SRI LANKA STANDARD 1126 : PART 3 : 1996

UDC 621 . 355.2

SPECIFICATION FOR LEAD-ACID STARTER BATTERIES

PART 3 : DIMENSIONS OF BATTERIES FOR HEAVY COMMERCIAL VEHICLES

SRI LANKA STANDARDS INSTITUTION

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Gr. 5

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Sri Lanka.

Sri Lanka Standards are subject to periodical revision in order to accommodate the progress made by industry. Suggestions for improvement will be recorded and brought to the notice of the Committees to which the revisions are entrusted.

This standard does not purport to include all the necessary provisions of a contract.

Sri Lanka Standard
SPECIFICATION FOR LEAD - ACID STARTER BATTERIES
Part 3 : Dimensions of batteries for heavy commercial vehicles

FOREWORD

This standard was approved by the Sectoral Committee on Electrical Appliances and Accessories authorized for adoption and publication as a Sri Lanka Standard by the Council of the Sri Lanka Standards institution on 1996-05-23.

This standard supersedes CS 85 and is presented in three parts, namely;
Part 1 : General requirements and methods of test;
Part 2 : Dimensions of batteries and dimensions and marking of terminals;
Part 3 : Dimensions of batteries for heavy commercial vehicles.

This part of the standard specifies dimensions of batteries for heavy commercial vehicles.

All the values given in this specification are in SI units.

For the purpose of deciding whether a particular requirement of this standard is complied with the final value, observed or calculated, expressing the result of a test or an analysis, shall be rounded off in accordance with **CS 102**. The number of significant places retained in the rounded off value shall be the same as that of the specified value in this standard.

In the preparation of this standard, the assistance derived from the **BS EN 60095-4 : 1993** Dimensions of batteries for heavy commercial vehicles, is greatefully acknowldeged.

1. SCOPE

This standard is applicable to lead-acid batteries used for starting, lighting and ignition of agriculture machines, buses, coaches and lorries.

2. DEFINITIONS

For the purpose of this standard, the definitions given in **SLS 982**, Part **13 : 1992** shall apply.

3 MAIN DIMENSIONS OF BATTERIES

3.1 Standard series

The standard series comprise of Types D1, D2, D2a, D3, D3a, D4 D4a, D5, D5a, D6, D7, D8 and D9, having dimensions as given in Table **1**. See Fig. **1** to Fig. **5** to identify the dimensions denoted by letters l, l_1, l_2,b, b_1, b_2,h, h_1 and C of Table **1**

3.2 Main dimensions of batteries

The dimensions corresponding to the starter batteries shall be in accordance with Table **1.**

3.3 Fastening

Types D2, D3, D4, D5, D6 and D7 are intended for fastening by the upper part of the battery only. This fastening shall be effected at a level defined by dimension h_1 of Fig. **1** to Fig. **5**. The configuration shall permit the fitting of an angle-iron frame both legs of which are 20 mm wide for the major part of its length and width.

However, Types D1, D2a, D3a, D4a, D5a, D8 and D9 may be fastend by the base of the battery container, or by the upper part of the battery container.

Fastening by the base of the container on the short sides is effected by fixing lugs with notches to prevent movement of the battery crosswise.

The arrangment of the ledges, lugs and notches shall be as shown in Fig. **1** to Fig. **5.**

TABLE 1 : Dimensions of lead-acid starter batteries for heavy commerical vechicles

Dimensions in millimetres

Type (1)	l (2)	l_1 (3)	l_2 (4)	b (5)	b_1 (6)	b_2 (7)	h (8)	h_1 (9)	c (10)	l + 2c (11)
D1	386^{+0}_{-5}	377^{+0}_{-5}	390^{+0}_{-5}	175^{+0}_{-4}	175^{+0}_{-4}		205^{+0}_{-4}	184^{+0}_{-4}	10 max	406 max
D2	349^{+0}_{-5}	344^{+0}_{-8}		175^{+0}_{-4}	162^{+0}_{-4}		235^{+0}_{-4}	213^{+0}_{-4}		
D2a	349^{+0}_{-5}	344^{+0}_{-8}		175^{+0}_{-4}	162^{+0}_{-4}	175^{+0}_{-4}	235^{+0}_{-4}	213^{+0}_{-4}		
D3	349^{+0}_{-5}	344^{+0}_{-8}		175^{+0}_{-4}	162^{+0}_{-4}		285^{+0}_{-10}	263^{+0}_{-4}		
D3a	349^{+0}_{-5}	344^{+0}_{-8}		175^{+0}_{-4}	162^{+0}_{-4}	175^{+0}_{-4}	285^{+0}_{-10}	263^{+0}_{-4}		
D4	513^{+0}_{-5}	475^{+0}_{-5}		189^{+0}_{-4}	178^{+0}_{-4}		223^{+0}_{-8}	195^{+0}_{-4}		515 max
D4a	513^{+0}_{-5}	475^{+0}_{-5}	489^{+0}_{-5}	189^{+0}_{-4}		175^{+0}_{-4}	223^{+0}_{-8}	195^{+0}_{-4}		
D5	513^{+0}_{-5}	475^{+0}_{-5}		223^{+0}_{-4}	210^{+0}_{-4}		223^{+0}_{-8}	195^{+0}_{-4}		515 max
D5a	513^{+0}_{-5}	475^{+0}_{-5}	489^{+0}_{-5}	223^{+0}_{-4}		218^{+0}_{-4}	223^{+0}_{-8}	195^{+0}_{-4}		
D6	518^{+0}_{-5}	475^{+0}_{-5}		291^{+0}_{-4}	265^{+0}_{-4}		242^{+0}_{-8}	216^{+0}_{-4}		520 max
D7	286^{+0}_{-6}	254^{+2}_{-7}	256^{+0}_{-6}	270^{+0}_{-5}	267^{+2}_{-6}		230^{+0}_{-5}	208^{+0}_{-4}		286 max
D8	510^{+0}_{-6}	476^{+0}_{-5}	489^{+0}_{-5}	175^{+0}_{-4}		175^{+0}_{-4}	235^{+0}_{-5}	210^{+0}_{-5}		515 max
D9	510^{+0}_{-6}	476^{+0}_{-5}	489^{+0}_{-5}	218^{+0}_{-5}		218^{+0}_{-5}	235^{+0}_{-5}	210^{+0}_{-5}		515 max

NOTE

As an alternative to the base hold-down features shown for Types D2a and D3a, external buttressing of the container is permitted.

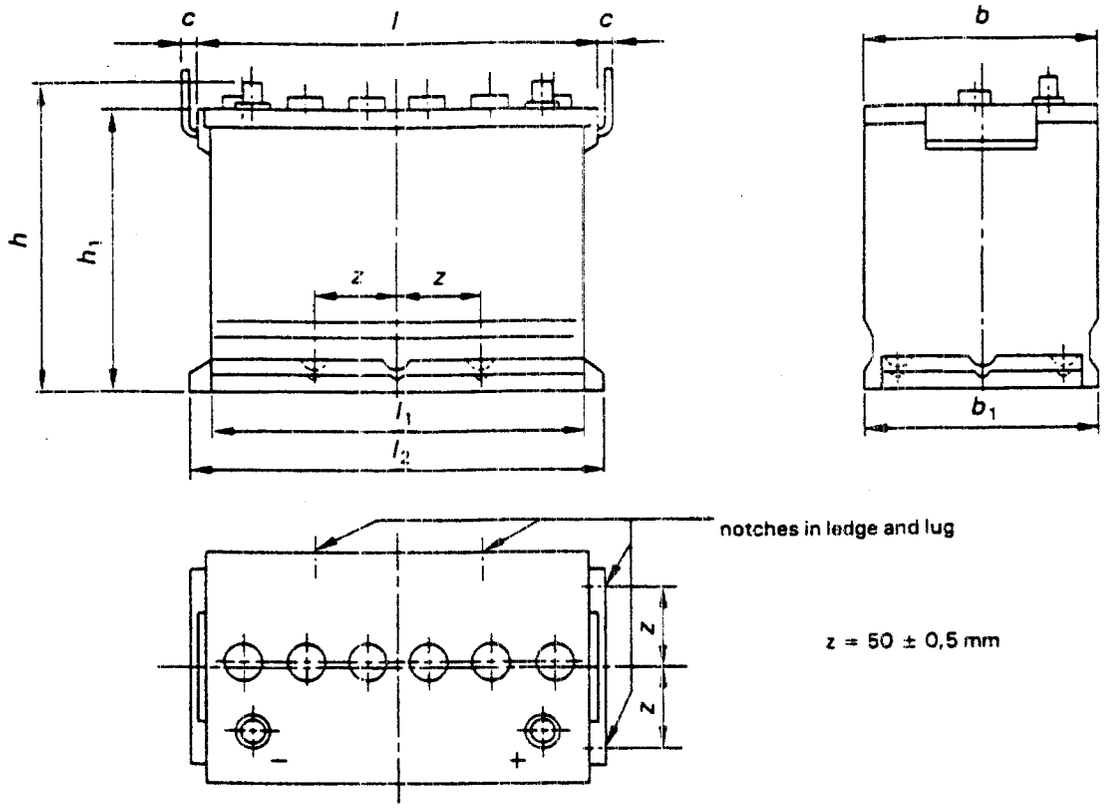

Fig. 1. - Type D1.

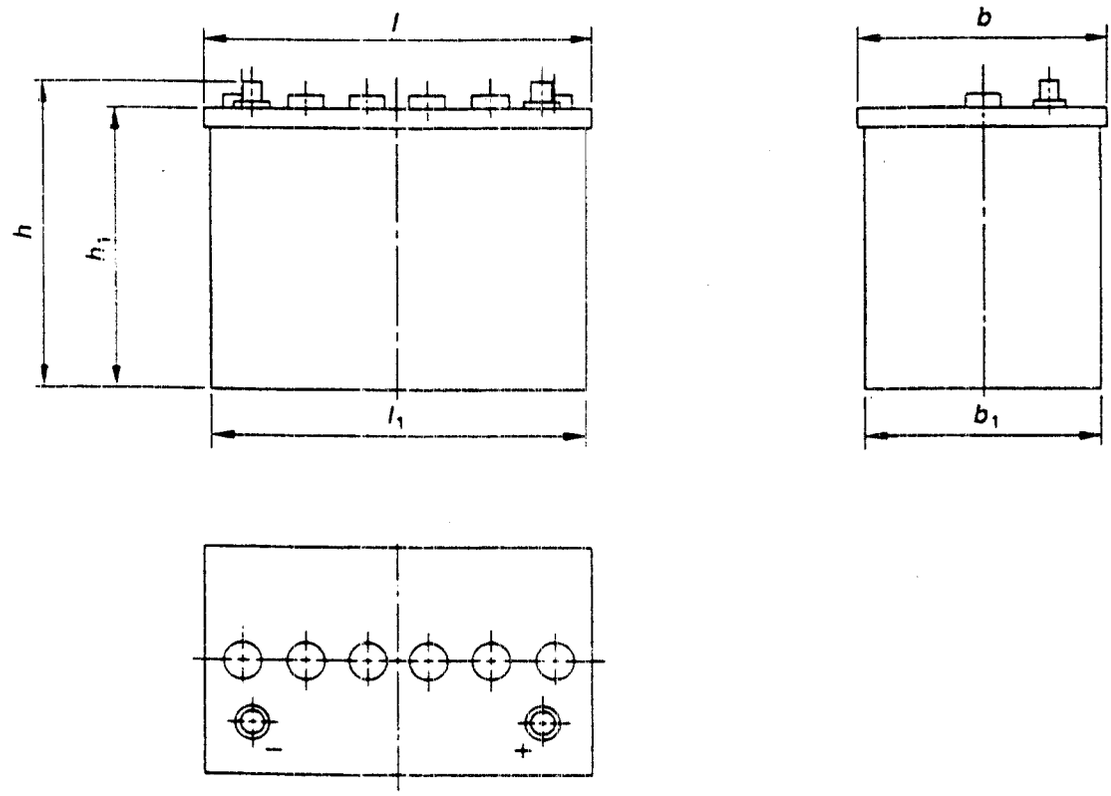

Fig. 2. - Types D2, D3.

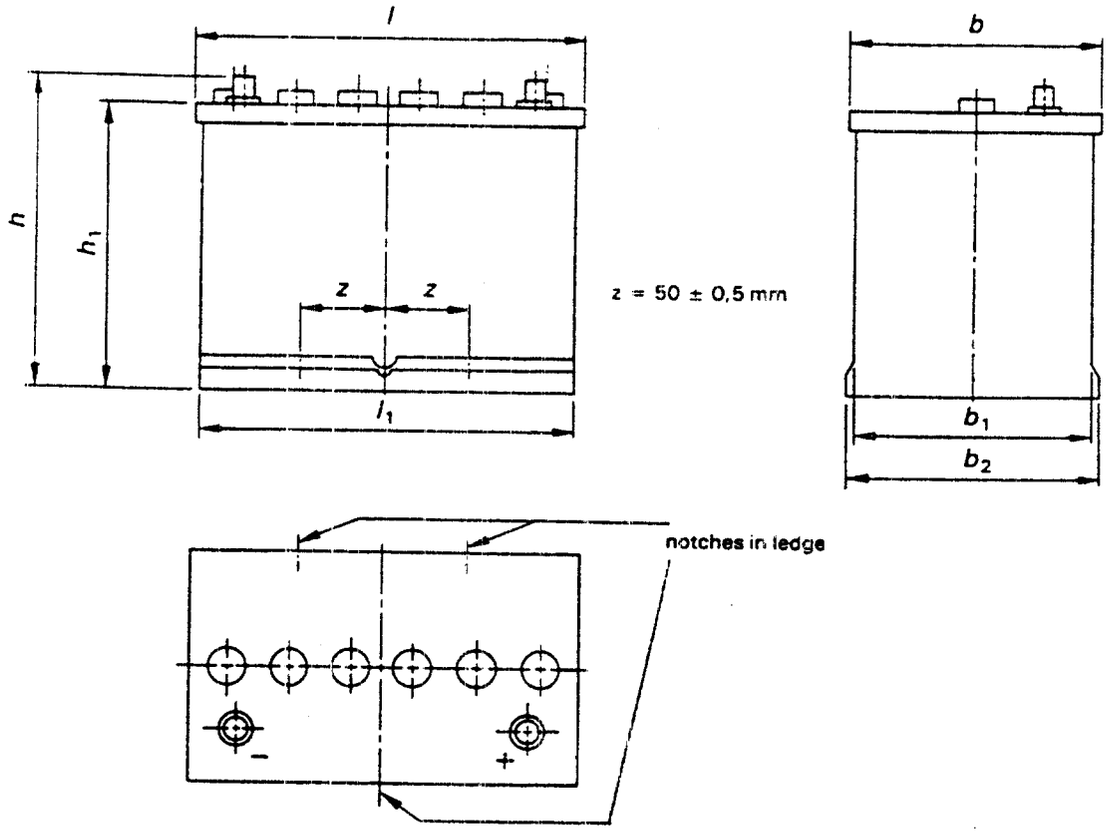

Fig. 3. - Types D2a, D3a.

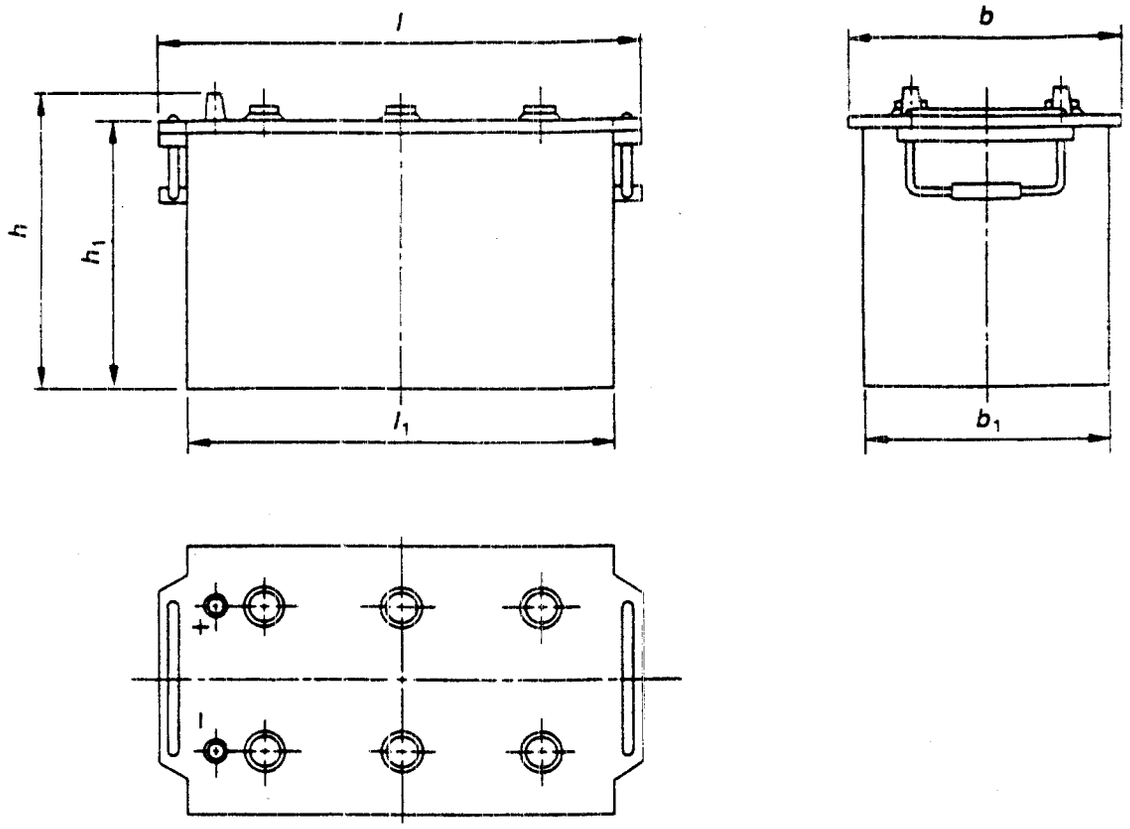

Figure 4: Types D4, D5, D6

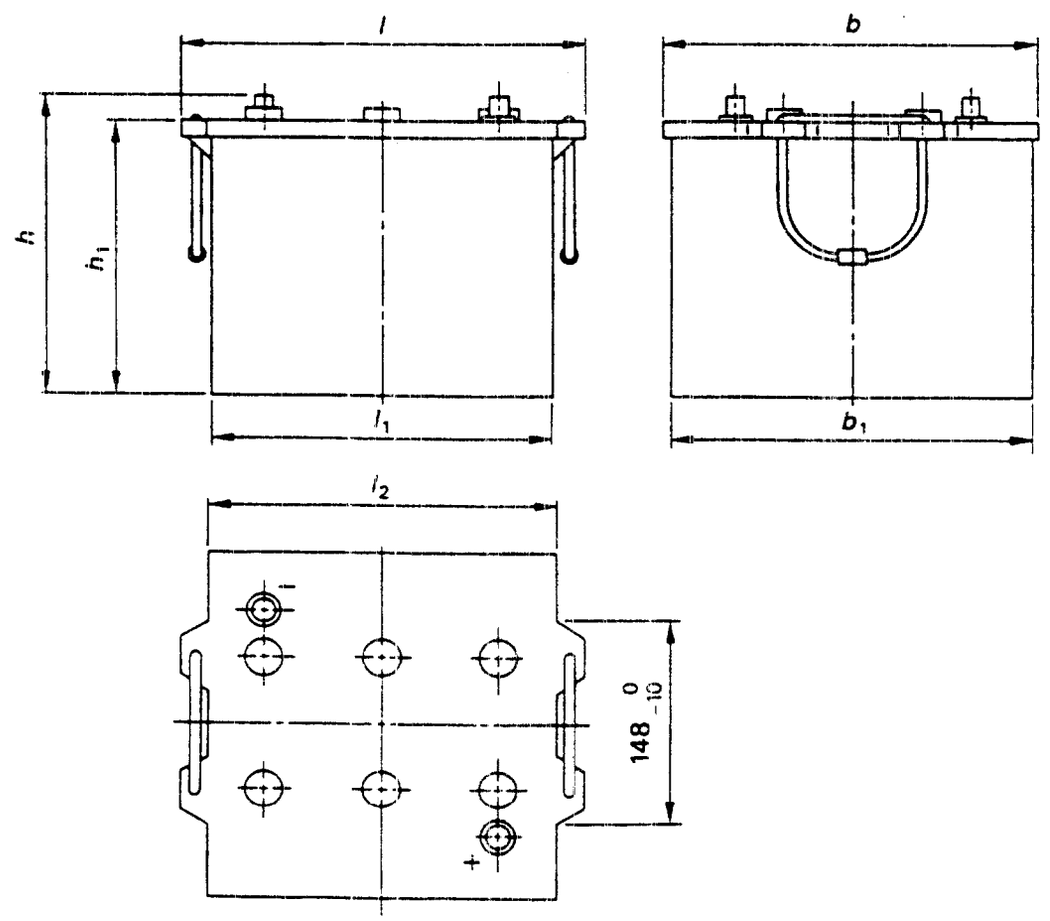

Figure 5: Type D7

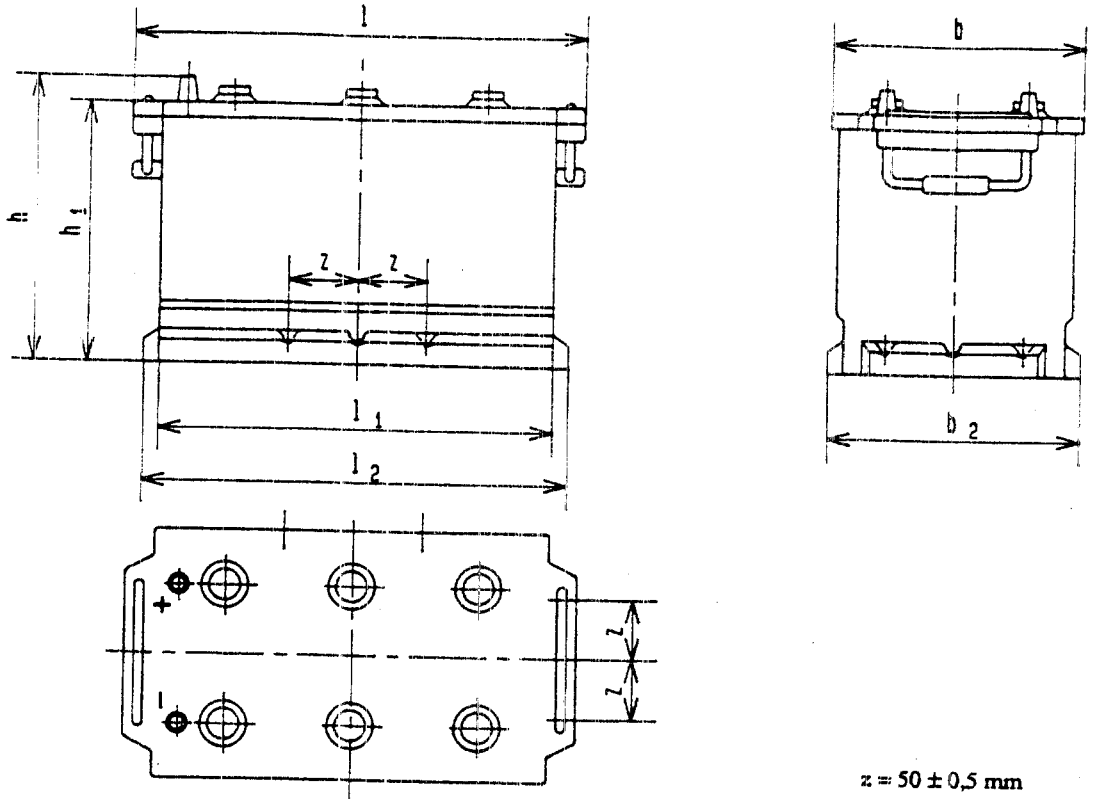

Figure 6: Types D4a, D5a

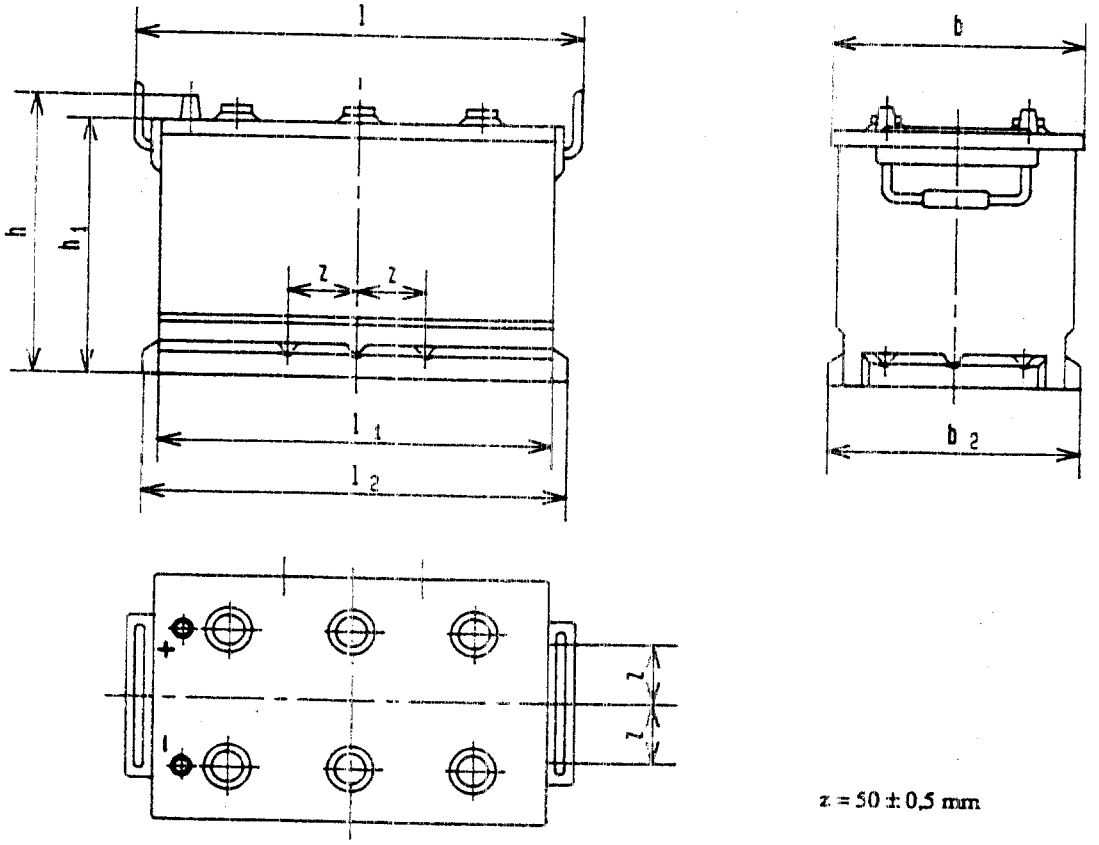

Figure 7: Types D8, D9

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Printed at the Sri Lanka Standards Institution, 17, Victoria Place, Elvitigala Mawatha, Colombo 08.