

**S & W Race Cars**  
**Truck Ladder Bar Crossmember Kit**  
**40-244**

1. *After fitting the crossmember to the truck it may be easier to weld some of the brackets with it removed. Keep this in mind when tack welding.*
2. Raise and support truck. Remove any fuel lines, brake lines, cables and wires that run along the frame rails in the area where the crossmember will be installed. Clean any paint, rust, dirt or fluids off all surfaces that will be welded.
3. Place the rear housing under the truck. The housing should be level and at ride height in relation to the truck frame.
4. From the center line of the rear housing axle tube measure forward 36". This is where the front of the ladder bar crossmember will be. Note; the location of the crossmember is based on using S&W 32" ladder bars. Measure the outside width of the frame at this point. Trim the crossmember to this width. Note; do not assume that the drop in the crossmember is centered. Trim the crossmember using the bends as a reference not the ends.
5. Tack weld the ladder bar brackets to the crossmember. The width and location of the brackets on the crossmember should be the same as the brackets on the rear housing. Take care to put the brackets on so they are square with the crossmember and parallel with each other. Tack the cap plates to the front of the brackets. Tack the end plates to the crossmember. The front and bottom of the plates should be aligned with the front & bottom of the crossmember.
6. With the ladder bars bolted to the rear housing, bolt the crossmember to the ladder bars. The height of the crossmember is determined by the ladder bars. Use the second hole up, from the bottom, on the ladder bar brackets. Level the crossmember and tack the end plates to the frame. If you do not have ladder bars the crossmember can be located as shown on the general arrangement drawing. Note; the location of the crossmember is based on using S&W 32" ladder bars.
7. Place the inside crossmember mounting plates on the crossmember and against the inside of the frame. Note that the top of the plate will probably need to be trimmed, mark the plates and trim as needed. Tack the mounting plate to the frame. Fit the mounting plate cap plates to the front of the plates. The top of the cap plate should touch the bottom of the frame and be even with the sides of the plates. You may have to trim the cap plates. Do not tack the cap plates on at this time.
8. A piece of tubing has been supplied to gusset the front of the crossmember to the frame. This tube is to be cut in half and used to do both sides. The tube is to attach to the cap off plate on the front of the ladder bar brackets and run diagonally up to the frame. The tube should be installed at an angle between horizontal and 60 degrees. If the truck frame is a "C" channel where the tube meets it should be boxed using the plates provided with the kit.
9. *Check your work.*
10. When you are satisfied with the installation remove the gusset tubes and crossmember, but leave the inner mounting plates tacked to the frame. Weld all brackets and plates on the crossmember. Weld the inner mounting plates (and boxing plates if used) to the frame. Put the crossmember back in the truck. Tack the diagonals in place. Weld the crossmember and gusset tubes to the truck. Put the cap plate on and weld them to the frame, mounting plates and crossmember.