

IRON ROCK OFF ROAD

**WJ Rear Axle Swap
Bracket Kit**

1-877-919-JEEP www.ironrockoffroad.com

Parts Checklist:

- Iron Rock logo decal (1)
- Bump stop cup 88140 (2)
- Left LCA mount 92189 (1)
- Right LCA mount 92190 (1)
- Shock mount 92192 (2)
- Coil spring pad 92193 (2)
- Spring pad gusset 92194 (4)
- Spring pad gusset w/ E-brake 92195 (2)
- Sway bar mount 92196 (2)
- Coil retainer spacer 92199 (2)
- Coil spring retainer 85021 (2)
- Brake hose mount 92086 (2)

Optional: #28 - E-Brake Cable Hardware (1)

- 1/4-20 x 1 hex bolt (2)
- 1/4-20 hex nut (2)
- 5/16-18 x 1 hex bolt (2)
- 5/16-18 hex nut (2)
- E-brake cable connector bracket 92085 (2)
- E-brake cable mounting plate 92084 (2)



92085

E-brake Cable Connector Bracket

#121 - Shock/Coil Retainer Hardware (1)

- M12 x 70 cl10.9 hex bolt (2)
- M12 cl10.9 hex nut (2)
- M10 x 60 cl8.8 carriage bolt (2)
- M10 cl10.9 nylock nut (2)
- 3/8 USS washer (2)
- 7/16 USS washer (4)

#193 - WJ Rear Axle Truss Hardware (1)

- M14-2.0 cl 10.9 Plain hex nut (3)

- Rear axle truss customer specific: (Qty 1)

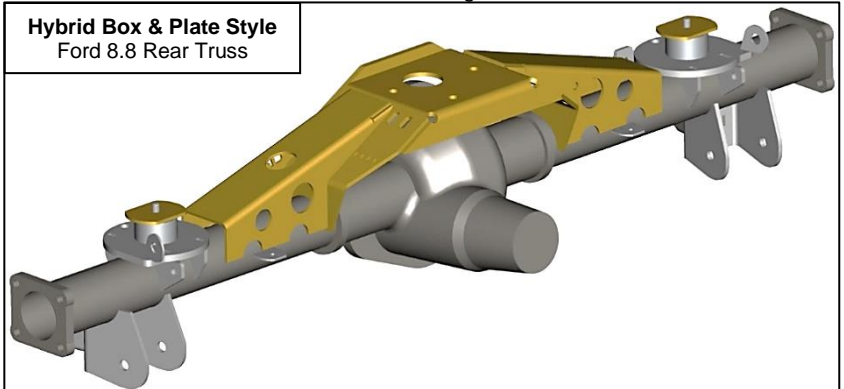
Plate Style Trusses:

- Optional:** JK Rear Dana 44 Truss
 - Front Plate 88299 (1)
 - Rear Plate 88300 (1)
 - Truss top cap 88309 (1)
 - Truss gusset triangles 88308 (3)
- Optional:** 14 Bolt Rear Truss
 - Front Plate 88301 (1)
 - Rear Plate Left 88302 (1)
 - Rear Plate Right 88303 (1)
 - Truss top cap 88309 (1)
 - Truss gusset triangles 88308 (3)
- Optional:** Rear Dana 60 Truss
 - Front Plate 88304 (1)
 - Rear Plate 88305 (1)
 - Truss top cap 88309 (1)
 - Truss gusset triangles 88308 (3)
- Optional:** Sterling 10.5 Truss
 - Front Plate 88310 (1)
 - Rear Plate 88311 (1)
 - Truss top cap 88309 (1)
 - Truss gusset triangles 88308 (3)
- Optional:** DIY Blank Truss
 - Front/Rear Plate 88306 (2)
 - Truss top cap 88309 (1)
 - Truss gusset triangles 88308 (3)

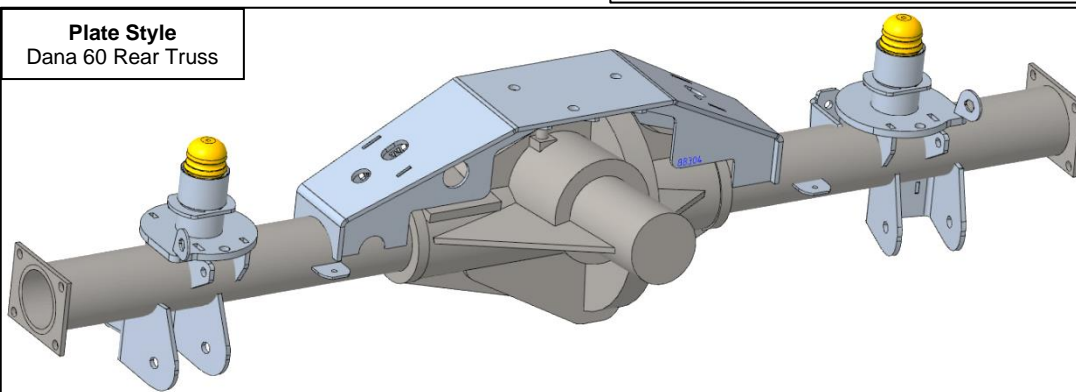
Hybrid Box and Plate Style Truss:

- Optional:** Ford 8.8 & Ford 9" Truss
 - Right truss 92200 (1)
 - Left truss 92201 (1)
 - Over axle cradle 92202
 - Over axle cradle gusset 92191

**Hybrid Box & Plate Style
Ford 8.8 Rear Truss**



**Plate Style
Dana 60 Rear Truss**



Safety Warning: *Important! Read Before Installation. *****

We recommend that this system be installed by a qualified professional. Knowledge of suspension component function is necessary for safe installation and post installation inspections. We recommend that all welds be performed by a certified welder. A weld failure may result in serious injury or death, in addition to severe vehicle damage. Be sure to re-torque all suspension components after the first 100 miles of use, and frequently inspect all safety critical suspension components.

Before you begin:

- Read all safety warnings.
- Read and understand installation instructions.
- Check all suspension components for wear and replace as needed.
- Contact Iron Rock Off Road with any questions before, during, or after installation.
- Ensure that all parts are present and in good condition using the included shipping checklist.
- Be sure you have the following tools and supplies:
 - Floor jack and jack stands
 - Basic hand tools
 - Welder
 - Angle finder
 - Measuring tape
 - Fabrication tools such as angle grinders and cut-off wheels
 - Source any necessary brake parts and driveline parts
 - Source any ABS/Locker wiring parts

Inspect Donor Axle:

1. Check donor axle for straightness and bent axle shafts.
2. Check condition of ring and pinion and all bearings.
3. Verify that ring and pinion ratio matches your front axle assembly.

Prepare Donor Axle:

4. Remove all leaf spring, coil spring, control arm, and shock mounts.
5. Remove any remaining mounting brackets.
6. Be careful not to cut into the axle tube.
7. Grind off any weld leaving straight, smooth tubes.
8. Mark the centerline of the axle housing by measuring from the left and right axle end flanges.

*****NOTE: The axle centerline is not the same as the center of the differential housing *****

Coil Buckets: (Figure 1)

9. Place 2 spring pad gussets into slots in coil plate, tack weld in place.
10. Place spring pad gusset with hole into slot in coil plate, tack weld in place from underside.
11. Center coil retainer tube, tack weld in place on the inside of the tube.
12. Double check placement then weld coil retainer tubes on the inside. Two 1" stitch welds per tube is enough.
13. Place carriage bolt up into center hole, tack weld in place.
14. Place brake hose bracket into slot in coil plate, tack weld in place.
15. Repeat with coil plate flipped over for opposite side.
16. Test fit coil spring pads on axle.

****Some axles have large tubes; grinding of gussets and brackets may be required for proper fitment on your axle. *****

17. Fully weld one side of each gusset plate (either side is fine).
18. Fully weld both sides of brake cable mount.
19. Strong tack welds are adequate for the carriage bolts.

Lower Control Arm Mounts: (Figure 2)

20. Place shock mount bracket into LCA bracket, tack weld in place.
21. Repeat for opposite side.
22. Fully weld each shock mount around the outside.

Plate Style Truss Assembly: (Figure 3 & 4)

(For Hybrid Box & Plate Style Truss, see step 39)

23. Insert the front and rear plates of the truss into the top cap. Tack into place. The IRO plate should be on the rear of the truss.
24. Tack weld the three triangle gussets under the front edge of the truss.
25. Weld 3 M14 nuts to bottom of center truss. Weld 2 of 6 flats on each nut (Figure 4).
26. Support axle housing on jack stands.
27. Set pinion to 6.5 degrees pointing up.
28. Place truss on top of bare axle housing and set at 0 degrees rotation (level).
29. Align truss centerline to axle centerline. Double check measurements then fully weld the truss to the axle.
30. *****Refer to Figure 8 (next page) for set-up measurements*****

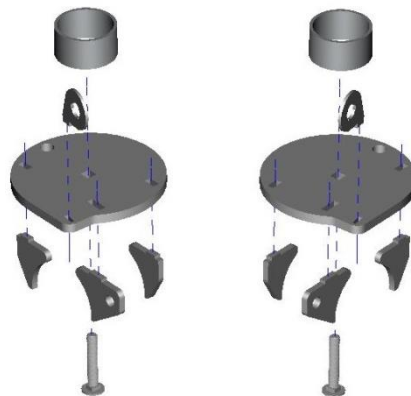


Fig.1

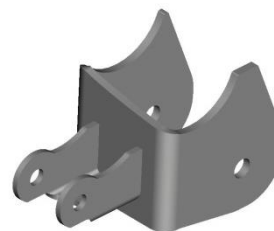


Fig.2

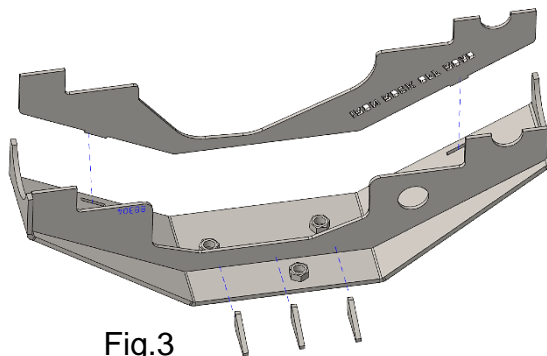


Fig.3

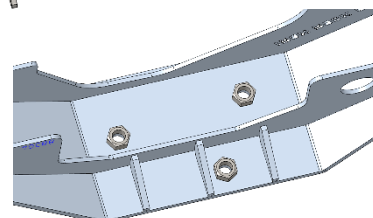


Fig.4

Bracket assembly:

31. Position right coil bucket, set at 0 degrees rotation and tack weld in place (Figure 5).
32. Repeat for left coil bucket.
33. Position sway bar mounts on axle, tab pointing up. Rotate up until top edge is parallel with the bottom of coil buckets, tack weld in place (Figure 6). The sway bar mounting surface **is not** perpendicular.
34. Position lower control arm mounts, set vertically at 0 degrees and tack weld in place (Figure 7).
35. If you purchased the E-brake option, position E-brake cable retainer, tack weld in place (Figure 8).
36. Double check all measurements then fully weld brackets to axle. To minimize heat buildup and warping: Weld in small sections on each bracket, alternating positions from front to rear and left to right. Perform one weld at left rear of the axle then one weld at left front, then right front, then right rear. Weld one side of each plate.
37. Clean all welded areas then paint the axle assembly.
38. With the springs in place, install retainer plate then install bump stop cup. Secure cup with included hardware then install bump stop.

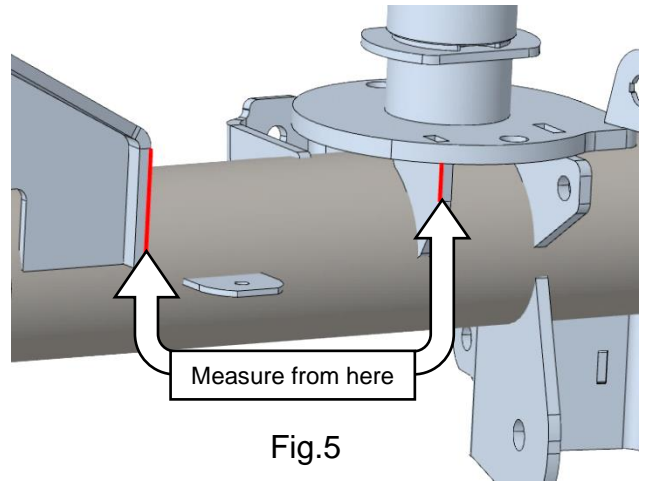


Fig.5

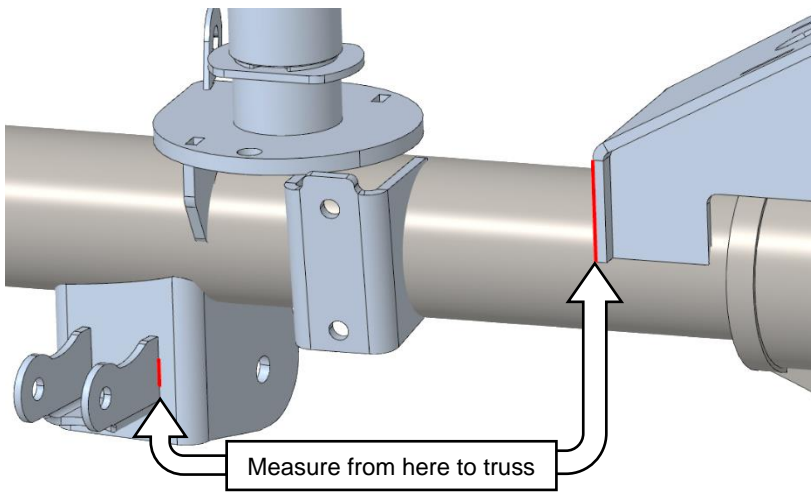


Fig.6

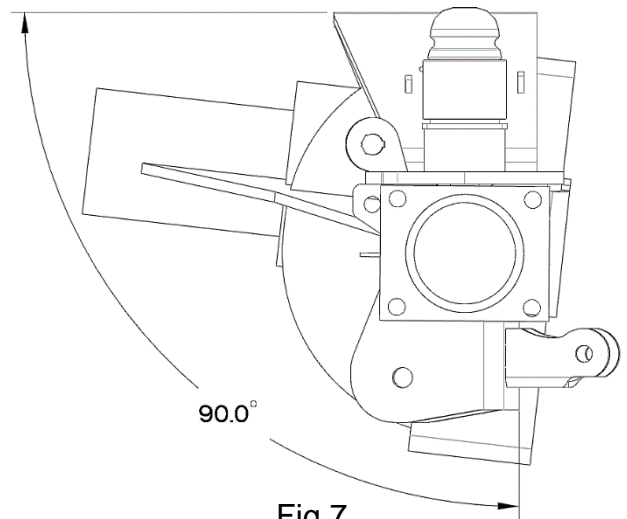


Fig.7

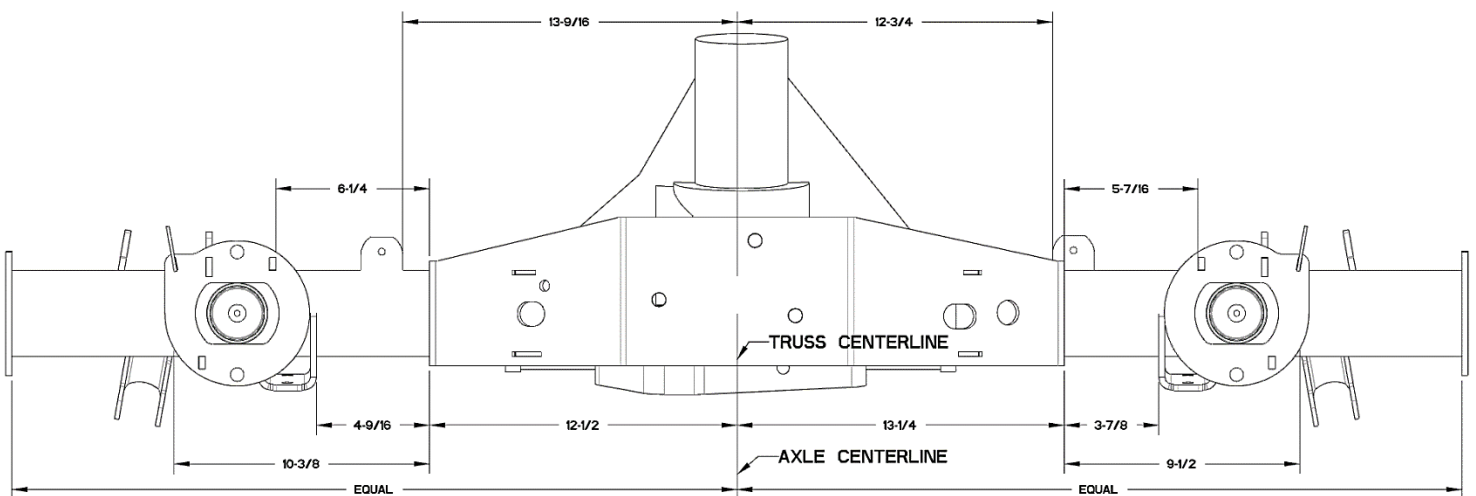


Fig.8

Hybrid Box & Plate Style Truss Assembly:

39. Support axle housing on jack stands.
40. Set pinion to 6.5 degrees pointing up (Figure 3).
41. Weld 3 M14 nuts to bottom of center truss. Weld 2 of 6 flats on each nut (Figure 4).
42. Place over axle cradle on top of bare axle housing and set at 0 degrees rotation (level). (Figure 5)
43. Center axle cradle side to side. Make sure X measurements are the same, fully weld to axle. (Figure 8)

NOTE: The axle centerline is not the same as the center of the differential housing

44. Place axle cradle gusset on back surface of cradle and position it so that the top surface is approx. 5/8" above the top surface of the cradle, tack weld in place.
45. ***If installing on a Ford 8.8, drill out etched hole on left box truss for breather tube access*** (Figure 7).
46. Position right coil bucket, set at 0 degrees rotation and tack weld in place (Figure 6 & 8).
47. Repeat for left coil bucket.
48. Position sway bar mounts on axle, rotate up to sit flush with the bottom of coil buckets, tack weld in place.
49. Position lower control arm mounts, set vertically at 0 degrees (90 degrees from truss top) and tack weld in place.
50. Set side trusses flush to the axle cradle with lettering facing the rear, tack weld in place.
51. If you purchased the E-brake option, position E-brake cable retainer, tack weld in place (Figure 8).
52. With everything in place, fully weld brackets to axle. Use proper heat settings and alternate welding operations from front to rear and left to right. Perform one weld at left rear then one weld at left front, then right front, then right rear. Weld one side of each plate.
53. Clean all welded areas then paint the axle assembly.
54. With the springs in place, install retainer plate then bump stop cup. Secure cup with included hardware then install bump stop.

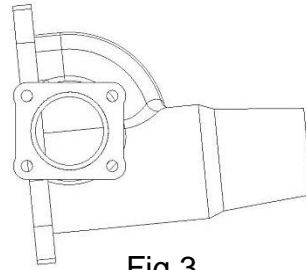
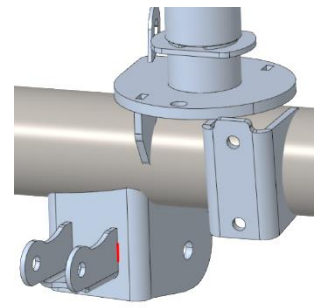


Fig.3

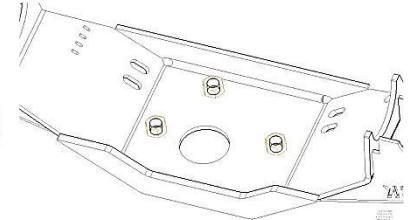


Fig.4

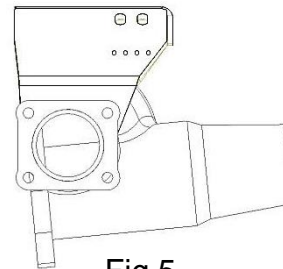


Fig.5

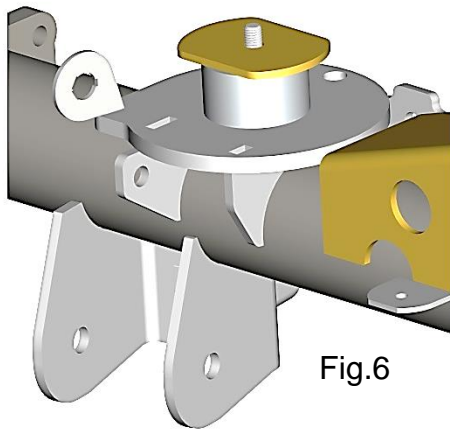
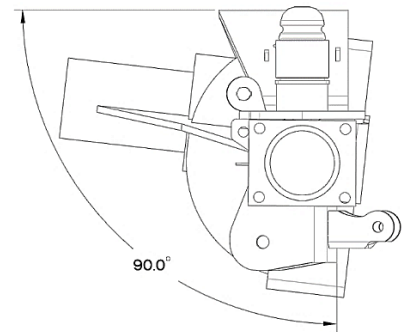


Fig.6

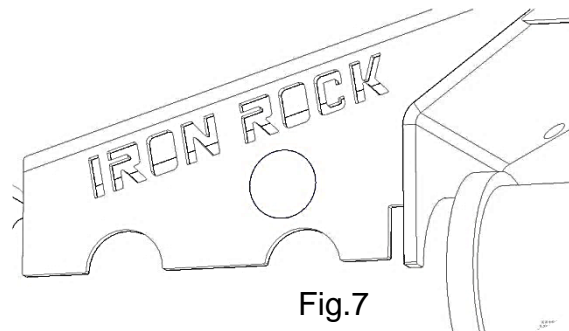


Fig.7

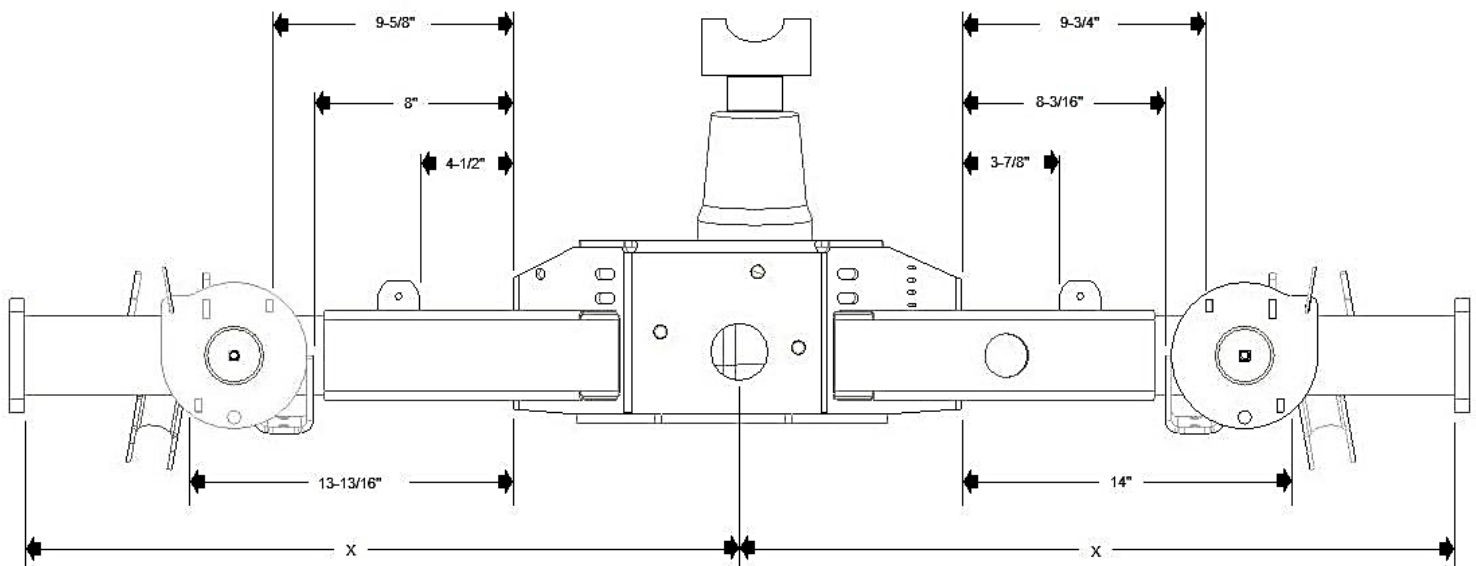


Fig.8