

How AME's Engineering Team Obtained Great Handling Improvements For "C1" Corvettes...

Corvette I.F.S. Components

The first step in obtaining vastly improved handling was to employ the forged aluminum control arms and spindles from 2005-up Corvettes. In order to take advantage of the C6/C7 Corvette's I.F.S. (which has exceptional geometry in stock form), several revisions were required to fit under the narrower 1953-62 Corvette body.

Track Width

While the C6's hub-to-hub track width was narrowed, AME's Engineering Department slightly increased the scrub radius over the C6's very small amount. Accordingly, when 9-inch wide rims (with 6.5" back-spacing) are employed, an excellent balance is achieved between steering feedback and driving performance. Through reducing the wheel's offset, it is also possible to fit the car with larger, high performance brake calipers.

Camber Angle & Roll Center

The Front View Swing Arm (FVSA) length has been shortened to better maintain camber angle while cornering. At the same time, the static roll center height was reduced to minimize side scrub and jacking force. As a result, straight line stability and ride quality have been enhanced.

Caster Angle

Static caster has been reduced to +6° to promote a crisper steering "feel" and to counteract the rise/fall effect of increased scrub radius (as compared to the stock C5 geometry). This also provides an improvement in roll center migration.

Lower CG

By providing through-frame passageways for the exhaust system, the AME GT Sport chassis for C1 Corvettes allows for a lower stance, while maintaining the necessary ground clearance. This enables the vehicle to have a lower Center of Gravity (CG).

Triangulated 4-Bar Suspension

A major difference between the Morrison GT Sport chassis for the 1953-62 Corvette and C6 'Vette is the use of a special triangulated 4-bar rear suspension instead of an I.R.S. There are several reasons for this—not the least of which is the track width of the C6 unit. The triangulated 4-bar setup performs well in terms of acceleration control and provides excellent lateral stability.

Breaking the Triple 1-G Barrier

Our Engineering Department has done in-depth calculations and determined that with the proper combination of power, tires and brakes, a Morrison GT Sport chassis-equipped C1 Corvette should be able to exceed 1-G force on the skid pad, in acceleration, and braking. Our Project 3G 'Vette has done it!

