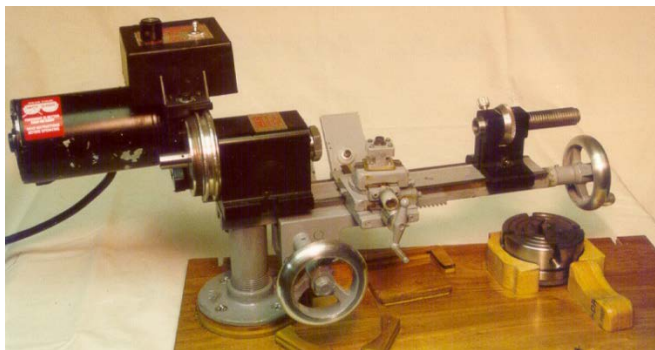


Compact Workshop 4—Portable Workshop in a Tool Box/R.W. Markgraf

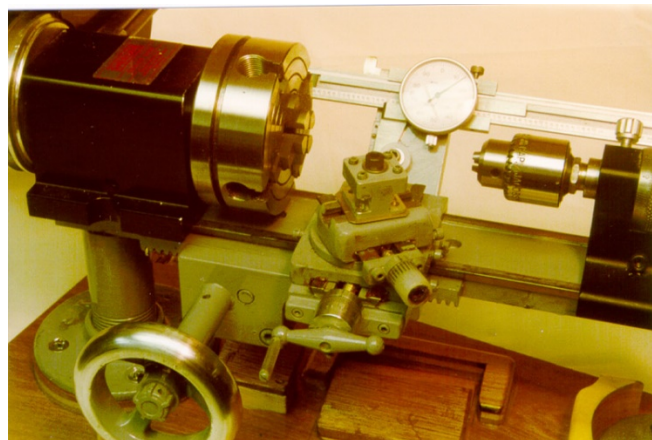
Robert Markgraf of Roslyn, PA bought a Sherline mill and several accessories including the P/N 3200 indexing attachment. When he took it out of the box, he thought he had received a small lathe by mistake. After looking the accessory over, he decided that he could make it into a small jeweler's or watchmaker's type lathe with the addition of a few parts. He mounted the bed to a pipe column and base and then fitted the motor and speed control from his mill on the left end of the bed. He modified the tailstock to include a through spindle with a left-handed nut and mounted it on the right end. Then he added a rack gear to feed the carriage but also uses a leadscrew and split nuts to engage the carriage. By pulling out the knob on the carriage handwheel hub, the carriage can be controlled from the tailstock end. He also made a hinged T-rest for hand turning and mounted a dial indicator to show carriage movement.

What is most interesting about the project is how he packaged the lathe and all its accessories in a relatively small carry-around tool box. The box includes all chucks, drills, measuring tools, gravers and related parts to set up shop anywhere there is electricity. He didn't say what the box weighs, but he sure has packed a lot of utility into a small area. This would be a great vacation take-along tool setup for those who don't like to leave their shop behind when they travel.

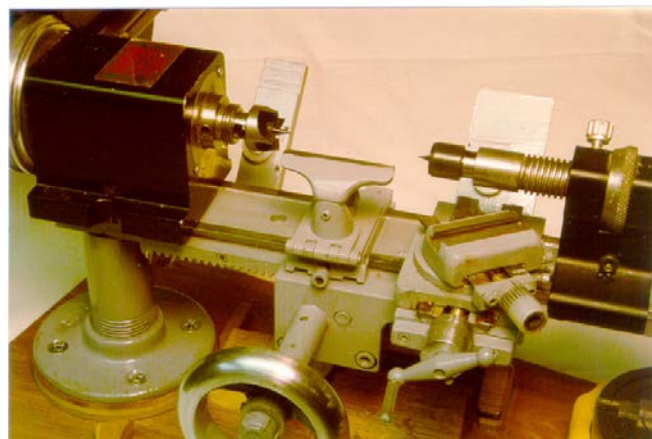


This lathe started life as a Sherline P/N 3200 Indexing Attachment. R.W. Markgraf added a carriage and feed and modified the tailstock. He mounted the motor and speed

control from his mill and set the whole unit on a single post mount like a traditional watchmaker's lathe.



Here the carriage is fitted with a compound slide. In the back you can see the dial caliper mounted to indicate carriage position.



Here the carriage is moved out of the way and a watchmaker's T-rest is fitted. The T-rest is hinged so it can be flipped out of the way for changing parts.

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The lathe comes apart and the tailstock and motor/speed control unit are mounted to the base. The chuck also has a fitted compartment.



The closed tool box gives no hint of what is inside. With this setup you could take your hobby on the road with you just about anywhere there is electrical power to plug in to.



The wooden base with partially disassembled lathe is set in the tool box. Other components like a drill index, measuring tools and accessories are fitted into the compartments around the sides.



A tray containing more tools and accessories is set over the top and the box is closed up. This puts a lot of function in a very small package.