

Assessment Requirements

Unit VF07K – Knowledge of Light Vehicle Four Wheel Alignment

Content:

Principles of steering and suspension and their effects on tyre wear and vehicle handling including:

- a. caster
- b. camber
- c. king pin or swivel axis inclination
- d. toe out on turns
- e. thrust angle
- f. set back
- g. wheel run out
- h. axle alignment

Four wheel alignment pre-checks cover:

- a. Tyre pressures
- b. Wheel bearing and ball joint condition
- c. Suspension condition and ride height
- d. Vehicle loading
- e. Tyre size and condition

Four wheel alignment covers:

- a. Individual toe
- b. Combined toe
- c. Steering wheel position
- d. Thrust angle

Abnormal tyre wear

- a. Edge wear
- b. Feathering
- c. Tread wear pattern due to incorrect inflation pressures

Equipment and tools

- a. Hand tools
- b. Lifting and supporting equipment
- c. Specialist alignment measuring equipment
- d. Turn plates (turntables)
- e. Steering clamp

The impact of adjustment on electronic systems to include:

- a. tyre pressure monitoring systems (tpms)
- b. steering wheel angle sensor
- c. electronic stability programme