

## TRUCK, HEAVY, MC3 - MACK - ALL TYPES

### IDENTIFICATION OF RIMS AND APPROVED RIM AND TYRE CONFIGURATIONS

### MISCELLANEOUS INSTRUCTION

This instruction is authorised for use by command of the Chief of Army. It provides direction, mandatory controls and procedures for the operation, maintenance and support of equipment. Personnel are to carry out any action required by this instruction in accordance with EMEI General A 001.

#### INTRODUCTION

1. This instruction documents the methods of identifying the rim types, the fitting of rims, and the fitting of tyres to the Mack 'R' series FOV. All previous instructions, messages or Maintenance News items describing the method of identifying rims, fitting of rims to a Mack or fitting of tyres to a Mack are superseded by this EMEI. Reference should be made to this EMEI when guidance is required to the identification of rims and the fitting of rims or tyres to an 'R' series Mack.

#### IDENTIFICATION OF RIMS - GENERAL



**The colour of a rim shall not be used as an indicator of the manufacturer of the rim. This could cause incorrect identification resulting in possible failure of the rim and or tyre.**

2. Previously, units have been instructed to use the painted colour of the rims as an identifying feature. On occasion rims have been identified incorrectly, due to being painted incorrectly. The colour of a rim shall not be used as an indicator of the manufacturer of the rim.

3. If at any stage there is doubt as to the rim's serviceability, the rim is to be inspected by an authorised, qualified and competent tradesman. If there is doubt to a rim's serviceability in the absence of an authorised, qualified and competent tradesman, the rim is to be classified with a suspected fault tag and is not to be used until it has been inspected.

4. There are three types of wheel rims approved for use; the Mackay/Sankay Benson, GKN and Jamak 2. The Mackay/Sankay Benson and GKN rims are to be replaced on their next tyre replacement; this will ensure a progressive replacement of these rims to the Jamak 2 rims.

5. The Jamak 1 type rim has been **removed from service**; however, may still be in use. These rims are to be classified as **XX - do not use** and removed from service. These rims have an offset that allows the tyres to rub in a dual configuration as depicted in Figure 1.



Figure 1 Jamak 1 Rims in a Dual Configuration Under Load

**NOTE**

NIIN: 27-025-1126; JAMAK 2 rim's Part No: 14QJ49432M; has superseded to Part No: 9702-80921J00

**Table 1 Rim Types and Status**

Rim Type	NSN	Mack Trucks Part No.	Status
Makay/Sanky Benson	2530-66-122-6852	X50QJA45	Approved for use – until next tyre replacement is required
GKN	2530-66-122-6852	X50QJA45	Approved for use – until next tyre replacement is required
JAMAK 1	2530-66-143-5988	14QJ19401M	Withdrawn from service – XX do not use
JAMAK 2	2530-27-025-1126	14QJ49432M	Approved for use
JAMAK 2	2530-27-025-1126	9702-80921J00	Approved for use

**IDENTIFICATION OF MAKAY/SANKEY BENSON RIMS**

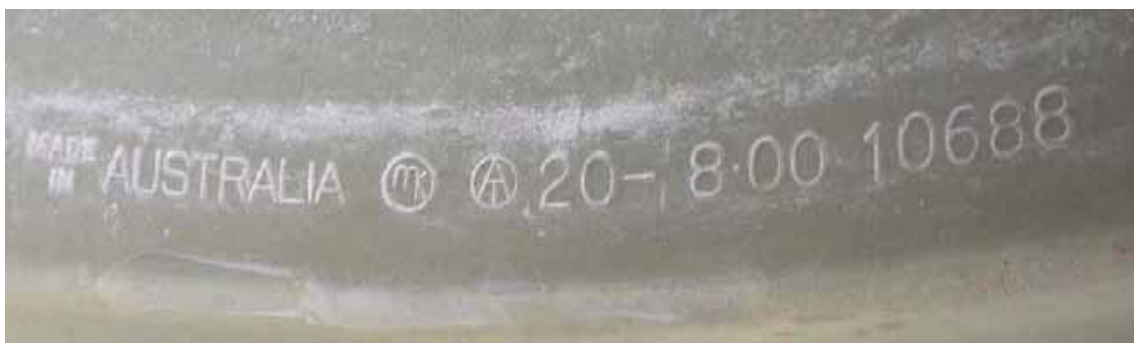
6. The Makay/Sankey Benson rim has the manufacturer's details stamped on the exterior of the inner rim surface, snap ring and side ring, as shown in Figures 2 to 5.

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Area Shown in Figure 3

**Figure 2 Makay/Sankey Benson Rim**



**Figure 3 Makay/Sankey Benson Inner Rim Surface**



Figure 4 Makay/Sankey Benson Snap Ring



Figure 5 Makay/Sankey Benson Side Ring

#### IDENTIFICATION OF GKN RIMS

7. The GKN rim has the manufacturer's details stamped on the exterior of the inner rim surface, as shown in Figures 6 and 7. The snap ring is void of manufacturers' markings, as shown in Figure 8 and the side ring's markings are shown in Figure 9.



Area Shown in  
Figure 7

Figure 6 GKN Rim

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Figure 7 GKN Inner Rim Surface



Figure 8 GKN Snap Ring



Figure 9 GKN Side Ring

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### IDENTIFICATION OF JAMAK 1 RIMS

8. The Jamak 1 rims have an 'X' stamped on the outside face of the rim, adjacent to the stud holes, as shown in Figure 10. Additionally, a triangular shaped plate is welded to the interior of the rim, as shown in Figure 11.



Figure 10 Jamak 1 Rim Marked with an 'X'

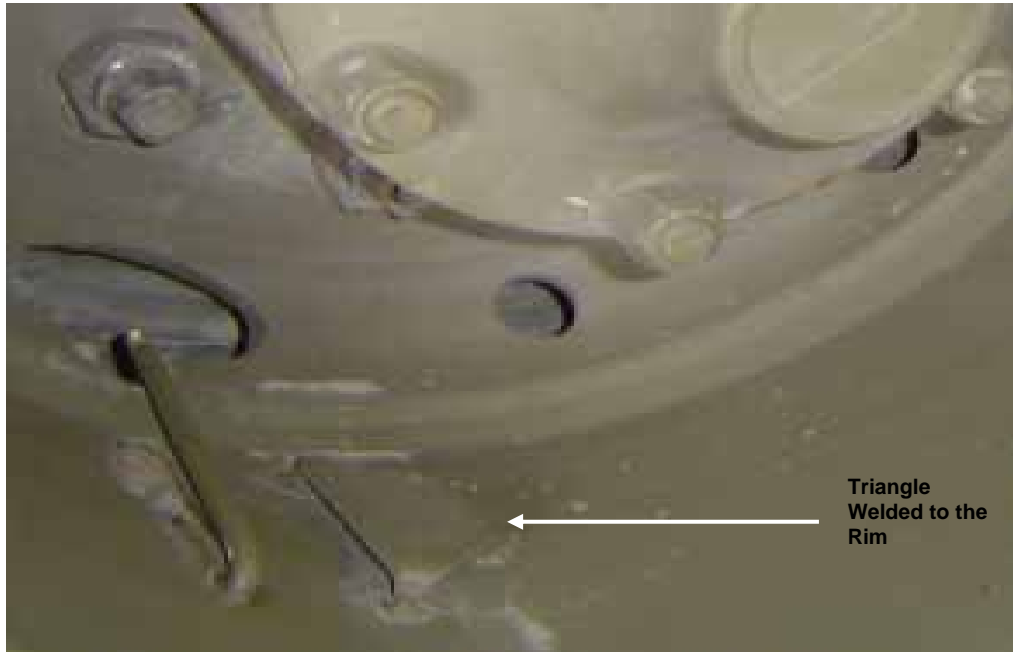


Figure 11 Jamak 1 Rim

#### IDENTIFICATION OF JAMAK 2 RIMS

9. The Jamak 2 rims have a 'square' stamped on the outside face of the rim; (adjacent to the stud holes), some of the stamped 'squares' may have the numerals '69' stamped inside the 'square', as shown in Figure 12. 'Squares' are also stamped on the side ring and snap ring, as shown in Figures 13 and 14. Additionally, a 25 mm square plate is welded to the interior of the rim, as shown in Figure 15.

#### NOTE

The stamping of the numerals '69' inside the 'square' ceased after the initial batch of rims were delivered. All rims thereafter, were stamped with the 'square' only.



Figure 12 Jamak 2 Rim Stamped with a 'Square'

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Stamped  
'Square'  
Identification  
Marks

Figure 13 Jamak 2 Side Ring



Stamped  
'Square'  
Identification  
Marks

Figure 14 Jamak 2 Snap Ring



Square  
Welded to  
the Rim

Figure 15 Jamak 2 Rim

## PREPARATION OF RIMS

### WARNING

The mixing of manufacturer's rim components (rim, split ring and side ring) must not occur. Mixing of manufacturer's components can lead to an explosive separation once the tyre is inflated, causing serious injury or death.

### WARNING

Components identified as JAMAK 1 are to be removed from service and disposed of in accordance with the ESCM. Use of these rims can result in a rear tyre failure, resulting in injury or death.

### WARNING

Components that cannot be positively identified are to be disposed of and replaced; mismatched components can cause a rim failure resulting in serious injury or death.

10. Components from one rim configuration cannot be utilised on another rim configuration.
11. When repainting wheel components, care shall be taken not to conceal the manufacturer's markings.

## FITTING RIMS

### NOTE

The Makay/Sankey Benson and GKN rims have been in service since introduction into service of the Mack 'R' series FOV. Due to the age of these rims they are to be classified **XX – Do not use** and replaced with JAMAK 2 type rims on their next tyre change.

12. There are no restrictions to the mixing of complete rim types on a vehicle, whether across an axle, on separate axles or as the spare.
13. All rims are to be inspected in accordance with EMEI Vehicle A 291-1 during inspections and during tyre changes.
14. Makay/Sankey Benson and GKN rims are to be removed from service on their next tyre change.

## FITTING TYRES

### WARNING

Any rim that has been noted to have rust that cannot be brushed off or corrosion that penetrates the metal of the rim; is to be classified '**XX – Do not use**'. Use of rims in this condition can cause rim failure resulting in serious injury or death.

15. Inspect all rims during tyre changing in accordance with [EMEI Vehicle A 291-1](#).
16. The mixing of OMNITRAC I and OMNITRAC II can occur across rear (Drive) axles. However; if a front (Steer) axle requires having an OMNITRAC II fitted; both steer wheels and the spare wheel shall be changed to OMNITRAC II tyres.

### END

Distribution List: **VEH G 50.0 – Code 1** (Maint Level)  
(Sponsor: CGSVSPO, Med/Hvy B Vehicles)  
(Authority: EC-003139)