

Plano Model Products #11570

Gunderson Maxi III Brass Details Set - Athearn 5 Unit Car

Before starting to build car, please read through instructions completely (both ours and Athearn's) and become familiar with them. The better you understand these instructions, the easier the assembly process will go. The metal parts in this kit are designed to replace some of the molded on details of the Maxi III cars plus the grab iron uprights. All detail replacement is optional and will be your decision as to what degree of detailing you wish to do. If you are adding our MAXI III Walkway Kit #156, those instructions should be followed in conjunction with these, as a few of those parts will be added before this kit is completed.

Prototype photos and information should be viewed for accuracy and additional detail ideas.

All parts in this kit are tabbed together in some way. They will need to be cut apart to match the illustrations. (Illustrations may be simplified for legibility.) We suggest waiting until you are ready to use the parts before you cut them apart. USE EXTREME CAUTION WHEN CUTTING PARTS APART! THE MATERIALS USED IN THIS KIT CAN BE SHARP AND SMALL PIECES MAY FLY WHEN CUTTING APART!! WEAR EYE PROTECTION!!

Preparing cars for new details

Remove molded on 40ft container side load guides, locator boxes and lift rings from car bodies. Sand or file surfaces smooth. Also remove the rings around the bottoms of the A&B ends platforms. Using supplied .035 styrene rod, fill the holes in the sides of the articulated ends where the plastic ladders were to be attached. Be care not to stick the styrene in too far where it obstructs the fit of the weights.

Drilling holes for new details

Cut out paper drill template "A&B ENDS" on solid lines and fold on the dotted lines. Tape template to the appropriate deck end. Corners should line up and edges should be even. Using the supplied "T" pin, press a drill pilot point in the center of each "x" on the template. Remove template and drill a #78 hole in the center of each drill pilot point. Repeat on other "A or B END" well deck.

Cut out paper drill template marked ARTICULATED ENDS on solid lines and fold on the dotted lines. Tape template to an articulated end deck. Corners should line up and edges should be even. Using the supplied "T" pin, press a drill pilot point in the center of each "x" on the template. Remove template and drill a #78 hole in the center of each drill pilot point. Repeat until all eight articulated decks are drilled.

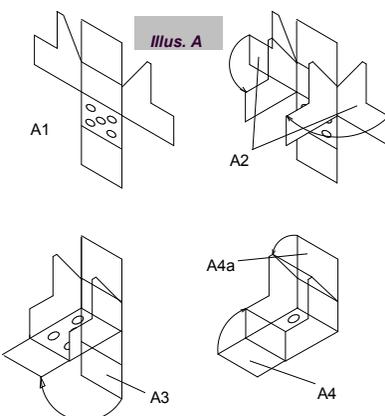
If you are adding our #156 walkways to your cars, those holes should be drilled at this time as well. The "+" symbols on the templates are for the stainless parts in that kit.

Yes, the paper templates can be a challenge to use. We do have a set of brass templates available that will make the drilling process easier, faster and more accurate. Look for our #174 Brass Template set for the Athearn Maxi III cars.

To aid in drilling the holes for the side ladders and stirrup steps on the articulated ends, we have supplied a brass drill template in this kit. Bend the top of the template in 90 degrees (etched lines are the inside of the bends) and the two bottom tabs in 90 degrees VIEW G. Now place template on outside corner so two small tabs lock under side of car. Using a piece of clear tape holding template in place, drill a #78 hole in each of the holes on the template-four on the side and two on the bottom for the stirrup steps. Drill holes using template instead of marking with pin as the precision is needed for placement of pins on the ladders.

Building coupler ends A&B

Adding of brass details will begin by first bending the four locator boxes to shape. Look closely at both sides. On one side you should see small "score" lines where bends are to be made. These are the *INSIDE* of the bends. Using a pair of tweezers and follow diagrams A1-A4. Carefully bend to shape. Bend both sides in 90 degrees (A2) - bottom in (up) 90 degrees (A3) - back up 90 degrees (A4) - front top back to match the slope of the sides (A4a). Add a small dab of CA to the inside corners to help keep the box in shape and hide joint lines.

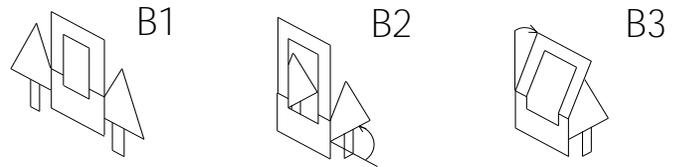


Once all of the locator boxes are bent to shape, liquid cement or contact cement them to the top surface of the deck where the old boxes were. Be careful not to cover the holes drilled for the

walkways if adding our stainless walkways. Box may overhang into the well slightly. Allow the cement to fill up into the holes in the bottom of the box for extra holding strength.

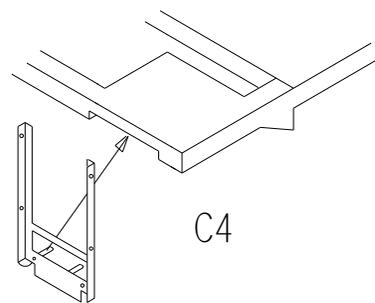
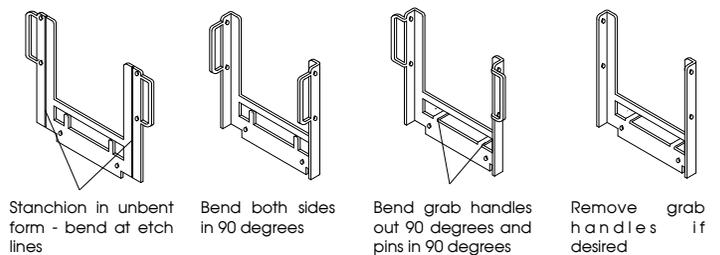
Now bend the 40ft Container Side Load Guides to shape (See View B). At the score lines, bend each side in 90 degrees (B2) and top part of the front, back until it matches the slope of the sides (B3). Place the guides in their appropriate holes & CA in place. The load guides with a square section missing from their sides go on the brake line side of the car.

View B



Install and CA brass lift rings to appropriate car corners.

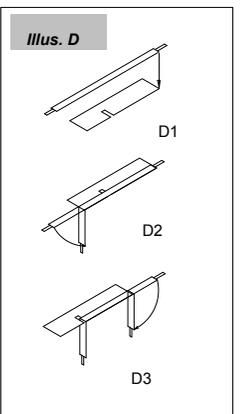
The coupler end corner grab uprights are now to be formed and installed (See View C). There are a couple of things to note. First, there etched on grab irons and holes to add wire grab irons. If you prefer wire grab irons, the etched on grabs should be removed before forming the stanchions. Otherwise, form the stanchions as follows. Look closely at both sides of the part. On one side you should see half etched (and slotted) lines dividing the stanchions in half. These are the inside of the bends. Carefully, using a pair of tweezers and small needle nose pliers, bend (fold) the stanchion 90 degrees to form a angle iron shape. Bend the other post as well. If you retained the grab irons, bend them out 90 degrees, away from each other.



The two small mounting pins in the center of the upright should be bent out 90 degrees in the opposite direction of the angle iron shape. Glue these pins to the bottom side of the car so the flat side of the upright is flush against the side of draft gear. Using supplied .020" X .100" styrene, cut to .300" in length and liquid cement to bottom of draft gear covering upright pins - sandwiching them in place.

If adding wire grab irons (not supplied with kit - use A-Line or Detail Associates formed grabs), add to holes in uprights. Trim them to a length of about 1/16 inch and CA into the holes on the upright. One in each post and one across the bottom of upright.

To form the stirrup steps (see View D), line up one end of a stirrup (NOT the end of the mounting pin) even with the edge of the bending jig. Hold them together with a pair of tweezers and bend the other end down 90 degrees (D2). Place the bent leg in the small slot in the jig with long leg of stirrup laying on long section of jig. Holding them together, bend other leg down 90 degrees (D3). Before you can put the stirrups on the car, you will need to drill two #78 holes for each of them in the styrene "Sandwich" on the bottom side. These holes should be about 1/16 inch in from edge and about 1/4 inch apart (like the bending jig). Place stirrup mounting pins in holes and CA in place. Repeat for the three remaining corners.

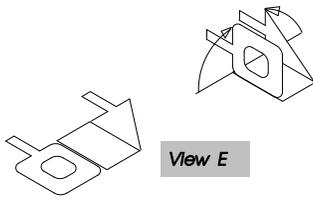


Building Articulated ends

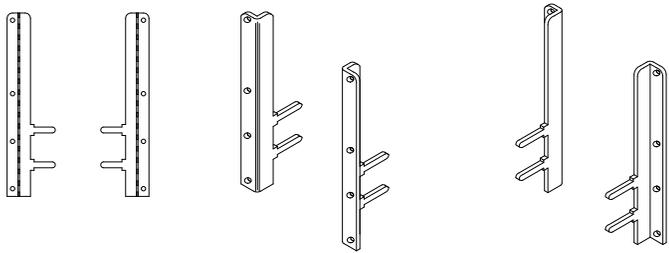
Add articulated ends brass details by first bending the locator boxes to shape as before. These boxes are slightly shorter and they have mounting pins. Once the locator boxes are bent to shape, insert pins in holes drilled in car and liquid cement them to the top surface where the old boxes were.

Now bend the 40 ft. Container Side Load Guides to shape as before and add to car. Some of these Load Guides have cutout notches in the sides. These notched side guilds mount on brake line side of car.

Bend liftrings as shown in VIEW E. Make note there is a left and right when bending. View E shows a left hand liftring. Reverse bends for right hand liftrings. Insert mounting pins in holes on end of unit and cement in place.

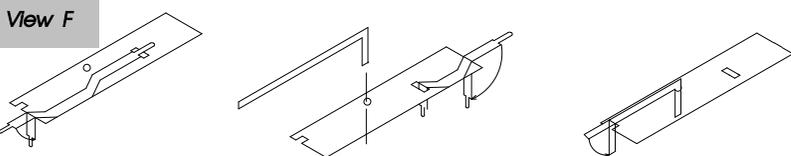


Bend Side ladder uprights using same method as stanchions on A&B ends. Once bent to shape, insert pins in drilled holes and CA in place (angles should face away from each other). If the uprights lean to one side, they will be stabilized in the next step. Add grab irons to top two holes of each upright.



Two horizontal grab irons can be formed using the supplied .012 brass wire and the bending jig next to the stirrup strips VIEW F. Bend one end of the wire (about .100") at a 90 degree angle. Stick that bent end in the hole of the template, bend the other end of the wire down 90 degrees at the notch on the side of the template and trim off leaving about .100". Carefully using the #78 drill bit, drill a hole through the bottom hole of each upright and into the side of the car. Insert bent grab iron into holes allowing it to be flush against uprights and CA in place. Repeat on next set of holes up. The extra bit of wire going into the car side adds strength to the uprights and the two horizontal grabs keep the uprights vertical.

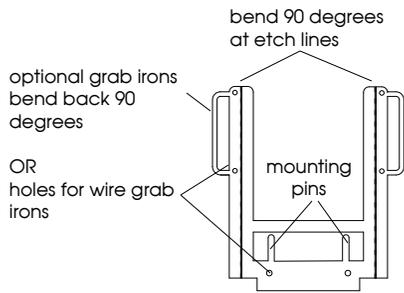
Finally, the last thing to add are the articulated ends stirrup steps. These wavy strips are bent one way so the steps angles OUT when installed. Lay one of the strips on the template as shown in VIEW F. The end of the stirrup (not the pin) should line up with the edge of the slot. With short leg hanging over, edge of stirrup to edge of bending jig and end of strip to edge of slot, bend short leg down 90 degrees, place bent leg in slot and bend other leg down 90 degrees. Place stirrup mounting pins in holes on bottom lips under ladder assembly and CA in place. (You may want to run your drill up holes again to clean out glue that may have got in there from prior work.)



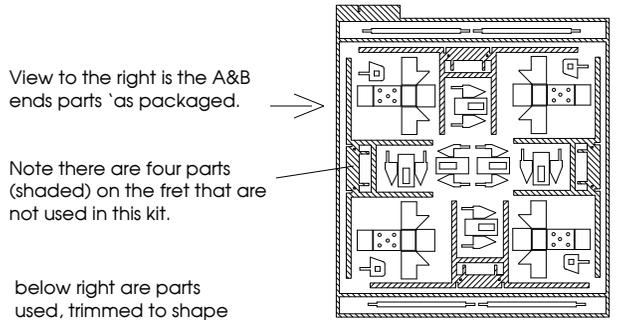
Add remaining Athearn details to car, add Stainless Walkways kit #156 and any other details you may desire and paint the car your prototypes color or touch up paint if working with a factory decorated car.

This should complete your Plano Model Products detailed Athearn Maxi III. We hope you enjoyed adding our details to the car. Please see your local hobby supplier for all of our photo-etched details or visit us online.

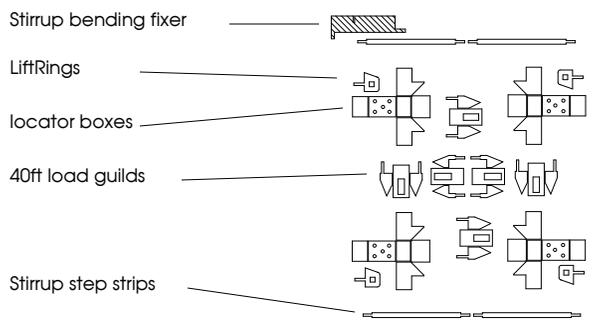
Thank you and Happy Modeling!



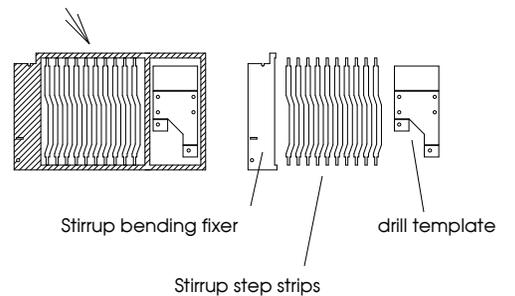
A and B ends Corner Stanchions



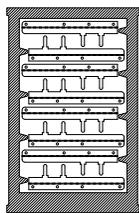
below right are parts used, trimmed to shape



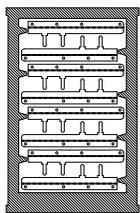
Articulated end stirrup steps and associated parts parts trimmed to shape



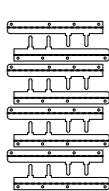
Left hand ladder stanchions as packaged



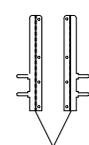
Right hand ladder stanchions as packaged



Left and Right ladders stanchions trimmed from fret

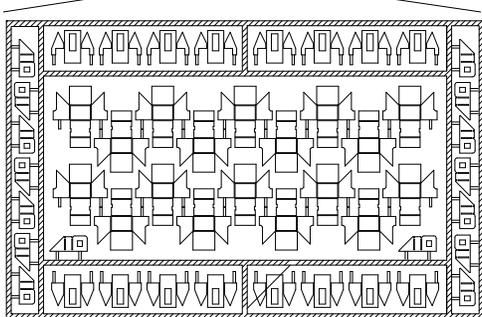


Left Right

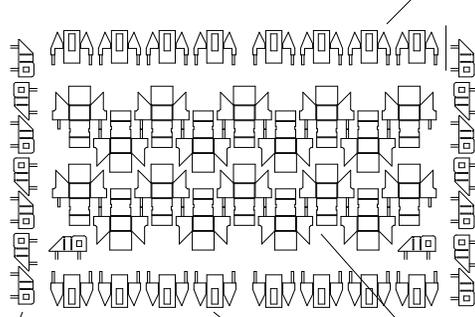


bend at etched line 90 degrees

view of Articulated ends parts as packaged



parts trimmed apart to shape



40ft load guilds notched sides

Lift rings

40ft load guilds no notch

locator boxes