Borescope

in automotive engineering

The applications of borescopes in the automotive engineering are very diverse: for the model and vehicle construction, creation of bodyworks, engines and gears and as well for the future maintenance and care in daily use of the vehicles, motorsport or maintenance of vintage cars. The visual control of welds, cracks, voids without disassembly is made possible. In automotive workshops the borescope is mostly used for detection of the wear and tear damage. The detection of the smallest mistakes or impending problems can help to avoid serious traffic accidents.

The following areas in the automotive inspection are checked with extra attention:

- Cylinder, pistons, timing chain
- Turbocharger
- Powertrain, gearbox

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The following problems are checked then: burrs, cracks, chips, combustion residues, quality of the welds, corrosion.

After-accident repairs the work carried out can be very precisely visually inspected. Especially the welded seams and wax sealers can be viewed and documented by means of pictures or even video so that to be presented to the customers or future buyers of the car.

When it goes about Vintage cars the same tests on cylinders, gears….are carried out as in new cars. For the old-timers there is one criterion which gets a special attention during the inspection – corrosion. The long-term protection plays an important role during the restoration as well as later for maintenance and preservation of the vehicles’ financial value. In order to prevent corrosion on a well-preserved or newly restored car (mostly in hollow rooms where a lot of moisture can build up), creep waxes which prevent the oxygen from contacting the metal are applied.

With the help of borescope and the inner and hollow spaces and inspected and possible defects are recoated with wax again.