

THE ALL NEW Trailparts™ Patriot Series

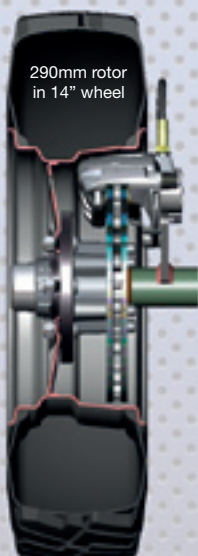
The Trailparts™ Patriot brake series is designed to lift trailer brake performance to acceptable levels. Braked trailers in New Zealand are often under-braked, and in use, loaded beyond what the brakes are capable of safely stopping. Early market research showed that trailer builders recognized this and would have preferred to fit better performing trailer brakes, but had no alternatives available to them that were cost-realistic.

The Patriot series are true performance trailer brakes, and define what a trailer brake should be. They have been designed from the ground up; bringing significant specification increases in every desirable area - brake pad size; piston area; rigidity; the ventilated rotor; easy servicing features – delivering the total trailer brake package without compromising crucial space constraints and fit tolerances. Importantly, they are designed for compatibility with existing and common trailer brakes available in New Zealand, meaning the switch to performance orientated solutions is simple.



230mm Rotor Versions

230mm rotor versions of the Trailparts™ Patriot brakes are designed to be used with standard and current 1500kg and 1750kg stub axles and bearings. Caliper mount yokes used are compatible with commonly used 225mm diameter rotors/brake combinations from other suppliers, giving a seamless and easy transition to high performance brakes. It also means retro-fitting performance brakes becomes easy and helps lower inventory costs.



290mm Rotor Versions

Trailparts™ Patriot 290mm rotors are used on an all-new 2500kg capable stub axle designed in house using CAD to ensure strength and to utilize commonly available bearings and seals. A degree of compatibility with existing 275mm rotor/brake combinations from other suppliers is also achieved, where an adaptor kit is supplied when fitting to their 2000kg stub axles. The 290mm rotors deliver truly outstanding braking performance, the increased piston/pad area of the Patriot caliper coming into its own on the increased diameter rotor.



The Facts...

Trailparts™ Patriot brakes deliver on the promise of improved safety, as the data and illustrations below show. A series of increases in piston area, brake pad area and rotor diameter all add up to deliver real performance benefits, transferring to the delivery of the ultimate aim – reduced stopping distances. What this data doesn't show, are the gains in repeat braking performance, where the vented rotors gain 80% more cooling area to dissipate the number one roadblock to repeated, effective braking performance – heat.

Typical 2500kg loaded trailer with one axle braked.

	Twin 43mm piston Trailparts™ Patriot Caliper on 230mm ventilated disc	Trailparts 50mm mono piston Caliper on 225mm Standard disc
Outer Braking Diameter	230 mm	225 mm
Piston Diameter	43 mm	50 mm
Second Piston Diameter	43 mm	0 mm
Total Effective Piston Area	2904 mm ²	1963 mm ²
Axle Braking Force Generated	4079 N	2681 N
Total Braking Torque Generated	1363 N	896 N
Total Braking Force Generated	4079 N	2681 N
Clamping Force Generated	9.01 kN	6.09 kN
Torque Generated / Brake Caliper	681 Nm	448 Nm

Stop achieved from 30km/h

50mm mono piston caliper, 225mm standard disc - **40.7m / 7.77 sec**



Twin 43mm piston Patriot caliper, 230mm vented disc - **29.6m / 5.11 sec**



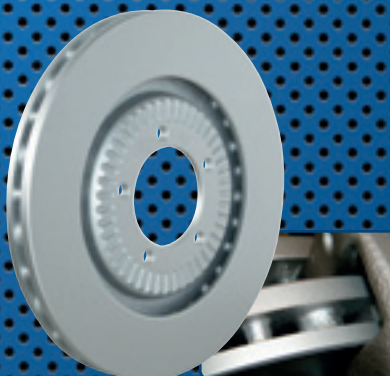
Trailparts™ Patriot Brakes Deliver

High Performance Calipers



55% more pad area; 80% more piston on pad area; stainless steel pistons; stainless steel guide pins; high quality dacromet finish; 30% more rigidity...

Ventilated Rotors



Up to 7% more diameter; 26mm thickness – 235% more!! = more wear; 85% more cooling area...

Easy and Low Cost Servicing



Undo one bolt, and caliper swings away 100° for ease of servicing; pad change takes 4 minutes!; thicker rotors, larger pads also mean more life...

Important Considerations to Note

Performance figures presume that one stop from cold is performed. They don't calculate other differences, such as rotor thicknesses and ability to absorb, and then dissipate heat effectively; nor an allowance for compliance or expansion in the caliper body itself under pressure. These both affect braking performance significantly, and heat management and a strong, rigid brake caliper has an exponential increase/decrease on the actual delivered braking performance. These calculations are intended as a guide only, using these parameters: 1 axle braked, GVM 2500kg, 450psi input pressure, 185R14C tyres, and brake pad coefficient of 0.42 (μ). These are accepted industry averages, and presume controlled road and other conditions.

TRAILparts™
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IT'S A GAME CHANGER!

An all-new retention feature means...



These couplings will now automatically engage and positively lock on any 50mm or 1.7/8" towball

**NO MORE CHANGING TOWBALLS
OR USING ADAPTORS...
FRUSTRATION
OVER!**



Autofit™ couplings retain all of their class-leading features;

- Easy to use – Fingertip-only release mechanism avoids powerful retention springs and jammed fingers!
- Lowest height – No levers or handles sticking up to damage tailgates or doors.
- Constant Height – Autofit™ couplings don't increase in height during the engage/release process.
- Tough – Load tested to beyond the requirements of NZS5467.
- Ergonomics – Designed for ease of use, and add functional good looks to trailers.
- Guaranteed – Full 18 month manufacturer's warranty.

The all-new retention device was designed in house and is manufactured in New Zealand using non-corroding stainless steel and brass fittings.

3 VERSIONS AVAILABLE



T11001

2500Kg Non Braked



T15005

2500kg Over Ride Braked



T15002

3500Kg Non Braked/Electric

Enquire now and find how Autofit™ couplings can solve problems for you!!

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