

Correct as at 17th June 2019. It may be superseded at any time.

**Extract taken:** from NZTA Vehicle Portal > VIRMs > Heavy vehicle specialist certification > Additional topics > Component recertification

## 12-3 Component recertification

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Certifier categories: **HVET** | **HVTD**

### Reasons for rejection

1. Re-certification of a component has been carried out in contravention of the processes illustrated in **Figure 12-3-1** and its notes.

#### Note 1

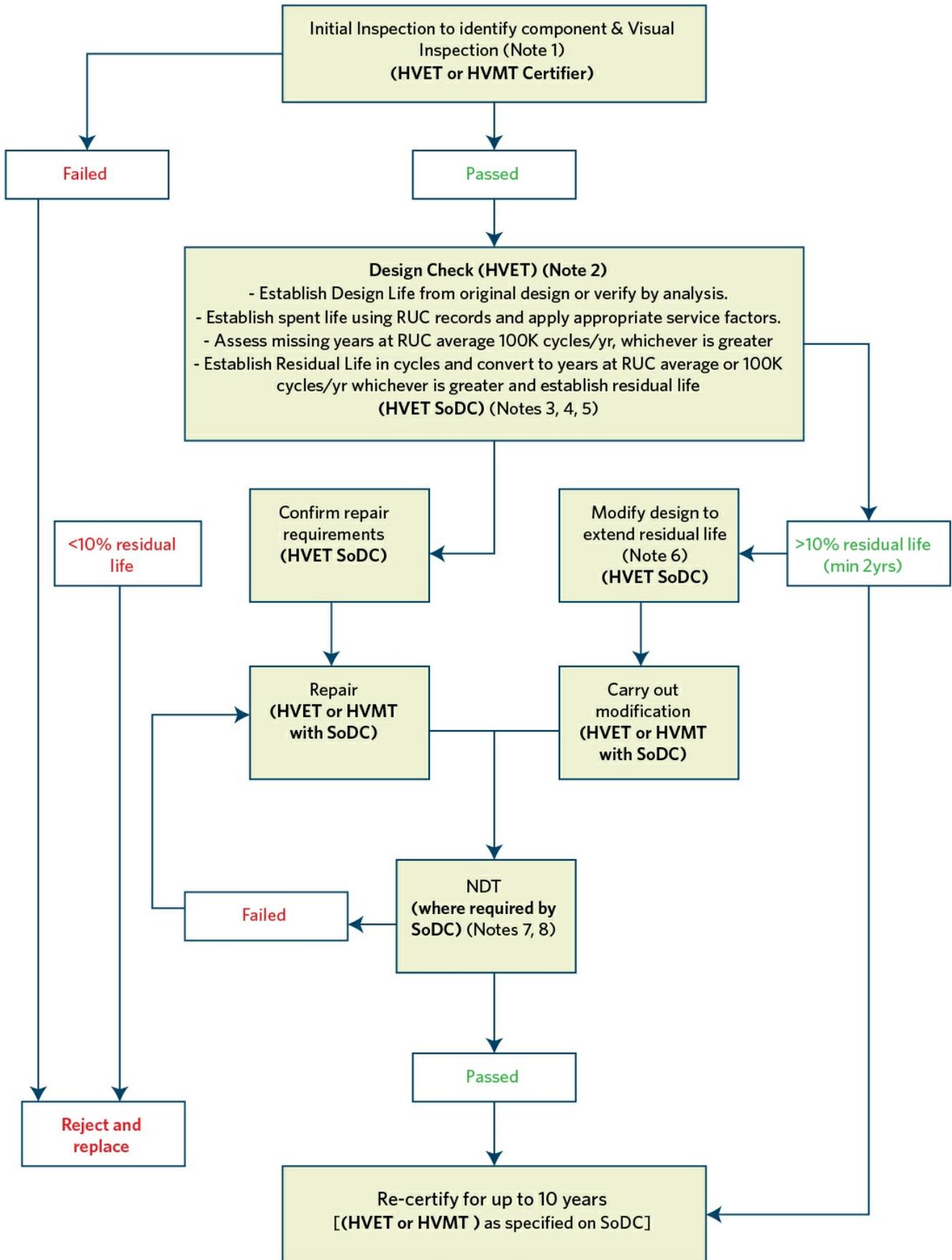
Re-certification of drawbars and drawbeams with unknown identity

If the original date of manufacture and attachment to the vehicle of a drawbar/beam/towbar cannot be determined, the component must not be re-certified.

If the identity of a drawbar or drawbeam cannot be established, then the design details and fatigue history of the components can not be reliably ascertained. This means re-certification according to the current version of the re-certification process cannot be carried out.

- Download [Re-certification of drawbars & drawbeams of known identity](#) for printing and easy reference [here](#).
- Download [Re-certification of drawbars & drawbeams of known identity](#) for printing and easy reference [here](#).

#### **Figure 12-3-1. Re-certification of drawbars & drawbeams of known identity**



**Note 1**

A complete visual inspection of the components must be carried out, either by a Specialist Engineering Certifier or a Manufacturing Certifier to identify the component and its original certifier. This must include the assessment of all welding details and must establish or verify the dimensions and material sections that are relevant to the re-certification. It must also include the details of any repairs or modifications carried out. All findings of the inspection must be recorded as part of the re-

certification and must be sent to the Specialist Engineering Certifier so those findings can be taken into account.

#### **Note 2**

Only Specialist Engineering Certifiers can carry out re-certification calculations. Re-certification by an HVMT category Manufacturing Certifier is conditional on the towing connection having been originally manufactured by that certifier and is restricted to the initial physical inspection of the towing connection and final signoff of the LT400. This is only acceptable where there is a SoDC from a Specialist Engineering Certifier confirming the residual life and repair requirements (if necessary). There must be a separate SoDC for each certification by a Manufacturing Certifier. It is important that, before a Specialist Engineering Certifier can prepare a SoDC s/he must be able to identify the inspected component as being original, unmodified and being used in the situation for which it was originally certified.

#### **Note 3**

The design check (full stress analysis) must always be carried out unless the re-certification is carried out by the Specialist Engineering Certifier who originally designed/certified the item. In such cases, the Specialist Engineering Certifier must have full records of the original calculations and must be able to demonstrate, when requested, that those calculations are correct. If repair or modification has been carried out then the Specialist Engineering Certifier must carry out a full stress analysis unless they were both the original certifier and the certifier of the repair and/or modification.

#### **Note 4**

Where the flowchart requires the fatigue load history of a component to be determined, it must be based on the distance travelled, supported by documented evidence such as RUC or CoF records, etc. When assessing the fatigue load cycles for vehicles with low annual road mileage but considerable off highway or extreme highway mileage (such as loggers, bulk tippers, fertiliser spreaders etc.), the Certifier must take into account, for example by using suitable dynamic factors such as the higher dynamic loads or higher fatigue frequencies, the higher stresses that are associated with the operational circumstances.

#### **Note 5**

A drawbar or drawbeam may be re-certified for up to 10 years. When doing so, the Specialist Engineering Certifier must not consider the current operational circumstances (which may mean relatively lower annual mileage). The fatigue-based approach of NZS 5446, which considers 2 million cycles during an expected life of 20 years, must be followed, with appropriate adjustments made for arduous conditions.

#### **Note 6**

Where a drawbar or drawbeam was originally manufactured under a previous version of the Standard it may be recertified under that same Standard, however, if it is modified it is to be upgraded to meet the requirements of the latest version of the Standard.

#### **Note 7**

The Specialist Certifier must make a decision, as to the type of NDT required and the specific points and areas of the component that must be tested. Where the repair is the result of fatigue type failure then NDT inspection MUST be specified to ensure all fatigue induced imperfections have been removed. All stress risers must be addressed by appropriate strengthening, reinforcement or finishing. When selecting the type of NDT to be carried out, and when the test results, including the imperfections and weld quality are evaluated, AS/NZS 1554 must be taken into account.

#### **Note 8**

Where NDT is specified, all relevant details of the NDT, such as the recommendation of the Inspector, the decision of the Certifier and the test report of the Inspector must be recorded as part of the re-certification.

## **Summary of legislation**

### **Applicable references**

- AS 3990: 1993, Mechanical Equipment Steelwork
- AS/NZS 1554 Welding
- AS/NZS 2980, Qualification of welders for fusion welding of steels
- NZS5446, Code of Practice for Heavy Motor Vehicle Towing Connections: Drawbar Trailers
- NZS5467: 1993 Code of Practise for Light Trailers.

### **Applicable legislation**

- [Land Transport Rule: Heavy Vehicles 2004.](#)

1. Only Certifiers can carry out re-certification according to this process. Re-certification by an HVTD Manufacturer Certifier without a Statement of Design Compliance from a HV Engineering Certifier is not acceptable.

2. The Certifier must always carry out a complete visual inspection of the components. Inspection must include the assessment

of all welding details and must establish or verify the dimensions and material sections that are relevant to the re-certification. All findings of the inspection must be recorded as part of the recertification.

3. The design check (full stress analysis) must always be carried out unless the re-certification is carried out by the Certifier who originally certified the item. In such cases, the Certifier must have full records of the original calculations ([Note 1](#)) and must be able to demonstrate, if requested, that those calculations are correct and remain valid for the component in its current state.

4. Where the flowchart (**Figure 12-3-1**) requires the fatigue load history of a component to be determined, it must be based on the distance travelled, supported by documented evidence such as RUC or CoF records and so on, at least with reasonable extent. When assessing the fatigue load cycles for vehicles with low annual mileage (such as logging vehicles, etc), the Certifier must take into account, for example by using suitable dynamic factors, the higher dynamic loads that can be associated with the operational circumstances.

5. A Certifier may re-certify a drawbar or drawbeam for up to 10 years. When doing so, the current operational circumstances (which may mean relatively lower annual mileage) must not be considered. The fatigue-based approach of the NZS 5446, which considers 2 million cycles during an expected life of 20 years, must be followed.

6. Non-destructive testing (NDT), other than visual inspection, is specified in certain cases. A person, approved for the specific test type by the Certification Board for Inspection Personnel (Inspector) must carry out such tests.

7. The Certifier must make a decision, considering the recommendation of the Inspector, as to the type of NDT required and the specific points and areas of the component that must be tested. When selecting the type of NDT to be carried out, and when the test results, including the imperfections and weld quality are evaluated, section 6 and 7 of AS/NZS 1554.1. must be taken into account.

8. All relevant details of the NDT, such as the recommendation of the Inspector, the decision of the Certifier and the test report of the Inspector must be recorded as part of the re-certification.