



Registration No.	Number 00075		
Registration Date	September 27, 2011	Registration Category	Category 2

Name (Model, etc.)	【 Bourdon tube pressure gauge making machine 】 (1)Anvil and Hammer (2)A three-roller type bourdon tube-making machine
Location	Ueda City, Nagano Pref NAGANO KEIKI CO.,LTD. Nagano Keiki Technical Solutions Center
Owner (Custodian)	NAGANO KEIKI CO.,LTD.
Manufacturer (Company)	(1)Wada Keiki Seisakusyo (2)Tokyo Keiki Seisakusyo
Year Manufactured	(1)1896 (2)1914
Reason For Selection	(1) The entrepreneur Wada Yoshihira used this anvil and hammer to make the first bourdon tube pressure gauge produced in Japan. There was almost no information about bourdon tubes (a tube that is displaced slightly depending on the size of pressure added). Faced with this situation, Wada collected information by walking around and visiting factories and shipping yards. In particular, he talked to decorative artisans and smithies. He made continued trial and errors, encountered many hurdles. Above all, the creep phenomenon was a major one. Wada was able to overcome this phenomenon by beating the material with a hammer, and he tried out other methods such as changing the area he hammered and changing the force of the blows with the hammer. In this way he finally succeeded in making the first bourdon tube in Japan. This exhibit is valuable because it shows the instruments that Wada continued to use while he was trying to create a bourdon tube. (2) Wada established Wada Keiki Seisakusyo, and he developed this bourdon-making machine so that he could use machine equipment to make bourdon tubes. Until this machine was developed, bourdon tubes had to be made manually with a hammer and anvil. By introducing machinery, Wada was able to stabilize product quality, and this exhibit gives us a picture of the era and history of the development of the bourdon tube in Japan.
Registration Standard	1 - A

Open/Closed to Public	Open to Public	
Photo	 	<p>(2)A three-roller type bourdon tube-making machine</p> <p>(1)Anvil and Hammer</p>
Other useful information		