Accepted Manuscript

Drill-exit temperature characteristics in drilling of UD and MD CFRP composites based on infrared thermography

Rao Fu, Zhenyuan Jia, Fuji Wang, Yan Jin, Dan Sun, Lujia Yang, De Cheng

PII: \$0890-6955(18)30409-7

DOI: 10.1016/j.ijmachtools.2018.08.002

Reference: MTM 3365

To appear in: International Journal of Machine Tools and Manufacture

Received Date: 28 March 2018
Revised Date: 1 August 2018
Accepted Date: 6 August 2018

Please cite this article as: R. Fu, Z. Jia, F. Wang, Y. Jin, D. Sun, L. Yang, D. Cheng, Drill-exit temperature characteristics in drilling of UD and MD CFRP composites based on infrared thermography, *International Journal of Machine Tools and Manufacture* (2018), doi: 10.1016/j.ijmachtools.2018.08.002.

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.



ACCEPTED MANUSCRIPT

Drill-exit Temperature Characteristics in Drilling of UD and MD CFRP Composites Based on Infrared Thermography

Rao Fu^{1,2}, Zhenyuan Jia^{1, *}, Fuji Wang¹, Yan Jin², Dan Sun², Lujia Yang³, De Cheng¹,

- 1 Key Laboratory for Precision and Non-traditional Machining Technology of Ministry of Education, School of Mechanical Engineering, Dalian University of Technology, Dalian, 116024, People's Republic of China
- 2 School of Mechanical and Aerospace Engineering, Queen's University Belfast, Belfast, BT9 5AG, United Kingdom
- 3 School of Innovation and Entrepreneurship, Dalian University of Technology, Dalian, 116024, People's Republic of China

Fax: +86 0411 84708550

E-mail: r.fu@qub.ac.uk

E-mail: jzyxy@dlut.edu.cn

E-mail: wfjsll@dlut.edu.cn

E-mail: <u>y.jin@qub.ac.uk</u>

E-mail: d.sun@qub.ac.uk

E-mail: ylj@dlut.edu.cn

E-mail: 496268126@qq.com

*Corresponding author

Rao Fu has a Ph.D. in Mechatronic Engineering from Dalian University of Technology. He is currently a research fellow within the School of Mechanical and Aerospace Engineering, at Queen's University Belfast. His research interests focus on the low-damage drilling CFRP, cutting tool design and machining error propagation with parallel kinematic machine, with a particular focus in aerospace manufacture.

Zhenyuan Jia has a Ph.D. in Mechanical Engineering from Dalian University of Technology. He is currently a professor within the Key Laboratory for Precision and Non-traditional Machining Technology of the Ministry of Education, School of Mechanical Engineering, Dalian University of Technology. His research interests are mainly in theory and technology for high quality and high efficient machining of CFRP composite, precision measurement and control of manufacturing process, numerical control technique, and applications of smart material in sensor and actuator.

Fuji Wang has a Ph.D. in Mechanical Engineering from Dalian University of Technology. He is currently a professor within the Key Laboratory for Precision and Non-traditional Machining Technology of the Ministry of Education, School of Mechanical Engineering, Dalian University of Technology. His research interests include high quality and efficient machining processing of CFRP, high precision numerical control technique, unconventional manufacturing processes.

Yan Jin has a Ph.D. in Mechanical Engineering from Nanyang Technological University Singapore. He is currently a reader within the School of Mechanical and Aerospace Engineering, at Queen's University Belfast.

Download English Version:

https://daneshyari.com/en/article/8942144

Download Persian Version:

https://daneshyari.com/article/8942144

<u>Daneshyari.com</u>