TYRECHECKERS – WHEEL NUT INDICATORS

INSTALLATION GUIDE

Standard indicator INSTALLATION

This procedure also applies to all long reach indicators and cap type indicators.

To aid efficiency, documentation and continuity, fit wheel indicators during scheduled maintenance workshop visits.

1: Check nuts, studs, rims and threads for damage as per manufacturers recommendations

2: Ensure hub and rim mating surfaces are clean and free from dirt, rust or paint

3: Torque nuts to manufacturers specification, do not lubricate unless advised by manufacturer

4: Size required loose wheel indicator by measuring the across the flat (A/F) size of the nut – a good fitting socket, spanner or Vernier calliper will identify the wheel nut size.

5: NOTE: Due to stud stretch and hub/wheel settling or to minimise human error, the industry accepted 50-60klm Retorque may be incorporated into the fleet maintenance procedure. To identify the refitted wheels, maintenance procedures may require the completion of in cab warning hanger, the positioning of a warning sticker or the fitment of red indicators.

6: Establish the pattern of indicators to be fitted i.e. point to point, direction of rotation, outward pointing or inward pointing, the pattern may be dictated by the PCD, proximity of outer rim or reduction hub. TyreCheckers recommend point to point for 10 stud 335 and 285mm PCD rim. Ensure the indicator has room to move and is not aligned against the rim or hub.

7: The loose wheel indicators are simply hand pushed over the nut with the raised collar facing the rim, It is preferable to allow an air gap between the indicator flange face and the rim of at least 1mm.

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8: Ensure staff understand loose wheel fundamentals, and update documentation.

9: Perform 50-60km Retorque if applicable.

10: REMOVAL

Simply grip the indicator and remove by hand.

2 link type Indicator/Retainer

INSTALLATION

Loose wheel indication and retention for 4, 6, 8 and 10 stud wheel assemblies

1: Repeat procedures 1 to 5 as per standard indicators

2: The pre-angled multi PCD indicator retainer is simply pushed over the nut in a point to point pattern. Ensure the correct size for secure fitment with the pointer face towards you, preferably with an air gap between the wheel and indicator of at least 1mm.

3: REMOVAL

Simply grip the indicator by the ring and remove by hand. Otherwise prise off with a flat bladed screwdriver. Do not lever off from the link centre.

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3 Ring type Indicator/Retainer

INSTALLATION

Loose wheel indication and locking for 5 stud wheel assemblies

1: Repeat procedures 1 to 5 as per standard indicators

2: The single piece pre-angled indicator retainer is simply pushed over the nut in an outward pointing pattern

3: REMOVAL

Simply grip the indicator by the ring and remove by hand.

LOOSE WHEEL IDENTIFICATION

Loose wheel indicators supplement the manufacturers recommended torque checks by providing a simple visual indication of loosening wheels during a quick daily walk round of the vehicle. If the indicator is misaligned from thenormal pattern, the wheel has loosened and the wheel nuts have backed off. Daily pre start inspections include checking the indicators for misalignment and damage, missing indicators may mean broken studs or stripped studs/nuts, check for fret marks and or rust between the nut and rim, and browning of the pointer primarily at the nut interface, any discrepancies require investigation *and* replacement of the indicator. Standard operator awareness of vibration or excessive wheel noise is still necessary and requires immediate observation of wheel fixtures for discrepancy. Damaged indicators should be replaced.

Remember, without timely identification and intervention loose wheel assemblies will ultimately fail regardless of nut restraint.

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Loose Wheel Identification (cont.)

This early intervention can save considerable fleet costs, minimise downtime and increase fleet safety, the indicators enhance the fleets reputation by providing a clear indication of commitment to safety and preventative maintenance.

Visually Identifying Dragging Brakes

Manually Identifying sticking brake hubs can be labour intensive and not always conclusive.

Browning of the perimeter of the indicator can indicate increased hub temperatures due tosticking brakes, brake overuse (driver error) or brake system failures, and may require investigation.

On some applications, high brake temperatures may be normal.

TyreCheckers always advise the removal of *any* wheel safety product before wheel nut torque checking, insufficient engagement between the socket and nut caused by the proximity of any product whilst torqueing can result in sudden detachment and possible injury due to the decreased leverage resistance at the socket nut interface. This leverage is exacerbated with the introduction of extension bars primarily on dual rear wheels. It is critical to remove *any* wheel safety products whilst performing torque checks.

NB - *The use of wheel nut indicators indicators assist in the pre-emptive identification of loosening wheels, they are not intended to replace or compromise recommended vehicle, wheel or hub manufacturer's maintenance procedures, or operator maintenance structures. Wheel nut indicators indicator/retainers provide an increased safety window to allow for identification and resolution of pending wheel detachment, Tyrecheckers do not take responsibility for incorrect use or failure to adhere to advised manufacturers or operators maintenance procedures. Indicator retainers temporarily extend the wheel safety window to allow for visual identification of pending damage or detachment. Indicator retainers will not restrain a loose wheel indefinitely. Standard operator awareness of excessive wheel vibration, wobble or noise is still required to be acted upon. Overlooked or compromised inspections and or intervention can ultimately result in wheelfailure and or detachment.*