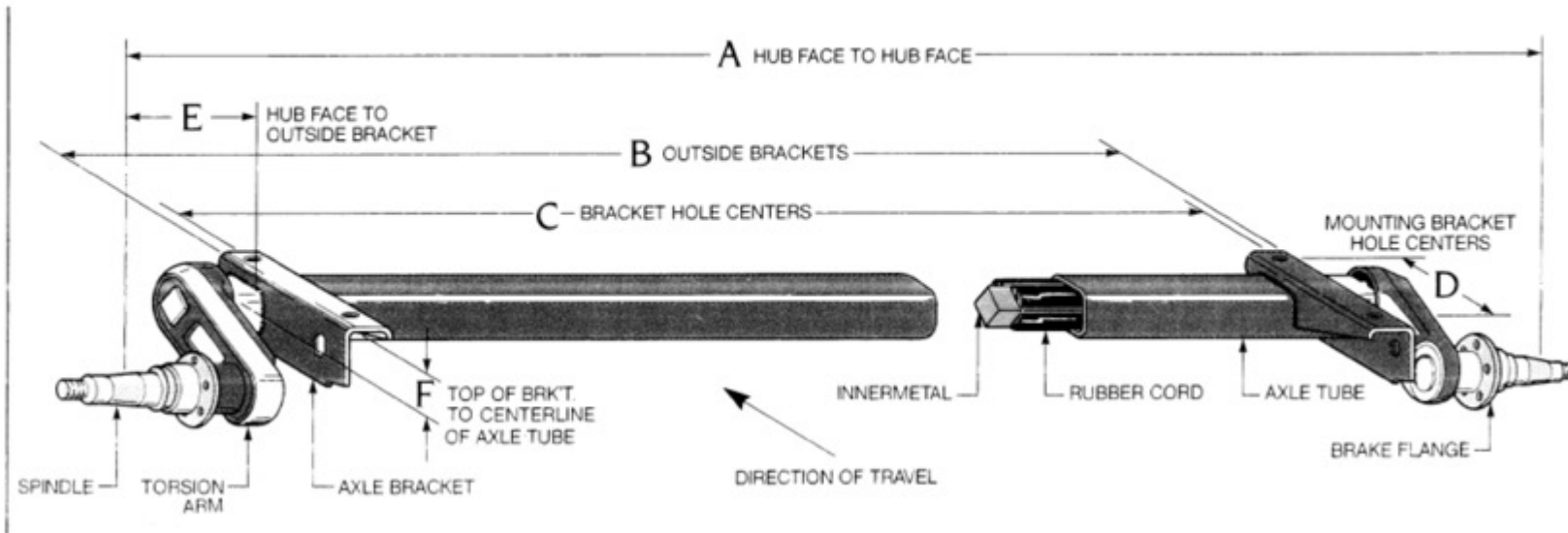


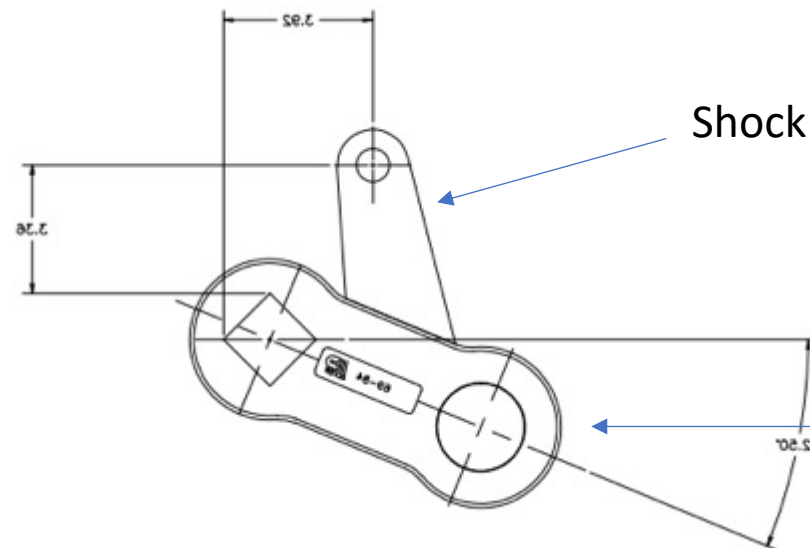
original top
shock mount

torsion arm stop?

Axle beam notch



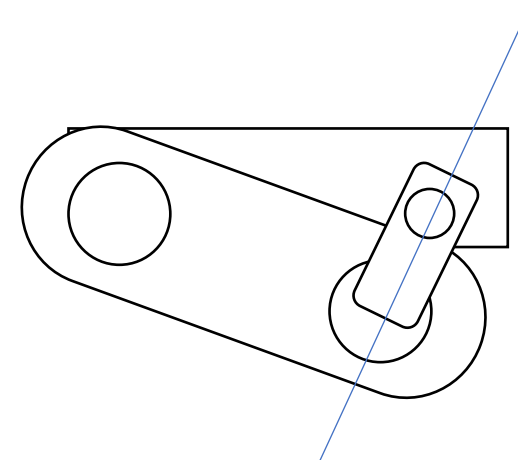
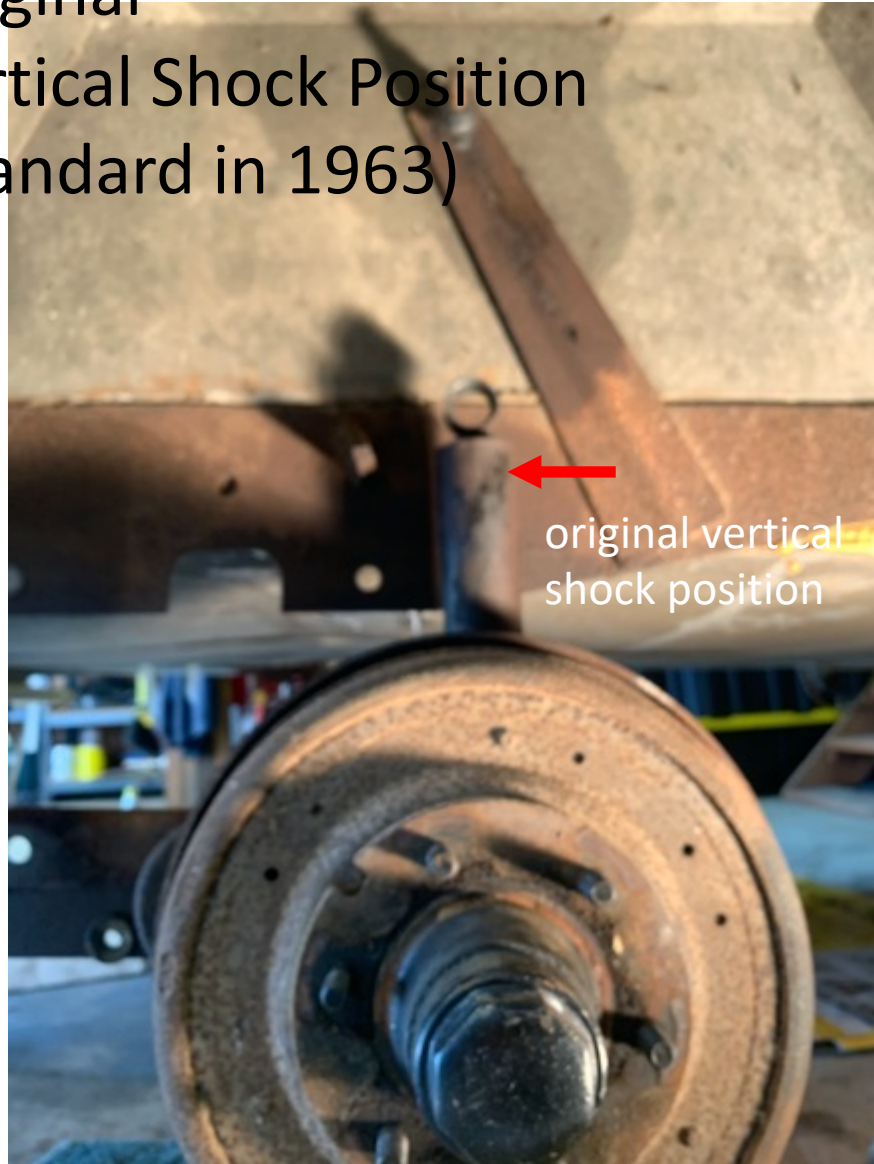
Torsion axle



Shock Bracket

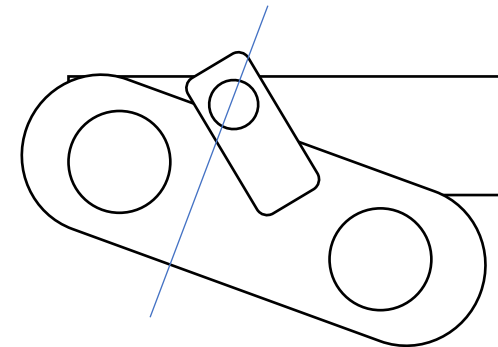
Torsion arm (front view)

Original Vertical Shock Position (standard in 1963)



NEW AXLE

Airstream recommended
Horizontal Shock Position
(standard after 1969)



New vs Old axles



- Mounting positions of shock brackets (inside vs outside and center mounted vs. axle side mount)
- New shock mount position hits torsion arm stop on frame so new shocks cannot be installed without cutting it off and/or moving it
- New manufacturer and 1963 v 2021 tech
- length of torsion arm (6" old v. 7" new center to center)
- gap between wheel and axle is different axle length is different
- significant alterations needed to configure new axle like old and there are some key differences that cannot be modified however engineer says "take them both to a welder and tell him to make the new one look like the old one" I have concerns about the accuracy of these modifications and cost. We are not even 100% yet which modifications can be made without interfering with fit.
- Airstream shocks designed for laydown position it is unknown if they can be used in vertical position or if they must be replaced with vertical automotive shocks
- Axle manufacturer's engineers (Dexter) says that shocks are not needed Airstream's engineers say they are. the debate is ongoing

Installation Instructions

- *Trailers built before 1969* may also need to modify the shock mount on their trailer chassis. In 1969 Airstream changed from a vertical shock to a horizontal shock orientation (pictured below) more like 45 degrees. This allowed for a much smaller wheel well and in turn added more room to the interior of the Airstream. In order for new shocks to install correctly for older Airstream models, the vertical shock mount needs to be moved. The vertical shock mount is a 6-8 inch piece of metal on the chassis that is located above the axle mounting cutout up in the wheel well. This piece needs to be cut in half and welded to a more acceptable location as shown in the picture below.



IMPORTANT: Before relocating the shock mounts on older Airstreams, it is important to plan where they will be re-welded.

Measure from the center of the shock bracket stud on the axle to the center of the shock bracket stud on the chassis. The distance can be no more than 14.5" and no less than 9.5" between the two shock studs. Anything more or less will not accept the shocks. Ideal distance between 2 studs is 13-13.5" apart to allow for complete shock compression and rebound dampening.

<https://inlandrv.com/airstream-torsion-axle-installation-help/>

Airforums post of similar issue and my questions.

Vertical shock mounts


Now that the rain has mostly stopped in the Pacific Northwest I finally had the opportunity to test fit new axles for the '66 Tradewind 24. I bought the axles from Inland RV, they came complete with brakes/shocks and mounts on the trailing arm for the shocks. I made the cutouts bigger the axle went up with no problem. Which is when the problems started. The [mounting brackets](#) are exactly opposite of the holes already in the frame. Not a problem I just have to drill all new holes.

The real problem is the vertical shock mounts, the travel from center to center of the studs is 10 1/2" which is inside the dimensions set by Inland. The problem is the trailing arm stop welded to the frame. As you can see from the picture the shock will not mount unless I cut the stops off. The only option is to mount the shocks horizontally which will involve more drilling and put the shocks in a location not originally intended.

I sent pictures to Inland, they asked for more pictures than I originally sent which I did but have not heard back in over a week. I went back through thirteen years of posts and only found one picture showing the same set up as mine but that lucky person had no interference with the axle trailing arm stop.

Anyone have an informed opinion?

[Attached Thumbnails](#)



Your torsion axle is now set up for horizontal, or lay down shocks.

Being a torsion axle, you now also have the option of leaving the shocks off all together

Or, pay about 250 to have a mobile welder come out to you to change the shock mount on the axle arm
(Estimating 60ish per hour and 4 hour minimum)

Quote

- <https://www.airforums.com/forums/f460/vertical-shock-mounts-207659.html>

Airforums post of similar issue and my questions.

Vertical vs. Laydown Shocks

I'm having this exact same issue. I understand that the newer torsion axles and shock mounts are currently set up for laydown shocks but I have a few questions.

-From what I understand the new Dura-Torque axles technically do not require shocks but they arguably create a smoother ride. So, I wanted to install shocks will these axles work with vertically mounted shocks or is it necessary to convert them to lay down shocks? I have some engineer family members who DO NOT want to change the orientation of the shock mounts despite the [installation instructions from InlandRV](#).

-If vertical shocks are compatible with the new axles will the Airstream-specific laydown shocks (I understand that there is a special bladder in these shocks??) I ordered work or should I use automotive shocks designed for a vertical orientation?

-If vertical shocks will work can I keep the shock mounts as is? This will alter the shock-angle from the original angle by ~10-15 degrees

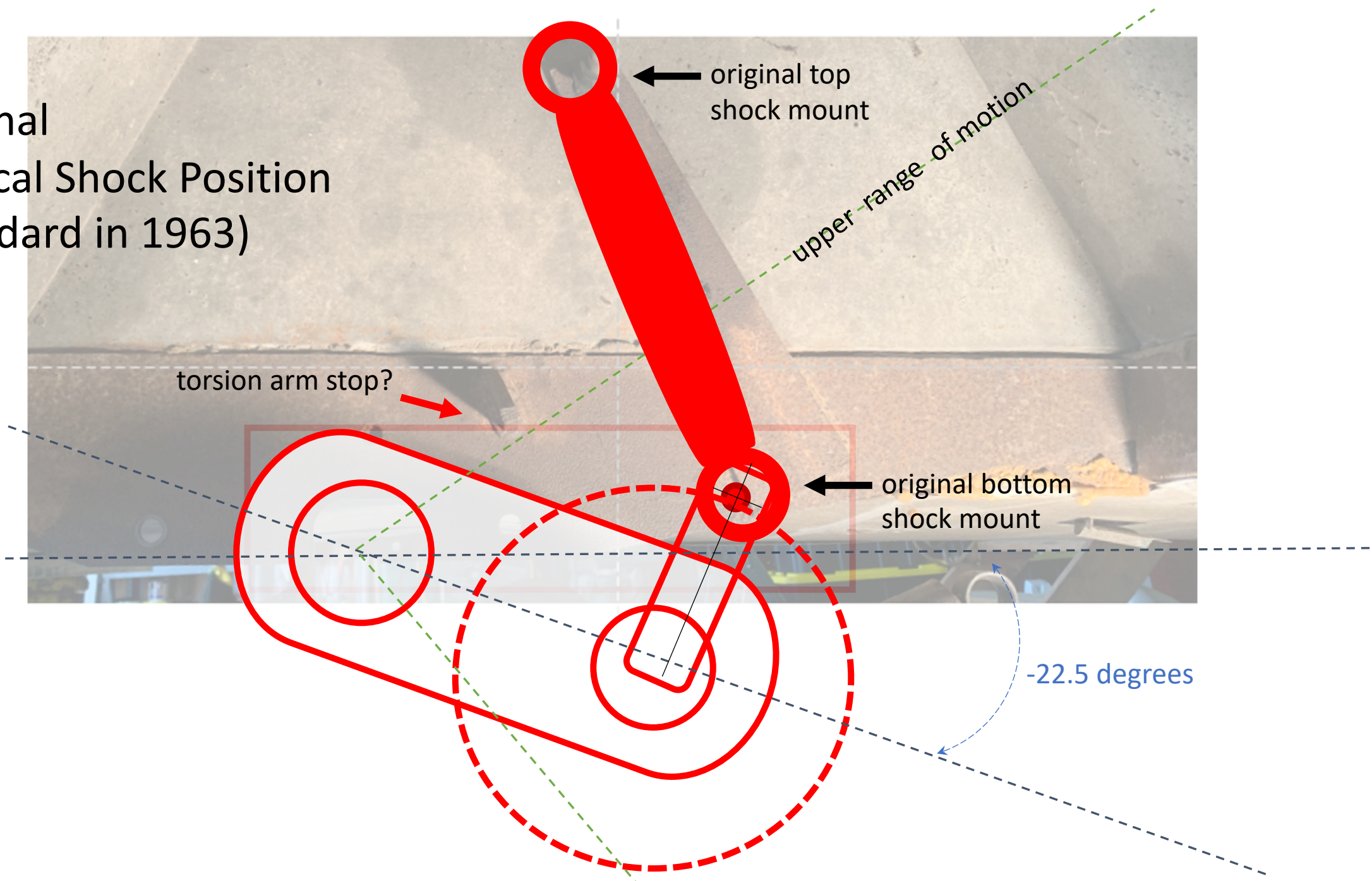
-What is that triangular piece on the frame? If the shock can be installed on the exsistng mounts, the only issue is that piece. that piece touches the mounting bolt on the axle. I think is that it is a "bumpstop" (not sure if that is the term for it but that is the term I will use for now) that serves as a failsafe and prevents the torsion arm from overextension thus preventing the tires from hitting the wheel well. Is that correct?

-IF that is correct can the bumpstop [simply be](#) ground off and moved along the same angle (slightly higher and to the rear) to allow room for the shocks to be installed vertically on the existing mounting bracket while still preventing overextention of the torision arm? Do I even need it or can I just grind it off (as SteamGauge asks)? Do I need to weld it back in or could I use a bolt to serve as a bumpstop instead? could I weld in with my flux welder or do I need to hire a mobile welder?

Sorry I hope all that makes sense.

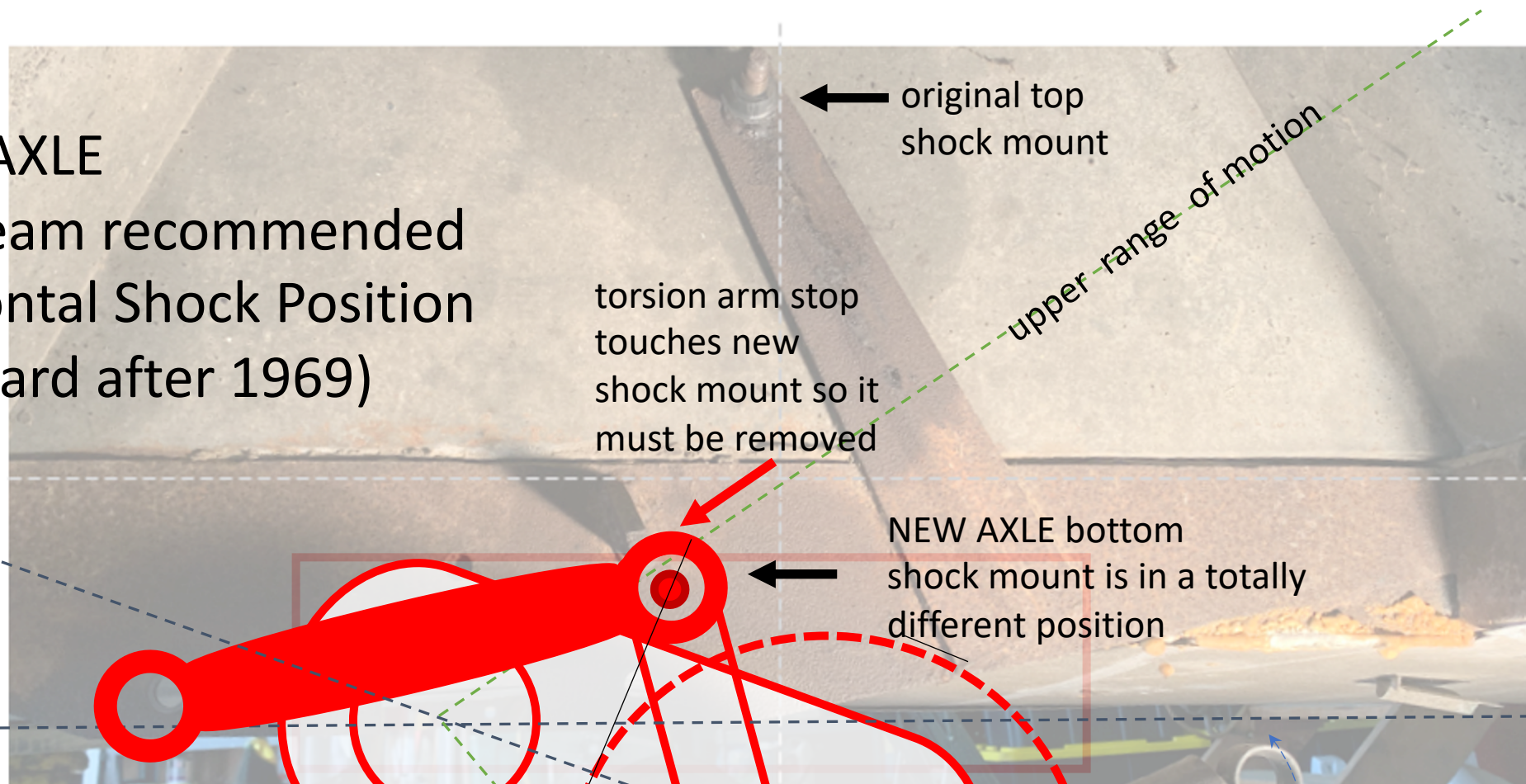
- <https://www.airforums.com/forums/f460/vertical-shock-mounts-207659.html>

Original Vertical Shock Position (standard in 1963)



NEW AXLE

Airstream recommended
Horizontal Shock Position
(standard after 1969)

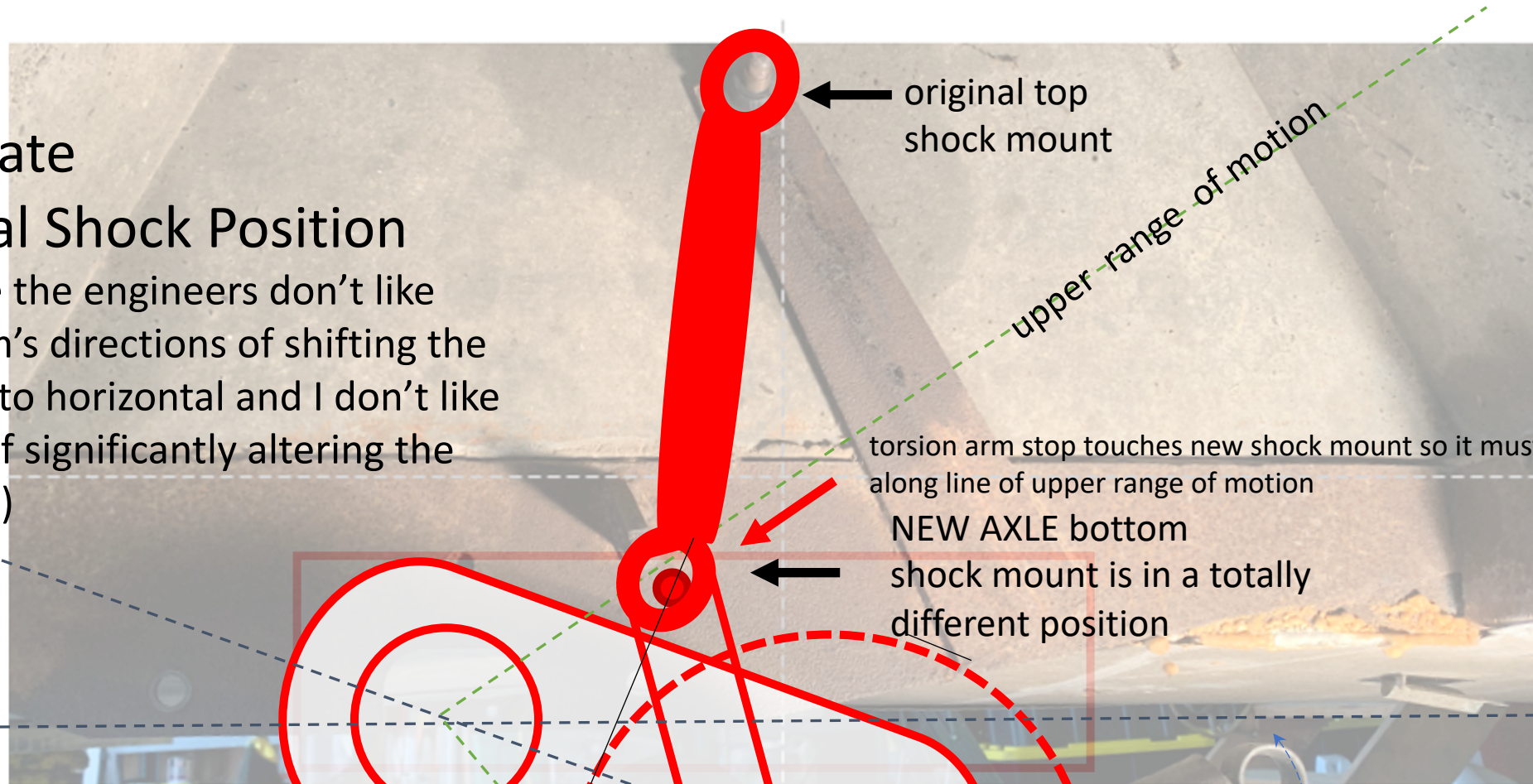


-22.5 degrees

Alternate

Vertical Shock Position

(because the engineers don't like airstream's directions of shifting the position to horizontal and I don't like the ide of significantly altering the new axle)



-22.5 degrees

Thing to reference about shock angles

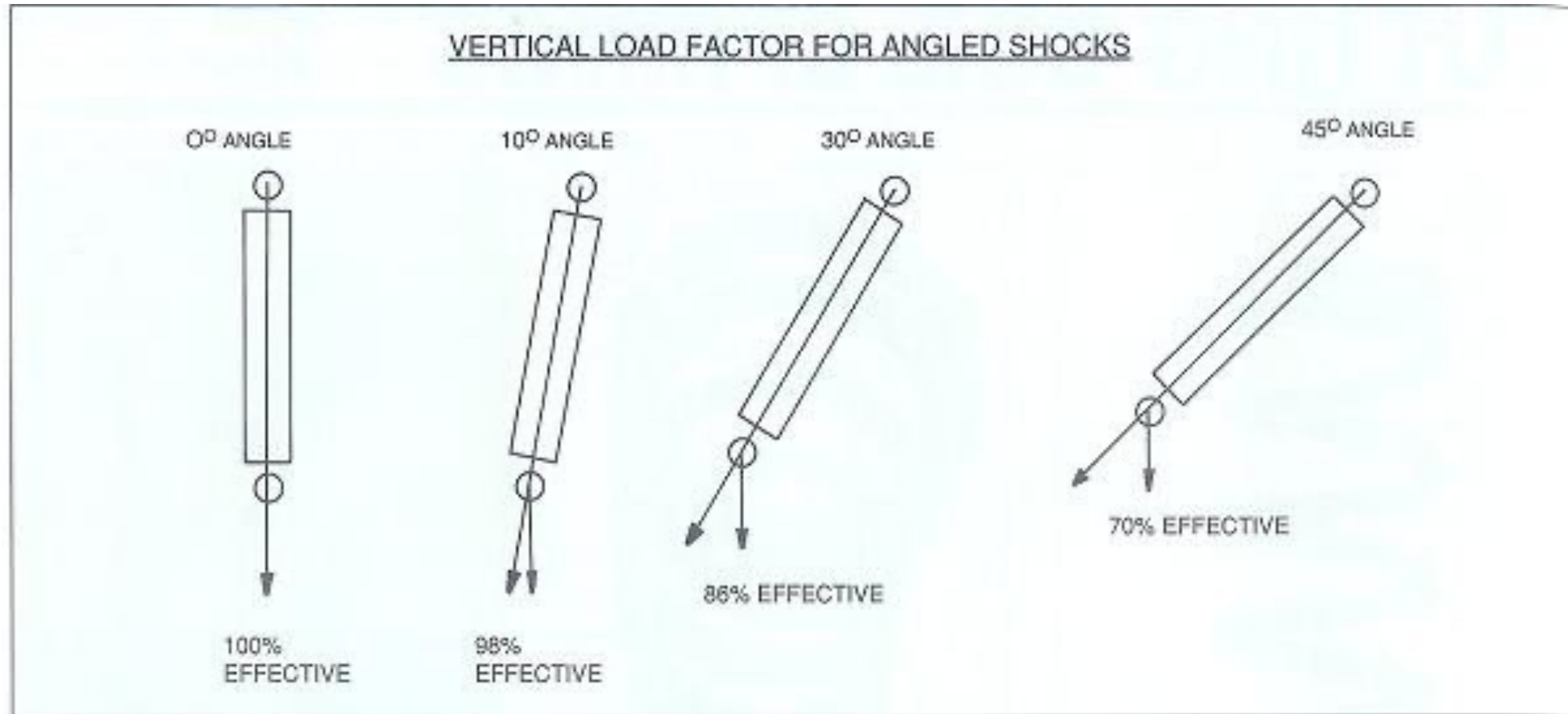


Figure 5-7. Shocks are most effective when they are mounted perpendicular to the direction of travel. Slight variations are permissible, but anything over 30 degrees will result in a loss of shock effectiveness.