INTERNATIONAL STANDARD 6302

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

Earth-moving machinery — Drain, fill and level plugs

Engins de terrassement — Bouchons de vidange, de remplissage et de contrôle des niveaux

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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.

International Standard ISO 6302 was developed by Technical Committee ISO/TC 127, *Earth-moving machinery*, and was circulated to the member bodies in January 1978.

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

Austria	Ireland	Spain
Belgium	Israel	Sweden
Bulgaria	Italy	Turkey
Czechoslovakia	Japan	United Kingdom
Finland	Mexico	U.S.A.
France	South Africa, Rep. of	Yugoslavia

The member bodies of the following countries expressed disapproval of the document on technical grounds :

Germany, F. R.
Poland
U.S.S.R.

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Earth-moving machinery — Drain, fill and level plugs

0 INTRODUCTION

The purpose of this International Standard is to reduce the number of sizes and types of drain, fill and level plugs required for the changing of the lubricants and coolants by operators at the work site. It is also intended to improve the ease of removal and installation of drain, fill and level plugs by standardization of types and sizes which can be removed and installed through use of hand tools listed in ISO 4510.

1 SCOPE AND FIELD OF APPLICATION

This International Standard establishes types and sizes of drain, fill and level plugs required for earth-moving machines for the changing of lubricants and coolants by operators at the work site.

It does not establish manufacturing requirements, i.e. dimensions and materials.

2 REFERENCES[1)]

ISO 7/1, *Pipe threads where pressure-tight joints are made on the threads — Part 1 : Designation, dimensions and tolerances.*

ISO 261, *ISO general purpose metric screw threads — General plan.*

ISO 263, *ISO inch screw threads — General plan and selection for screws, bolts and nuts — Diameter range* 0.06 *to* 6 in.

ISO 724, *ISO general purpose metric screw threads — Basic dimensions.*

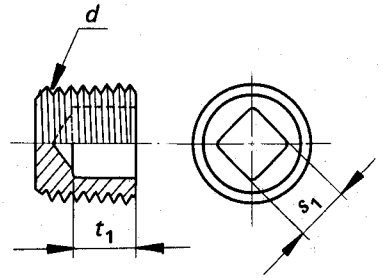
ISO 725, *ISO inch screw threads — Basic dimensions.*

ISO 4510, *Earth-moving machinery — Maintenance and adjustment tools.*

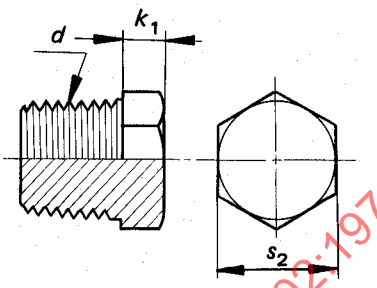
1) See also ANSI/B1.20.3-1976 (SAE J476), *Dryseal pipe threads*.

3 TYPES AND PRINCIPAL DIMENSIONS

3.1 Types A and B



Type A
Square countersunk headless plugs



Type B
Hexagon outside head plugs

TABLE 1

Dimensions in millimetres (inches)

Taper pipe thread[1] (ISO 7/1) d	Type A		Type B	
	Socket width[2] s_1	Socket depth t_1 (min.)	Head width[2] s_2	Head height[3] k_1
R 1/8 (1/8-27 NPTF)			12 (7/16)	5 (3/16)
R 1/4 (1/4-18 NPTF)			14 (9/16)	5 (3/16)
R 3/8 (3/8-18 NPTF)			19 (11/16)	6 (7/32)
R 1/2 (1/2-14 NPTF)			22 (7/8)	6 (7/32)
R 3/4 (3/4-14 NPTF)	12,5 (1/2)	8 (5/16)	27 (1 1/8)	8 (5/16)
R 1 (1-11 1/2 NPTF)	12,5 (1/2)	10 (3/8)	36 (1 5/16)	8 (5/16)
R 1 1/4 (1 1/4-11 1/2 NPTF)	20 (3/4)	12 (1/2)	46 (1 7/8)	10 (3/8)
R 1 1/2 (1 1/2-11 1/2 NPTF)	20 (3/4)	12 (1/2)	50 (1 7/8)	10 (3/8)
Corresponding hand tools (ISO 4510)	Handles, socket wrench		Combination or engineer's wrench	

1) See also ANSI/B1.20.3.1976 (SAE J476), *Dryseal pipe threads.*

2) The figures given are nominal tool sizes and not plug dimensions.

3) The dimensions given are nominal values.