

The Blast Furnace Works of the Gutehoffnungshütte Steel Plant (1917)

Abstract

Gutehoffnungshütte, Aktienverein für Bergbau und Hüttenbetrieb (GHH for short) was one of the largest mining and engineering companies in the Ruhr region, based in Oberhausen, with a history dating back to the eighteenth century. During the industrialization of Germany in the nineteenth century, the company played an important role by manufacturing steam engines and locomotives, railroad tracks, and bridges, among other things. From the nineteenth until well into the twentieth century, the Haniel family held the majority of the company's shares. This documentary film from 1917, produced by the Deutsche Lichtbild-Gesellschaft (Deulig), shows the GHH iron foundry, blast furnaces, and steelworks, giving an impression of the enormous productivity of Germany's heavy industry at a time when it was the backbone of the war economy. Deulig was founded in 1916 on the initiative of industrialists from the Rhineland, notably the Krupp magnate and ultra-nationalist Alfred Hugenberg. The goal of Deulig, as part of the larger turn towards wartime propaganda in late 1916, was to produce films that would showcase the capacity and power of German industry, both domestically and in neutral countries. Note the vast scope of the industrial area; in 1917, the GHH had over 40,000 employees. The large number of smokestacks (venting the coal-fired machinery) are clearly impacting air quality, with the century-old church in the background barely visible through the smoke. Note also the lack of safety features (such as exposed piston arms and a lack of guardrails): industrial accidents that maimed or killed were very frequent.

Source

1. Intertitle: charging the blast furnaces. Coke, ore and fluxes are delivered to the furnace throat in tubs by means of an inclined elevator. The control system for the electric drive of the inclined elevator
2. Intertitle: The Eisenhütte-Oberhausen I blast furnace plant with the older blast furnaces 1-5. Coke, ore and fluxes are fed into the blast furnace throat in small trolleys by vertical steam hoists.
3. Intertitle: The Eisenhütte-Oberhausen I blast furnace plant with blast furnaces 6-9 of the latest design. Charging by inclined elevator and bucket.
4. Intertitle: Blower power station with 4 gas blowers with a combined output of 12,000 hp.
5. Intertitle: Casting bay for blast furnaces 6-9. After being crushed, the special pig iron cast in sand beds is lifted out of the sand by an overhead crane using load magnets and loaded into railway wagons.
6. Intertitle: The Thomas pig iron produced for the manufacture of steel is drained from the tap hole of the blast furnace into mobile ladles. The slag that runs off during the melting process of the iron ore also runs into mobile ladles.
7. Intertitle: After the liquid iron has been drained off, the tap hole of the blast furnace is plugged by the tap hole plugging machine.
8. Intertitle: The ladles filled with molten pig iron are transported by locomotives on standard-gauge tracks to the steelworks. The ladles filled with liquid slag are transported to the slag heap, and the slag is poured out there.

<https://digitaler-lesesaal.bundesarchiv.de/video/5640/639597>

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