

F-100 Ford PU Rear Crossmember



A good deal of common sense must be exercised in the assembly of this unit, high quality welds are essential, we recommend Heli-ARC (TIG) Welding. If you are in doubt about your welding ability, we strongly suggest that you tack weld components in place and take them to a competent or certified welder for final welding.

- 1. Frame should be boxed in the area of crossmember attachment; areas adjacent to welds must be sandblasted or ground clean.
- 2. Set the frame on sawhorses or a suitable working area and level the frame from side to side using a good carpenters level.
 - A) Front to rear frame "rake" can be set at this time. (See Notes)
- 3. Square the frame by cross measuring.
 - A) Frame may be a parallelogram (one rail behind the other)
- 4. Removing existing rear crossmember:
 - A) Tack Weld in temporary braces across the top and bottom of frame rails about 12 inches in front of crossmember.
 - B) Measure width of frame: outside measurement (OD) will be approximately 34 inches at rear axle centerline.
 - C) Repair or straighten as required.

5. POSITION WEEDEATER ADJUSTABLE CROSSMEMBER

- A) Trim required amount off WEEDEATER ADJUSTABLE CROSSMEMBER.
- B) Amount trimmed off depends on whether crossmember is butt welded to boxing plates, or placed on inside of edge of frame rails and welded.

- For F-100 We recommend positioning crossmember inside frame channel and boxing around it.
- Position crossmember approximately 1/4" below top of frame rail
- 6. Bolt crossmember assembly to top of Jag Pumpkin using the tapered seat OEM Jag Capscrews. (part # C17024 if you don't have them).
 - A) Narrower end of center mount plate to the rear of car.
 - B) Assemble lower control arms to Jag Pumpkin using fulcrum mounts, shafts, washers and spacers. (See our Catalog or Jag Manual)
 - C) Bolt Pinion Support Bracket to front of Jag fulcrum shafts at this time.
 - D) Centerline of crossmember and centerline of 1/2 Shafts should coincide.
 - E) Shock bosses on crossmember and Lower Control Arms (LCA) should be parallel.
- 7. Position crossmember between frame rails. (see NOTES back page)
 - A) Vertical positioning of crossmember depends on desired ride height.
 - B) For wheel base positioning: see NOTES
 - C) Jag sedan pinion centerline will be parallel with the fulcrum shaft centerline.
 - D) Jag XKE pinion centerline will point slightly upward at an angle of 5?60.
 - (XKE's can be converted to flater sedan angle): (See NOTES)
- 8. TACK weld crossmember in place: DO NOT FINAL WELD CM AT THIS TIME
- 9. Attach pinion support bars to front pinion support tybar.
 - A) Clevis ends attach to pinion support tybar.
 - B) Capture bushing ends with teardrop shape gussets, 9/16" bolts, washers and nuts supplied.
 - C) Adjust length of support bars to position capture gussets to lower edge of frame rails.
 - D) Tack weld teardrop gussets in place.
- 10. Check that face of shock boss on crossmember and LCA are essentially parallel.
 - A) Bolt a shock to crossmember shock boss and Jag LCA.
 - B) If shock won't line up with both shock bosses: You Have:
 - o Assembled Jag Fulcrum Mounts to Jag Pumpkin incorrectly.
 - Assembled Jag center crossmember mount plate backwards.
 (small end of plate toward rear of car)
 - XKE Rear End instead of a Sedan Rear.
 - C) Shocks line up correctly: ALL RIGHT!!
- 11. Stand around and eyeball your work; does everything "look" right and straight?
- 12. Final weld crossmember in frame. (Have you read the NOTES yet?)
 - A) Read NOTES before final welding.
 - B) Read All NOTES before final welding.

NOTES

More than you really want to know

- 1. We recommend assembling bed and rear fender to frame as a check for rear tire centering and desired height in wheel arch.
- 2. Approximate measurement from bottom of frame to 1/2 shaft near outer U joint is: 5 1/2 inches at normal ride height.

- 3. Bottom of hub carriers should be approximately parallel to ground with frame at normal rake.
- Normal Attitude For Jag 1/2 Shafts at Ride Height: 1/2 Shafts "Hang Down"
 Approximately 1 to 2 degrees (Outer Ends Lower Than Inner Ends)
 A) Check with Magnetic Protractor.
- 5. Yes, Dave; This is California: and we can turn straw into gold: send your old XKE inner Fulcrum Mounts and \$ = We'll puss 'em out so's your pinion will lay flat too.
 - A) Pinion centerline and All shafts should be parallel to each other in a side view. (BOTTOM of HC and/or HC shaft should be parallel with ground)
 - B) This conversion is not possible with some 61 to 63 XKE's that have only two holes in each Inner Fulcrum Mount; your Fulcrum Mounts must each have 4 countersunk holes for this modification.
- 6. Miscellaneous measurements:
 - A) 1953 to 1958 F?100 frame rails 34.0" wide.
 - B) 1951 to 1952 F?100 frame rails 32.0" wide.
 - C) Bed only outside measurement 49 1/2" wide.
 - D) Rear fenders outside measurement 72" wide.
- 7. For coilover shock clearance, boxing plates must be set in at an angle at bottom of frame channel for a distance of 4" before and 4" after crossmember for a total of 11 to 12 inches on each side.
 - A) See detail drawing of frame rail cross section.
- 8. If you are using an XJ Series Jag rear (61-1/2" wide), the lower shock shaft tube in Lower Control Arm must be relocated 2 inches in from the stock XJ position: (12-1/2" cc from inner fulcrum shaft).
 - A) This is necessary for shocks to clear inside lower edge of frame rails.
 - We can do this for \$150.00 + UPS Shipping)
 - B) See detail drawing of Lower Control Arm.
- 9. See rear radius rod detail drawing.
- 10. See frame rail modification drawing for coil over clearance.

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