

PRESS RELEASE

ADVANTIA TRANSPORT CONSULTING LAUNCHES FREE ONLINE INDUSTRY TOOL, PAYLOAD PILOT

At Advantia Transport Consulting, we are excited to share our latest industry tool, Payload Pilot. Launching on 1 May 2024, it is an online tool which is freely available to the heavy vehicle industry that calculates the Static Rollover Threshold (SRT) of any Performance Based Standards (PBS) and non-PBS vehicle combinations. Knowing the SRT increases operational productivity, compliance with industry codes of practice and more importantly, improves road safety for all.



Left to right: Saizo Takeuchi - General Manager, Les Bruzsa – Chief Engineer National Heavy Vehicle Regulator, Victor Trumper - Managing Director and Sina Milani - Mechanical Engineer

NEW CHANGES TO INDUSTRY

Identifying a minimum SRT is increasingly being utilised in the heavy vehicle industry and is included in the draft *Timber Transport Code of Practice* as well as the National Transport Commission's (NTC) *Load Restraint Guide*. These codes of practice set an acceptable SRT but offer little to no guidance on how to determine a combination's SRT.

This highlighted an area of need for the whole heavy vehicle industry and led to the development of Payload Pilot. Its purpose, to provide localised, accurate, technical SRT information to all heavy vehicle drivers at no cost.

Advantia approached the National Heavy Vehicle Regulator (NHVR) who fully supported the project and, together with the Commonwealth Government, provided funding to develop the tool for the industry.

“Payload Pilot provides the freight industry, including small and medium businesses with the tools to easily calculate their own SRT which complies with local road regulations, reducing rollover incidents and improving loading techniques by leveraging technology. Increasing safety on the road for all users.” Victor Trumper, Managing Director

ROAD SAFETY IS PARAMOUNT TO ADVANTIA AND PAYLOAD PILOT

Road safety of all vehicles is important to everyone. Heavy vehicle safety that meets safe operating and loading regulations, is paramount to Payload Pilot.

A significant number of accidents involving heavy vehicles are caused by taking a corner too fast and together without knowing all the technicalities of the freight meant they rolled over. Calculating the Static Rollover Threshold (SRT) of a heavy vehicle is an integral measure of vehicle performance on the road and can be closely linked to road safety. It has been shown that a 17% improvement in SRT can result in approximately 30% reduction in heavy vehicle crashes.*

PAYLOAD PILOT, HOW DOES IT WORK?

Payload Pilot is a FREE industry tool that identifies the maximum turn speeds of heavy vehicles so they can be safely maneuvered reducing accidents and increasing performance.

“The tool is accessible to anyone in the heavy vehicle industry including those without the technical knowledge of Performance Based Standards (PBS) and other similar requirements.” Saizo Takeuchi, General Manager

Payload Pilot uses localised and reliable data to:

- calculate the SRT of PBS and non-PBS heavy vehicle combinations ranging from rigid trucks up to A-triple type 2 road trains;
- provide SRT data on a heavy vehicle in its loaded condition or payload height;
- identify the maximum turning speeds for a series of turns; and
- assist in meeting safe operating and loading regulations.

The user adds in the combination's specifications into the tool and the calculator does the rest. A PDF report is generated by the tool and sent as an email.

Using the Payload Pilot tool streamlines and easily calculates the SRT required to meet safety regulations, reducing rollover incidents and improve loading techniques. Utilising this tool before travel ensures safety at every turn.

*<https://www.ternz.co.nz/Publications/Heavy%20Vehicle%20Stability%20Versus%20Crash%20Rates.pdf>



Testing conducted at the Australian Automotive Research Centre, Anglesea Victoria.

ADVANTIA CONDUCTS FIELD TESTING

An integral component of Advantia is to ensure that any presented results are rigorously validated and accurate. This is no different in the development of Payload Pilot.

To ensure complete confidence in the calculations and results, Advantia conducted a field trial validation of the SRT assessment to make sure what is presented in Payload Pilot matches the real world. This testing was successfully conducted at the Australian Automotive Research Centre in Anglesea Victoria in early 2024, with a laden prime mover and semi-trailer combination (the largest combination able to fit on the tilt table).

Testing was simulated by placing the vehicle on a tilt table under dry sealed road conditions. The angle of the tilt table was increased until the vehicle is algorithmically determined to be at the 'point of no return' before rolling over. At this point the angle of the tilt table is recorded and then used to calculate

the SRT result. If the user requested that the maximum payload height be determined for a specific SRT value, the test is conducted multiple times with the payload height iteratively adjusted until the SRT result is within an acceptable tolerance of the target SRT value given by the user.

This rigorous approach underscores Advantia's commitment to delivering reliable and thoroughly validated solutions, enhancing the trust and efficacy of Payload Pilot in practical applications.

END OF RELEASE

For more information on Payload Pilot, www.payloadpilot.com.au, and Advantia Transport Consulting, www.advantia.com.au.

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