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# INTERNATIONAL STANDARD



# 1084

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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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## Industrial tractors — Definition and nominal rating

*Tracteurs industriels — Définition et force nominale*

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## FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO Member Bodies). The work of developing International Standards is carried out through ISO Technical Committees. Every Member Body interested in a subject for which a Technical Committee has been set up has the right to be represented on that Committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

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.

Prior to 1972, the results of the work of the Technical Committees were published as ISO Recommendations; these documents are now in the process of being transformed into International Standards. As part of this process, Technical Committee ISO/TC 110 has reviewed ISO Recommendation R 1084 and found it technically suitable for transformation. International Standard ISO 1084 therefore replaces ISO Recommendation R 1084-1969 to which it is technically identical.

ISO Recommendation R 1084 was approved by the Member Bodies of the following countries :

Australia	Greece	Sweden
Belgium	India	Switzerland
Bulgaria	Ireland	Turkey
Czechoslovakia	Israel	United Kingdom
Egypt, Arab Rep. of	Netherlands	U.S.A.
France	Poland	U.S.S.R.
Germany	South Africa, Rep. of	Yugoslavia

The Member Body of the following country expressed disapproval of the Recommendation on technical grounds :

Japan

The Member Bodies of the following countries disapproved the transformation of ISO/R 1084 into an International Standard :

Germany  
Sweden  
United Kingdom

# Industrial tractors – Definition and nominal rating

## 1 SCOPE AND FIELD OF APPLICATION

This International Standard defines industrial tractors and their nominal rating and states the additional data to be included in commercial data sheets.

## 2 DEFINITION

**industrial tractor** : A powered industrial truck, with solid or pneumatic tyres, with three or more wheels with front or rear drive wheels, intended for towing or shunting one or several unpowered trucks or trailers, inside or outside buildings and, exceptionally, on public roads.

## 3 NOMINAL RATING

### 3.1 Designation

The nominal rating of tractors (such as defined above) should be expressed by the maximum drawbar pull, in decanewtons<sup>1)</sup>, that can be developed at a specified coupling height while moving a load at a uniform speed not less than 1 % of the maximum no load speed.

### 3.2 Measurement

The drawbar pull shall be measured when the truck is travelling on a smooth, dry, horizontal, concrete surface, at the uniform test speed obtained after acceleration, with a horizontal towbar in the longitudinal axis of the vehicle, and with a driver weighing about 70 kg (150 lb) in the case of a sit-on or stand-on tractor.

### 3.3 Tyres

The drawbar pull should be given for a tractor equipped either with solid tyres of any kind, or with pneumatic tyres inflated to the pressure specified by the tractor manufacturer.

### 3.4 Data sheets

Commercial data sheets shall give the following additional data :

- a) total weight of tractor and weight on driving axle(s);
- b) location of driving axle(s);
- c) wheelbase;
- d) tyre size and, if pneumatic, pressure of inflation;
- e) height of coupling point(s) above ground;
- f) power of engine (expressed according to appropriate national standards) for tractors with internal combustion engines, and one-hour rating of traction motor for electric tractors<sup>2)</sup>;
- g) speeds in kilometres per hour or miles per hour
  - 1) for the various gear ratios for tractors with internal combustion engines;
  - 2) in one-hour, half-hour and five-minute ratings for electric tractors;
- h) corresponding drawbar pulls.

The two last items may be set out in the form of a table or a graph.

1) When the British and metric technical units of force are used to express the nominal rating of industrial tractors, the corresponding value in decanewtons should be based on the following (see ISO 31, Part III, *Quantities and units of mechanics*) :

1 kilogram-force = 0,980 665 decanewton  
1 pound-force = 0,444 822 decanewton

2) See IEC Publication 349-1971 : *Rules for rotating electrical machines for rail and road vehicles*.