Low Volume Vehicle Technical Association (inc)

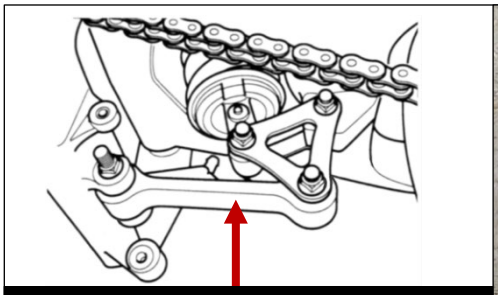
SAFETY ALERT

 # 01 - 2024 (August 2024)

Helping New Zealanders Build & Modify Safe Vehicles

MPW-BRAND TRIUMPH DAYTONA LOWER LINKAGE ARM

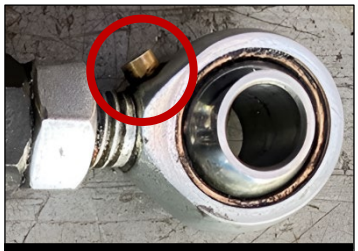
LVVTA has recently become aware of the failure of an MPW-brand adjustable rear lower linkage arm on a Triumph Daytona 675 motorcycle, which broke at low speed, causing the rear suspension to collapse. The lower linkage connects the rear swingarm to the suspension coilover spring via a rocker setup, and is thus a highly-loaded component as it carries the weight of the motorcycle. The part is sold by UK-based Motorcycle Parts Warehouse (MPW) across various parts retailing websites.



This is an OEM (non-adjustable) Triumph lower linkage arm, which the MPW part replaces.

Findings

The MPW linkage arm appears similar to others found on common auction websites, many of which share the same design characteristics - a threaded alloy turnbuckle section with spherical bearing rod ends that have a grease fitting. The fact that these rod ends are greaseable means they would not meet LVV requirements, as the LVV Suspension Standard specifies spherical bearing rod ends must be injected with a high-quality flexible lining material such as Teflon or Kevlar (both of which are self-lubricating). The rod ends used appear to have a brass lining, which relies on an externally-applied lubricant - brass-lined rod ends are specifically disallowed. The fitting of a grease point also creates an area of weakness in the rod end, and it appears this is where it has failed. To meet LVV requirements, a rod end must be of premium quality (including the material it is made from - chromoly is a commonly used high-strength material) and have a radial load rating appropriate to the rod end size. This linkage arm operates in tension, and the failure point illustrates the poor quality of the rod end - which appears to be made from a low grade of material, is not intended for use in this high-load application, and has torn apart at the weakest point.



The grease fitting in the rod end appears to have created a weak point, causing the rod end to fail.

Note that because the part has not been physically inspected by LVVTA, no comment can be made on the threaded alloy turnbuckle, and this aspect is beyond the scope of this Safety Alert.

Guidance for Affected Owners and LVV Certifiers

These linkage arms do not meet LVV requirements and cannot be LVV certified. Owners should cease using any motorcycle fitted with this type of linkage arm and rod end until it is replaced with an arm that meets LVV requirements (and is then LVV certified), or an OEM linkage arm.

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