

MODERN "S" SCALE PASSENGER TRUCKS

Assembly Instructions

Introduction: You have just purchased one of the finest passenger trucks available in any gauge. The detail and rolling qualities of this truck are unsurpassed. Speaking as an unbiased observer, I will now proceed to tell you how to assemble that pile of funny looking parts into a completed pair of trucks. Sit back.....put your tongue in your cheek....and enjoy the fun!

General Comments: Since there is no refund policy, summon up your courage and become determined to complete this project. Please adhere exactly to these instructions to be guaranteed of the best results. Experiment with your own methods and techniques only after building at least one pair following the instructions.

Check the Parts: Defective or missing parts will gladly be replaced free of charge. Count your parts immediately.

Preparing the Parts:

1. Wheelsets Check and adjust the wheels to the proper gauge. Use of an National Association of S Gauge track and wheel gauge is highly recommended. Make sure the axle protrudes 3/32" to 1/8" maximum. File grind off the axle if it is too long. Roll and inspect for wobble. Cement wheels in place.
2. Bolster: Remove burrs and file corners and edges smooth. Insure that machine screws fit freely through the holes. Check carefully that ends are bent at exactly 90°. Adjust if necessary using a pair of pliers. See Figure B.
3. Sideframes: Remove all flash with an X-acto knife and file. Drill holes for eyebolts at 3 locations as shown in Figure C. Straighten the casting with your fingers if necessary.
4. Spring Pads: These parts are the small round plastic pieces. Remove any flash and clean up the fuzzy edges.
5. Equalizer Bar: Cut the wire into pieces 17/32" long. File the ends smooth. Make four pieces.

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6. Brake Linkage: Cut the remaining wire into pieces 9/32" long. Bend as shown in Figure D. Make four pieces.

Assemble the Parts:

1. Thoroughly scrub the nuts and sideframes with a cotton swab soaked in lacquer thinner to remove all traces of mold release and finger (skin) oils. Once clean, do not handle with your bare hands since your fingers will impart a thin film of oil to the parts thereby preventing a sound adhesion of the cement. Now take a file and some emory paper and shine up the surfaces on both the nuts and sideframes where each will adhere to the other. See Figure E. Don't be gentle. Make sure you have a shiny and smooth surface on these parts. Position the nut on the sideframe as shown in Figure E and cement in place using epoxy or cyanoacrylate adhesive. Let the cement cure for a thorough amount of time. When cured, test the joint by installing a screw into the nut as shown in Figure E. With a two-pound weight suspended from the screw, the nut should hold firm. If not, try again and clean the surfaces better.
2. Place a small drop of cyanoacrylate cement onto the sideframe. Position the spring pad on the sideframe as close to the journal as possible, yet remaining flat on the sideframe as shown in Figure F. Position the flat spot (if any) toward the inside of the sideframe. When your streamliner glides by at 70 scale miles per hour, I can positively state that no one will notice the flat spot. Cement on four pads per sideframe.
3. Place springs in position and carefully add a drop of cement to each end to secure them permanently.
4. Cement eyebolts into the hole previously drilled in the air cylinder. See Figure G.
5. Place brake linkage in place and cement as shown in Figure H.
6. Place (do not cement yet) two eyebolts into the sideframes. Place the equalizer bar into eyebolts. Position all three parts so that the equalizer bar is parallel to the sideframe. Note that one eyebolt sticks out a little more to accomplish this. The equalizer bar will not be parallel with the rails, but will be slightly lower at the end attached near the bolster. When satisfied with the position, cement all three pieces in place. Cut off eyebolts flush with the inside of the sideframe.

7. Cement the brass bearings into the journal holes using epoxy. If lighted interiors are desired, solder a small flexible wire to the flange edge of the bearing prior to cementing the bearing into the sideframe. A possible alternate current pick-up method is to install wipers on the backside of the brass wheels. Be certain the bearing is pressed completely into the journal hole when the cement is curing.

Painting:

Floquil paints are recommended. Be sure to coat the plastic spring pads with Barrier before painting with a lacquer-based paint. Paint the sideframes as desired before final assembly.

Lubrication:

Proper lubrication is essential to good rolling qualities. Use of oil or grease is not recommended since my experience is that it will eventually "gum up" and cause drag. It also attracts dirt and dust to form "gunk". Best results for me were obtained by liberal use of finely granulated teflon powder which is available in the better hobby stores under the Labelle label. Do not use teflon powder if you plan to illuminate your passenger car. In this case, a light machine oil would be best.

Final Assembly:

1. Place a little Ambroid or Loctite into the threaded hole in the center of the nut which is cemented to the sideframe. This will prevent the screw from coming loose due to vibrations. Disassembly for maintenance is still possible. Assemble wheelsets, sideframes, and bolster. Tighten screws and then "back off" 1/8" of a turn or less. The bolster should swivel freely. Work, adjust, and file to get the bolster to swivel freely if it binds at first.
2. Depending on the gauge you set the wheelsets at, you may find a small space between the wheel and the brass bearing. This space will enable the wheelset to move sidewise between the two sideframes. The sideframes will also "wiggle" a considerable amount. In this event, merely add small washers, available from your hardware store, over the axle ends and reassemble the truck. The washer fills the space and eliminates sidewise movement of the wheelsets.

Operation:

When properly assembled and lubricated, these **trucks** will freely roll down a 2% grade.

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<u>Description</u>	<u>Quantity</u>
Sideframe	4
Bolster	2
Wheelsets	4
Eyebolts	12
Springs	16
1/32" Diameter Wire	2
Bearings	8
Screw #2-56 x 1/8"	4
Nut #2-56	4
Spring Pads	16

FINE SCALE TRAINS
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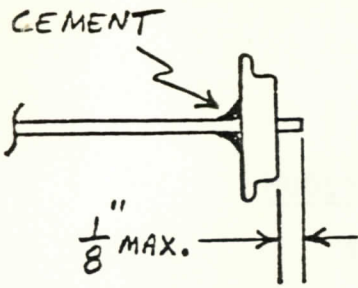


FIG. "A"

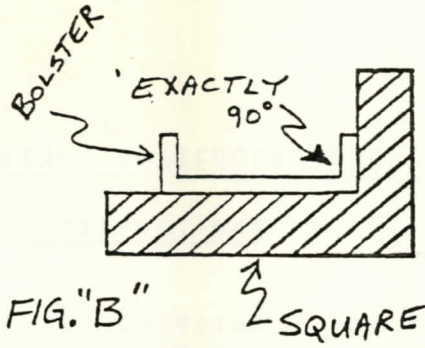


FIG. "B"

FIG. "C"

DRILL HOLES IN
SIDE FRAME FOR
EYE BOLTS

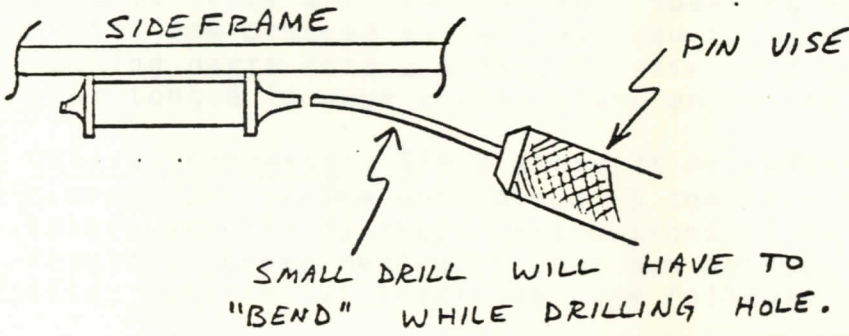
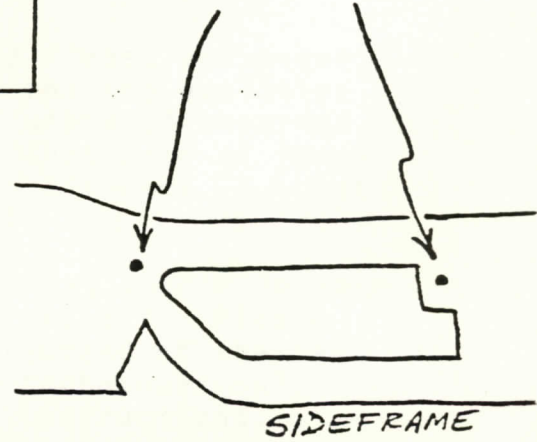
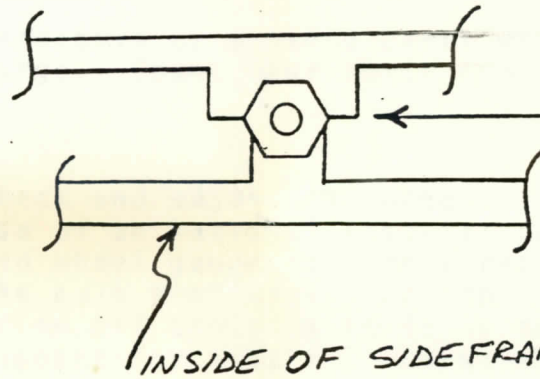
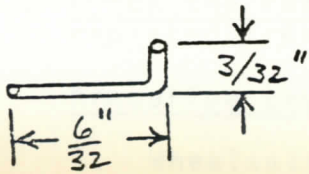


FIG. "D"



NOTE: CORNERS
OF NUT ARE
EXACTLY ON
THIS EDGE.

FIG. "E"

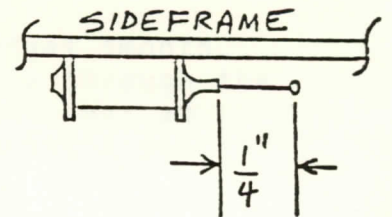
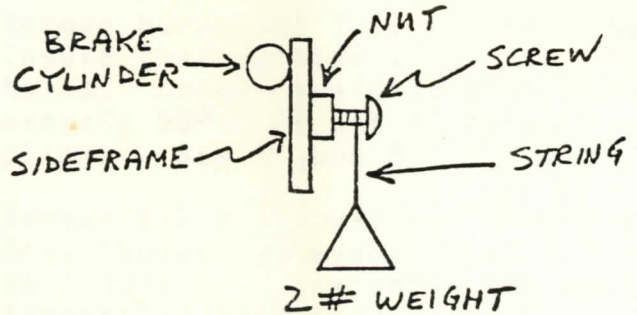


FIG. "G"

FIG. "F"

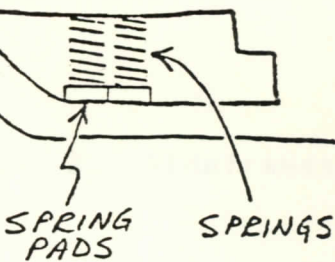


FIG. "H"

