
CERTIFICATE OF TEST

Test of two roof bolt assemblies (18 mm x 1.5 m)

Application Received: 04 March 2020

Certificate No.: T28054

Order No.: COD

Date of Test: 06 March 2020

SUBMITTED TO

Mr Jo du Plessis
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1. INTRODUCTION

At the request of Mr Jo du Plessis of Reunko Steel Suppliers, two roof bolt assemblies (18 mm x 1.5 m) were submitted for tensile testing to destruction. The test was conducted in accordance with the customer's request.

Each assembly comprised:

- 1 x 18 mm x 1.5 m threaded rebar
- 1 x M18 nut
- 1 x Dome washer
- 1 x Dog ear dome plate

2. TEST PROCEDURE

Testing machine: 1 000 kN Amsler Universal testing machine
Test type: Destruction in tension
Test specification: Customer's request

The bolt assemblies were in turn installed in the 1 000 kN Amsler Universal testing machine using suitable fittings as shown in Figure 1. A gradually increasing tensile load was applied to each assembly until failure occurred.

*NB. The length under tension of the 1.5 m length roof bolt assemblies was restricted to 1130 mm in order to accommodate the stroke of the testing machine.

Notice:

ONLY the original signed report must be regarded as the official document.

Testing Officer: 
JUAN KGANYAGO

Engineer: 
RUTH TELEKA



Figure 1. Roof bolt assembly (18 mm x 1.5 m) installed in the testing machine

3. TEST RESULTS

The results of the destruction tests carried out on the roof bolt assemblies (18 mm x 1.5 m) are summarised in Table 1.

Table 1. Test results for the roof bolt assemblies (18 mm x 1.5 m)

Test No.	Maximum load carried (kN)	Mode of failure
1	205	The roof bolt fractured at the notched threaded portion for Specimen 1 and the nut stripped off the bolt threads for Specimen 2. The failure modes are as shown in Figure 2.
2	202	



Figure 2. Roof bolt assemblies (18 mm x 1.5 m) after testing

4. DISCLAIMER

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Certificate No.: T28054
Date of test: 06 March 2020
Applicant: Reunco Steel Suppliers
Description: Roof bolt assemblies (18 mm x 1.5 m)

Test No.:	1	2
Maximum Force:	205 kN	202 kN

