ISO 16122-3:2024-12 (E)

Agricultural and forestry machinery - Inspection of sprayers in use - Part 3: Sprayers for bush and tree crops

Contents

Page

Foreword ..... **v**

Introduction ..... **vii**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Requirements and method of verification **1**

4.1 General 1
4.2 Leaks and dripping 2
4.2.1 Static leaks 2
4.2.2 Dynamic leaks 2
4.2.3 Spraying and dripping on parts 2
4.3 Pump(s) 2
4.3.1 Capacity 2
4.3.2 Pulsations 3
4.3.3 Air chamber 3
4.4 Spray mix agitation 3
4.4.1 Hydraulic 3
4.4.2 Mechanical 3
4.5 Spray tank(s) 3
4.5.1 Lid 3
4.5.2 Tank filling strainer 4
4.5.3 Pressure compensation 4
4.5.4 Tank content indicator(s) 4
4.5.5 Tank emptying 4
4.5.6 Tank filling 4
4.5.7 Induction hopper 4
4.5.8 Cleaning device for plant protection product containers 4
4.5.9 Cleaning equipment 5
4.6 Measuring systems, controls and regulation systems 5
4.6.1 General 5
4.6.2 Pressure indicator for spray liquid 5
4.6.3 Other measuring devices 6
4.6.4 Pressure adjusting devices 6
4.6.5 Pressure drop 6
4.6.6 Spray boom section pressure equalizer 6
4.7 Lines (pipes and hoses) 6
4.7.1 Lines 6
4.8 Filters 6
4.8.1 Filter presence 6
4.8.2 Isolating device 7
4.8.3 Filter insert changeability 7
4.9 Nozzles 7
4.9.1 Nozzle arrangement 7
4.9.2 Dripping 7
4.9.3 Switching off 7
4.9.4 Adjustment 7
4.10 Distribution of pressure and spray liquid flow 7
4.10.1 Distribution of spray liquid 7

4.11 Blower 8
4.11.1 Condition 8
4.11.2 Adjustability 8
4.12 Spray guns and lances (if present) 9
4.12.1 Trigger 9
4.12.2 Adjustment of flow rate and angle 9
5 Test methods 9
5.1 Test facilities and equipment 9
5.1.1 General 9
5.1.2 Test facilities 9
5.2 Pumps 9
5.2.1 Pump capacity test 9
5.2.2 Pump pulsations 10
5.3 Sprayer's pressure indicators 10
5.3.1 Specification of pressure indicators used for verification 10
5.3.2 Verification method of the sprayer pressure indicator 10
5.4 Flow meters for controlling the volume/area rate 10
5.4.1 General 10
5.4.2 Operating procedure No. 1: Verification by nozzle flow rate measurement 11
5.4.3 Operating Procedure No. 2: Verification by installing a calibrated flow meter in the circuit of the sprayer 11
5.5 System for controlling forward speed 12
5.6 Flow rate of the spray nozzles 12
5.6.1 General 12
5.6.2 Measurement with nozzles fitted on the sprayer 13
5.6.3 Measurement with nozzles removed from the sprayer 13
5.6.4 Measurement on spray gun / lance 13
5.7 Pressure drop 13
5.8 Pressure variation when the spray is switched off 13
5.9 Pressure distribution 13
Bibliography 15