



2018

NEWS BRAKE

The Bendix Wrap-Up

Bendix

Happy Christmas



From all of the team at Bendix, we would like to thank you for your support this year and wish you a very Merry Christmas. Enjoy the great holiday season and stay safe on the roads.

This year's issue of Bendix Newsbrake is packed full of the latest new product releases, catalogues, technical bulletins, Cars of Bendix and the new website.

The new Bendix website is a complete rebuild and designed to make the process of accessing the vast amount of technical information easier and faster. We've been planning the future into the site and it will continue to deliver up-to-date data for a long time to come.

As in previous years, we've produced new technical bulletins that provide workshops with the latest technical information and tutorials. We like to dig deep to produce articles that will benefit your business and help you discuss braking issues with your customers.

The 'Increase your profits with Bendix' videos have been very well received by workshops across Australia and your feedback has been appreciated by our team. We will continue to find new ways to make vital information like this available to you.

Bendix will once again be a major exhibitor at the 2019 Australian Auto Aftermarket Expo and we will be letting you know the event details closer to the date in April. It's a great opportunity to see the leading Australian and international brands under one roof. The Bendix stand will be featuring all the latest braking technologies and marketing along with plenty of time to talk one on one with the Bendix team.

The Cars of Bendix program brought us the inside stories on Australia's car restorations.

The team here at Bendix are dedicated to continuous improvement and development of innovative technology that will make our roads safer while helping your business grow. You can find out more by downloading our **catalogue app**, by visiting www.bendix.com.au or by calling **1800 819 666**.

We wish you a safe and enjoyable holiday, and a happy new year!

The Bendix Team

CHECK OUT THE LATEST NEWS FROM BENDIX WITHIN THIS ISSUE:



2 THE BENDIX ONLINE CATALOGUE



6 INCREASE YOUR PROFITS WITH BENDIX



8 TECHNICAL BULLETINS



18 AAA EXPO 2019



18 PRODUCT BULLETINS



22 CARS OF BENDIX 2018

+ Much More Inside!

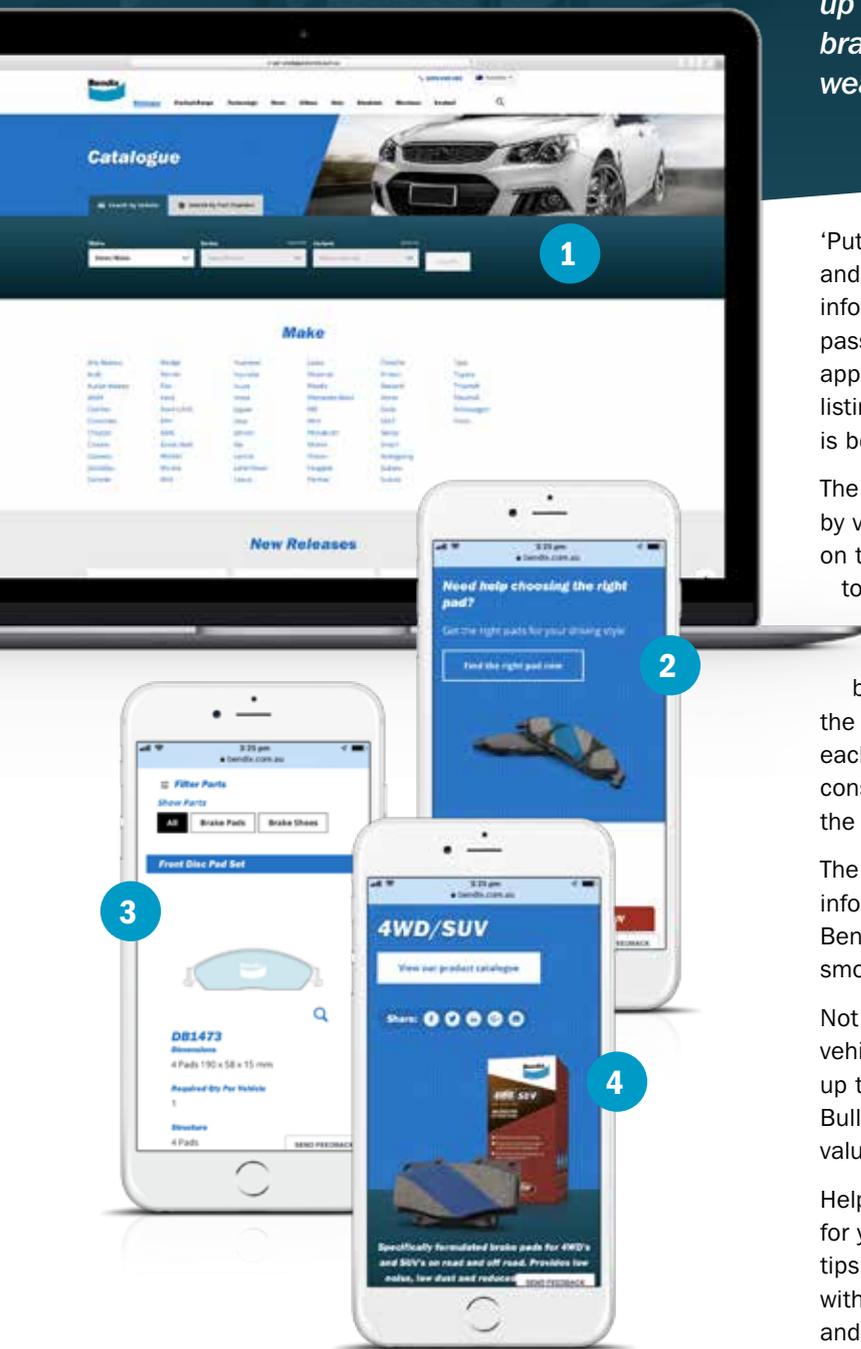


**THE BENDIX CATALOGUE APP
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SEE PAGE 3 FOR MORE INFO!

NEW BENDIX WEBSITE AND ONLINE CATALOGUE PROVIDES A WEALTH OF INFORMATION!

Welcome to the new Bendix website complete with Australia's most comprehensive and up to date online catalogue on brake pads, brake shoes and wear sensors, and with the wealth of information the new site provides.



'Put Your Foot Down with Confidence™' with the website and online catalogue. It contains a wealth in technical information and the online catalogue and data covering passenger vehicles, 4WDs, SUVs, and light commercial applications, provides the most up to the minute vehicle listings and vehicle data available. This valuable information is being constantly updated into the future.

The online catalogue search engine allows you to search by vehicle or part number along with comprehensive details on the full Bendix product range offering the widest range to customise disc brake pads for any of your customers driving style for longer, smoother and safer braking.

The comprehensive data base also enables a search by the OEM part number for the vehicles and images of the brake parts allow easy identification of the right part each and every time. Importantly, vehicle definitions are consistent with the other trade catalogues, available within the industry.

The technology section of the new website covers information all the innovative technologies developed by Bendix engineers to deliver whisper quiet braking with silky smooth operation and a reduced brake dust.

Not only does the new website include all products and vehicle application data to help you, it will also keep you up to date with Bendix news including the latest Technical Bulletins and B-Mail plus more than 100 videos containing valuable technical data.

Help is provided with answers to frequently asked questions for you and your customers on brake problems. Technical tips on ABS/ESC and replacements, what brake pads to use with Active Cruise Control and safety tips for the mechanic and there is a members portal plus a guide to the nearest Bendix stockist plus easy contact with the Bendix Help Line.

- 1 A comprehensive catalogue of vehicle data
- 2 User-friendly tools to guide your search
- 3 Accurate and up-to-date product information
- 4 A wealth of resources at your fingertips

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www.bendix.com.au



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BENDIX CATALOGUE APP



REPLACES PRINTED MATERIAL!
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The Bendix Catalogue App puts the most up-to-date braking information & advanced technology releases into the palm of your hand.

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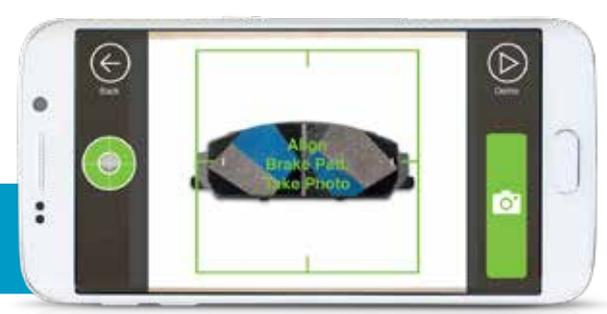


Search Bendix Catalogue

FIND OUT MORE: For more information on the Bendix catalogue app, visit: www.bendix.com.au/catalogueapp

BENDIX BRAKE PAD IDENTIFIER APP

FAST, ACCURATE & EASY TO USE!
Use this app to quickly photograph & identify any brake pad!



1 Place the brake pad onto a clean white surface.

2 Hold phone above the brake pad so it is centred in the viewing area. Use the button to take a photo.

3 Select the image that matches the brake pad you have taken, to view more details of the models it suits.

4 Select vehicle model to view a detailed view of the brake pad information.

DOWNLOAD IT FOR FREE TODAY!
Free download for Apple and Android devices!



Search Bendix Catalogue

FIND OUT MORE: For more information on the the brake pad identifier app, visit: www.bendix.com.au/bendixapp

BENDIX RELEASES AUSTRALASIA'S MOST COMPREHENSIVE BRAKE PAD AND SHOE CATALOGUE



1156 pages of clear, concise technical reference material that will save you time on every job.

Bendix has released its massive 2018 Brake Pad and Shoe Catalogue or Data Book to service not only Australia and New Zealand but also the South East Asia region.

It's so convenient to have the whole Bendix range in one easy to use book.

The Bendix Databook contains vital reference material, descriptive illustrations and accurate scale drawings. No matter what vehicle type you're looking for, passenger vehicles, 4WDs or light commercial, it's all there.

This Bendix Databook has 32% more content over the previous issue with the coverage of vehicle listings making it the most comprehensive of the region.

As well as the brake pads and shoes the latest version now includes advanced new wear sensors each with their respective colour markings to make accurate and precise selection.

Brake pads are shown in 1-1 actual scale size line drawings with accurate measurements and descriptions for accurate selection of the correct part and large brake shoes are also illustrated with precise measurements and descriptions.

To aid the selection process the listing provides various options allowing the trade to select the most appropriate brake pads to suit the driving style of your customer. There is also reference to the Bendix app with instructions to download this for future convenience.

Clearly marked on the outside cover are three symbols to emphasise that 'OE Logbook Servicing' means that Bendix quality replacements will not void new vehicle warranties. 'Leading Technology - Stealth' and 'Best Range' reconfirming that the catalogue covers the most extensive ever listing in the market.

NOW AVAILABLE:

Contact your **Bendix representative** for your copy



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BENDIX ANNOUNCES COMPREHENSIVE TRUCK AND BUS BRAKE SOLUTIONS

This vital braking data source for Australia's commercial buses and trucks will let you specify brake shoes, disc pads and linings for any vehicle.



A fast and easy way to find the right brake shoes, disc pads and linings for commercial buses and trucks. The 2018 Bendix Commercial Bus Databook is a comprehensive data source that includes Bendix's leading technological solutions and OE Logbook servicing data.

The vehicle data listing covers models, variants, brake systems for front, rear, tag/trailer and park, applications from Denning to Volvo buses and everything in between.

The range includes brand new OE quality brake shoes lined with long lasting Protrans braking materials manufactured to ISO9001 standards. These have electro hardened journal ends, indented webbing, steel rivets, are radius ground for easy no fuss installation and include a hardware kit to ensure that you have all the key elements.

Commercial disc pads in the range are designed to withstand the extreme demands of heavy duty operation giving drivers confidence and safety on the road.

A range of multi-purpose vehicle brake linings can be used in a range of applications including heavy duty trucks, light commercials, trailers and common general purpose axles.

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TRAINING SERIES INCREASE YOUR PROFITS WITH BENDIX

PART 1

Introduction

In the land of the automotive trade, "time is money" are words to live by. With brakes, as with any other aspect to automotive mechanical work, spending time to make sure the job is done properly not only keeps your customers safe and happy, but also nets you a heftier profit.

This video series shows you, your staff and apprentices how to keep your customers coming back with a proper brake service all whilst increasing your brake service profit margins.

In part 1, we'll be walking you through an extensive brake service from start to finish and showing you which components to service and/or replace to not only increase profits, but also value for your customer.

You will learn how to keep customers coming back.



VIEW IT ON YOUTUBE:

To watch **Part 1** of Increase your profits with Bendix visit:
www.youtube.com/watch?v=dZUrF2zd8Zo

PART 2

How to sell brake pads to your customer

In episode 2 of increase your profits with Bendix we look at how to sell the brake service to your customer. You want to make sure that your customer gets the right brake pad for their vehicle and driving style so we suggest a series of questions to help identify their driving needs.

Its then important to discuss the brake disc and its servicing requirements or possible replacement options to ensure that the Bendix brake pad friction materials suits the new disc. Brake fluid is also a serviceable item that requires maintenance and we explain the best approach to testing this system and discussing servicing with your customer.

Knowing how to match the right brake pad to a driving style is vital training.



VIEW IT ON YOUTUBE:

To watch **Part 2** of Increase your profits with Bendix visit:
www.youtube.com/watch?v=y2p_N1nzi8Q



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PART 3

The Service!

In this episode we look at how to sell the service to your customer which can result in more profit and better customer retention, from work being performed without any customer come backs for braking system complaints.

You want to make sure that you have inspected and reported all possible issues with the cars braking hardware, such as calliper boots, dust, slide pins or hydraulic leaks. If there are issues they need to be rectified with an overhaul or replacement of the component. We discuss how to carry out and sell a basic calliper service which should be done along with the brake pad service to ensure to higher labour margins for your business and better customer satisfaction.

Teaching apprentices to carry out a complete check of all components can increase margins for your business.



VIEW IT ON YOUTUBE:

To watch **Part 3** of Increase your profits with Bendix visit:
www.youtube.com/watch?v=Fl61dv0yeqo

PART 4

The Post Service Talk!

In the final episode of increase your profits with Bendix we look at how to explain the brake service invoice to your customer. This overlooked part of your customers service experience can be the most crucial part as they often will not understand what's been done to their vehicle.

In this video we demonstrate the best practice of discussing the repair, talking through each invoice line item and giving them peace of mind that the jobs been carried out correctly and at a reasonable cost.

Apprentices will learn how to help their customers understand brake service costs.



VIEW IT ON YOUTUBE:

To watch **Part 4** of Increase your profits with Bendix visit:
www.youtube.com/watch?v=-7v8TPVQGrk



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TECHNICAL BULLETINS

BENDIX RESEARCH & DEVELOPMENT – WHAT GOES ON IN OUR LABS!

At Bendix, countless man hours go into the research and development of our brake pads to make sure that they suit your specific driving styles and perform to our high standards. We test them to the most extreme tolerances to make sure that they'll withstand whatever you throw at them, and then some.

To give you a deeper look at what goes into the research and development stage, we headed down to our Product Engineering Centre in Ballarat, Victoria and spoke to the brains of the operation, Bendix's Head of Engineering, Andrew French.

Research & Development

The first phase of the process is developing the compounds that make up each brake pad. Each compound is developed according to various customer needs, from those who simply drive their cars around town, to more extreme use on the race track.

Our formulations are developed right in our Product Engineering Centre, where the brake pads are then made and tested. The whole process happens in-house thanks to a wide variety of development, mixing, pressing, manufacturing and testing equipment.

Both international and in-house procedures and guidelines are used to validate our materials and ensure that our brake pads are safe once installed. They then undergo extensive lab testing both on hub dynamometers and on vehicles.

Our range of Bendix brake pads are catered to suit a wide range of driving styles, and of course, each brake pad type is developed differently to cater for your driving needs.

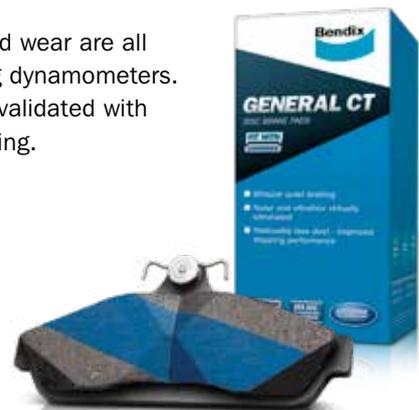


General CT

General CT is the bedrock of Bendix's brake pad range. But they aren't just your standard OEM spec replacement brake pad. They provide improved quietness and smoothness across a wide range of operating conditions, whilst also delivering low dust and consistent pedal feel.

One feature that helps the General CT stand out of the crowd is our specially developed Blue Titanium Stripe. This feature acts as an intermediate layer between the brake pad and the rotor and does away with the standard bedding-in process, providing maximum friction and pedal feel right out of the box.

Noise, cleanliness and wear are all tested in-house using dynamometers. These tests are then validated with extensive in-field testing.



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4WD/SUV

Our 4WD/SUV brake pads cater for the avid adventurer, providing rugged and reliable performance in the most extreme off-road conditions. But we also understand, that most off-roaders also spend a lot of their time driving in urban conditions, so our 4WD/SUV brake pads deliver outstanding braking performance both on and off the road.

To formulate our 4WD/SUV brake pads, we've taken General CT type manners and combined that with Heavy Duty performance for when its time to hit the rough stuff. Ceramic bases are used for our 4WD/SUV brake pads. There's a wide variety of 4WD type bases available to suit a wide range of 4WDs, so it's just a matter of selecting the appropriate base for the appropriate vehicle. The result is a brake pad that offers low dust, low noise and effective performance.



Euro+

It can be tricky finding the right parts for European cars, and this includes brake pads. Luckily, the Bendix Euro+ brake pads have been developed to meet and exceed OEM and European Union's ECE Regulation 90 standards.

ECE Regulation 90 rules stipulate that our brake pads need a plus or minus 15% performance against that of the OEM item. To cater for such a wide range of vehicles, Bendix selects the right formulations to suit each vehicle. On top of that, we include all the hardware, such as sensors, required for that specific vehicle to ensure easy, stress-free installation. Our sensors are based on OEM designs and tested for correct fitment for each and every application.

Compared to traditional European brake pads, which are known for higher dust levels, our Euro+ formula provides low dust.



Heavy Duty

Our Heavy Duty brake pads cater for vans, trucks, utes and other load-carrying vehicles. These workhorses operate under higher load and temperatures compared to your average road car, and thus have very specific needs when it comes to brakes.

The Heavy Duty brake pad is specially formulated to withstand the high temperatures and loads that these workhorses operate under whilst still providing consistent performance.

Ceramic materials wear excessively in high heat applications, so a material with a high metallic content was needed for the Heavy Duty brake pad. This ensures that performance and wear life is maintained under heavy load conditions.

Heavy Duty isn't just for trade vehicles either. The Heavy Duty brake pad is also available for most cars for when you need just that amount of performance over General CT, such as when you're towing a trailer.





Ultimate and Street Road Track

Developed especially for the car enthusiast, Bendix Ultimate and Street Road Track brake pads are perfect for those that like to push their cars hard. Developed specifically for performance applications, they maintain high levels of performance across all conditions and resist brake fade at higher temperatures.

Because of this, testing for our high performance brake pads is different to the testing that our General CT brake pads see. Along with standard strength testing, our Ultimate and SRT brake pads are tested under track conditions, both on the dyno and on the track.

Brake components for Commercial Vehicles

Bendix also manufactures brake pads, brake shoe kits and brake linings for commercial vehicles such as long haul trucks, trailers and buses. To formulate these products, we've applied our learnings from our passenger car brake pad research and development and added material for improved strength and wear life to account for the kind of use that these commercial vehicles see.

These commercial items see dyno testing and extensive field testing with fleet operators around Australia. This gives us feedback on a variety of real world conditions.

Our research and development trickles down into our other brake products and accessories such as our Ceramasil Brake Lubricant, brake cleaner, shims, sensors and clips. All of our brake products are developed and tested for each and every application to ensure long lasting, reliable performance.



Check out episode #107 of Bendix TV at www.facebook.com/bendixworkshop or at www.youtube.com/BendixTV

THE NEW BENDIX BRAKE CLEANER SPRAY BOTTLE

The Bendix Brake Cleaner spray bottle (BBC1L-PUMP) is specifically designed for use with hydrocarbon-based solvents, lubricants and petroleum products, applicable for brake cleaning, vehicle bodyworks, machinery and engine cleaning, degreasing, waterproofing and de-waxing fluids.



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The Bendix Brake Cleaner spray bottle offers a number of features:

- 1** **WIDE** filling aperture (60mm) for easy refilling and minimise risk of chemical spill.



- 2** **SAFETY** valve with depressurization option.



- 3** **VISIBLE** liquid level – Translucent tank with liquid level indication.



- 4** **ERGONOMIC** pump and handle for comfortable operating.



- 5** **PROTECTIVE** sleeve – To prevent direct chemical contact and wear and tear on the gasket, hence extend lifespan and usage.



- 6** **SUITABLE** material nozzle and high quality O-ring and gasket to withstand brake cleaner active ingredient.



Product Testing

The sprayer has been tested with several high concentrations of the most common solvents, for example:

- Naptha
- Xylene
- White Spirit
- Decane
- Heptane

The sprayer has also been tested in extreme conditions to ensure no leakage, deformation, pressure loss, or pumping mechanism failure and that the valve and seal maintain their integrity.

The product was tested at:

- Maximum operation pressure at 14.5 PSI (3 bar)
- 40 Degrees Celsius
- For 15 days

Changing from a Brass to Plastic Nozzle

The brass/metal nozzles may seem better quality and robust, there is however a hidden issue that commonly goes unnoticed, brass nozzles are subject to higher erosion compared to “plastic” nozzles that are specifically made for brake cleaning application.

Two reasons for using a “plastic” nozzle:

- The particular “plastic” material that Bendix is using has been developed to be used with brake cleaners. Active ingredients used in brake cleaners can cause aggressive erosion unless a special material is used.
- A study was carried out to compare against brass/metal nozzle, in fact after certain period of spraying, the nozzle orifice increased and resulted in leaking and increase brake cleaner consumption.

Spare parts

Like all spray bottles, over time, with use of chemicals, parts fail. This is why we offer a range of replacement parts for order when required.

BBC1L - CHAMBER (1070)

BBC1L - NOZZLE (1069)

BBC1L - GASKET (098)

BBC1L - VALVE (165)

FIND OUT MORE:

Download the full technical bulletins now at:
www.bendix.com.au/news

BRAKE WEAR SENSORS IN-DEPTH

Nowadays, electronic brake pad wear sensors are fitted to a wide variety of modern cars and especially European cars. They let you know when it's time to swap out your brake pads for a fresh set. But how do they work? And how often do they need to be replaced?

Electronic brake pad wear sensors replace the traditional metal squealer tabs found more commonly in braking systems. These tabs work by rubbing against the rotor once the pads have reached the end of their service life. By making a loud squeal, it lets the driver know that the brakes are up for a service.

The downside to this apart from the squeal, is that most drivers tend to ignore the warning, thinking the sound will eventually go away. Electronic brake wear sensors eliminate this noise and give you a more accurate gauge on how much brake pad life is left.

The wear sensors are designed to break or complete a circuit once the brake pad has worn enough for the sensor to contact the brake rotor. A warning light will usually light up on the dash, indicating it's time for a brake pad change.

Basic brake wear systems feature a sensor at each corner of the vehicle and is usually installed within the inner brake pad. However the number of wheels fitted with sensors and placement on the brake pad can vary from car to car. These systems simply consist of a loop of wire with a small of current running through it.



Modern brake wear sensors have gained a few more tricks up their sleeves. Not only do they warn the driver of a due brake service, but they can also estimate how much you'll get out of your current brake pads. These trick sensors work using two resistor circuits running parallel at two depths, also known as two-stage sensors. As the first resistive circuit breaks, the resistance in the sensor increases. This is used to gather information such as wheel speed, brake pressure, brake disc temperature, brake operating time and mileage to estimate the life left in your brake pads. This is usually displayed in your car's information centre or as a warning light that varies in colour as the pad wears. Once the second circuit is broken, the circuit becomes open. This triggers the warning light that lets you know that it's time for a brake service.

As brake pad wear sensors are designed to break or complete a circuit by contacting the brake rotor, they aren't a reusable item. Brake pad wear sensors should be replaced with every brake pad change. Bendix supplies brake pad wear sensors to suit a wide range of vehicles. Our Bendix Euro+ Brake Pads also come with all of the necessary clips, shims and sensors for most popular makes, so that you're fully equipped for your next brake pad change. Ask your mechanic for Bendix brakes at your next service.



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5 QUESTIONS TO DETERMINE YOUR CUSTOMERS BRAKE PAD NEEDS!

1. What factors are important to the driver?

There are three main areas that are important; positive brake feel, brake noise, and the amount of brake dust. Each factor will influence the other to a certain degree. Low brake noise and good pedal feel could mean that the brake pad generates more brake dust to be quiet while providing great braking feedback.

2. How does the driver use his/her vehicle?

Also just as important is how the vehicle is being used. Does the vehicle owner spend most of the time in stop start traffic, long highway drives or lots of enthusiastic driving? The type of driving done will determine if the vehicle requires a high friction, high performance brake pad, or a quiet long lasting one, for low speed multiple stops.

3. What vehicle are the brake pads getting fitted to?

Vehicles are used in a wide variety of roles, but it can only be best at a few. A delivery vehicle or a taxi that does frequent stopping and carries passengers and goods will require a high friction, long lasting brake pad, such as the Bendix Heavy Duty.

4. Is the vehicle used for towing?

If so, check if the trailers used have brakes. Whether they are towing once a year or every day, it's an important factor when picking brake pads.



Check out episode #102 of Bendix TV at:
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or at: www.youtube.com/BendixTV

Choosing the right Bendix brake pad to suit the driver's needs goes a long way in meeting product expectations and customer satisfaction. With a large variety of Bendix brake pads to suit different driving styles and vehicles, it's easy to determine which brake pad to use by answering the following questions.

5. Does the owner haul heavy loads regularly?

It goes without saying but a heavier vehicle will be more demanding on brakes. This is the case especially if the vehicle usually carries heavy loads.

The answers to these questions will determine which Bendix brake pad will be suitable.

For OEM replacement brake pads with better performance, less dust and noise, choose General CT for sedans, hatches. For crossovers 4WD's, sports utilities or SUV's fit 4WD/SUV brake pads.

If your customer requires high performance brake pads and are less concerned about dust and noise, pick the Ultimate or Street Road Track pads to satisfy their needs.

Finally, for light commercial vehicles, trucks and utes that tow or carry heavy loads, we recommend the Heavy Duty brake pads. The Heavy Duty is long lasting yet provides the tough, stable performance required for everyday towing or carrying loads.

For more information on the Bendix brake pad range visit www.bendix.com.au



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BRAKE NOISE IN-DEPTH – CAUSES AND PREVENTION

One of the biggest mechanical annoyances is brake noise. What is it? Broken down into basic science, it means that under braking, something is vibrating at a frequency high enough to make you notice there's 'noise'.

Cause of Vibrations

First, we must understand how vibrations are generated under braking. When the brake pads come into contact with the rotor, it causes oscillations and vibrations. In engineering terms, this is called force coupled excitation, which means both components are now locked together and will vibrate at that frequency's combined modes of vibration. The amount of vibration and frequency generated is varied by changes in brake torque and friction changes across the face of the rotors.

As the brakes heat up, the rotors can develop hotspots where different ranges of friction can occur, causing changes in brake torque. These changes in brake torque across the surface of the rotors is where most of the noise is generated.

Brake Noise – Collective System Inspection

While contact between the rotor and the pad is the main instigator of brake noise, it is not the only component at fault. Low frequency oscillations from the pad and rotor travel through brake and suspension components while higher frequencies tend to remain at the pad/rotor, which leads to the passenger compartment, resulting in detectable noise when a natural frequency of the components is reached. These connected parts vibrating will be the cause of the noise. Let's check out each brake component and see how these vibrations can be reduced.

Brake Pads

The friction material used in a brake pad can reduce noise in two ways. A good brake pad compound that keeps friction coefficient consistent across a range of temperatures and environmental conditions will tend to be more quiet. By maintaining consistent friction coefficients, variations in brake torque is reduced, therefore also reducing possibility noise.

Some brake pads such as the Bendix General CT transfers a film of friction material on the rotor surface. This protects the rotor surface, so that under braking there is minimum change of brake torque as pads come into contact with hot spots. Normally this film is generated during the bedding in procedure, however Bendix's Blue Titanium Stripe means



you can drive straight on to the road and get instant pedal feel and stopping power, while reducing brake noise. The General CT is also made using the STEALTH Advanced Technology. The proprietary diamond shaped chamfers eliminates noise and vibration at the source.

Checking each component: Rotors

Many mechanics are quick to blame brake pads as a source of noise, but actually, most of the noise is caused by the interaction of the pad and brake rotors. The brake rotor is regarded as an unchanging factor when it comes to brakes, when in reality, it can be altered as brake pressure and heat is applied. Rotors can actually move and flex as brake force is applied, invisible to the human eye. This movement can cause noise and excitation at friction coupling; that is when brakes are applied. The brake noise will also be increased if the rotors have poor metallurgy and differ from OE design.

The smoothness of the rotor surface also matters when it comes to noise prevention. When reusing brake rotors, it is very important to machine them, using a good condition lathe for a proper smooth finish. To prevent any chemicals from contaminating the brake rotors, wipe it down thoroughly with Bendix Brake Cleaner & Parts Degreaser and a clean rag.



Brake Shims and Insulators

Brake shims are key in controlling noise. First, they reduce transmission of vibrations from the pads and rotors into other brake components. Most shims supplied with Bendix brake pads are covered with fibre reinforced rubber coating, which dampen vibrations incredibly well compared to non-coated shims. In Bendix's performance brake pads, the supplied shims are coated with nitrile, which adds more heat resistance. Secondly, shims add mass to a brake pad, causing vibrations to lose energy and reduce noise-causing frequency levels. Last but not least, shims act as a thermal barrier to help spread heat evenly across the face of the brake pad, ensuring consistent brake torque. Bendix's brake shims are made from carbon steel, which has low thermal conductivity, and are designed to last the lifetime of the brake pads.

Lubricant

Lubricant is extremely important in a braking component system. Not only do they allow caliper pins to work efficiently, by applying them on caliper fingers, and between shims and brake pads, it forms another barrier that further dampens vibrations under braking. However, only lubricants such as Bendix's Ceramasil Brake Parts Lubricant should be used. Bendix's new lubricant uses a formula that does not break down under extreme heat and pressure generated by brakes. It also does not contain petroleum, which will cause boots and seals to react and fail prematurely.

To ensure your brakes are quiet, effective and long lasting, ask your mechanic to only use Bendix brake products at your next service.



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REAR BRAKE PADS ON VEHICLES WITH STABILITY CONTROL

When it's time to service the brakes and a change of brake pads are required, you might be told that the front brake pads are done, but the rears will be fine. It's a rule of thumb that since the rear brakes do less work than the front, the pads will last twice as long.

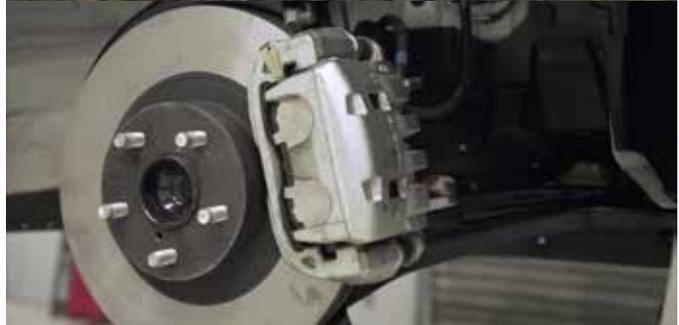
In modern cars and vehicles, this is no longer the case. With the advent of traction control, stability programs and electronic brake force distribution systems found in today's new cars, the rear brakes are given a work out just as much as the fronts, often without us realizing it.

Electronic brake force distribution (EBD) is a system that is now found on most modern cars with high safety ratings. EBD works by varying brake pressure between front and rear wheels, depending on speed, road conditions and how hard the driver is braking. It works alongside standard anti-lock braking systems for peace of mind.

Often, EBD uses the rear brakes to stop the car from diving under initial brake application. This prevents excessive weight transfer to the front, allowing for more stable handling, and a better ride for the car's occupants.

In rear wheel drive cars, clever traction and stability programs are used in place of a limited slip differential, by braking the inside or outside rear wheels to improve handling and traction. Stability control programs also brake the inside rear wheels to prevent understeer in emergency situations.

Automatic hill descent features are now mostly standard in modern 4x4 vehicles and SUVs. The hill descent program individually brakes each wheel while the vehicle goes down a steep slope, without input from the driver. Front and rear brakes are independently used to maintain a specified speed going downhill in slippery off road conditions. This also results in rear brake pads to wear out sooner than expected.



Bendix brakes are suited to modern car technology that continuously improves to meet ever stricter safety regulations. Combined they offer exceptional on-road safety. Make sure to check your rear brake pads, calipers and rotors as well at your next service, and ask your mechanic for Bendix brakes.

Check out episode #97 of Bendix TV at:
www.facebook.com/bendixworkshop
or at: www.youtube.com/BendixTV

NEW REFERENCE UPDATES

Bendix has released 43 new brake pad and brake shoes part numbers in 2018!

Through our new application releases we've also released over 100 new references for new models and application changes for old models. This detailed information on the latest reference releases can help to keep your workshop up to date!

Stay tuned for upcoming & continuous updates in 2019, and check out our new Master Products Catalogue, detailing our entire product range! Contact your local Bendix rep to get your copy!



PASSENGER VEHICLES

New & Updated Brake Pad & Shoe Part Numbers:

Part	Vehicle Application	Part	Vehicle Application	Part	Vehicle Application
BS5116	Nissan Cube	DB2260	Holden Commodore	DB2402	Audi Quattro
	Nissan Tiida		Jeep Grand Cherokee		Volkswagon Golf
BS5276	Toyota Yaris		Cadillac CTS-V		Volkswagon Scirocco
BS5287	Toyota Estima / Lucida		Camaro 300C	DB2403	Mercedes-Benz C Class
	Toyota HiLux	DB2368	Holden Colorado		Mercedes-Benz E Class
	Toyota LiteAce		Honda Odyssey	DB2411	Ford Everest
	Toyota TownAce		Isuzu MU-7	DB2412	Ford Mustang
DB1755	Hyundai i10	DB2375	Jeep Grand Cherokee	DB2414	Mazda CX-5
	Kia Picanto		Cadillac CTS-V	DB2423	Mitsubishi Canter
	Toyota Estima / Lucida		Chevrolet Camaro	DB2432	Hino 300 Series
DB2011	Dodge Viper		Chevrolet Corvette		Isuzu NKR200
	Fiat Coupe	DB2379	Ford Everest		Isuzu NKS250
	Alfa Romeo 147	DB2386	Fiat Grande Punto	DB2441	Fiat Spider
	Alfa Romeo 156		Abarth 595		Mazda MX-5
	Alfa Romeo GTV		Abarth Grand Punto	DB2443	Hyundai Elantra
	Alfa Romeo Spider		Alfa Romeo Mito	DB2446	Kia Sorento
DB2242	Nissan Patrol	DB2396	Toyota HiLux	DB2447	Kia Sorento



COMMERCIAL VEHICLES

New & Updated Brake Pad & Shoe Part Numbers:

Part	Vehicle Application	Part	Vehicle Application	Part	Vehicle Application
B4707 PT QP	ISUZU FX Series	DB2435	Mitsubishi Rosa Bus	MP/36/2	MAN HOCL
B4715 PT Q	ISUZU FY Series	FEB4720 PT Q	ISUZU FX Series		MAN OH Series
CBS1562	Mitsubishi Rosa Bus	MP/30/2	MAN HOCL		MAN SG Series
CVP301	Wabco		OF Series		MAN SL Series
	SAF		OH Series		MAN SR Series
CVP500	Mercedes Benz Actros	MP/31/2	MAN HOCL	MB/74/75/1	MAN NL Series
CVP501	Mercedes Benz Actros		MAN OF Series		MAN O Series
CVP1006	Kenworth K Series		MAN OH Series		MAN SL Series
	Kenworth T Series		MAN SG Series	MB/76/77/1	MAN NL Series
	Mack CHR Series		MAN SL Series		MAN O Series
	Mack CH Series		SR Series		MAN SL Series
CVP1007	Scania K Series	MP/32/2	MAN HOCL	SV/40/2	Scania 3 Series
DB1293	HINO 300 Series		MAN OF Series		
DB2423	Mitsubishi Canter		MAN OH Series		
DB2432	HINO		SG Series		

FIND OUT MORE:

For more information on our new releases, visit us online at: www.bendix.com.au/new_releases



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Come and visit us at the 2019 Australian Auto Aftermarket Expo at the Melbourne Exhibition Centre!

WHEN

4th–6th April 2019

WHERE

Melbourne Exhibition Centre
(Stand H2)



REGISTER NOW:

To register for the 2019 Australian Automotive Aftermarket Expo visit:

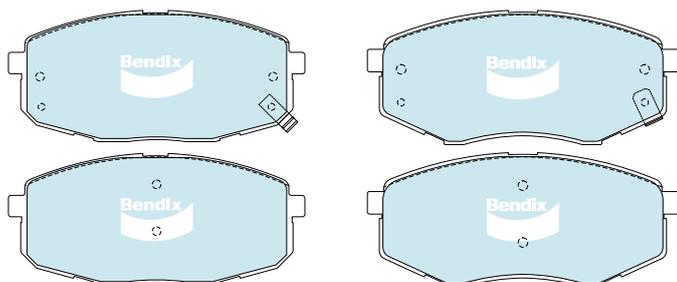
secure.tradeevent.com.au/autoaftermarket2019

PRODUCT BULLETINS PASSENGER VEHICLES

COMPARING DB1754 AND DB2072 FOR HYUNDAI AND KIA

Hyundai and Kia may use different disc, caliper and pad options within a vehicle model, this can be related to engine size, manufacture dates or even the intended country it will be sold in.

The disc pads DB1754 and DB2072 are similar in size and shape, with the obvious difference being the bottom radius. Both fit some of the small to mid-size Hyundai and Kia models.



DB1754
(For 300mm Rotor)

DB2072
(For 280mm Rotor)

DB1754 has been designed for a Mando caliper on a 300mm disc rotor, while DB2072 is designed for a Mando caliper on a 280mm disc rotor. The Mando calipers on these models are so similar that the pads will fit in either, but they are not interchangeable and must be matched to the correct rotor size.

Using DB1754 on the smaller 280mm rotor instead of its proper 300mm rotor may result in the bottom radius of the pad coming into contact with the hub of the rotor possibly causing noise. When the pads are changed check for uneven wear pattern on the lower edge of the outer pad and any signs of contact with the rotor hub, the inner pad may also have a lip of unworn material on its lower edge.

Using DB2072 on the larger 300mm rotor instead of its proper 280mm rotor will mean the pad cannot sweep the full width of the rotor's braking surface. This can leave a lip on the rotor as it wears. When changing the pads check that the rotor has worn evenly across its width, a noticeable lip will indicate the wrong pads have been fitted.



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BENDIX **PROTRANS** DRILLED BRAKE LININGS

Regular inspection and maintenance of your commercial vehicle's braking system is a must. This ensures effective braking and optimum stopping distance, most importantly, providing safety to you and other road users.

During maintenance of your vehicle's drum braking system, you are often faced with the task of replacing the brake shoes or relining them.

Where a complete Bendix brake shoe kit is not suitable, Bendix drilled brake linings offer a number of benefits:

1. Resilience and Durability:

- Bendix drilled linings, where available, offers a complete kit with rivets
- These steel zinc plated rivets offer high strength, resistance to abrasion & corrosion with the ability to retain their intrinsic structure
- Riveting ensures the bond to the brake shoe lasts the full life of the lining without failure

2. Ease of Assembly and Use:

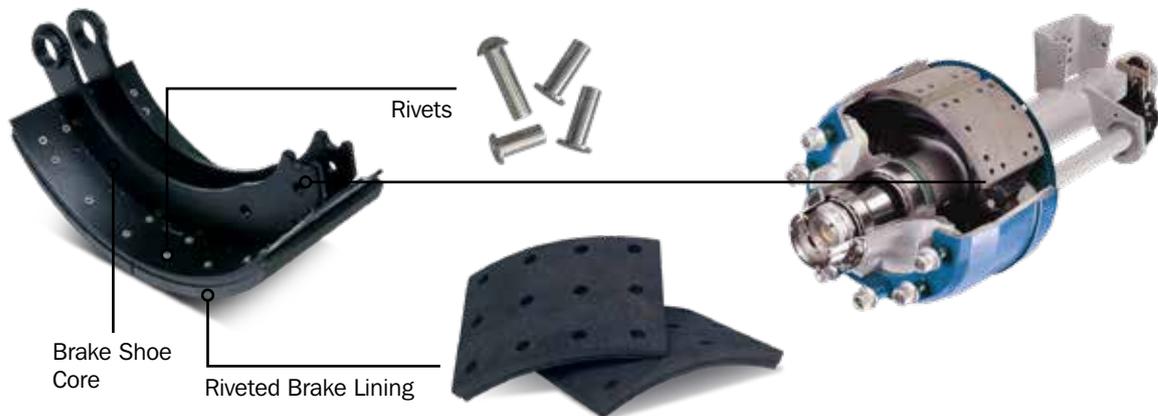
- Easy to rivet with standard workshop equipment
- Minimizes difficult & expensive method of removing residual stuck-up linings from the shoes
- Bypasses time-consuming procedure of bonding using adhesives, making it a relatively easier process

3. Increased Productivity:

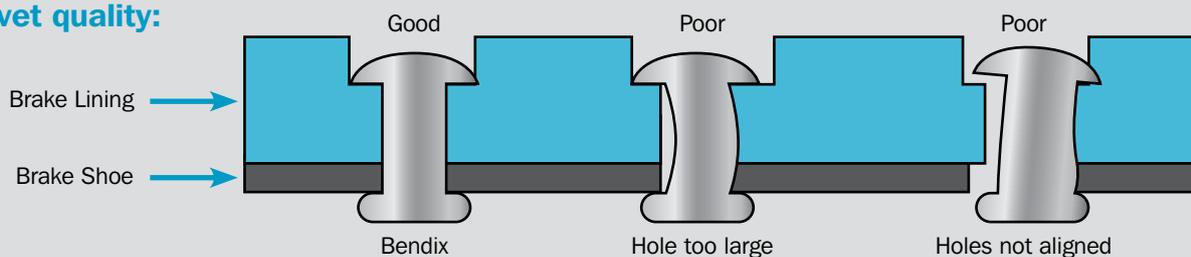
- Bendix drilled linings align perfectly with accurately drilled holes
- Increases productivity in the workshop aiding quick assembly with the brake shoes
- Helps avoid time-consuming measurements by visually checking the quality of the connection
- Reduced change time & labour costs

4. Cost Effectiveness:

- When relining the OE shoe, cost effective alternative Bendix drilled brake linings offer OE performance and includes the rivets to fit the linings
- Helps avoid expensive replacement of the entire brake shoe set
- Riveting Bendix drilled linings is quick and clean compared to the time and chemicals required in bonding



Rivet quality:



BENDIX **PROTRANS** DISC BRAKE PADS

Heavy commercial vehicles travel on average 40,000 to 60,000 kilometres per year in Australia. The braking systems for these vehicles face demanding & severe operating conditions and hence need to perform consistently at their optimal best. With the trend shifting to disc brakes, brake pads become the single biggest contributor in controlling the motion of these vehicles.

Bendix Protrans disc pads continue to give you exceptional reliability and quality performance vital to your commercial vehicles.

Packed full of features Bendix Commercial Vehicle disc Brake Pads offer ECE R90 certification, premium friction materials, titanium Bedding-n technology and all of the hardware you need for replacement.

ECE R90 Certification:

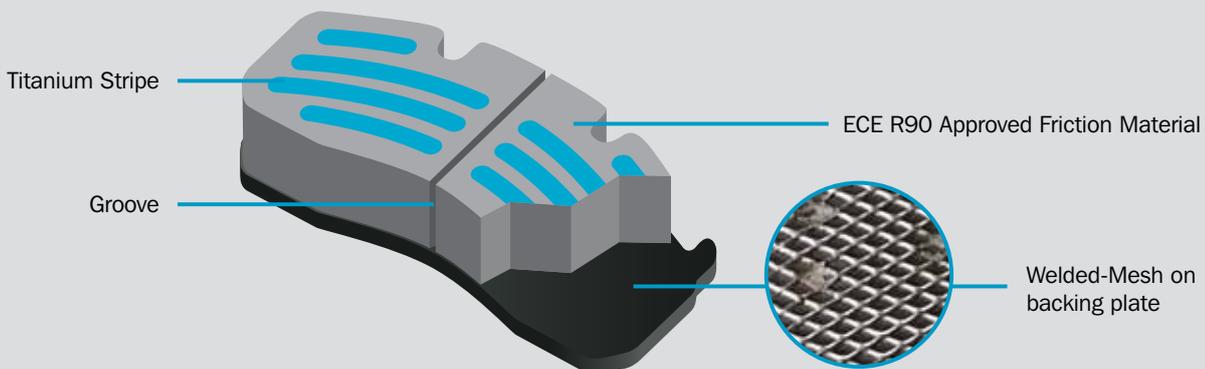
- All Bendix Protrans brake pad set come with ECE R90 approval
- Independent ECE R90 testing ensures the braking performance, speed sensitivity, cold performance, and frictional characteristics are within $\pm 15\%$ of the Original Equipment
- Assurance of exceptional quality, long pad life and conforming friction characteristics



Premium Quality friction, thermally-strong pad design and permanent bonding:

- OE-equivalent premium friction material with a friction rating of GF
- Stable performance through a wide temperature range and at high operating temperatures ($\sim 500^{\circ}\text{C}$)
- Low-metallic composition helps avoid micro & radial cracking with high tolerance to rotor metallurgy variances
- Welded-Mesh on the steel backing plate provides increased strength in pad bonding
- Single or double grooves in the pad design helps prevent cracking and provides vibration resistance

Bendix Protrans Disc Brake Pad:



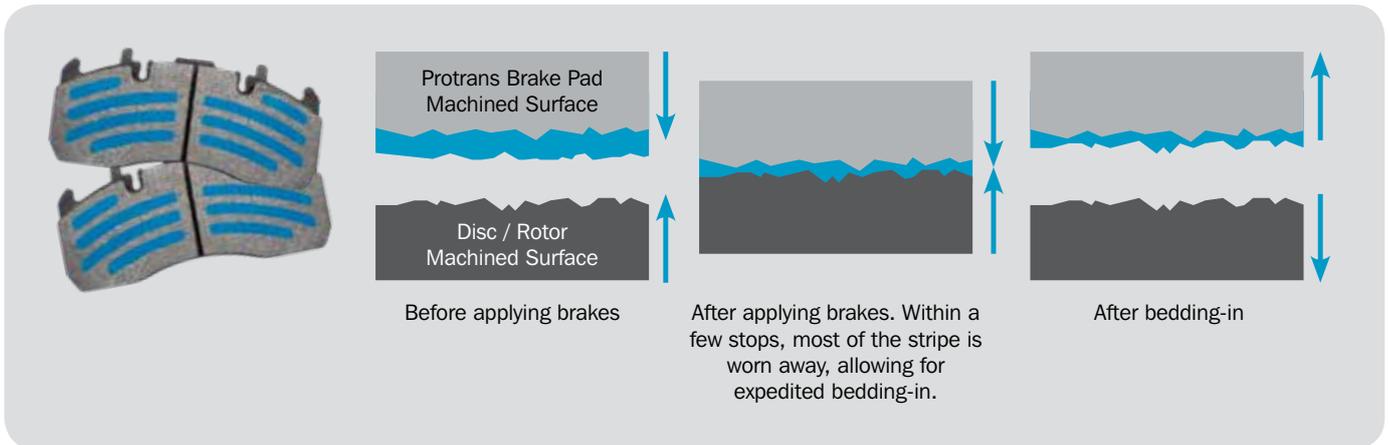
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Titanium Stripe:

- Blue Titanium technology for instant high friction and pedal feel the moment your customer leaves the workshop
- Rapid interaction rate between the friction surfaces for superior bedding-in
- Titanium stripe offers accelerated moulding around the points of contact, rapidly increasing contact area as the pads mate to fit the rotor surface as shown
- Significant savings in workshop repair time through full braking performance achieved in fewer stops



Electric Wear Sensor:

- Established industry requirement to replace wear sensors with each pad change
- Each set of Bendix Protrans pads will now come with Electric Wear Sensors, for a complete axle set, where available
- Indicate pad wear ensuring the brake system is compliant
- Avoids premature failure caused by re-using old / damaged wear sensors

Hardware Kit:

- Each set comes with quality hardware kit adhering to OE specifications
- Easy to replace and install Bendix Protrans brake pads
- Right number of accessories in the box, for one complete axle set, saving time and money



FIND OUT MORE:

Download the full product bulletins now at:
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Cars OF Bendix

As part of Bendix's support of various automotive meets at various locations, we've chosen a few cars from each month that we think are cool to be showcased on the Bendix Facebook page. Here are some of our picks for 2018:

1976 HOLDEN TORANA APRIL 2018

You see all sorts at meets, like P-platers that show up in the dads' flashy weekenders driving like its theirs. Fortunately for us, Bayley's dad has a very interesting weekender, and he does straight up admits that it belongs to the parent unit.

Born and bred red through and through, Bayley and his family loves Holdens, especially the special vehicles' department. This is a special toy, kept in concourse condition.

NISSAN SKYLINE GTR 34 VSPEC 2 MAY 2018

What's with all these crazy Nissans that keep coming to the shows? We always try hard not to favour one manufacturer, but it's hard when there are so many quality Datsuns and Nissans show up.

Emre's Nissan Skyline GTR 34 V-Spec 2 (phew, what a mouthful) is a sweet cruiser bruiser. Just fresh from having its RB26DETT heart rebuilt by B2R Motorsports with forged internals, cams and other expensive gear, it powers all four wheels to the tune of 600hp. In between, an expensive Nismo Coppermix twin plate transmits the power from engine to the clever ATTESSA system.

1932 FORD COUPE JUNE 2018

The legendary Ford 'Deuce' Coupe...it has been immortalized in the film American Graffiti and countless songs. The 1932 Ford Model B was sought after by many young men after World War 2, as it was a cheap V8 equipped car to modify. The Coupe was the most desirable model; compact, purposeful and easily modified in a variety of ways to go fast, also known as hot rodding.



TOYOTA LANDCRUISER JULY 2018

It's a show car legend; an impossibly slammed 100 series Toyota Land Cruiser. If you've seen a stock one, you'll notice just how little room lay between the rails and the tarmac in this one. The custom work that's been done so the Cruiser could tuck those dished 22in rims in is nothing short of an engineering marvel. Then there is the incredible paint job with custom airbrushing down the side.



1964 HOT ROD BUS AUGUST 2018

We can't think of a better way to cruise to your next formal event than in Classic Cruisers' Hot Rod Bus! As you can plainly see, this ain't your everyday school bus. Absolutely oozing style inside and out, this unique Hot Rod Bus is a favourite amongst Classic Cruisers' customers. Completely decked out inside with a mega sound system, bars, mood lights and even a dance pole the Hot Rod Bus is essentially a modern limo inside that classic 1964 bus.



MINTRUCKIN' SEPTEMBER 2018

Minitrucking is somewhat of a lost art these days, but there's a select few out there that keep the movement alive. Thomas and his Toyota Hilux are absolutely proof of that. This Hilux is lightyears away from being the utilitarian ute it left the factory as, and it's made all the better for it. Built by Image Conversions, this Hilux sits low and goes hard.



WATCH THE VIDEOS:

Check out our Cars of Bendix wrap up videos by visiting our Facebook page:

www.facebook.com/bendixworkshop

Or see them on our Bendix YouTube channel:

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www.bendix.com.au/news/category/training-and-events



FOR MORE INFORMATION

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*Bendix brake components are appropriate for the purpose intended and if installed by qualified staff, to the vehicle manufacturer's specifications, can be used in logbook servicing. PRJ-07158

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