

*Draft Indian Standard*

*भारतीय मानक*  
आयतन ग्रीस पंप – विशिष्टि  
(पहला पुनरीक्षण)

*Indian Standard*  
**Volume Grease Pump — Specification**  
(*First Revision*)

## FOREWORD

This Indian Standard (First Revision) was adopted by the Bureau of Indian Standards after the draft finalized by the Lubricating Equipment Sectional Committee had been approved by the Production and General Engineering Division Council.

This standard covers the requirements of manually operated bucket type volume grease pumps and is based on the manufacturing practices followed in the country.

This standard was first published in 1981. This revision has been taken up due to the experience gained in implementation of the standard. The major changes in this revision are:

- 1) Scope of the standard has been modified to include grease up to NLGI Grade 2 of 265-295 penetration number from to NLGI Grade 1 of 310-340 penetration number.
- 2) Clause on pressure duty has been added to classify Grease Pump based on pressure up to which they are used.
- 3) Clause on Performance Test has been revised based on pressure duty.
- 4) Fig.2 for dimensions of grease pump to be used with grease of Grade NLGI Grade 2 has been added.

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 analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

## **1 SCOPE**

This standards covers the requirements for manually operated volume grease pumps intended for use with greases up to NLGI Grade 2 of 265-295 penetration number and heavy oil of viscosity 150 cSt at 40°C.

## **2 MATERIAL**

The material used for volume pump shall be such as to withstand normal wear and handling when used with grease or oil up to a temperature of 60 °C.

## **3 CAPACITY**

The nominal capacity of the pump shall be 5, 10 or 20 litre.

## **4 PRESSURE DUTY**

L - Low Pressure up to 50 bar

M - Medium Pressure 50 to 250 bar

H - High Pressure above 250 bar

## **5 DIMENSIONS**

Indicative dimensions as shown in Fig. 1, Fig. 2 and the Table 1. The dimensions are indicative and may vary to some extent; however the capacity shall be ensured.

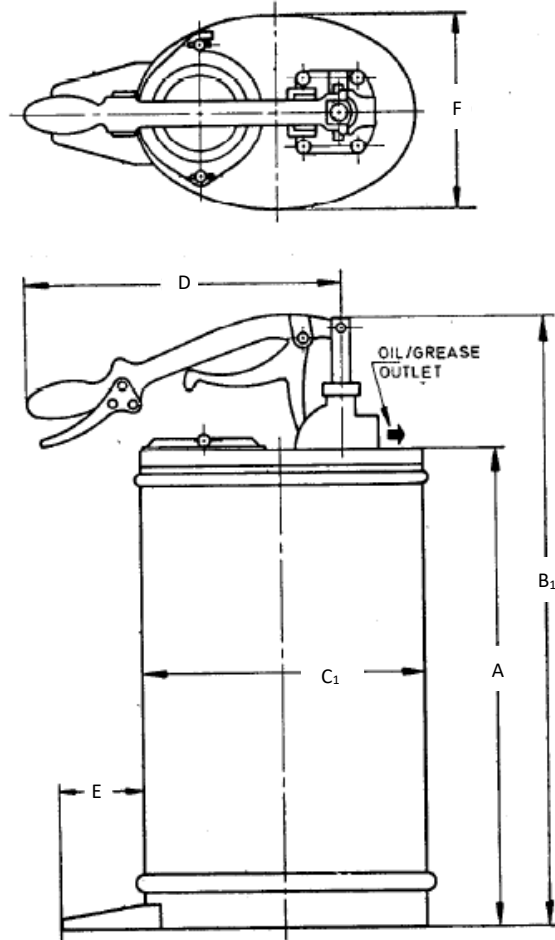


Fig. 1 Heavy Oil and Grease up to NLGI Grade-1

NOTE — Cross Section of the Container to be either elliptical or circular

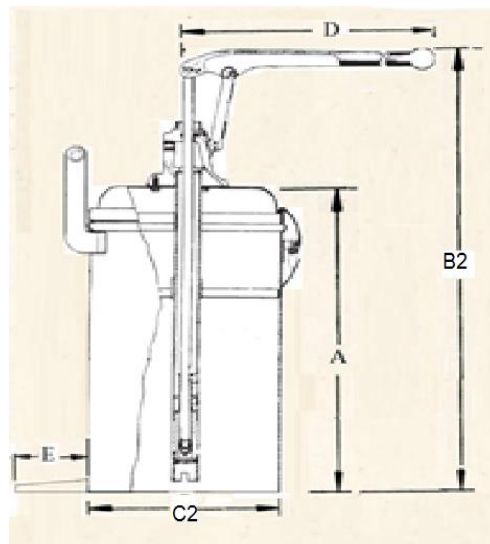


Fig. 2 Grease NLGI Grade-2

NOTE — Cross section of the Container to be circular only (with follower plate)

**Table 1 Dimensions of Volume Grease Pumps**  
(Clause 5)

All dimensions in millimeters.

<b>Capacity</b> <i>litre</i>	<b>A</b>	<b>B<sub>1</sub><sup>1)</sup></b>	<b>B<sub>2</sub><sup>2)</sup></b>	<b>C<sub>1</sub><sup>1)</sup></b>	<b>C<sub>2</sub><sup>2)</sup></b>	<b>D</b>	<b>E</b>	<b>F<sup>1)</sup></b>
5	300	475	450	200	170	350	100	120
10	350	525	525	225	220	350	100	170
20	400	575	610	300	280	350	100	220

1) For Elliptical Container

2) For Circular Container

## 6 DESIGNATION

Volume grease pump having a nominal capacity of 20 litre 250 bar for grease NLGI Grade-2 shall be designated as

Volume Grease Pump 20-H-2 IS 9773

## 7 DESIGN FEATURES

**7.1** Volume pumps shall be robust in construction and easy for operation.

**7.2** Volume pump shall be provided with pressure relief to facilitate easy dis-engagement of connectors from grease nipples.

**7.3** Hose length of 1.5 m with a connector for ease of disengagement.

**7.4** All seals shall be of oil resistant material.

## 8 WORKMANSHIP AND FINISH

**8.1** The volume pumps shall be finished smooth and shall be free from burrs, cracks and other manufacturing defects.

**8.2** Exposed surfaces of volume grease pumps that come in contact with grease shall be plated and the rest painted with oil resistant paint. Fasteners shall be Hexavalent free plating

## 9 PERFORMANCE TEST

The volume grease pump shall have discharge rates per stroke as given below corresponding to pressure duty of the pump.

<i>Pressure duty</i>	<i>Discharge per stroke (gm), min</i>
L	60
M	30
H	1

## **10 MARKING**

**10.1** The volume pumps shall be marked with nominal capacity and manufacturer's name or trade-mark.

### **10.2 BIS Certification Marking**

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act, 2016* and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

## **11 PACKING**

The volume pumps shall be packed in accordance with best prevalent trade practices or as agreed to between the purchaser and the supplier