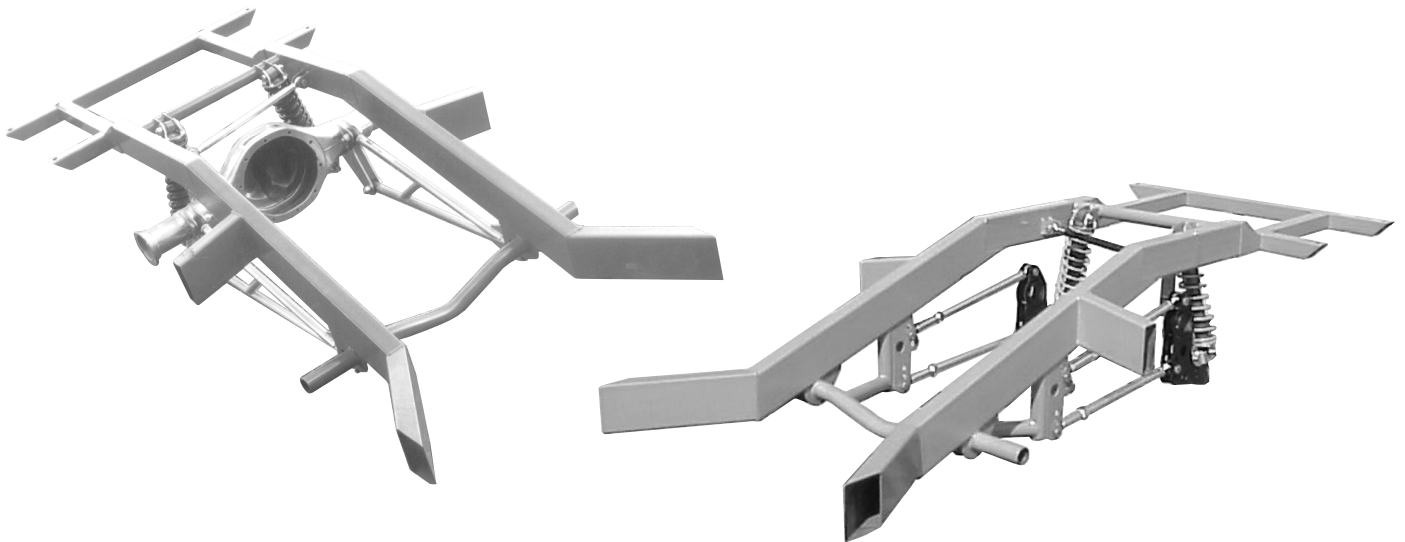




## INSTALLATION INSTRUCTIONS FOR 10-503 & 10-509 S-10 PICK UP WELDED REAR FRAME

**CAUTION!!!** - *The most important requirement for a successful installation of this, or any, S&W chassis component is that you take your time and use good common sense. Check & recheck all measurements before cutting or welding. If at any time before or during the installation, you have any questions - STOP - and call our tech line at 610-948-7303 and we will gladly explain in more detail any step in the installation.*

*Read all instructions carefully before beginning installation*



## S & W Race Cars & Components, Inc.

11 Mennonite Church Rd.  
Spring City, PA 19475

TECH & INFO  
(610) 948-7303

ORDERS 1-800-523-3353  
24 HOUR FAX (610) 948-7342

S & W Race Cars would like to thank you for choosing our S-10 rear frame kit. During the installation process, please remember that the quality of your workmanship will also reflect on the ultimate strength of the entire structure. It is important that all the areas to be welded are clean, free of oil, slag, undercoating and of course rust.

*In all phases of construction, remain patient and intent on each step of construction.*

1. Disconnect battery
2. Block front tires and jack up rear of truck placing your jackstands under the frame at the rear of the cab body. Level the truck from side to side. Do not place any jackstands under bed.
3. Remove bed from frame. The gas tank filler neck must be unbolted from the bed side. The tail-light wiring harness must be unplugged at the rear of the bed. Remove the eight (8) bolts that attach the bed to the frame and carefully remove the bed and set it aside in a safe place.
4. With the bed removed, you may now begin removing the stock rear suspension and gas tank. To remove the gas tank, disconnect the wires from the top of the tank, then remove the fuel line connections. *Make sure you plug all gas lines.* Next, carefully unbolt and remove the stock gas tank and set it aside. *Use extreme caution when handling the gas tank especially if you were not able to completely empty the tank before removal.* With the gas tank removed disconnect the emergency brake cables and the brake hose connected to the rear. Disconnect the stock driveshaft and set it carefully aside until later. Now disconnect the rear shock absorbers and remove the bolts which hold the stock leaf springs to the frame. The rear and springs may now be removed. At this time remove the stock tail pipe by unbolting it at the catalytic convertor.

5. Now, measure and record the mounts *as shown in figure 1*. At this time check the truck for level, side to side, by placing your level across the bed mounts directly behind the cab. Re-level if necessary.

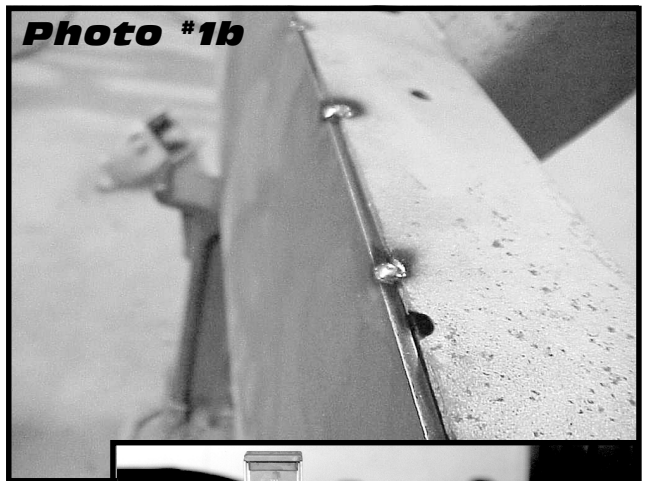
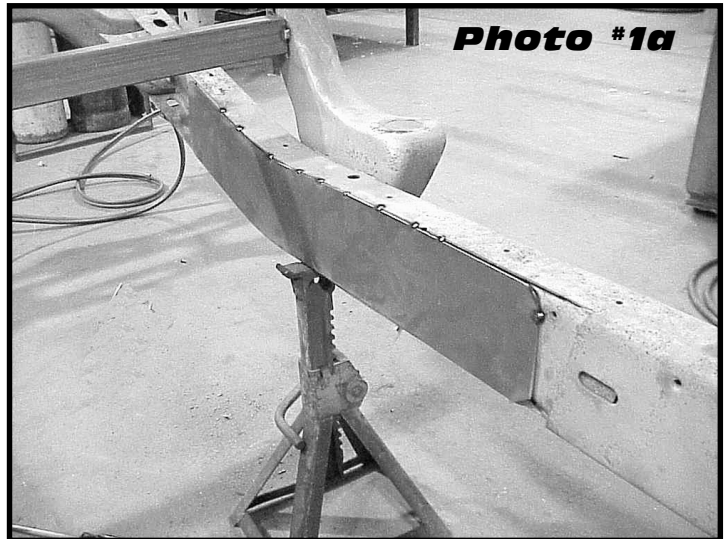
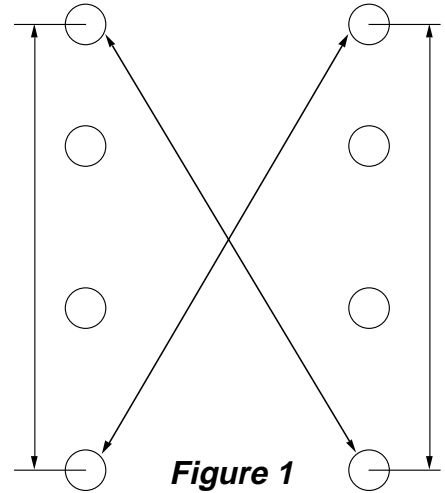
6. Locate the steel frame reinforcing plates provided with the frame and tack weld them in place on the inside of the stock frame rails. Once both frame reinforcing plates are tacked in place, finish welding them in along the top and bottom edges, making sure to weld around all corners and edges. *See photo #1a & 1b* Please note in photo 1b that the reinforcing plate is NOT designed to fit inside the frame rail or fit over the rail! It is designed to sit in such a manner as to allow complete welding down both edges of the rail and the reinforcing plate. At this time we recommend that you weld the outside edges of the cab/bed mount to help stiffen the frame rail in this area.

7. Locate the second bed mount from the back of the cab and measure 3-1/2" from the center of the bed mounting hole back to the top of the frame rail.

*See photo #2*

Draw a line from this mark across the top of the frame rail, from this line measure forward 2" and draw another line across the top of the frame rail. Then use a level to transfer these lines to the bottom of the rail. *See photo #2*

**Continued on next page**



The area between these lines must now be removed to create a notch in the top and bottom of the rail which the outrigger on your new frame will fit into. See photo #3a & 3b Do this on both sides of stock frame.

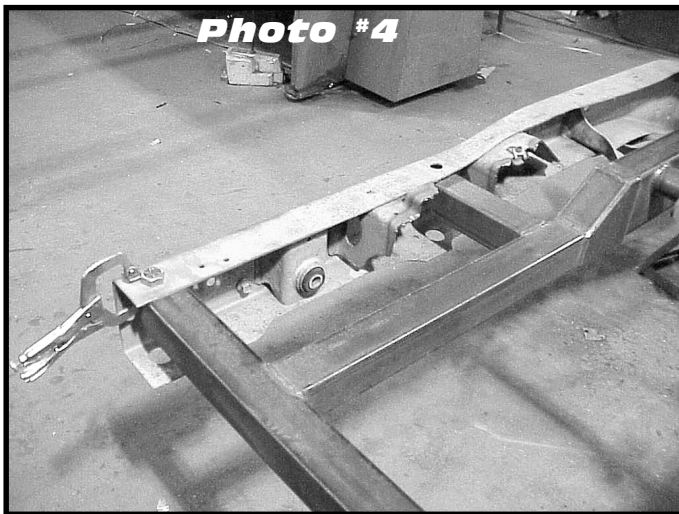
8. Remove all stock crossmembers and install the new frame unit between the stock frame rails, sliding the outrigger into the notches you made in step 7. ( Before installing the frame, grind away the small tacks keeping the sleeves from sliding out and contacting the new reinforcing plates. ) The stock bed mounting holes at the rear of the original frame will line up with the rear bed mounting holes on your new welded frame. Bolt the new frame unit to these original bed mounting holes. This will help line up the new frame and keep everything in place during the final welding process. On long bed trucks, use the third set of bed mounts from behind the cab to bolt the S & W frame unit with the stock frame.. Align the holes in the bed mount outriggers on the S & W frame with the bed mount holes in the stock frame. See photo #4,



**Photo #3a - Top View**



**Photo #3b - Bottom View**

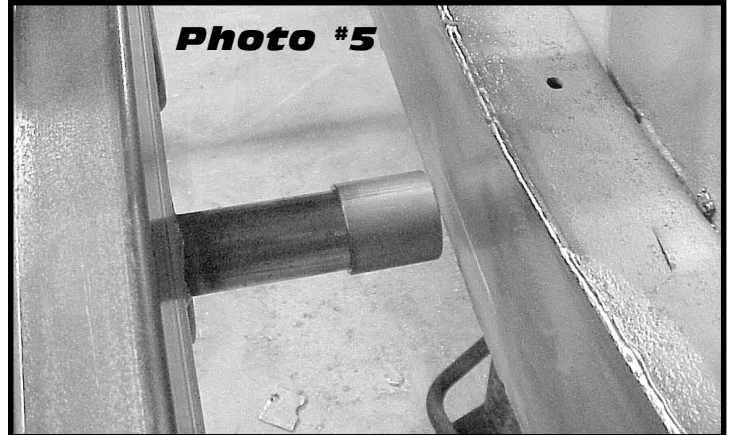


**Photo #4**

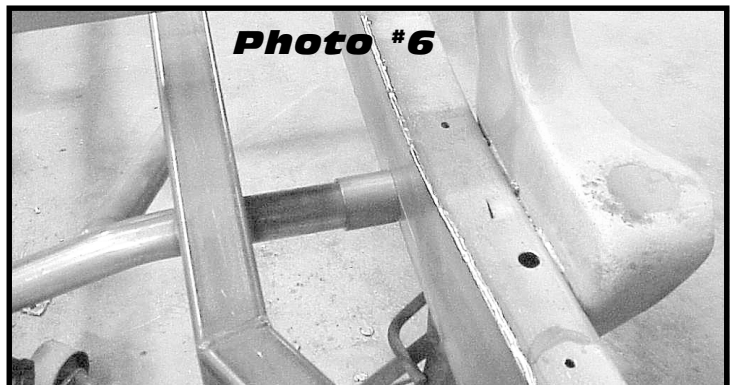
9. Slide the sleeves on the round tube crossmember out until they contact the new reinforcing plates on both sides of the frame and tack in place. See photos 5 & 6

10. Now recheck all measurements taken in step 5. If all measurements are correct and the bed mounts are level with each other, the frame is ready for welding. The bed mounts can be checked side to side by placing your level across the bed mounts. Also check the mounts for alignment front to back, we recommend you do this by stretching a string from the front to the rear mount. All four mounts should be level. Tack weld the frame in several locations, then recheck all measurements and level. If everything is still OK, finish welding the frame unit in place.

11. **Short Bed:** After final welding is complete, cut off the stock rail flush with the rear edge of the outrigger at the second bed mount from the rear of the cab. Now unbolt the rear bed mounting bolts and remove stock frame rail. Repeat on other side.



**Photo #5**



**Photo #6**

**Continued on next page**

11. **Long Bed:** The rear section of the stock frame rails will be retained for mounting the bed. With the stock frame bolted to the S & W frame as described above, clamp the rear crossmember to stock frame. The top surface of the new crossmember should be against the bottom surface on the top section of the "C-channel" stock frame rail. Weld the crossmember and outriggers to the stock frame rails. After all welding is complete cut out the center section

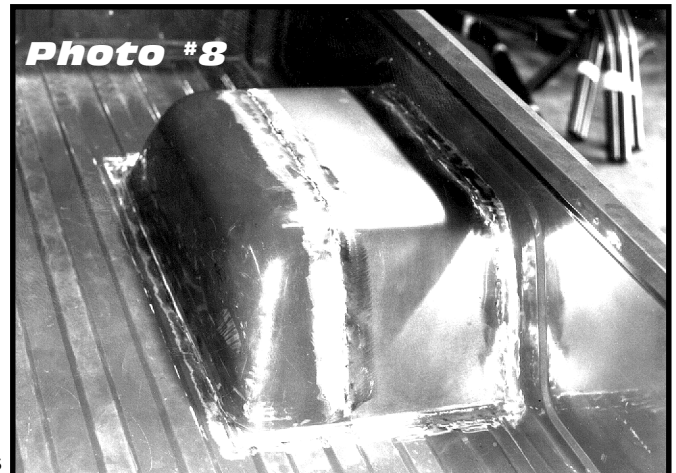
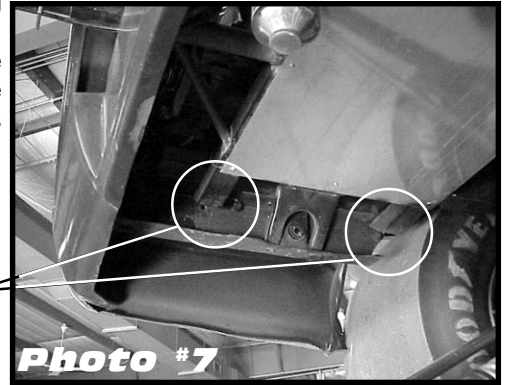
of the stock frame rails. Cut the front off flush with the rear edge of the new outriggers at the second bed mount from the rear of the cab. Cut the back off at the front of the bed mount outriggers on the new frame unit. See *photo 7*.

12. Place the bed back on the new frame section and line up the bed mounting holes. From underneath mark the reinforcing rib between the wheel tubs, along the inside edge of the frame rail. Next, mark the outside edge of the frame rail for a reference when sectioning and moving the inside half of the wheel tub. Finally mark the rear bed reinforcing rib where the wiring harness passes between the rear bed brace and the frame rail. This rib must be notched for wiring harness clearance.

13. Remove the bed and place it on stands so that you can work on both the top and bottom. From underneath, narrow the rib between the wheel tubs to the marks you made on the *inside* of the frame rails in step 12. The next step is to remove the stock inner wheel tub by cutting it along the outside of the sealer line visible from the inside of the bed. Use caution not to damage this piece during removal as it will be reinstalled later. With this section removed, draw a line from the front edge of the opening over to the line you drew in step 12 which represents the outside edge of the frame rail. Do the same with the back edge of the opening. Now remove the stock bed floor between these lines. Repeat on the other side. Next tack the stock inner wheel tub you previously removed along the inside edge of the new bed opening See *photo 7* and use the material supplied to fill in the gap and create a new wider wheel tub See *photo 8*. Finally notch the rear bed brace for wire harness clearance as marked in step 12.

14. At this point, we recommend installing all suspension components and rear axle housing, before remounting the bed. If you purchased a welded rear housing with your package, please refer to the separate instruction sheets provided for ladder bar or 4-link and coil-over shock mounting information. If it is your intention to use your own rear axle housing, please refer to the drawings on page 4 for rear housing information.

15. Part # 40-503 panhard bar is intended for use with S-10 rear frame. This panhard bar features left hand threads on one end and right hand threads on the other, allowing for quick easy adjustments without unbolting the bar from the frame. Care should be taken to install the rod ends properly to avoid damaging the threaded panhard bar ends. S & W also recommends coating the threads with a light oil or anti-seize compound to prevent thread damage. Bolt on one end of the panhard bar between the two tabs installed on the left side frame using the hardware provided. Next bolt the panhard bar housing tab to the other end of the panhard bar assembly, the bracket is to be on the front side of the rod end. With the shocks at ride height, place the panhard bar housing bracket on the housing. Make sure the panhard bar is perpendicular (90 degrees) to the frame rails and that the rear is centered under the frame. Tack weld the bracket to the housing. Place the supplied housing bracket gusset against the bracket, opposite the rod end and tack in place. The tire clearance distance between the frame rail and the tire sidewall should be the same. Some adjustability can be had by loosening the two rod end jam nuts and turning the panhard bar left or right. If your tire clearances are OK you may now finish weld both the bracket and gusset.





# The S & W Race Cars S-10 rear frame kit is designed to use wheels and tires with the following deminsions

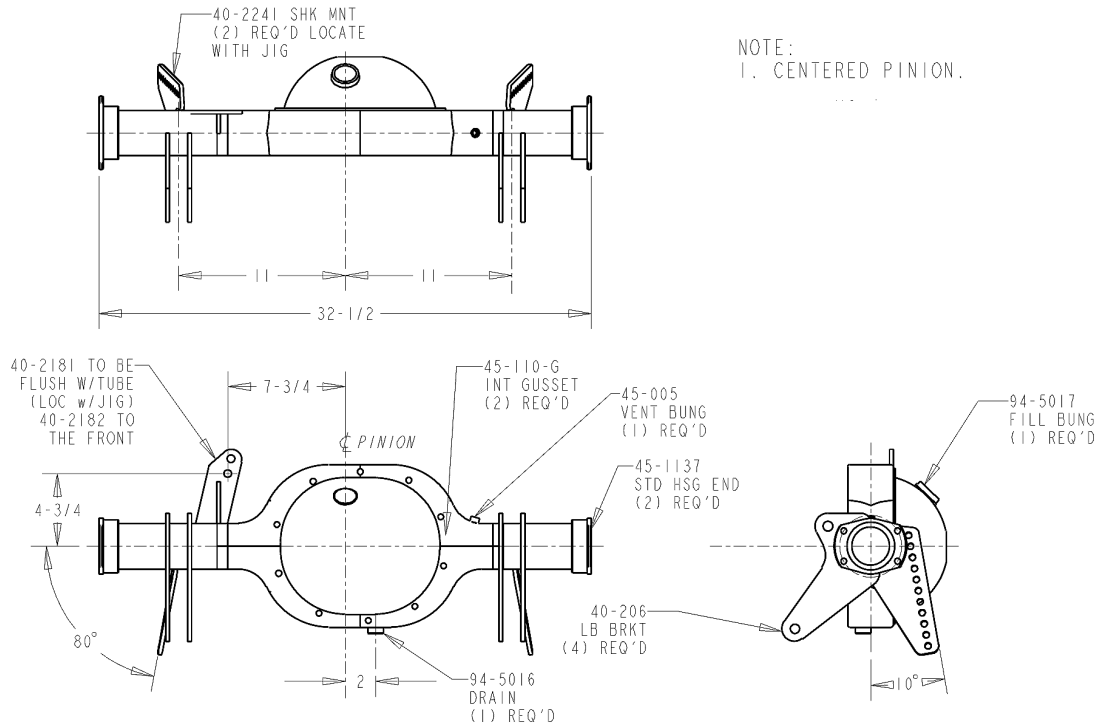
Wheels - 14" wide with a 4" rear spacing

Tires - Pro/Street: 18.5" x 31" Mickey Thompson Sportsman Tire

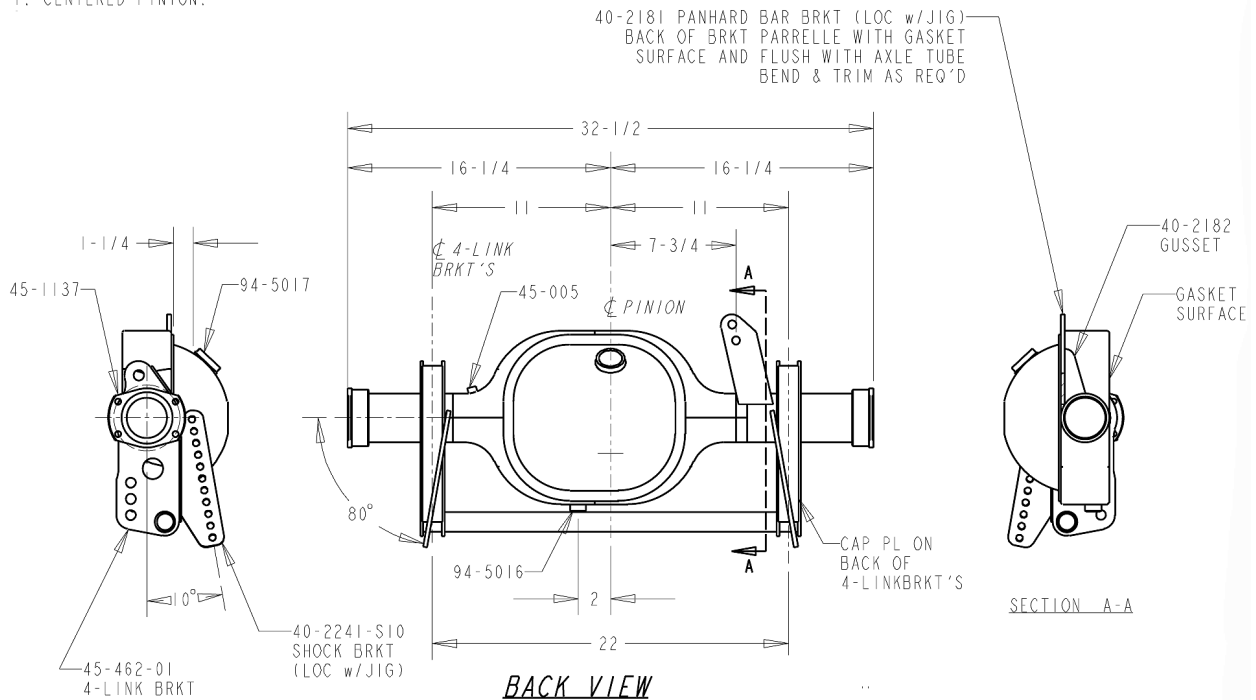
Drag Race: 14" x 32" Drag tire

The rear housing, *with axles*, should measure 37-1/2" axle flange to axle flange.

Mount all brackets as shown in drawings below.



NOTE:  
1. CENTERED PINION.





**S&W Race Cars offers these additional products to help you complete your S-10  
8 POINT ROLL BARS & 10 POINT CAGES**

<b>8 Point</b>	<b>10 Point</b>	<b>Description</b>
11-1017	11-1517	82-93 S-10 Pickup
	11-1517X	82-93 S-10 Pickup extended cab
	11-1517TD	82-93 S-10 thru dash
	11-1517XTD	82-93 S-10 Pickup ext.cab thru dash
11-1080	11-1580	94-02 S-10 Pickup
11-1080	11-1580X	94-02 S-10 Pickup extended cab
	11-1580TD	94-02 S-10 Pickup thru dash
	11-1580XTD	94-02 S-10 Pickup ext.cab thru dash

**New 9" ladder bar housing with all brackets, fill & drain for S-10 Welded Frame Package  
#45-1461**



*S&W Race Cars uses only  
BRAND NEW housings for all frame packages!!*

**Pro Street & drag race axles packages and complete center sections available - call for more info**

**Intermediate Steering Shaft Conversion Kit**

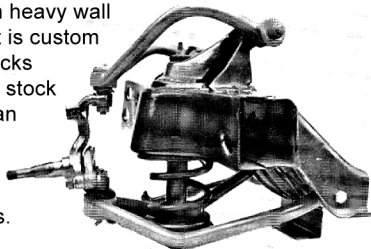


Replaces both factory "rag" joints with high performance universal joints and replaces stock intermediate shaft with small diameter splined shaft. Provides extra clearance around headers.

**Part #35-395**

**FATMAN TUBULAR A-ARMS**

These custom made a-arm sets are jig assembled for accuracy and TIG welded from heavy wall tubing for high strength. Each set is custom fabricated to accept the stock shocks and springs and can be used with stock spindles or with 2" dropped Fatman spindles, which can be ordered separately. All Fatman a-arm sets are sold in sets of 4 and include all bushings and ball joints.



**Item No Description**

36-610 S-10 & 78-88 GM G Body (Malibu, Monte Carlo)  
- stock width ...

**New 9" 4-link housing with all brackets, fill & drain for 4-link S-10 Welded Frame Package  
#45-1462**



*S&W Race Cars uses only  
BRAND NEW housings for all frame packages!!*

**Pro Street & drag race axles packages and complete center sections available - call for more info**

**94-02 S-10 PICK UP SPOILER KIT**



*includes 2  
strut rods!*

S&W's new S-10 aluminum spoiler kit comes with all necessary mounting hardware and two spoiler support strut rods. Spoiler is 54" wide and extends 14" off the back of the truck.



**#95-705**

Also available;

- Lexan rear window kits
- Pro/Street & Drag Race front & rear brake kits.