

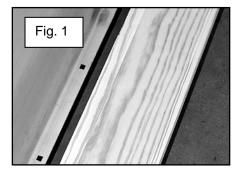
## BED PARTS ASSEMBLY GUIDE 72-85 DODGE SHORT UTILINE (STEPSIDE)

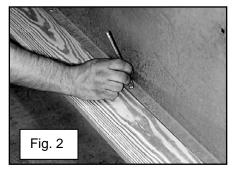
If you have not yet disassembled your original bed, make notes and sketches and take pictures of part locations to aid in the assembly procedure. Use the following steps to assemble the entire bed to test fit all parts.

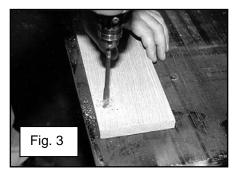
- 1. Begin with one bedside and the front bed panel. Bolt the front bed panel flange to the outside of the bedside with (4) 5/16"-18 x 3/4" indented hex washer head bolts, lock washers and nuts.
- 2. Install a 5/16" hex nut, lock washer and flat washer on one end of the long steel threaded rod. Insert the other end through the hole in the top of the bedside. The rod will pass through the front panel top curl.
- 3. Align the loose end of the long rod to the other bedside and secure with a 5/16" flat washer, lock washer, and nut. Finish bolting the front bed panel to the other bedside with the 5/16" hardware as in step 1.
- 4. Fit the rear cross sill into the rear stake pockets that are part of the bedsides. The longer leg of the rear cross sill should be facing toward the rear and the open side of the rear sill should be facing toward the ground.
- 4. Bolt the rear sill in place using (8) 5/16"-18 x 3/4" indented hex washer head bolts, with lockwashers and nuts as needed.
- 5. Once the four pieces of the bed are assembled, make sure the bed is square. Measure from the front of one bedside to the rear of other bedside in a crosswise pattern. Do this in both directions. These measurements should be within 1/16" of each other.
- 6. Measure the bed width at the top and bottom of the bedsides to ensure that they are straight up and down and are 54" apart on the inside where the wood attaches to the bedsides. Now tighten all bolts.
- 7. Place the assembly horizontally on supports such as sawhorses to gain access to both the top and bottom of the floor area.

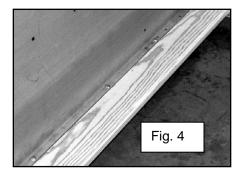
**Note:** The following sequence of steps #8 through #11 are for locating and drilling of all holes needed in the boards that attach to the bedsides. All holes should be drilled in the boards before any finish is applied. Use care to prevent the bare boards from getting dirty or greasy. Be sure the work surfaces are clean and free of oil, and wear clean cotton gloves when handling the unfinished boards. Bolt holes will be located by test assembling the bed and using the metal bed parts as a guide for marking the hole locations.

- Install the long boards with the wheel house cut-out under the bedside flange. See figure 1. Leave approximately a 1/16" gap between the bedside and wood board for expansion. This board will rest on the front bed panel lower flange and the rear cross sill ledge.
- 9. Mark the bedside angle hole locations on the long edge boards. See figure 2. Be sure the edge boards are in the correct position and they do not move as you mark the holes. Use a pencil to trace the square bolt holes in the bedside angles onto the top surface of the edge boards. There should be a total of 9 holes marked on each board.
- 10. Remove the long boards and drill all the holes with a 3/8" drill. See figure 3. Be sure to drill exactly in the center of each square marked in step 9 above. Remove splinters and sand down the rough edges around the holes. Minimize splintering by clamping a scrap piece of wood under the board and drilling through the board into the scrap wood.
- 11. Re-install the long edge boards. See figure 4. Use 5/16"-18 x 1 1/2" carriage bolts to connect them to the bedside angles. The bolts pass through the bedside angles and the holes in the long boards that were drilled in step 10. Leave the lock washers and nuts off for now.
- 12. Install the front cross sill. This cross sill is a c-shaped channel with large brackets on the bottom and installs with the open side facing rearward. This cross sill attaches to the bedside angle strip at 4" from the front. This coincides with the second bed strip and angle strip hole on the bedside.

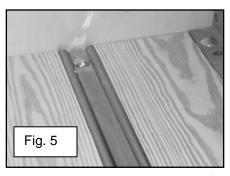








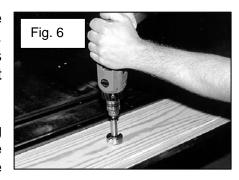
13. Install the next board on each side. All of the boards except the outside edge boards are the same width. It does not matter which ones you choose. Place a bed strip between these boards and the edge boards installed in step 11. Leave a 1/16" gap between the bed strip and each board groove for expansion and finish buildup. Secure the bed strips with 5/16"-18 x 1-1/2" carriage bolts tightened just enough the hold the boards from moving. See figure 5. At this point, a bolt can be placed through the front bed panel, front cross sill, and rear cross sill only. If using MAR-K's

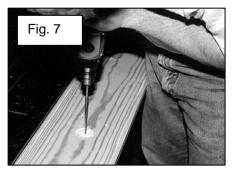


custom bed strips with hidden fasteners, follow the instructions supplied with the bed strips for correct installation.

- 14. Install the second cross sill from the front. This cross sill is also a c-shaped channel and installs with the open side of the channel facing rearward and the brackets on the bottom. This cross sill is located at the third bed strip hole from the front and is approximately 23-1/2" back from the front of the bed. This cross sill does not attach to the angle strips or bedsides. It attaches to the bed strip bolts only.
- 15. Install the third cross sill from the front at approximately 53-7/16". This coincides with the fifth bed strip hole from the front. This cross sill also attaches only to the bed strips and not the bedsides. It should face the same way as the front and second cross sill. This cross sill has the ends formed upward and has special brackets that mount directly to the sloped rear part of the frame.
- Note: There is a fourth cross sill that fits between the frame and box assembly. This cross sill does not bolt to the bed strips or bedsides. It is held in place by two bed-to-frame bolts that go through the wood boards. If your wood was purchased with these holes pre-drilled, then skip to step #24 and proceed with finishing the bed wood. If not, steps #16 through #23 will direct you through the process of locating and drilling these two bed-to-frame mounting holes.
- 16. The second board from each side will have a mounting hole drilled through it. These two boards were installed in step #13. Measure forward from the end of the board next to the tailgate 2-5/8" and draw a line across these two boards. Make sure these lines are perpendicular to the bed strip groove. From the outside edge of the wood groove, next to the bed strip, measure 15/16" along the line drawn and make a mark. Do this on both sides.
- 17. Double check the measurements on the truck frame and compare to the hole locations marked on the two boards. This measurement should be 35-1/4" apart. They must be precisely matched for correct fit.
- 18. Remove the two bed strips and wood boards. Drill a 1/8" pilot hole completely through the boards at the marked locations.
- 19. Measure forward from each of the 1/8" pilot holes exactly 3/16" towards the front of the board and make a mark on the boards.

- 20. Using a 1-9/16" Forstner bit, countersink each bed-to-frame location 1/8" deep centered on each of the marks from step 19. See figure 6. Use a drill press for best results. This offset hole is for the 1-1/2" offset washer supplied in the bed bolt kit. The offset washer keeps the bolt head from turning.
- 21. To finish this procedure, drill a 1/2" hole through the boards using the 1/8" pilot holes drilled in step 18 as a guide. See figure 7. Be sure the 1/2" drill is centered through the 1/8" pilot hole, not the centering mark made by the 1-9/16" forstner bit. Use care to prevent the drill from walking away from the 1/8" pilot hole. Take precautions to prevent splintering as the drill breaks through the board.
- 22. Re-install the two mounting hole boards and the bed strips. Be sure the mounting holes are 35-1/4" apart as before. Minor adjustments to the drilled holes may be made at this time with a rat tail file.





- 23. Install all remaining boards and bed strips. Be sure everything is square and the gaps are all the same. Hand tighten the bed strip carriage bolts.
- 24. If this is the final assembly, the boards should be finished with the coating of your choice at this time. Remove all boards and finish all surfaces including the ends of the boards and inside of the holes.
- 25. Place the #4 cross sill onto the frame at the rear. This cross sill should be installed with the open side facing the cab. This is backwards from the other three cross sills. This cross sill sits directly on the frame and the wood sits directly on it. Two wood blocks fit inside this cross sill to keep it from crushing.
- 26. Place the box assembly onto the truck frame. Line up the cross sill holes in the front and third cross sill to the frame holes. These two cross sills bolt to the frame with 3/8" bolts that pass through the frame into the cross sill brackets. A grade 8 bolt should be used here. The cross sill brackets have nuts welded in place. Bolt these to the frame loosely.
- 27. Line up the fourth cross sill to the wood holes drilled in step 21 and to the frame holes. Place a 3/8"-16 x 5" carriage bolt through an offset washer and into the wood holes. These will pass through the #4 cross sill, wood block, and frame. Secure with a flat washer, lock washer and nut.
- 28. Align the box to the frame and cab. When satisfactory, tighten all six bed-to-frame bolts. As mentioned previously, the second cross sill does not bolt to the frame.
- 29. Bolt one tailgate hinge onto either bedside. Slide the tailgate onto this hinge. Insert the other tailgate hinge into the hinge tube of the opposite end of the tailgate. Bolt this tailgate hinge to the other bedside. The hinges bolt to the bedsides with 3/8-16 x 1" hex head bolts.

- 30. Mount the center tailgate hinge through the tailgate and onto the rear cross sill. The top of the hinge sits on top of the rear cross sill and uses (2) 5/16-18 x 3/4" flat head Phillips screws. The bottom of the center hinge bolts to the vertical wall of the rear cross sill with (2) 3/8-16 x 1" hex head bolts.
- 31. The tailgate chains on this model use an open-ended link to attach the chain assembly to the stake pocket. Spread this link and insert into the hole on the stake pocket latch bracket. Squeeze the link shut with pliers. Close the tailgate and insert the hook of the chain through the tailgate latch ear and latch bracket on the bedside.
- 32. Now that you have assembled the bed, measure the bed as described in steps 5 and 6. If satisfactory, tighten all bolts including bed strip and bed-to-frame bolts. The bed strip bolts do not require a lot of force, just enough to keep the wood down.
- 33. Remove the bed assembly and disassemble the unit to prepare for painting and finishing including the wood if not yet finished.

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## **FACTS ABOUT OUR PARTS**

**Stainless Steel:** Bed strips, angle strips, and stainless mouldings are made of type 430 or 434 bright stainless steel, selected because of its color. It is a magnetic grade of stainless formulated for automotive stainless steel trim. When it is polished and buffed, its bright color looks similar to chrome plating. Stainless hardware items such as bolts, nuts, tailgate chain parts, and bed-to-frame washers are made of nonmagnetic stainless selected for superior resistance to rust and corrosion.

Care of Stainless / Rusting: With proper care, stainless steel will remain bright and smooth for long periods of time. It may be cleaned with liquid polish intended for stainless of chrome. DO NOT use steel wool, a steel wire brush, or a buffing wheel which has been used on steel or other metals. Bright stainless parts should be coated with a good nonabrasive wax for maximum protection. Stainless steel will rust or corrode under certain conditions, especially when contaminants such as salt water, battery acid, or steel particles and moisture are present. Frequent washing and waxing are a great protection against damage to stainless steel surfaces.

**Electro-galvanized Steel:** Many of the sheet metal parts MAR-K manufactures are made of electro-galvanized steel. This means the metal is electroplated with a thin layer of zinc by the steel manufacturer. There are several reason for selecting this steel for our product.

- 1. Electro-galvanized steel is clean and dry.
- 2. The zinc protects our parts from rusting during our processing and while on the shelf.
- 3. After the parts are painted, the zinc under the paint helps prevent loss of paint adhesion or rusting if the paint surface is scratched or damaged.

**Preparing Parts for Painting:** The objectives of painting a part are to protect the metal and to provide a beautiful colored surface. No matter how beautiful the paint, if it doesn't stick to the surface, it will not be satisfactory. Excellent paint adhesion to a metal surface depends mainly on two things, the quality and characteristics of the primer used, and how well the surface is cleaned and prepared for painting. Prepare the surface as follows to help the paint have the best adhesion possible.

## **Steps for Excellent Paint Adhesion on MAR-K parts**

The following steps are a general guideline to obtain excellent paint adhesion to your new parts

1. Select the primer product with the best adhesion properties within the paint system you are using. Products such as PPG "DPLF Epoxy Primer", Sherwin Williams G.B.P. Etching Filler or Etching Primer, and DuPont Variprime 615S/625S Self-Etching Primer will provide excellent adhesion to MAR-K metal parts that have been properly prepared for painting.

- 2. Wipe the part with solvent such as PPG DX330 Wax and Grease Remover, Sherwin Williams R7K156 Solvent Cleaner, or DuPont 3919S Prep-Sol to remove grease and lubricants from the manufacturing process.
- 3. Scrub all surfaces of the part with mild detergent in hot water. Rinse well and wipe dry with a clean dry cloth.
- 4. Wipe the part again with solvent as in step 2 above. The surface must be absolutely clean before sanding to prevent the sanding process from spreading the contaminants or imbedding them into the surface.
- 5. Scuff sand all areas to be painted using progressively finer grit to about 240 grit paper. Do not try to completely remove or sand through the zinc plating, but the complete part must be thoroughly sanded for best paint adhesion. Use a "DA" sander for broad flat areas and hand sanding for areas that can't be reached with the power sander.
- 6. Wash and rinse away all sanding residue. Use compressed air to blow the rinse water out of all seams and dry the parts with a clean towel. If the rinse water beads up anywhere on the surface, it is not clean and the solvent wipe and water washing steps must be repeated and additional sanding may be required in that area.
- 7. Wipe with solvent such as PPG DX330, Sherwin Williams R7K158, or DuPont 3901S to remove any traces of contaminants or sanding residue. Wipe the surface dry with a clean cloth. Do not allow the solvent to evaporate dry on the surface. Wet it again if it should evaporate dry.
- 8. The parts should be ready for prime painting. PPG recommends a final wipe with a clean damp cloth to remove any residue left from evaporation of the solvent. A quick wipe with a tack rag right before priming helps remove any remaining dust.
- 9. Immediately after cleaning and drying the parts as above, apply the primer according to the manufacturer's instructions for the products you are using. The recommended drying time between coats is especially important.

## Some other helpful hints for a successful paint job.

- 1. Be sure to use fresh paint products that are top quality from a reputable manufacturer. Do not try to economize by using inferior or leftover paint materials.
- 2. Select all the products for a paint job from a single manufacturer and do not mix different systems within a brand of paint. Use only products that are intended to be used together.
- 3. Do not use the same air hoses on your paint gun that are also used with air tools such as sanders and air wrenches. Oil in the air tools will find its way into the hose and be a source of contamination for the paint. New hoses contain oils and other contaminants and should be cleaned before use on a paint gun.
- 4. Wear clean latex or nitrile gloves to prevent fingerprint oils from contaminating the surfaces of your cleaned parts.
- 5. Plan to prime the parts immediately after cleaning and sanding to prevent any bare steel areas from developing surface rust or the parts from becoming contaminated again.
- 6. Obtain a technical data sheet for each product being used and read and follow the instructions. The manufacturer's data sheet will provide specific instructions that apply to the product being used. These are available on-line or from your paint supplier.

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