INTERNATIONAL STANDARD ISO 5680

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

Equipment for working soil — Tines and shovels for cultivators — Main fixing dimensions

Matériel de travail du sol — Dents et socs de cultivateur — Principales dimensions de fixation

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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 5680 was developed by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, and was circulated to the member bodies in May 1977.

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

Australia	India	Romania
Austria	Iran	South Africa, Rep. of
Belgium	Italy	Spain
Brazil	Korea, Dem. P. Rep. of	Sweden
Canada	Korea, Rep. of	Switzerland
Czechoslovakia	Mexico	Turkey
Denmark	New Zealand	United Kingdom
Finland	Philippines	USSR
France	Poland	Yugoslavia
Germany, F.R.	Portugal	

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

USA

Printed in Switzerland

Equipment for working soil — Tines and shovels for cultivators — Main fixing dimensions

0 INTRODUCTION

This International Standard deals with tines and shovels for cultivators according to their method of attachment.

This International Standard specifies only the main fixing dimensions, thus not inhibiting their future design, configuration and use.

Materials and methods of manufacture of shovels and tines are not specified.

1 SCOPE

This International Standard specifies the main fixing dimensions for interchangeable shovels designed to fit tines which conform to a type specified in this International Standard.

2 FIELD OF APPLICATION

This International Standard applies to the lower portion of tines for fixing of various types of shovels having a working width of up to 400 mm.

3 CLASSIFICATION

The following types of fixing for interchangeable shovels are specified :

- Type 1 — one hole;
- Type 2 — two holes;
- Type 3 — two holes, heavy type.

4 MAIN FIXING DIMENSIONS

The following fixing dimensions are specified :

R = radius of curvature of tines;

R_1 = radius of curvature of shovels;

φ = contact line angle in relation to horizontal plane;

l = distance between fixing bolt holes;

l_1 = part of contact line below fixing hole;

l_2 = part of contact line above fixing hole;

d = bolt hole diameter;

r and r_1 = radius of curvature of shovel and tine cross radial section;

a = dimensions of square neck bolt hole;

ω = countersink angle for bolt holes;

Fixing dimensions shall comply with the requirements in the table.

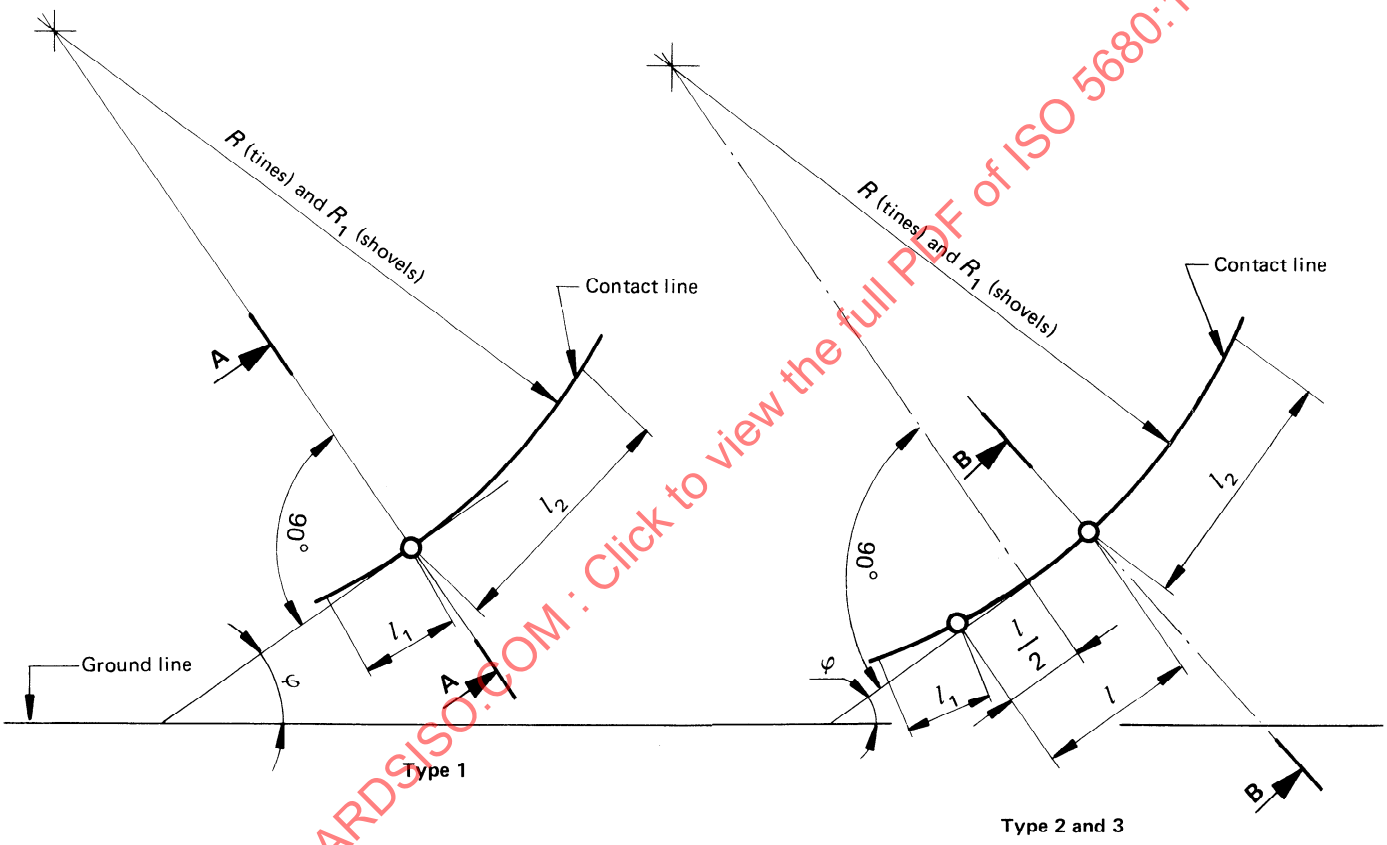


FIGURE 1 — **Characteristics of the lower portion of tines**

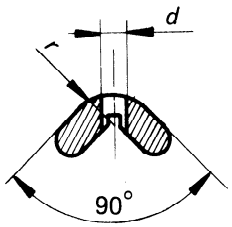
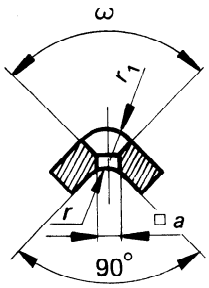
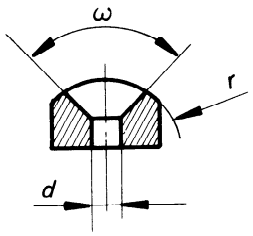
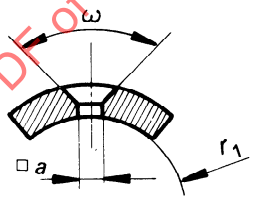
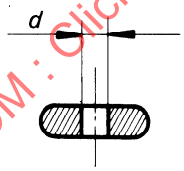
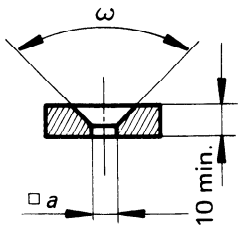
Types	Tines	Shovels
1	Section A-A 	Section A-A 
2	Section B-B 	Section B-B 
3	Section B-B 	Section B-B 

FIGURE 2 — **Main fixing characteristics : tines-shovels**

TABLE — **Fixing dimensions**

Dimensions in millimetres

Types	R	R_1	φ	l	l_1	l_2	d	r	□a*	r_1	ω*
1	$220^{\ 0}_{-20}$	$220^{+20}_{\ 0}$	42 ± 3°	—	35 ± 5	50 min.	$11^{+0,5}_{\ 0}$	10 min.	10	10 max.	90°
2			26° min.	45 ± 0,5	$25^{+10}_{\ 0}$	100 min.		$18^{+1}_{\ 0}$		$18^{\ 0}_{-1}$	
3	$300^{\ 0}_{-10}$	$300^{+10}_{\ 0}$		60 ± 0,5	$30^{+10}_{\ 0}$	170 max. 100 min.	$13^{+0,5}_{\ 0}$	—	12	—	

* Nominal dimensions. Tolerances shall be in accordance with dimensions of bolts, for which an International Standard is in preparation.

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