



NSAI
Standards

Irish Standard
I.S. EN ISO 16122-2:2015

Agricultural and forestry machinery -
Inspection of sprayers in use - Part 2:
Horizontal boom sprayers (ISO 16122-
2:2015)

I.S. EN ISO 16122-2:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

The National Standards Authority of Ireland (NSAI) produces the following categories of formal documents:

I.S. xxx: Irish Standard — national specification based on the consensus of an expert panel and subject to public consultation.

S.R. xxx: Standard Recommendation — recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

This document replaces/revises/consolidates the NSAI adoption of the document(s) indicated on the CEN/CENELEC cover/Foreword and the following National document(s):

NOTE: The date of any NSAI previous adoption may not match the date of its original CEN/CENELEC document.

This document is based on:

EN ISO 16122-2:2015

Published:

2015-03-18

This document was published under the authority of the NSAI and comes into effect on:

2015-04-06

ICS number:

65.060.40

NOTE: If blank see CEN/CENELEC cover page

NSAI
1 Swift Square,
Northwood, Santry
Dublin 9

T +353 1 807 3800
F +353 1 807 3838
E standards@nsai.ie
W NSAI.ie

Sales:
T +353 1 857 6730
F +353 1 857 6729
W standards.ie

Údarás um Chaighdeáin Náisiúnta na hÉireann

EUROPEAN STANDARD

EN ISO 16122-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2015

ICS 65.060.40

Supersedes EN 13790-1:2003

English Version

Agricultural and forestry machinery - Inspection of sprayers in use - Part 2: Horizontal boom sprayers (ISO 16122-2:2015)

Matériel agricole et forestier - Contrôle des pulvérisateurs en service - Partie 2: Pulvérisateurs à rampe horizontale (ISO 16122-2:2015)

Land- und Forstmaschinen - Kontrolle von in Gebrauch befindlichen Pflanzenschutzgeräten - Teil 2: Geräte mit horizontalem Gestänge (ISO 16122-2:2015)

This European Standard was approved by CEN on 13 September 2014.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

EN ISO 16122-2:2015 (E)

Contents	Page
Foreword	3
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2009/128/EC	4

Foreword

This document (EN ISO 16122-2:2015) has been prepared by Technical Committee ISO/TC 23 "Tractors and machinery for agriculture and forestry" in collaboration with Technical Committee CEN/TC 144 "Tractors and machinery for agriculture and forestry" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by September 2015, and conflicting national standards shall be withdrawn at the latest by September 2015.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 13790-1:2003.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 16122-2:2015 has been approved by CEN as EN ISO 16122-2:2015 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of EU Directive 2009/128/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2009/128/EC Sustainable use of pesticides.

Once this standard is cited in the Official Journal of the European Union under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING: Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.

**INTERNATIONAL
STANDARD**

**ISO
16122-2**

First edition
2015-03-15

**Agricultural and forestry
machinery — Inspection of sprayers in
use —**

**Part 2:
Horizontal boom sprayers**

*Matériel agricole et forestier — Contrôle des pulvérisateurs en
service —*

Partie 2: Pulvérisateurs à rampe horizontale



Reference number
ISO 16122-2:2015(E)

© ISO 2015

ISO 16122-2:2015(E)



COPYRIGHT PROTECTED DOCUMENT

© ISO 2015

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Requirements and method of verification	2
4.1 Leaks and dripping.....	2
4.2 Pump(s).....	2
4.3 Spray mix agitation.....	3
4.4 Spray liquid tank.....	3
4.5 Measuring systems, controls and regulation systems.....	4
4.6 Lines (pipes and hoses).....	6
4.7 Filters.....	6
4.8 Spray boom.....	6
4.9 Nozzles.....	9
4.10 Blower.....	10
4.11 Spray guns and lances.....	10
5 Test methods	11
5.1 Test facilities.....	11
5.2 Spray and agitation pump(s).....	11
5.3 Sprayer's pressure indicators.....	12
5.4 Flow meters for controlling the volume/hectare rate.....	13
5.5 System for controlling forward speed.....	14
5.6 Uniformity of the transverse volume distribution with a horizontal patternator.....	15
5.7 Flow rate of the spray nozzles.....	16
5.8 Pressure drop.....	17
5.9 Pressure variation when the sections are closed.....	17
5.10 Pressure variation when the spray is switched off.....	17
5.11 Pressure distribution.....	17
Bibliography	18

ISO 16122-2:2015(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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2. www.iso.org/directives

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received. www.iso.org/patents

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

ISO 16122-2 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 144, *Tractors and machinery for agriculture and forestry*, in collaboration with ISO Technical Committee TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

ISO 16122 consists of the following parts, under the general title *Agricultural and forestry machinery — Inspection of sprayers in use*:

- *Part 1: General*
- *Part 2: Horizontal boom sprayers*
- *Part 3: Sprayers for bush and tree crops*
- *Part 4: Fixed and semi-mobile sprayers*

Introduction

There are two main reasons for the inspection:

- less potential risk of environmental contamination by plant protection products;
- good control of the pest with the minimum possible input of plant protection product.

In order to use plant protection products in agricultural production safely, it is necessary to define the requirements and test methods for sprayers in use. This is a relevant step after having standardized minimum requirements for new sprayers, in respect of safety hazards (see ISO 4254-6) and potential risks of environmental contamination (see ISO 16119 series).

Standardizing the requirements and methods for inspection of sprayers in use, takes into consideration not only the original performance of the sprayer but also its use, care and maintenance. This is a logical link to ensure the continued benefit arising from the supply of new sprayers of good quality.

The inspection of sprayers in use can be a mandatory requirement or adopted on a voluntary basis. In both cases further requirements, outside the scope of this standard, are necessary for the management of inspections. These include, for example, requirements for the competence of persons carrying out inspections and the frequency of inspections.

NOTE National or local regulations may also apply concerning the qualifications and competence of inspectors.

Agricultural and forestry machinery — Inspection of sprayers in use —

Part 2: Horizontal boom sprayers

1 Scope

This part of ISO 16122, when used together with ISO 16122-1, specifies the requirements and test methods for the inspection of horizontal boom sprayers, when in use.

The requirements relate mainly to the condition of the sprayer with respect to its potential risk for the environment and its performance to achieve good application.

NOTE Requirements for the protection of inspectors during an inspection are given in ISO 16122-1.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5682-2:1997, *Equipment for crop protection — Spraying equipment — Part 2: Test methods for hydraulic sprayers*

ISO 16122-1:2015, *Agricultural and forestry machinery — Inspection of sprayers in use — Part 1: General*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 16122-1 and the following apply.

3.1

horizontal boom sprayer

machine for spraying plant protection products, along a boom or in bands, with a spray generally directed downwards onto/into the target

Note 1 to entry: Characteristics of horizontal boom sprayers are specified in ISO 16122-1:2015, Table A.1.

3.2

plant protection product container

collective name for plant protection product packaging

EXAMPLE Can, bottle, bag, sack, box.

3.3

cleaning device

device for cleaning the inside of empty plant protection product containers

Note 1 to entry: The device may be an integral part of the sprayer or an independent installation (e.g. stationary equipment).

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

-
- [Looking for additional Standards? Visit Intertek Inform Infostore](#)
 - [Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation](#)
-