



mainroads  
WESTERN AUSTRALIA

*We're working for  
Western Australia.*

Class 1 RAV  
8 Tyre Per Axle Low Loader  
Overmass Period Permit

# Operating Conditions

Printed copies are uncontrolled unless marked otherwise.  
Refer to the Main Roads website for current version.

D22#831057  
February 2024

# Contents

|  |           |
|--|-----------|
| <b>REFERENCES AND RELATED DOCUMENTS .....</b>              | <b>4</b>  |
| <b>DEFINITIONS .....</b>                                   | <b>4</b>  |
| <b>1 APPLICATION .....</b>                                 | <b>6</b>  |
| 1.1 Approved Vehicles .....                                | 6         |
| <b>2 COMPLYING WITH LICENCING CONDITIONS .....</b>         | <b>6</b>  |
| <b>3 COMPULSORY HEAVY VEHICLE INCIDENT REPORTING .....</b> | <b>7</b>  |
| <b>4 DIMENSION REQUIREMENTS .....</b>                      | <b>7</b>  |
| <b>5 MASS REQUIREMENTS .....</b>                           | <b>7</b>  |
| 5.1 Prime Mover Mass Limits .....                          | 7         |
| 5.2 Trailer Mass Limits & Ground Contact Width .....       | 7         |
| <b>6 AXLE SPACING REQUIREMENTS .....</b>                   | <b>8</b>  |
| 6.1 Axle Spacing Limits .....                              | 8         |
| 6.2 Measuring Axle Spacings .....                          | 8         |
| <b>7 ACCESS REQUIREMENTS .....</b>                         | <b>9</b>  |
| 7.1 Approved Roads and Conditions .....                    | 9         |
| 7.2 Additional Roads .....                                 | 9         |
| 7.3 Restricted Bridges .....                               | 9         |
| 7.4 Crossing Restricted Bridges .....                      | 9         |
| 7.5 Route Survey .....                                     | 9         |
| 7.6 Block Truck Requirements .....                         | 10        |
| <b>8 CARRYING MULTIPLE ITEMS .....</b>                     | <b>10</b> |
| <b>9 PERMIT STATUS .....</b>                               | <b>10</b> |
| 9.1 Permit Suspension & Revocation .....                   | 10        |
| 9.2 Permit Amendments & Notifications .....                | 10        |

# Document Control

|                         |   |
|-------------------------|---|
| <b>Owner</b>            | Director Heavy Vehicle Services           |
| <b>Custodian</b>        | Manager Heavy Vehicle Road Network Access |
| <b>Document Number</b>  | D22#831057                                |
| <b>Issue Date</b>       | October 2022                              |
| <b>Review Frequency</b> | As Required                               |

# Amendments

| Revision Number | Revision Date | Description of Key Changes  | Section  |
|-----------------|---------------|---|----------|
| 1               | 20/12/2023    | Added Category 1.3 and 2.3 combinations with 2x4 dolly.   | s. 1 & 5 |
| 2               | 15/01/2024    | Re-ordered Categories to move the 2x4 dolly combination to a Category 1.2 and 2.2 respectively. | s. 1 & 5 |
| 3               | 5/02/2024     | Updated axle spacing requirements to include 2x4 dolly combination.                             | s. 6     |

## REFERENCES AND RELATED DOCUMENTS

The following document relates to these Operating Conditions and should be read in conjunction with these Operating Conditions. This document is available on the Oversize Overmass (OSOM) page on the Main Roads website.

| Document Name  | Location  |
|--|---|
| Guidelines for Transporting Multiple Items on an Oversize or Over-mass Vehicle | <a href="https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/getting-a-permit/osom/guidelines-for-transporting-multiple-items-on-an-oversize-or-over-mass-vehicle.pdf?v=4a7c05">https://www.mainroads.wa.gov.au/globalassets/heavy-vehicles/getting-a-permit/osom/guidelines-for-transporting-multiple-items-on-an-oversize-or-over-mass-vehicle.pdf?v=4a7c05</a> |

## DEFINITIONS

The following are definitions for terms used in these Operating Conditions. Refer to the definitions in the *Road Traffic (Administration) Act 2008* and the *Road Traffic (Vehicles) Act 2012* and any subsidiary legislation to these Acts for the meanings of any terms not defined in this section. If a definition in the relevant Acts or the subsidiary legislation conflicts with a definition in this section, the definition in this section prevails for the purpose of these Operating Conditions.

| Term                            | Definition   |
|---------------------------------|--|
| <b>8TPA Low Loader Networks</b> | The approved roads applicable to vehicles operating under the <i>Class 1 RAV 8 Tyre Per Axle Low Loader Overmass Period Permit</i> , which are published in the form of Road Tables and are available on the RAV Mapping Tool on the Main Roads website. |
| <b>8TPALLN1</b>                 | <i>8TPA Low Loader Network 1</i> approved roads, published in the form of Road Tables and available on the RAV Mapping Tool on the Main Roads website.   |
| <b>8TPALLN2</b>                 | <i>8TPA Low Loader Network 2</i> approved roads, published in the form of Road Tables and available on the RAV Mapping Tool on the Main Roads website.   |
| <b>8TPALLN3</b>                 | <i>8TPA Low Loader Network 3</i> approved roads, published in the form of Road Tables and available on the RAV Mapping Tool on the Main Roads website.   |
| <b>8TPALLN4</b>                 | <i>8TPA Low Loader Network 4</i> approved roads, published in the form of Road Tables and available on the RAV Mapping Tool on the Main Roads website.   |
| <b>8TPALLN5</b>                 | <i>8TPA Low Loader Network 5</i> approved roads, published in the form of Road Tables and available on the RAV Mapping Tool on the Main Roads website.   |
| <b>8TPALLN6</b>                 | <i>8TPA Low Loader Network 6</i> approved roads, published in the form of Road Tables and available on the RAV Mapping Tool on the Main Roads website.   |
| <b>Large Indivisible Item</b>   | An item that: <ul style="list-style-type: none"> <li>(a) cannot be divided without extreme effort, expense or risk of damage to it; and</li> <li>(b) cannot be carried on any vehicle without exceeding a mass or dimension requirement.</li> </ul>      |

| Term                               | Definition  |
|------------------------------------|---|
| <b>Licensing Authority</b>         | A Government Authority responsible for the administration of the vehicle licensing provision of the law of the relevant State, Territory or the Commonwealth.                       |
| <b>Main Roads Website</b>          | <a href="http://www.mainroads.wa.gov.au">www.mainroads.wa.gov.au</a> – documents referenced within these operating conditions are published on the Oversize Over-mass Permits page. |
| <b>Overmass Single Trip Permit</b> | Includes a <i>Class 1 Overmass Single Trip Permit</i> or a <i>Class 1 Oversize &amp; Overmass Single Trip Permit</i> .  |
| <b>Permit</b>                      | A permit issued under Part 4 of the <i>Road Traffic (Vehicles) Act 2012</i> , including these Operating Conditions and the <i>8TPA Low Loader Networks</i> .                        |
| <b>Permit Holder</b>               | The Operator to whom the permit is issued.  |
| <b>RAV</b>                         | An approved vehicle combination to which the “ <i>Class 1 RAV 8 Tyre Per Axle Low Loader Overmass Period Permit</i> ” applies.  |

# 1 APPLICATION

## 1.1 Approved Vehicles

1.1.1 The *Class 1 RAV 8 Tyre Per Axle Low Loader Overmass Period Permit* applies to a RAV described in the following table when carrying a large indivisible item:

| Category 1 RAVs |  |
|-----------------|--|
| Category        | Vehicle Description  |
| 1.1             | Tandem Drive Prime Mover Towing a 3 Axle Low Loader with 8 Tyres Per Axle<br>  |
| 1.2             | Tandem Drive Prime Mover Towing a 2 Axle Dolly with 4 tyres per axle and a 3 Axle Low Loader with 8 Tyres Per Axle<br>   |
| 1.3             | Tandem Drive Prime Mover Towing a 2 Axle Dolly and a 3 Axle Low Loader, both with 8 Tyres Per Axle<br>                  |
| Category 2 RAVs |  |
| Category        | Vehicle Description  |
| 2.1             | Tandem Drive Prime Mover Towing a 4 Axle Low Loader with 8 Tyres Per Axle<br>  |
| 2.2             | Tandem Drive Prime Mover Towing a 2 Axle Dolly with 4 tyres per axle and a 4 Axle Low Loader with 8 Tyres Per Axle<br> |
| 2.3             | Tandem Drive Prime Mover Towing a 2 Axle Dolly and a 4 Axle Low Loader, both with 8 Tyres Per Axle<br>                 |

1.1.2 The *Class 1 RAV 8 Tyre Per Axle Low Loader Overmass Period Permit* only applies to a RAV complying with the axle spacing requirements specified in clause 6.

## 2 COMPLYING WITH LICENCING CONDITIONS

Drivers and operators are reminded that in addition to these Operating Conditions, the RAV must be driven in accordance with any conditions of the vehicle’s licence, as imposed by the relevant Licensing Authority.

### 3 COMPULSORY HEAVY VEHICLE INCIDENT REPORTING

All on-road incidents involving a RAV must be reported to Main Roads Heavy Vehicle Services by the permit holder. The Heavy Vehicle Incident Reporting form is available on the Incident Reporting page on the Main Roads website and it must be submitted within 48 hours of the incident occurring.

### 4 DIMENSION REQUIREMENTS

A RAV exceeding a statutory dimension limit must operate in conjunction with a *Class 1 RAV Oversize Period Permit* or a *Class 1 RAV Oversize Single Trip Permit*.

### 5 MASS REQUIREMENTS

#### 5.1 Prime Mover Mass Limits

A prime mover must not exceed the following mass limits:

| Axle Group  | Mass Limit  |
|---|-------------|
| Single Steer Axle with tyres <375mm                                 | 6.5 tonnes  |
| Single Steer Axle with tyres ≥375mm                                 | 7.1 tonnes  |
| Twin Steer Axle Group with non-load sharing suspension              | 10 tonnes   |
| Twin Steer Axle Group with load sharing suspension and tyres <375mm | 11 tonnes   |
| Twin Steer Axle Group with load sharing suspension and tyres ≥375mm | 12 tonnes   |
| Tandem Drive Axle Group   | 18.5 tonnes |

#### 5.2 Trailer Mass Limits & Ground Contact Width

5.2.1 A low loader and low loader dolly must not exceed the following mass limits:

| Category 1 RAVs |  | Ground Contact Width         | Mass Per Axle              | Approved Network |
|-----------------|--|------------------------------|----------------------------|------------------|
| Category        | Vehicle Description  |                              |                            |                  |
| 1.1             | Tandem Drive Prime Mover Towing a 3 Axle Low Loader with 8 Tyres Per Axle<br>   | 3.0 m                        | 14 t                       | 8TPALLN1         |
|                 |  | 3.5 m                        | 15 t                       | 8TPALLN2         |
|                 |  | 3.7 m                        | 16 t                       | 8TPALLN3         |
| 1.2             | Tandem Drive Prime Mover Towing a 2 Axle Dolly with 4 Tyres Per Axle and a 3 Axle Low Loader with 8 Tyres Per Axle<br>        | Dolly 2.4 m<br>LLoader 3.0 m | Dolly 9 t<br>LLoader 14 t  | 8TPALLN1         |
|                 |  | Dolly 2.4 m<br>LLoader 3.5 m | Dolly 9 t<br>LLoader 15 t  | 8TPALLN2         |
|                 |  | Dolly 2.4 m<br>LLoader 3.7 m | Dolly 9 t<br>LLoader 16 t  | 8TPALLN3         |
| 1.3             | Tandem Drive Prime Mover Towing a 2 Axle Dolly and a 3 Axle Low Loader with 8 Tyres Per Axle, both with 8 Tyres Per Axle.<br> | 3.0 m                        | Dolly 12 t<br>LLoader 14 t | 8TPALLN1         |
|                 |  | 3.5 m                        | Dolly 13 t<br>LLoader 15 t | 8TPALLN2         |
|                 |  | 3.7 m                        | Dolly 14 t<br>LLoader 16 t | 8TPALLN3         |

| Category 2 RAVs |   | Ground Contact Width         | Mass Per Axle                 | Approved Network |
|-----------------|---|------------------------------|-------------------------------|------------------|
| Category        | Vehicle Description   |                              |                               |                  |
| 2.1             | Tandem Drive Prime Mover Towing a 4 Axle Low Loader with 8 Tyres Per Axle<br>  | 3.0 m                        | 12 t                          | 8TPALLN4         |
|                 |   | 3.5 m                        | 12.75 t                       | 8TPALLN5         |
|                 |   | 3.7 m                        | 13.75 t                       | 8TPALLN6         |
| 2.2             | Tandem Drive Prime Mover Towing a 2 Axle Dolly with 4 Tyres Per Axle and a 4 Axle Low Loader with 8 Tyres Per Axle<br> | Dolly 2.4 m<br>LLoader 3.0 m | Dolly 9 t<br>LLoader 12 t     | 8TPALLN4         |
|                 |   | Dolly 2.4 m<br>LLoader 3.5 m | Dolly 9 t<br>LLoader 12.75 t  | 8TPALLN5         |
|                 |   | Dolly 2.4 m<br>LLoader 3.7 m | Dolly 9 t<br>LLoader 13.75 t  | 8TPALLN6         |
| 2.3             | Tandem Drive Prime Mover Towing a 2 Axle Dolly and a 4 Axle Low Loader, both with 8 Tyres Per Axle<br>                 | 3.0 m                        | Dolly 12 t<br>LLoader 12 t    | 8TPALLN4         |
|                 |   | 3.5 m                        | Dolly 13 t<br>LLoader 12.75 t | 8TPALLN5         |
|                 |   | 3.7 m                        | Dolly 14 t<br>LLoader 13.75 t | 8TPALLN6         |

5.2.2 The low loader and low loader dolly must be spread to the minimum ground contact width that is relevant to the mass per axle specified in the table under sub-clause 5.2.1.

## 6 AXLE SPACING REQUIREMENTS

### 6.1 Axle Spacing Limits

A RAV must comply with the following axle spacing limits:

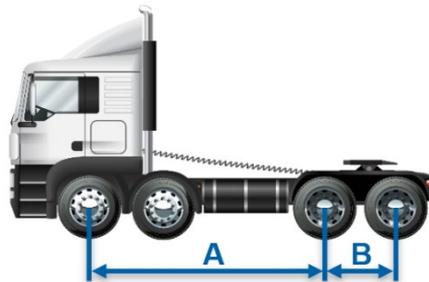
|                  |     | Axle Spacing (metres) |           |           |           |          |            |            |           |
|------------------|-----|-----------------------|-----------|-----------|-----------|----------|------------|------------|-----------|
|                  |     | A                     | B         | C         | D         | E        | F          | G          | H         |
| Vehicle Category | 1.1 | 3.0 – 5.8             | 1.3 – 1.8 | N/A       | N/A       | 6.0 – 14 | 1.8 – 1.85 | 1.8 – 1.85 | N/A       |
|                  | 1.2 | 3.0 – 5.8             | 1.3 – 1.8 | 2.4 – 4.3 | 1.2 – 1.8 | 6.0 – 14 | 1.8 – 1.85 | 1.8 – 1.85 | N/A       |
|                  | 1.3 | 3.0 – 5.8             | 1.3 – 1.8 | 2.4 – 4.3 | 1.2 – 1.8 | 6.0 – 14 | 1.8 – 1.85 | 1.8 – 1.85 | N/A       |
|                  | 2.1 | 3.0 – 5.8             | 1.3 – 1.8 | N/A       | N/A       | 6.0 – 14 | 1.2 – 1.4  | 2.35 – 2.8 | 1.2 – 1.4 |
|                  | 2.2 | 3.0 – 5.8             | 1.3 – 1.8 | 2.4 – 4.3 | 1.2 – 1.8 | 6.0 – 14 | 1.2 – 1.4  | 2.35 – 2.8 | 1.2 – 1.4 |
|                  | 2.3 | 3.0 – 5.8             | 1.3 – 1.8 | 2.4 – 4.3 | 1.2 – 1.8 | 6.0 – 14 | 1.2 – 1.4  | 2.35 – 2.8 | 1.2 – 1.4 |

### 6.2 Measuring Axle Spacings

6.2.1 Axle spacing measurements must be taken from the centre of adjacent axles. The “Axle Spacing” rows (labelled A to H) in the table under clause 6.1 correspond with the axle spacings shown in the following diagram.



**6.2.2** If the vehicle combination consists of a twin steer prime mover, the axle spacing “A” measurement must be taken as per the following diagram.



## 7 ACCESS REQUIREMENTS

### 7.1 Approved Roads and Conditions

**7.1.1** A RAV must only travel on a road listed in the relevant Approved Network specified in the table under sub-clause 5.2.1.

**7.1.2** A RAV must operate in accordance with any conditions specified for a particular road in the Approved Network.

### 7.2 Additional Roads

A RAV may travel on additional roads connecting to a road listed in the relevant Approved Network, provided an Overmass Single Trip Permit is obtained for the additional roads.

### 7.3 Restricted Bridges

A RAV must not cross a bridge on an Approved Network with the condition “Bridge not to be crossed”, except in accordance with clause 7.4.

### 7.4 Crossing Restricted Bridges

If a RAV needs to cross a bridge on an Approved Network with the condition “Bridge not to be crossed”, a Bridge Crossing Permit must be obtained. An application for a Bridge Crossing Permit can be made by submitting a [Bridge Crossing Permit Application form](#), available on the Main Roads website.

### 7.5 Route Survey

Prior to departure, the operator or driver of the RAV must assess the route of travel to ensure that it is suitable for use and that it can be driven along without contravening these Operating Conditions.

## 7.6 Block Truck Requirements

- 7.6.1 Where the mass of the RAV is comparable to the GCM of the prime mover and the route consists of any gradient exceeding 5%, an additional block truck must be used while ascending the gradients.
- 7.6.2 If an operator considers it necessary to use an additional block truck to facilitate the safe movement of the RAV or reduce the impact on the road surface, an additional block truck may be used.
- 7.6.3 A block truck must have a minimum of 14 tonnes on a tandem drive axle group or 17 tonnes on a tri drive axle group.
- 7.6.4 An additional block truck may operate at higher mass limits in accordance with a *Block Truck Overmass Period Permit*.
- 7.6.5 When connecting an additional block truck to the RAV under the provisions of this clause, the length of the vehicle combination may exceed the maximum length specified on the oversize permit by the length of the block truck.

## 8 CARRYING MULTIPLE ITEMS

A RAV may carry other items in addition to the large indivisible item(s), provided the other items are carried in accordance with the *Guidelines for Transporting Multiple Items on an Oversize or Over-mass Vehicle*, available on the Main Roads website.

## 9 PERMIT STATUS

### 9.1 Permit Suspension & Revocation

- 9.1.1 Approval to operate a RAV under a permit may be suspended when road and/or traffic conditions are considered unsuitable. Main Roads personnel, WA Police or Traffic Escort Wardens, may make verbal notification of such suspension.
- 9.1.2 Approval to operate a RAV under a permit may be suspended or revoked if the operator or vehicle combination fails to comply with any of the requirements specified in the permit or these Operating Conditions.

### 9.2 Permit Amendments & Notifications

- 9.2.1 These Operating Conditions are subject to occasional amendments. If amendments are made that impact transport operators, they will be published as an "HVS Update" on the Main Roads website on the first working day of the month. Operators and drivers are required to ensure that they are operating vehicles on the public road network in accordance with the current and up to date Operating Conditions.
- 9.2.2 The RAV Networks are subject to periodic amendments, which include additional roads being included in the lists, roads being removed from the lists, or amendments being made to a condition relating to a particular road in the lists. RAV Networks updates will be effective from the Wednesday following the amendment and the RAV Networks are maintained in the RAV Mapping Tool on the Main Road website. Operators and drivers are required to ensure they are operating vehicles on the public road network in accordance with the current and up to date RAV Networks

- 9.2.3** Heavy Vehicle Travel Impacts are published when road conditions may impede the movement of Restricted Access Vehicles. Operators and drivers are required to check the Heavy Vehicle Travel Impacts in the RAV Mapping Tool on the Main Roads website immediately prior to operating the vehicle on the public road network to ensure that there is no relevant information that will impede their vehicle operating on the WA road network.
- 9.2.4** All conditions stipulated in HVS Updates or Heavy Vehicle Travel Impacts must be adhered to.