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**SRI LANKA STANDARD 424 : 1977**

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**PRINCIPAL DIMENSIONS OF**  
**PALLET TRUCKS**

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**BUREAU OF CEYLON STANDARDS**



# PRINCIPAL DIMENSIONS OF PALLET TRUCKS

S. L. S. 424 : 1977

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**BUREAU OF CEYLON STANDARDS**

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# SRI LANKA STANDARD ON PRINCIPAL DIMENSIONS OF PALLET TRUCKS

## FOREWORD

This Sri Lanka Standard was adopted from the ISO Recommendation on Principal Dimensions of Pallet Trucks on the recommendations made by the Ad-hoc Committee of the Bureau on Freight Containers. It was approved by the Metric Divisional Committee of the Bureau of Ceylon Standards and was authorised for adoption and publication by the Council of the Bureau on 1977-05-11.

This Sri Lanka Standard is technically identical to the ISO Recommendation ISO R 509 : 1966 - Principal Dimensions of Pallet Trucks.

This is the third of a series of standards on Pallets, the other standards of the series being.

1. SLS 422 : 1977 - Standard on Vocabulary of Terms Relating to Pallets.
2. SLS 423 : 1977 - Standard Specification for Pallets for Through Transit of Goods (Dimensions).

All standard values in this standard are given in metric (SI) units only.

## 1. SCOPE

This Sri Lanka Standard establishes the basic dimensions for pallet trucks on which flat pallets, complying with SLS 423 : 1977\*, and their loads, can be transported without risk of damage.

The dimensions apply to the heights, widths and lengths of the fingers of pallet trucks, which may have either single or tandem trail wheels.

**NOTE :** It should not be inferred that the use of a particular size of pallet truck is restricted to one particular size of pallet.

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\*SLS 423 : 1977 - Pallets for Through Transit of Goods (Dimensions)

## 2. SYMBOLS AND DESIGNATIONS

Figure 1 illustrates a pallet truck having tandem trail wheels, as this type of truck has the greatest overall dimensions over the wheels.

The dimensions of the truck are defined as follows :

Symbol	Designation	Symbol	Designation
A	Overall length of fingers	$G_1$	Height of fingers at point of entry (fingers lowered)
B	Distance between heel of truck and nearest point to which trail wheel approaches	$G_2$	Height of fingers at heel of truck (fingers lowered)
C	Distance between heel of truck and farthest point away to which trail wheel moves		Note: In most cases the fingers are not horizontal in the lowered position, the reduced height at the rear facilitating entry of the fingers into the pallet.
D	Overall width over fingers	H	Height of fingers in raised position
E	Distance between fingers	J	Minimum clearance between periphery of trail wheels and edges of opening in bottom deck of pallet (see Fig. 3)
F	Distance between underside of fingers and ground (fingers lowered)		

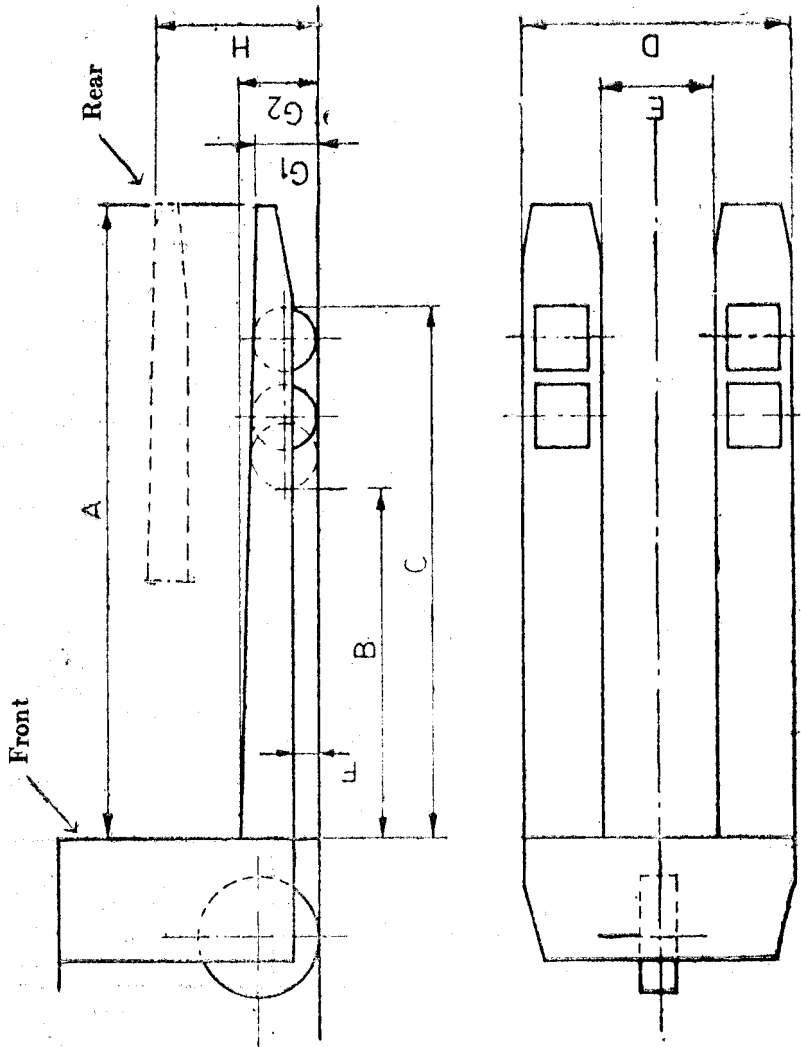


Fig. 1

### 3. FINGER HEIGHTS

3.1 For all pallet trucks in the unloaded condition, the finger heights are as follows :

- 3.1.1 In the lowered position :  $F = 30$  mm minimum  
 $G_1 = 86$  mm maximum  
 $G_2 = 90$  mm maximum
- 3.1.2 In the raised position :  $H = 185$  mm minimum

### 4. FINGER WIDTHS

- 4.1 **Distance between fingers** — For all pallet trucks, the distance between fingers  $E$  is 180 mm minimum.
- 4.2 **Overall Width over Fingers** — Overall width over fingers  $D$  is determined in relation to the corresponding dimensions of standard pallets according to Part 1 of SLS 423 : 1977\*.

The standard dimensions  $D$  are as follows :

$D = 570$  mm maximum, for trucks corresponding to pallets having a minimum entry width  $d$  of 590 mm.

$D = 690$  mm maximum, for trucks used in conjunction with pallets having a minimum entry width  $d$  of 710 mm.

### 5. FINGER LENGTHS

5.1 **General** — Dimensions  $A$ ,  $B$  and  $C$  are related to the dimensions of the deck of the pallet and the minimum openings in the bottom deck, which are symmetrically disposed about the axes of the pallet (see Fig. 2).

The positioning† of the openings in relation to the point of entry is given by pallet dimensions  $b$  and  $c$  as follows:

a (nominal)	b (max)	c (min)
800 mm	482.5 mm	695 mm
1000 mm	583 mm	855 mm
1200 mm	685 mm	980 mm

†Dimensions  $b$  and  $c$  are calculated taking into account the limit positions of the openings permitted by the tolerances on the pallets.

\*SLS 423 : 1977 - Pallets for Through Transit of Goods (Dimensions)



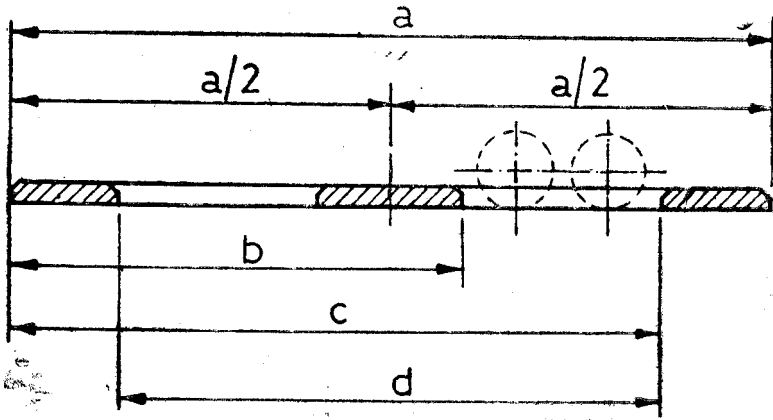


Fig. 2

**5.2 Total Length of Fingers** — In relation to dimension  $a$  of the pallet, the total length of fingers  $A$  is as follows :

Pallet dimension $a$ (minimum)	Finger Length $A$ (maximum)
800 mm	800 mm
1000 mm	1000 mm
1200 mm	1200 mm

**5.3 Dimensions B and C** — Dimensions  $B$  and  $C$  controlling the positioning of the trail wheels relative to the heel of truck during lifting should be such that, when the wheels pass through the minimum size of openings in the bottom deck of the pallet, a minimum clearance  $J$  of 6 mm is maintained between the components of the truck and the edges of the deck boards forming the opening (see Fig. 3). When the truck is operated so that the distance between the underside of the fingers and ground is 34 mm or greater, the clearance  $J$  should also be maintained at the upper side of the bottom deck.

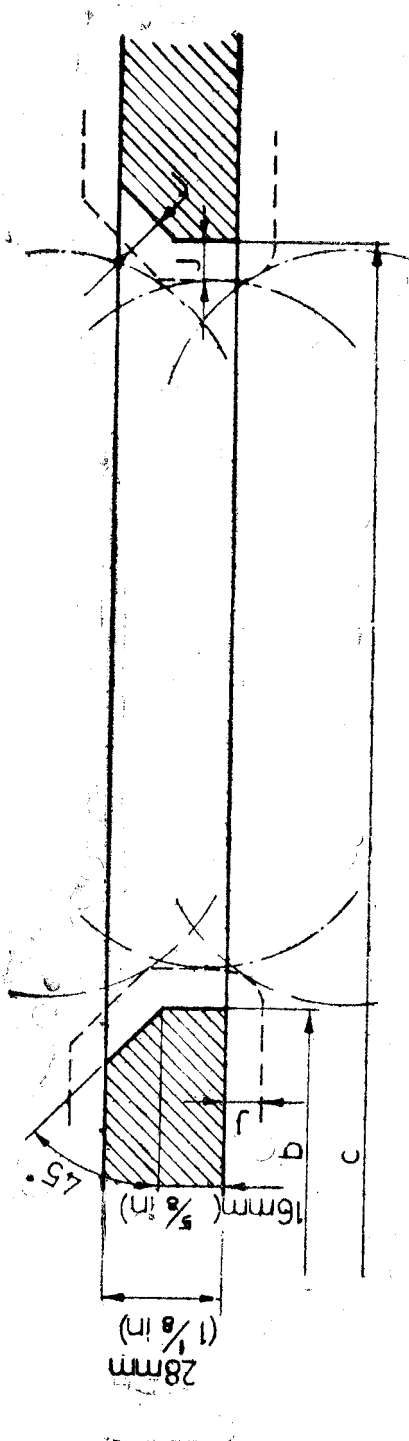


Fig. 3

## **SLS CERTIFICATION MARK**

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The principal objects of the Institution as set out in the Act are to prepare standards and promote their adoption, to provide facilities for examination and testing of products, to operate a Certification Marks Scheme, to certify the quality of products meant for local consumption or exports and to promote standardization and quality control by educational, consultancy and research activity.

The Institution is financed by Government grants, and by the income from the sale of its publications and other services offered for Industry and Business Sector. Financial and administrative control is vested in a Council appointed in accordance with the provisions of the Act.

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