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(JSNDI/JSA)

**Confirmation method of
calibration by visual calibration
gauge on magnetic particle and
liquid penetrant testing**

ICS 19.100

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Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard from the Japanese Society for Non-Destructive Inspection (JSNDI)/the Japanese Standards Association (JSA), with a draft of Industrial Standard based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Confirmation method of calibration by visual calibration gauge on magnetic particle and liquid penetrant testing

Introduction This Standard specifies a confirmation method of calibration by visual calibration gauge on liquid penetrant testing (hereafter referred to as “PT”) and magnetic particle testing (hereafter referred to as “MT”).

1 Scope This Standard specifies a confirmation method of visual conditions necessary for observing the formation of indications on PT or MT directly or indirectly by using a visual calibration gauge. This Standard may apply in place of **8.6** (Observation) of **JIS Z 2343-1** or **8.6** (Observation of magnetic particle indication) of **JIS G 0565**.

In addition, the application, details of testing, and evaluation of this Standard shall be agreed upon between the purchaser and the supplier of testing. Furthermore, if visual conditions are specified in any specifications, standards, etc. (hereafter referred to as “specifications, etc.”) beforehand, they may be applied.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS G 0565 *Method for magnetic particle testing of ferromagnetic materials and classification of magnetic particle indication*

JIS Z 2300 *Glossary of terms used in nondestructive testing*

JIS Z 2343-1 *Non-destructive testing—Penetrant testing—Part 1: General principles—Method for liquid penetrant testing and classification of the penetrant indication*

JIS Z 2343-2 *Non-destructive testing—Penetrant testing—Part 2: Testing of penetrant materials*

JIS Z 2343-3 *Non-destructive testing—Penetrant testing—Part 3 : Reference test blocks*

JIS Z 2343-4 *Non-destructive testing—Penetrant testing—Part 4: Equipment*

JIS Z 8721 *Colour specification—Specification according to their three attributes*

3 Definitions For the purposes of this Standard, the definitions shall be in accordance with **JIS Z 2300**, and the following definitions shall apply.

- a) **direct visual testing** The method of direct observation on an examined surface with the naked eye, including the use of optical instruments such as mirrors, magnifiers, etc.
- b) **remote visual testing** The method of indirect observation on an examined surface using image processing devices such as CCD, TV cameras, etc.
- c) **visual calibration gauge** The calibration gauge which is of a transparent plate where line pairs used to confirm the resolution to be required on visual testing are printed with hues equivalent to colours of indications.