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

Part 5:
Aerial spray systems

Matériel agricole et forestier — Contrôle des pulvérisateurs en service —

Partie 5: Systèmes aériens de pulvérisation



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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 (see 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 (see 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 voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 6, *Equipment for crop protection*.

A list of all parts in the ISO 16122 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Significant areas are sprayed globally by fixed wing and rotary aircraft in order to overcome serious pest threats to agriculture and forestry. Aerial application is used where difficult terrain or crop (forests) dictate as well as for timely application to large areas in order to maximize efficient use of crop protection products and minimize environmental impact. This document specifies requirements and methods for their inspection in use of such spray systems. Industry stakeholders such as the USA National Agricultural Aviation Association (NAAA) and their partner National Agricultural Aviation Research and Education Fund have provided input to the development.

Agricultural and forestry machines — Inspection of sprayers in use —

Part 5: Aerial spray systems

1 Scope

This document specifies the requirements, test methods and verification of the inspection of aerial fixed wing and rotary aircraft spray systems for agriculture, forestry, turf, and vegetation control in transport access ways (such as gas and electric lines), with regard to minimizing the potential risk of environmental contamination during use.

This document applies only to manned aerial aircraft. It does not cover aircraft safety and design criteria for air worthiness, aircraft registration, pilot or operator requirements, all of which are specified separately by countries or regions.

This document relates mainly to the condition of the equipment with respect to its potential risk for the environment and its performance to achieve good applications.

The general requirements of ISO 16122-1 apply where appropriate, including for the protection of inspectors during an inspection.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5681, *Equipment for crop protection — Vocabulary*

ISO 5682-1:2017, *Equipment for crop protection — Spraying equipment — Part 1: Test methods for sprayer nozzles*

ISO 5682-2:2017, *Equipment for crop protection — Spraying equipment — Part 2: Test methods to assess the horizontal transverse distribution 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 5681 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

fixed wing aircraft

aircraft with fixed wings approved by local or national authority and equipped for the application of plant protection products and fertilizers, on crops, including forestry and grasslands