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# International Standard



# 5704

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

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## Equipment for vine cultivation and wine making — Grape-harvesting machinery — Test methods

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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 5704 was developed by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, and was circulated to the member bodies in August 1979.

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

Australia	India	South Africa, Rep. of
Austria	Italy	Spain
Brazil	Libyan Arab Jamahiriya	Switzerland
Bulgaria	New Zealand	Turkey
Czechoslovakia	Philippines	USSR
France	Portugal	
Germany, F.R.	Romania	

No member body expressed disapproval of the document.

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# Equipment for vine cultivation and wine making — Grape-harvesting machinery — Test methods

## 0 Introduction

Tests for grape-harvesting machinery are designed with a view to :

- a) assessing their performance, particularly with respect to :
  - quality of grapes and beverages produced therefrom;
  - exfoliation of grape-vines;
  - damage to vine-stock likely to affect subsequent pruning;
  - “visible” losses on grape-vine or ground;
  - loss of juice from crushed grapes;
- b) recording their performance in terms of operating time;
- c) observing their mechanical operation, reliability and performance on varying ground, and any possible effects on stake and wire arrangements.

## 1 Scope and field of application

This International Standard specifies technical methods for testing grape-harvesting machinery, i.e. machines designed for carrying out all operations involved in grape-harvesting.

The method applies in cases where the grapes are used for wine making. It may also be applied in cases where the grapes are used for making other beverages (grape-juice, spirit-of-wine, etc.).

## 2 Definitions

### 2.1 operating time :

2.1.1 **actual time** : operating time  
of machine

2.1.2 **additional time** : turning,  
manoeuvring

2.1.3 **idling time** : stand-by periods,  
breakdowns

} = overall time

2.2 **speed of travel** : Length of rows travelled divided by actual time.

2.3 **efficiency on site** : Actual time divided by overall time.

2.4 **overall time per unit of area** : Overall time divided by area harvested.

2.5 **output** : Mass of grapes harvested divided by actual time.

## 3 Principle

Determination of the technological characteristics of the grape-harvesting machine under test and of the quality of the harvested grapes. Comparison of the quality of the wine obtained by appropriate means, using both chemical and sensory analyses, with that of the wine obtained from a manual harvest.

## 4 Apparatus

### 4.1 At the vineyard

The following list of apparatus is not exclusive.

#### 4.1.1 Mechanical measurements

- reporting forms (see annexes B and C)
- revolution counter
- metre rule

#### 4.1.2 Time measurements

- reporting forms (see annexes D, E and F)
- surveyor's plane-table
- ten-metre tape
- pegs
- chronometers
- impulse counter