

YOUR SEAT BELT WILL SAVE YOUR LIFE

Did you know that 10% of all major accidents in quarries result from vehicles overturning?

Quarry worker saved by wearing seat belt

A bulldozer driver had a miraculous escape after his machine rolled 60 feet down a cliff face. Mr Jack Povey, 64, of Llay, Wrexham, walked away without a scratch after the bulldozer crashed down the cliff at Pentre Uchaf Quarry, Bodfari.

Mr Povey was removing overburden on an untouched sand face when the ground gave way beneath him, sending his machine over the edge. He was feared trapped and the emergency services were called to the scene. But to the surprise of colleagues, Mr Povey had walked away from his battered machine and he was taken to Glan Clwyd Hospital, Bodelwyddan for a check-up.

Mr Dave Owen, Quarry Manager, said Mr Povey had had an unbelievable escape and that the roll over protection cage and the wearing of a seat belt had saved the driver from almost certain death.

(Evening Leader 21 July 1993)

Extract from Quarry
Fact File No. 10

Why should you wear a seat belt?

There is no such thing as a slow roll over. When a vehicle overturns, the forces are such that you cannot hold on to the steering wheel to prevent impacting on the side or roof of the cab. If you are not wearing a seat belt you

may be thrown around the inside of the cab or, if the door is open, thrown out and crushed by the vehicle. Twenty per cent of quarry vehicle accidents result from overturning quarry vehicles and 8% of the fatalities. Seat belts protect you from front, side and rollover accidents.

Will wearing a seat belt reduce your chance of injury?

Experience and statistics show a considerable reduction in the number of injuries and their severity when a seat belt was worn compared to those when it was not.

When should seat belts be fitted to vehicles?

The Supply of Machinery (Safety) Regulations 1992 require that seat belts or equivalent devices are fitted to vehicles with roll over protection standard (ROPS) cabs, ie machines of over 15 kW power. They must be fitted to crawler or wheel loaders; backhoe loaders; crawler or wheel tractors; scrapers; graders; and articulated steer dumpers.

Seat belts should be fitted to all dump trucks whether or not they are fitted with ROPS cabs.

You drive an old vehicle (not a dump truck) and it does not have a ROPS cab. Should it be fitted with a seat belt?

If your vehicle does not have a ROPS cab and it is not a dump truck, it should only be used in circumstances where the possibility of overturn is not foreseeable. If overturning is foreseeable in the circumstances in which the vehicle is used it should be either retrofitted with a ROPS cab or a vehicle with a ROPS cab should be used instead.

What sort of seat belt should be fitted?

To ensure the driver will wear it, provide a comfortable belt that adjusts to the motion of the seat with a buckle that does not dig into the groin. Keep the belt (and the cab) clean. HSE considers that the best protection is afforded by suitably designed, full-harness seat belts but where this is not practicable then provide lap belts. Seat belts should be maintained and replaced in accordance with the manufacturer's recommendations.

SEAT BELT COULD HAVE SAVED DRIVER

A driver crushed as his 58-tonne truck fell 60 feet down a bank at Tinsley Park open-cast site could have survived if he had worn a seat belt. An inquest into the death of John Roper, aged 47, of Rossington, near Doncaster returned a verdict of misadventure. Mr Roper died instantly from bleeding from a large cut to his heart and he also suffered a fractured skull.

The seat in your vehicle needs replacing. Should you consider fitting a full harness restraint?

Seats in quarry vehicles should be designed not only to give a comfortable driving position, but also to reduce whole-body vibration. A replacement seat should be designed to take into account the vibration of the vehicle to minimise whole-body vibration. The major seat suppliers provide integral seat and full harness systems. Why not fit one and assess the benefits? You can then decide on your policy for other vehicles.

If a full harness restraint is fitted, will you still be able to lean out of the window to reverse?

Fitting visibility aids should eliminate the need to look out of the window to reverse. You should have all-round vision when reversing. You should stop the practice of looking backwards down one side of the vehicle because you cannot see all around the vehicle and this removes the advantages of the improved visibility aids. On many vehicles it is impracticable because of the size of the skip.

Your brakes have failed. Should you jump from the cab?

Never jump from the cab of a quarry vehicle. There are very few people who have attempted this and not been seriously injured or killed. Those who have remained in the cab and were wearing a seat belt have escaped serious injury.

Is it more likely that vehicles will overturn because there are edge protection bunds on road edges?

The purpose of the edge protection bund is to stop vehicles going over faces. They work by either stopping the vehicle dead or by causing the vehicle to be deflected back onto the road and as a result it may overturn. In both circumstances it is essential that seat belts are worn to minimise injury to the driver. A ROPS cab is designed to absorb the energy of an overturn of a vehicle onto its side, but not the fall of a vehicle over a face.

What can be done to minimise overturn incidents?

- Provide all-round visibility aids.
- Properly maintain vehicles including brakes and steering.
- Ensure a good road surface and adequate edge protection on roadways and tips.
- Remember if you do overturn it is your seat belt that will save your life.



An example of a full seat harness in use



An example of the lap strap type belt