

# GALAXY: IN THE AIR

## Air suspension for the 1960-64 Ford Galaxy – The rear AirBar conversion



By Doc Frohmader

Just before I got my license my uncle wrecked his 1960 Galaxy. Well, not quite. Some guy, driving an old Chevy panel fell asleep at the wheel and ended up side-swiping the Ford. I was in the car behind and to this day I can see the whole scene. I saw the truck go to the wrong side of the pavement, I saw the impact, I saw the glass fly. I recall my brother being hauled off to get his head stitched up (some say this impact and his subsequent deficient cognitive capacity are related, but not me... I think it's genetic). The car was repaired and continued its pampered life of a farm car used for Sunday church and Saturday shopping. A couple years passed and my uncle died and left the car to be disposed of. I wanted it but couldn't talk my father into letting me buy it. Oh, well.

The point of this nostalgia is simply that the reason I wanted the car is because I liked the looks of it. I still have a thing for the whole series of big Fords from 1960-64. I've got stories I could tell about a party car '61, and a '63 with a 428 and 4-speed, and on and on... They say the cars you love the most are the ones from your youth. I know the ones we tend to build are the ones from our youth. Either way, these Galaxies have experienced a renaissance in recent times and along the way more and more replacement and aftermarket parts are showing up to give us what we thought we had back in the day – but wasn't quite there in reality.

***After 45 years, you can expect a lot of these old Fords were modified somehow. In this case it was relatively stock except for a stack of lowering blocks used to get the car lower. Still, this is not a bad suspension, just seriously obsolete and low-performance.***



***Nothing like lowering blocks to make a soggy rear suspension even more squirrely. The adjustability of the AirBar system will eliminate the need for these and make the whole thing a LOT more stable.***

One case in point is that I have a FE engine sitting in the shop that started life as a 390 and without breaking the bank now reliably produces enough power to blow the doors off of any of the original 427 side-oiler performance engines of the day. Another is that Air Ride technologies has developed a killer air suspension upgrade specifically for these cars, providing a ride quality and handling level I could only dream of in 1966. I am consumed with the idea of putting the two together with some nice disc brakes, a set of 16-inch tires/wheels, a hot babe in the co-pilot position, and a good stereo

loaded up with... well, you know how these dreams go. Sadly, I don't have the car, my music collection is pathetic, and I suspect the Denver mint lacks enough C-notes to convince a woman to be seen publicly with me.

I'll assume you are having better luck. You probably have one of these great cars and are itching to turn it into your own version of The Dream. I've decided to take the high road, curb my insane jealousy, and share the Air Ride suspension magic with you. Go ahead – you can say it: "What a guy!"



***Disassembly starts with removing the old springs. In the rear you pull the shackles apart. I suggest that before you tear down that you have the car up and secured and have the rear axle supported so it doesn't walk around.***

***Up front the spring brackets are part of the frame. Remove the bolt carefully and don't do any cutting. This will be re-used.***



Seriously, ART has been engineering a series of new concept kits, all under the label of AirBar that are a tremendous upgrade to almost anything that the 60's had to offer. These kits replace the old leaf spring setups, always prone to wheel hop and pinion wrap with ANY kind of power to the wheels, with a triangulated four-bar and air suspension. The four-bar stabilizes and plants the rear end in ways leaf springs simply can't (there's a reason no one uses them for performance any more). The ShockWave air spring/adjustable shock absorber units allow a lot

more than just great ride and height adjustment, adding a spring rate curve that promotes excellent traction without compromising ride and a nice improvement in handling.

On a practical level, these AirBar kits share a common thread in that all are designed to fit specific vehicles and accommodate the unique space and construction limits of each one. This would be less impressive if they required a lot of modification or fabrication. The good news in they simply don't.

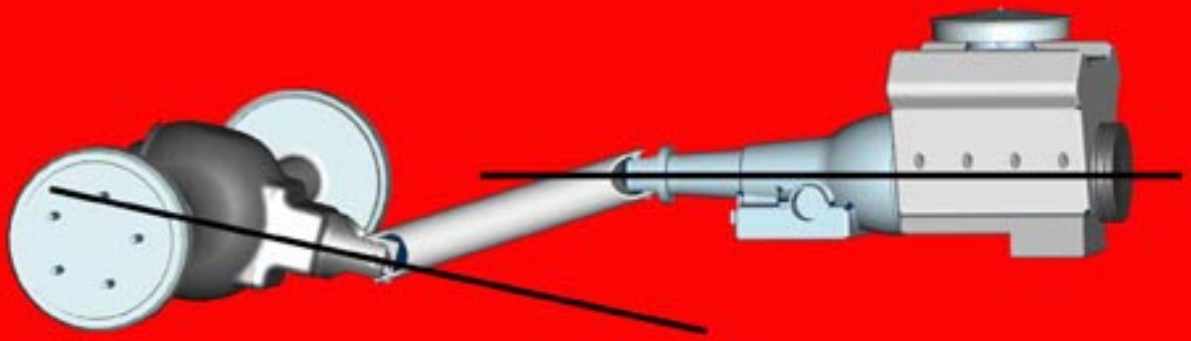
*The original shock setup works pretty good and it is easy to remove. ShockWaves incorporate shocks inside the spring unit so these won't be used.*



*At the Air Ride shop Rodney likes to set the axle at ride height and cut a pair of spacers to place between the axle and frame, tacked in place, to keep the axle where it should be while the rest of the work is done. Nice trick.*

A lot of attention was put into creating a cradle and components that would fit without major rework and use as much of the original hardware locations and mounting points as possible, limiting the cutting and allowing relatively simple and precision alignment of all the components. Even if you blow off the ride and handling improvements, you'll love the elegance of how this kit installs – I find it impressive.

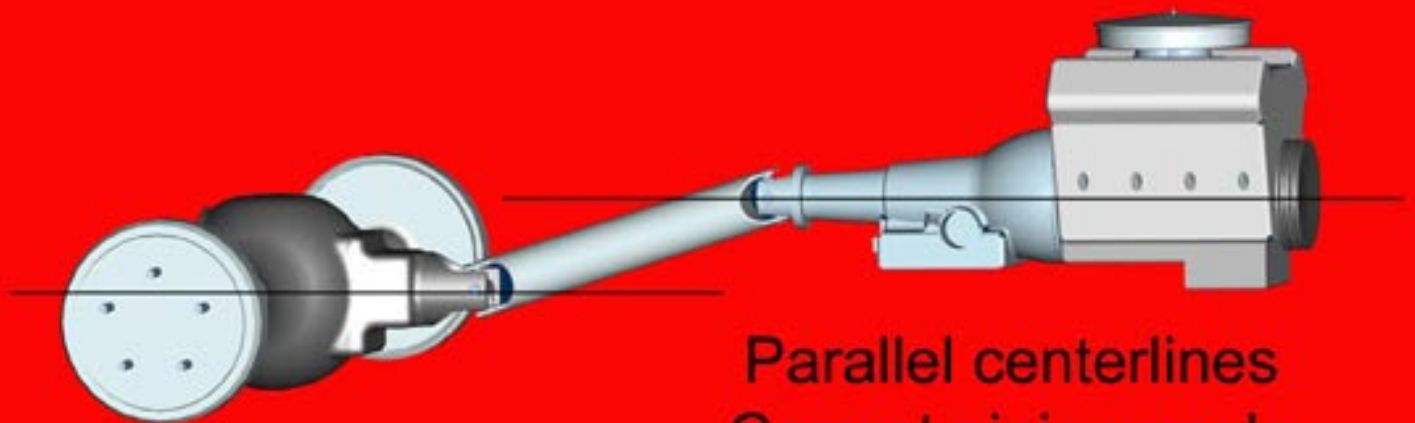
Source:  
Air Ride Technologies  
350 S. St. Charles Street  
Jasper, IN 47546  
812-482-2932



Pinion nose down



Pinion nose up



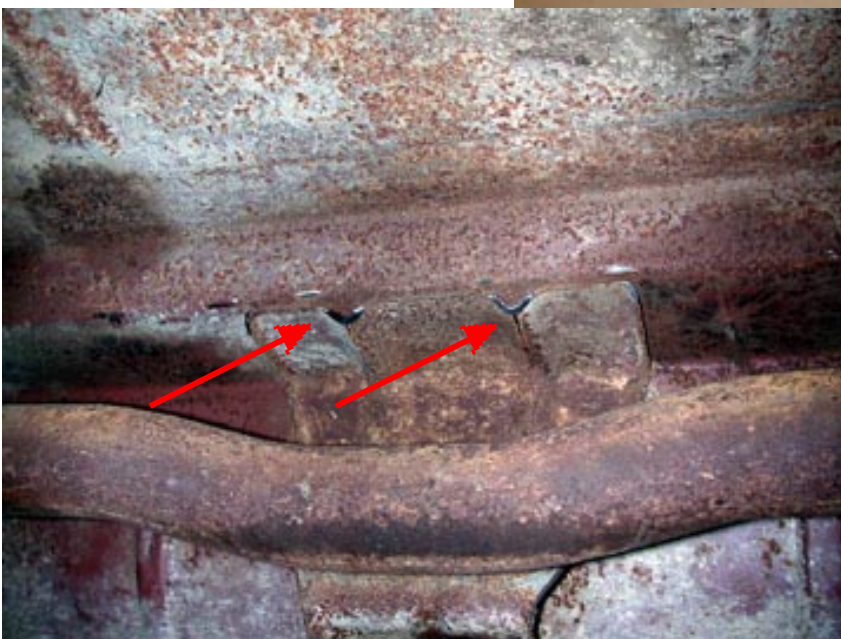
Parallel centerlines  
Correct pinion angle

For some reason there's always been a bit of confusion about what correct pinion angle is. When installing any kind of rear suspension, and particularly a four-bar, you have to get the axle positioned properly or nothing will work right. Let's make it simple. This shows the right and wrong ways to set pinion angle.



**Above the axle on the inside of each frame rail, you'll find a couple of metal goobers left over from locating the original axle bump stops. They interfere with the new AirBar cradle and have to be ground flat.**

**The complete AirBar kit for the 1960-64 Ford Galaxy sized cars contains everything nicely engineered to fit right as long as your chassis hasn't been whacked. Included is all the required additional hardware, so you don't have anything to chase for.**



**Another small modification is on the plate above the original crossmember. Grind the edges on about a 45 degree angle. You'll find that while the cradle fits well, it will take a little patience to slide it into place because it's all snug and close up there. This will make it easier.**

*The cradle, which incorporates the upper bar mounts and upper ShockWave mounts is easy to correctly locate because one hole on either side is already in the frame. Align the holes and you're off to the races.*



*The cradle rests against the frame tightly and is fastened with a total of eight 3/8 self-tapping screws per side. Drill the remaining holes with a 5/16 bit and use clamps to hold it tight while working.*

*The upper bars are mounted (check they are at the same pre-set length) to the cradle ears and run under the original crossmember. Install both and snug, but do NOT tighten the hardware fully yet.*





*The rear end of the upper bars gets the weld-on ears like this. Simply rest the bars on top of the axle and tack them on. Make sure **BEFORE** you do this that the pinion angle is set, the axle is centered side to side, and that the axle is at the right distance front to rear on both sides. Also, Make sure the bars are set on the axle at the same distance inboard of the axle flanges on either side since at this point there will still be some wiggle room.*

*The lower bar mount and Shockwave mount uses U-bolts to secure it to the axle housing against the original spring pads. This means there is no problem getting it in the right place and no welding required.*



*The second part of the ShockWave mount is a billet aluminum part that bolts to the two center holes in the first part of the mount. It is adjustable if needed and spaces the ShockWave where it should be.*

**The front end of the lower bars mount in the original leaf spring mounts. It's solid, it's simple, and it means less modification or welding. There's something RIGHT about being able to reuse things like this.**



**The ShockWave mounts with a through-bolt on the top using the built-in mount ears on the cradle. Notice the air fitting needs to be to the inside to clear.**

**At the bottom the ShockWave mounts like a conventional shock. Make sure you use the large washers or the rubber bushing could slide out over time.**





*The completed installation. You've gotta admit that it is a simple and clean looking setup. The beauty of it all is that it works even better than it looks – smooth, stable, solid, and adjustable.*