

NorthWest Short Line

POWERING the:

#1 GAUGE G-Scale Streetcar (*Garden Railways*, April 1998 issue)

This project helps you build an economical and easy operating model for your #1 gauge town and layout. Plans appear in the centerfold (Playboys got nothing on Garden Railways!) of the April 1998 issue. The plan set #31 drawings and description by Ted Stinson (NE Narrow Gauge) provide a simple yet effective operating model. The plans suggest NWSL components but provide little information on how to accomplish the powering of the model (it must be a 'craftsman' project!).

We here describe the general process which can be accomplished in about 30 minutes (plus overnight bond set time) if proper materials and tools are on hand.

Tools required: Miniature screwdrivers

Jewelers or similar small flat file

Skill required: This job assumes you have reasonable proficiency in soldering and disassembly/assembly of mechanical devices. If not, your learning experience here will be valuable despite problems you may encounter in achieving quick and satisfactory completion - patience will reward you.

Time required: About 30 minutes (plus cure time for bonding agent and sealant)

Parts required: NWSL kit #2500-6 consisting of:

NWSL #251-6 gearbox kit (or #1251-9 for ball bearing quality - \$11 option)

(2) #8672-4 axlesets, one geared to fit above gearbox or

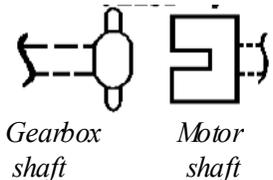
NWSL kit #2501-6 consisting of above plus:

NWSL #22403-9 can motor and #498-6 Univ. coupling set

Silicon sealant (sold at hardware stores as bathtub caulk,

window caulk, etc.)

Wire 28 or 29 gauge, two approx. 1.5" pieces



1. GEARBOX PREPARATION: Assemble gearbox on the geared #8672-4 wheelset. Make sure all parts fit and turn freely before and as tightening the screws. Lubricate all wear surfaces (bearings, etc.) before final assembly with a light oil (such as LaBelle #102); use gearoil (LaBelle #108, etc.) on the worm teeth.
2. Lay out the parts - place the streetcar upside down - determine where the wheelsets go and see how the motor fits. The motor shaft (and possibly the gearbox shaft) will have to be shortened slightly. A 'horned ball' will be installed on the gearbox shaft and a cup on the motor shaft. Cut the motor shaft at the terminal end to 1/4" length. Press the 2.4mm cup onto the motor shaft after file/chamfering the sharp cut-off edges. Look at the hole in the 'horned ball' on the parts sprue - notice the 'D' flat - the gearbox shaft end must be carefully filed flat to match before pressing the ball onto gearbox shaft. (using NWSL u-joint set in 2501-6 kit)
3. Now assemble your 'truck' and wheelsets to the streetcar floor (see drawing plans for layout - gearbox fits between the axle and the car floor). Lay motor in place with motor 'horned ball' inserted in the gearbox shaft 'cup'. Push the motor toward the gearbox until shaft contact is made and then pull back just so they don't touch. Apply power to the motor and check to see everything operates okay. Mark motor location (pencil mark or similar on floor at each end of motor). Lay a double bead of silicon sealant down between the two lines. Press the motor into the sealant with universal joint engaged same as described above. Leave unit overnight to cure and bond. Come back tomorrow or the next day and test operate - if okay, finish wiring; if not, cut silicon sealant with razor blade or similar and re-set/ re-bond motor in place again. Enjoy!

Instruction 3-98 by Raoul Martin

NOTES on what I learned on this project that will be helpful on future projects: