

## Delrin chain-drive installations.

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Three of my small 0 Gauge locos, not having coupling rods, have been fitted with a Delrin chain drive to the second axle; without this axle being driven they would have had negligible pulling power.

The sprocket is best kept as large as possible, but obviously not so large that the diameter with chain is larger than the wheel tread diameter.



A Ruston from an unknown manufacturer; body fret purchased on a scratchbuilt chassis.



Small Impetus Sentinel.



And again as an industrial private owner loco.

Using the chain offsets the motor and gearbox but this is not usually an issue as they are small drive units intended for 4mm locos.

Setting the chain length can be a problem, sometimes it is either one link too few or one link too many. A very slight adjustment of the wheelbase can alleviate this. However if this is not possible then a chain tensioner can be fitted. The black Sentinel has this and is simply a length of brass wire that the chain runs over.

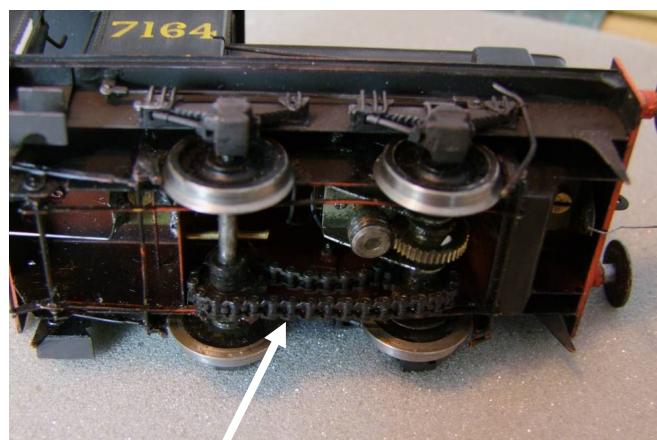
The sprockets come with either 1/8" or 3/16" diameter holes. They can be a very tight fit so I ream them to be a slide fit. Final securing can be done by drilling through and pinning them to the axle. The plastic and the steel drills easily.



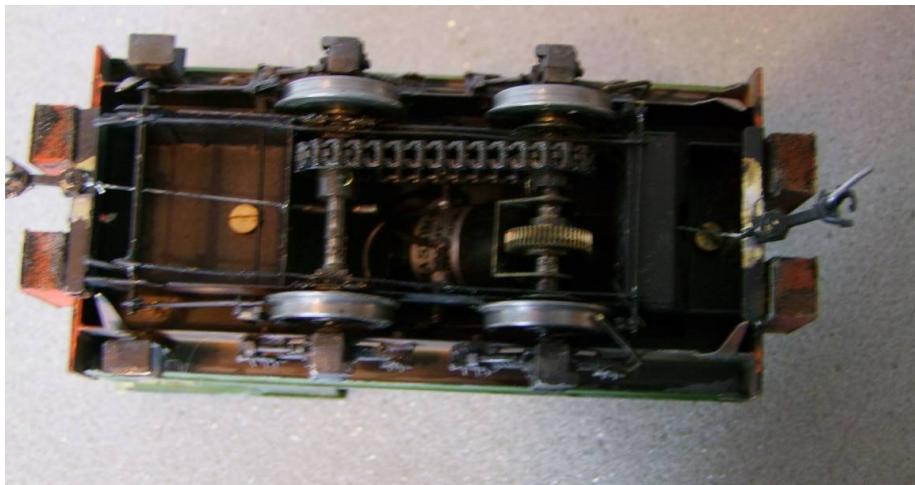
The Ruston installation. It runs without the scenic static grass affecting it! This chain is too long. Note the front axle is able to move and pivot on the rod next to the sprocket. For small short wheelbase locos compensation is a must. This is the arrangement for all three locos



The black Sentinel. Again compensated. Pick-ups rubbing on top of the wheels.



See curve in chain where it runs over the tensioner.



The green Sentinel, similar arrangement but with alternative motor gearbox. Apologies for the awry Kadee.

Sprockets and chain are available from several suppliers. I use a company called Motionco.  
<https://www.motionco.co.uk/>