



# Assessor Sign-Off (ASO)

## PBS Certification Anomalies - Work Procedure

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# 1 Background

An as-built Performance Based Standards (PBS) vehicle may not conform to an aspect/s of its PBS Design Approval (DA), resulting in deviations. These deviations are referred to as **Certification Anomalies**.

The process of the PBS Assessor confirming that the as-built combination continues to meet PBS standards at the same or higher level as indicated in the DA is referred to as **Assessor-Sign Off** or **ASO**. The ASO pathway is intended to provide a practical way of dealing with minor anomalies identified during the certification of PBS vehicles.

This document sets out a work procedure for PBS Assessors and PBS Certifiers to follow when signing-off PBS vehicles with certification anomalies.

If an as-built combination contains certification anomalies, an ASO must be provided as part of a PBS Vehicle Approval (VA) application.

# 2 Categories of Anomalies

There are two categories of certification anomalies in PBS vehicles – **Dimensional anomalies** and **Component anomalies**. Both categories have parameter limits that determine how anomalies will be addressed.

## 2.1 Assessor Sign Off (ASO)

When the limits are not exceeded for Dimensional or Component anomalies, the ASO pathway can be used.

An ASO is an approval from the Assessor confirming that the as-built combination continues to pass the PBS standards at the same or higher PBS level shown on the DA.

## 2.2 DA Modification

If the limits are exceeded for Dimensional or Component anomalies, a Design Approval Modification is required.

This is the preferred method when dealing with certification anomalies as it eliminates the need for an ASO and offers a more robust and accurate way of completing a certification. If a DA Modification is required, it is advisable to obtain one before submitting a VA application.

# 3 Dimensional Anomalies

Dimensional anomalies are variances in the dimensions of the as-built vehicle that are not within the PBS Certification Tolerance when compared to the DA.

The PBS Certification Tolerance is *the lesser of 1% or 20mm*. If a dimension falls within this tolerance, it is considered compliant and no ASO is required.

**Table 1 Summary of Dimensional Anomalies and Corresponding Pathways**

Dimensional Anomalies permitted via ASO	Dimensional Anomalies requiring DA Modification
Dimensions deviating to a max. ±300mm	Change to vehicle width exceeding 2.5m
OAL change to a max. +500mm	OAH exceeding the original approved height bracket 4.3m/4.6m
OAL increase exceeding the original approved length bracket specified in the PBS Network Classification Guidelines is permitted	Changes to dimensions that causes the dimension between adjacent axle groups to be less than 2.5m
FWO is exempted from ±300mm limit; there’s no limit on FWO deviation, but counted towards the dimensional anomalies limit	

### 3.1 Limits for Dimensional Anomalies

Limit of **six dimensional anomalies per entire combination**, not per vehicle unit.

If a vehicle unit is certified against two or more dimension-sets, the dimensional anomaly limit applies per dimension-set.

## 4 Component Anomalies

Component anomalies refer to variations in individual components of the as-built vehicles that differ from the DA.

**Table 2 Summary of Component Anomalies and Corresponding Pathways**

Component Anomalies permitted via ASO	Component Anomalies requiring DA Modification
Any Component listed on the Part B, including:	Addition/removal of steerable axles or changes to the steerable axle position
Tare Weight	Addition/removal of lift axles or changes to the lift axle position
Track Width	Tyre size and load rating
GCM, GVM and ATM	
Truck/PM Make and Model – is a component anomaly Trailer/Dolly Make and Model – is excluded from anomalies	
DAs containing specific requirements for dog trailers, i.e., a dog trailer must be a single unit or made up of a dolly and semitrailer; deviation from this requirement is a component anomaly	
Body Type change	
Changes to deck type i.e., single drop deck to double drop deck	
Transmission - If Make and/or Model differs, but ratios are exactly the same and the FDR falls within the allowed range, this is considered compliant and no ASO is required	
Engine – If Make and/or Model differs, but the horsepower and torque requirements are met, this is considered compliant and no ASO is required	

### 4.1 Limits for Component Anomalies

Limit of **five component anomalies per vehicle unit** i.e., in an A-double: up to five per prime mover, five per lead trailer, five per rear trailer and five per dolly.

If a vehicle unit is certified against two or more dimension-sets, the component anomaly limit applies per dimension-set.

## 5 Exclusions to ASO

The following exclusions to ASO apply:

1. Maximum total mass and axle group masses cannot be increased above the limits on the original DA. However, mass reduction is permitted.
2. Changes to Payload Heights or Fill Levels are not permitted.
3. The as-built combination must comply with the operating conditions applicable to the nominated dimension-set of the original DA. The inclusion of new or changes to existing operating conditions are not permitted.

## 6 Changes to Body Type

Certain changes to the vehicle body type are considered a component anomaly and thus are permitted via an ASO, provided the following criteria is met:

1. The new body type must be eligible to carry the same payload type and at the same payload heights.
2. An as-built combination can be changed to carry containers, provided payload type and payload heights remain the same. In this case, a Payload Management condition will be automatically applied, even if it is not on the original DA.
3. A tanker body type cannot be changed to any other body types. Changes to fill levels are not permitted.

## 7 Changes to Required Exemptions

Dimensional anomalies that require changes to the approved list of exemptions stated on the relevant DA are permitted, provided they comply with the following guidelines:

1. Changes fall within the standard list of exemptions listed under Section 28 of the *Heavy Vehicle (General) National Regulation*.
2. Additional exemptions that are not covered in the above list of PBS exemptions are not permitted. For example, Vehicle Standards exemptions for non-compliant axle groups.

## 8 Split Axle Groups

The following exclusions apply to vehicles fitted with split axle groups – these changes are not permitted via the ASO process; a DA modification is required.

The following changes to the split axle groups are not permitted:

1. Suspension or suspension Ride Height.
2. Changes to load sharing split.
3. Changes to s-dimension and ROH.
4. Or any other aspect of the vehicle that would affect compliance with the 'Assessment Guidelines for Semitrailers with Two or More Axle Groups'.

## 9 Trailer ATM Anomalies

Aggregated Trailer Mass (ATM) reduction is considered a **component anomaly**.

Where an ATM of an as-built vehicle is less than the minimum value specified in the DA, and a mass reduction method is not provided in the Part B, the ASO must provide the adjusted masses as applicable – GCM and/or axle group masses.

If, despite reduced ATM, mass adjustment is not required, this must be clearly stated on the ASO. i.e., ATM reduction does not require total and axle group masses reductions.

Truck and Dog combinations are exempted from the requirements in this section – mass reductions for as-built combinations are applied by NHVR during VA checking.

For more information refer to IPAC-14 ATM Reductions.

## 10 ASO Suspensions and Payload Heights

Suspension change is permitted via the ASO process. If the DA uses suspensions to dictate payload heights, the ASO document must clearly state which Payload Heights from the original DA apply to the new suspension option

## 11 B-Double X-Y Rule

B-Double combinations fitted with tri-tri axle groups that do not comply with the X-Y Rule will require a Tier 2/3 bridge assessment. Tier 1 cannot be added via the ASO process.

For more information refer to IPAC-5 X-Y Rule check on PBS Design Approvals.

## 12 Vehicle Standards Exemptions and the ASO Process

If a DA requires Vehicle Standard (VS) exemptions, dimensions that relate to that exemption cannot be changed via the ASO process, as changes to those dimensions may invalidate the corresponding Vehicle Type Approval (VTA) or Identification Plate Approval (IPA).

If changes to the concerned dimensions are required, a DA modification is required along with an update to the VTA or IPA.

## 13 Designs containing Section 8 or Section 9 Exemption

### Section 9 Exemption that relates to geometrical performance

If a DA contains a Section 9 Exemption that relates to geometrical performance – changes to vehicle dimensions are not permitted via an ASO; a DA modification is required. Dimensional changes will affect the geometric performance of the vehicle and may invalidate the underlying risk assessment that enabled the grant of the exemption.

### Section 8 Exemptions for PHL or PVL

If a DA contains a Section 8 Exemption that relates to Pavement Horizontal Loading Standard (PHL) or Pavement Vertical Loading Standard (PVL), such as exceeding the GCM limit for the nominated level i.e., 85.5t at Level 2 as opposed to 85t (PHL), ordinary ASO process applies with all types of anomalies permitted, unless explicitly excluded by this work procedure.

### Other Section 8 and Section 9 Exemptions

For other Section 8 and Section 9 Exemptions, caution should be used to ensure anomalies do not affect the aspects of the vehicle linked to Section 8 or Section 9 exemptions.

If unsure, please seek advice from the NHVR's Engineering Team.

## 14 Tyres

Since Generic Tyre Approach introduction, changes to tyre size or load rating are no longer permitted via ASO.

For more information refer to IPAC-13 Implementation of the generic tyre approach.

## 15 Completing an ASO Template

When completing an ASO template:

1. Ensure consistent labelling across all application documents, including the Certificate, Part B, as-built drawings, and ASO.
2. List new VINs added to the ASO in bold, while previously approved VINs should be un-bolded.
3. Keep removed VINs on the list but use a ~~strikethrough font~~.
4. Specify every anomaly against each vehicle unit for every combination.
5. Update Note 1 to ensure that "<V NUMBER>" corresponds to the DA being used for certification.
6. Submit a copy of the signed and dated ASO to NHVR as part of the VA application.

## 16 Grandfathering of Previously Approved Anomalies

Previously approved anomalies, including those not recorded using the current ASO, can be grandfathered in the following scenarios:

1. When adding a new standalone combination to the VA, previously approved anomalies for existing vehicles on the VA can be grandfathered. Anomalies related to the new standalone combination must be recorded on an ASO.
2. If the new vehicle/s can be used in a combination with vehicles previously approved, anomalies related to that combination, which includes the new vehicle/s, must be recorded using the current ASO format. Anomalies to existing vehicles being used in the new combination must also be recorded on the ASO.

**It is strongly recommended that all previously approved anomalies are transitioned to the latest ASO format. This practice ensures a single point of reference for all anomalies and simplifies the management of anomalies in the future.**

## 17 Inclusion of Additional Vehicles and ASO

If a fully identical vehicle (with the exact same specifications and dimensions as existing vehicles on the VA) is being added to a VA, it is *strongly recommended* to provide a copy of the existing ASO as part of VA application. The existing ASO does not need to be re-signed by the Assessor.

If a new vehicle is being added to a VA, and there are new anomalies, an updated ASO must be provided. The updated ASO must be re-signed and dated.

## 18 Submission of ASO

**If an as-built combination contains certification anomalies, an ASO must be provided as part of a VA application.**

**By signing and dating the ASO, the Assessor confirms that the listed combinations comply with the PBS standards at the same or higher level of performance as shown on the corresponding DA.**

In cases where an ASO is required but not submitted along with the VA application, an Information Request will be sent to both the Certifier and the Applicant to request the missing ASO.

For more information refer to IPAC-15 VA Applications: Closing and Putting on Hold.

## 19 Access Considerations

The ASO process serves as a streamlined avenue for approving certification anomalies. However, it is crucial to assess the potential impact of these anomalies on the vehicle's performance, particularly with regard to the reported performance values in the Technical Results Sheet (TRS), a crucial component of the access permit application provided to Road Managers.

The TRS aims to offer insights into how the vehicle performs concerning individual PBS standards, thereby aiding informed decision-making in the access approval process. Anomalies in the vehicle can distort the original TRS values, especially in cases involving multiple dimensional changes, thereby affecting geometric performance of the vehicle.

When there are multiple anomalies and in particular dimensional changes, it is advisable to consider pursuing a DA Modification. Opting for this approach facilitates the updating of TRS values, ensuring their accuracy and alignment with the actual performance of the vehicle. This, in turn, can significantly benefit the outcome of the access permit application.