

Letter from the Falex Corp.

This test was conducted for Kal-Gard, Now KG Products.

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October 15, 1987

KAL-GARD COATING & MFG. CORP.
ATTENTION: Mr. Christopher Potthast
16616 Schoenborn St.
Sepulveda, CA 91343

SUBJECT: Purchase Order 1CP304

Dear Mr. Potthast

Attached is Falex Pin and Vee Block test data on your samples received September 9, 1987 and Identified as "Gun Oil" (TL-2480). Test were performed according to MIL-L-63460D, "Military Specification; Lubricant, Cleaner and Preservative for Weapons and Weapons Systems, Paragraph 4.7 Falex Load Carrying Capacity, and Paragraph 4.8, Falex Wear Life.

Test specimens and fluids are being forwarded to your attention via UPS.

Thank you for the opportunity to serve you. please call me. Should you have any questions,

H. Micheal Anderson
Mgr. Testing Service

HMA/lm
DATE: September 22, 1987 T.L. #: 2480
MACHINE: Falex Pin and Vee Block

TEST DESIGNATION: MIL-L-63460D, para. 4.7, Falex Load Carrying Capacity

TESTING CONDITIONS:

RPM 290 +- 10 Duration: 1min

TEMPERATURE: Ambient Specimen Load: 750 lb gage load

Fluid: Gun Oil 7/20/87

SPECIMEN PIN:

TYPE Falex #8
HARDNESS, HRB 87 - 91 SURFACE FINISH, rins, ijin 10 max

SPECIMEN "V" BLOCK:
TYPE AISI 1137
HARDNESS, HRC 20 - 24 SURFACE FINISH, ~ms, ijin 10 max.

TEST #	LOAD, lb	DURATION, minute
1	750	1
2	750	1
3	750	1

MACHINE: Falex Pin and Vee Block

TEST DESIGNATION: MIL-L-63460 D, para.4.8, Falex~Wear Life

TESTING CONDITIONS:

RPM 290 +- 10 Duration: To Fail

TEMPERATURE: Ambient

Fluid Gun Oil 7/20/87 SPECIMEN Load: 250 lb. direct load

SPECIMEN PIN:

TYPE Falex #8

HARDNESS, HRB 87 - 91 SURFACE FINISH, rills, £iin 10 max.

SPECIMEN NVU BLOCK:

TYPE AISI 1137

HARDNESS HRC 20 - 24 SURFACE FINISH, rins, ~in 10 max.

TEST # DURATION, sec

1	1491
2	1846
3	2138
4	1593
5	1624

Average Wear Life = 1738

Letter from the South African Army (the test was a complete surprise to them)

Mr. R. Nesbitt
Managing Director
Kal-Gard 81 Umbilo Road
Durban 40U 1

Dear Sir

FEED BACK ON WEAPON OIL CLP2

1. It has once again come to the attention of this Headquarters that CLP2 KG- (cleaning~lubricating~preservative oil) KG-4 is by far the best weapon oil that the SA Army has ever used for the following reasons:

- a. During field endurance tests carried out by the School of Armor in Bloemfontein and attended by Lyttelton Engineering Works, Armscor and Army Headquarters (DIS) over this period 19th to 23 September 1989, the following was noted concerning CLP2 weapon oil;
 - i. The tests were designed to test standard machine guns fired from Armored cars under extreme field conditions by firing 25,000 rounds from each weapon during a five day period. The weapons being subjected to extreme rates of fire and minimum lubrication.
 - ii. Due to the extremely high rate of fire 12 barrels were worn out by 4 machine guns, and temperatures exceeded 560 C on some of the components.
 - iii. The guns were cleaned and oiled with CLP2 beginning of the tests and again after 10 cycles of 30 x 200 round belts of ammunition had been fired. All the guns fired 6,000 rounds without stoppages due to lack of lubrication.
 - iv. Cleaning of the guns after firing was made easy due to the cleaning and Carbon suspension action of CLP2 oil.
 - v. The oil was not specifically under test and the results derived were a complete surprise. With the weapon oil previously used it would have been unusual to fire more than 750 to 1,000 rounds under these conditions without stoppages due to lack of lubrication.

2. Due to the results achieved during these tests this Headquarters (DIS) will continue to recommend the use of this weapon oil.

Yours Faithfully