# SECTION 16

## NON CONVENTIONAL ROLLINGSTOCK

**ROA MANUAL**

**SCHEDULE OF AMENDMENTS**

**SECTION 16**

| AMENDMENT NUMBER | PAGES AMENDED | AMENDMENT SUMMARY | DATE ISSUED |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# TABLE OF CONTENTS

## 16.1 SCOPE

This Section specifies the minimum design and performance requirements for Non-Conventional Rollingstock, the operation of which require that some Sections of this Manual are not appplicable.

## 16.2 APPROVAL

Prior to any vehicle being placed in intersystem operation it shall be approved by all ROA member Systems involved in its transit and conform in general to the requirements of relevant sections of this manual.

## 16.3 NON CONVENTIONAL ROLLINGSTOCK DESIGN CRITERIA

### 16.3.1 RAIL COMPATIBLE ROAD TRAILERS

#### 16.3.1.1 General

The system is based on the use of rail compatible road trailers as the sole vehicle on both road and rail. For rail use, the trailer is raised to allow a rail bogie to be fitted under a special rear subframe, the front of the trailer being supported on the rear of the trailer in front.

A transition vehicle may be used to couple units to conventional rollingstock.

#### 16.3.1.2 Design Criteria (See Figure 16.1)

Each unit is essentially a conventional road trailer designed in accordance with AAR Specification RP-257-90 and capable of absorbing draw and buff loads up to 650 kN.

Additional equipment on each unit for rail operations shall include a separate train brake pipe, inter-trailer connectors at front and rear, valves and piping necessary for road/rail transfer and coupling operations, and facilities to raise road wheels clear of the rail.

In rail mode the road wheels shall clear the rail by at least 100 mm with fully worn rail wheels, solid bogie springs and with new road tyres fitted. No part of the vehicle is permitted to extend beyond the Outlines shown in Section 18 for the proposed Rail Corridor in which it will operate. Each unit shall also comply with all applicable State and Federal Road Transport Authority Regulations (ADR 38 etc).

The units in rail mode will be coupled to the locomotive or normal train consist by means of a suitable adaptor to haul 40 units, loaded to 42 tonnes gross on rail each, up a 1 in 30 grade. This adaptor shall be designed in accordance with the relevant Sections of this Manual for draw and buff loadings etc.

The rail bogie shall be designed in accordance with Section 6 of this manual with brakes designed in accordance with Section 7 and AAR Specification RP-257-90. All braking equipment shall be bogie mounted.

The rail compatible road trailers, when operating in the rail mode, shall comply with the Roadworthiness Acceptance Standards as contained in Section 3, excluding impact testing.

**DIAGRAM 16-1**

**RAIL COMPATIBLE ROAD TRAILER LEADING DIMENSIONS**