Information Bulletin

Queensland Government

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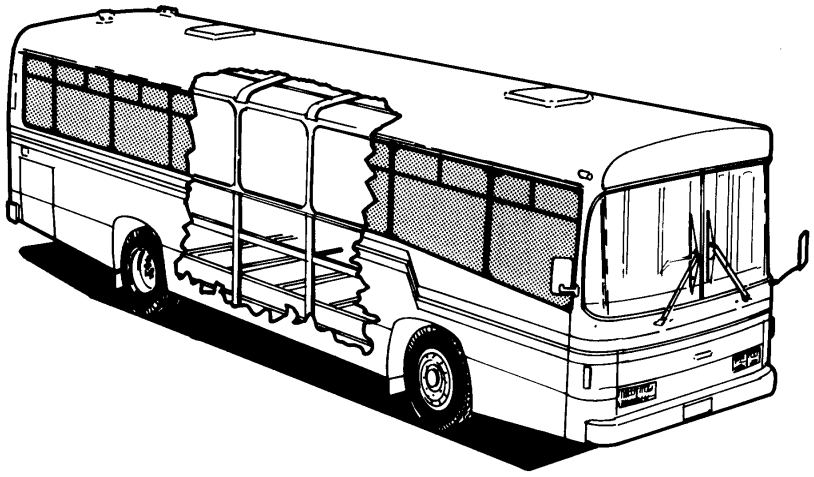

Standards for Heavy Bus Service Life Extensions

Schedule 2 of the *Transport Operations (Passenger Transport) Standard 2010* sets out the requirements for heavy bus life extensions. This information bulletin outlines the requirements for types of heavy buses suitable to provide public passenger services and the requirements to obtain a life extension for these particular buses.

As an alternative to the replacement of an aging heavy bus, owners may wish to consider refurbishing it to extend the service life of the bus. Two types of refurbishment are available. However, each will require a commercial decision by the owner to determine if the bus should be replaced or refurbished to extend its life.

This information bulletin outlines the requirements for either:

- carrying out a partial refurbishment to achieve a five year life extension to the 30 year maximum age standards, or
- fully refurbishing a heavy bus to meet the Age Zero requirements.

Public passenger vehicles are classified in accordance with one of the following operating environments:

- Open classification - A vehicle classified for open use may operate over an unlimited distance.
- Regional classification - A vehicle classified for regional use may operate within a radius of 350 km from the first passenger pick-up point.
- Local classification - A vehicle classified for local use may operate within a radius of 40 km from the first passenger pick up point, or a radius exceeding 40 km providing the journey is entirely within a single or contiguous urban area.

Five year life extension

A heavy bus may have its service life extended an extra five years subject to the vehicle undergoing a basic refurbishment, Australian Design Rule (ADR) upgrade and certification by an Approved Person to Code of Practice S13 “Bus life vehicle rating”.

A five year life extension requires refurbishment of the bus, including an engineer's certification of:

- the structural integrity and serviceability of chassis, body, suspension, steering and brake components, and
- compliance with all ADRs applicable five years after the bus was first registered (anywhere)*, other than ADRs for exhaust emissions.

** See information bulletin VS11 "Standards for Public Passenger Type, Age and Use" for details on how to calculate the age of a vehicle if the date of first registration (anywhere) is not available. The operator is responsible for proving the age of the bus, not the Department of Transport and Main Roads.*

A five year life extension can only be performed once in the life of any bus. It should be noted that this five year extension is not considered a complete refurbishment. The bus will retain its original year of manufacture for the purpose of registration.

For practical implementation, this five year life extension can be applied for after a bus turns 18 years of age, but before it turns 25 years of age.

Open, Regional or Local classification buses that have a five year life extension between turning 18 years of age and turning 25 years of age may continue in Open, Regional or Local classification use, as applicable, until they turn 30 years of age.

Conditions of refurbishment

Australian Design Rules – (ADR’s)

- The bus must be upgraded to comply with the ADRs applicable five years after it was first registered.
- The only ADRs which are exempted from this requirement are those related to control of exhaust emissions. Therefore, an engine does not require upgrading to a later exhaust emissions’ ADR.
- Owners should carefully consider the potential cost of ADR upgrading before committing to a bus life extension, particularly with regard to ADRs for roll over strength and seat belts as they become applicable. No exemptions will be given from safety related ADRs.

Body

- The body must be in good structural condition. If the body work shows signs of structural damage, or signs of corrosion of the frame (eg: rust stains, loose rivets, loose or rusted panels), or if the bus has not passed a frame inspection within the previous five years, a full panel removal and frame inspection is required. See information bulletin VS09 “Standards for the structural inspection and repair of buses” for the requirements for a frame inspection.
- All interior trim material must be free from damage and in good serviceable condition.
- All side facing seats in Regional classification buses must be removed and replaced with forward or rearward facing seats.
- Exposed handrails, seats and partitions must be padded where specified under Schedule 1 of the *Transport Operations (Passenger Transport) Standard 2010* (refer to information bulletin VS12 “Standards for safety padding for bus handrails, seats and partitions”).
- All inferior or damaged floor coverings must be replaced with suitable non slip type material.
- Windows and window sealing must be in good condition.
- Paintwork must be in good condition.

Chassis and Suspension

- All components are to be cleaned, inspected, and crack tested if necessary, to ensure they are rust free, structurally sound and within service wear limits.

Steering

- Power steering components must be free of leaks. Cracked or oil affected hydraulic hoses must be replaced.
- Stub axles and all steering arms (including pitman arms and drag links) are to be crack tested. Note: - Defective components must be replaced. No repairs using heating or welding processes are considered acceptable.

Brakes

- Fully overhaul and refurbish the complete braking system including replacement of flexible air or hydraulic lines, valve seals, diaphragms etc. All replacement components must comply with acceptable national or SAE standards.
- Physical testing of vehicle braking performance to meet the *Transport Operations (Road Use Management - Vehicle Standards and Safety) Regulation 2010* performance requirements for both service and parking brakes.

Electrical

- All electrical fittings, lights, reflectors, lenses and wiring must be in a serviceable condition.
- Light and reflector lenses must be free from cracks, and have serviceable reflective surfaces. Discoloured or cracked lenses must be replaced.
- All electrical wiring and wiring conduit must be secure, shielded from the effects of excessive heat, and in serviceable condition.
- Voltage under load with engine running at each lamp must not be more than 10% below nominal system voltage, eg. 10.8 volts for 12 volt system.

Engine and Driveline

All components will require visual and physical inspection, and may require dismantling if necessary, to ensure reliability and mechanical integrity, including:

- Adequate power output.
- Free of oil, water, air and vacuum leaks.
- Free of exhaust leakage, excessive noise and excessive smoke emission. (Vehicle should be operated under load and not emit visible smoke continuously for more than 10 seconds).
- Transmission and driveline security. All components must be free of oil leaks, excessive wear or backlash in driveline.
- Rubber mounts and dampers are to be free of oil impregnation, cracking and deterioration.
- Remove, dismantle, clean and inspect all axle hub assemblies. Replace all hub oil seals and gaskets. Replace wheel bearings where necessary.

Age zero refurbishment

Age Zero refurbishment is the complete refurbishment of the rolling chassis, the fitting of a new body and the upgrading of the bus to meet all the safety and emission standards applicable to a new heavy bus at the time of refurbishment.

Age Zero requires an engineer's certification of the structural integrity and serviceability of the chassis, body, suspension, steering and brake components, and compliance with all ADRs applicable to a new bus at the time of completion.

Buses which are completely refurbished in accordance with the conditions outlined below will be considered by the Department of Transport and Main Roads to qualify as Age Zero, for the purposes of the *Transport Operations (Passenger Transport) Standard 2010.*

It should be noted that these buses will retain their original year of manufacture for the purpose of registration.

Conditions of refurbishment

- The bus must comply with all ADRs applicable at the date of completion of the refurbishment. Buses intended for Open or Regional classifications must comply with all ADRs applicable to Non Route Service Buses.
- A completely new body (including all interior and exterior fittings and equipment) is required.
- Evidence must be provided which will verify that all mechanical components (engine, gearbox, steering, suspension and axles, etc) have been rebuilt. This is to include replacement of all gaskets, seals, bearings and wearing components.
- Structural components (chassis, spring hangers, etc) must be dismantled, visually inspected and crack tested if necessary. All components must then be replaced or refurbished as necessary.
- The complete braking system must be fully rebuilt including replacement or refurbishment of all wearing components, replacement of all flexible air or hydraulic lines, valve seals, diaphragms, springs etc. All components must comply with the appropriate national or SAE standards.

General requirements for five year life extensions or age zero refurbishment

Australian Design Rule certification and the inspection and refurbishment of mechanical and structural components must be supervised by an Approved Person, appointed under the *Transport Operations (Road Use Management) Act 1995*, with the Code of Practice - Commercial Motor Vehicle Modifications Code S13. This Approved Person is required to provide certification that all critical mechanical and structural components have been visually inspected and crack tested where necessary.

Vehicle systems and components which have been recently refurbished or replaced will not be required to be dismantled or refurbished. Documentary evidence, or proof of this, must be supplied to the Approved Person.

All modifications completed as part of a refurbishment process or which may have been done in the past, must be in accordance with the standards described in the National Code of Practice - Heavy Vehicle Modifications, and be certified by an Approved Person.

Each vehicle, prior to re-introduction into service, must undergo a full evaluation and rating by an Approved Person under the requirements of the Code of Practice Commercial Motor Vehicle Modifications Codes S4 or S5, and S6 to validate the passenger carrying capacity and compliance with safety requirements.

On completion of the certification by the Approved Person under Code S13, a Certificate of Modification and a Modification Plate will be issued for the vehicle five year life extension or Age Zero as applicable.

Additional information

The information contained in this bulletin has been produced as a guide to assist in the understanding of the legislation and policy. Clarification of any information in this bulletin may be obtained from The Department of Transport and Main Roads by contacting your local Passenger Transport office of the Department.

This bulletin is an interpretation of the relevant Acts, Regulations and Standard and should not be used as a reference to a point of law.

Copies of the *Transport Operations (Passenger Transport) Act 1994, Transport Operations (Passenger Transport) Regulation 2005* and *Transport Operations (Passenger Transport) Standard 2010* can be purchased from GoPrint.

The legislation may be viewed on the internet at www.legislation.qld.gov.au. Additional information about public passenger services is available on the Department of Transport and Main Roads internet site at www.tmr.qld.gov.au/information_bulletins .