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INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

ISO RECOMMENDATION

R 1823

RUBBER HOSES

FOR OIL SUCTION AND DISCHARGE

1st EDITION

November 1970

For each individual country the only valid standard is the national standard of that country.

Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 1823, *Rubber hoses for oil suction and discharge,* was drawn up by Technical Committee ISO/TC 45, *Rubber,* the Secretariat of which is held by the British Standards Institution (BSI).

Work on this question led to the adoption of Draft ISO Recommendation No. 1823, which was circulated to all the ISO Member Bodies for enquiry in April 1969. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	Iran	Spain
Belgium	Israel	Switzerland
Brazil	Italy	Thailand
Czechoslovakia	Netherlands	Turkey
Chile	New Zealand	U.A.R.
France	Peru	United Kingdom
Greece	Poland	U.S.A.
Hungary	Portugal	
India	South Africa, Rep. of	

No Member Body opposed the approval of the Draft.

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

ISO Recommendation | R 1823 | November 1970

RUBBER HOSES

FOR OIL SUCTION AND DISCHARGE

1. SCOPE

This ISO Recommendation sets the minimum acceptable requirements for satisfactory performance of rubber hoses for oil suction and discharge.

It also recommends requirements for various types of oil suction and discharge hoses, all having smooth and abrasion-resisting outer covers, for use with all grades of petroleum and blended products having an aromatic hydrocarbon content not greater than 25 %.

NOTE. – For intermittent service these hoses are normally satisfactory for use with petroleum products having an aromatic hydrocarbon content up to approximately 50 %.

The hoses should be suitable for use with products at temperatures up to 80 °C and should be resistant to ageing due to exposure to tropical conditions and to ambient temperatures down to – 30 °C.

Type I

These hoses are intended for use where a relatively stiff, heavy and robust hose can be employed.

The inner lining is supported and reinforced by an internal helix.

Attention is drawn to the drop in flow volume caused by the helix.

Type II

These hoses are intended for use where greater flexibility is required and handling of weight is also of importance.

2. SPECIFICATION

2.1 Test pressure

Class A	Class B	Class C
0.7 MN/m^2	1.0 MN/m^2	1.5 MN/m^2

It will be noted that no reference is made in this ISO Recommendation to the hose working pressure; instead, the hoses have been classified by test pressure and it is left to the user to determine the appropriate working pressure. This will depend on the severity of the user's operating conditions and on the service life that is expected of the hoses. However, a normal rule is that hoses should not be subjected to working pressures higher than the test pressures specified.

2.2 Dimensions and tolerances

2.2.1 *Diameters.* Hoses should have bores substantially conforming to those given in Table 1.

TABLE 1

Dimensions in millimetres

Nominal bore		
Class A	**Class B**	**Class C**
50	75	160
63.5	100	180
75	160	200
100	180	250
160	200	300
180	250	390
200	300	490
	390	
	490	

2.2.2 *Length.* Hose lengths should be measured from outside face to outside face of flanges or, when supplied without flanges, from end to end of the nipples outside the hose.

TOLERANCE ON LENGTH. The actual length of a finished hose, as defined above, should not differ from the nominal length by more than + 2.5 % or − 1.5 %. For this purpose the hose should be measured before being subjected to the specified tests.

PROJECTION OF END CONNECTIONS. The length of each nipple or flanged end connection outside the hose may be as recommended in Table 2.

TABLE 2

Dimensions in millimetres

Bore of hose	Length to end of screwed nipple (flanges not fitted) all types		Length to back of factory fitted flanges all types	
	min.	max.	min.	max.
50	127	152	102	127
63.5	127	152	102	127
75	127	152	102	127
100	152	178	103	133
160	152	178	103	133
180	165	190	127	152
200	165	190	127	152
250	178	203	127	152
300	178	203	140	165
390	203	229	152	178
490	–	–	–	–

2.3 End connections

All hoses should have built-in nipples. Nipples when screwed should have threads as agreed between the manufacturer and user. Nipples when not screwed may have flanges of either slip-on or welding neck type, attached by welding, or may be designed for other forms of end connections. Unless otherwise specified, the material of the nipples and the flanges should be steel. The purchaser should specify in full the type of connection required on the nipples.