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**Bonacini**

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(54) **MACHINE FOR FITTING AND REMOVING WHEEL TIRES FOR VEHICLES**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 92 days.

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See application file for complete search history.

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(57) **ABSTRACT**  
A machine for fitting and removing wheel tires for vehicles includes a bearing structure that supports a clamping and rotating device of the wheel rim for vehicles around a substantially vertical rotation axis, at least one tool supported by the bearing structure and suitable for the fitting/removal of a tire onto/from the rim, and a lifting arrangement adapted to position and remove the wheel onto/from the clamping and rotating device. The lifting arrangement includes a first framework that defines a substantially horizontal support surface for the wheel and is associated with the bearing structure and mobile between a lowered position in which it surrounds the clamping and rotating device at least partially and a raised position in which it is substantially higher than the clamping and rotating device, a second framework with a resting portion for the wheel and which is associated with and rotates along the bearing structure, and a moving device for the first and second frameworks.

**22 Claims, 4 Drawing Sheets**

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