

## **Approaches on Rolling Mill Cylinders Manufacturing and Reconditioning Technologies**

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### **ABSTRACT**

The paper presents the mathematical model of an efficient method for manufacturing or reconditioning of the rolling mill cylinder, which ensures a correct squeeze by hydrostatic pressing of the fitting, taking into account the loads deformations and the maximum squeeze decrease in transient thermal field. Finally, a comparative analysis for rolling mill cylinders reconditioning methods is presented. The conclusion is that the reconditioning method with hydrostatic pressed fittings permits a major reducing of the metal consumes coefficient.

**Keywords:** Rolling mill cylinders, pressed assembling, hydrostatic pressed assembling

### **REFERENCES**

1. D. Dragomir, V. Constantin, "About The Friction Connection of Pressed Fittings Under Transient Thermal Field", The 8th International Conference on Sheet Metal, SheMet 2000, Birmingham, United Kingdom, pg. 395-404.
2. D. Dragomir, V. Constantin, "Asamblari Presate – Calcul, Proiectare, Tehnologie" (Pressed Assemblies – Computation, Design, Technology), Evrika Publishing House, 1999, Braila, Romania.
3. D. Dragomir, V. Constantin, "Asupra legaturii cu frecare in asamblarile presate supuse campului termic transitoriu" (About the friction connection of the pressed assemblies in transitory thermal field), TCMM No. 14/1996, Technic Publishing House, Bucuresti, Romania, pg. 83-92.
4. V. Constantin, M. Iordachescu, "Eficienta economica a procedului de reconditionare a cilindrilor de laminar prin fretare hidrostatica" (On rolling mill cylinder reconditioning technology economic efficiency), TMCR'2001 International Conference, Chisinau, Moldavia Republic, pg. 313-316.