

INSTRUCTIONS FOR BOWSER #100500 PRR K-4 KIT

These instructions provide photographs of completed model, exploded view drawings, diagrams, step-by-step instructions and an itemized parts list. If for reasons beyond our control, any shortage or faulty part is found, write directly to the manufacturer, including name of your dealer and date of purchase. Return any defective parts for exchange. The builder should study the instructions and drawings to attain a working knowledge of proper procedure. Assembly work should be in sequence outlined in this manual to assure proper construction. We have included some extra parts in case you misplace or drop them on the floor. DO NOT RUN THE MECHANISM OR ENGINE UPSIDE DOWN.

TOOLS
This is a builders kit, you will need a few tools. You will find use for the following: small hammer, several assorted pattern files, jewelers screwdriver (a set is convenient), a 6" flat file with a fairly fine cut, knife, pliers, flush cut nippers like Mascot #413 and tweezers.

BEFORE PAINTING YOUR MODEL OR DETAIL THE BOILER, WE RECOMMEND THAT YOU BUILD THE COMPLETE MECHANISM ATTACH THE UNDECORATED BODY AND THOROUGHLY TRACK TEST IT.

STEP #1

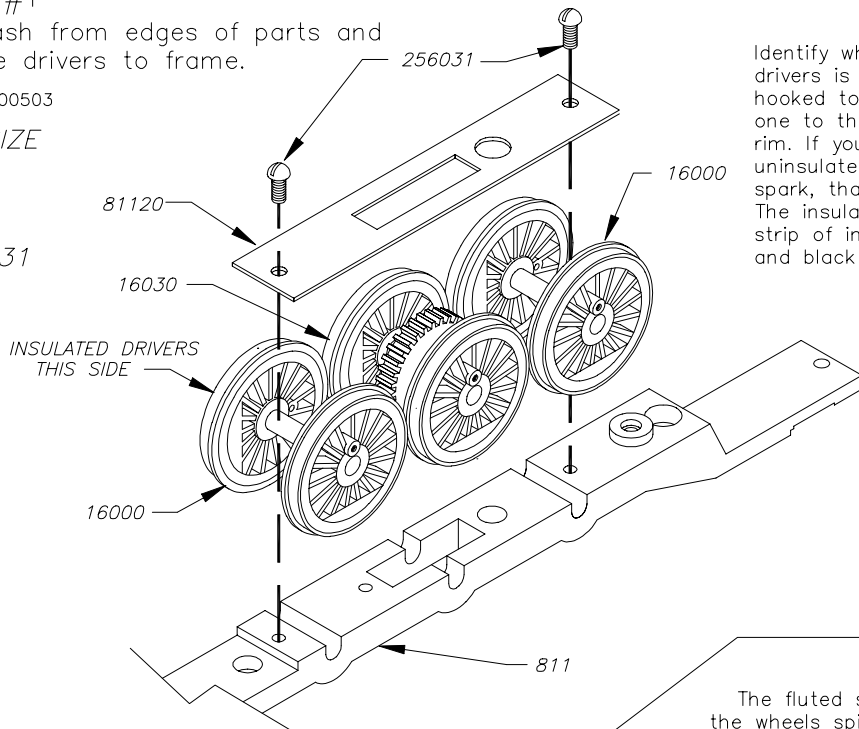
Clean flash from edges of parts and assemble drivers to frame.

Subkit 100503

FULL SIZE



256031



Identify which wheel of each set of drivers is insulated. With two wires hooked to your power pack, touch one to the axle and one to a wheel rim. If you cause a spark, that is the uninsulated wheel. If there is no spark, that is the insulated wheel. The insulated wheel has a thin gray strip of insulation between the tire and black wheel center.

The fluted surface faces out. assure the wheels spin freely. Enlarge holes in side rods with a round file to eliminate any binds. Mechanism must roll freely before proceeding any further. Oil lightly.

STEP #2

Assemble side rods to mechanism.

Subkit 100501

FULL SIZE



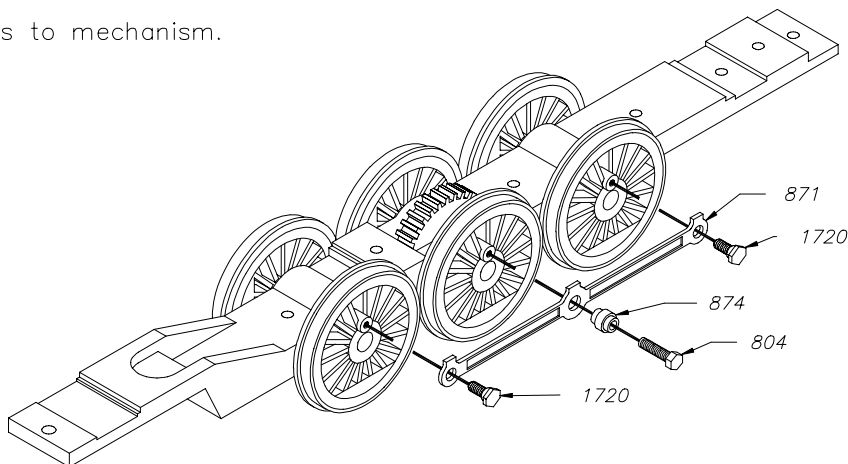
1720



874



804



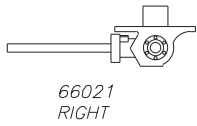
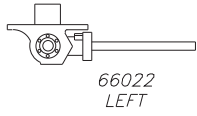
STEP #3

Assemble cylinders, crossheads
& main rods.

Crossheads must slide freely
on guide rods.

Subkit 100501, 100504

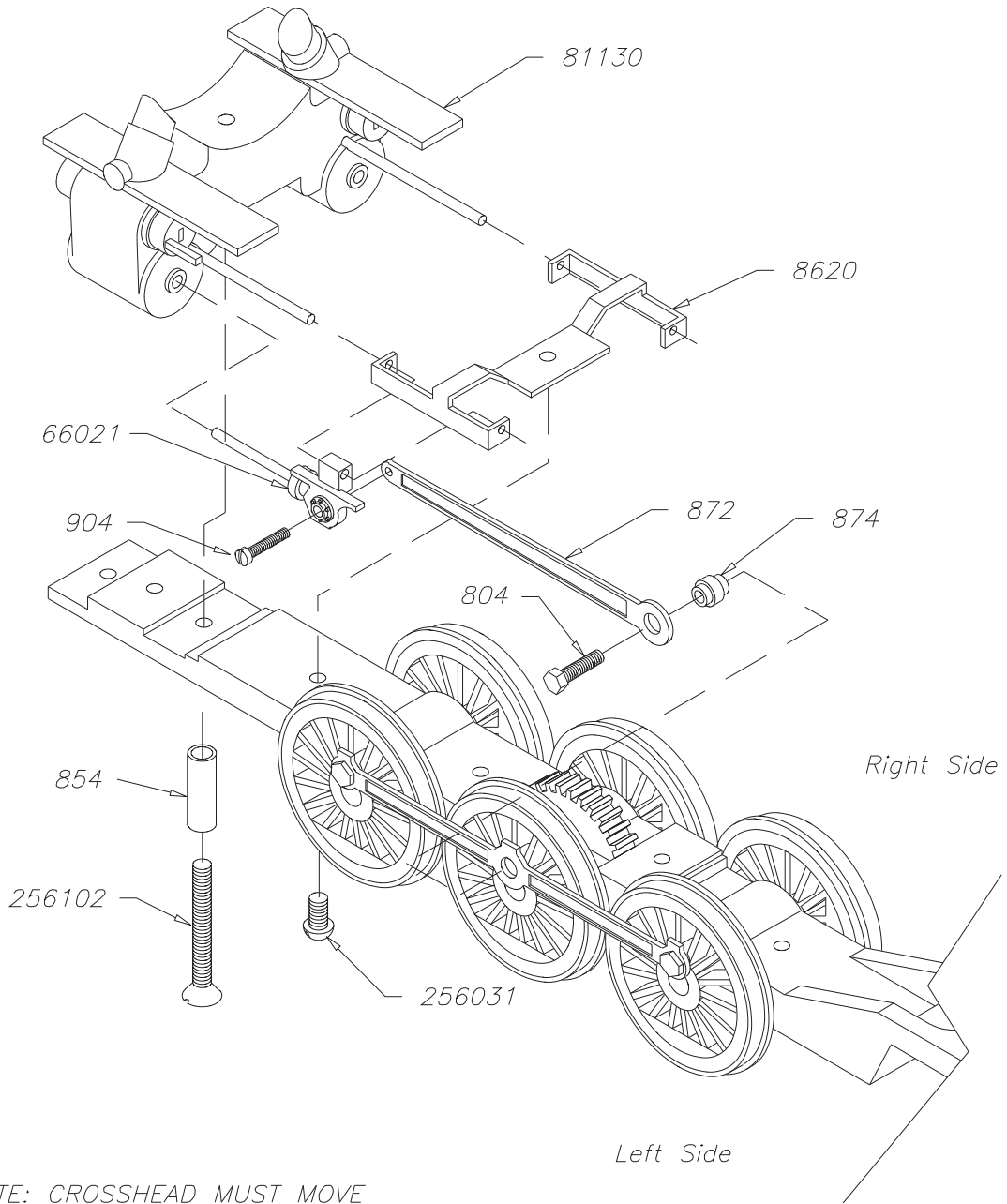
FULL SIZE



256102



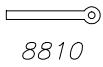
854



NOTE: CROSSHEAD MUST MOVE
FREELY ON #904 MAIN ROD SCREW.

STEP #4

PARTS IDENTIFICATION LIST
SUBKIT #100505
SHOWN FULL SIZE



8810



8830



8850



8860



8820



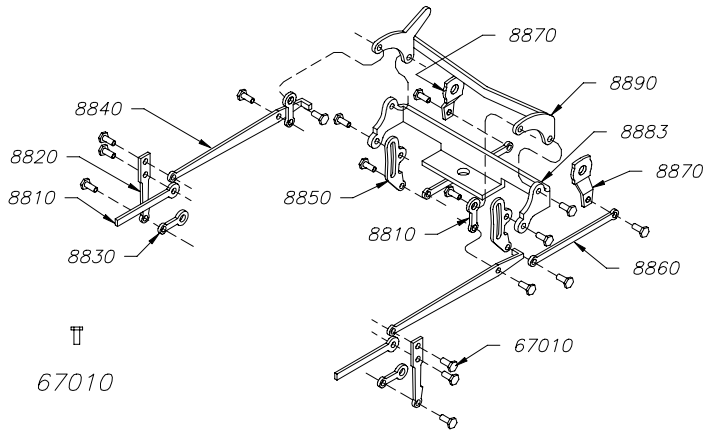
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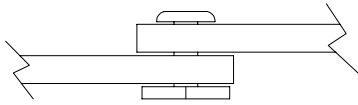
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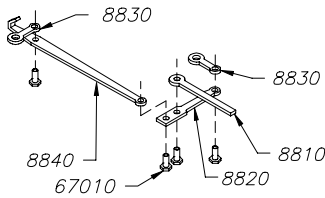
67010



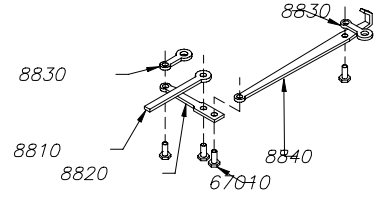
SET RIVETOOL WITH CENTER POINT IN HOLE IN END OF RIVET. TAP WITH LIGHT HAMMER UNTIL RIVET IS PROPERLY FLARED. BE CAREFUL NOT TO MAKE JOINT TOO TIGHT.



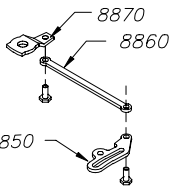
SIDE VIEW OF RIVET SHOWN 10X SIZE
NOTE CLEARANCE



RIGHT SIDE FRONT UNIT
STEP 1

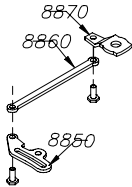


LEFT SIDE FRONT UNIT
STEP 2



RIGHT SIDE REAR UNIT

STEP 3



LEFT SIDE REAR UNIT

STEP 4

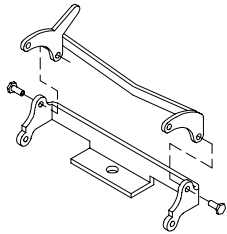
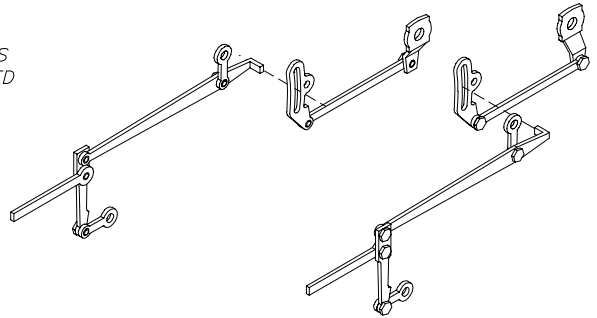
RADIUS ROD 8840
TAB AS FORMED

PUT TAB THRU SLOT IN LINK. BEND INNER END FORWARD

ROD MUST MOVE FREELY IN LINK

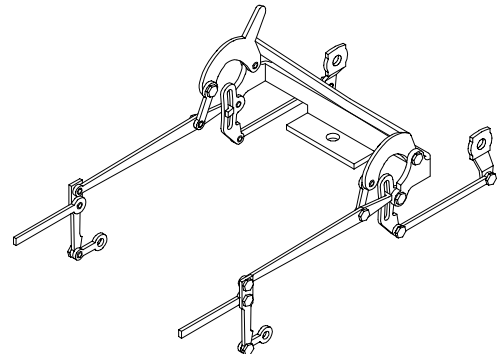
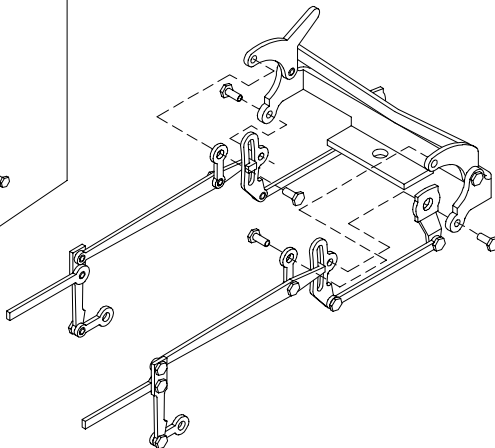
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STEP 5



STEP 6

STEP 7

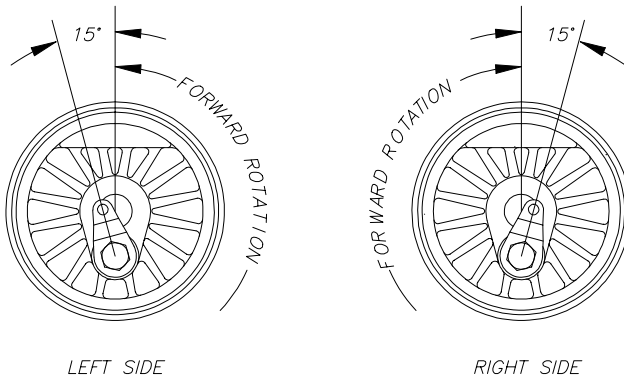
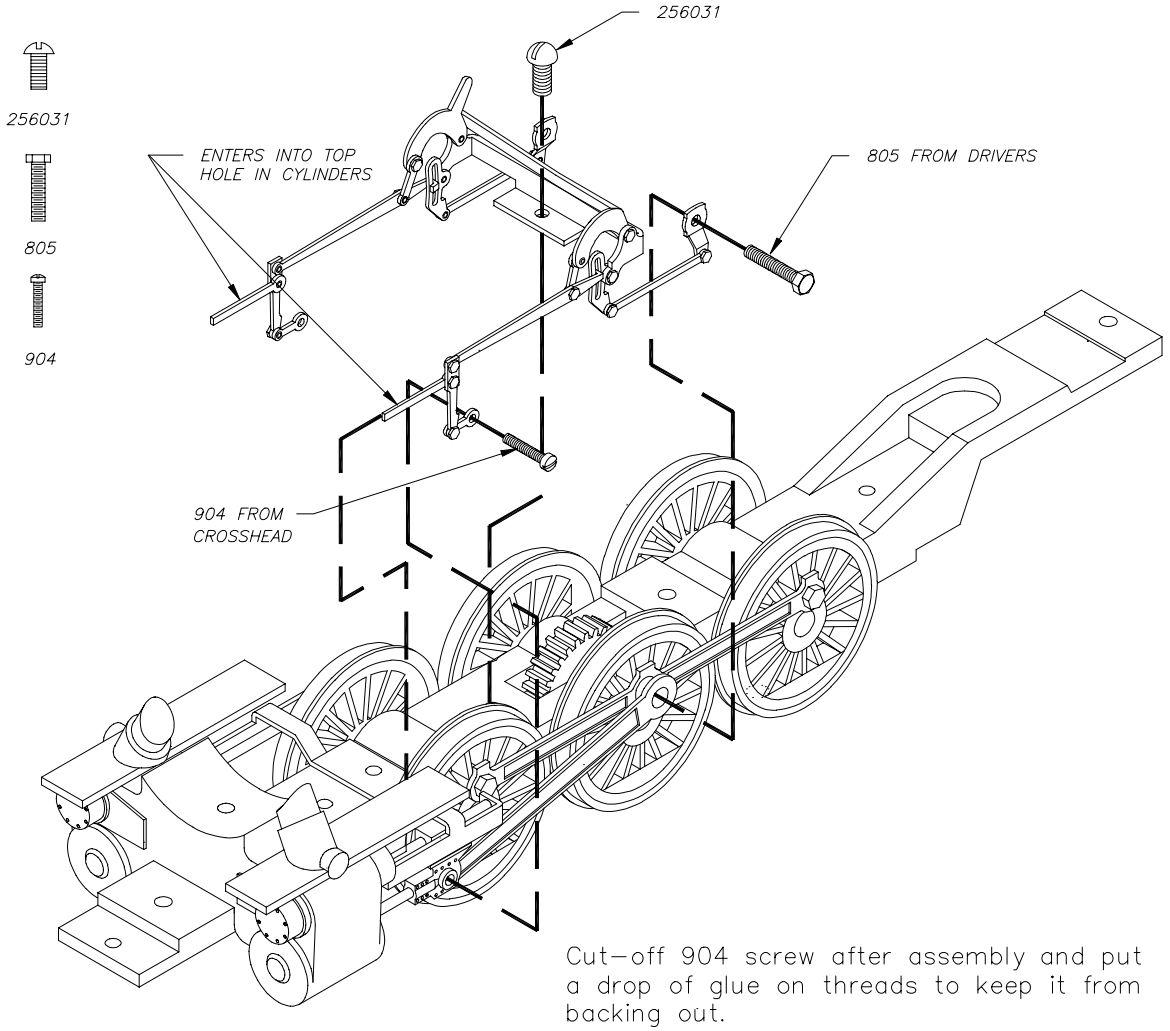


STEP #5

Install valve gear.
Time valves as shown in diagram below.

Subkit 100506

FULL SIZE



STEP #6

Install motor.

Subkit 100503

FULL SIZE



440031



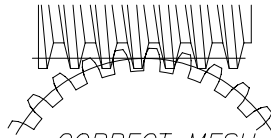
256031



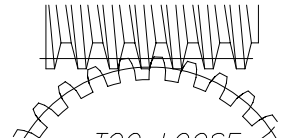
29 FIBRE



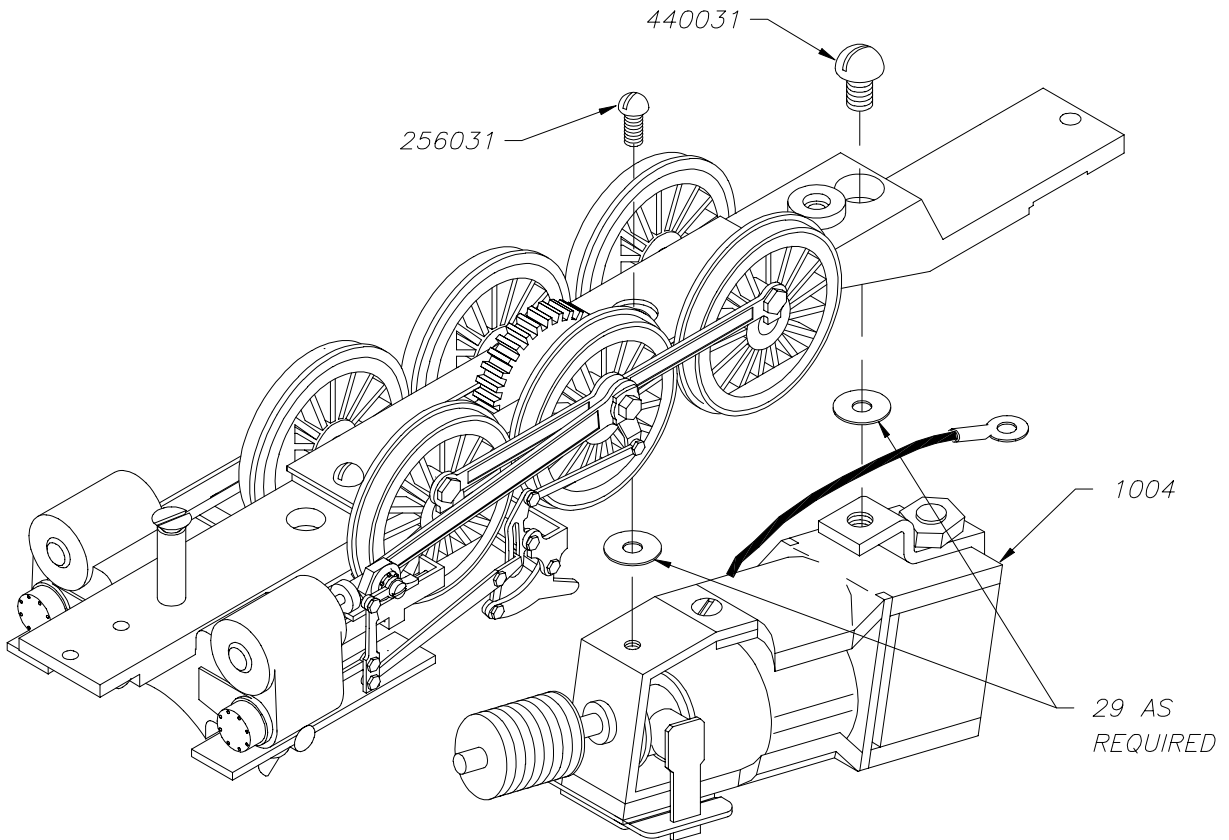
TOO TIGHT
WORM BOTTOMS
IN ROOT OF GEAR
CAUSING EXCESSIVE
DRAG ON GEARS.
ADD WASHER UNDER
FRONT OF MOTOR



CORRECT MESH
SEVERAL TEETH
IN CONTACT.



TOO LOOSE
POOR TOOTH CONTACT
CAUSING EXCESSIVE
BACKLASH IN GEARS.
ADD WASHER UNDER
REAR OF MOTOR

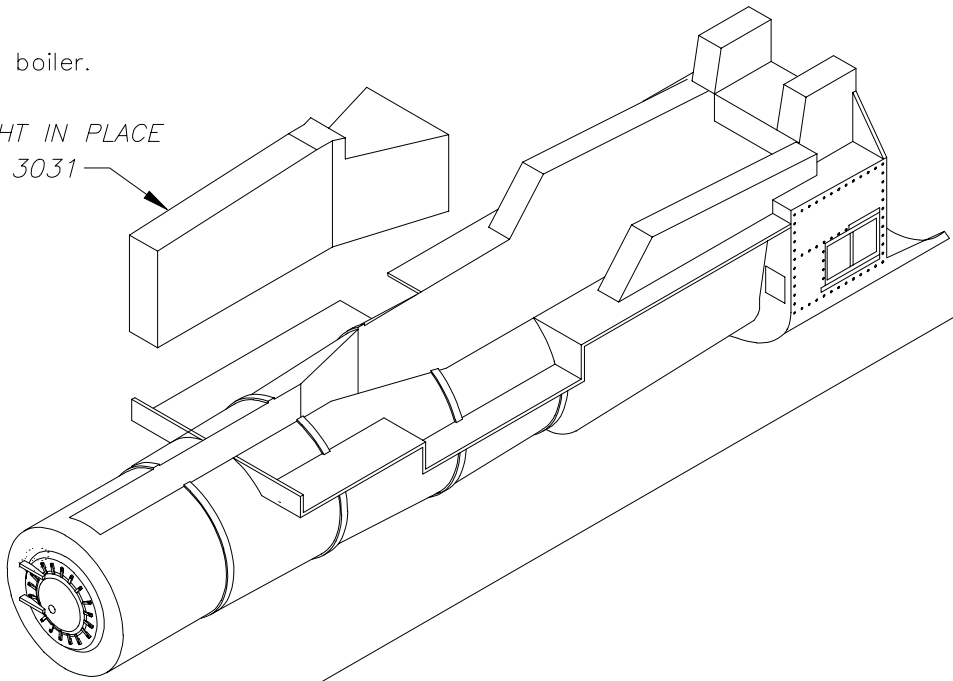


STEP #9

Install weight in boiler.

GLUE WEIGHT IN PLACE

3031



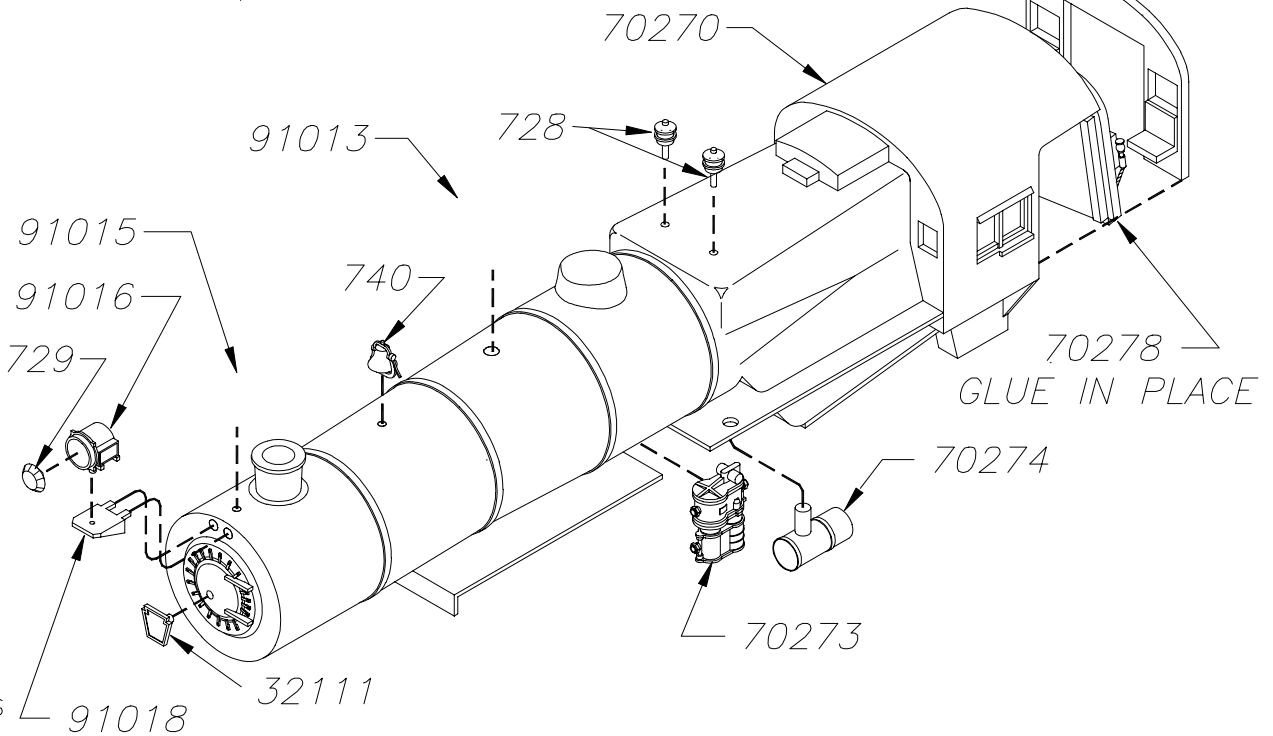
STEP #10

Detail boiler to mechanism.

Subkit 100503, 100506

GLUE IN PLACE

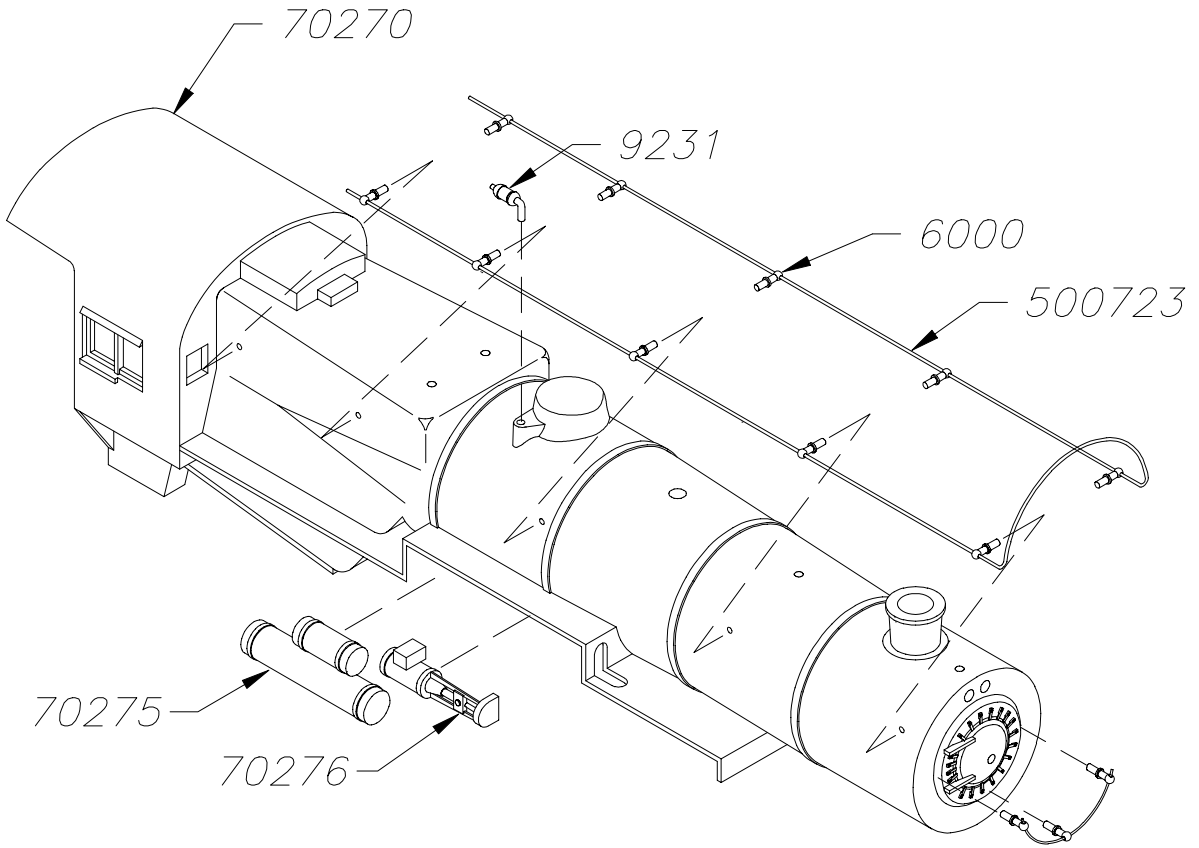
70279



100500-07

STEP #11

Install handrails &
finish detailing boiler.

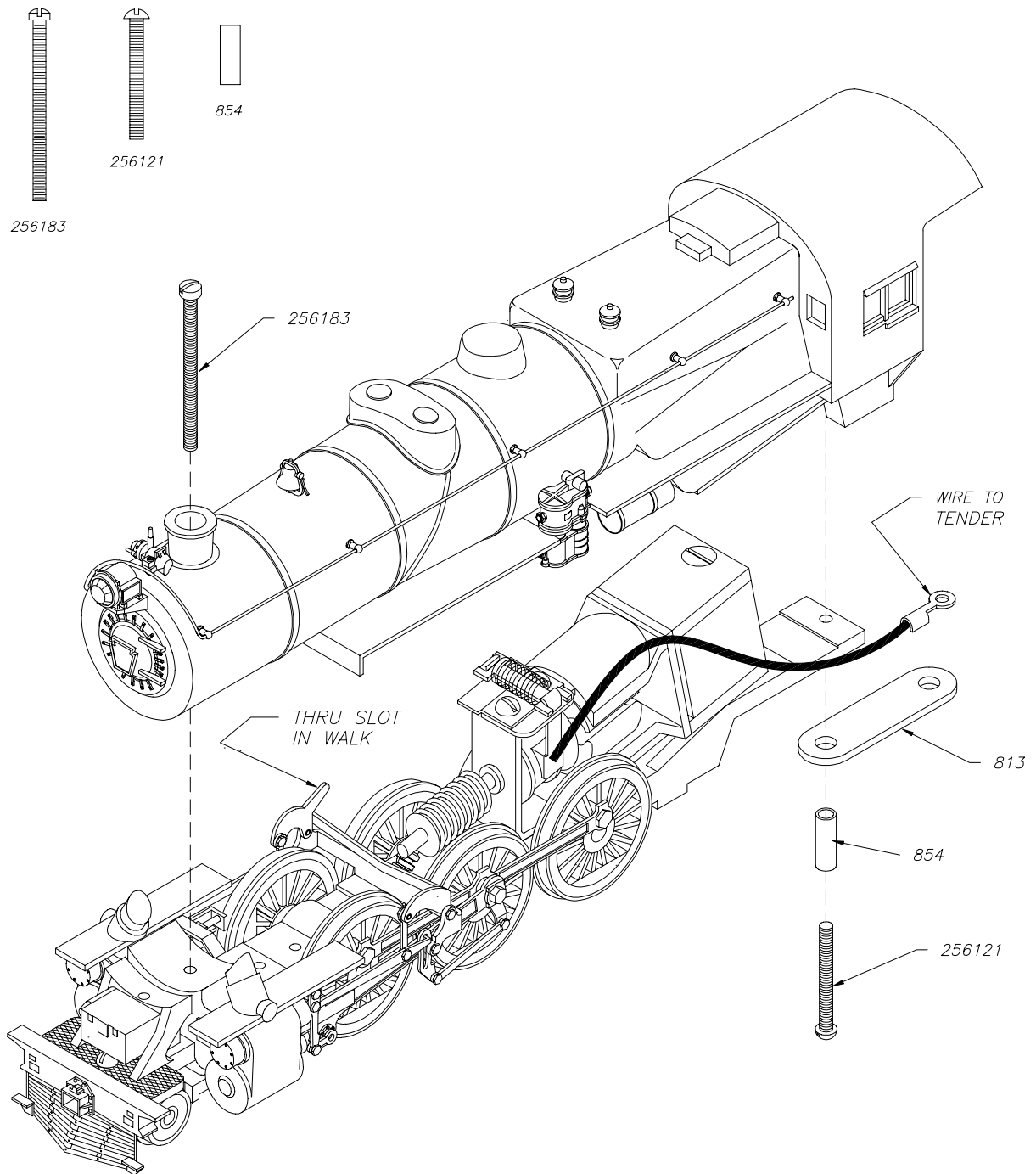


CUT .020 DIAMETER WIRE 1 1/4"
LONG. FORM TO 19/64" RADIUS.

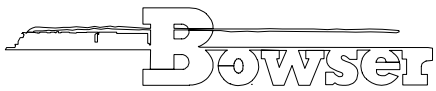
STEP #12

Install handrails &
finish detailing boiler.

Subkit #100503
FULL SIZE



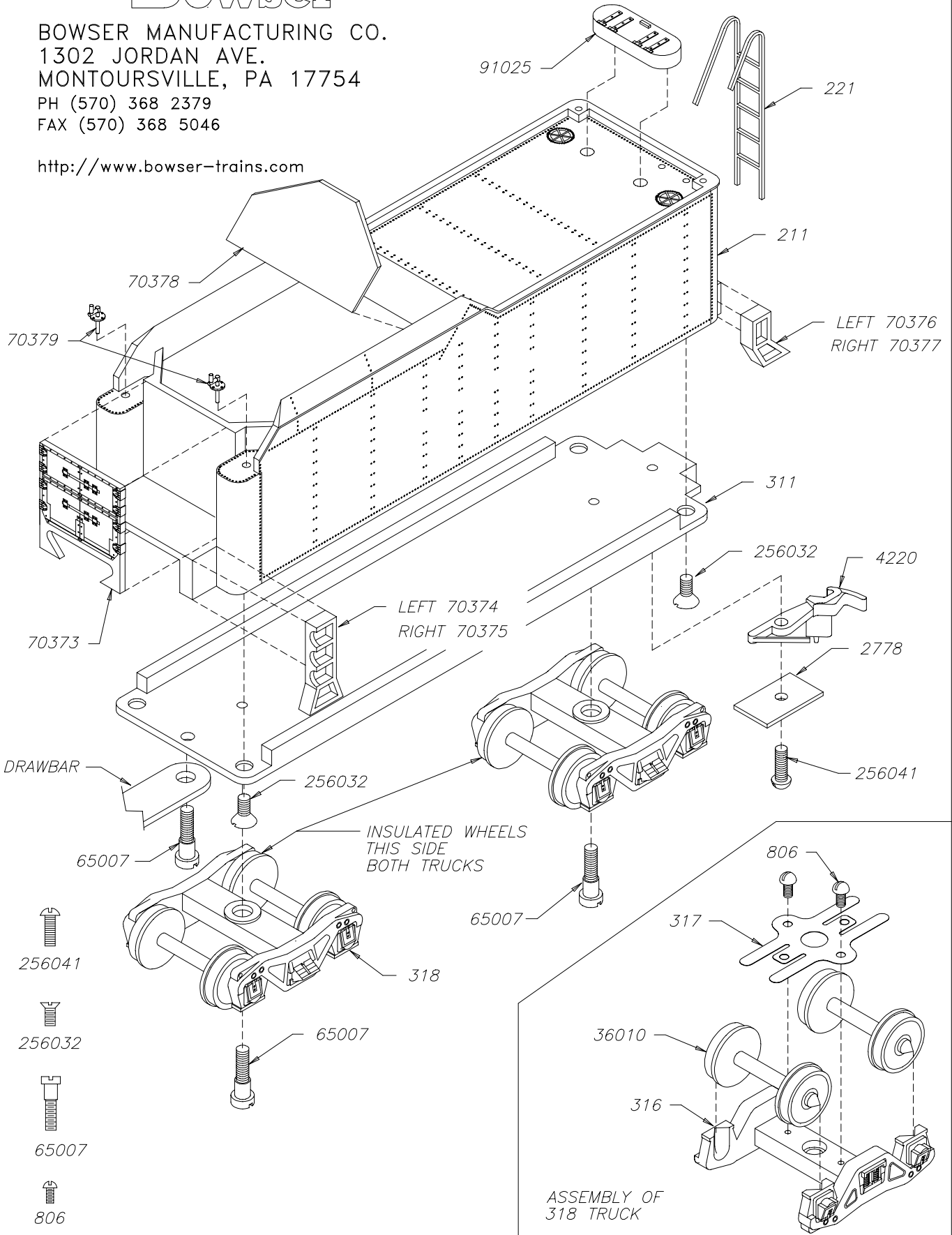
Assemble tender.
Track test.

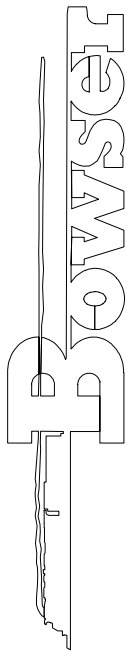


13000 GAL TENDER KIT 150635

BOWSER MANUFACTURING CO.
 1302 JORDAN AVE.
 MONTOURSVILLE, PA 17754
 PH (570) 368 2379
 FAX (570) 368 5046

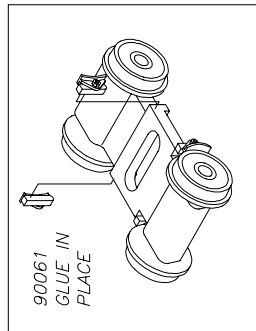
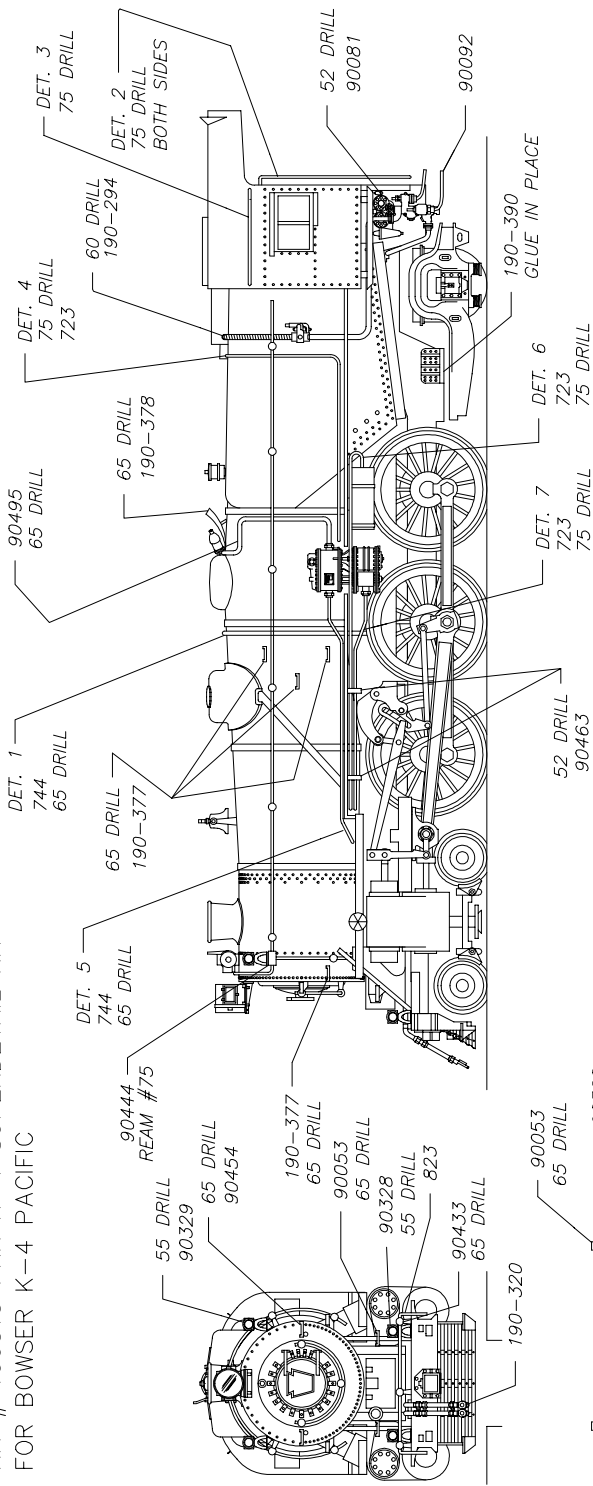
<http://www.bowser-trains.com>



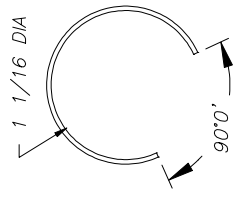


KIT # 100515 PRR K-4 SUPERDETAIL KIT
FOR BOWSER K-4 PACIFIC

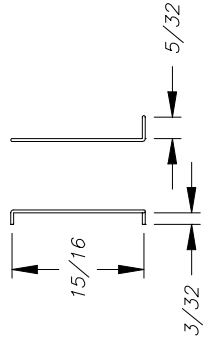
BOWSER MANUFACTURING PHONE (570) 368-2379
 P O Box 322 FAX (570) 368-5046
 MONTROUSEVILLE, PA 17701



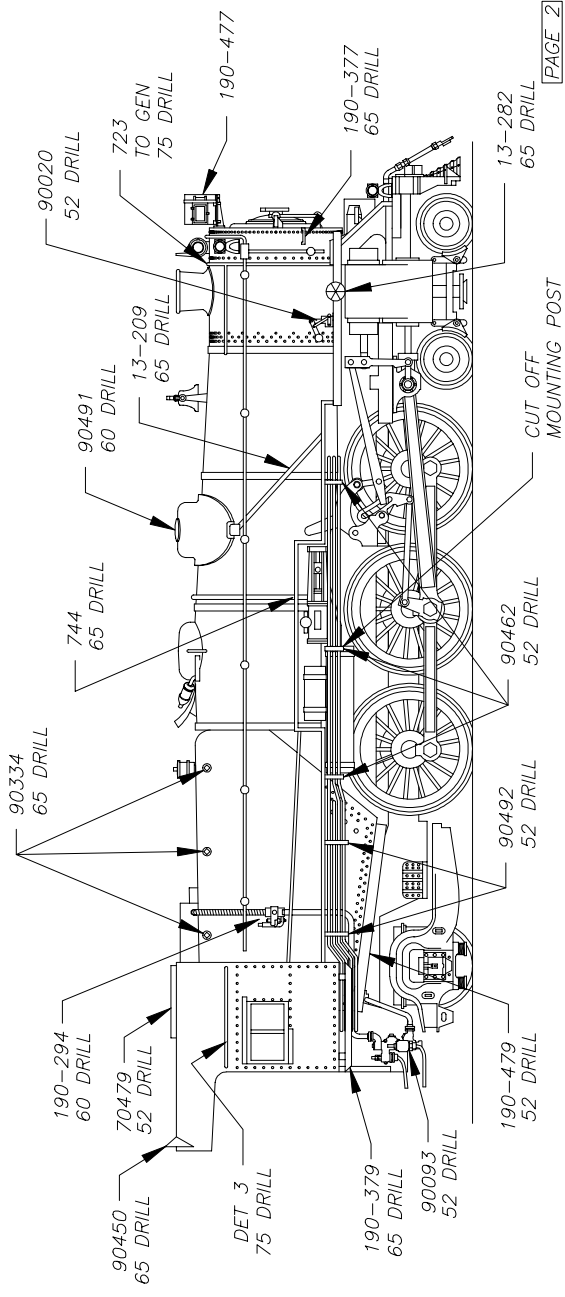
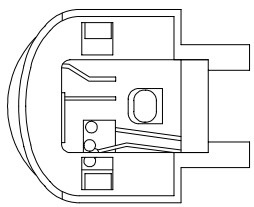
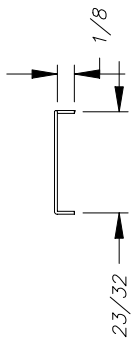
DET. 1
MAKE FROM .032
DIA BRASS WIRE

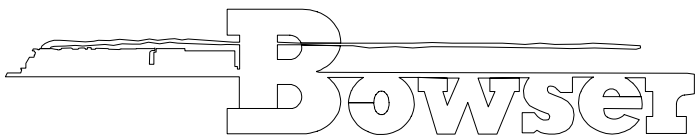


DET. 2
MAKE FROM .020 DIA WIRE
(1) LEFT, (1) RIGHT REQUIRED
LEFT SHOWN

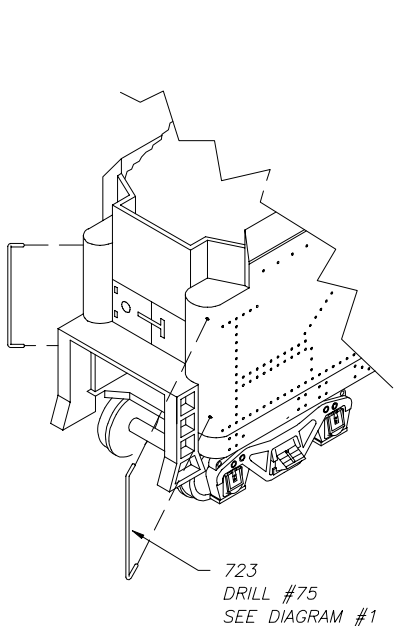


DET. 3
MAKE FROM .020 DIA WIRE
(2) REQUIRED

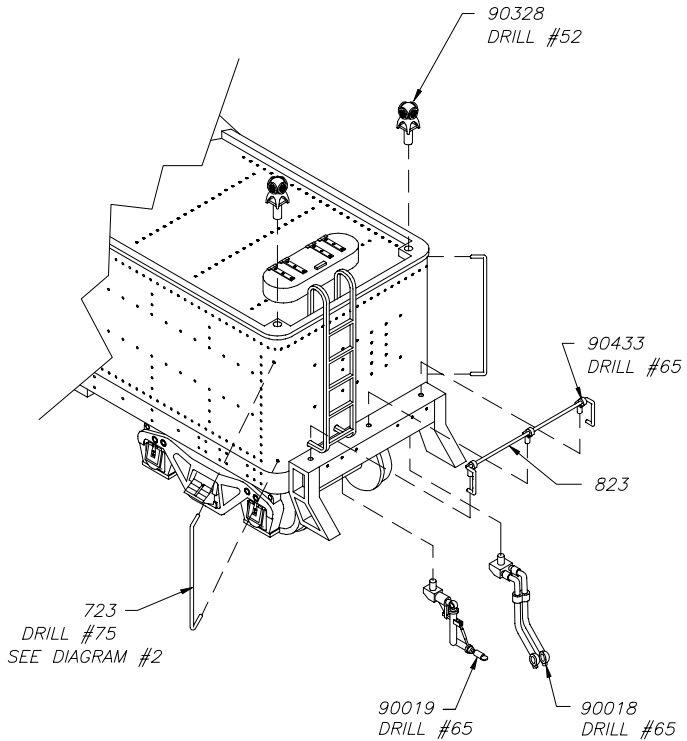




Bowser Manufacturing Co
 PO Box 322
 Montoursville, Pa 17754
 Phone (570) 368-2379 Fax (570) 368-5046



723
 DRILL #75
 SEE DIAGRAM #1

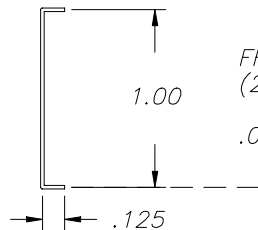


723
 DRILL #75
 SEE DIAGRAM #2

90019
 DRILL #65

90018
 DRILL #65

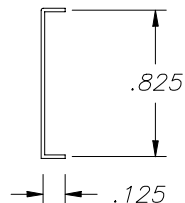
DIAGRAM 1



FRONT GRAB RAILS
 (2) REQUIRED

.020 WIRE

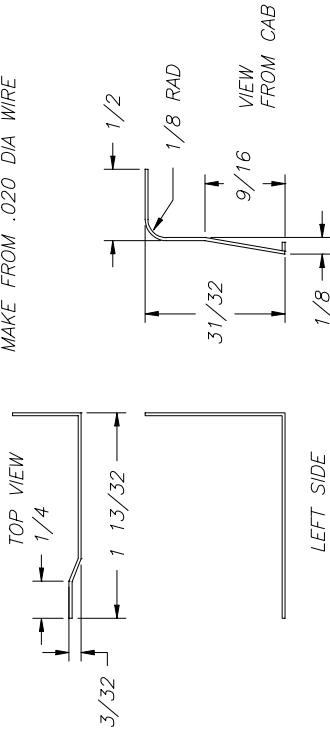
DIAGRAM 2



REAR GRAB RAILS
 (2) REQUIRED
 .020 WIRE

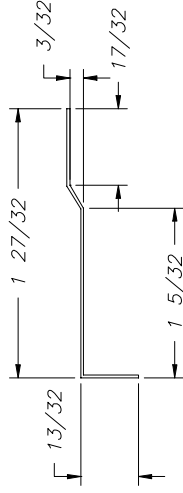
DET. 4

MAKE FROM .020 DIA WIRE



DET. 5

MAKE FROM .020 DIA WIRE

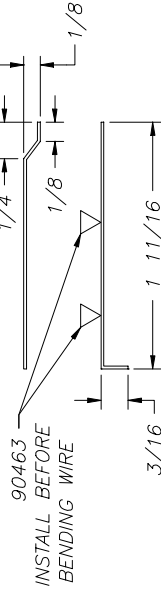
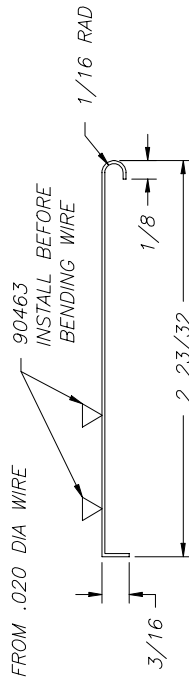


DET. 7

MAKE FROM .020 DIA WIRE

DET. 6

MAKE FROM .020 DIA WIRE



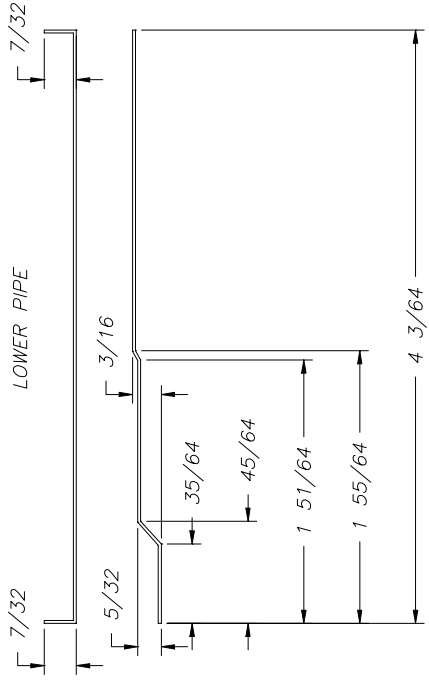
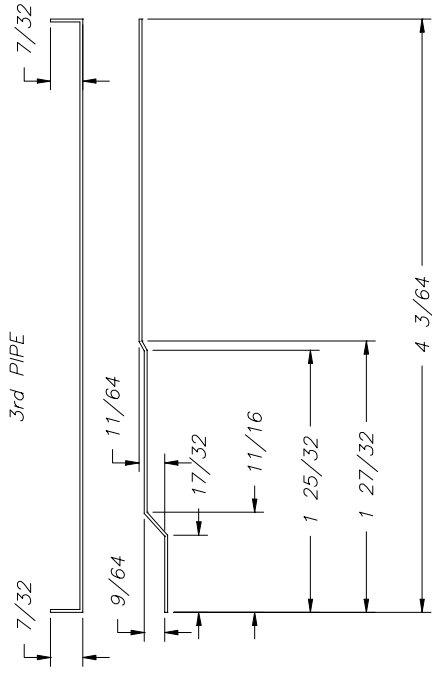
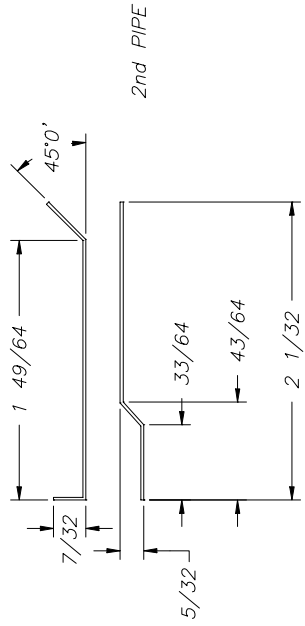
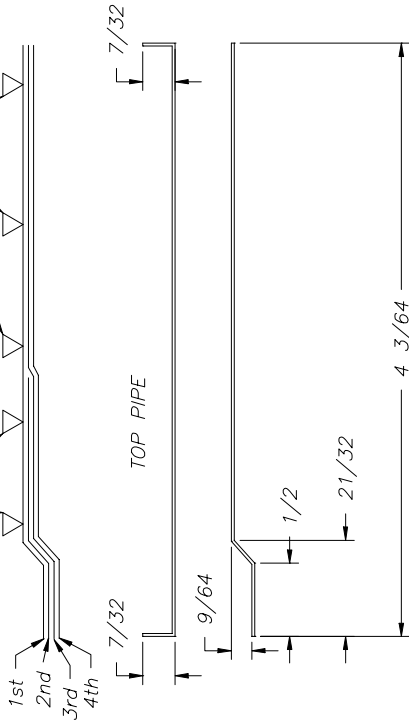
LIST OF DRILL REQUIRED

- #75
- #65
- #60
- #55
- #52

DET. 8
MAKE FROM .020 DIA WIRE

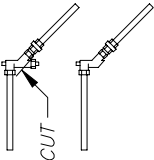

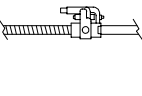
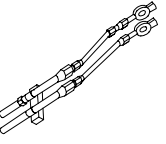
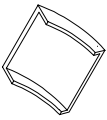
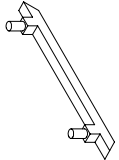


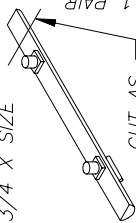
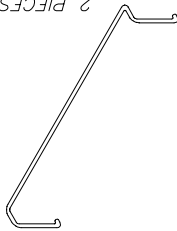
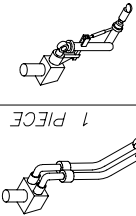
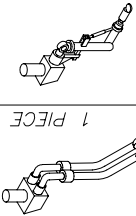

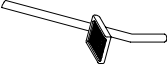
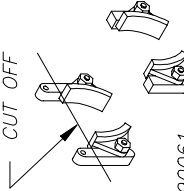

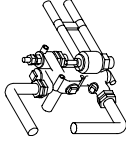
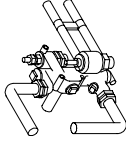
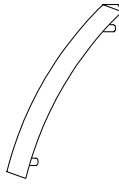







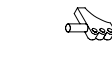

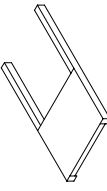


INSTALL BEFORE
MAKING END BENDS
90492

INSTALL BEFORE
MAKING END BENDS
90462



K4 SUPER DETAIL PARTS IDENTIFICATION

KIT #100515

 <p>2 PIECES</p> <p>13-209</p>	 <p>1 PAIR</p> <p>13-282</p>	 <p>2 PIECES</p> <p>190-294</p>	 <p>1 PIECE</p> <p>190-320</p>	 <p>1 PIECE</p> <p>190-378</p>	 <p>1 PAIR</p> <p>190-379</p>	 <p>LEFT</p> <p>RIGHT</p> <p>1/2 SIZE</p> <p>1 PAIR</p> <p>190-390</p>	 <p>1 PIECE</p> <p>190-477</p>	 <p>3/4 X SIZE</p> <p>1 PAIR</p> <p>CUT AS REQUIRED</p> <p>190-479</p>	 <p>2 PIECES</p> <p>823</p>	 <p>1 PIECE</p> <p>90018</p>  <p>1 PIECE</p> <p>90019</p>	 <p>1 PIECE</p> <p>90020</p>	 <p>2 PIECES</p> <p>90053</p>	 <p>2 PAIR</p> <p>CUT OFF</p> <p>90061</p>	 <p>1 PIECE</p> <p>90081</p>	 <p>1 PIECE</p> <p>LEFT</p> <p>90092</p>  <p>RIGHT</p> <p>90093</p>	 <p>1 PIECE</p> <p>90450</p>	 <p>2 PAIR</p> <p>90328</p>	 <p>1 PAIR</p> <p>90329</p>	 <p>6 PIECES</p> <p>90334</p>	 <p>6 PIECES</p> <p>90433</p>	 <p>2X SIZE</p> <p>90444</p>	 <p>1 PIECE</p> <p>1/2X SIZE</p> <p>90495</p>	 <p>2 PIECES</p> <p>90454</p>	 <p>3 PIECES</p> <p>90462</p>	 <p>2 PIECES</p> <p>90463</p>	 <p>1 PIECE</p> <p>90479</p>	 <p>2X SIZE</p> <p>90492</p>	 <p>1 PIECE</p> <p>90495</p>	<p>(9) PIECES .020 X 6" BRASS WIRE</p> <p>(1) PIECE .032 X 6" BRASS WIRE</p> <p>PAGE 6</p>
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