

# QMI LIMITED SLIP DIFFERENTIAL SUPPLEMENT

— Synthetic for quiet, efficient operation for your limited slip differential

## Benefits

- Synthetic formula maximizes lubrication
- Eliminates differential chatter, banging and clanking
- Protects clutch surfaces
- OEM compliant — safely replaces manufacturer recommended friction modifiers
- Compatible — formulated for synthetic and petroleum differential lubricants
- Convenient flip-top dispenser provides quick and easy application to gear housing.
- One four-ounce/118 ml bottle treats differential capacities up to 70 ounces/two liters.

## The Problem

When making a turn, the outer wheels of a vehicle must travel faster than the inner wheels. The differential acts as a balance arm, establishing constant equilibrium of torques and forces between the left-hand and right-hand driven wheels. In standard (or open) differentials, power is directed to the wheel offering the least resistance. This works well when making a turn, but when one wheel is lifted off the ground, it causes the suspended wheel to turn while the other wheel remains motionless.

Limited-slip (or positraction) and locking differentials are traction-increasing devices. Locking differentials transfer all available torque to both wheels. The teeth of the spider assembly engage with those on the locker clutch, causing both axle shafts to operate as one. Locking differentials do not allow one drive wheel to spin while the other remains stationary. Instead, they keep both wheels in the drive mode, but unlock to permit different wheel speeds when turning. Manual locking differentials typically utilize an electric motor or vacuum diaphragm to engage the locker, reducing this noise.

Limited-slip differentials allow different wheel speeds when turning, but when one wheel loses traction, greater torque is transferred to the wheel offering more resistance. Limited-slip differentials make use of friction between clutch plates, as opposed to the meshing teeth employed by locking differentials. Transferring less torque per side, limited-slip differentials are generally smoother and quieter than locking differentials, but still sometimes “chatter” when transferring torque to the wheel with traction.



## The Solution

In limited slip differential applications, a friction modifier additive is necessary to reduce clutch chatter.

QMI Limited Slip Differential Supplement is formulated with advanced friction modifiers designed to eliminate gearhousing chatter in cars, trucks and SUVs equipped with limited-slip or positraction.

It also reduces the banging and clanking associated with automatic locking differentials.

## Applications

QMI's Synthetic Blend Limited Slip Differential Supplement is especially formulated to be added to gear oil in all limited slip differentials.

Do not apply to automatic transmissions or other applications requiring ATF.

## Packaging

Part #	Container Size	Package
GL1728	4 ounce / 118 ml bottles	24 per case