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Nota di contenuto	Heat treatment -- Study of the Influence of Different Quenching Oils on the Hardness and Microstructure of Carburizing Steels -- Rolling -- The influence of cross-wedge rolling on the microstructure of railway axles made of EA1N steel -- Analysis of the effect of tapered roll geometry on the parameters of the skew rolling process of a railway axle forging -- Additive manufacturing -- Enabling solidification processes of complex shapes using common Additive Manufacturing technologies: Initial experiences -- A Systematic Study of Large Format Additive Manufacturing -- Joining -- Approach to improve the Reproducibility and to decrease the Deformation during Diffusion Bonding of Parts with arbitrary Geometries -- Fatigue -- Fatigue analysis of a cross wedge rolled rail axle -- Fatigue analysis of the material of a railway axle manufactured in a CNC rolling mill -- Assessment of the fatigue performance of forging die steels in corrosive and lubricant media.

Sommario/riassunto

This book gathers selected papers presented at the 2nd International Conference on Engineering Manufacture, held in Porto, Portugal, May 9–10, 2024. The focus is on engineering manufacture and includes works on additive manufacturing, heat treatment, rolling, joining and fatigue. The book provides the state-of-the-art of engineering manufacture and also serves as a reference volume for researchers and graduate students working in the field of technological processes.