

मानक भवन, 9 बहादुरशाह जफर मार्ग नई, दिल्ली-110002 Manak Bhavan ,9 Bahadur Shah Zafar Marg, New Delhi-110002 Phones: 23230131 / 23233375 / 23239402 Website: www.bis.org.in , www.bis.gov.in

# DRAFT INDIAN STANDARD IN WIDE CIRCULATION

Reference : MTD3/T-182

Date : 20 December 2022

### **TECHNICAL COMMITTEE : Mechanical Testing of Metals Sectional Committee, MTD 03**

To,

All concerned

Dear Madam/Sir,

The following document has been prepared by the Mechanical Testing of Metals Sectional Committee Sectional Committee, MTD 03. Please <u>click here</u> to view the document.

### Document Number : MTD 03 (20809) WC

Title of the document : Method of dynamic force calibration of axial load fatigue testing machines by means of a strain gauge technique

Document Type : Revision of Indian Standard (IS 6886 : 1973)

This document has following salient features which may require specific attention for your valuable comments:

1) This revision has been brought out to bring the standard in the latest style and format of the Indian Standards. This standard was prepared in order to unify method of dynamic force calibration of axial load fatigue testing machines by means of a strain gauge technique. Whilst it is relatively simple to carry out a calibration of the forces applied by a fatigue testing machine under static conditions, it is essential to establish that the dynamic forces actually applied to the test piece are those indicated by the machine within acceptable limits of accuracy.

2) As some fatigue machines operate over a range of testing frequencies, the inertia effects of moving parts are not constant but vary. For such machines, a dynamic correction factor may therefore have to be applied to the indicated forces to obtain the force actually effective at the test piece. This factor is a function, for example, of the vibrating mass of the machine, of the test piece stiffness and the operating frequency, and the correction date is customarily supplied by the manufacturer of the testing machine. Thus, the object of fatigue testing machine calibration is to compare indicated forces, multiplied by an appropriate correction factor where applicable, with actual test forces over the operating range of the machine.

3) This standard is particularly concerned with the calibration of axial load machines as the procedures for their calibration are generally more complex. The calibration of rotating bending and torsional fatigue testing machines can usually be satisfied simply by direct measurements of the effective test piece length and by direct verification of the applied force or displacement.

Please examine the document and share your comments regarding further improvement in the document.

### Last date for sharing the comments is : 19 January 2023

The comments should be shared in the prescribed template through this portal only; and the comments so received shall be taken up by the Sectional Committee for necessary action. For any other query, please write an email at mtd@bis.gov.in to the undersigned at Bureau of Indian Standard, Manak Bhawan, 9, Bahadur Shah Zafar Marg, New Delhi.

In case no comments are received, we would presume your approval of the documents. However, in case we receive any comments on the document, the same shall be put up to the Sectional Committee for necessary action.

Thanking You,

Yours faithfully, (SANJIV MAINI) Head (Metallurgical Engineering Department) Email: mtd@bis.gov.in

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## व्यापक परिचालन में मसौदा(दे)

### हमारा सन्दर्भ : MTD3/T-182

दिनांक : 20-12-2022

### तकनीकी समिति : Mechanical Testing of Metals Sectional Committee Sectional Committee, MTD 03

प्राप्तकर्ता : रूचि रखने वाले सभी निकाय

महोदय/या,

निम्नलिखित मसौदा तैयार किया गया है :

प्रलेख संख्या : MTD 03 (20809) WC शीर्षक :

कृपया इस/इन मानक(को)/संसोधन(नो) के मसौदे(दो) का अवलोकन करें और अपनी सम्मतियाँ यह बताते हुए भेजें कि यदि ये मानक(को) के संशोधन(नो) के रूप में प्रकाशित हो तो इन पर अमल करने में आपके व्यवसाय अथवा कारोबार में क्या कठिनाइयां आ सकती हैं।

## सम्मत्तियाँ भेजने की अंतिम तिथि : 19 January 2023

सम्मतियाँ, यदि कोई हों तो, कृपया यहाँ क्लिक करके ऑनलाइन पोर्टल के माध्यम से ऊपर दी गयी अंतिम तिथि तक दर्ज कराएं।

यह/ये प्रलेख भारतीय मानक ब्यूरो की वेबसाइट <u>www.bis.gov.in</u> पर भी उपलब्ध है/हैं।

धन्यवाद |

भवदीय/भवदिया,

विभाग प्रमुख का नाम : SANJIV MAINI (Metallurgical Engineering Department) ई-मेल : mtd@bis.gov.in