Even in the province of 'Zero Tolerance', death-trucks stalk the streets. Unroadworthy rigs run unchecked, slipping past the watchful eye of traffic officials, with tragic consequences. On Tuesday 31st January 2006, another very dark cloud hung over the transport industry, writes Paul Collings:

Urban - eight people died and almost 50 were seriously injured when an out-of-control truck smashed its way into six vehicles on Warwick Avenue in Durban on Tuesday, police said. Spokesperson Superintendent Phindile Radebe said according to the truck driver, he was travelling down the N3 highway into the city centre when his vehicle's brakes failed. The truck then hit two minibus taxis after which it smashed into a Mercedes Benz and a VW Microbus before overturning on top of a bakkie and a VW Jetta. 'The VW Microbus was hanging from the truck and the VW Jetta and the bakkie were under the truck,' Radebe told Sapa. Most of the dead were from the two minibus taxis. (this report courtesy news24.com)

Educating officers
Brake failure is the most commonly cited cause of truck accidents and if the findings of Brake-Watch are anything to go by, it's not hard to see why. There exists a general state of negligence among transporters as far as brake maintenance is concerned, the horror-smash quoted above being a case in point.

Brake-Watch is a road safety initiative put together by FleetWatch in conjunction with truck brake specialists, WABCO and ACSA-MAG. The project's primary goal is to educate traffic officers about truck braking systems so they can competently conduct roadside checks on commercial vehicles and impound all trucks with faulty braking systems.

The first leg of the initiative was a two-day event involving theoretical training at WABCO headquarters in Edenvale and a 'hands-on' training day at ACSA-MAG's City Deep facility, where trucks were stopped and their brakes tested. The statistics gathered on Day 2 were shocking, to say the least.

Reasons to be fearful
Johannesburg's container depot is situated across the road from the brake-test facility and truck traffic in and out of the depot is heavy, factors
all the guilty trucks were container haulers. This tipper spent hours in the ‘sin-bin’.

that helped Brake-Watch test 24 trucks, mostly skeletal interlinks.

With technical experts from WABCO and ACSA-MAG on hand to guide Jo'burg Metro police officers through an 18-point checklist, a nasty truth about Gauteng’s container transport was soon revealed. It’s cowboy country and the men wearing the biggest hats and spurs aren’t the drivers, they’re the fleet owners and managers, cutting corners in what is a low-margin, extremely price-sensitive and competitive sector of the industry. Essentially, it’s a maintenance issue. Transport managers should have qualified personnel in their yard to check safety critical items on their rigs on a daily basis, especially brakes.

OF THE 24 trucks tested, only one passed with a clean bill of ‘brake health’. The others fell foul of the law and were ‘impounded’ roadside until their colleagues could tow them in. The Metro Police did not hesitate to issue heavy penalties, some in excess of R1200. The inspection process involved external brake checks, under chassis inspection, ABS/EBS checks as well as rolling road testing of both truck tractor and trailer.

It was a veritable festival of non-compliance. Here’s the litany of transgression (% of the 24 trucks tested that failed to comply with RTA regulations):

- Broken or kinked suzie hoses – 63%
- Failure to have non-interchangeable suzie couplings – 63%
- Incorrect suzie colour coding and line tags – 79%
- Failure to display trailer data and load sensing data plates – 65%
- Park-brake dysfunction (valve leak after application and release) – 56%
- Leaking air brakes – 47%
- Perished/torn/chafed rubber hoses – 11%
- Excessive moisture in air reservoir – 68%
- Poorly secured/perished load sensing rubber linkages & disconnected down rod – 58%
- Incorrect slack adjuster holes used – 42%
- Incorrect booster sizes on same axle (do not correspond left and right) – 11%
- Faulty pushrods – 79%
- Poorly functioning service brakes – 43%

The rolling road results were equally unimpressive, largely due to imbalances on axles due to wrong lever length on slack adjuster hole, incorrect booster size and different push rod length:

- Truck tractor brake failure – 90%
- Truck trailer brake failure – 77%

Blind eyes and quick bucks

According to Enoch Silcock, technical director at WABCO, “It is quite obvious that no maintenance worth mentioning is conducted on these vehicles. Makeshift attempts at solving a problem are used, which is fine if the vehicle is properly repaired shortly thereafter, but what we saw today shows clearly the degree of negligence and ignorance of brake systems out there.”

Interestingly, only one trailer tested was fitted with ABS which, you guessed it, was disconnected because the truck tractor didn’t have ABS. Which brings us back to the issue of money. Transporters are obviously hard-pressed to remain competitive. They need to keep those wheels rolling and their costs down. They achieve this by running their rigs into the ground, along with their drivers and other road users. Who, in their right mind, can afford this approach?

The law is there to protect the operator as well as the public. Brake-Watch has set the wheels in motion by empowering traffic officers to recognise illegal truck brake set-ups. Running a rig with no stopping power worth mentioning is a one-way ticket to commercial suicide not to mention the distinct possibility of a culpable homicide conviction to go along with it.
A SPECIALIST IS SHOCKED

Assisting Brake-Watch at the City Deep ACSA-MAG testing facility was Wolfgang Lehmann, a trailer specialist trained in Germany, with more than 25 years' experience working for renowned manufacturers Henred Freuhof and Kearney's Truck and Trailer. FleetWatch asked him for a personal account of the state of the trailers tested on the day.

Between 09H00 and 15H00, fifteen trailers were inspected for faulty brakes and general condition. The first unit inspected, a trailer registered in Kwa-Zulu Natal, was so bad the Metro Police issued the driver a R1600 fine, too little in my book. The trailer was a moving killer and the operator and the driver should have been locked-up.

This rig was a typical example of an operator who tries to make as much money as possible, with as little maintenance as possible. Apart from a lack of plating, there was no load sensing, all the brakes were set incorrectly and the general condition of the trailer was extremely poor. My guess is that when an accident occurs and somebody gets injured or killed, the operator simply gets a good lawyer.

While I was present only 2 out of 15 (13.3%) trailers were in a respectable condition and I only hope that this is not the general trend on South African Roads. I think certain operators have a 'couldn't care less' attitude to truck maintenance and road safety, but there are many good operators out there. A 14 year-old Anderson Transport interlink combination was checked and it couldn’t be faulted.

Generally, there was a definitive lack of plating on most trailers and it was always the Load Sensing Data Plate that was missing despite...
These photographs show a selection of observations with comment from Wolfgang Lehmann.
and perish I can understand – but even then it will cost only a few cents to get them fixed.

Setting of the brakes seems to be another problem with certain operators. They do not understand the relationship between the slack adjuster connection holes and the booster push rods. They do not understand why there are 2, 3 or even 4 holes in the slack adjuster arm and from where the dim. 127mm or 152mm are measured.

When I spoke to Jack Webster (who happened to be there) about it he said that many operators are incapable of setting a basic foundation brake correctly. What are they going to do with the ABS and EBS brakes?

Another noticeable point was the braking systems on trailers that operate from Zambia and arrive in Johannesburg with Copper bundles. There was one combination just on 18 months old with manual slack adjusters fitted to the axles. How come they are permitted to travel on South African roads when for two years now, all South African truck trailers have to have Automatic Load Sensing Valves fitted. Operators don’t seem to understand how important this plate is for the workshop because it tells the mechanic all the relevant data about brake boosters, slack adjuster setting, as well as the lever setting on the Load Sensing Valve (LSV).

But then again most operators and mechanics don’t understand the function of a LSV! It was really frightening to see that on some trailers the lever arm was actually fastened to the LSV body with cable-ties. That the rubber grommets break and perish I can understand – but even then it will cost only a few cents to get them fixed.

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We found a lot of trailers where both suzies were either red or yellow in colour and on some trailers some bright spark had modified the ends on the red and yellow suzies and both ends were either male or female! There were hardly any identification tags (Service or Emergency) on the trailers and we found one trailer where the male coupling at the end had black masking tape wrapped around to prevent leakage. And talking about leakage: Why don’t the drivers drain the air reservoir on the truck and trailer? I suppose they either don’t know that they should do this or they don’t want to get their hands dirty.

All in all, it was an eye-opener. I always knew that the trailer was the donkey of the transport industry but I never would have thought how badly it’s being treated!

Many operators are incapable of setting a foundation brake correctly. How will they handle ABS and EBS brakes? After four hours of truck checking, I realised that 90% of all trailers older than four years had brake problems and actually no operator/driver seems to be worried about it. But that was not all. We found a lot of trailers where both suzies were either red or yellow in colour and on some trailers some bright spark had modified the ends on the red and yellow suzies and both ends were either male or female! There were hardly any identification tags (Service or Emergency) on the trailers and we found one trailer where the male coupling at the end had black masking tape wrapped around to prevent leakage. And talking about leakage: Why don’t the drivers drain the air reservoir on the truck and trailer? I suppose they either don’t know that they should do this or they don’t want to get their hands dirty.

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We knew we’d pick up a few ‘baddies’ especially given that we set up the brake test day near the container terminal at ACSA-MAG’s premises. What we didn’t know is that we’d net so many – and so bad! When we formed BrakeWatch as a partnership initiative, the objective was to highlight braking systems and maintenance as well as to train the cops in recognising potential braking system flaws on rigs stopped at roadblocks so as to redirect them, if necessary, to a proper brake roller test bay. Having spent a morning in training, the test day arrived and by the end of the day, we were horrified - and furious – at what we had found. That these operators allow their rigs to ride the roads in such condition – mingling out there with your and my family – is beyond comprehension. What we saw on the day can, in my opinion, be classified as a national disgrace. Exaggeration? Not so. The photographs on this and the following pages will tell the story more accurately that I can in words. Those operators and their rigs are a blight on the good name of the trucking industry. Patrick O’Leary
That these operators allow their rigs to ride the roads in such condition - mingling out there with our families - is beyond comprehension.

Using two different spring brake sizes seriously compromises the braking system.

Fast and loose – a rim bracket about to part ways with the wheel.

Guilty - an exposed air relay valve incorrectly mounted gets scrutinised.

Steel tubing designed to protect wiring is squashed against the trailer frame.

Heath Robinson goes trucking on a destroyed battery terminal.

ISGRACE

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A HOST of SINS in ONE TRUCK!

Ready for the scrap heap was this Isuzu klap-trap. The brakes were simply non-existent. But take a look at the pics of the inside of the cab. How can a driver have any pride in his work if this is the equipment he’s given to work with? It’s a disgrace. And it’s hauling goods destined for Pick ‘n Pay.

And look whose goods are on the back. Pick ‘n Pay’s No Name baked beans. How can this company allow its goods to be hauled on such death-traps? Who’s paying what rate for this junk transport?

Good grief! The best looking item in this cab are the sandals. The mechanics of this truck were equally shoddy. It was served a Discontinuation of Service notice by the cops.

If the gearlever looks like this, imagine the state of the gearbox!

Why worry about the cleanliness of your workplace if the operator doesn’t give a hoot about the roadworthiness of his vehicle?

Look at this mess! It’s crazy that trucks like these are allowed to ride on our roads. How did this ‘thing’ get through its COF test?

What can one say? At least it will never be hijacked as even the hijackers will turn away from this one.

It looks OK from the outside but go under the surface – and into the cab – and you’ll find a host of sins.
Metro police used their training to good effect at ACSA-Mag’s premises - testing 24 trucks and trailers.

Following training at Wabco, the Johannesburg Metro Police went out onto the roads on our test day to haul rigs into ACSA-Mag’s premises to be brake roller tested and inspected for overall roadworthiness. These pics show the facilities and how they were used.

A Metro Police officer chats to a Freight Dynamics driver and lets him go on his way after a cursory inspection of his rig’s roadworthiness. Others were hauled off for testing.

Both visual inspections and dynamic testing of the brakes using the brake roller tester were done throughout the day. Here one rig enters the testing facility while the one on the left gets a visual inspection.

BRINGIN’ EM IN!

And out the other side – hopefully with a clean bill of health but on this day, that would have been asking too much.

Steady does it as William Matlou guides an old Oshkosh in over the pit and onto the rollers. Thank goodness the driver entered slowly. He had no brakes to stop.

The brake tester dials show the variances in braking efficiencies on each axle. Note the top where the brakes on the one side were fine and on the other bad. The above photograph shows what was all too common – no brakes to talk of. ACSA-Mag’s William Matlou worked tirelessly throughout the day to check the rigs.

A brake is on but the lining is not touching the inside of the drum is on but the lining is not touching the inside of the drum is on but the lining is not touching the inside of the drum.
The exposed trailer plug wrapped in cloth – along with the other photographs – show the state of the suzies and their connection plugs on the majority of the trucks inspected. A big wake up call is needed. Hopefully, this acts as one.

Flat tyres there were aplenty!

A pre-trip inspection is such an obvious and basic procedure but few drivers are doing it. At least four of the rigs inspected had one flat tyre on one of the sets of twins on either the truck tractor or the trailer. It’s all a tragic joke.
The PEOPLE who made it HAPPEN

**LINKING HANDS** as a team to improve standards is what BrakeWatch is all about and this accent on teamwork proved the ideal formula in making the brake test day the success it was. Members from ACSA-Mag, Wabco, the Metro Police, Arrive Alive and FleetWatch all got together on the day to throw their full weight and individual expertise behind highlighting the braking standards applied by some operators in this industry. Owners of the trucks that were served Discontinuation of Service notices – which the majority received – should hang their heads in shame at the state of their rigs. FleetWatch salutes our partners in this exercise. What I saw on the day was a spirit of passionate enthusiasm by our partners to make a difference. That difference has been made. - Patrick O’Leary.

**Teamwork at it best**, from left: Steve Miller, ACSA-Mag emergency lighting product manager; Danie Theron, ACSA-Mag technical assistant airbrakes; Rienie Pieterson, Wabco - fleet support; Mike Raath, Wabco GM; Andre Van Tonder, Jhb Metro Police; Mark Williams, ACSA-Mag sales manager and Graham Brain, Control Instruments Automotive Group GM.

**Up, under and over** the trucks all day were, from left: Graham Grant, ACSA-Mag Workshop Manager with Dave McMahon, Trevor Veal and Hennie Schlebusch, all ACSA-Mag workshop airbrake fitters. These guys are goooood, very good on brakes.

**Dedicated to uplifting standards** are Wabco’s technical director Enoch Silcock (left) and Sean Annandale, technical manager airbrakes for ACSA-Mag.

**Below right**: Chris Barnard, head of the Jhb Metro Police Overload Control Unit (who retired at the end of December) met up with old friend and industry doyen Jack Webster.

**FleetWatch**’s Lorinda Stoltz with Ntau Letebele, Director, Arrive Alive.

**Wabco’s general manager** Mike Raath mixes it with the FleetWatch all star brake crew of, from left, Maryna Parsons, Lorinda Stoltz and Angelique Hörmann.
The training day started with theory in the Wabco training centre lecture room.

It’s into the pit they go for the beginning of hands-on training.

This magnificent trailer was kindly loaned to BrakeWatch by Top Trailers for the training exercise. Thank you Top Trailers.

The importance of having brake data plates fitted to trailers was stressed to the cops.

Many brake system inspection tips were passed onto the cops during the training session.

The RIGHT STUFF

PART OF THE BrakeWatch partnership initiative involves training Metro Police to recognise flaws in braking systems on trucks stopped in road blocks. The first session was conducted at Wabco’s training centre in Edenvale and was highly praised by all the Johannesburg Metro Police members who attended. “This will help us tremendously in doing our job more effectively out on the road,” is what one officer said after the training session. The Tshwane Metro Police have asked FleetWatch for similar training and the aim is to take this initiative nationally over time. It’s the right thing to do. It’s the right stuff!

A checklist on things to look out for was specially drawn up and referred to by the cops in the training and later on the actual ‘live’ brake test day.

A worthwhile exercise that adds value to all

Wabco’s Enoch Silcock explains the correct air and electrical suzies required to couple truck tractor and trailer. The importance of this came to light on the ‘live’ test day.

“And what’s this thing here?” The cops exited the pit knowing exactly what that ‘thing’ was for and how it should be checked for functional efficiency.
This will help us do our job more effectively out on the road.

**Police need** weapons to do their job but they also need knowledge. **BrakeWatch** concentrates on equipping them with the latter.

**Nylon tubing** should be neatly strapped up to prevent damage and interference with moving parts (e.g. slack adjusters). It’s the right way.

**Trainees were** shown how to identify incorrect installation of slack adjusters and brake actuators.

**Vigorous discussion** followed the training tour around the rig as new lessons were learnt.

**Police were** instructed that automatic slack adjusters must be correctly installed and correct slack adjuster lever length used according to the brake data plate.

**Lining thickness** should be regularly inspected – and the cops were shown just how to do this.

**And here** they are: The first 18 Metro Police members in South Africa to have received brake training under the **BrakeWatch** banner pose with their trainers from Wabco and Acsa-Mag. The spirit was just right.

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**FleetWatch Initiative**

**BrakeWatch**

... and more

**TRAINING**