Low Volume Vehicle Technical Association (inc)

SAFETY ALERT

 # 07 - 2021 (September 2021)

Helping New Zealanders Build & Modify Safe Vehicles

MULTI-PIECE AFTERMARKET SUSPENSION ARMS
Including 'SPC Performance' and 'Stiffler'-brands

LVVTA has become aware of failures of some aftermarket upper suspension arms made up from multiple individual components, which has led to the decision to disallow this style of multi-piece suspension arm for road use.

The most common brand is 'SPC Performance', who market them as 'Racing Arms'. They are either supplied as build-your-own (select your individual parts), or as catalogued fitments for specific vehicles. These multi-piece style arms are also fitted as standard equipment to some kit cars, including the Factory Five Racing models Cobra, Type 65 Roadster, and 818.

This Safety Alert applies to any multi-piece arms similar to that shown at right, including 'SPC Performance' and 'Stiffler'-brands.

SPC Performance-brand
Aftermarket Suspension Arm

Design

Several design aspects make these arms complex. There are almost 20 individual components within an 'SPC Performance' arm, leading to a greater risk of catastrophic suspension failure should an individual part become compromised. The integrity of the arm is reliant on the connection between each component within the arm (each 'SPC Performance' arm uses four clevis and tongue-style ends, three of which are bolted, and one which is welded to the ball-joint mounting plate). These combined factors lead to suspension arms being unsuitable for road use.

Failures

Failures have all related to the bolted connections, and have been caused by incorrect assembly, incorrect fitment of the arm to the vehicle, adjustments made by alignment technicians causing component failure, or lack of regular lubrication while in service.

Failure of a clevis end

Outcome

While the LVVTA Technical Advisory Committee (TAC) has previously accepted some similar arms, its position has now changed due to the discovery of failures and the potential for issues in use. Based on this new information, the TAC has made the decision to disallow these arms, or any arms of similar multi-piece design. This style of arm can no longer be LVV certified on vehicles from the date of this Safety Alert.

Owners of vehicles that are in the build, or completed but not yet LVV certified, and which feature these arms, should contact LVVTA at their earliest opportunity.

LVVTA requires all LVV Certifiers to reject any arms which use this or a similar design, unless the arms are approved on a case-by-case basis by LVVTA.

FOR FURTHER INFORMATION PLEASE CONTACT YOUR LVV CERTIFIER, OR LVVTA.