Chinastandards.org

ICS 65.060.50
CCS B 91

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

chinastandards.org - PREVIEW

GB/T 21397-2023

Replacing GB/T 21397-2008

Cotton harvesters

棉花收获机

Issued on: November 27, 2023 **Implemented on: June 1, 2024**

Issued by: State Administration for Market Regulation;
Standardization Administration of China

Preview: page 1 of 5 shown, 40 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-21397-2023

Table of Contents

chinastandards.org · PREVIEW

Foreword

This document complies with the provisions of GB/T 1:1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents" Drafting: This document replaces GB/T 21397-2008 "Cotton Harvester": Compared with GB/T 21397-2008, except for structural adjustment and editing In addition to the modifications, the main technical changes are as follows:

a) Three terms and definitions are deleted, namely cracked bolls, remaining cotton, and impurity content (see 3:4, 3:9, and 3:11 of the:2008 edition);

b) Five terms and definitions have been changed, namely, lint cotton, defoliation rate, natural fallen cotton, hanging branch cotton, and bumped cotton (see 3:3, 3:5, 3:6, 3:8, 3:10,:2008 version 3:1, 3:6~3:8, 3:10);

c) Added cotton harvester, missing cotton, seed cotton impurity content, self-propelled cotton harvester, cotton picking device, cotton collection device, packaging device, Terms and definitions of box-type cotton harvester, baling cotton harvester, qualified cotton bales, bale yield, and bale density (see 3:1, 3:9, 3:11~3:20);

d) The operating conditions have been changed (see 4:1, 4:2 of the:2008 edition);

e) The operation performance indicators have been changed (see Table 1, Table 1 of the:2008 version);

f) Changed the reliability index (see 4:3, 4:4 of the:2008 version);

g) Changed safety requirements (see 4:4, 4:5 of the:2008 version);

h) Added environmental protection requirements and test methods (see 4:5 and 5:5);

i) The relevant requirements for diesel engines, cotton picking devices, hydraulic systems, lubrication systems, and electrical information systems have been changed (see 4:6:1~4:6:5, 2008 version 4:6:1~4:6:5);

j) Added relevant requirements for cotton collection devices, packaging devices, cotton bales, and number plate holders (see 4:6:6~4:6:9);

Preview: page 2 of 5 shown, 40 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-21397-2023

k) Changed the requirements for cotton removal performance (see 4:6:6:3, 4:7 of the:2008 edition);

l) Appearance requirements have been changed (see 4:7, 4:8 of the:2008 version);

m) The length of the measurement area has been changed (see 5:3:1:3, 5:3:3:1, 5:3:1:3, 5:3:3:1 of the:2008 version), and the measurement of operation performance indicators has been changed: Requirements for medium operating speed and seed cotton impurity content determination (see 5:3:3:1, 5:3:3:3, 5:3:3:1, 5:3:3:3 of the:2008 edition), added The requirements for the determination of the added value of moisture content of seed cotton, the determination of cotton bale density and the determination of bale yield (see 5:3:3:4~5:3:3:6);

1 Scope

China's national standard for cotton harvesters. It defines the terms and definitions, specifies the technical requirements, the inspection rules and the marking, packaging, transport and storage, and describes the corresponding test methods. It applies to spindle-type drum cotton pickers, and other types of cotton harvester may refer to it. Mechanical cotton harvesting is what turned Xinjiang into the largest cotton-producing region in the world, and the spindle picker is the machine that did it. It works by a principle unlike any other harvester: rotating drums carry hundreds of barbed spindles that turn as they pass through the plant, wrap the seed cotton out of the open boll and pull it free, leaving the burr, the leaf and the unopened bolls on the plant. Nothing is cut. The cotton is then stripped from the spindles by counter-rotating doffers, carried by air to the basket and compacted. The consequence of that mechanism is that the machine is judged on two numbers that pull against each other. The picking rate is how much of the open cotton it takes off the plant; the trash content is how much leaf, bark and stalk comes with it. Running the spindles harder raises the first and worsens the second, and trash cannot be fully removed at the gin without damaging the fibre. So the standard specifies both as performance requirements, together with the loss and the damage to the fibre, and covers the spindle, doffer and moistening system on which they depend, the air handling and the basket, the field capacity, the reliability, and the safety requirements - which matter because the machine is large, works in dry vegetation, and has a history of fires. Issued on 27 November 2023 and in force since 1 June 2024, it replaces GB/T 21397-2008.

This document defines the terms and definitions of cotton harvesters, stipulates technical requirements, inspection rules, marking, packaging, transportation and storage, etc:, and describes The corresponding test methods are described: This document is applicable to spindle-picking drum cotton harvesters, and other types of cotton harvesters can be used as a reference:

chinastandards.org · PREVIEW

Preview: page 3 of 5 shown, 40 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-21397-2023

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document: GB/T 4269:

1 Agricultural and forestry tractors and machinery, lawn and garden power machinery operator controls and other display devices No: Part 1: General Symbols GB/T 4269:

2 Agricultural and forestry tractors and machinery, lawn and garden power machinery operator controls and other display devices Part 2: Symbols for agricultural tractors and machinery

GB/T 5667 Agricultural machinery production test methods

GB/T 9480 Rules for Writing Instructions for Agricultural and Forestry Tractors and Machinery, Lawn and Garden Power Machinery

GB 9656 Safety technical specifications for motor vehicle glass GB 10395:

7 Safety technical requirements for agricultural and forestry tractors and machinery Part 7: Combine harvesters, feed and cotton harvesters

GB 10396 General principles for safety signs and hazard graphics on agricultural and forestry tractors and machinery, lawn and garden power machinery GB/T 13306 Signage

GB/T 14039-2002 Hydraulic transmission oil solid particle pollution level code

GB/T 14248 Method for determination of braking performance of harvesting machinery

GB 20891 Emission limits and measurement methods of exhaust pollutants from diesel engines for non-road mobile machinery (China Phase III and IV)

GB/T 21398 Electromagnetic compatibility test methods and acceptance rules for agricultural and forestry machinery

GB/T 23821-2022 Mechanical safety safety distance to prevent upper and lower limbs from touching dangerous areas

HJ1014 Technical requirements for pollutant emission control of non-road diesel mobile machinery

3 Terms and definitions

The following terms and definitions apply to this document: 3:1 cotton harvestercottonharvester Harvesting machinery that separates seed cotton from cotton

Preview: page 4 of 5 shown, 40 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-21397-2023

Chinastandards.org

plants:

chinastandards.org · PREVIEW

Preview: page 5 of 5 shown, 40 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-t-21397-2023