

## **The World Famous Bells (Myanmar and Russia)**

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### **Abstract**

The World's largest bell is the Tsar Bell III (Tsar-Kolokol) in Moscow. It is called Tsar Kolokol 'III' because it was cast three times, and more metal was added each time. It is a tower bell and made of bronze. The bell is the largest bell in the world, weighing 201,924 kilograms with a height of 6.14 meters and diameter of 6.6 meters and thickness of up to 61 centimeters. It is a master piece of 18<sup>th</sup> century Russian casting technology. The Mingun Bell is a bell located in Mingun, Sagaing Region, Myanmar. Mingun is well known for its huge 90 ton Mingun Bell, the world's largest uncracked and ringing Bell.

### **Introduction**

The history of Russian bell goes back to the 10<sup>th</sup> century, but in the medieval Russian Orthodox Church, bells, were not typically rung to indicate Church service, but to announce important ceremonies, celebrations and as an alarm in case of fire or enemy attack. One of the largest of the early bells was the original Tsar bell, casted in the 16<sup>th</sup> century. However, Tsar Bell was created second time in AD 170, and Tsar Bell was again destroyed by a fire. In AD 1735, Tsar Bell was casted third time. Tsarina Anna I ordered that the pieces be casted into a new bell with its weight increased by another hundred tons. So the Tsar Bell III (Russia) is the largest bell in the world, weighing 201,924 Kilograms. Casting of the Mingun Bell (Myanmar) started in 1808 and was completed in 1810. King Bodawpaya (AD 1782-1819) had this gigantic bell casted to go with his huge stupa, Mingun Pahtodawgyi. The weight of the Mingun bell is 90,718 Kilograms (55,555 viss). It was uncracked and in good ringing condition.

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## **Materials and Methods Premises**

The materials required for this paper have been collected from books and websites on the Internet. Descriptive method has been used in this paper.

### **Discussion**

#### **Tsar Bell (Russia)**

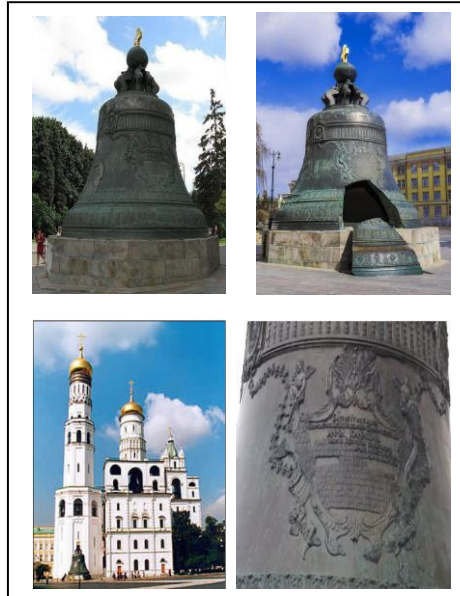
The World's largest bell is the Tsar Bell III (Tsar-Kolokol) in Moscow. It is called Tsar Kolokol 'III' because it was casted three times, and more metal was added each time. The history of Russian bell founding goes back to the 10<sup>th</sup> century, but in the medieval Russian Orthodox Church, bells were not typically rung to indicate Church service but to announce important ceremonies, celebrations and as an alarm in case of fire or enemy attack.

One of the largest of the early bells was the original Tsar Bell, casted in the 16<sup>th</sup> century. The first bell was casted during the reign of Boris Godunov (AD 1586-1605) by Andrey Chokhov, a prominent Russian master bell caster who worked in Moscow more than 40 years. It completed in AD 1600, it weighed 18,000 kilograms and required 24 men to ring its clapper. It is a tower bell and made of bronze. Housed in the original wooden Ivan the Great Bell Tower in the Moscow Kremlin, it crashed in ground in a fire in the mid 17<sup>th</sup> century. After the Tsar Bell was destroyed by a fire, caster Emelian Danilov used its metal along with new materials, to create the second Tsar Kolokol during the reign of Tsar Alexey Michailovich. It was casted in 1655 and weighed 100,000 kilograms (220,000 pounds) but was again destroyed by fire in 1701. Tsarina Anna I commissioned the bell in 1733, fulfilling the dream of her grandfather, Tsar Alexei. After becoming Empress, Anna I ordered the pieces be casted into a new bell with its weight increased by another hundred tons, and dispatched the son of field Marshal Munnicht to Paris to solicit technical help from the master craftsmen there. However, a bell of such size was unprecedented and Munnich was not taken seriously. In 1733 the job was assigned to local foundry masters, Ivan Motorin and his son Mikhail, based on their experience in casting bronze cannon.

A pit 10 meters (33 ft) deep was dug (near the location of the present bell) with a clay form, and walls reinforced with rammed earth to withstand the pressure of the molten metal. Obtaining the necessary metals proved a challenge, for in addition to the parts of the old bell, an additional 525 kilograms of silver and 72 kilograms of gold were added to mixture. After months of preparation, casting work commenced at the end of November 1734. The first attempt was not successful and the project was incomplete when Ivan Motorin died in August 1735. His son Mikhail learned on the work and the second attempt at casting succeeded on November 25, 1735. Ornaments were added as the bell was cooling while raised above the casting pit throughout 1737. The bell is the largest bell in the world, weighing 201,924 kilograms (450,000 pounds) with a height of 6.14 metres (20.1 ft) and diameter of 6.6 meters (22 ft) and thickness of up to 61 centimeters (24 inch). The bell is adorned with nearly life-sized images of Tsar Alexei Romanov and Tsarina Anna Ioannovna, along with plants, sacred images of saints, relief images of baroque angels and two illustrations telling the story of the bell's casting.

However, before the last ornamentation was completed, a major fire broke out the kremlin in May 1737. The fire spread to the temporary wooden support structure for the bell and fearing damage guards threw cold water on it, causing eleven cracks and a huge 11,500 kilograms slab to break off. The fire burned through the wooden to break off. The fire burned through the wooden supports and the damaged bell fell back into its casting pit. The Tsar Bell remained in its pit for almost a century. Unsuccessful attempts to raise it were made in 1792 and 1819. Napoleon Bonaparte, during his occupation of Moscow in 1812, considered

removing it as a trophy of France, but was unable to do so, due to its size and weight. It was finally successfully raised in the summer of 1836 by the French architect Auguste de Montferrand and placed on a stone pedestal. The Tsar Bell is the largest bell in the world and a master piece of 18th century Russian casting technology.



Location	Kermlin, Moscow, Russia
Type	Tower Bell
Material	Bronze
Weight	201,924 kilograms
Height	6.14 meters (21 feet)
Beginning date	1733
Completion date	1737

### **Mingun Bell (Myanmar)**

The Mingun Bell is a bell located in Mingun, Sagaing Region, Myanmar. It is located approximately 11 km north of Mandalay on the Western banks of the Ayeyarwaddy River. Mingun is well known for its huge 90 ton Mingun Bell, the world's largest uncracked and ringing bell. Casting of the bell started in 1808 and was completed in 1810. King Bodawpaya (AD 1782-1819) had this gigantic bell casted to go with his huge stupa, MingunPahtodawgyi. This pagoda was never completed and is now in ruins. The weight of the bell is 55,555 viss (90,718 kilograms). This number is conveniently remembered by many people in Myanmar as a mnemonic "MinHpyuHmanHmanPyaw" with the consonants representing the number 5 in Burmese astronomy and numerology. The weight of the bell and its mnemonic words are written on the surface of the bell in white. The bell was said to have been casted on the opposite side of the river and was transported by using two specially built canals. The canals were then dammed and the bell was lifted by raising the water level by the addition of earth into the blocked canal. In height of the bell is 12.0 feet (3.66 m) on the exterior and 11.5 feet (3.51 m) in the interior. The outside circumference at the rim is 50.75 feet (15.469 m). The bell is 6 to 12 inches (15-30 cm) thick and stands 20.7 feet (6.31 m) high. The Mingun Bell was knocked off its supports as a result of a large earthquake on 23 March 1839. It was re-suspended by the Irrawaddy Flotilla Company in March 1896 using screw jacks and levers using funds from public subscription. The Mingun Bell is uncracked and in

good ringing condition and it is the second largest bell in the World being one-third of that at Moscow.



Location	Mingun, Sagaing Region
Type	Temple Bell
Material	Bronze
Weight	90,718 kg
Height	20.7 feet
Beginning date	1808
Completion date	1810
Dedicated to	Mingun pagoda

### Conclusion

In conclusion, Russia Tsar Bell (also known as the Tsar Kolokol III) on display on the grounds of the Moscow Kremlin is the heaviest bell known to exist in the world today. However a very large piece broke off from the Tsar Bell during a fire which gulfed the tower the bell was intended to be hung in, so that irreparably damaged bell has never been suspended or rung. Mingun Bell (Myanmar) was uncracked and in good ringing condition. So the World's biggest working bell is broken. At 90 tons, the Mingun Bell reigned as the largest ringing bell in the world until 2000, when it was eclipsed by the 116 ton Bell of Good Luck at the Foquan Temple, Pingdingshan, Henan, China.

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