fluid filled reservoir and shear pump generates a hydraulic pressure proportional to a speed difference across the axle
- > The speed difference between the feed disc and the fluid filled channel of the pump disc and the resulting fluid shear forces moves the fluid from the reservoir to the apply piston
- > The hydraulic pressure creates an axial force via the apply piston, compressing the clutch pack

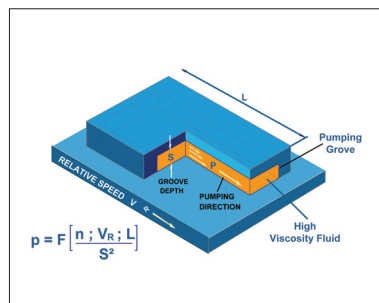
- > The resulting locking torque through the clutch pack transfers torque to the wheel with the better traction
- > A variable volume reservoir compensates for the fluid thermal expansion

Technical Features

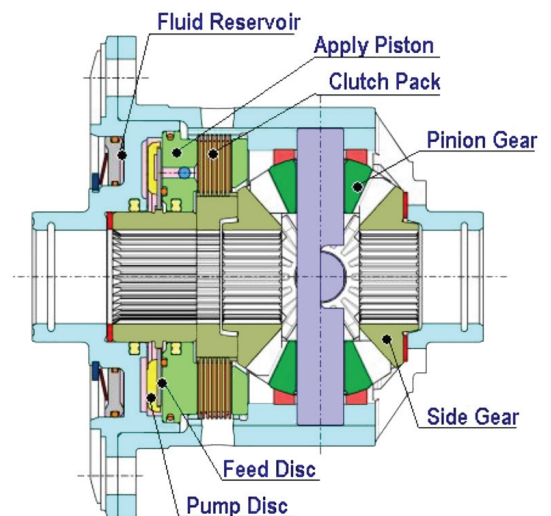
- > To allow for bi-directional operation, the pump disc automatically indexes to access the reservoir
- > The shear pump and silicone fluid reservoir are self-contained and maintenance free
- > All-steel clutch pack is lubricated by the axle hypoid gear oil
- > The progressive locking characteristic is tuned by specific silicone fluid viscosity and clutch pack sizing



Shear Pump Fluid Flow



Shear Pump Fluid Dynamic



For further information please contact:

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