



Hydraulically Steered Motor Vehicles

Introduction

Some special purpose vehicles are manufactured with hydraulic steering systems without any mechanical linkage to provide manual override in the event of hydraulic failure. Typical examples of such vehicles are mobile cranes and special purpose mobile machinery.

This information sheet describes the conditions for registration of a vehicle with hydraulic steering. It does not apply to vehicles fitted with *hydraulically assisted* steering systems, commonly referred to as power steering.

Requirements

Where an hydraulic fluid reservoir is specifically provided for the steering system, vehicles with full hydraulic steering are normally equipped by their manufacturer with a **low oil level warning device** that operates when the quantity of hydraulic fluid in the system approaches a dangerously low level. When the device operates, it is visible or audible to the driver even when the engine is running. Where a reservoir provides hydraulic fluid for other systems besides steering, a low pressure warning will be adequate.

If the vehicle has no low oil level warning device, a **warning label** must be fitted to the vehicle in a position directly visible to the driver:

Size:	Minimum 100mm x 50mm
Colour:	Red lettering on an amber background
Material:	AS 1906 (Class 2) or better



All pressurised components of the hydraulic steering system must be capable of withstanding at least twice the maximum working pressure of the system and must be adequately protected from damage. Any component will be considered to be protected if a substantial part of the vehicle structure directly in front of the component projects below it, and if the component does not project to the widest part of the vehicle (excluding rear vision mirrors and lights). If these requirements are not satisfied by existing structures the component must be protected by a safety guard.

If the hydraulic steering system pump also supplies other hydraulic systems, the steering system must be protected so that it is preferentially supplied in the event of failure in any of the other systems.

Conditions applying to maximum vehicle speed

Hydraulic steering systems usually lose sensitivity when the vehicle is driven at "high" speeds, so, if the vehicle is capable of travelling at speeds in excess of 45km/h, registration will be conditional on limiting the speed of the vehicle to a maximum of 45km/h when driven on public roads. This condition might be waived if independent handling and performance tests are conducted and evidence is supplied demonstrating that the vehicle is capable of being safely driven at its maximum speed. These tests should consist of a comparison with another vehicle of similar mass and proportions equipped with manual or power assisted steering. Tests should examine the ability of the vehicle to be successfully driven through a slalom course in the minimum possible time and for the time to be compared to that for the comparison vehicle. A comparison should also be made between the ability of both vehicles to maintain a straight course at the maximum speed of the hydraulically-steered vehicle.

FURTHER INFORMATION

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RTA Wollongong:

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Tel: (02) 4226 7007
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RTA Parkes:

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PARKES NSW 2795

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