

Accepted Manuscript

The axisymmetric shrink fit problem subjected to axial force

J.P. Lopes, D.A. Hills, R.J.H. Paynter

PII: S0997-7538(17)30928-2

DOI: [10.1016/j.euromechsol.2018.02.007](https://doi.org/10.1016/j.euromechsol.2018.02.007)

Reference: EJMSOL 3550

To appear in: *European Journal of Mechanics / A Solids*

Received Date: 13 December 2017

Revised Date: 8 February 2018

Accepted Date: 9 February 2018

Please cite this article as: Lopes, J.P., Hills, D.A., Paynter, R.J.H., The axisymmetric shrink fit problem subjected to axial force, *European Journal of Mechanics / A Solids* (2018), doi: 10.1016/j.euromechsol.2018.02.007.

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.



The Axisymmetric Shrink Fit Problem Subjected to Axial Force

J.P. Lopes, D.A. Hills, R.J.H. Paynter

Department of Engineering Science, University of Oxford

Highlights

- A shaft-hub system is assembled under shrink-fit
- The assembly is modelled as a semi-infinite shaft embedded within an elastic half-space
- A bilateral solution is obtained under the assumption of no-slip
- The stress fields are corrected using glide ring dislocations
- The corrected solution is extended to a finite shaft

Download English Version:

<https://daneshyari.com/en/article/7170210>

Download Persian Version:

<https://daneshyari.com/article/7170210>

[Daneshyari.com](https://daneshyari.com)