5-05-05

International Standard 8306

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Cranes — Overhead travelling cranes and portal bridge cranes — Tolerances for cranes and tracks

Appareils de levage — Ponts roulants et ponts portiques — Tolérances des appareils de levage et des voies de roulement

First edition — 1985-12-15

UDC 621.874/.875 : 621.753.1 **Ref. No. ISO 8306-1985 (E)**

Descriptors : handling equipment, lifting equipment, travelling cranes, dimensional tolerances.

Price based on 7 pages

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 8306 was prepared by Technical Committee ISO/TC 96, *Cranes, lifting appliances and related equipment.*

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

Printed in Switzerland

INTERNATIONAL STANDARD ISO 8306-1985 (E)

Cranes — Overhead travelling cranes and portal bridge cranes — Tolerances for cranes and tracks

1 Scope and field of application

This International Standard specifies the manufacturing tolerances for overhead travelling cranes and, when applicable, for portal bridge and semi-portal bridge cranes (also known as gantry and semi-gantry cranes respectively). These tolerances can be modified, if the same service life and safe operation is achieved by other forms of crane construction.

These tolerances apply at the standard reference temperature of 20 °C.

The design rules in applicable International Standards presuppose that the tolerances specified for cranes and tracks shall be maintained. These tolerances apply to a lifting appliance loaded solely by its own mass. These tolerances take no account of elastic deformation during operation.

2 References

ISO 286, *ISO system for limits and fits.* [1]

ISO 4301/1, *Cranes and lifting appliances — Classification — Part 1: General.*

ISO 4306/1, *Lifting appliances — Vocabulary — Part 1: General.*

3 Measuring procedure

Calibrated steel measuring tapes shall be used, in accordance with the rules for their use. Readings obtained shall be corrected for tape measure sag and for any divergence from the standard reference temperature.

All measurements for one and the same crane shall be made with the same tape measure and the same tension force.

4 Crane tolerances affecting running conditions

4.1 Tolerances, Δs, on the crane span, s, expressed in metres, from specified dimensions shall not exceed the following values (see figure 1):

— for $s \leqslant 10$ m: $\Delta s = \pm 2$ mm

— for $s > 10$ m: $\Delta s = \pm [2 + 0{,}10 \times (s - 10)]$ mm to a maximum of ± 10 mm

4.2 Crane girders, supported at their ends, shall have no sag, even if the original specification did not lay down a camber; i.e. the track of the trolley with unloaded crane shall not deviate downward from the horizontal.

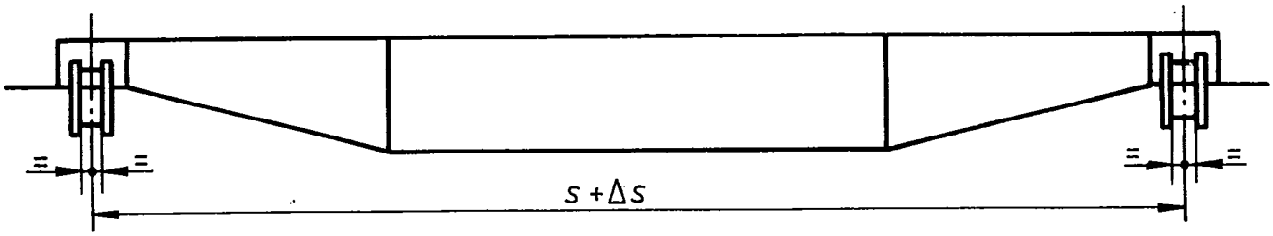

Figure 1

NOTE — For portal bridge cranes with a hinged leg, greater tolerances can be allowed.

1) At present at the stage of draft. (Revision of ISO/R 286-1962.)