

JIS

JAPANESE INDUSTRIAL STANDARD

**Standard Form of Specifications
of Agricultural Wheeled Tractors**

JIS D 6701—1986

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

J I S

Standard Form of Specifications of
Agricultural Wheeled Tractors

D 6701-1986

1. Scope

This Japanese Industrial Standard specifies the form of the documented specifications, hereinafter referred to as the "specifications", of agricultural wheeled tractors⁽¹⁾, hereinafter referred to as the "tractors", and the method of entry in the specifications.

Note (1) Tractors having four wheels which drive or haul agricultural working machines attached thereto and are operated by a driver riding on them.

Remark: Those units shown in braces { } in this standard are based on the conventional unit system and are appended for reference.

2. Form of Specifications

The form of specifications shall be as follows:

- (1) The form of specifications shall be as shown in Appended Table 1 and Appended Table 2.
- (2) Appended Table 1 shows the elemental data of the tractor and the summary of its performance, and Appended Table 2 shows the details of the tractor for technical purposes such as the use and maintenance of the tractor and are used in combination with Appended Table 1.
- (3) The items of information shown may be appropriately selected according to the purpose of the specifications, and as required, the construction, material, testing method for respective parts shall be appended and also the general view, layout drawing around the driver's seat and drawings for the working machine connecting unit and the like shall be attached.
- (4) In the general view, the outer configuration of the tractor, summary of arrangement of the seat, wheels, and the like and their main dimensions shall be shown.

- (5) In the layout drawing around the driver's seat, the summary of the arrangement of steering handles, operating pedals, levers, meters, and indicators and the main related dimensions shall be shown.
- (6) For the working machine connecting unit, the main related dimensions shall be shown based on JIS D 6703 shall be shown.

3. Method of Writing Specifications

The method of writing the specifications shall be as follows:

- (1) Appended Table 1 Appended Table 1 shall be inscribed as follows:
 - (1.1) Name and Type The abbreviated name of the manufacturer and the type symbol marked on the tractor shall be written.
 - (1.2) Popular Name The popular name of the tractor designated by the manufacturer shall be written.
 - (1.3) Manufacturer's Name The name of the manufacturing firm or manufacturing plant of the tractor shall be written.
 - (1.4) Class The distinction between the small-size special motor vehicle and large-size special motor vehicle based on the Road Vehicles Act shall be written.
 - (1.5) Driving System The distinction between the four-wheel driving and rear two-wheel driving shall be written.
 - (1.6) Main Dimensions The dimensions in the standard prepared condition of the tractor shall be written as follows. For tractors used exclusively for rotary plows or rotary mowers, the dimensions including such working machines shall be written with a note to indicate such inclusion.
 - (1.6.1) Overall Length The respective maximum lengths of the tractor with the working machine attached and not attached shall be written and the corresponding measuring positions shall be appended.
 - (1.6.2) Overall Width The maximum width shall be written and the corresponding measuring position shall be appended.
 - (1.6.3) Overall Height The height from the ground surface to the highest part of the vehicle shall be written for the following cases with the measuring position appended.
 - (a) At Operation The condition with outfits attached.
 - (b) At Storage The condition in which easily detachable projected parts such as the air discharge pipe are detached, for the convenience of storage or transportation.

- (1.6.4) Wheel Base The horizontal distance between the axial centres of the front axle and rear axle shall be written.
- (1.6.5) Track Tread The standard value, maximum value, and minimum value of the centre distance on the contact ground surface between the left and right tire and the number of adjustment stages shall be written respectively for the front and rear wheels.
- (1.6.6) Minimum Ground Clearance The ground clearance in the vicinity of the centre line of the vehicle shall be written with the corresponding position appended.

(1.7) Mass

- (a) Mass of Vehicle The mass of the vehicle carrying fuel of the full capacity and the specified quantities of lubricating oil, working fluid, and cooling water and equipped with the specified portable tools and other accessories shall be written.

In addition, the masses of the front and rear axles and the loading proportions shall be appended.

- (b) Supplementary Weights Where supplementary weights are provided, the masses and numbers of weights for the front and rear wheels and the body shall be written.

(1.8) Engine

- (a) Name and Type The abbreviated name of the manufacturer and type symbol marked on the engine shall be written.
- (b) Type of Engine The cylinder arrangement, cooling system, number of cylinders, number of cycles, type of engine, and where required, the type of combustion chamber, valve arrangement, and type of supercharger shall be written.
- (c) Total Stroke Volume (Total Exhaust Quantity) This shall be calculated according to the following formula:

$$V = \frac{\pi}{4} D^2 L N \times 10^{-6}$$

where V : total stroke volume (l)

D : cylinder inner diameter (mm)

L : stroke (mm)

N : number of cylinders

$$\pi = 3.1416$$

- (d) Engine Performance The output, maximum torque, and fuel consumption rate at the number of revolutions specified by the manufacturer shall be written.
- (e) Fuel Used The kinds of gasoline, kerosene, gas oil, fuel oil, and the like shall be written.

(f) Fuel Tank Capacity The capacity of the auxiliary tank, if provided, shall be appended.

(g) Batteries The number of batteries, voltage, and capacity shall be written.

(1.9) Main Performances

(a) Number of Speed Change Stages The number of speed change stages for forward travel and backward travel shall be written.

(b) Travelling Speed The running speed at the engine number of revolutions in 3. (1.8) (d) shall be calculated and written by expressing it by the range.

(c) Maximum Stabilizing Inclination Angle The inclination angles of the vehicle at the moment all the uphill side wheels leave the step tread when the tractor is inclined to the left and right with the wheel base set at the standard condition shall respectively be written. Where the values for the left and right side differ, the respective values shall be written.

(d) Minimum Turning Radius The minimum turning radius shall be written respectively for the cases where the brakes are used and not used according to JIS D 6708.

(e) Main Power Take-Off Output The maximum main power take-off output specified in JIS D 6706 shall be written.

(f) Maximum Traction Power The maximum traction power specified in JIS D 6707 shall be written.

(g) Maximum Tractive Force The maximum tractive force specified in JIS D 6707 shall be written.

(h) Maximum Lifting Force of Working Machine Lifting Lowering Device The maximum lifting force capable of lifting throughout the entire lifting distance at the respective points when the front part of the tractor is fixed and the linkages are adjusted so as to minimize the lifting distances of the lower link hitch point and the loading point on the frame, at an oil temperature of $65 \pm 5^\circ\text{C}$ for the oil hydraulic type, shall be written.

(i) Number of Revolutions of Main Power Take-Off (PTO) and Number of Stages The number of revolutions of the power take-off and the number of speed change stages shall be written according to JIS D 6702.

(1.10) Vehicle Body

(a) Tire Designation and Number of Plies The designations of tires and number of plies of the front and rear wheels shall be written.