

**Kolbsisepõlemismootorid. Käsitsi
käivitamise seadised. Osa 2:
Katkestusnurga katsemeetod**

Reciprocating internal combustion engines - Handle
starting equipment - Part 2: Method of testing the
angle of disengagement

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 11102-2:1999 sisaldab Euroopa standardi EN ISO 11102-2:1997 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 23.11.1999 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 11102-2:1999 consists of the English text of the European standard EN ISO 11102-2:1997.</p> <p>This document is endorsed on 23.11.1999 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala:</p> <p>ISO 11102 see osa kirjeldab käsitsi käivitamise seadiste katkestusnurga testimise meetodit, s.o oluliste ohutusnõuete testimist vastavalt ISO 11102-1 maal, raudteel ja merel kasutatavatel sisepõlemisega kolbmootoritel, välja arvatud mootorid maanteesõidukite ja lennukite liikumapanemiseks. Käesolevat standardit võib kohaldada mootoritele, mida kasutatakse tee-ehitus- või pinnaseteisaldusmasinatel ning muudes rakendustes, mille kohta pole vastavaid rahvusvahelisi standardeid.</p>	<p>Scope:</p>
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ICS 27.020

Võtmesõnad: füüsilised testid., kolbmootorid, käivitusseadmed, käsitsi juhitud seadmed, mootorikäivitid, sisepõlemismootorid, testimine

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Descriptors: Reciprocating internal combustion engines, handles, starting systems, disengagement, testing.

English version

**Reciprocating internal combustion engines –
Handle starting equipment**

**Part 2: Method of testing the angle of disengagement
(ISO 11102-2 : 1997)**

Moteurs alternatifs à combustion
interne – Dispositifs de démarrage à
la manivelle – Partie 2: Méthode
d'essai de l'angle de désengagement
(ISO 11102-2 : 1997)

Verbrennungsmotoren – Handkurbel-
Starteinrichtungen – Teil 2: Verfahren
zur Messung des Auslösewinkels
(ISO 11102-2 : 1997)

This European Standard was approved by CEN on 1997-09-12.

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CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

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Foreword

International Standard

ISO 11102-2 : 1997 Reciprocating internal combustion engines – Handle starting equipment – Part 2: Method of testing the angle of disengagement,

which was prepared by ISO/TC 70 'Internal combustion engines' of the International Organization for Standardization, has been adopted by Technical Committee CEN/TC 270 'Internal combustion engines', the Secretariat of which is held by DIN, as a European Standard.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, and conflicting national standards withdrawn, by April 1998 at the latest.

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association and supports essential requirements of the relevant EU Directives.

In accordance with the CEN/CENELEC Internal Regulations, the following countries are bound to implement this European Standard:

Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Endorsement notice

The text of the International Standard ISO 11102-2 : 1997 was approved by CEN as a European Standard without any modification.

1 Scope

This part of ISO 11102 describes the method for testing the angle of disengagement of starting handle equipment i.e. testing of the essential safety requirements according to ISO 11102-1 for reciprocating internal combustion engines for land, rail and marine use, excluding engines used to propel road vehicles and aircraft. It may be applied to engines used to propel road construction, earth moving machines and for other applications where no suitable international standards exist.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this part of ISO 11102. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11102 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 11102-1:1997, *Reciprocating internal combustion engines — Handle starting equipment — Part 1: Safety requirements and tests*.

3 Testing of the disengagement travel

3.1 Apparatus

The test shall be carried out on the type of reciprocating internal combustion engine for which the starting handle was designed. The engine shall be mounted on test equipment as generally indicated in figure 1 or 2, as appropriate.

3.2 Procedure

Set the stop (3) so that the starting handle grip lies horizontally. For the first test hang a mass (5) of 5 kg from the centre of the grip (2). Turn the engine flywheel (6) smoothly in its reverse direction using the crankhandle (7). Measure the distance moved before disengagement occurs on the scale (4) using a mark on the shank (1) of the starting handle. Repeat the above procedure with a 50 kg mass.

NOTE — The direction of rotation of the crankhandle may differ from that of the engine (as defined in ISO 1204) depending on the coupling of the crankhandle to the engine (e.g. it may be linked to the crankshaft, camshaft, geardrive or belt drive).