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Date

Our Ref.

Your Ref.

26th July 2005.

Certificate No. 082/07/05

National Roads Authority - Approval of Safety Barrier System

The National Roads Authority approves the use of the under mentioned safety barrier system as fit for its intended purpose when used in accordance with DMRB Standard NRA TD 19/04, the NRA Specification for Road Works and the requirements of this Certificate.

This approval is based on the information contained in the TB11 impact test report number SIS/BSI-07/608 and the TB61 impact test report number SIS/BSI-08/609A compiled by L.I.E.R, in accordance with the requirements of IS EN 1317 Parts 1 and 2, and other documentation submitted to this Authority by the manufacturer.

1. Safety Barrier System

Steelgard H3 Central Reserve Safety Barrier.

2. Manufacturer

S.B.S. di Serafin,
Saccon e C. s.n.c,
San Polo di Piave (TV),
Italy.

3. Description

The system as tested is described as a central reserve safety barrier fitted to a concrete beam, 96m long, 0.7m wide and 1.2m deep, with a resistance to compression greater than 35Mpa. The overall length of the device was 84m. The installation height at the point of impact was 1.62m. The installation tested consisted of 14 metal modules each measuring 5980mm in length. Each 5980mm module, forming a trapezoidal box section, was made by bending two facing elements and assembled by welding. Each module is secured to the concrete beam at four points alternating between the traffic face and the rear of the system. Thus, the module is fixed to the concrete every 1.5m alternating in relation to the front and rear by four stainless steel threaded rods (M22 x 340) anchored with chemical resin. At the top of each module two sleeves are positioned and welded at 3m centres to accommodate the 930mm long 80 x 80 x 8mm supports for the 114.3mm diameter, 2940mm long, 10mm thick, top hand rail.

Details of the system are as shown on the manufacturer's drawings: Rif. DIS 202150 – foglio 02/25 to Rif. DIS 202150 – foglio 23/25 which are contained in the impact test reports.

4. Purpose

Use only as described in standard NRA TD 19/04 (NRA DMRB 2.2.8A), for safety barriers requiring the following performance criteria:-

Containment Level	- H3
Impact Severity Level	- B
Working Width	- W4

NOTE: The maximum lateral position of the test vehicle during the impact test was **1.4 m**. This dimension should be used as the *working width* if the Vehicle Restraint System is to be installed in the vicinity of any physical obstruction or a structure, typically a bridge pier.

The length of the safety barrier system shall be sufficient to demonstrate the full performance characteristic of the system.

5. Ground Conditions

The Manufacturer shall provide information on the ground conditions that existed when the system was successfully tested in accordance with IS EN 1317 Parts 1 & 2.

The Contractor/Installer shall demonstrate that the ground conditions on site are suitable for the safety barrier system to function as designed and tested. (See NRA Specification for Road Works Clause 407)

6. Installation

The safety barrier shall be installed in accordance with the manufacturer's installation requirements and in the same manner as it was installed for the initial type test.

7. Durability

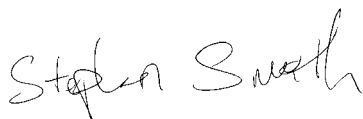
The required service life of 20 years shall be deemed to be satisfied by providing a galvanised coating to all steel components in accordance with IS EN ISO 1461 and in addition the coating weight shall comply with Table 4/1 of the NRA Specification for Road Works.

8. Period of Validity

The continuing validity of this Certificate is conditional upon an acceptable quality of materials, workmanship and performance being maintained.

The current validity of this Certificate may be checked by contacting the Specifications Section of the National Roads Authority.

Issued on behalf of the National Roads Authority by:



Stephen Smyth.
Engineering Inspector.