

# INSTRUCTIONS FOR #100800 PRR L-1 MIKADO 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 small 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 DETAILING THE BOILER, WE RECOMMEND THAT YOU BUILD THE COMPLETE MECHANISM ATTACH THE UNDECORATED BODY AND THOROUGHLY TRACK TEST IT.

## STEP #1

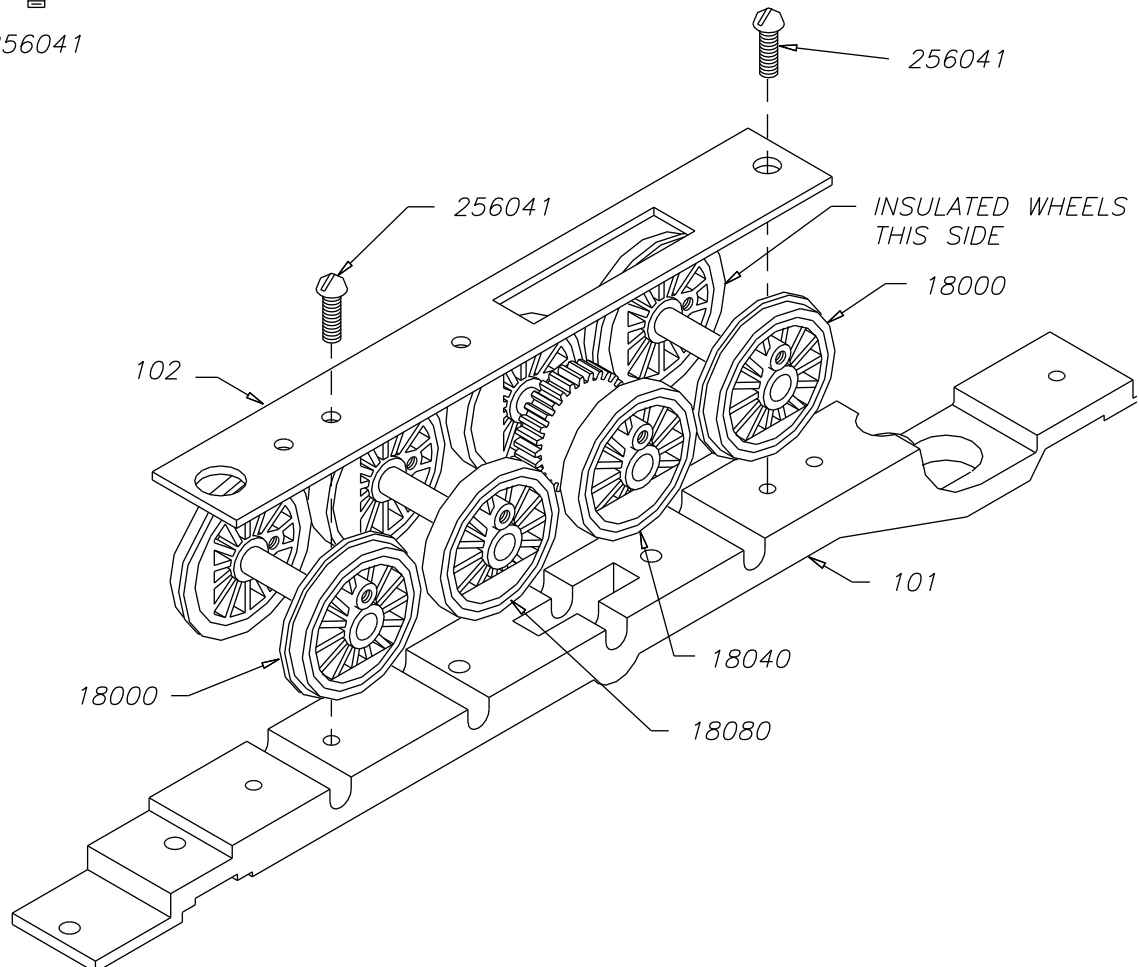
Clean flash from edges of parts.  
File mating surfaces on a flat file.  
Assemble and assure the wheels  
spin freely. Oil lightly.

Identify which wheel of each set of drivers is insulated. With two wires hooked to your powerpack, 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.

### SUBKIT 100803



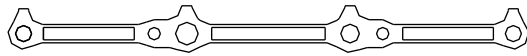
256041



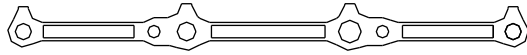
## STEP #2

Assemble side rods as shown.  
 The fluted surface faces out. Assure  
 the wheels spin freely. Enlarge holes with  
 round file in side rods to eliminate any binds.  
 Oil lightly.

*SUBKIT #100801*  
*FULL SIZE*



8762 RIGHT



8761 LEFT



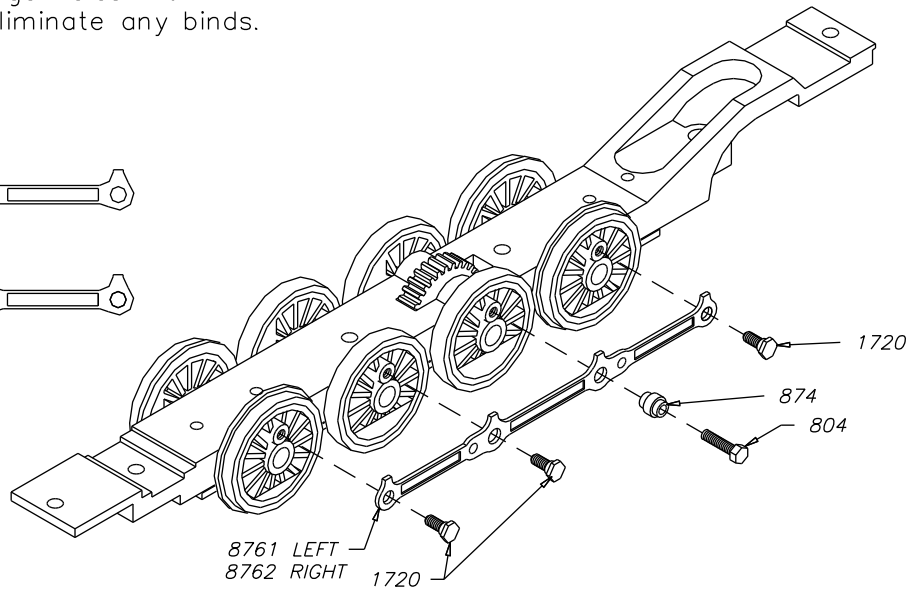
804



1720



874



## STEP #3

Install cylinders, crossheads  
 and main rods to mechanism.  
 Mechanism must roll freely.  
 Oil lightly.

*SUBKIT 100803*  
*FULL SIZE*



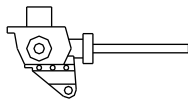
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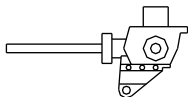
804



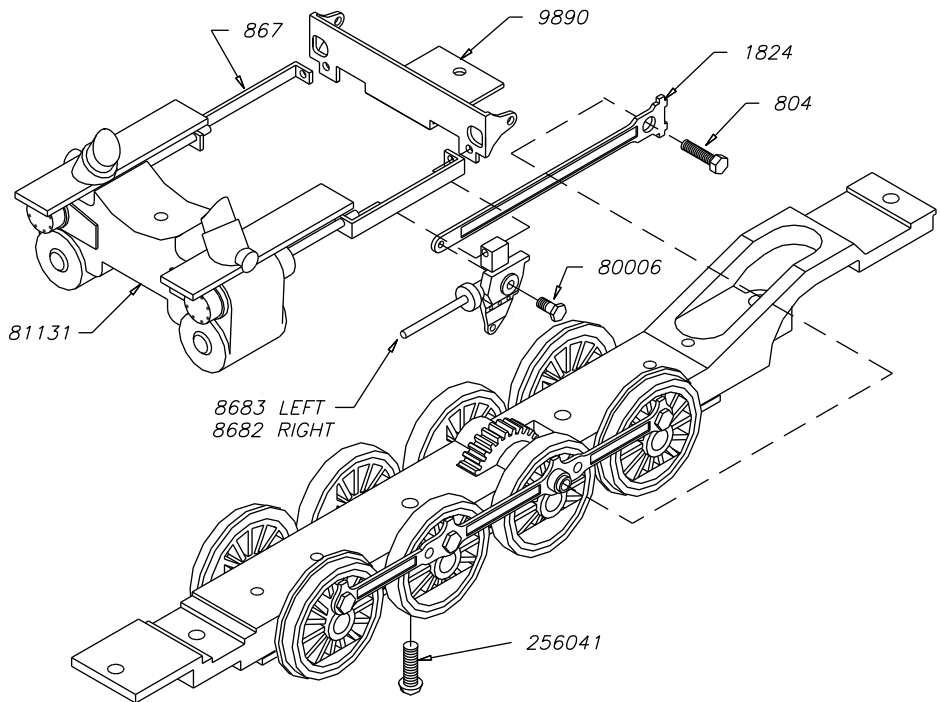
80006



8682 RIGHT

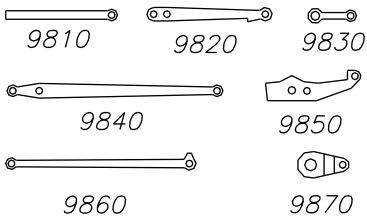


8683 LEFT

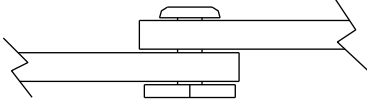


STEP #4

PARTS IDENTIFICATION LIST  
SIBKIT 100805  
FULL SIZE



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

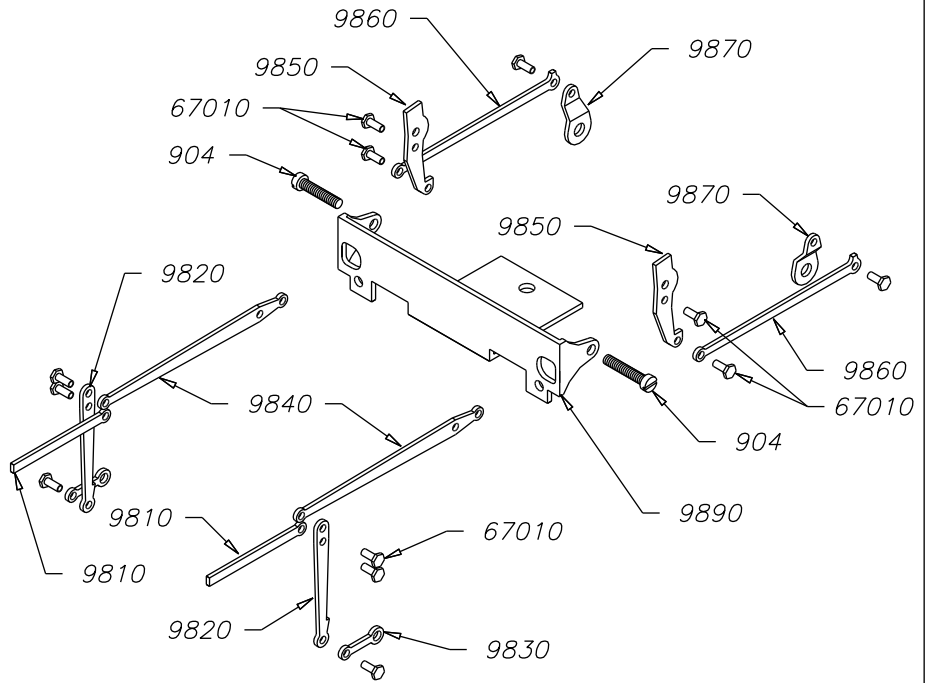


FIG 1  
LEFT FRONT

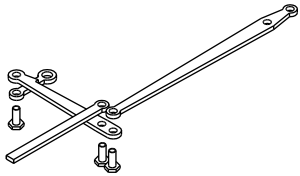


FIG 2  
RIGHT FRONT

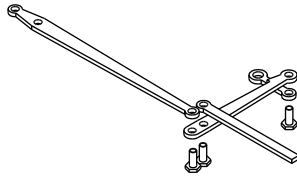


FIG 3  
LEFT REAR

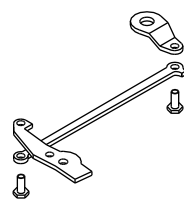


FIG 4  
RIGHT REAR

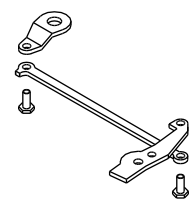


FIG 5

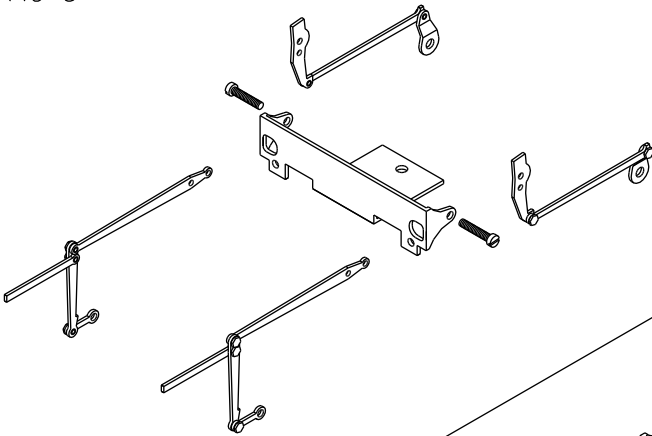


FIG 6

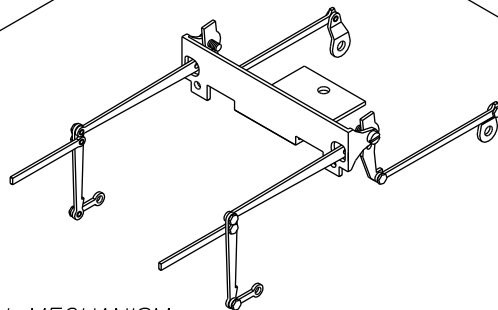
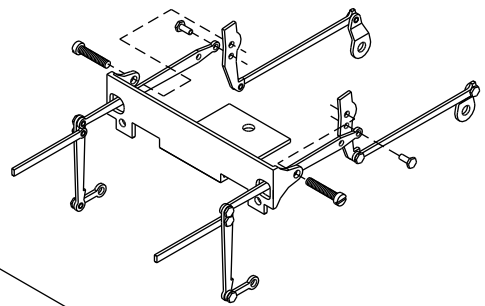


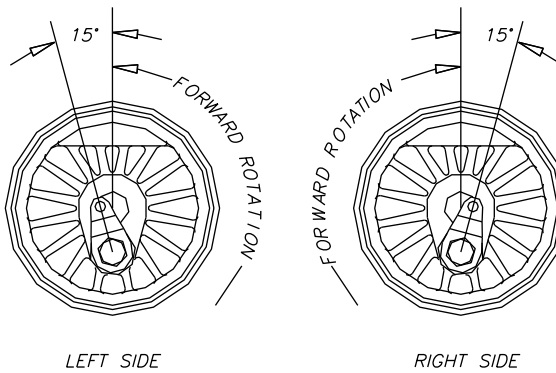
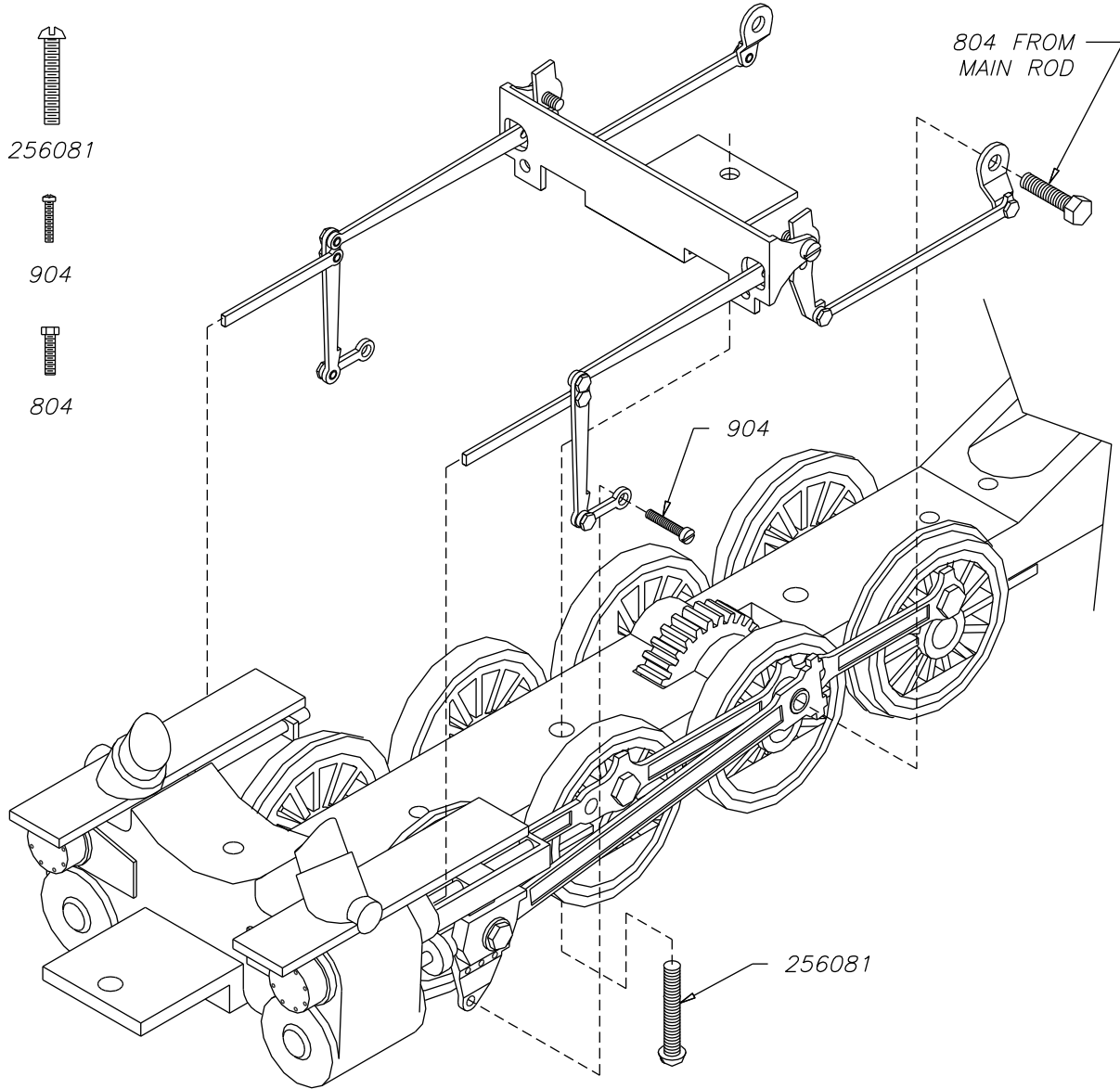
FIG 7  
READY TO INSTALL ON MECHANISM.

100800\100800-3

# STEP #4a

Install valve gear. Cut off end of screw 904 flush with back of crosshead. Put drop of glue on threads to keep screw from backing out. Time valves as shown below.

SUBKIT 100803

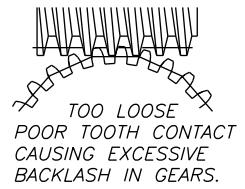
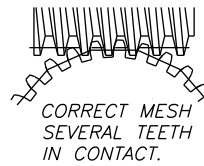
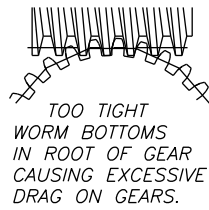
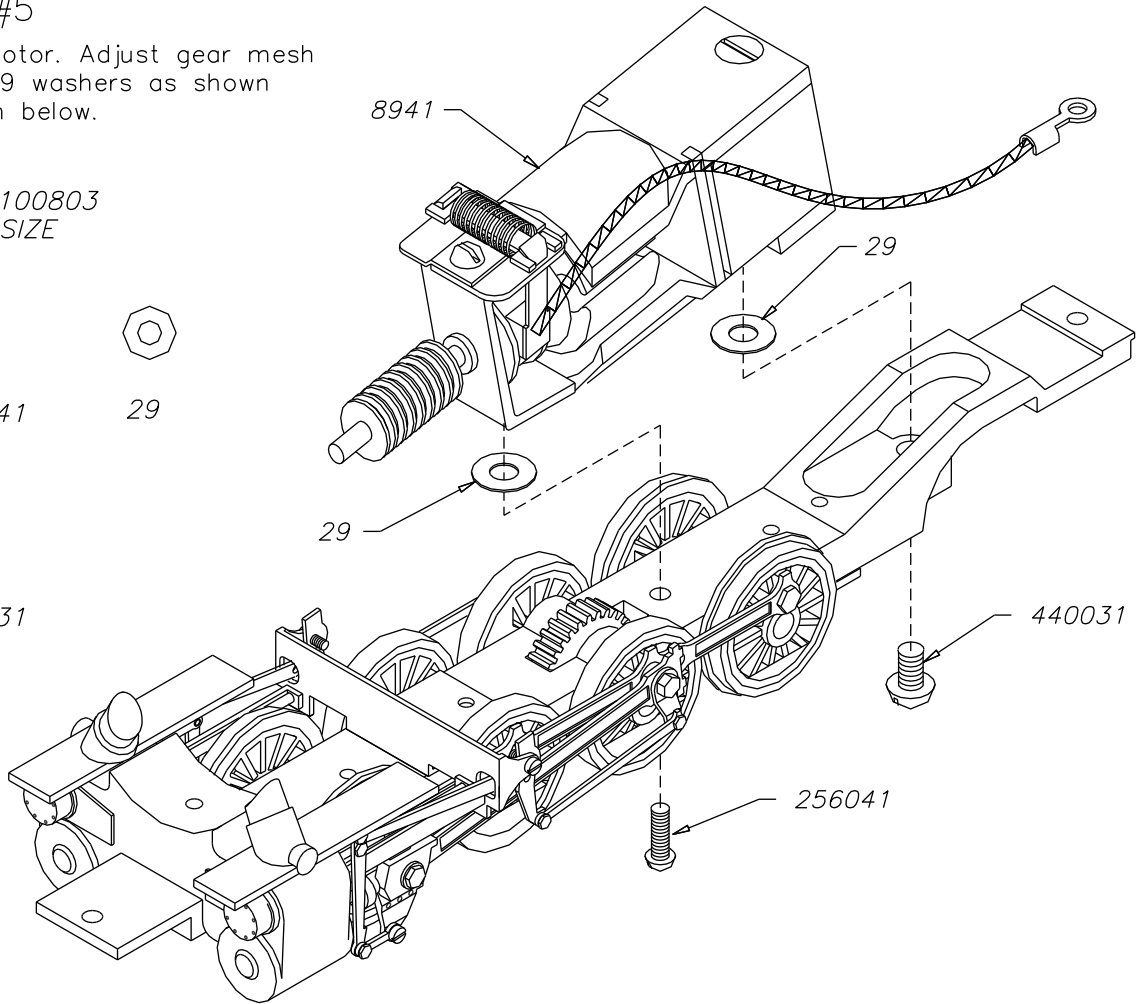
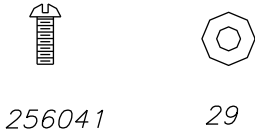


100800\100800-4

# STEP #5

Install motor. Adjust gear mesh using #29 washers as shown in sketch below.

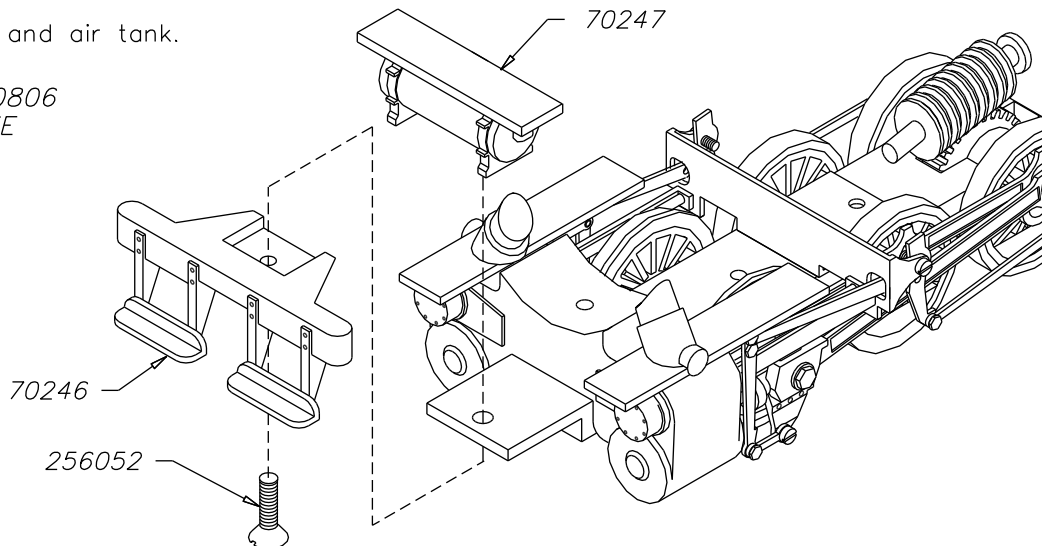
SUBKIT 100803  
FULL SIZE



# STEP #6

Install pilot and air tank.

SUBKIT 100806  
FULL SIZE



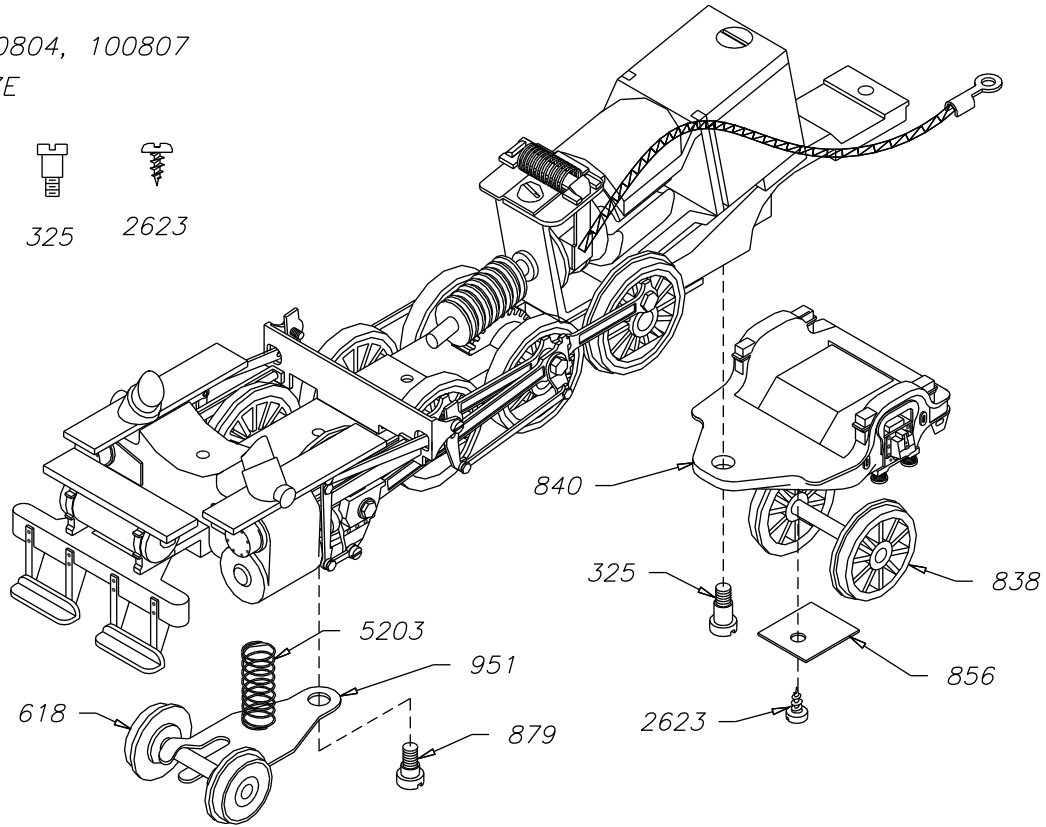
100800\100800-5

# STEP #7

Install motor. Adjust gear mesh using #29 washers as shown in sketch below.

SUBKIT 100804, 100807

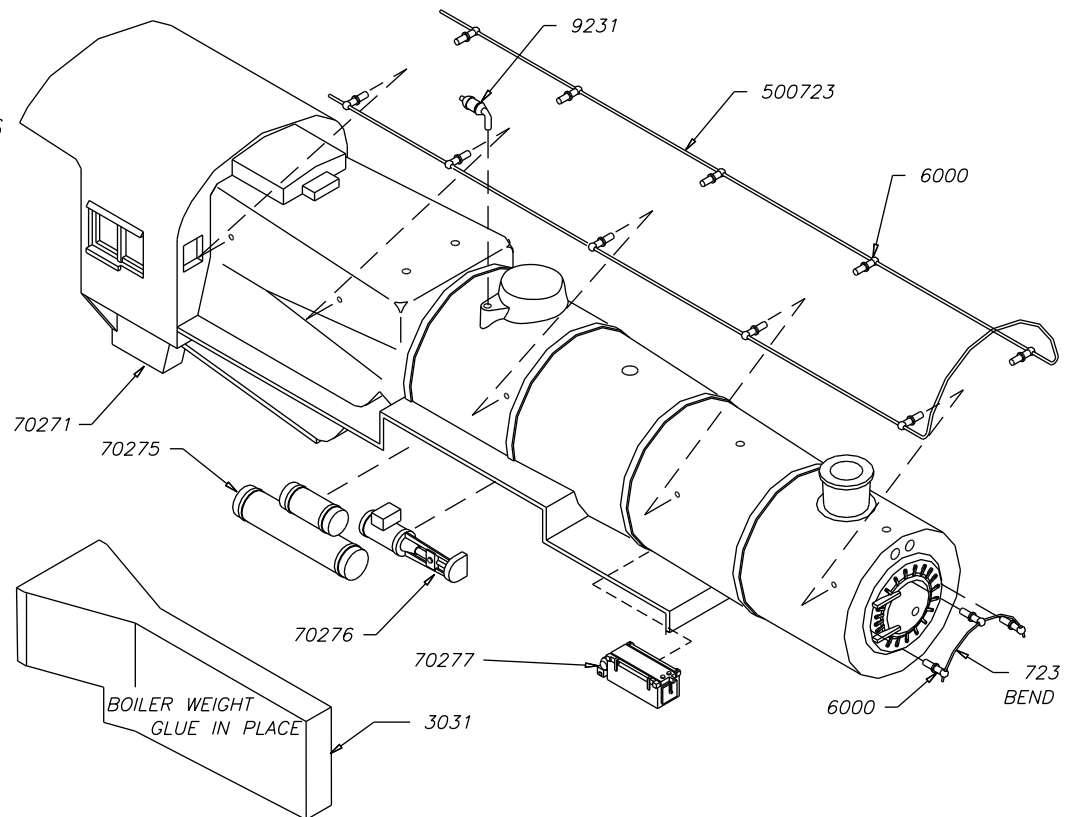
FULL SIZE



# STEP #8

Detail left side of boiler.

SUBKIT 100806

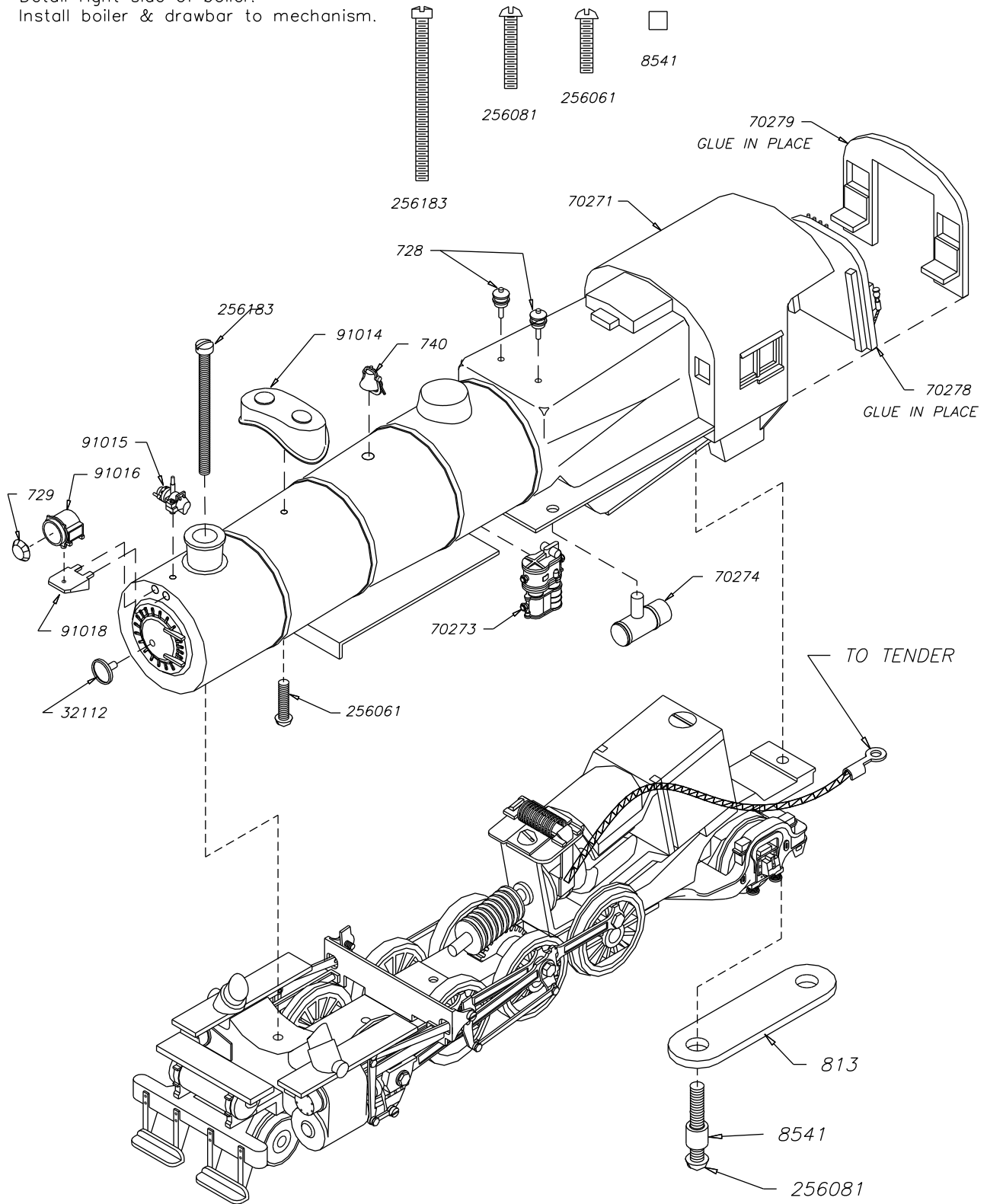


100800\100800-6

# STEP #9

## SUBKIT 100803 FULL SIZE

Detail right side of boiler.  
Install boiler & drawbar to mechanism.



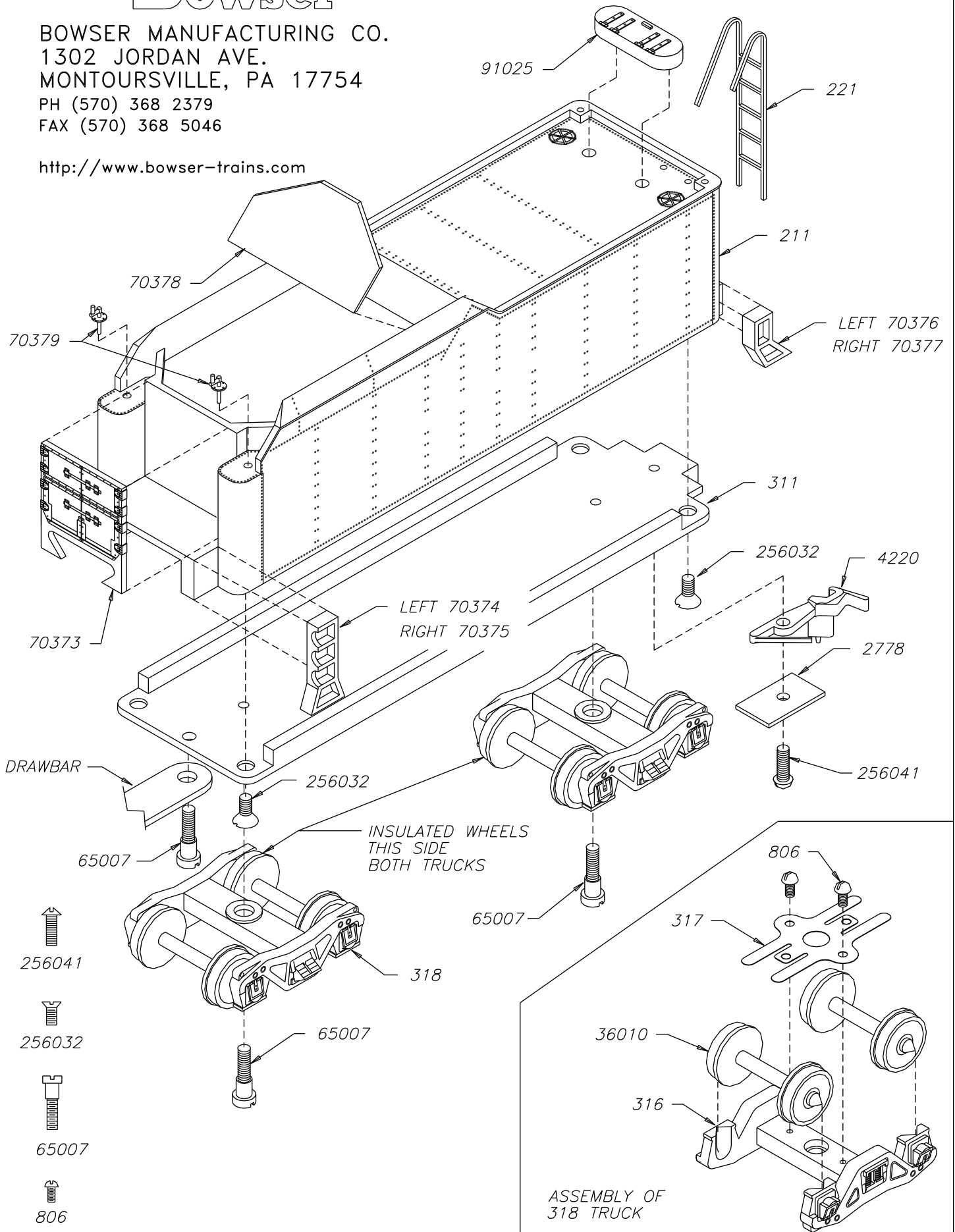
100800\100800-7



# 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>



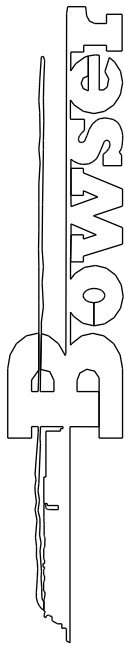
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256032

65007

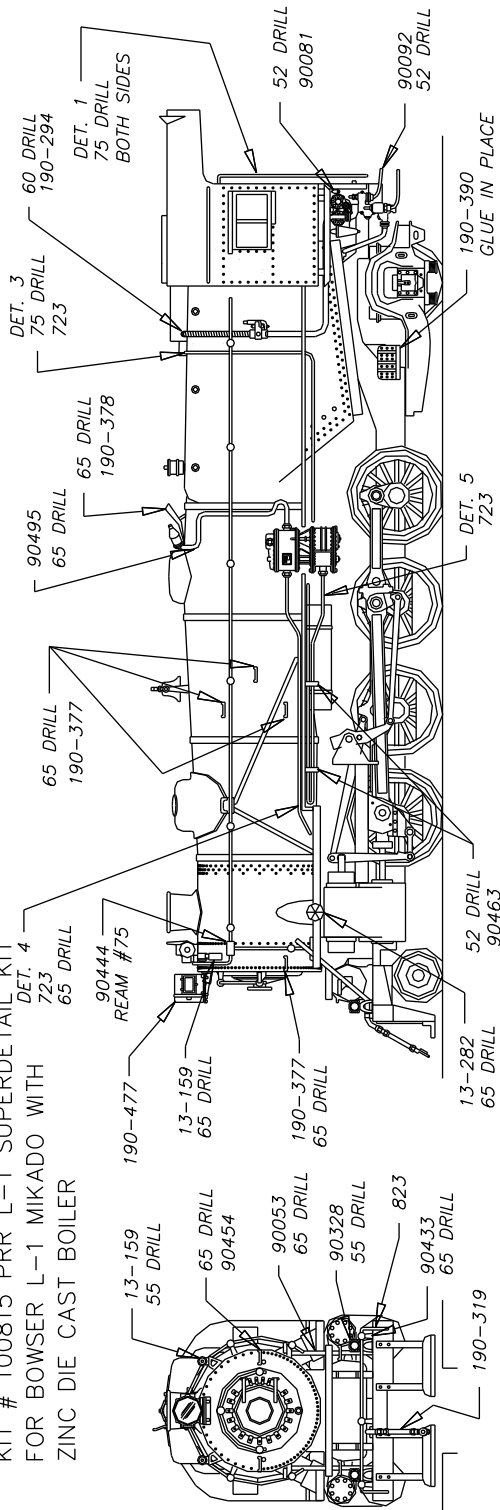
806



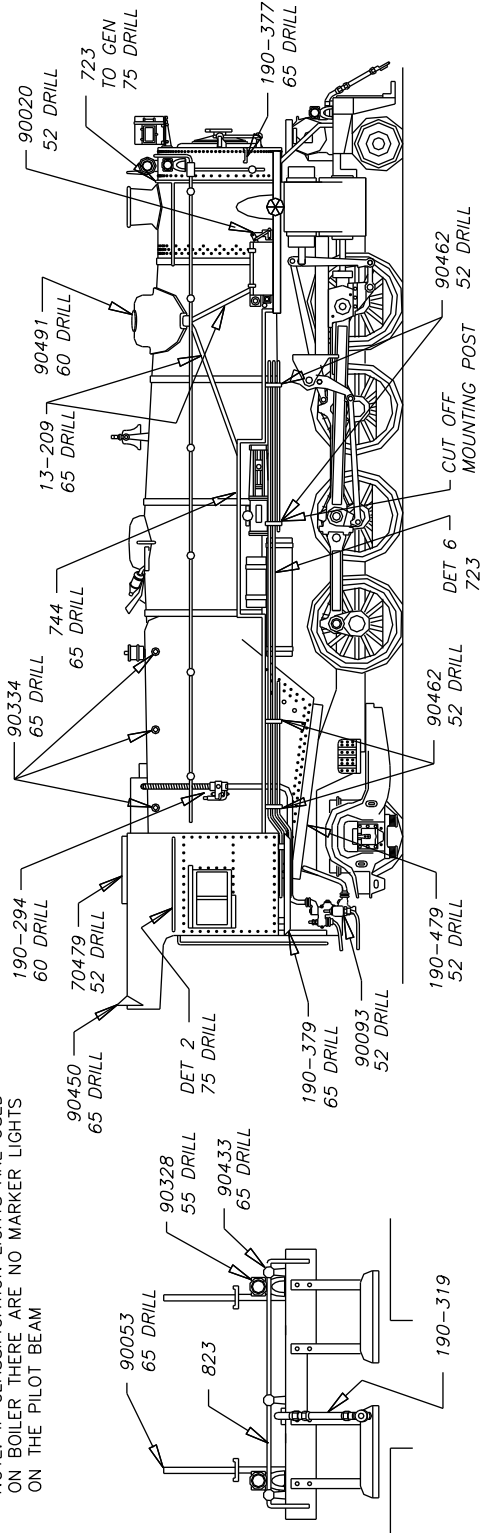


BOWSER MANUFACTURING PHONE (570) 368-2516  
 PO Box 322 FAX (570) 368-5046  
 MONTROUSEVILLE, PA 17701

KIT # 100815 PRR L-1 SUPERDETAIL KIT  
 DET. 4 FOR BOWSER L-1 MIKADO WITH  
 ZINC DIE CAST BOILER


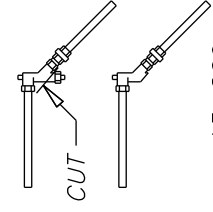

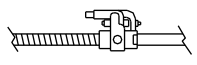
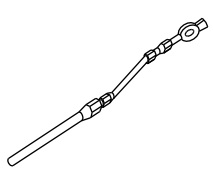
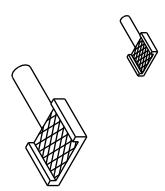
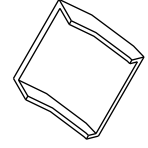
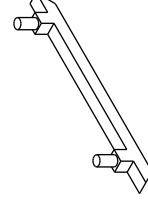

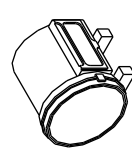
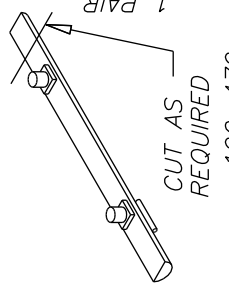
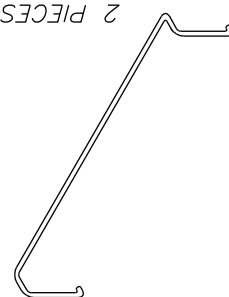
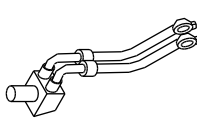
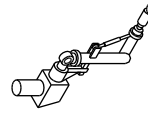
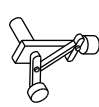
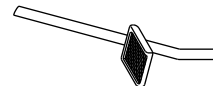
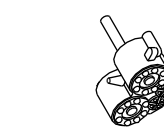
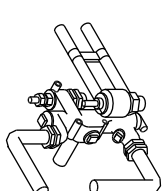
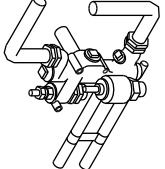



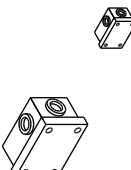
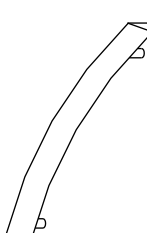

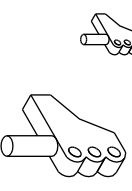
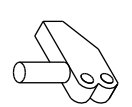
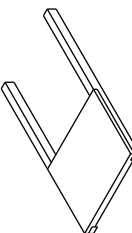

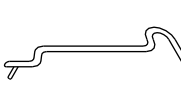


NOTE: IF CLASSIFICATION LIGHTS ARE USED ON BOILER THERE ARE NO MARKER LIGHTS ON THE PILOT BEAM



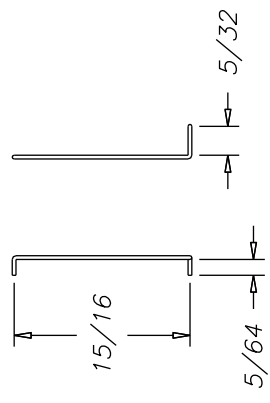
L1 SUPER DETAIL PARTS IDENTIFICATION

KIT #1100815

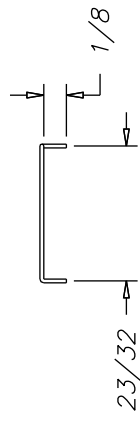
 <p>13-159</p> <p>1 PAIR</p>	 <p>13-209</p> <p>4 PIECES</p>	 <p>13-282</p> <p>2 PIECES</p>	 <p>190-294</p> <p>2 PIECES</p>	 <p>190-319</p> <p>1 PIECE</p>	 <p>190-377</p> <p>3 PAIR</p>
 <p>190-378</p> <p>1 PIECE</p>	 <p>190-379</p> <p>1 PAIR</p>	 <p>190-390</p> <p>1 PAIR</p>	 <p>190-477</p> <p>2 PIECE</p>	 <p>190-479</p> <p>1 PAIR</p> <p>CUT AS REQUIRED</p>	 <p>823</p> <p>2 PIECES</p>
 <p>90018</p> <p>1 PIECE</p>	 <p>90019</p> <p>1 PIECE</p>	 <p>90020</p> <p>1 PIECE</p>	 <p>90053</p> <p>2 PIECES</p>	 <p>90081</p> <p>1 PIECE</p>	 <p>90092</p> <p>LEFT</p> <p>1 PIECE</p>
 <p>90093</p> <p>RIGHT</p> <p>1 PIECE</p>	 <p>90328</p> <p>2 PAIR</p>	 <p>90334</p> <p>6 PIECES</p>	 <p>90433</p> <p>6 PIECES</p>	 <p>90444</p> <p>2 PIECES</p>	 <p>90450</p> <p>1 PIECE</p>
 <p>90454</p> <p>2 PIECES</p>	 <p>90462</p> <p>4 PIECES</p>	 <p>90463</p> <p>2 PIECES</p>	 <p>90479</p> <p>1 PIECE</p>	 <p>90491</p> <p>2 PIECES</p>	 <p>90495</p> <p>1/2X SIZE</p> <p>1 PIECE</p>

(10) PIECES .020 X 6" BRASS WIRE

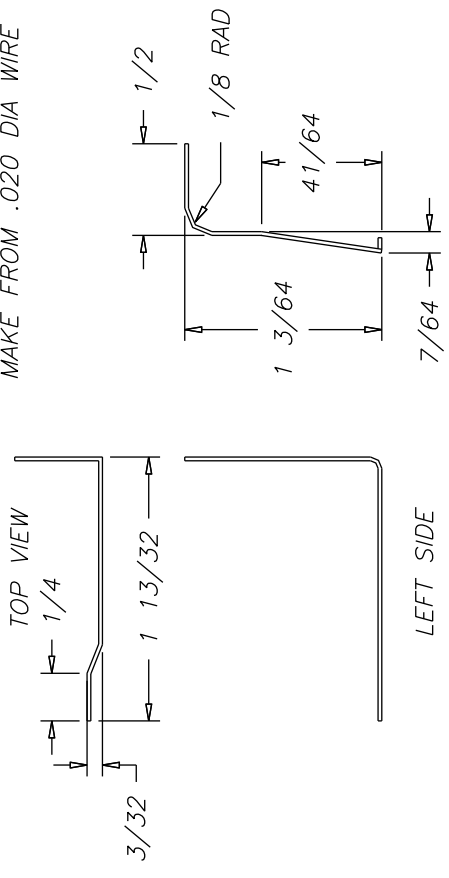
DET. 1  
MAKE FROM .020 DIA WIRE  
(1) LEFT, (1) RIGHT REQUIRED  
LEFT SHOWN



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

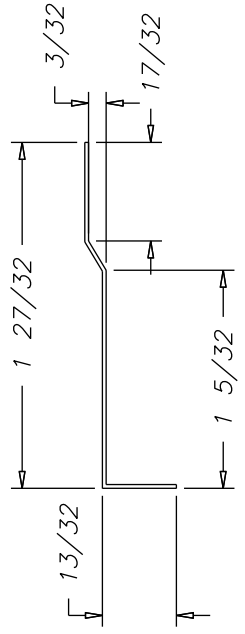


DET. 3  
MAKE FROM .020 DIA WIRE

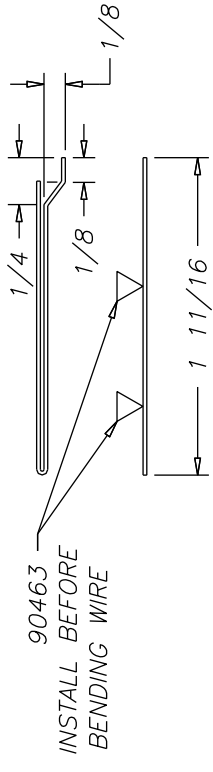


VIEW  
FROM CAB

DET. 4  
MAKE FROM .020 DIA WIRE



DET. 5  
MAKE FROM .020 DIA WIRE



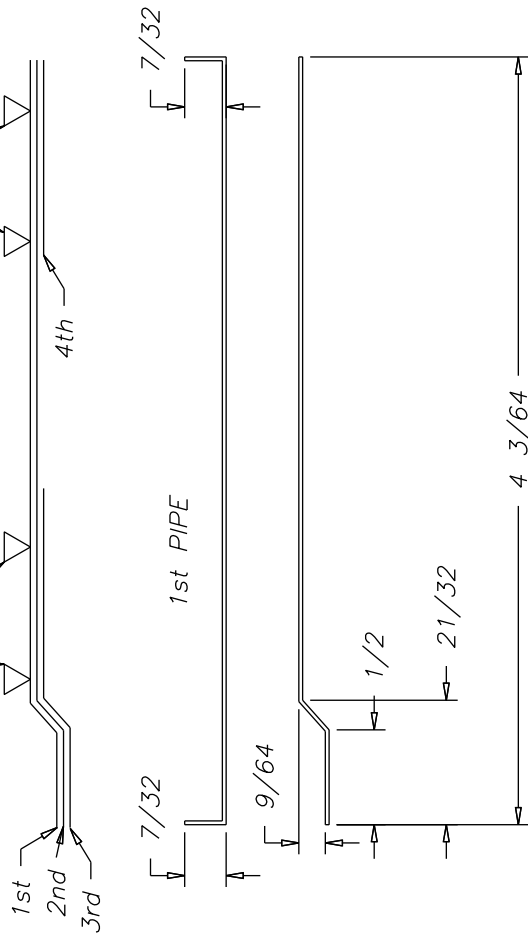
LIST OF DRILLS REQUIRED

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

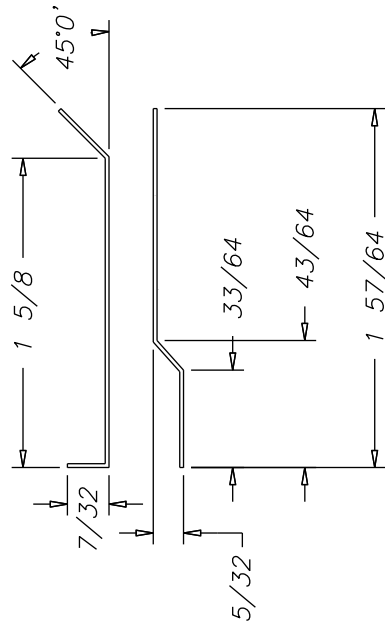
DET. 6  
MAKE FROM .020 DIA WIRE

INSTALL BEFORE  
MAKING END BENDS  
90462

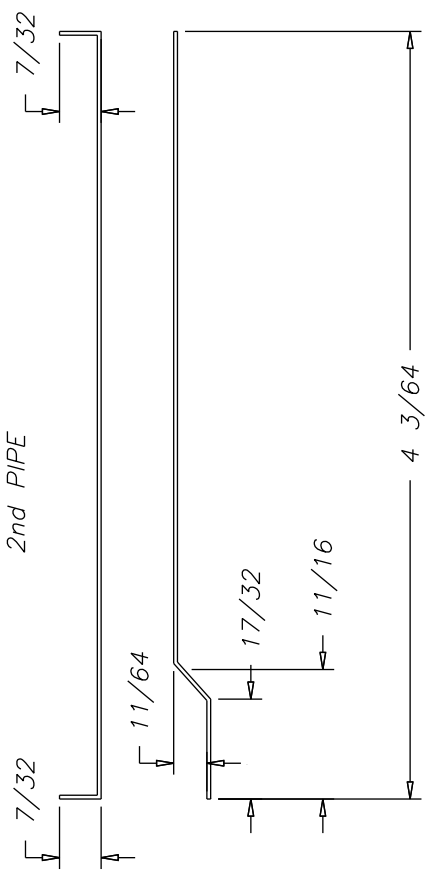
INSTALL BEFORE  
MAKING END BENDS  
90462



3rd PIPE



2nd PIPE



4th PIPE

