



Stephenson's Rocket



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Summary

My version of Stephenson's Rocket an early steam train designed by George Stephenson

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Tags: [animated](#) [train](#) [steam](#) [piston](#) [locomotive](#)

This is my take on the famous Stephenson's Rocket steam train designed by George Stephenson and famous winner of the Rainhill Trials on the Stockton to Darlington railway.

I wanted to make it to improve my use of 3D CAD and in particular Onshape which I would highly recommend as a design aid. I had to learn new techniques and making the barrel was particularly interesting as I looked at online tutorials but did it my way in the end. I printed the model in one colour and have not painted it. It would be nice to see a version made from coloured PLA to match the original. Print times are quite long and I decided to split some parts and glue them to avoid supports in my prints. I have included all of the STL files used some in their split format for easier printing. I used eSun silk filament printed at 0.2 resolution. I printed the rails and made wooden sleepers for the model to sit on. I printed the nameplate from silk PLA and switched to black TPU for the letter tops to give a nice embossed effect. I added the hinges and pins to link the tender to the boiler by simply glueing on afterwards to keep printing simple. The

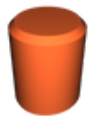
pistons and drive wheels are animated for effect and although they don't exactly follow the original design it is nevertheless pleasing. I have not included build instructions but they are mostly self evident by looking at the jpg files I uploaded. Steam pipes are simply glued in position. Any questions or problems get back to me. Good luck and I would love feedback. I didn't make the coal pile design but altered an existing design see link below so thanks for the model.

[G scale coal pile by af12689](#) | [Download free STL model](#) | [Printables.com](#)

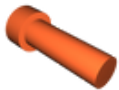
Model files



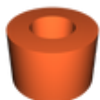
rail-2.stl



pressure-valve-2.stl



tender-hinge-pin-1.stl



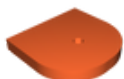
pipe2-connector.stl



rail-3.stl



copper-pipe-2.stl



boiler-hitch.stl



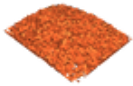
steam-pipe-part-1.stl



tender-hitch.stl



copper-pipe.stl



coal.stl



nameplate.stl



barrel3.stl



stephensons-rocket-1.stl



tender-base.stl



tender-axle-plain.stl



tender-axle.stl



tender-lower-part-for-easier-printing.stl



tender-full-but-drop-below-bed-if-printing-separate... .stl



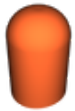
cylinder-hinge-pin.stl



cylinder-pin.stl



wheel-crank-pin.stl



pressure-valve.stl



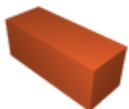
piston.stl



tender-1.stl



crank-pin.stl



connecting-block-links-boier-and-firebox.stl



tender-wheel.stl



rear-axle.stl



cylinder.stl



rear-wheel.stl



front-wheel-1.stl



main-axle-2.stl



tender-axle-mount.stl



smoke-stack.stl



boiler-edited-in-blender.stl



firebox-5.stl



smoke-stack-top.stl

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