

# PARTS & SERVICE NEWS

REF NO.	AA03174
DATE	Dec. 17, 2003

(C)

**SUBJECT:** IMPROVEMENT SHORT LIFE HEAD LAMP

**PURPOSE:** To introduce the improved vibration - resistant head lamp assembly to replace the ordinary head lamp assembly (which tends to burn out quickly)

**APPLICATION:** WA80-3 Wheel Loaders, S/N 10001 thru 10003  
 WA100-3 Wheel Loaders, S/N 63001 thru 63045  
 WA100-3A Wheel Loaders, S/N 53001 thru 53102  
 WA120-3 Wheel Loaders, S/N 50001 thru 50099  
 WA120-3L Wheel Loaders, S/N A30001 thru A30034  
 WA150-3 Wheel Loaders, S/N 63001 thru 63021  
 WA180-3 Wheel Loaders, S/N 50001 thru 50201  
 WA180-3L Wheel Loaders, S/N A80001 thru A80257  
 WA180-3PTC Wheel Loaders, S/N A85001 thru A85062  
 WA200-3 Wheel Loaders, S/N 63001 thru 63035  
 WA250-3 Wheel Loaders, S/N 50001 thru 50060  
 WA250-3L Wheel Loaders, S/N A70001 thru A70227  
 WA250-3PTC Wheel Loaders, S/N A75001 thru A75068

**FAILURE CODE:** DU10FQ

**DESCRIPTION:**

The head lamps may burn out earlier than normal, when these wheel loaders are used for snow plowing, as a result of vibrations from the tire chains, or by vibrations caused by work equipment when it hits the road surface.

When the head lamps tend to burn out early under these circumstances, or for any other reason, replace them with the improved vibration resistant type head lamp assemblies described below.

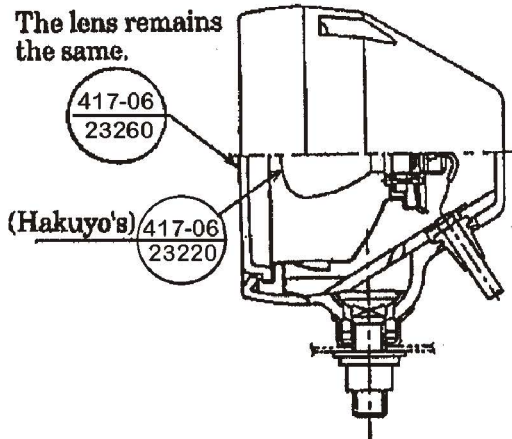
**List of parts:**

Part No.	Part Name	Purpose of Part	Qty	Remarks
417-06-23212 (417-06-23211)	Head Lamp Ass'y (Head Lamp Ass'y)	Replacement	2 (2)	All W/L listed above
417-06-23221 (417-06-23220)	Bulb (Bulb)		2 (2)	

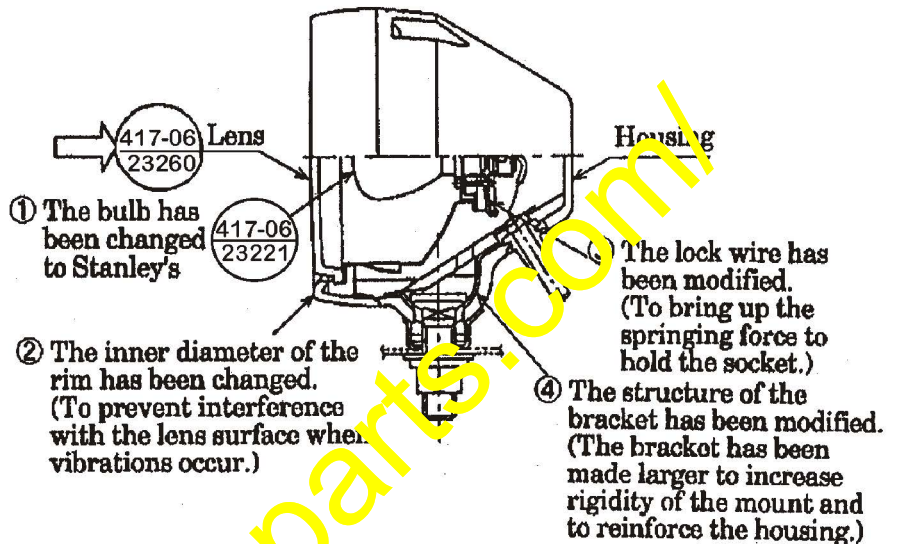
3. Contents of the modification

Vibration-resistance to prevent burning out of the head lamp has been enhanced by modifications ① through ④.

**Current**  
Head lamp assembly  
417-06-23211



**New**  
Head lamp assembly  
417-06-23212



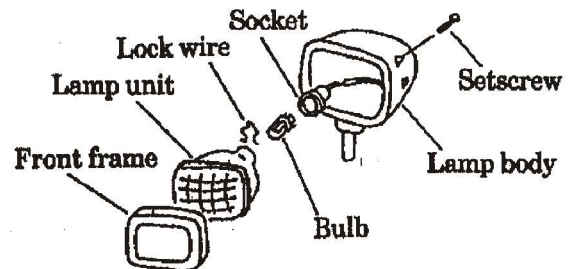
4. Modification procedures

Replace the head lamp assemblies with the improved assemblies (417-06-23212). (2 assemblies/vehicle)

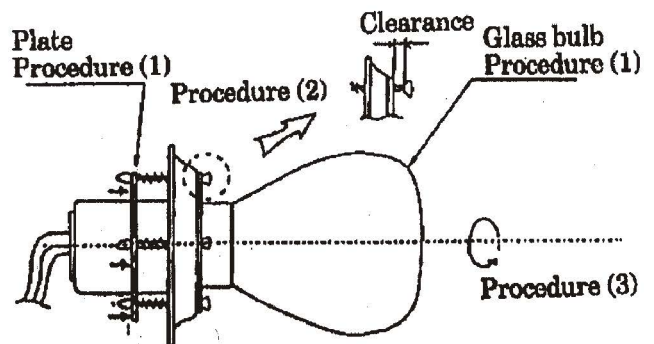
5. Reference.....Bulb replacement procedures

When replacing the bulb, follow these procedures:

- 1) Loosen the four setscrews of the lamp body to remove the front frame of the lamp body before taking out the lamp unit from inside the lamp body.
- 2) Disconnect the lock wire of the lamp unit to separate the bulb and bulb-socket from the lamp unit.
- 3) Remove the bulb from the socket to replace with the new bulb.

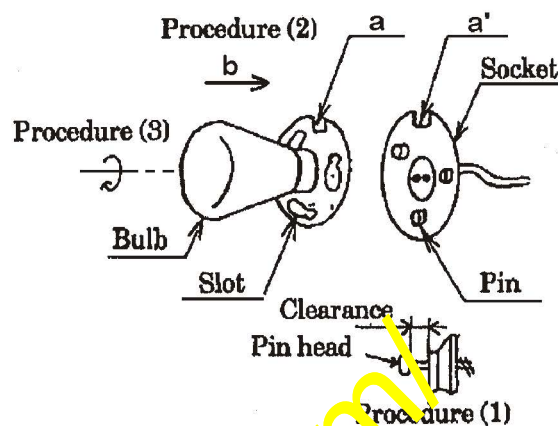


- ① Holding the glass bulb by your right hand, push up the socket plate using your left hand.
- ② Make sure the pins (3 pins) are pushed out before turning the bulb counter-clockwise to disengage it.



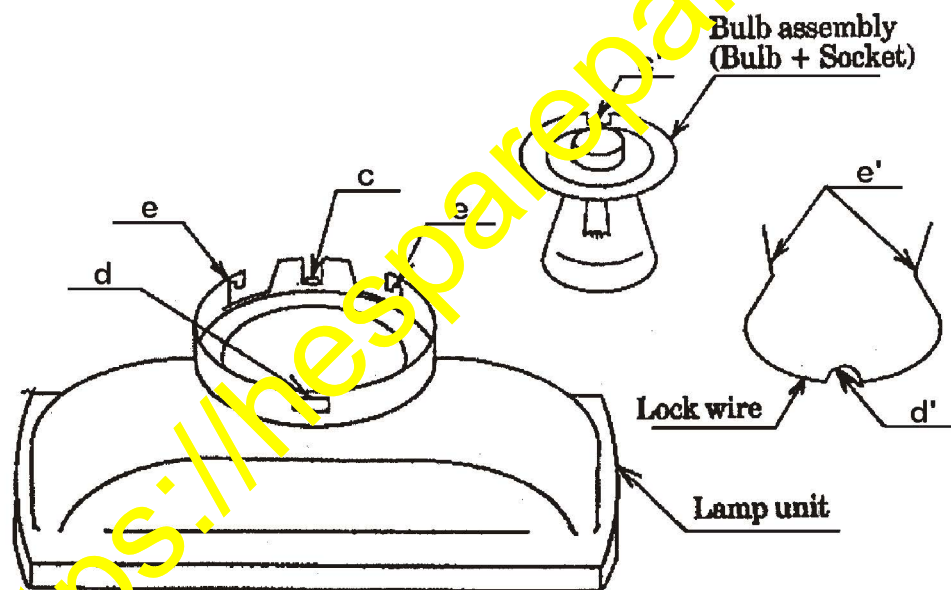
4) Engaging the bulb (417-06-23221) with the socket

- ① Aligning the notch a of the bulb to the notch a' of the socket, insert the pins of the socket into the slots of the bulb base.
- ② Push the bulb toward the arrowed direction "b" to cause the heads of the three pins to be pushed out as illustrated at right.
- ③ Turn the bulb clockwise to engage the bulb securely with the socket.



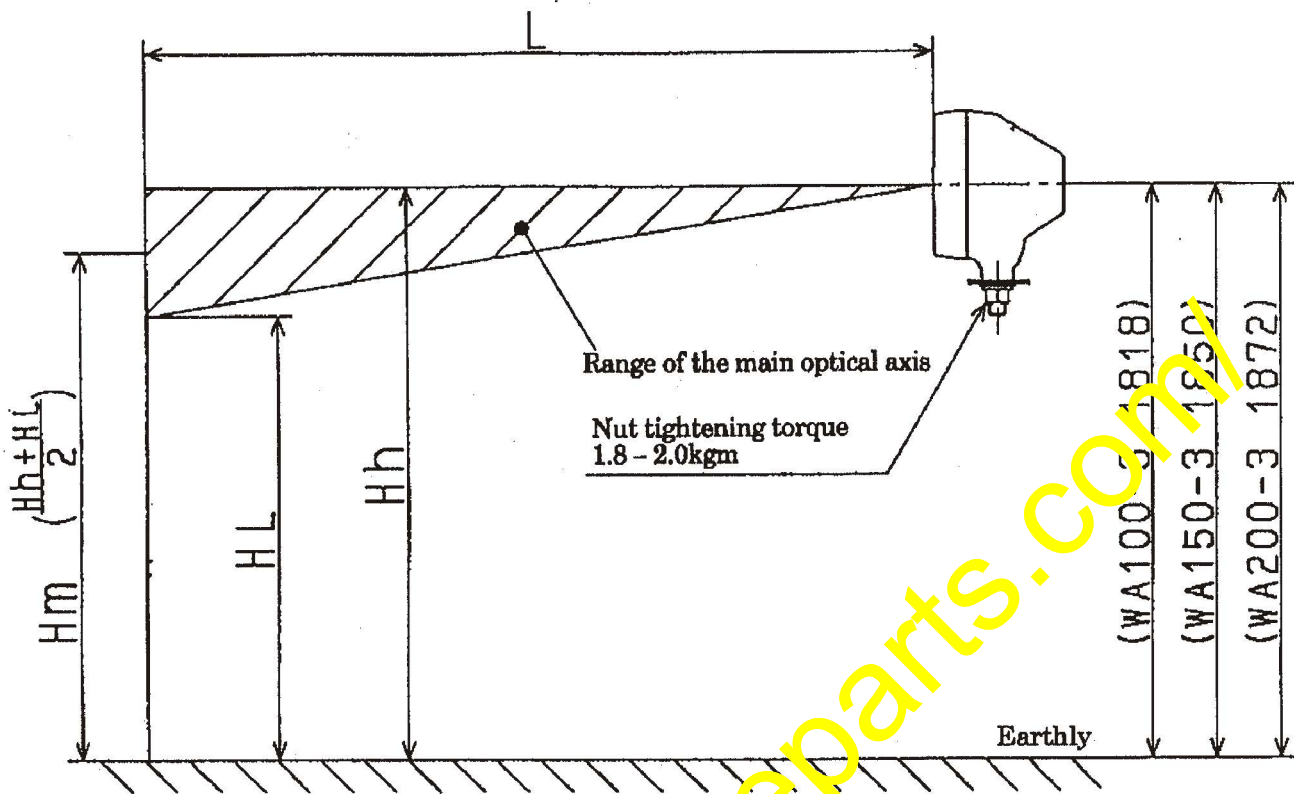
5) Installing the bulb assembly into the lamp unit

- ① Align the notch c' of the bulb assembly to the projection c of the lamp unit.
- ② Insert the section d' of the lock wire into the rectangular opening d of the lamp unit and hook the sections e' of the lock wire to the parts e of the lamp unit to fasten the bulb assembly and the lamp unit securely.  
(At this time, make sure the projection c and the notch c' are properly engaged.)



- 6) Install the lamp unit and front frame to the lamp body and fasten them together using the four setscrews.  
(Reverse the procedures of 1, above.)

6. After finishing the replacement work of the head lamp assemblies, adjust the focal height.



Adjust the radiation height to bring the main optical axis of the main beam (upward beam) between "Hh" and "HL."

Also, check visually if the optical axis is inclined crosswise.

WA100-3

Unit: mm

Distance L	Upper limit of the height Hh	Lower limit of the height HL	Median Hm
2.0m	1818	1745	1782
2.5m	1818	1727	1773
3.0m	1818	1709	1764
3.5m	1818	1691	1755
4.0m	1818	1673	1746

WA150-3

Unit: mm

Distance L	Upper limit of the height Hh	Lower limit of the height HL	Median Hm
2.0m	1850	1776	1813
2.5m	1850	1757	1803
3.0m	1850	1739	1794
3.5m	1850	1720	1785
4.0m	1850	1702	1776

WA200-3

Unit: mm

Distance L	Upper limit of the height Hh	Lower limit of the height HL	Median Hm
2.0m	1872	1797	1835
2.5m	1872	1778	1825
3.0m	1872	1760	1816
3.5m	1872	1741	1807
4.0m	1872	1721	1797