



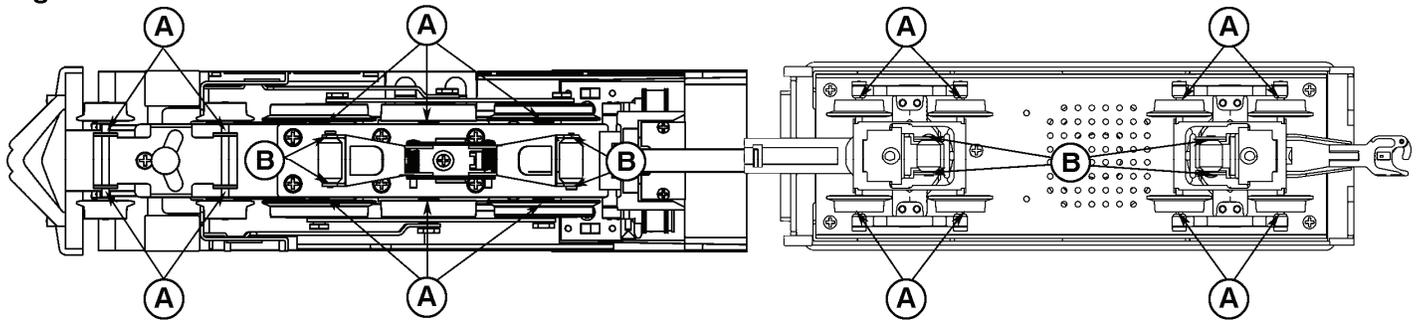
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BALDWIN 4-6-0 LOCOMOTIVE & TENDER INSTRUCTIONS

Thank you for purchasing a Williams by Bachmann® locomotive. This locomotive has been manufactured to provide years of use and enjoyment. Please follow the simple instructions below.

This locomotive has been greased and tested before leaving the factory. Before operating, please lightly lubricate the points shown in the diagram below. Do not over-lubricate and take extra care to avoid getting lubricants on the wheel surfaces or traction tires.

Figure 1.



1. For the axles and coupler pivot points **Marked A**, we recommend that you lubricate with a small amount of light oil such as Bachmann E-Z Lube® #99984 Light Gear Oil. You may also want to put a very small amount on the rotating points of the side rods. **Do not over-lubricate.**
2. For areas that require electrical flow, such as roller pick-ups **Marked B**, please use Bachmann E-Z Lube® #99981 Conductive Contact Lube. **Never use any Teflon® based oil on these areas because this type oil has insulating properties.**

OPERATION

After placing the locomotive and tender onto the track, insert the wiring harness attached to the locomotive into the socket at the front of the tender near the drawbar. When unplugging the wire harness, **make sure to depress the release tab on the plug.** For power requirements, we recommend using an AC hobby transformer with maximum voltage output of 18 VAC, with a pure or smooth sine wave output, and a wattage rating of **at least 80 watts.**

Throttle Control

The throttle control will allow you to operate your train at a wide range of speeds. Slowly turn the control knob until you are familiar with the response of the locomotive that you are operating. Please note that our sound systems require 6 volts or greater to operate correctly.

Whistle Operation

To operate the whistle of your locomotive, simply depress the horn /whistle button on your transformer. Our True Blast™ Whistle will play a 6 second sequence one time.

Bell Operation

To operate the bell on your locomotive, press and hold the bell button for one second. To stop the bell, press and hold the button for one second.

Direction Control

Williams reverse units sequence FORWARD, NEUTRAL, REVERSE, NEUTRAL, and again FORWARD. To sequence the reverse board, simply depress and hold the direction button, release the button 1 second after the train has come to a complete stop. **PLEASE NOTE:** If you do not wait for your train to come to a complete stop the reverse unit may not always sequence properly. After approximately 7 seconds without power, the reverse board will reset to FORWARD.

Direction Lockout

This locomotive is equipped with a direction lockout switch to prevent the reverse unit from cycling through the normal sequencing. The switch is located under the locomotive cab. The switch is labeled RUN/LOCK.

FORWARD ONLY OPERATION: If you wish to lock your locomotive in the forward direction, slide the switch to the LOCK position before turning on the power. The locomotive will now travel in the forward direction only. To return to normal operation, slide the switch to the run position.

REVERSE ONLY OPERATION: If you wish to lock your locomotive in reverse, first turn on the power to the track and sequence until the locomotive is going in reverse. Turn off power, remove the locomotive from the track, and slide the switch to LOCK within 5 seconds after turning off the power. The locomotive will now travel in the reverse direction only. Please note that if the locomotive is not operated for an extended period of time, it may revert to forward only operation. To correct this, simply slide the switch to RUN and repeat the steps above for locking the locomotive in reverse. To return to normal operation, slide the switch to the run position.

Smoke Unit

This locomotive is equipped with an operating smoke unit. If you wish to use this feature add 10-15 drops of the supplied smoke fluid into the smoke stack of the locomotive. Use only Williams by Bachmann® or Bachmann® Fluid. Other brands may be too thick and clog the unit. An On/Off switch for the smoke unit is located under the locomotive cab.

Uncoupling

This locomotive is equipped with operating knuckle couplers on the rear of the tender. To uncouple, position the center of the rear truck over the center of electro-magnetic track uncoupling section and activate the magnet.

PERIODIC MAINTENANCE

Disassembly Instructions

For periodic maintenance, you will have to remove the body shell to gain access to some of the parts that require servicing. Place engine on a soft padded surface – chassis side up.

1. Remove the front mounting screw through the hole in the pilot truck.
2. Remove the two rear chassis screws.
3. Now the chassis can be lifted from the boiler.

Lubrication

We recommend that you lubricate as directed on page 1 every 10 hours of operation. In addition, you also should check the motor gearbox every 25 hours. To gain access to the gearbox, remove body shell as instructed above. Inspect the gears and apply any necessary lubrication. We recommend Bachmann E-Z Lube® #99982 Grease, or equivalent.

Traction Tire Replacement

Our traction tires are very durable and should not need replacing very frequently. They should last hundreds of hours under normal conditions. If they wear out prematurely, check to make sure your track joints are tight. Gaps in your track can cause damage to the tires. To replace the traction tires, you will need to remove the side rods. There are three Hex screws on each side. Note the positions of the rods and any spacers. Remove old tire if present, clean wheel groove with any degreasing agent **making sure to follow the safety and handling instructions on the degreasing agent's bottle**. Wipe dry with paper towel or clean rag. Stretch the new traction tire over the wheel making sure that it does not twist and seats smoothly in the wheel groove. Re-attach the side rods. Test to make sure the rods move freely before applying power to the locomotive.

Light Bulb Replacement

This locomotive uses an 8 volt grain of wheat light bulb Part Number 344-02-04. It plugs into the voltage regulator board.

BALDWIN 4-6-0 PARTS DIAGRAM

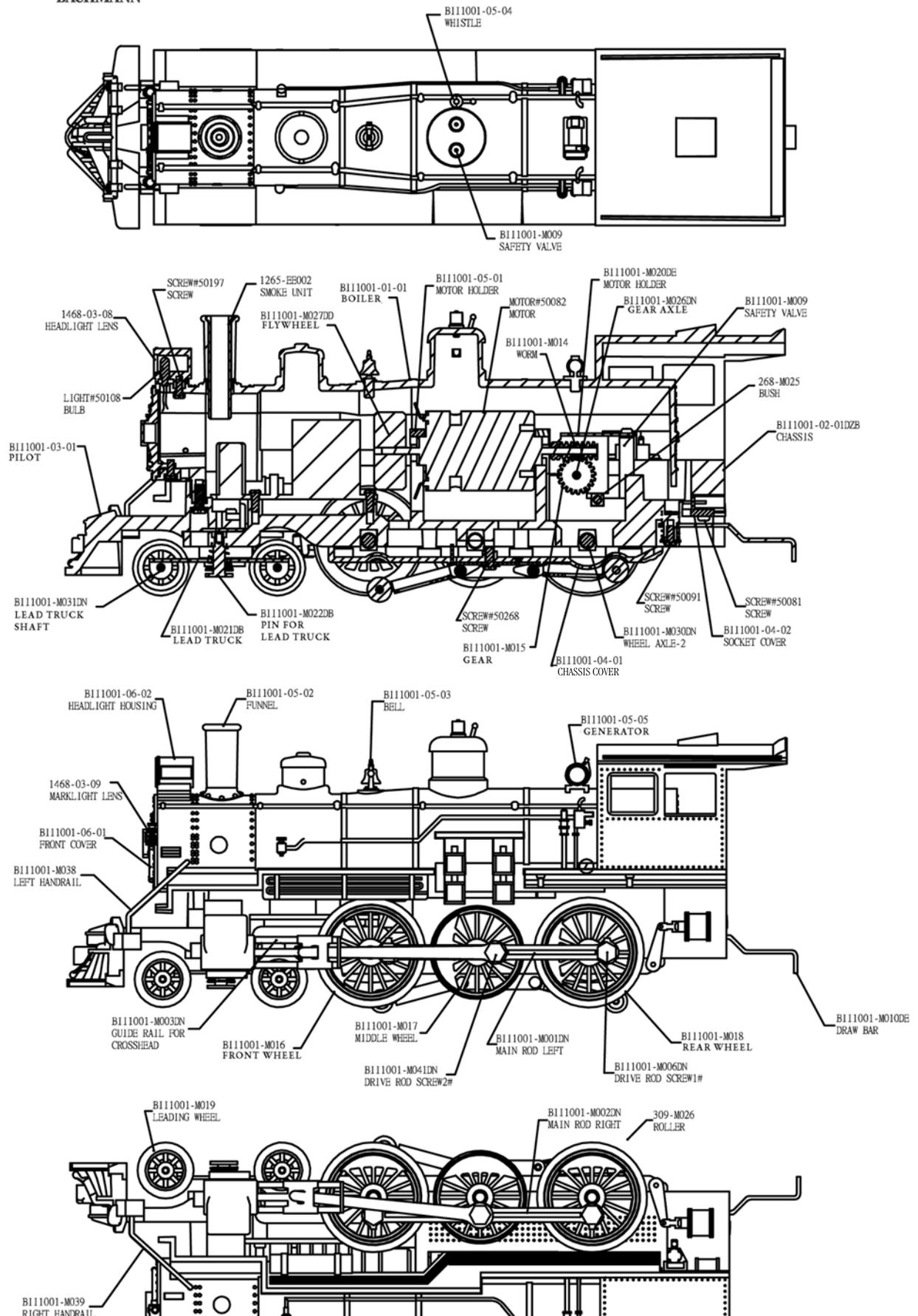


Diagram is for part identification purposes. Some parts may only be available as part of a subassembly.

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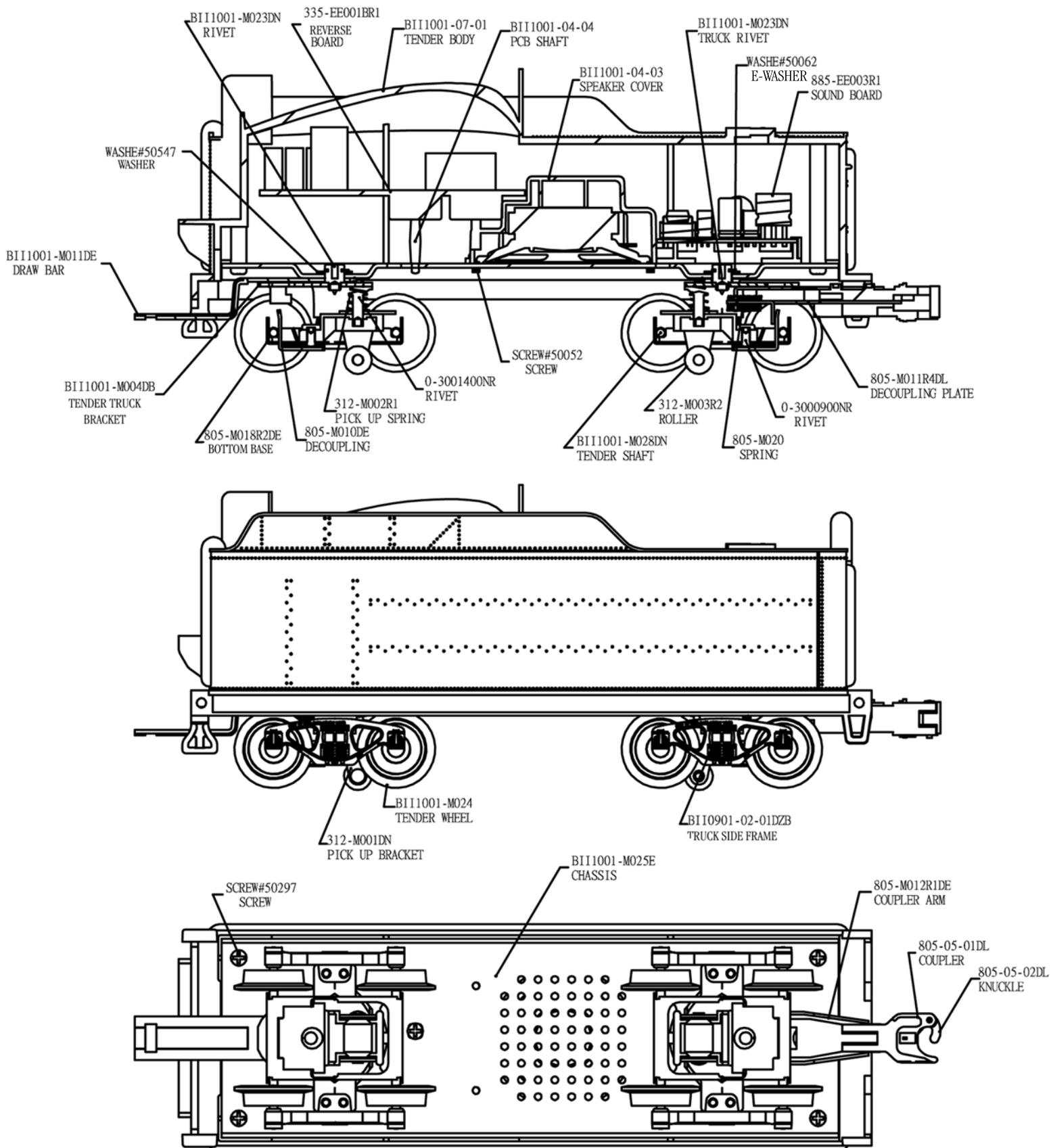


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