



**NO LIMIT
ENGINEERING**

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1001 EPCO DRIVE • DANDRIDGE, TN 37725

AIR GLIDE INSTALL INSTRUCTIONS



1. This Air Glide IFS system has all that you need to turn your classic into a good handling ride with modern brakes & steering. As shown, this frame has been stripped of all the stock hardware.



2. A little trimming may need to be done to the front crossmember. Notice- this one has been modified to remove the 6-cyl. eng mount. As with anytime a suspension is installed, the frame has to be perfectly level. Take the time to get this right, or you may regret it later.



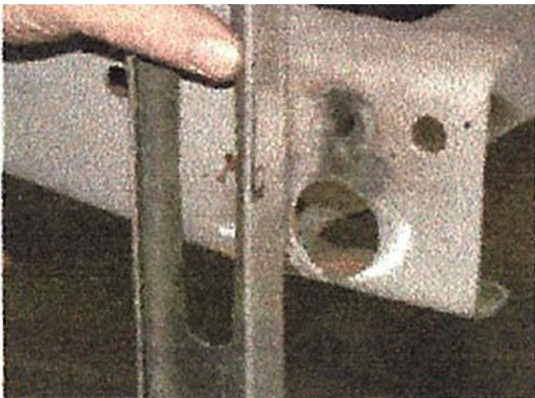
3. To make the inside of the frame rails straight for the boxing plates, the edges are marked and trimmed to 2 1/8" - inch wide.



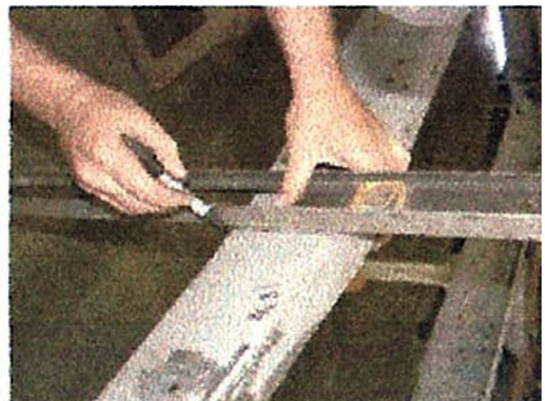
4. A acetylene torch makes quick work of this step. A gridner is used to dress the cut area.



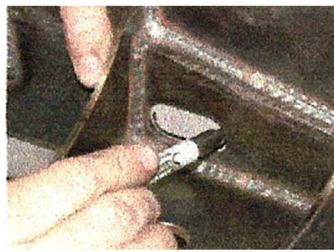
5. The grinder is also used o clean the rails as well as adding a beveled edge. This edge will allow the weld to get into the valley and the strength of the weld will be greatly increased (see sidebar)



6. To get the front wheels centered in the wells, as well as to get the proper wheel-base, measurements are taken from this large whole in the frame. Care is taken to mark exact center of the hole.



7. A mark is placed at 18 3/8"- inch from the center of the hole.



8. It is the mark that the No Limit upper mount will be placed. Notice that we have placed a small alignment cut into the piece so that there is no question where the part is to go. For these air bags, another nice touch is that there is a window in the piece to allow the air lines to pass. This will keep the line in the rail and away from moving parts. NOW is the time to mark and remove the piece of the frame, but don't forget to de-burr the opening or the line may be cut due to the sharp edges left by the cutting process.



9. With an angle ground into edge of supplied boxing plates, it is clamped to the frame rails. Notice that with the valley left by the grinding process, the weld will fill that area and be super strong as a result.



10. A few tack welds are used to hold the boxing plates in place. - On the early Chevy's there is a little hump in the frame rails that will keep the upper hat from sitting flush against the rails. The hump has to go, and the only way is with heat and a hammer. Just don't get carried away and drive the edge of the rail below that of the boxing plate.



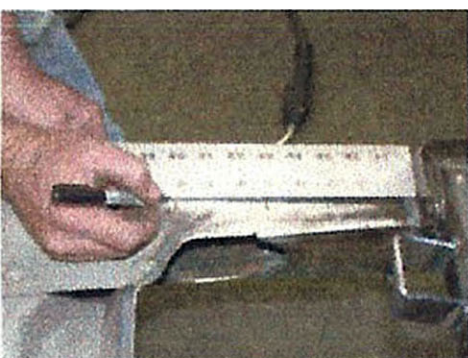
11. When welding, it is always a good idea to use anti-spatter spray on the area. This stuff works well and helps with achieving a nice weld. - The final weld is done an inch or so at a time and on a rotating basis to ensure that no one spot gets too hot and possibly warp the frame.



12. A grinder is used to get a nice clean edge so the hat sits flush against the rail. With the frame flipped over (upside down) the lower crossmember is marked at its center. The centerline is placed on the main line. Be sure that the extended A-arm mounts are facing to the rear of the vehicle.



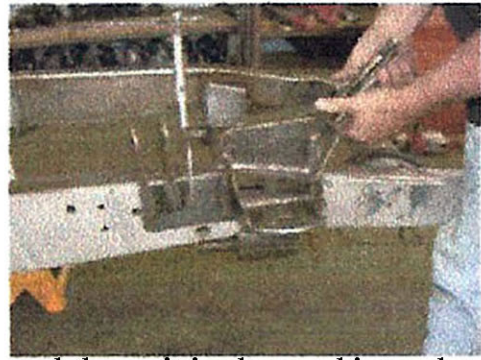
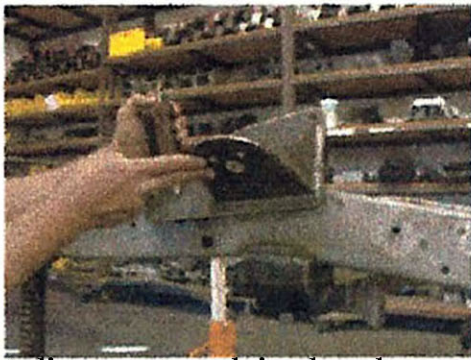
13. A bar clamp is used to squeeze the frame rails tightly against the crossmember prior to welding. Speaking of welding, that process is now done to the lower edges of the crossmember. .



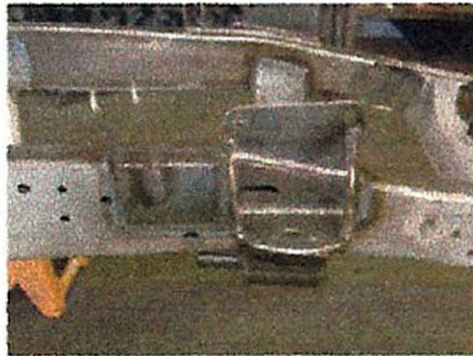
14. While the frame is still upside down, the measurements for the holes that will hold the anti-sway bar are taken. The holes are 7 1/2 and 10 1/2 inches from the front edge of the crossmember. Drill the holes. The frame is flipped back over and re-leveled.



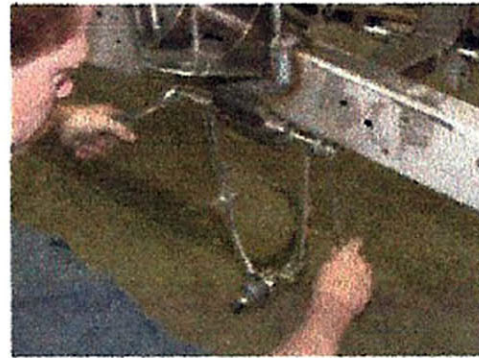
15. With the frame side up, the welding to the crossmember is finished.



16. The V-Cut alignment mark is placed over the line and the unit is clamped into place. It is then welded up.



17. The beauty behind this Air Glide is that we have taken the guesswork out. We have done all the geometry for you, and by simply installing the two suspension pieces, the job of worrying about shock angles and bump steer are non-existent.



18. Unless you can weld this, we recommend that you have a professional do the work for you. And it's time to assemble the unit.!



19. This is followed by the upper a-arm. Notice that unlike some other Mustang II systems, the upper a-arm fits against the face of the mount, rather than bolting to the top of it. This method makes the slippage associated with some systems impossible with this unit.



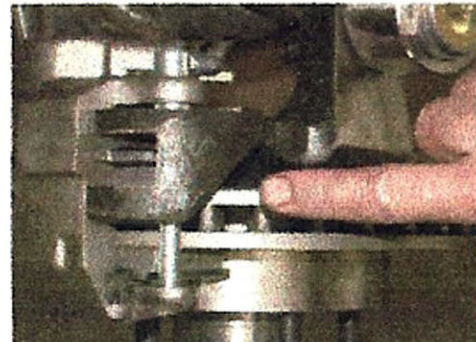
20. High quality Doetsch Tech Shocks are supplied here. With the lower mounting bolt coming up through the bottom, the air bags are mounted to the a-arms.



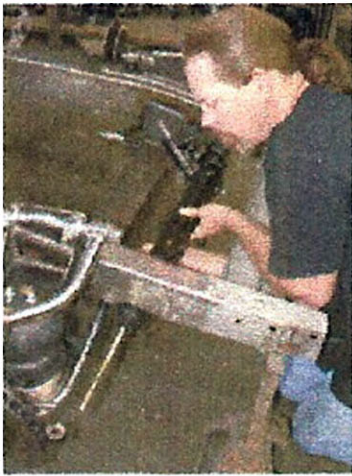
21. Mount the "smart spindles" to the a-arms . Add a few drops of locktite to the threads. Then run the studs through the rotor.



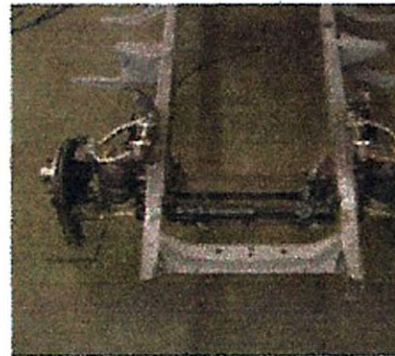
22. Another trick about this system is that the rotors are drilled to accept both Ford and Chevy bolt patterns. Once the bearings are greased, the rotors are installed. Just don't tighten down too tight. and for safety's sake - don't forget the cotter pin.



23. The calipers are already loaded with fresh brakes, and they are slipped on a bolted up tight. Another thing that separates this kit from the rest is - spindle/ caliper connection. It is much stronger thanks to this thick piece that is not there in other companies spindles. This piece will keep the assembly stable, even under severe braking.



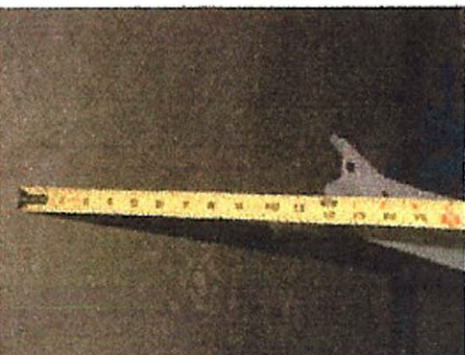
24. With the installation of the power rack and pinion steering assembly and connection the tie rods to the spindles, the install is finished.



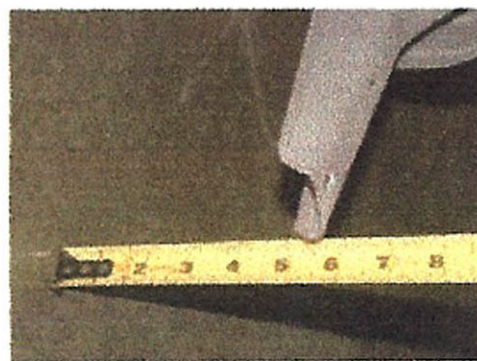
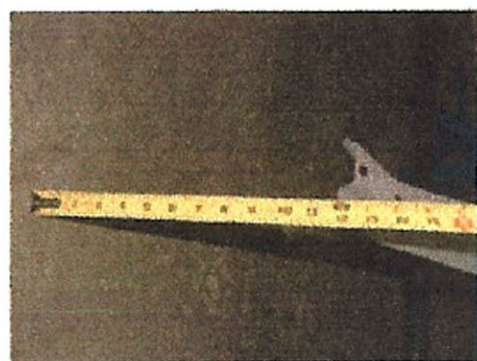
You can install this in way less than a day - - The system is nearly foolproof. It can be installed by someone who is not a suspension specialist. They only need to be a welding specialist.



One trick that we use in our shop is we use a special air line cutter to get a perfect cut, well to the air line. In order to reduce the chance of an air leak to a minimum, the end of the line has to be completely square. Don't use side cutters or scissors to cut the line either, as the line will be squashed slightly during the cutting process and it won't be completely round anymore. The result? Air Leaks - Don't say we didn't warn you.



Since you install air bags on your truck to be able to lower it, how low does this system drop? Well, the tale of the tape shows you that the truck now has a 7-inch change in elevation, which is quite enough, don't ya' think.



FRONT BOXING PLATES

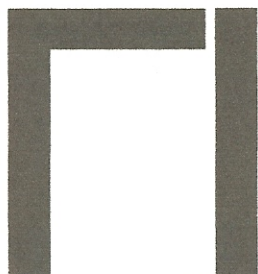
There is no doubt that boxing the frame is an important part of this job, This is done not only to give the new IFS mount a perch, but it is also done to add much needed strength to the frame. But the plates are only as strong as the welds holding them to the frame rails.

Rather than simply slap the two pieces together and buzz away, one thing that we do when boxing a frame is to bevel the edges of both the frame rail and the boxing plate. This adds a valley in which the bead of the weld will sit. This simple step will add a great deal of strength to the weld, and is one that could make the difference of the welds holding and cracking.

In this diagram, we will show how the boxing process is usually done, and how we do it.

1. The frame and boxing plate are made of steel and steel is flat. So when the two pieces are mated up, you have two flat edges butting up against each other.
2. When a weld is applied to the pieces, the fact that they are butted up against each other makes it difficult for the weld to penetrate.
3. When the weld is ground smooth, the majority of the weld is removed. What is left is a joint that is sub-par at best.
4. By grinding angles into both the frame rail and the boxing plate, a valley is formed.
5. During the welding process, the valley is filled with weld and the joint is as strong as it is going to get.
6. Even after the weld is ground smooth, there is plenty of weld connecting the two pieces of steel. Now, compare images 3 and 5. Which of the two scenarios would you rather have holding your frame together?

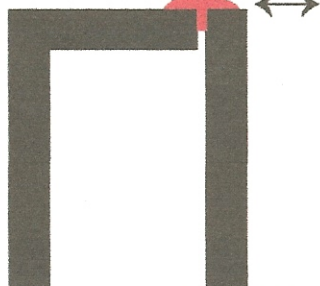
1



Frame

Boxing Plate

2

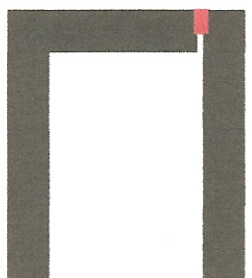


Frame

Boxing Plate

Weld

3

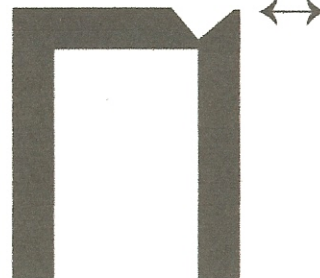


Frame

Boxing Plate

Ground
smooth

4

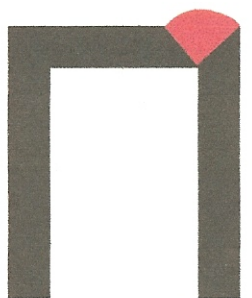


Frame

Boxing Plate

V-cut

5

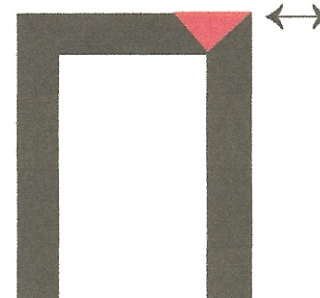


Frame

Boxing Plate

Weld

6



Frame

Boxing Plate

Ground
smooth