



Agricultural Journals

Research in

AGRICULTURAL ENGINEERING

[home](#) [page](#) [about us](#) [contact](#)



US

Table of Contents

IN PRESS

RAE 2013

RAE 2012

RAE 2011

RAE 2010

RAE 2009

RAE 2008

RAE 2007

RAE 2006

RAE 2005

RAE 2004

RAE 2003

RAE Home

Editorial

Board

For Authors

- **Authors Declaration**
- **Instruction to Authors**
- **Guide for Authors**
- **Copyright Statement**
- **Submission**

For Reviewers

- **Guide for Reviewers**
- **Reviewers Login**

Subscription

Res. Agr. Eng.

**Chotěborský R., Hrabě P., Müller M., Válek R., Savková J., Jirka M.:
Effect of carbide size**

in hardfacing on abrasive wear

Res. Agr. Eng., 55 (2009): 149-158

Abrasive wear of high alloyed overlay materials with high contents of carbide phases of M_7C_3 depends on the sizes of the carbide particles and on their distribution in an overlay. This work is focused on the study of the carbide particles size effect on abrasive wear. The size of carbide particles of M_7C_3 type, their distribution (part) in the matrix and their effect on abrasive wear were measured. Hardness in single layers, as well as microhardness of the matrix and of carbide particles, were also measured. The abrasive wear resistance was measured using the pin-on-disk machine with bonded abrasive particles. For the study of the chemical composition, the scanning electron microscopy with energy dispersive X-ray analysis (EDX) was used.

Keywords:

abrasive wear; weld deposition; hardness; pin-on-disk; carbides

[[fulltext](#)]

© 2011 Czech Academy of Agricultural
Sciences

XHTML1.1 VALID

CSS VALID