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THE PROBLEM OF PREDICTION OF FATIGUE IN THE MANUFACTURE OF PARTS BY CUTTING

A review of the literature on the test methods of data on fatigue and facts mouth-fragmentation of lines of fracture of the cutting tool and the workpiece during machining. The analysis of the factors causing fatigue changes in workpiece and tool re-cementitious due to exposure to vibration and shock loads in the machining process, simple method of evaluating performance of fatigue in the design phase-sky technological process of machining without fatigue testing. For example, turning on the processing-defined numeric performance evaluation, illustrating the possibility of manifestation of the cycle and low-cycle fatigue in relation to the workpiece and the cutting instru-cop.

Keywords: *fatigue, eccentricity, stiffness, frequency, cycle, amplitude, the parameter re-benching, storage, tool.*

[1, 2].

1.
1.1.

[3].

[4],

[5]

85

9

$$480 \div 600$$

4 100

$$\frac{200}{= 8 \div 20}$$

25 ÷ 30%.

$$4 \div 5$$

[6].

[7]

39,77 25,15

(),

().

1.2.

... S — N- ,
« 1858 ».
[8].
1963 (1967
[8]).
[9, 10].
[8]

2.
2.1.

[3].

w

$$\sigma_w \approx \pm 0,5\sigma \approx \pm 0,18 \quad 30$$

[7]

[8, 13].

[8]

0,6;

0,25

[5]

3.2.

[16]

[8].

z

Z_{max} Z_{min} c

[16]:

$$Z_{min} = R_z + T + \dots$$

$$Z_{max} = Z_{min} + \dots$$

[8], $\sigma = \dots / W, \dots$

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