TC23

INTERNATIONAL STANDARD

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Agricultural equipment — Animal electronic identification — Code structure

Matériel agricole — Identification électronique des animaux — Structure du code

Reference number
ISO 11784:1994(E)

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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 11784 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 19, *Agricultural electronics*.

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Introduction

Animal electronic identification takes place in the agricultural sector, in particular for farm animals.

In many countries new rules for the identification of farm animals are being prepared, to be able to trace agricultural livestock on the outbreak of diseases and for the finding of residues in slaughter animals. Conventionally animals are identified with a sketch or by means of eartags. To automate animal identification, electronic identification with a transponder is necessary: a small receiver/transmitter which contains a unique code is permanently attached to the animal, with this transponder being activated by an electromagnetic field transmitted by a readout unit, and responding by transmitting its code which is received by the readout unit.

The technical specifications of this equipment will form the subject of a future International Standard in order to guarantee the interchangeability of the transponders and readout units of different manufacturers.

Agricultural equipment — Animal electronic identification — Code structure

1 Scope

This International Standard specifies the structure of the electronic identification code for farm animals.

Electronic identification of animals requires that the bits transmitted by the transponder are interpretable by the readout unit. Usually the bit-stream contains data bits, defining the identification code and a number of bits to ensure correct reception of the data bits.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 3166:1993, *Codes for the representation of names of countries.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 animal code: Bit pattern to identify an animal.

3.2 bit pattern: Sequence of binary digits or bits [0,1].

3.3 country code: Bit pattern to define the country where the tag was issued.

3.4 code field: Group of bits in the identification code with a specific meaning.

3.5 data block: Additional group of bits with a specific meaning.

3.6 flag: Single bit with a specific meaning.

3.7 identification code: Part of the code that is used for identification (control codes such as header, trailer, checksum are excluded).

3.8 national identification code: Code field with a unique number within a country.

3.9 readout unit: Device used to interrogate the transponder.

3.10 transponder: Electronic device which responds to activation by a readout unit with the transmission of its code.

4 Description of code structure

The code in the electronic identification device is split up into a number of code fields, each with its own meaning. The structure of the code shall be as specified in table 1.