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Agricultural wheeled tractors — Determination of maximum travel speed

Tracteurs agricoles à roues — Détermination de la vitesse maximale d'avancement

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FOREWORD

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 3965 was developed by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, and was circulated to the member bodies in August 1975.

It has been approved by the member bodies of the following countries :

Australia	France	South Africa, Rep. of
Austria	Germany	Spain
Belgium	Hungary	Sweden
Brazil	Iran	Switzerland
Bulgaria	Italy	Turkey
Canada	Mexico	United Kingdom
Chile	Netherlands	U.S.A.
Czechoslovakia	Poland	Yugoslavia
Denmark	Portugal	
Finland	Romania	

The member body of the following country expressed disapproval of the document on technical grounds :

India

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Agricultural wheeled tractors — Determination of maximum travel speed

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies methods for determining the maximum travel speed (in kilometres per hour) of agricultural wheeled tractors.

2 DEFINITIONS

2.1 maximum design speed : The maximum attainable speed of the unladen tractor, where the engine speed governor has been set at the maximum top idle speed rating recommended by the manufacturer.

2.2 unladen tractor : A tractor in working order, with full tanks, radiators and the mass of the operator, but without removable ballast weights, special equipment or loads.

3 TEST REQUIREMENTS

3.1 The fuel specified in the operation manual shall be used.

3.2 For tractors manufactured in series, the carburettor and ignition settings and/or the fuel injection pump settings shall be the same for all tractors in the series.

3.3 The correct coolant and lubrication temperatures shall be maintained during the normal driving of the vehicle.

3.4 The tractor shall be equipped with new tyres of maximum size for the tractor being tested as specified by the manufacturer for normal usage. The tyres shall be inflated to a pressure as prescribed for road operation.

3.5 The roadway approach shall be of sufficient length, smoothness and uniformity of slope to ensure uniform travel speed of the tractor.

4 MEASUREMENT OF MAXIMUM TRAVEL SPEED

4.1 Carry out the measurement on an unladen tractor, in its highest (fastest) gear at maximum engine speed and full throttle setting.

4.2 Measure the maximum tractor driving speed under the following conditions :

4.2.1 On a roadway or similar surface

— which allows the maximum speed to be maintained for a travel test distance of at least 100 m;

— which is swept clean, level, of dry concrete, or similar finish;

— not having more than 1 % slope in the direction of travel and not having more than 3 % slope at right angles to the direction of travel.

4.2.2 In dry calm weather with the wind velocity not exceeding 3 m/s.

4.3 Drive the tractor first in one direction on the test roadway at the maximum speed for at least 100 m, and then in the reverse direction.

4.4 Calculate the mean maximum travel speed from the results of the two successive test drives.

5 CALCULATED MAXIMUM TRAVEL SPEED

Calculate the maximum forward ground speed (or maximum travel speed) from parameters as specified by the manufacturer, i.e. :

— the transmission gear ratio for the highest gear;

— the dynamic indices and the maximum size drive-wheel tyres;

— the rated engine speed.