



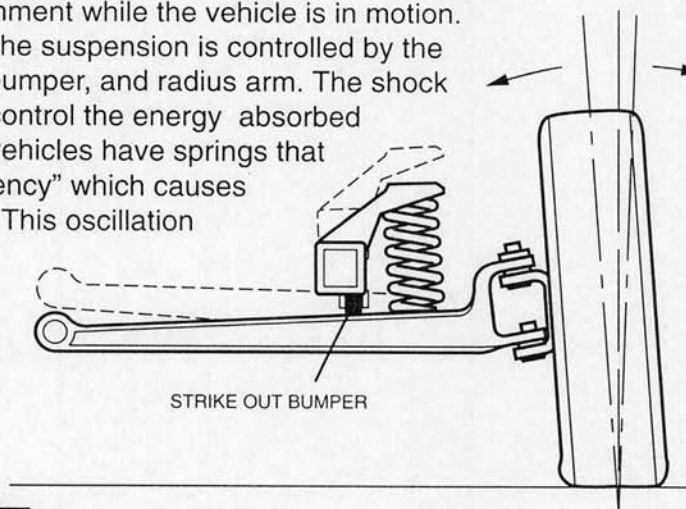
# PROBLEM

# Solver

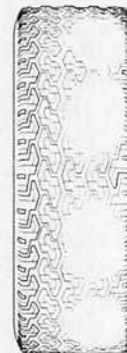
## TWIN AXLE LIGHT TRUCK ALIGNMENT AND TIRE WEAR PROBLEMS

### PROBLEM

Weak coil springs can allow excessive suspension travel affecting dynamic alignment while the vehicle is in motion. Vertical movement of the suspension is controlled by the coil spring, strike out bumper, and radius arm. The shock absorber attempts to control the energy absorbed by the spring. Some vehicles have springs that reach a "natural frequency" which causes the spring to oscillate. This oscillation is often beyond the shock absorbers ability to control and results in wheel hop and tire scuffing.



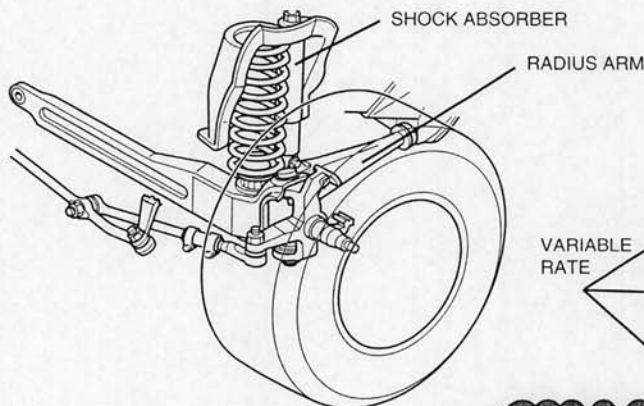
CAMBER AND TOE WILL CHANGE WITH SUSPENSION MOVEMENT. WEAK COIL SPRINGS CAN ALLOW EXCESSIVE AND ERRATIC CHANGES IN THESE ANGLES RESULTING IN RAPID TIRE WEAR.



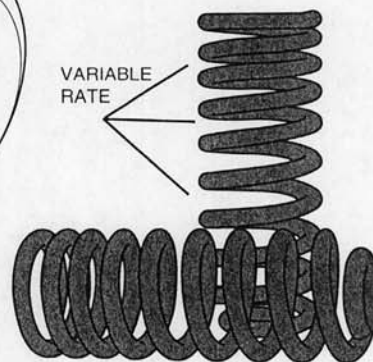
TYPICAL TIRE WEAR RESULTING FROM EXCESSIVE DYNAMIC CAMBER.

### SOLUTION

The solution is "Tuff Coils™" variable rate coil springs. The variable rate design is beneficial for controlling tire movement and reducing bottoming out. Variable rate also reduces the possibility of the spring reaching a natural frequency which saves wear on shock absorbers and tires. The result is that Tuff Coils restore ride height, and reduce tire wear and handling problems.



NOTE: SHOCK ABSORBER AND COIL SPRING FUNCTIONS ARE INTER-RELATED. ALWAYS INSPECT SHOCK ABSORBERS AND REPLACE IF NECESSARY.



### APPLICATION

Tuff Coils are available for a variety of light trucks including most Twin Axle Ford vehicles from 1965 to 1996.

