3-GP-670
CANCELLATION
22 February 1957

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

GREASE; GENERAL PURPOSE, NO. 0

CGSB Specification 3-GP-670, dated 31 December 1947 is cancelled as of 22 February 1957.

ARCHIVES COPY

3-GP-670
31 December, 1947
CORRECTION NO. 1
3 July, 1950

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

GREASE - GENERAL PURPOSE, NO.0

C. DETAILED REQUIREMENTS

C-1 Physical and Chemical Requirements

The Flash Point and Pour Point requirements shall be read as applying to the Mineral Oil Content (not to the grease).

Withdrawn/Retirée

REFERENCE COPY

No. 3-GP-670-1947
Issued 31 December, 1947
Supersedes D.N.D. 670

CANADIAN GOVERNMENT PURCHASING STANDARDS COMMITTEE

Specification for GREASE - GENERAL PURPOSE, NO. 0**

A. DEFINITION

A-1 This specification covers one grade of general purpose chassis grease. The consistency shall conform to Grade No. 0, National Lubricating Grease Institute.

B. GENERAL REQUIREMENTS

B-1 Material The grease shall be a smooth homogeneous mixture of well-refined mineral oil and aluminum or calcium soaps, or a mixture thereof, made from completely saponified animal or vegetable fats or oils or fatty acids.

B-2 Fillers The grease shall contain no fillers, such as rosin, rosin oil, talc, wax, powdered mica, kaolin, sulphur, asbestos, graphite or any materials having undesirable or deleterious effects on lubrication.

B-3 Odour The grease shall possess only a slight odour of mineral oil, and may be rejected if it has any other distinct odour.

C. DETAILED REQUIREMENTS

C-1 Physical and Chemical Requirements

	Min.	Max.	Test Method
Worked Penetration at 77°F.	355	385	35.1
Free Alkali (NaOH), per cent	-	0.2	2.3
Water, per cent	-	1.5	10.2
Ash, Sulphates, per cent	-	3.5	42.5
Insoluble Matter, per cent	-	0.1	43.3
*Free Fatty Acids (Oleic), per cent	-	0.3	2.4
Corrosion	-	Nil	60.11
Mineral Oil Content, per cent	90	-	8.1
Viscosity at 0°F.			
Kinematic, Centistokes	-	16,346	36.1
Approx. S.U. Seconds	-	75,000	36.2
Viscosity at 100°F.			
Kinematic, Centistokes	59.5	70.3	36.1
Approx. S.U. Seconds	275	325	36.2
Flash Point, °F.	350	-	27.1
Pour Point, °F.	-	-15	28.2

* If aluminum soap is present this determination shall be ommitted.
** For other grades of General Purpose Grease see Specification No. 3-GP-603,-671 and -672.

Withdrawn/Retiree

D. USES

D-1 GREASE - GENERAL PURPOSE, NO. 0 is intended for general purpose chassis lubrication at temperatures below 32°F. (0°C.).

E METHODS OF SAMPLING AND TESTING

E-1 A sample of not less than five pounds shall be provided for tests and shall be obtained in accordance with section 1.3 of Schedule No. 3-GP-0: Methods of Testing Petroleum and Associated Products.

E-2 The methods of testing shall in all cases be those described in Schedule No. 3-GP-0, using the procedure specified with each requirement.

Withdrawn/Retirée

Correspondence regarding this specification should be addressed to the Secretary, Canadian Government Purchasing Standards Committee, National Research Council, OTTAWA, Canada.

Wartime Specification
D.N.D. 670

3-GP-21-1943.
Issued 18 June, 1943.
Amended 10 November, 1943.
Superseding issue of
9 October, 1942.

CANADIAN GOVERNMENT PURCHASING STANDARDS COMMITTEE

Specification for
Grease, General Purpose, No. 0

This specification may not be reproduced or published in any form without written authority.

A. GRADE

A-1. This specification covers one grade of general purpose chassis grease designated as Grade No. 0 by the National Lubricating Grease Institute.

B. GENERAL REQUIREMENTS

B-1. Material. The grease shall be a smooth homogeneous mixture of well-refined mineral oil and a metallic soap, or mixtures of metallic soaps, made from animal or vegetable fats or oils or fatty acids, completely saponified with either calcium or aluminum or mixtures thereof.

B-2. Fillers. The grease shall contain no fillers, such as rosin, rosin oil, talc, wax, powdered mica, kaolin, sulphur, asbestos, graphite or other undesirable or deleterious materials.

B-3. Odour. The grease shall possess only a slight odour of mineral oil, and may be rejected if it has any other distinct odour.

C. DETAIL REQUIREMENTS

C-1. Physical and Chemical Requirements

	Minimum	Maximum
Worked Penetration at 77°F.	355	385
Free Alkali (calculated as NaOH)		0.2
Water, %		1.5
Ash, as Sulphates, %		3.5
Insoluble Matter, %		0.1
xFree Fatty Acids (calculated as Oleic) %		0.3
Corrosion	Nil	
Mineral Oil Content, %	90	

xIf aluminum soap is present this determination will be omitted.

Withdrawn/Retiree

3-GP-21-1943.

C-1. (Continued)

	Minimum	Maximum
Mineral Oil -		
- Viscosity at 0°F. S.U.		75000
- Viscosity at 100°F. S.U.	275	325
- Flash, °F.	350	
- Pour Point, °F.		-15

D. INSPECTION AND TESTS

D-1. Unless otherwise specified, the mineral oil and the grease shall be tested according to the following Standards or Tentative Standards of the American Society for Testing Materials (A.S.T.M.):

Test	A.S.T.M. Test No.
Separation of Mineral Oil, Constituents	D128-40
Viscosity of Mineral Oil, Constituent	D88-38
Flash Point of Mineral Oil, Constituent	D92-33
Worked Penetration	D217-38T
Water Content	D128-40
Ash as Sulphates	D128-40
Free Alkali (as NaOH)	D128-40
Insoluble Matter	D128-40
Free Fatty Acids	D128-40
Fillers	D128-40
Corrosion	See para. D-1a.

D-1a. Corrosion Test

(1) This method of test shall be used for detection of corrosive properties of greases or other solid or semi-solid products.
(2) Clean, well-polished sheets of copper shall be used for this test. In general, sheets about 1-inch (25-mm) square will be found most convenient.
(3) Place a small portion of the grease to be tested on each of the metal plates, taking care not to cover the whole surface of the metal plates. Cover each plate with an inverted watch glass and let stand at room temperature for 24 hours. There must be no evidence of corrosion on the plate, either when examined with the sample in place or after removing it by washing with benzol. Either the development of a green colour in the material on the copper or a brown stain remaining on the copper after washing with benzene which passes the corrosion test, A.S.T.M. Method D130-30, is evidence of corrosion.

Withdrawn/Retired

D-2. Approval of Products

The contractor shall be required to forward for approval, a one pound sample of the grease and also a one pint sample of the mineral oil used to prepare this grease. The grease sample shall be accompanied by a typical analysis and all future shipments shall conform to the specification and have the same appearance and texture as the original sample. Upon approval of the original sample by the Department of National Defence, the name of the contractor will be placed on the approved list as a source of supply.

D-3. Analysis of Shipments

The contractor shall certify on the Invoice covering each shipment, that the product meets all the requirements of the specification under which it was purchased. In the event that the product supplied fails to meet the requirements of the specification, a rebate of 25% of the price charged will be required on the portion already used, and the balance will be returned to the contractor at his own expense, for credit. The name of any contractor supplying products which do not conform to specifications required on tenders may be deleted from the list of eligible contractors, until such time as the contractor can guarantee the supply of a satisfactory product.

E. PACKING AND MARKING

E-1. Packing. The grease shall be packaged in approved types of containers of the sizes and containing the quantities of specified in the Invitation to Tender.

E-2. Marking. Drums or other individual containers, shall be plainly and legibly stencilled as follows:

Grease, General Purpose, No. 0
D.N.D. 670
Net Weight of contents
Date of Filling
Name of Manufacturer

E-3. When material to this specification is to be supplied to the Royal Canadian Air Force, the contractor shall also include the R.C.A.F. reference number and the contract demand number.

F. NOTES

F-1. This specification is based on U.S. Army Specification No. 2-106, dated 1st May, 1942, and amended 30th Nov. 1943.

F-2. Grease, General Purpose, No. 0 is intended for general purpose chassis lubrication.

F-3. Copies of this specification may be obtained by addressing requests to:

The Secretary,
Canadian Government Purchasing
Standards Committee,
National Research Council,
OTTAWA, Canada.

Withdrawn/Retirée

3-GP-670
31 December 1947
AMENDMENT NO. 1
16 August 1956

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

Specification
for

GREASE; GENERAL PURPOSE, NO. 0

C. DETAIL REQUIREMENTS

C-1 Physical and Chemical Requirements

(a) Delete the whole of the corrosion requirement.

(b) Insert new corrosion requirement at the end of Section C-1 as follows:

C-1-1 Corrosion - After immersion of a copper strip in the grease at 100°C for 24 hours there shall be no evidence of a green color in the material on the strip. There shall be no pitting, etching or marked staining of the copper after washing with benzene. Staining which is not more marked than Classification 1 of ASTM D130 will be regarded as passing the test.

3-GP-0 Method 60.10a"

(c) Insert the following footnote on the bottom of page 2 of copies of the specification reprinted 26 August 1952:

"*** If aluminum soap is present this determination shall be omitted."

Withdrawn/Retirée

1st Draft
30.7.56

3-GP-670
31 December 1956
AMENDMENT NO. 1

CANADIAN GOVERNMENT SPECIFICATIONS BOARD

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Withdrawn/Retirée

3-GP-670

31 December 1947*
Supersedes DND 670

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* Reprinted 26 August 1952 with no change in technical requirements and with the incorporation of Correction No. 1 dated 3 July 1950.

** For other grades of General Purpose Grease see Specification No. 3-GP-603, -671 and -672.

PRICE 5 cents

Withdrawn/Retirée

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Withdrawn/Retirée

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