AUTOMOBILE
DAMAGE
APPRAISAL

Checklist

Vehicle measurement systems

THINGS TO REMEMBER

- **High-strength steels and technologies** require more care and accuracy for evaluating damage.
- **Measurement systems** make it possible to determine the precise extent of the damage, particularly to the vehicle's important structures, and to confirm that the repaired vehicle has been restored to its original specifications.

1. Tram gauge

- Practical and simple, it can be used for a quick assessment
- The measurement is taken between two reference points
- The results are compared to the manufacturer's data to check for any deviations
- The results are less precise than a static or electronic three-dimensional measurement

2. Three-dimensional measuring

- **Very precise,** software is used to measure the vehicle in three dimensions: length, width and height
- The **set-up** – aligning the measuring system with the vehicle – involves placing sensors at five reference points in undamaged areas
- The **software**, coupled to the sensors, compares the point position to the manufacturer's data
- If a **deviation** is detected, this indicates the part is deformed
- Measures the **extent of the deformation** and evaluates if the part should be straightened (A) or replaced (B):
  - A –**Straighten** the part gradually on the rack using additional attachments and a hydraulic jack to bring it back in line
  - B – **Replace** the part, installing additional jigs to keep the new part in the correct position before assembly
- A **final measurement after the repair** ensures that the vehicle has been restored to its original specifications