

Gliwice Radio Tower as the world's tallest structure built of wood

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The radio tower located in Gliwice is a remarkable phenomenon. Built in 1935, it was one of many other wooden broadcasting towers in Poland; however, these days, it is by no means unique. Not only does it function as one of the most characteristic buildings in Upper Silesia, but it is also a masterpiece of wood engineering.

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{mosloadposition pathway}

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Solid structure

The tower stands on an area of 400 square metres and is 118 metres high, including the eight-metre-high spire on its top. The whole structure is made of impregnated larch wood, particularly resistant to external forces such as pests and severe weather conditions. The wooden framework is assembled using 16 thousand brass screws. In fact, there is not a single nail there since iron would absorb the transmitter's power and cause interference.

Taking into consideration the new and effective methods of wood preservation, it is expected that the radio tower will serve its purpose for at least the next twenty years.

Each year, a team certified to work at heights is accountable for tightening the screws as well as impregnating wood. According to Andrzej Jarczewski, the tower steward, they need about one month and one thousand litres of wood preservatives to paint all the beams.

What is interesting is that the construction work took only five months from building the foundations to finishing works. At that period this could be considered record speed. Today, you can observe the structure on its four platforms, which are respectively 40.4 m, 55.3 m, 80.0 m and 109.7 m above ground level. In order to reach the top level, the size of which is 2.13 square metres, you have to climb up a 365-step ladder.

^ ^ Elzbieta Adamczyk - Fotolia.com ^

Today's significance

Following the decision of the City Council taken in 2004, the radio tower functions at the moment as the Museum on Radio History and Visual Arts. Carrying out dozens of antennas, it is also used for transmitting the signals of mobile phone services and for low power FM-broadcasting.

The Gliwice radio tower attracts crowds every year. It looks particularly attractive at dusk, when it is illuminated by powerful spotlights and, therefore, can be seen from miles away. It is worth mentioning that the use of LED technology, including a computer-controlled set of light-emitting diodes, not only creates a spectacular effect (the possibility of altering the colour and intensity of the light produced), but it is also energy-efficient, environment-friendly, and safe for the wooden construction of the tower.

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Magdalena Kaczor

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GLOSSARY:

built of â□□ zbudowany z

broadcasting tower â□□ wieża nadawcza

wood engineering â□□ budownictwo drewniane

to stand on an area of â□□ zajmować powierzchnię

larch wood â□□ drewno modrzewiowe

resistant to external forces â□□ odporny na działanie czynników zewnętrznych

pest â□□ szkodnik

framework â□□ szkielet, konstrukcja

to assemble â□□ zmontować

brass screw â□□ mosiężna śruba

nail â□□ gwóźdź

wood preservation â□□ konserwacja drewna

certified to work at heights â□□ uprawniony do prac na wysokościach

accountable for â□□ odpowiedzialny za

to tighten the screws â□□ dokręcać śruby

to impregnate wood â□□ impregnować drewno

steward â□□ tu: klucznik

beam â□□ belka

construction work â□□ roboty budowlane

to build the foundations â□□ postawić fundamenty

finishing works â□□ prace wykończeniowe

above ground level â□□ (wysokość) nad powierzchnią Ziemi

at dusk â□□ o zmierzchu

illuminate â□□ oświetlić

spotlight â□□ reflektor

computer-controlled â□□ sterowany komputerowo

to alter â□□ zmieniać

energy-efficient â□□ energooszczędny

environment-friendly â□□ przyjazny środowisku