



2-10-0 Steam locomotive model of the Class 52, Cat. No. 199



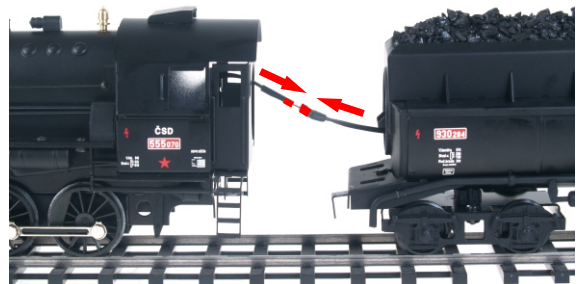
Instruction manual for the operation of the model steam locomotive of the ETS Tinplate railway.

This locomotive is designed for operation on 0 gauge track (32mm gauge). Version „/3“ is intended for operation on three-rail track. **Recommended diameter of curved rails is 137cm.** When driving curves with a diameter of 125 cm, it is necessary to insert a straight track in front of the switch so that the locomotive does not drive out of the curve directly into the deviation of the switch.

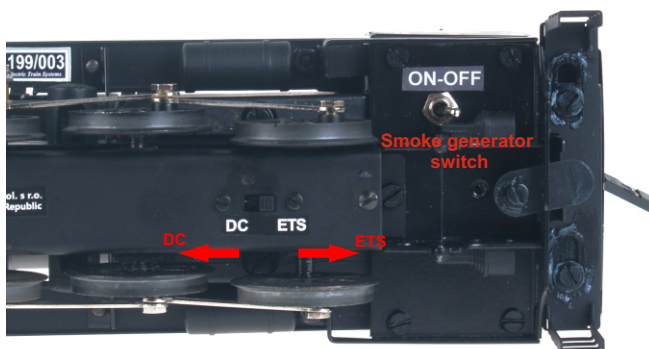
It can be operated with 0-18 volts of direct current or with pulse voltage from an ETS controller. A consumption of the locomotive is 1-2 amps. Version „/AC“ requires 0-18V of alternating current. The locomotive's two motors and great weight combine to ensure substantial pulling power. All driving axles are equipped with the ETS clutch mechanism, which allows the wheels to be turned when the power is shut off. Each locomotive is carefully manufactured and tested. All locomotives have serial numbers on their frames.

Commissioning:

Carefully grasp the locomotive by the fixed parts (cabin side walls and cylinder) and place all locomotive and tender wheels on the tracks. Then connect the electrical cables between the locomotive and tender. Be sure to match color coding on the plugs. Finally, connect the locomotive and tender using the couplings.

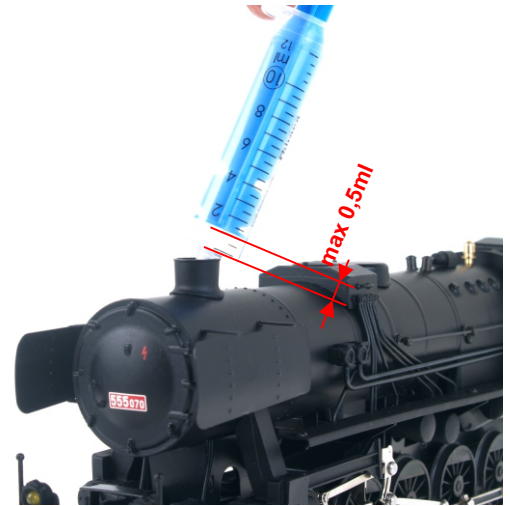


Before the ride:



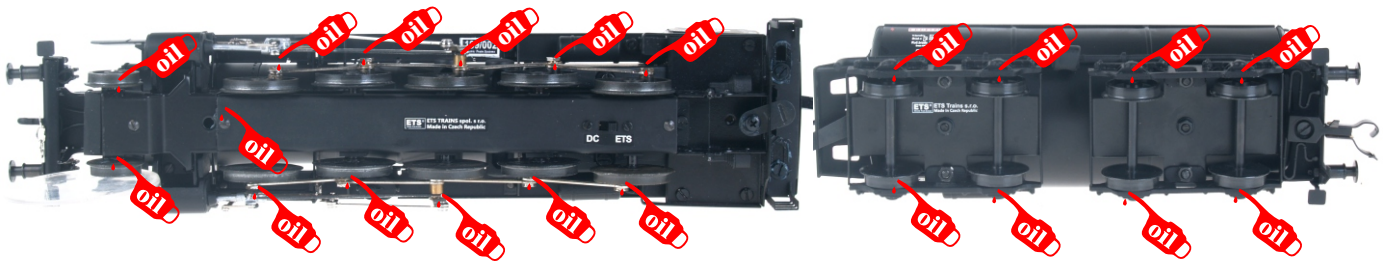
The underside of the locomotive has a switch for selecting operating modes. In the left position, marked „DC“, the locomotive runs on DC voltage 0-18V. In the right position, marked „ETS“, the locomotive runs using the ETS impulse controller (ETS model 702 or 702N), which supports the sound generator and allows remote control of the whistle.

If your locomotive is equipped with a smoke generator, the switch for the generator is located at the front of the locomotive, beneath the smokebox. Before switching on the smoke generator, first inject about 0.5 ml of smoke liquid into the chimney. Smoke will begin to rise from the chimney a few seconds after you turn the current on. When the smoke liquid is used up, no smoke will rise from the chimney. When this happens, either add another 0.5ml of smoke liquid or turn off the smoke generator, to prevent it from being damaged from overheating.



Lubrication:

After several hours of operation, lubricate the locomotive with sewing machine oil in the places indicated in the photograph.



The locomotive is not suitable for use by children under 14 years of age.

If you need repairs or spare parts, please contact your dealer or the ETS factory.

The locomotive model No. 199 is available in the following versions:

- 199CSD** Locomotive of Czechoslovakian Railways, Class 555.0
- 199DR** Locomotive of German Railways since year 1947, Class 52

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Model Railway "0" Scale

