## 1.6" scale Kozo Hiraoka 2-truck Shay and riding flat car for sale! \$4,500 or best Offer



This wonderful 7-1/2" gauge 2-truck shay was scaled up to 1.6" scale from the ¾" scale plans published in Kozo Hiraoka's excellent book. Built by Ben Benda, an accomplished machinist, who managed shops for prototype steam engines at Texas State Railroad and at the Grapevine Vintage Railroad. He was given assistance by Vance Nickerson, a noted prototype engineer and live steam enthusiast. The actual Kozo book, with all of Ben's dimensions and notations used to build this locomotive will accompany the shay. It also comes with a running roller stand, so the engine can be run in the shop.

Unfortunately, Ben passed away earlier this year, but gifted it to the Texas Western Model Railroad Club, a 501(c)3 non-profit, located in Forest Hill, Texas, located on the southern edge of Fort Worth. Ben had been a member of the Texas Western in the past and donated the engine for us to use as a fund raiser. We model in HO scale, so have brought in some local live steam experts, Stephen Balkum and Carroll Enders, to look the engine over and assess the condition. We are selling this as a fund raiser and will not be doing any repairs ourselves, as we are not qualified, nor have the funds. The engine is for sale on a "as is" and "where is" basis only. Cosmetically, it is in good condition with the most obvious being the paint on the boiler lagging.

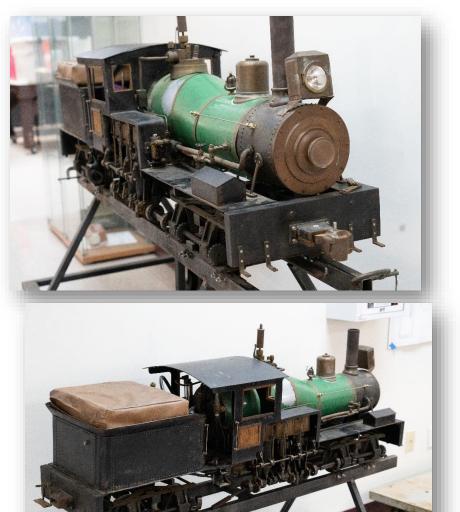
Stephen and Carroll, inspected the engine from top to bottom and determined that it has not been run in a while; no doubt due to Ben's health issues. All valves and levers on the backhead were turned and worked properly; a couple of small air leaks at the control valves were eliminated. It has a steel boiler with steel flues. Front and rear flue sheets appear to be in very good condition. This engine is propane powered and the burner was inspected and found to be in very good condition. The regulator for the

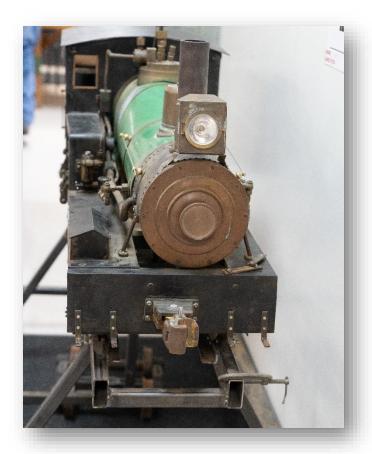
propane tank is included. Overall condition and appearance is good, considering that it is estimated to be a 20+ years old build; which isn't old for steam locomotives.

The not-so-great news is that it needs an overhaul by a competent machinist and enthusiast, due to general wear of parts and some issues with condition of the engine cylinders and running gear. While a hydrostatic test was not done, the engine was pressurized with 125# of air, and the throttle was opened to run. There is apparently a bind in the running gear that prohibits full rotations of the drive shaft; it can be turned manually, but there is definitely a bind which will need resolving. The steam chests on the three cylinders all have air leaks and will need to have new gaskets installed. All glands need to be repacked. Some of the valve gear has significant play and is likely the cause of the bind. The whistle sings perfectly on air. One safety valve opened properly at 110# of air. The second pop-off did not open at 125# of air.

This will make someone an excellent engine for a small home layout. It will make it seem larger due to the inherent slow speeds of shay and geared locomotives. Or perhaps it could work a particularly difficult section of a larger layout where logging is represented and pulling power is needed. This is still a very nice small locomotive, but needs some general maintenance to put it back in working order. The Texas Western Model RR Club will benefit and, like every non-profit, always needs the funds for operations. Please visit us at twrmc.org to see more.

Click here to see a video of the shay, and drive issues located in a Dropbox file.





Inquiries and offers should be sent to:
Darrell Cowles
Chief Operating Officer
Texas Western Model Railroad Club
a 501(c)3 non-profit organization
coo@twmrc.org
817-475-9282, leave a voice message or text.