Name 1	STEAM DRIVEN ORE TRANSPORTER
Name 2	/
ID number	002.112.Idrija
Manager / Administrator	Idrija Municipal Museum, Prelovčeva 9, SI-5280 Idrija
Ownership	Public
Owner	Municipality of Idrija, Mestni trg 1, SI-5280 Idrija
Local / Original ID Number	510:IDR;RS-28
Type of Object	Mine, Transport - shafts

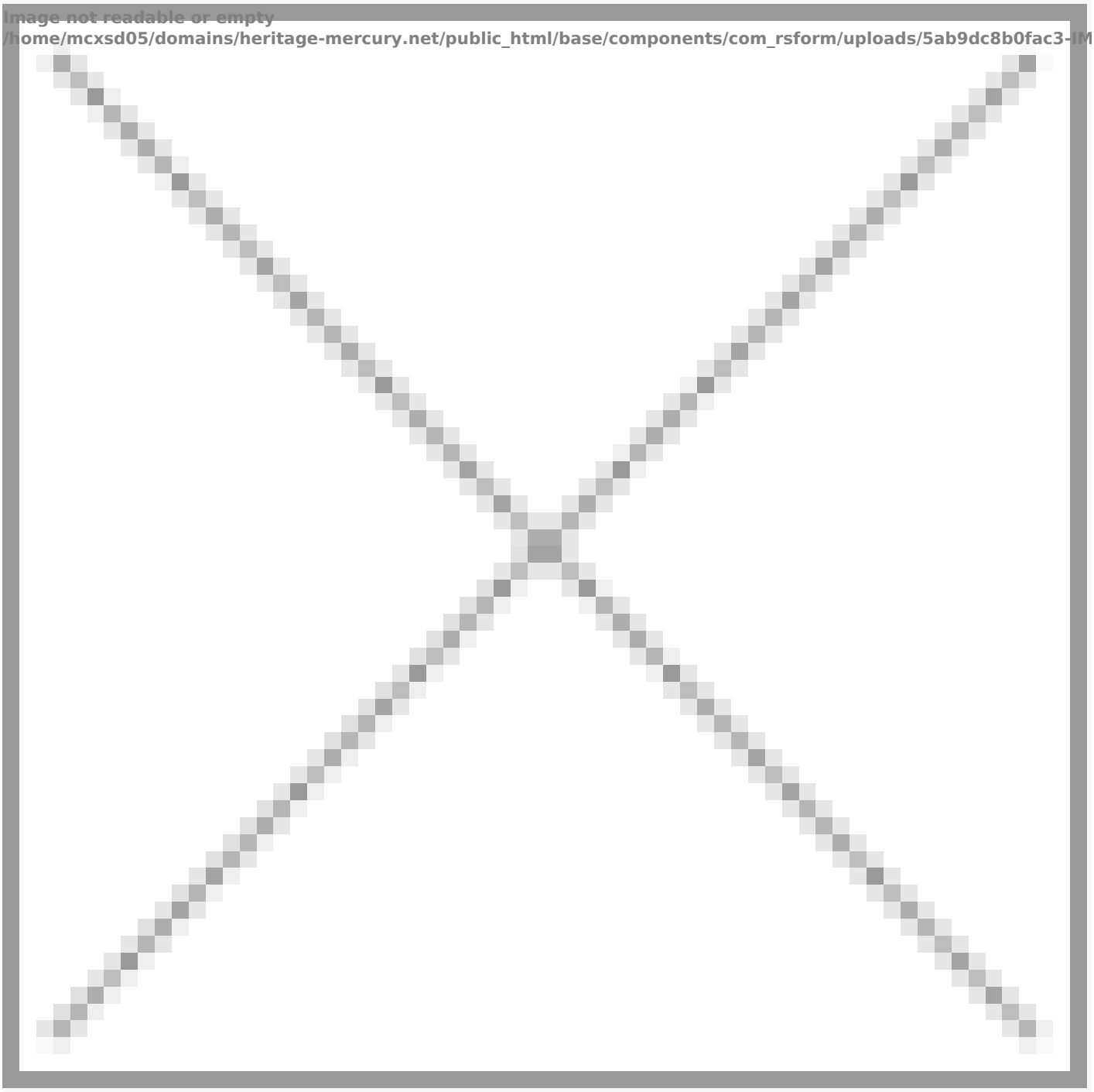
DESCRIPTION

Short description	The compound steam piston machine has two horizontal cylinders. The pistons power the crankshaft with a small cogwheel mounted on – a pinion with 47 cogs, which is connected with a bigger cogwheel with 188 cogs, therefore the gear is i = 4. The bigger cogwheel is mounted on the shaft of the coiling drums. The machine has a jaw brake and depth scale, which has two screws with nuts (not original). The screws' drive is performed for each cage individually, directly from the drive shaft. The machine has the following characteristics: high pressure cylinder diameter is 36 cm, low pressure cylinder diameter is 50 cm, the piston movement is 65cm and the diameter of the coiling drums is 300 cm.

Measures	Length 780 cm, width 390 cm, height 325 cm.
Materials	Cast iron, steel.
Dating	1890
Author / Producer	Breitfeld, Daněk & Co. Prag

Picture attachments

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Original use	In 1890, the Idrija Mercury Mine bought the Compound export steam machine for ore transport, which was installed between 1890 and 1892 and was used in the Joseph’s Shaft. In the same year, the Mine also bought a new export machine for the needs of the Inzaghi Shaft. The machine’s steam control was performed with the Rieder system and the oversteering was performed with the Gooch system. Therefore in a similar manner as in steam locomotives in the past. The depth scale showed the engineer the position of the cage in the shaft. Due to the cast pointed cogs, the small and the big machine’s cogwheels were technically very demanding and advanced products of that time. During operation its power was 55.93 kW (75 HP). The machine’s maximum speed was 6 m/s and its maximum capacity is 125 tons of ore in 8 hours.
Present use	The described machine is being preserved, secured and presented as important monument of Idrija technical mining heritage with exceptional universal values. Especially the cogs of both cogwheels of the export steam machine represent the valuable specialty, since they can practically no longer be seen anywhere else today. The machine is part of the Idrija Municipal Museum collection “Mining machines and devices”. Among other things, the collection enables an insight into the development of the vertical transport in the Mine from its pioneering beginnings on – from manual to modern export machinery with an asynchronous drive motor. For this reason it represents technical heritage which greatly exceeds the Idrija Mercury Mine framework and is therefore of a larger, global importance.
Original location	Joseph’s Shaft.
Present location	Francis’ Shaft building (canopy).

STATE OF CONSERVATION

History of conservation:	During the restoration process in 2002 and 2003, all parts of the machine were disassembled. The surfaces were cleaned with a sandblasting process and protected with foundation and top paint. Therefore, no additional interventions are necessary. Security of the premises is ensured.
Present state	good
Necessary activities:	Regular seasonal maintenance.

DOCUMENTATION

Addresses / collections / links etc. where further in-depth information is accessible:	- Inventory Book of the Idrija Municipal Museum; - Historical Archives of Ljubljana, Unit in Idrija, plan collection, drawers no. B9; - Zelenc, Anton. In vendar se giblje: katalog rudniških strojev in naprav. Idrija, Idrija Municipal Museum, 2001; - Zelenc, Anton. Restavrirani stroji in naprave Rudnika živega srebra Idrija. Ruda: revija Združenja za ohranjanje rudarske dediščine Slovenije, 1-2/2013, p. 16–20; - Zelenc, Anton. Idrija Municipal Museum: restored mine machines and devices of the Idrija Mercury Mine. Patrimoine de l´industrie, 2004, p. 17–19.
Submitted	Mestni muzej Idrija
Submitted by	Miha Kosmač
Date Submitted	3. 3. 2018

Date Edited	Never