**Check your tech:** the top 5 safety systems



# **Truck safety begins** with your pre-start checklist.

Safety technology, such as

braking and stability assists, driver monitoring and communications, are in place to prevent incidents and protect your life but can only help if they're working properly.

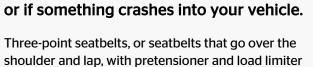
This guide gives you more information on the technologies designed to keep you safe, why they matter and what to look out for to check that they're working.

## Even though your seatbelt is

Drive, don't fly

not a new technology, it's still the number one safety device in the event of an accident.

IF YOU'RE NOT WEARING A SEATBELT, YOU'RE **8X MORE** LIKELY TO DIE IN A CRASH.



from your seat if you have to stop in a hurry

A seatbelt stops you from being ejected

technology, give you the best protection in the event of a crash. A pretensioner tightens and locks the seatbelt in

place, which keeps you in your seat and reduces your chances of being thrown against the wheel, dashboard, door or roof. Load limiters then loosen the webbing to prevent your seatbelt from over-tightening and putting too much force on your chest.

below), keeping you restrained within the cab becomes even more important.

As truck cabs have become stronger and safer (see R29



and is not faded or frayed.

To test if your seatbelt is working properly, check that it retracts freely



## Do you know if your cab is R29

How safe is your office?

compliant? R29 is a cab integrity **test** that checks how safe you are in a collision.

**REDUCE FATALITIES IN** TRUCK CRASHES BY 35%.

**R29-COMPLIANT CABS CAN** 





#### the front of the cab to resist an impact from the front (for cab-over trucks only)

measuring the ability of:

It tests the strength in four ways by

the windscreen pillars to resist an impact from the front

the roof to resist impact from the top

from the side. The cabs are stronger, so they protect the integrity of

the space around the driver in a crash.

the roof to resist an impact obliquely

Safety features that can give a cab an R29 rating include shaped panels that increase bending strength (to absorb more energy), triangulated structural

members and gussets between joints. While not mandated in Australia, R29 compliance is a requirement to access certain regulatory concessions, and most new trucks comply with the strength



to UN/ECE Regulation No. 29.

requirements.

knifing under brakes.

the brakes instantaneously.

each wheel to the available grip).



### **Anti-lock Braking Systems** help keep your rig straight

Always brake straight

#### when you have to stand on the brakes. So if you need to activate

emergency braking, you know it's there to assist. IF YOU NEED TO BRAKE SUDDENLY, YOU'RE 18% MORE

**LIKELY** TO BE INVOLVED IN A

OPERATIONAL ABS.

MULTI-VEHICLE CRASH WITHOUT

the brakes. A locked wheel does not provide as much stopping power, so ABS can shorten stopping distances. It also improves directional control under emergency braking and greatly reduces the likelihood of trailers jack-

ABS uses wheel speed sensors to detect

heavy braking and then uses electrically controlled actuators to release and re-apply

when wheels have locked up under

Other braking technologies include load-sensing proportioning, which adjusts braking force to match the load carried by each axle or axle group, and electronic braking systems (EBSes), which supplement pneumatic brakes with an electric signal that activates

If the ABS is working properly, the ABS warning light on the dash should light up briefly when you turn the key to the 'on' position.

EBSes also play a role in stability control (see below) and brake distribution (which matches braking force on



Using accelerometers and wheel speed Rollover on your sensors, stability control systems can detect bunk, not the road high G-force turning events and modulate

the vehicle.

If the light stays on, your ABS needs attention and should be reported.



#### and Trailer Stability Control systems can prevent rollovers and loss of control.

**Electronic Stability Control** 

OPERATIONAL ESC AND TSC SYSTEMS CAN MAKE YOU UP TO 35% LESS LIKELY TO CRASH.

Like ABS, if the ESC/TSC warning light stays on, report it.

sway and, if needed, pull a swerving trailer back on track. The same sensors also help with traction control, helping avoid wheelspin while accelerating. Many systems can be temporarily disabled so that

drivers negotiating difficult terrain at low speed will

**Driver Monitoring Systems can help save** you from crashing due to distraction,

have full manual control of their rigs.

the vehicle's brakes to attempt to stabilise

This can involve braking individual wheels to reduce



drowsiness, and more. common causes of heavy vehicle DMSes use cameras, facial recognition and artificial intelligence to judge if



**8 MILLION DISTRACTION EVENTS** IN THE LAST 12 MONTHS.

DATA FROM SEEING MACHINES HAVE LOGGED MORE THAN

you're becoming fatigued or even falling asleep. They sound alerts to bring your attention back

to the road.

just a walk-around, it's a chance to officially tell the

needs work.

((0))

Your pre-start checklist is your voice. More than

Make sure your device is not obstructed.

business whether your truck's in good shape or The best safety systems in the world won't help you if they're not working, so make sure your checklist covers

all your truck's active technologies. If you're not sure, speak with your team.



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