Shock absorber "Misting" Explained

Maintenance regulation

On vehicles with extreme operating conditions, e.g. off-road or multiple-shift operation, the maintenance intervals have to be shortened from 12 months/150,000 km to 6 months/75,000 km.

Before each journey

The operator should carry out a **general visual inspection** of the tyres and all chassis parts.

Take particular care to inspect the fastening bolts for signs of movement or wear, shockers and air bags for leaks or damage.

Light oil misting

Fault characteristic:

- A light matte oil film (oil mist) or damp looking area at top of main body
- The outer tube of the shock absorber is dry in the remaining area
- None of the surrounding components are wet with oil

Cause:

- Leakage of a small quantity of oil which is necessary for lubrication of the piston rod seal escapes as a vapour under heavy operational requirements

Required measures:

- None
- This has no effect on the damping forces or the service life.
- There is no reason to replace the shock absorber.

Tip: In case of doubt the shock absorber should be cleaned and assessed again after a test run in dry driving conditions. A discernible increase in temperature of the shocker after the test run is a good indication of a normally functioning shock absorber.

Seal failure

Fault characteristic:

- The outer tube is wet with a shiny oil film over large areas
- Adjacent components are also oiled
- Adhered soiling has a dark colour over the length of the shocker base and or surrounding components

Cause:

- Seal damaged
- Surface damage on the piston rod
- Ride height outside the configuration

Required measures:

- A replacement is necessary

Tip: If multiple shock absorbers (more than 50%) on one vehicle have the same type of fault, the ride height should be checked to ensure proper operation.

Failure of a shock absorber to maintain damping force cannot be easily detected externally.

Only the consequences are visual, such as continual wheel bounce or vehicle swaying excessively. Continued operation with faulty shock absorbers could result in erosion in the tyre profile (Waved on the tyre profile around the circumference)

It should be noted that continued use of flat spotted or severely unbalanced tyres can lead to excessive forces on shock absorbers and be the true cause of failure.

Additional reference material

See section 4 suspension page 4 shocker misting of the national heavy vehicle register inspection manual

https://www.nhvr.gov.au/files/201806-0821-nhvim-national-heavy-vehicle-inspection-manual.pdf