



Reference Number	Bulletin 04 - 2019
Affected Product	All Caterpillar AD30, R1700 & R1700G machines
Risks Identified	Potential for incorrect application of 216-8022 lift tooling
Release Date	22 October 2019

Caterpillar 216-8022 lifting tool – potential for misapplication

Issue Description

The Caterpillar 216-8022 lifting tool forms part of the 190-5213 or 472-8796 tool groups. The 216-8022 tool is used for lifting purposes during component removal and installation on listed product.

To allow attachment of lifting equipment and subsequent handling, a single 216-8022 tool can be temporarily bolted to final drive and brake groups, or a pair of the 216-8022 tools can be temporarily bolted to complete axle assemblies via both end flanges.

A lift capacity discrepancy has been identified in the part number versions of this tool, such that there is the potential for misuse to lift/handle a complete axle assembly.

- Early versions of the 216-8022 tool [identified by _00 after the part number] have a working load limit [WLL] of 850 kg. The 850 kg WLL is not adequate for lifting/handling the complete axle assemblies on the Affected Products.
- While the 850 kg WLL of each individual tool provides a combined WLL of 1700 kg, this is lower than the mass of fixed front axles [approximate mass 2330 kg] or oscillating rear axles [approximate mass 2515 kg] on R1700 and R1700G machines.
- The 850 kg WLL is also lower than the mass of fixed front axles [approximate mass 2330 kg] or rear axles [approximate mass 2515 kg] on AD30 machines.
- The 850 kg WLL is adequate for lifting the final drive and brake assembly [approximate mass 480 kg] when separated from the axle assemblies on AD30, R1700 and R1700G machines.

A later revision of the 216-8022 tool [identified by a _01 suffix after the part number] has an upgraded WLL to 2410 kg and is adequate when used in pairs for all specified applications, including the Affected Product.

This bulletin is issued to identify that the earlier version 216-8022_00 tool should not be used to lift complete axles on affected product due to insufficient WLL. This lift capacity discrepancy in the versions of the same part number tool is not currently identified in Caterpillar Service Information System [SIS] publications.



Figure 1 - 216-8022 Tool



Figure 2 - WLL marking 850 kg

Issue Management Actions

1. Locate all 216-8022 tools held in parts stock warehouses and tool stores, workshops and service vehicles.
2. Identify each 216-8022 tool's capacity either by the stamped WLL or part number markings.
3. If the tool is marked with a WLL of 850 kg, or is marked 216-8022_00, then it is recommended the tool be immediately withdrawn from service and scrapped to eliminate the potential for misuse to lift a complete axle assembly, as current service procedures do not identify this potential discrepancy with the lift capacity of the tooling.
4. If the part number revision or WLL is indistinct, the version of the tool can be identified by measuring the section thickness of the steel. The 216-8022_00 has a plate section thickness of 20 mm, and the later 216-8022_01 has a plate thickness of 25 mm. If the plate section thickness is 20 mm, then the tool is recommended to be scrapped as per the above point.
5. It is recommended that tools that are withdrawn from service per this bulletin be destroyed to prevent further use or repurposing.

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