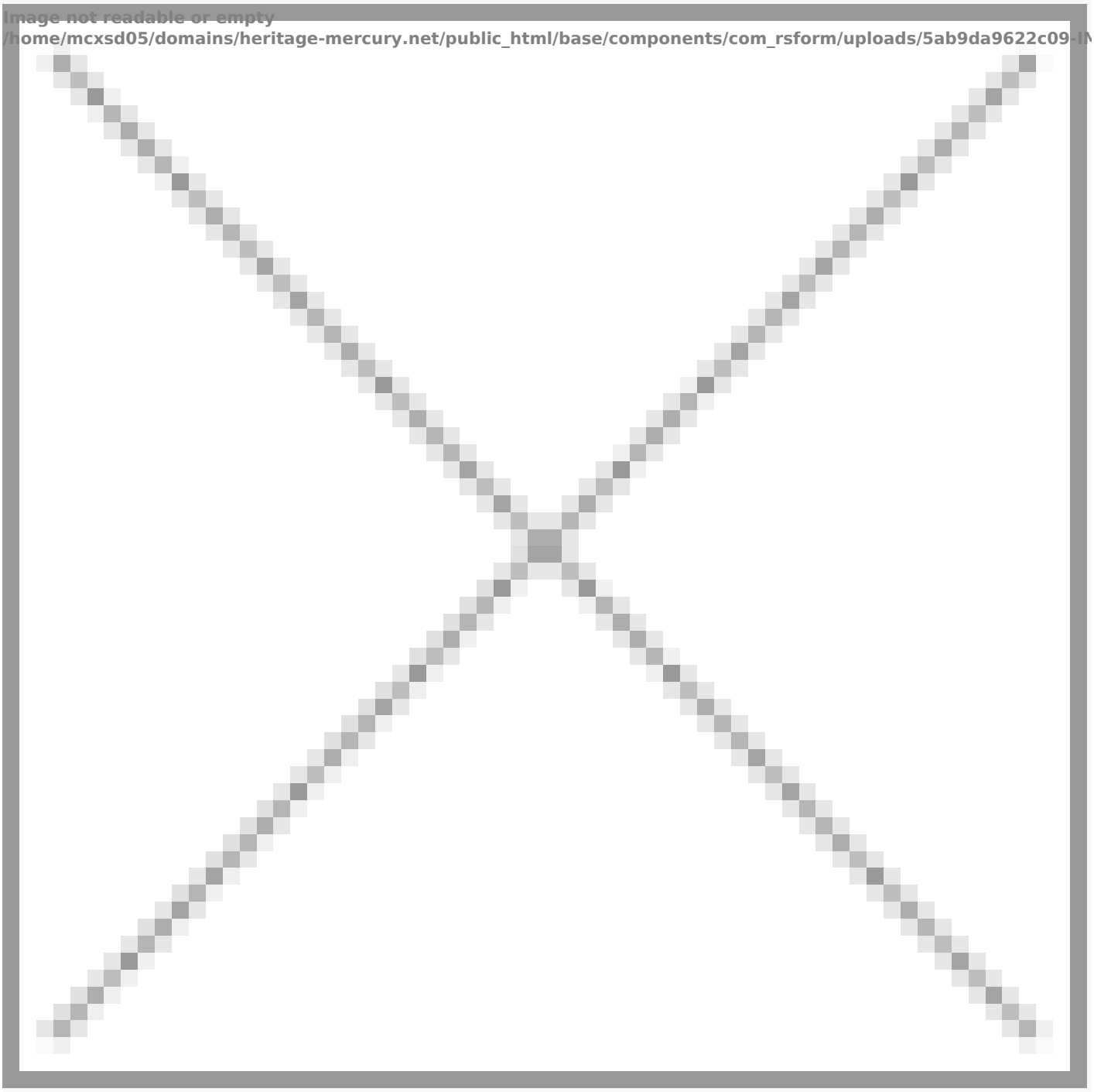
Name 1	COMPRESSOR WITH THREE STAGE ELECTRIC MOTOR
Name 2	/
ID number	002.113.Idrija
Manager / Administrator	Idrija Municipal Museum, Prelovčeva 9, SI-5280 Idrija
Ownership	Public
Owner	Municipality of Idrija, Mestni trg 1, SI-5280 Idrija
Local / Original ID Number	510:IDR;RS-5
Type of Object	Mine

DESCRIPTION

Short description	Stable two stage twin cylinder vertical compressor for transport and gas compression consists of the flywheel, crankshaft, connecting rod, piston and cylinder, suction and pressure pipeline and air boiler (volume 12 m3). The maximum pressure of the compressor during operation is 8.1 bar (8 atm), the actual pressure is 7.09 bar (7 atm) and the capacity is 12 m3/min of vacuumed air. The number of rotation is 250 RPM/min. The three stage electric motor has the following characteristics: power 74.57 kW (100 HP), number of rotation 980 PRM, voltage 2,500 V, frequency 50 Hz, current 20.8 A.
Measures	Length 203.5 cm, width 230 cm, height 279 cm.

Materials	Cast iron, brass, glass, steel.
Dating	1917
Author / Producer	Breitfeld, Danek & Co. Prag.

Picture attachments



Original use	The described compressor was powered by a three stage electric motor, made by the Bartelmus–Donat factory in 1917. It is therefore important, because it was the first compressor that was not powered by steam. At the same time, it represented the beginning of implementing the use of compressed air to power the drilling hammers in the pit. Within the modernisation in 1914, the mining administration decided to set the compressor station on the IV. horizon (183 m under the surface) of the north-west pit. This station powered 15 drilling machines on compressed air. The described compressor with the drive electric motor and the air boiler were placed in a special room. Due to high costs, the described compressor was eliminated in 1961. Then, it was displayed in the castle’s courtyard until spring 1990.
Present use	The described compressor is being preserved, secured and presented as an important monument of Idrija technical mining heritage with exceptional universal values. It is a part of the Idrija Municipal Museum collection “Mining machines and devices”. Along with other compressors from the Austria period, which are already displayed in the Francis’ Shaft building, this compressor also marks the period of the technological mercury exploitation process renovation in the Idrija Mercury Mine. It also represents the technological development of the first compressors that were no longer powered with steam. The compressor is being commendably restored, all the pistons have piston rings, so that the rotation of the flywheel can present the principle of operation. The rotation of the displayed crankshaft and the movement of the connecting rods can be observed through the glass, which is installed instead of the missing steel cover.
Original location	Mine’s compressor station.
Present location	Francis’ Shaft building (showroom 1).

STATE OF CONSERVATION

History of conservation:	The compressor was restored between 1990 and 1992. It was completely disassembled, surfaces of individual parts were cleaned with sandblasting process, reassembled and painted with foundation and top paint. Lights and electrical wiring were installed by Ivan Ogrič, the Idrija Mercury Mine electrician. The air boiler is not the original one from 1917. Additional interventions are not 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; - 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