

Study notes for IRTEC Inspection Technician candidates

Operators Risk Compliance Score (OCRS)

Before being allowed to operate heavy vehicles (Bus, coaches & LGV's), operators must apply to the Area Traffic Commissioner for an Operators Licence, known as an O licence. There are 7 Area Traffic Commissioners in Great Britain.

The Area Traffic Commissioner applies strict criteria in issuing an O licence. The applicant (not necessarily the owner) to ensure compliance.

It is the DVSA (VOSA) who enforce the regulations on behalf of the Traffic Commissioner.

3 types of licence needed to operate vehicles over 3500kg for hire or reward

- Standard National (Own goods abroad & others' goods UK only)
- Standard International (Own and others abroad)
- Restricted (Own goods only)

For example, the transport manager / operator (this is not an exhaustive list)

- Must have a CPC or Acquired rights (Grandfathers rights are no longer valid)
- Be of good standing in the community
- Not be bankrupt
- Have sufficient funds put by, just for fleet maintenance
- Have appropriate premises
- Draw up maintenance contracts to be agreed by traffic commissioner

Remedies against offenders: Traffic Commissioners can:

- Suspend - Cancel license to operate temporarily whilst action is taken
- Revoke - Remove the license to operate completely
- Curtail - Reduce the operation, eg reduce fleet by half till operator can prove

OCRS points are applied in two areas to formulate the final score

- Roadworthiness (eg Roadside checks, premises, MOT inspections)
- Traffic (eg Load, Hazchem offences , Drivers hours, tachograph)

All records must be kept for 15 months, including daily checks, services, repairs, etc.

The DVSA use the Traffic Light system to decide which vehicles / companies to check, often using automatic number plate recognition (ANPR) cameras. The more points accumulated, the worse the light.

RED (Very likely to be stopped & inspected at roadside)

AMBER (Good chance of being stopped & inspected at roadside)

GREEN (Unlikely to be stopped & inspected at roadside)

Possible Penalties

- PG9 Immediate or delayed prohibition (10 days)
- PG10 Removal of PG9

HASAWA Health & Safety at Work etc. Act 1974

The act splits responsibility for H&S clearly between two parties.

- The Employer. They must provide training, a safe place of work, safe methods of work, PPE, safe machinery etc etc.
- The Employee. They are responsible for their own H&S, and others around them. They are responsible for their acts or omissions. Responsible for what they do and what they do not do, such as clear up a spillage they are aware of.

Hazards. A hazard is anything which has the potential to cause harm. It could be a sharp object, a task such as lifting, gas, such as exhausts, moving vehicles.

Risks. A risk is the likelihood of the harm, and the severity possible. Some accidents just bruise, and other kill.

A Risk Assessment considers all hazards that workers are exposed to, and puts in place control measures to ideally remove the hazard, or reduce the risk of injury and severity occurring to an acceptable level.

RIDDOR (Reporting of Injuries Diseases & Dangerous Occurrences Regulations)

You should be aware that some accidents and injuries should be RECORDED, and some should be REPORTED to the HSE (Health & Safety Executive)

- All accidents and injuries (& near misses) should be RECORDED in the works accident book.
- Certain serious accidents such as loss of limb, electrocution, loss of consciousness must be REPORTED to the HSE. Also, an accident which keeps the person off work for more than 5 days, or hospitalised for over 24 hours.

COSHH stands for Control of Substances Hazardous to Health.

It provides safety information on the product, eg what to do if it is swallowed, gets in eyes, how to clean it up, how to store it safely. Applies to Chemicals, cleaners, fuels, gasses etc

Oxy acetylene kits should be stored upright. Acetylene bottles have a left hand thread. Oxygen bottles must not have grease or oil put on the threads.

If you need safety information on any chemical product, a COSHH information sheet will give it.

Fire extinguishers

You should be aware of the main extinguishers, and their use.

- Red – Water – Class A fires, (eg paper, wood, textiles etc.)
- Cream – Foam – Class A and B (eg flammable liquids, diesel, paraffin, petrol)
- Blue – Powder – All classes of fire, including flammable gasses and high tension electrical
- Black -CO₂- Carbon dioxide. Class A and electrical. Best in confined spaces such as under bonnet.

Customer Service

For those that are customer facing, care needs to be taken to give customers the right impression of both yours and the vehicle manufactures reputations.

For example, a truck rental operator would want to check the vehicle for damage with the customer present, prior to rental. This will help avoid conflict over what damage was or was not on the vehicle.

A sales department would not want to deliver a vehicle to a customer that was defective in some way, say poor paint finish, which could give the customer a poor impression of the manufacturer or dealer.

Now have a go at these trial questions on OCRS and Health& Safety.

Which of the following is a prohibition notice?

- PG10
- PR10
- PG9**
- NIP

Which extinguishers would be good for electrical fires? (230v)

- Red & Blue
- Black and Cream
- Black & Blue**
- Cream and Red

Who enforces the OCRS checking system?

- a. The transport manager
- b. DVSA (VOSA)
- c. **The Traffic Commissioner**
- d. The police

How many Area Traffic Commissioners are there in Great Britain?

- a. 9
- b. 8
- c. **7**
- d. 6

Before using a new chemical in the workshop, safety information can be found where?

- a. **A COSHH certificate**
- b. The HSE (Health and Safety Executive)
- c. RIDDOR
- d. HASAWA

DVSA stands for:

- a. **Driver and Vehicle Standards Agency**
- b. Delivery Vehicle Standards Agents
- c. Driver & VOSA Services Application
- d. Driver & Vehicle Services Act.

For how long must daily check, service and inspection records be kept?

- a. 12 months
- b. **15 months**
- c. 25 months
- d. For however long you own the vehicle

For what purpose is the OCRS system?

- a. To calculate company profits
- b. For calculating drivers hours/ wages
- c. **Keeping an eye on the safe maintenance and operation of vehicle**
- d. To randomly check any vehicle

Gasses such as Propane, Oxygen, CO2 stored in bottles under pressure are in which form?

- a. Solid
- b. **Liquid**
- c. Gas
- d. Plasma

Which of these is the main Health and Safety legislation?

- a. **Health and Safety at Work etc Act (1974)**
- b. COSHH
- c. RIDDOR
- d. Railways Shops & Commercial Premises Act

What is the worst possible effect of poor vehicle maintenance?

- a. Vehicles might break down and cost money
- b. Mechanics bonus will not be paid
- c. **DVSA (VOSA) could remove the O license if too many faults are found, and close the company**
- d. Holidays would be cancelled

Which accidents must be reported to the HSE under H&S law?

- a. All accidents and injuries must be reported to the HSE
- b. Only accidents the H&S officer deems serious enough
- c. Accidents involving people under 18 or visiting the company (not employed)
- d. **All accidents as listed by the HSE, eg loss of limbs, broken bones.**

How must daily checks be done on heavy goods vehicles?

- a. By a responsible person every 24 hours
- b. By a fully qualified technician every day
- c. By the works foreman / manager before each trip
- d. **By the driver at the start of each day or shift**

Technical questions

What is the minimum tread depth requirement for an LGV or Bus?

- a. 1.6 mm all round, and in the central $\frac{3}{4}$ of the tread width
- b. 1.6 mm all round, and in any $\frac{3}{4}$ of the tread width
- c. **1.0 mm all round, and in any $\frac{3}{4}$ of the tread width**
- d. 1.0 mm all round, and in the central $\frac{3}{4}$ of the tread width

A tyre is marked FRT. What does this stand for?

- a. Fast Rolling Type
- b. Firestone Radial Tubeless
- c. **Free Rolling Tyre**
- d. Fast Racing Tyre

What is the minimum efficiency for service, secondary and park brakes, on a rigid LGV?

- a. Service 45%, Secondary 25%, Park 15%
- b. Service 50%, Secondary 25%, Park 16%**
- c. Service 45%, Secondary 25%, Park 12%
- d. Service 50%, Secondary 16%, Park 12%

How much of a spray suppression system can be clogged up and pass a DVSA test?

- a. No more than 50%
- b. No more than 40%
- c. No more than 25%**
- d. No more than 15%

How many individual LED lamps must work in one cluster, eg a brake light?

- a. All of them
- b. At least half (50%)**
- c. Just one can be out
- d. At least 80%

According to DVSA Inspection Manual, what is the maximum size of chip allowed in a windscreen of a LGV or bus?

- a. Not over 30mm
- b. There is no size stated**
- c. Not over 10mm
- d. Not over 40mm

What is not a reason for failure of a headlamp?

- a. It flickers when tapped
- b. It is the incorrect colour
- c. The beam is incorrectly adjusted
- d. The lens is chipped**

Stickers, decals and non standard sat-navs may not encroach upon the swept area of the windscreen by more than:

- a. 50mm
- b. 40mm**
- c. 300mm
- d. 400mm

A tyre is marked 295/60 R 22.5. What does 295 represent?

- a. **The nominal width of the tyre**
- b. Its rolling diameter for tacho calibration
- c. It is the load rating in kg
- d. It is the aspect ratio

A tyre is marked 295/60 R 22.5. What does the '60' represent?

- e. The nominal width of the tyre
- f. Its rolling diameter for tacho calibration
- g. It is the speed rating
- h. **It is the aspect ratio**

A tyre has the marking 156/150 L. What does the 156/150 signify?

- a. The nominal tread width in mm
- b. **The speed rating of the tyre, twin wheel set up and single wheel.**
- c. The load rating
- d. The laden aspect ratio (side wall height)

A vehicle arrives with only one of its front tyres worn badly on the outer edge. None of the tyres has been changed recently. What could be the cause?

- a. Wheel alignment, excessive TOE out
- b. Wheel alignment, excessive TOE in
- c. Under inflated worn tyre
- d. **A bent stub axle or worn king pin**

A vehicle has one tyre which is worn on both shoulders. What could be the most likely cause?

- a. Wheel alignment, excessive TOE out
- b. Wheel alignment, excessive TOE in
- c. **Under inflation.**
- d. A bent stub axle or worn king pin

How should you measure air brake pressure build up time?

- a. **Deplete the air tanks fully then start engine and time till warning system indicates enough pressure**
- b. Press brake repeatedly till gauge shows close to empty, then start up and time it.
- c. Leave vehicle overnight, and time how long till the buzzer goes off.
- d. Max 3 minutes from warning out to maximum pressure

A good routine for a vehicle inspection would be to:-

- a. **Start in the cab, do all those checks, then walk round the exterior, tapping and looking, then go underneath and work front to back.**
- b. Start in the cab, start engine, go underneath to check all components, then back up top for all round check. Back in the cab to do horn, wipers, washers etc. Check lights.
- c. Start underneath front to back or back to front, then complete all lights, spray suppression wheels & tyres and chassis checks & finish in the cab
- d. Work to an agreed checklist and go through that in order.

Diesel exhaust emissions are measured / tested for what?

- a. C O₂
- b. H₂O
- c. **Opacity**
- d. Smell

Play in a box type steering system measured at the steering wheel rim can be as much as what, before it is considered excess? (600mm (24") diameter steering wheel)

- a. **122mm (4.8")**
- b. 76mm (3")
- c. 30mm (1.25")
- d. 13mm (0.5")