Dear Ms. Jeannine Kaemmler,

I am pleased to inform you that your paper "Surface integrity after internal load oriented multistage contact deep rolling " has been accepted for publication in CIRP Procedia after scientific review. Comments from the reviewers can be found below. Before the proceeding of publication, please revise the manuscript according to the comments and send back to us before April 20th. Please submit revised manuscript both in Word(doc/docx) and PDF formats. Other formats including ‘docm’ will NOT be used by the production team. In the meantime, we also sincerely invite you to give an oral presentation in 20min (15min for presentation and 5 min for Q&A).

If you have any questions, please contact 2018csi@gmail.com.

I am looking forward to welcoming you in Tianjin.

Yours sincerely,
CIRP CSI 2018 Secretariat

Comments

Reviewer 1:
The manuscript in its present form provides new information on the physical cause and effect relationship between the surface treatment by means of multistage deep rolling and the material modification in the subsurface layer. One main challenge is the description of the material modification based on characteristic process signatures. Therefore, deep rolling experiments were conducted by means of different process parameters regarding the setting of defined load profiles. Additionally, deep rolling forces were measured experimentally and the residual stress profiles were obtained by means of XRD. The equivalent stress state was analytically determined. The generated results allow one process parameter independent description of the correlation of the maximum equivalent stress and the maximum compressive residual stresses in multistage deep rolling.

The author should try to choose a consistent notation (1000 N – 1,000 N ; fig.1 – figure 1) in the whole manuscript.