

ICS 65.060.10
CCS T 61



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 15370.2-2009

**General requirement of agricultural tractors - Part 2: 50 kW~130
kW wheeled tractors
(English Translation)**

Issued on: November 15, 2009

Implemented on: May 1, 2010

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of PRC**

Table of Contents

Foreword...	3
1 Scope...	5
2 Normative references...	5
3 Technical requirements...	6
4 Test method...	9
5 Inspection rules...	10
6 Delivery...	13
7 Marking, transportation, storage...	14

1 Scope

This Part of GB/T 15370 specifies the technical requirements, test methods, inspection rules, delivery, marking, transportation, storage of 50 kW ~ 130 kW wheel tractors for agricultural use.

This part applies to 50 kW ~ 130 kW agricultural wheeled tractors (hereinafter referred to as tractors).

2 Normative references

The provisions in following documents become the provisions of this Part through reference in this Part of GB/T 15370. For the dated references, the subsequent amendments (excluding corrections) or revisions do not apply to this Part; however, parties who reach an agreement based on this Part are encouraged to study if the latest versions of these documents are applicable. For undated references, the latest edition of the referenced document applies.

GB/T 1592 (all parts) Agricultural tractors - Rear-mounted power take-off types 1,

2, 3 and 4 (GB/T 1592-2008, ISO 500.2004, IDT)

GB/T 1593.1 Agricultural wheeled tractors - Rear-mounted three-point linkage -

Part 1. Categories 1, 2, 3 and 4 (GB/T1593.1-1996, eqvISO730-1.199 4)

GB/T 2780 Drawbars for agricultural tractors - Types dimensions and mounting requirements

GB/T 2828.1 Sampling procedures - Part 1. retrieval by acceptance quality limit (AQL) for lot-by-lot inspection sampling plan (AQL) (GB/T 2828.1-2003, ISO

2859-1.1999, IDT)

GB/T 3871 (all parts) Agricultural tractors - Test procedures

GB/T 5862 Agricultural tractors and machinery - General purpose quick-action hydraulic couplers

GB 7258 Safety specifications for power-driven vehicles operating on roads

GB/T 9480 Tractors machinery for agriculture and forestry, powered lawn and each system; there shall be no oil leakage, water leakage, air leakage, or electricity leakage.

3.1.4 Mud water is not allowed to penetrate into the tractor body during normal operation.

3.1.5 The appearance quality of the tractor shall comply with the provisions of JB/T 6712; the painting shall comply with the provisions of JB/T 5673; the adhesion performance of the paint film shall not be lower than the Level II requirements of 6.4 in JB/T 9832.2-1999.

3.1.6 The engine shall be able to operate stably within the entire speed range and be able to stop the engine directly or indirectly, through the flameout device. The hand throttle handle shall be able to stop reliably in any position and not be affected by the foot throttle operation.

3.1.7 The operation of each control mechanism of the tractor shall be light, flexible, moderately tight. The stroke adjustment of each mechanism shall comply with the provisions of the instruction manual. All control parts that can return automatically shall be able to reset automatically after the control force is removed; control parts that do not return automatically shall be able to stop reliably at the selected position. The maximum operating force of each control mechanism shall comply with the provisions of GB/T 19407.

3.1.8 The clutch shall be smoothly engaged and completely separated; it shall be able to transmit the full torque of the engine when engaged. No oil or air leakage is allowed in the control and booster pipeline systems.

3.1.9 The stepped transmission of tractors above 73 kW shall have at least 10 forward gears. When working in each gear, the transmission is not allowed to have random shifting or disengagement.

3.1.10 The rear-positioned power take-off shaft is independent and shall comply with the provisions of GB/T 1592 (all parts). The front-positioned power take-off shaft and front suspension device shall comply with the provisions of GB/T 10916.

3.1.11 The toe-in of the tractor's front wheels shall comply with enterprise standards.

3.1.12 When the tractor is parked in a straight-line driving position, the maximum free travel of the steering wheel shall not exceed 30°. The tractor shall be able to turn smoothly throughout the entire process; discontinuous operation and impact shall not be allowed.

When the tractor stalls during driving, manual steering shall be possible;
the steering performance shall meet the requirements of GB/T 19040.

3.1.13 When the tractor is traveling in a straight line on a hard pavement, no visible oscillation of the front wheels is allowed.

3.1.14 The hydraulic suspension device shall comply with the provisions of GB/T 1593.1.

3.1.15 The tractor's traction device shall comply with the provisions of GB/T 2780. The towing device shall comply with the provisions of GB/T 19408.1. The hydraulic quick-change joint shall comply with the provisions of GB/T 5862.

3.1.16 The instruments on the tractor shall comply with the provisions of JB/T 6697.

The display shall be clear and accurate. The signal alarm system, electrical lighting and switches shall work reliably.

3.1.17 During the running-in operation and performance test, each sealing surface and

pipe joint shall have no leakage after adjusting the fasteners three times.

3.1.18 When the tractor transport unit performs transportation operations, it shall comply with the requirements of GB 7258.

3.1.19 The tractor's product instruction manual shall comply with the provisions of GB/T 9480.

3.2 Safety requirements and environmental protection requirements

3.2.1

The safety requirements of tractors shall comply with the provisions of GB 18447.1.

3.2.2

Diesel engines for tractors shall have quality and safety signs, as well as the diesel engine labels specified in GB 20891.

3.3.1 Performance of power output shaft

3.3.1.1

At the engine's calibrated speed, the maximum power of the power output shaft shall not be less than 95% of the factory specified value.

3.3.1.2 The average fuel consumption rate of the tractor power output shaft under

variable load below 73 kW shall not be greater than 350 g/(kW·h); the average fuel consumption rate of the tractor power output shaft under variable load at 73 kW and above shall not be greater than 380 g/(kW·h). The torque reserve rate of the power output shaft shall not be less than 20%. The ratio -- of the maximum torque point speed of the power output shaft TO the maximum power point speed of the power output shaft (at the engine's calibrated speed) -- shall not be greater than 75%.

3.3.2 Traction performance

3.3.2.1

The maximum traction power of the tractor shall not be less than 0.75 times the rated engine power (12 hours).

4.3 The test conditions and test methods for tractor performance comply with the provisions of GB/T 3871.

4.4 The mud water tightness test of the tractor shall be carried out in accordance with the provisions of JB/T 7734.

4.5 The tractor reliability test shall be carried out in accordance with the provisions of JB/T 51082.

4.6 The test of tractor safety items shall be carried out in accordance with the provisions of GB 18447.1-2008.

5.1 Exit-factory inspection

5.1.1

Each tractor that has been finally assembled shall undergo exit-factory inspection, to check whether the manufacturing and assembly quality and main technical indicators of the tractor meet the requirements of product standards.

5.1.2

The items of exit-factory inspection shall comply with the provisions of Table 1.

5.1.3

Only when all items of the exit-factory inspection are qualified can they be judged as qualified. Otherwise, they shall be returned for repair and resubmitted for re- inspection. If the re-inspection still fails, the batch of products will be judged as unqualified.