

DETAILS OF INTERESTING CLAIM

No: DOIC 7

Type of Insurance:

G

Description of damaged item:

24 locomotive traction transformers

Cause of Loss:

(use code)

(3) – Faulty design

Claim Cost (100%)

(Net of deductible or time excess)

US\$ 1.4 Mio.

Description of Incident and Loss Prevention Measures initiated:

After a few operating hours, several locomotives stopped due to gas alarm in the Buchholz-relay of the traction transformers. Gas analysis indicated an overheating problem.

Investigations at the manufacturer's premises revealed a design fault. Normally the heating remains below limits. In our case, however, electrical leakage flux leads to excessive high temperature in the tie rods of the core construction and as a consequence to oil degeneration.

To rectify the damage, a replacement of the 6 tie rods, made of magnetic steel, by tie rods made of non-magnetic stainless steel was necessary. In addition, the protective bakelite tubes covering the tie rods were removed in order to allow the oil to circulate and cool more efficient.

For the other units, which were in operation, it was recommended to take oil samples, every second week.

Outline the interesting or unusual aspects of this claim or problems experienced during settlement:

Although the design fault was obvious, it turned out to be difficult to stop the use of the transformers as the locomotives were in service. The retrofit planning had to be coordinated in accordance with the client's requests as well as those of the supplier of the locomotive.

The discussions were difficult because of the distinction between effectively damaged tie rods and those which were simply deficient. Another difficulty in settling the claim was that several transformers were taken into operation without being rectified after the design problem had been found.

A second design fault in an auxiliary transformer within the same system also proved to be defective and had to be rectified as well.

CODES

1. Type of Insurance

M Machinery Breakdown

BE Boiler Explosion

LP(M) M - Loss of Profits

ALOP (DSU) Advance Loss of Profits

EAR Erection All Risks

CAR Contractors All Risks (Civil)

G Guarantee

EE Electronic Equipment

O Other Classes

2. Cause of Loss

(1) Faulty operation

(2) Faulty material or workmanship

(3) Faulty design

(4) Other internal causes

(5) Fire

(6) Explosion

(7) Storm

(8) Earthquake

(9) Other external causes

(10) Other causes or unknown