

Press Release

December, 2023

Railway Preservation Group is working on next stage of repair to the Spirit of Alberta Steam Engine.

The locomotive is a 79-year-old steam engine (built October, 1944), ex Canadian National Railway locomotive #6060. The engine is named the Spirit of Alberta.

We have been talking about stay bolts for some time. Stay bolts in a steam locomotive are part of the mechanical support for the boiler to contain steam pressure. They are threaded bolts that connect from the inner firebox steel sheet to the outer boiler shell. Eighty-five (85) of these stay bolts have been removed so far and require replacement.

In September, 2022, a steel patch was welded into the fire box to complete the steel inner shell of the fire box. Holes were repaired in the fire box. Other welding and repairs were completed.

It is time to begin replacing stay bolts. That requires drilling holes in steel plates and tapping threads into holes for new stay bolts.

A problem was discovered with thread taps. Due to curvature of the outer boiler and the flat crown sheet, stay bolts can be up to 30 inches long.

Thread taps must be threaded from the outside boiler shell, through the water / steam space and into the inner sheet. Thread taps must also be up to 30 inches long.

A thread tap of today may be up to 6 or 8 inches. This required manufacture of thread taps to cut new threads.

Next problem, there are now 5 sizes of stay bolt, from 1 inch to 1 ¼ inch diameter. In a steam locomotive boiler, this is quite common.

At original locomotive manufacture, all stay bolts begin the same size. As time goes on, stay bolts corrode and erode from water flow. They must be replaced. Each time they are replaced, the standard

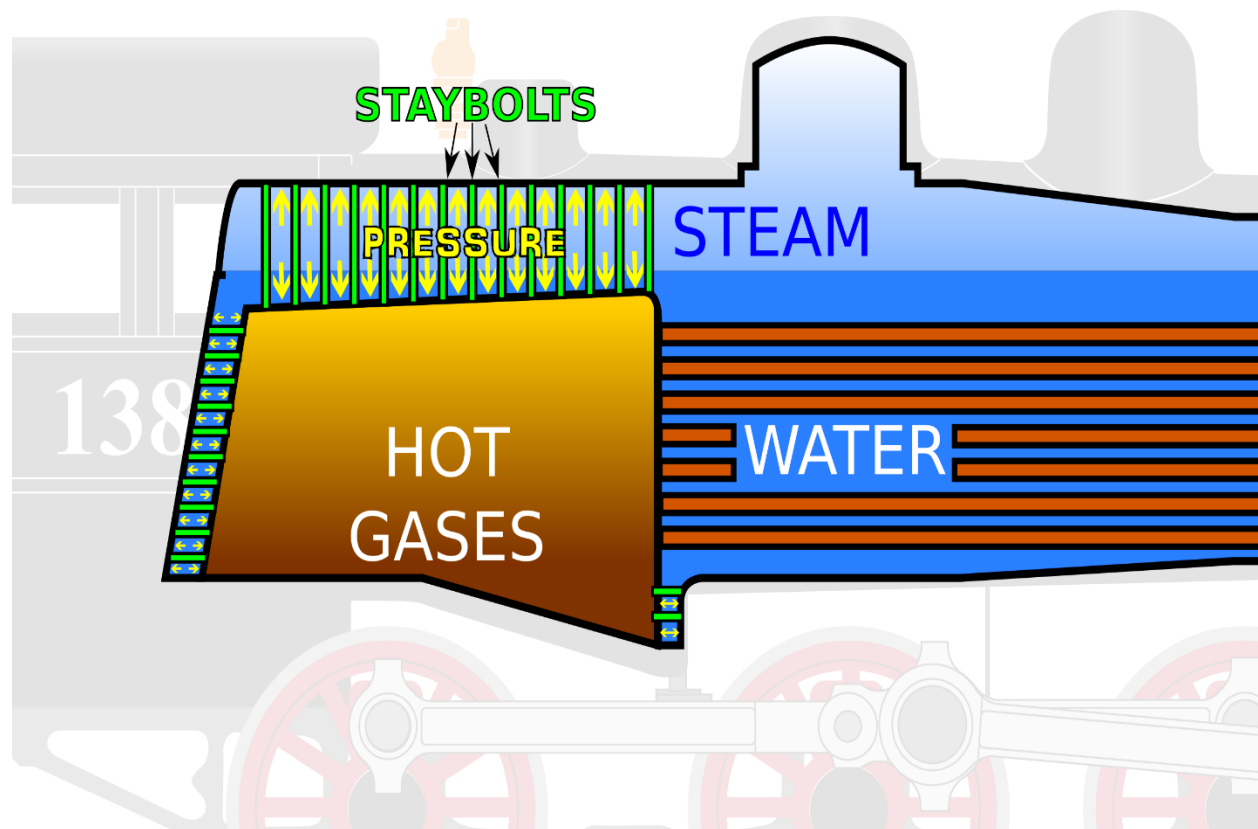
of the day was to increase the diameter by one size. The 6060 locomotive has had many stay bolts replaced. Over time, these 5 different thread tap sizes have evolved.

Levy's Machine Works Ltd. in Calgary (<http://www.levysmachineworks.com>) assisted to manufacture required thread taps.

Actual drilling and tapping the boiler continues to use local boiler repair company (df Boiler Tube Industries, Edmonton <https://dfboilertube.com>). RMRS will continue to support the Alberta economy.

Once these holes are drilled and tapped, stay bolts can be replaced, another step toward repair.

Next step, repair of throttle and reinstallation of superheater tubes. Additional money will be required for these next stages of repair.



We realize in the current economy it will be difficult to complete the project.

We are maintaining use of local suppliers to provide jobs for Albertans and demonstrate our commitment to support local economy. It is incumbent on all Albertans and Canadians to do what they can in this time of economic need.

We hope that this small gesture will lead to other non-profit groups to look at their plans and encourage them to continue their missions. For more information on the Rocky Mountain Rail Society and locomotive 6060, please see our webpage at <https://6060.org>

We appreciate any and all donations for next stages of repair. To make a donation, see the website at <https://6060.org/donate>

If you have questions, you may send an email to info@6060.org

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