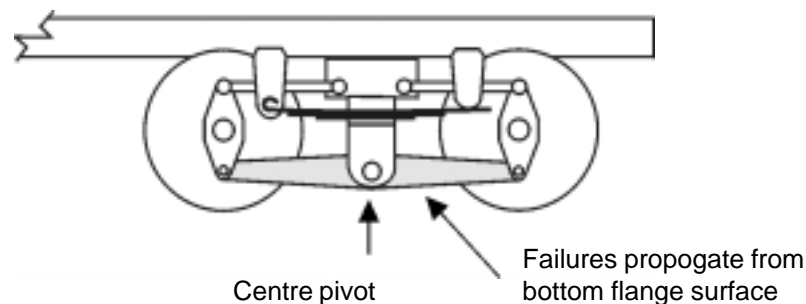




Walking Beam Suspension Failures

This publication is issued to alert owners or drivers to the possibility of suspension failure on heavy vehicles fitted with walking beam suspensions. A typical suspension of the type in question is illustrated below:



Several cases have been reported of walking beams failing on the road. Beams are made of either aluminium or steel and failures have occurred in both materials. A failure while a vehicle is in motion can result in a crash.

Many makes of heavy trucks (including International, Kenworth, Volvo and Ford) are fitted with this type of suspension. Other makes might also be affected.

Failure can originate from imperfections such as deep scratches, sharp indentations or cracks appearing on the surfaces of the beam, particularly the lower surface. These imperfections concentrate stresses in the beam and considerably reduce load capacity.

Minor imperfections can usually be polished out but under no circumstances should any attempt be made to repair major faults, because grinding or welding will aggravate rather than cure the problem. Any walking beams which are cracked should be replaced immediately.

It should be noted that an overloaded suspension or worn springs can cause the suspension to bottom out and this can severely overload the walking beam resulting in “failure. Overloading will likewise increase the risk of failure of beams which have imperfections of the types described above.

If you own or drive a truck fitted with a walking beam suspension, you would be well advised to take the following precautions:

1. Every time your vehicle is serviced, inspect the walking beams for signs of cracking or other imperfections such as deep scratches or sharp indentations.
2. ***If a crack is found, don't try to repair it. Instead, replace the component immediately and don't use the vehicle until this has been done.***
3. Any suspect beam should be given a ***detailed examination*** to check for the presence of cracks. A penetrant dye check is acceptable and could be performed by the owner.
4. Avoid the application of excessive heat to the walking beams during overhaul (when bushes are being removed, for example).
5. Be careful not to damage the walking beams when jacking the truck or when carrying out work on the truck.
6. Do not drill, grind or make any other machining operation on the beams under any circumstances.
7. If any welding is carried out on the truck in the vicinity of the walking beams, use covers to make sure that welding deposits do not fall onto them.
8. During operation, care should be exercised not to load the suspension beyond the manufacturer's rating.

FURTHER INFORMATION

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