Accepted Manuscript

Study on asymmetrical deformation and curvature of heavy cylinder rolling

Jianliang Sun, Yan Peng, Zhikui Dong, Xingming Du

 PII:
 S0020-7403(17)30951-7

 DOI:
 10.1016/j.ijmecsci.2017.09.025

 Reference:
 MS 3936

To appear in: International Journal of Mechanical Sciences

Received date:	14 April 2017
Revised date:	11 August 2017
Accepted date:	14 September 2017

Please cite this article as: Jianliang Sun, Yan Peng, Zhikui Dong, Xingming Du, Study on asymmetrical deformation and curvature of heavy cylinder rolling, *International Journal of Mechanical Sciences* (2017), doi: 10.1016/j.ijmecsci.2017.09.025

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Highlights

- An analytical model consiedered non-uniform normal strain, non-uniform shear strain based on slab method of asymmetrical heavy cylinder rolling
- An analytical bending curvature model to calculate the curvature at the exit of deformation zone of heavy cylinder rolling
- Validation of the models with experimental results
- Investigation of the influence of reduction, speed ratio, friction coefficient ratio, guide roll force on rolling force distribution and bending curvature

Download English Version:

https://daneshyari.com/en/article/5016050

Download Persian Version:

https://daneshyari.com/article/5016050

Daneshyari.com