# الهيئة السعودية للمواصفات والمقاييس والجودة

Saudi Standards, Metrology and Quality Org. (SASO)

**Final Draft Standard**

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# Road vehicles - Accelerator control systems

ICS: 43.040.30

## Contents

# Road vehicles - Accelerator control systems

## 1- Scope and field of the application

This standard specifies technical requirements for the return of a vehicle's throttle to the idle position when the driver removes the actuating force from the accelerator control or in the event of a severance or disconnection in the accelerator control system.

This standard applies to passenger cars, multipurpose passenger vehicles, trucks, and buses.

## 2- Terms and definitions

For the purposes of this standard, the following terms and definitions are applied:

### 2.1 Passenger car

A motor vehicle with motive power, designed for carrying 10 persons or less including the driver and their luggage, except a low-speed vehicle, multipurpose passenger vehicle, or trailer.

### 2.2 Multipurpose passenger vehicle

A motor vehicle with motive power, designed to carry 10 persons or less or goods equivalent by weight which is constructed either on a truck chassis or with special features for occasional off-road operation. Except a low-speed vehicle or trailer

### 2.3 Truck

A motor vehicle with motive power, designed primarily for the transportation of property, special purpose equipment, or towing a trailer except a trailer.

### 2.4 Bus

A motor vehicle with motive power, designed for carrying more than 10 persons, except a trailer.

### 2.5 Driver-operated accelerator control system

All vehicle components, except the fuel metering device, that regulate engine speed in direct response to movement of the driver-operated control and that return the throttle to the idle position upon release of the actuating force.

### 2.6 Throttle

The component of the fuel-metering device that connects to the driver-operated accelerator control system and that by input from the driver-operated accelerator control system controls the engine speed.

### 2.7 Fuel metering device

The carburetor, or in the case of certain engines the fuel injector, fuel distributor or fuel injection pump.

### 2.8 Idle position

The position of the throttle at which it first comes in contact with an engine idle speed control appropriate for existing conditions according to the manufacturers' recommendations. These conditions include, but are not limited to, engine speed adjustments for cold engine, air conditioning, and emission control, and the use of throttle setting devices.

### 2.9 Ambient temperature

The surrounding air temperature, at a distance such that it is not significantly affected by heat from the vehicle under test.

Note: In the case of vehicles powered by electric motors, the words throttle and idle refer to the motor speed controller and motor shutdown, respectively.

## 3- Technical requirements

**3.1** The vehicle shall meet the following requirements when the engine is running under any load condition, and at any ambient temperature between − 40 degrees Celsius and + 52 degrees Celsius after 12 hours of conditioning at any temperature within that range.

**3.2** The maximum time to return to idle position shall be as following:

**a)** 1 second for vehicles of 4536 kilograms or less gross vehicle weight rating (GVWR), and

**b)** 2 seconds for vehicles of more than 4536 kilograms gross vehicle weight rating (GVWR).

**3.3** There shall be at least two sources of energy capable of returning the throttle to the idle position within the time limit specified in item 3.2 from any accelerator position or speed whenever the driver removes the opposing actuating force.

**3.4** In the event of failure of one source of energy by a single severance or disconnection, the throttle shall return to the idle position within the time limits specified in item 3.2, from any accelerator position or speed whenever the driver removes the opposing actuating force.

**3.5** The throttle shall return to the idle position from any accelerator position or any speed of which the engine is capable whenever anyone component of the accelerator control system is disconnected or severed at a single point.

**3.5.1** The return to idle shall occur within the time limit specified in item 3.2, measured either from the time of severance or disconnection or from the first removal of the opposing actuating force by the driver.

## Bibliography

[1] 49 Subtitle B-Chapter V-Part 571-Subpart B Section 124 **(FMVSS 571.124)** "Accelerator control systems".