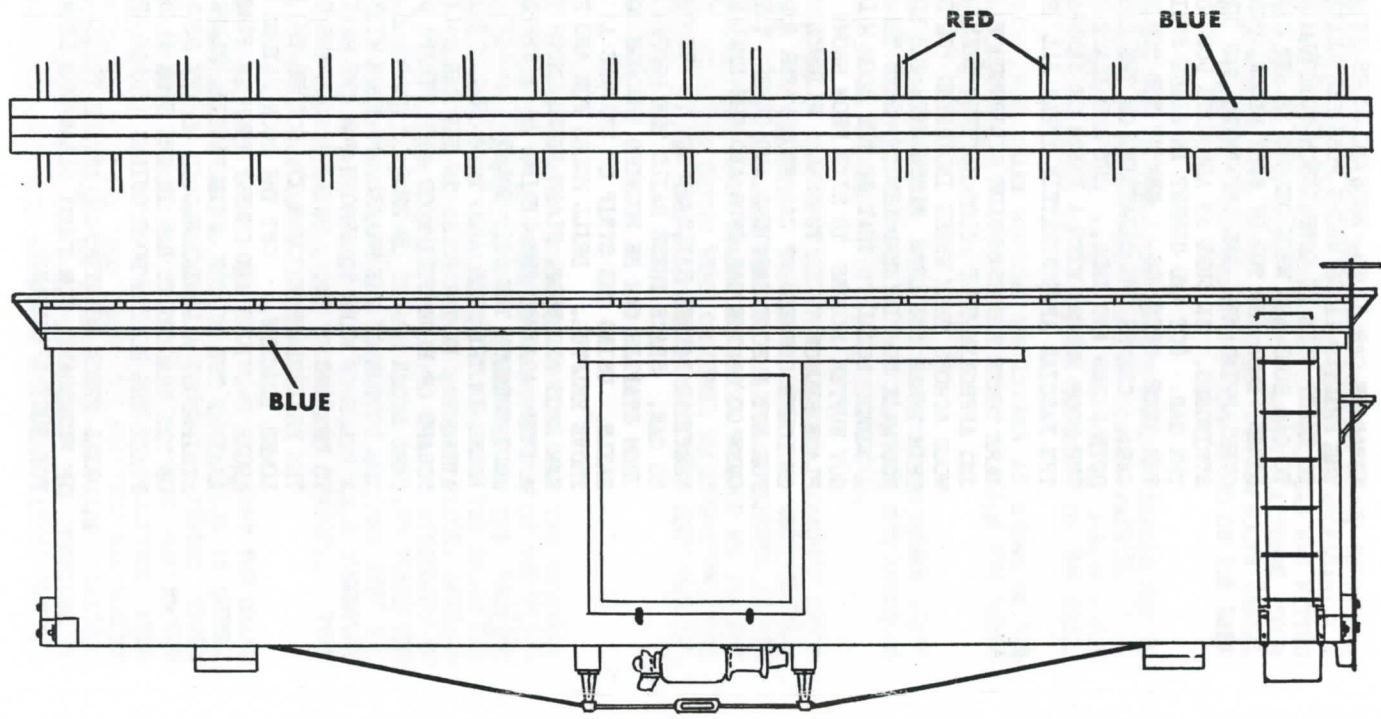
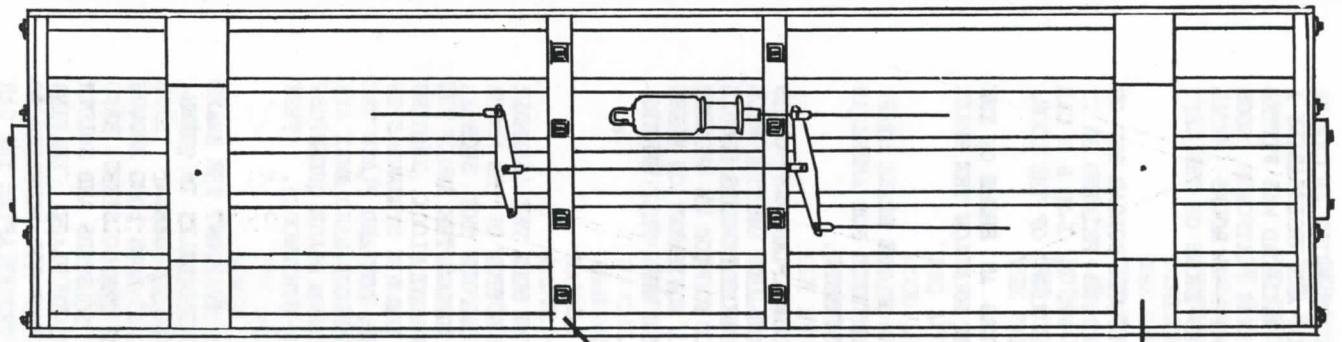


# Canadian Railway Model Co.

116 FORTROSE CRESC., DON MILLS, ONT.

## 36 ft TRUSS ROD BOXCAR

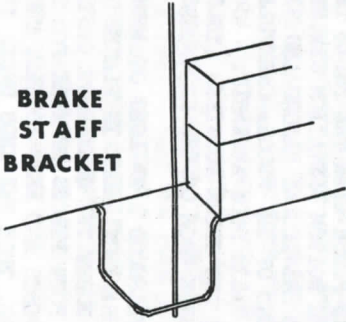




BROWN

YELLOW

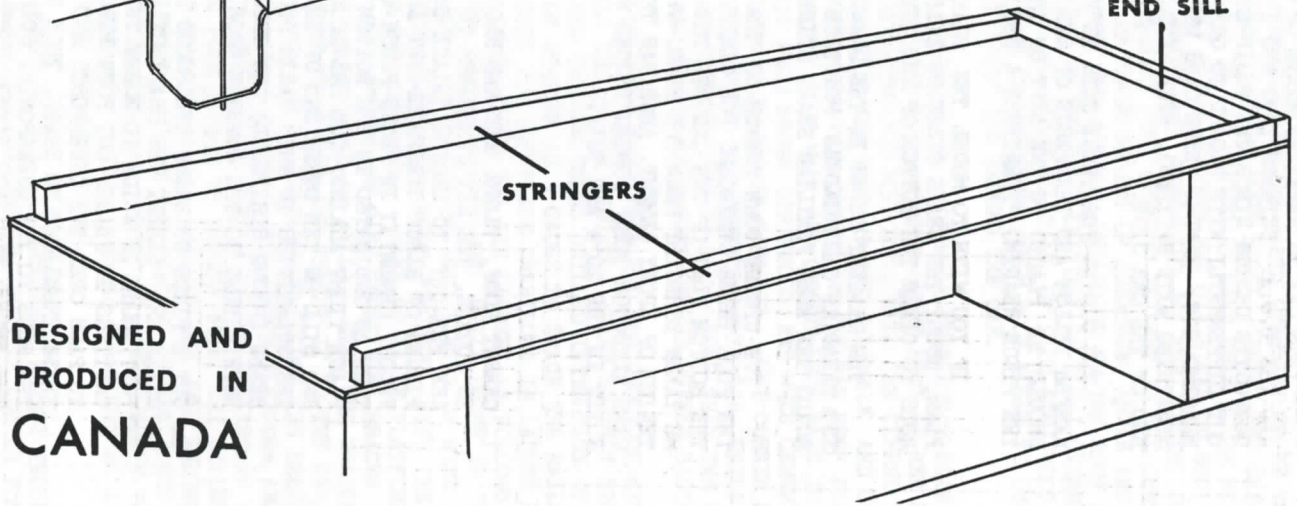
BRAKE  
STAFF  
BRACKET



END SILL

STRINGERS

DESIGNED AND  
PRODUCED IN  
CANADA



THIS CAR IS REPRESENTATIVE OF MANY TRUSS ROD BOXCARS BUILT IN CANADA AND THE U.S.A. BETWEEN 1890 AND 1920. THE DRAWINGS ARE NECESSARILY A COMPOSITE DESIGN SINCE THE EQUIPMENT OF NEARLY EVERY RAILROAD WAS FITTED OUT DIFFERENTLY WITH REGARD TO GRAB IRONS, STEPS, BRAKE PLATFORMS, DOOR BRACING, ETC. MANY OF THESE CARS WERE LATER RE-BUILT WITH NEW ROOFS (METAL SHEATHING WITH BATTENS), STEEL ENDS AND STEPS AND GRAB IRONS ON THE LEFT END OF THE CAR SIDE.

THE SIDING FOR THESE CARS IS PRE-PAINTED WITH FLOQUIL BOXCAR RED OR REEFER YELLOW AND THE PIECE OF SIDING WITH THE CAR NUMBER PRINTED ON IT SHOULD BE PLACED TO THE LEFT OF THE DOOR. ON THE ST. L, I-M, & S CAR THE PIECE READING "FURNITURE & BUGGY CAR" GOES TO THE RIGHT OF THE DOOR.

IF YOU WISH TO MODEL THE BRAKE RODDING AND LEVERS AS SHOWN ON THE PLAN, MOUNT THE BRAKE CYLINDER 1/16" LOWER THAN SHOWN TO ALLOW THE BRAKE RODS TO CLEAR THE BOTTOM OF THE QUEENPOST BEAM.

THE BRACKET SHOWN IN THE DRAWINGS FOR THE BOTTOM OF THE BRAKE STAFF IS A CANADIAN CARBUILDERS' PRACTICE WHEREAS ON CARS LETTERED FOR AMERICAN ROADS THE MORE FAMILIAR BRAKE STIRRUP SHOULD BE SUBSTITUTED.

THE UPSIDE DOWN SKETCH OF THE CAR SHOWING STRINGER PLACEMENT OMITTS THE FOUR INNER STRINGERS FOR CLARITY. THE TRUSS RODS ARE OMITTED FROM THE BOTTOM PLAN OF THE CAR FOR THE SAME REASON. ALL MEASUREMENTS SHOULD BE TAKEN DIRECTLY FROM THE PLAN. WHEN CEMENTING METAL TO WOOD WE SUGGEST THE USE OF EPOXY CEMENT. ARCH BAR TRUCKS WERE ORIGINAL EQUIPMENT ON THESE CARS ALTHOUGH MORE MODERN TRUCKS WERE MOUNTED ON THEM WHEN THEY WERE RE-BUILT IN THE 20'S AND 30'S.

1. CEMENT ROOF, FLOOR AND END BLOCKS TOGETHER, MAKING SURE THE ASSEMBLY IS SQUARE. THE SIX STRINGERS TO BE CEMENTED TO THE BOTTOM OF THE FLOOR ARE PRE-CUT TO LENGTH (BLACK STRIPWOOD). FROM ONE OF THE SHORTER PIECES OF BLACK STRIPWOOD CUT AN END SILL TO FIT ACROSS THE END OF THE FLOOR, CEMENT IT IN PLACE FLUSH WITH THE END OF THE BODY BLOCK. SPACING THEM AS INDICATED IN THE BOTTOM ELEVATION CEMENT THE SIX STRINGERS IN PLACE TIGHT AGAINST THE PREVIOUSLY PLACED END SILL. CUT AND PLACE THE END SILL ON THE OTHER END OF THE FLOOR. CAREFULLY BLOCK SAND AWAY ANY IRREGULARITIES IN THIS BASIC BODY ASSEMBLY. CUT AND PLACE QUEENPOST BEAMS (BROWN STRIPWOOD) AND TRUCK BOLSTERS (YELLOW STRIPWOOD). THEY BOTH EXTEND TO THE OUTSIDE EDGE OF THE STRINGERS.
2. CUT A PIECE OF BROWN STRIPWOOD 1/2" LONG ON WHICH TO MOUNT THE BRAKE CYLINDER. CEMENT THE BRAKE CYLINDER IN PLACE. DRILL HOLES IN QUEENPOST BEAMS IN WHICH TO MOUNT THE QUEENPOST CASTINGS. CEMENT THESE CASTINGS IN PLACE. CUT FOUR PIECES OF WIRE FOR TRUSS RODS LONG ENOUGH TO PASS OVER THE QUEENPOSTS AND REST LOOSELY UNDER THE BOLSTERS. BEND THESE TRUSS RODS TO SHAPE, TUCK THE ENDS UNDER THE BOLSTERS AND SOLDER THE RODS TO THE QUEENPOSTS. SOLDER THE TURNBUCKLES IN PLACE. LEAVING THE TRUSS ROD ENDS LOOSE UNDER THE BOLSTERS ALLOWS THE MODELLER TO MAKE ADJUSTMENTS FOR CLEARANCE WHEN MOUNTING THE TRUCKS AFTER THE CAR IS FINISHED.

3. SEPARATE CAR SIDES, ENDS AND DOORS FROM PRINTED SHEETWOOD. CUT OUTSIDE THE PRINTED LINES WHERE POSSIBLE LEAVING PARTS OVERSIZE TO BE TRIMMED TO EXACT SIZE BY COMPARISON TO ACTUAL BODY BLOCK. CEMENT END SHEATHING TO CAR BODY AND WHEN CEMENT IS SET CAREFULLY SAND THEM FLUSH WITH THE SIDES, ENDS AND TOP OF BODY BLOCK. CEMENT THE CAR SIDES TO BODY BLOCK OVERLAPPING THE END SHEATHING AND EXTENDING TO THE BOTTOM OF THE STRINGERS. BE SURE AN ADEQUATE DOOR OPENING IS LEFT IN THE CENTRE OF THE CAR. CUT AND CEMENT IN PLACE STRIPS OF SHEATHING ABOVE AND BELOW THE DOOR OPENINGS. CEMENT THE SCRIBED SHEATHING TO THE ROOF OF THE CAR. CENTRE THE SHEATHING ON THE ROOF LEAVING AN EQUAL OVERHANG ON BOTH SIDES AND ENDS. CUT AND PLACE FASCIAS OF BLUE STRIPWOOD UNDER THE ROOF EDGES. WITH A PIECE OF SANDPAPER TRIM ROOF EDGES TO OVERHANG THE FASCIAS APPROXIMATELY  $1/64$ " ALL AROUND THE CAR.
4. TAPE THREE PIECES OF BLUE STRIPWOOD TO ROOF WALK TEMPLATE ON PLAN LEAVING APPROXIMATELY .010" BETWEEN THEM. CEMENT SHORT BITS OF RED STRIPWOOD ACROSS THEM WHERE INDICATED FOR SUPPORTS. WHEN THE CEMENT IS SET TRIM THESE SUPPORTS FLUSH WITH THE EDGE OF THE ROOFWALK AND CUT THE ROOFWALK TO FINISHED LENGTH. SAND THE CENTRE OF THE CAR ROOF FLAT FOR A WIDTH EQUAL TO THAT OF THE ROOF WALK AND CEMENT ROOF WALK IN PLACE. CUT BUFFER BLOCKS TO SIZE FROM BROWN STRIPWOOD AND WHEN CEMENTED IN PLACE REDUCE THEIR THICKNESS SLIGHTLY BY SANDING. CUT CORNER BRACES ON LOWER CORNERS OF CAR FROM PAPER AND CEMENT THEM ON CAR. DRILL HOLES FOR NUT & BOLT CASTINGS AND CEMENT THEM TO CAR. NOTE THAT THE LARGER ONES GO ON THE CAR ENDS AND THE SMALLER ONES ON THE BUFFER BLOCKS.
5. VERTICAL LADDER RAILS ARE CUT TO LENGTH FROM RED STRIPWOOD AND CEMENTED TO CAR. SPACE THESE RAILS THE PROPER DISTANCE APART SO THAT THE GRAB IRON STAPLES CAN BE MOUNTED THROUGH HOLES DRILLED IN THE FACE OF THESE RAILS. USING THE STRIP OF STAPLES AS A GAUGE TO SPACE THE RAILS WILL PROVE HELPFUL. DRILL HOLES FOR AND PLACE GRAB IRONS IN LADDER RAILS, CAR ENDS AND ROOF. PLACE STEPS UNDER THE CAR LADDERS AS FOLLOWS. HOLD A STEP AGAINST THE SIDING AS A TEMPLATE AND DRILL HOLES IN THE CAR BODY THROUGH THE STEP HOLES. SOLDER  $1/8$ " LONG PIECES OF WIRE IN THE HOLES IN THE STEP AND THEN CEMENT THE WIRE "BOLTS", WITH THE STEPS ATTACHED, IN THE HOLES IN THE CAR BODY. MAKE UP BRAKE PLATFORM FROM SCRAPS OF BLUE STRIPWOOD AND STRIPS OF CARD STOCK FOR BRACES (PLACE CARD STOCK BRACES ON ENDS OF ROOFWALK AS WELL). BEND THE BRACKET FOR THE BOTTOM OF THE BRAKESTAFF FROM WIRE AND CEMENT IT TO THE CAR. CUT A PIECE OF WIRE TO LENGTH FOR THE BRAKESTAFF AND SOLDER THE BRAKEWHEEL TO ONE END OF IT. DRILL A HOLE THROUGH THE BRAKE PLATFORM AND PASS THE BRAKESTAFF THROUGH IT. SOLDER THE BOTTOM OF THE BRAKESTAFF TO THE LOWER BRACKET. CUT THE DOOR SLIDES TO LENGTH FROM THE MILLED WOOD ANGLE PROVIDED AND CEMENT THEM IN PLACE AGAINST THE CAR SIDING AND AGAINST THE BOTTOM OF THE FASCIA. PLACE THE BRACING ON THE DOORS (THIN STRIPWOOD) ALLOWING ENOUGH OF THE DOOR ITSELF TO EXTEND ABOVE THE TOP OF THE BRACING TO RUN IN THE DOOR SLIDES. USING THE DOORS AS A GAUGE PLACE THE BOTTOM DOOR GUIDES (TRACK SPIKES).
6. DRILL TRUCK BOLSTERS AND ATTACH TRUCKS AND COUPLERS. ADJUST TRUSS RODS IF NECESSARY, FOR TRUCK CLEARANCE LEAVING THE RODS AS LOW AS POSSIBLE FOR BEST APPEARANCE.