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**PEDDERS**  
SUSPENSION

Pedders Load Carrying and Towing



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# Load Carrying & Towing Solutions

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A vehicle's suspension and brakes are designed to provide optimum handling and comfort under a "normal load carrying or towing situation".

## **But what is deemed to be normal?**

In our experience at Pedders Suspension, many light commercials, suv & crossover vehicles that regularly carry close to their maximum load require brake, shock and spring replacements for safe and comfortable levels of driving control and support.

Likewise, passenger cars that regularly carry their maximum number of occupants with luggage or extra equipment such as trailers or campervans do not perform to their potential in terms of ride comfort and handling without suspension and brake upgrading.

Pedders has a comprehensive range of load carrying and towing products and the expert "No Bull" advice to help identify and satisfy the real needs of the private and commercial vehicle markets.

When towing or carrying heavy loads, a vehicle has reduced compression travel in the suspension, thus resulting in reduced bump stop clearance. Ride comfort, traction, handling, steering, braking efficiency and even the aim of the headlights can all be adversely affected thus reducing comfort levels, stability and safety.

Tow hitches distribute the weight of the towed vehicle, but do not compensate for the effects of the load on the vehicle's suspension.

Pedders Suspension recommends the installation of upgraded suspension components and brakes. This will restore a vehicles ride height, comfort, stability, safety, stopping ability and handling under loads. The available options listed in this brochure are all designed to suit particular needs and applications.



# Shock Absorbers

Pedders have shock absorbers rated to match heavy duty springs for most applications. Included is a range of shocks that maintain superior comfort levels while providing that extra level of suspension control needed under those heavy load carrying conditions.

Also included in our range is our premium Foam Cell shock absorbers which are ideal for constant or heavy load carrying and towing applications.



TRAKRYDER  
Gas Pressurised  
Shock Absorbers



TRAKRYDER,  
Foam Cell  
Shock Absorbers

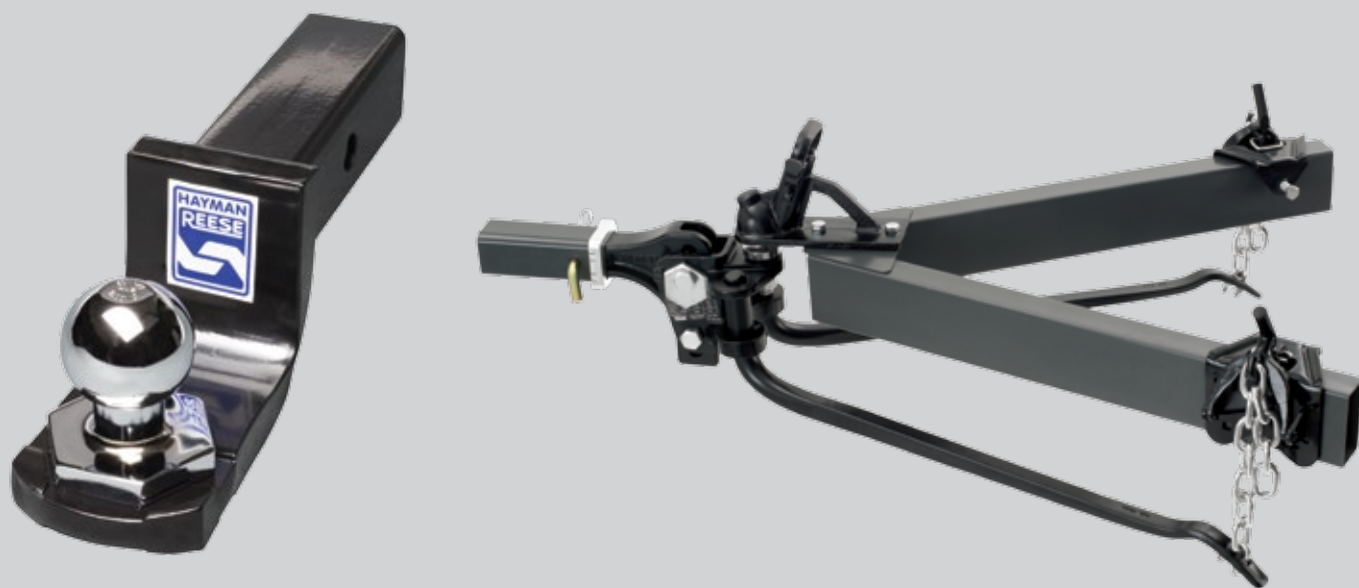


Pedders  
Shock Absorbers

# Towbars

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Choosing the right equipment is essential for safe, comfortable and trouble free towing. Pedders towing solutions include everything that is required from Hayman Reese such as towbars, accessories, brake controllers to weight distribution systems.



Approved Installer



# Heavy Duty Coils

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Pedders heavy duty replacement coil springs improve the load carrying ability while maintaining high levels of comfort and control. We offer a range of HEAVY DUTY replacement coils for the heavy loads and “raised” height coils for extra ground clearance, or to compensate for permanent extra loads such as LPG tanks, long range fuel tanks, extra spare wheel carriers, bull bars, winches and storage systems.

## For Example: Toyota Prado Fitted with Pedders Raised Height Heavy Duty Coils

Pedders Suspension has 6 different designs of coil springs to suit the 120 series Toyota Prado's that need extra ground clearance for towing and load carrying. With a boat, caravan or trailer attached to the towbar the rear of the car may sag noticeably. As an example the Pedders 7828 & 7829 heavy duty towing coils are specifically designed to enhance the vehicles load carrying characteristics. They are also particularly suitable for people who are often towing heavy loads by trailer or or maximise the luggage areas.



Please visit our product catalogue for further listings of heavy duty coils to suit other makes and models.

**Before**



**After**



# Leaf Springs

## Leaf Spring Packs

Pedders Suspension have a variety of replacement leaf spring packs for a wide range of 4WD & 2WD vehicles designed specifically for load carrying applications. Pedders replacement leaf spring packs are durable whilst providing improved vehicle control and stability due to the fact that they feature redesigned spring rates.

A number of these packs have a 2-stage design which provides a comfortable ride when unladen whilst maintaining extra height when a load is applied.

For heavy load carrying and towing, leaf springs remain the best performing suspension design. But can become

harsh, noisier and less effective in absorbing bumps and vibrations. They are also prone to sagging and should be re-set or replaced when a change in ride height or ride quality is observed.

Pedders offer full replacement TrakRyder leaf spring packs that feature inter-leaf friction pads and metal eye sleeves to minimise binding or noise\*. They are constructed from only the highest grade steels for the most durable performance.



## Leaf Spring Resetting And Adding Extra Leaves

Although we have a large range of new applications there are still many cases that leaf springs require re-setting. Every Pedders store has the ability to do this for you in a relatively short period of time.

Simply contact your local Pedders Outlet for further information regarding Leaf Spring Resetting and Adding Extra Leaves.

\* Some exceptions apply



# Leaf Springs

For most dual cab vehicles on our roads today, ride comfort vs. load carrying capacity is always a compromise. By today's standards, we are experiencing more consumers requesting a better ride characteristic from their load carrying dual cab utes. The general expectation is that they want more of a sedan style ride from their vehicle.

Through innovative design, Pedders have developed leaf springs that achieve the best of both worlds: the ability to improve ride quality and vehicle load carrying capabilities.

Because the modern dual cab utilities are used as both a work horse and a family vehicle, the spring design has a requirement to fulfil dual roles. Pedders have a product to deliver an outcome that will be pleasing to the consumer.

## The selected range of Leaf Springs offer:

- Improved ride quality in laden and un laden situations
- Increased articulation with a raised ride height
- Increased spring rate from O.E.
- Innovation in design and construction

Inter leaf friction is created with the leaves flexing through normal suspension travel, as a consequence a firmer ride may be experienced. With the fitment of "Inter Leaf anti friction pads" this reduces the resistance to movement and therefore will improve the quality of ride.

The more supple ride is also affected by the thickness of the laminates, by varying the dimensions of the leaves a more comfortable ride can be achieved.

With the formed taper or the "Application Specific" cambering placed into the overload, increased travel can be achieved, thus increasing the travel before the primary pack comes into contact with the secondary or over load section of the spring.



# Air Assist Adjustable Air Suspension

Pedders Air Assist air bag kits for coil and leaf sprung vehicles make light work of heavy loads. Common benefits of both types of kits include:

- Improves towing and load carrying capability.
- Assist spring, shock & bush life.
- Maintains superior comfort levels while providing that extra level of suspension control needed when towing.
- Incorporates full adjustability.
- Improves braking and reduces body roll.
- Compensates for general instability associated with heavy loads.

NOTE: Pedders Suspension recommend replacement springs be installed where springs are sagged more than 10mm. Fitting auxiliary air springs to compensate for majorly sagged coil or leaf springs will result in a harsh ride and poor handling.



## Coil Spring Air Assist

- Exceptional load assistance characteristics with up to 225kgs – 450kgs of extra weight bearing support per set\*

## Leaf Spring Air Assist

- Air Assist Bag fits on top of leaf spring to provide variable spring rate
- Exceptional load assistance characteristics with up to 2265kgs of extra weight bearing support per set\*
- Restrict bottoming out caused by heavy loads or rough terrain

\* Please refer to the vehicle manufacturers maximum load carrying rating.





# Higher Rated Torsion Bars

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A higher rated large diameter torsion bar is the only permanent solution to a drooping front end on vehicles with torsion bar front suspension. Adjusting OE torsion bars will temporarily restore ride height under the weight of accessories such as bull bars, winches and driving lights, however further adjustments are usually required which can lead to failure of the torsion bar. A Pedders higher-rated torsion bar optimizes road handling, vehicle stability and control, while maintaining suspension travel and wheel traction.

All torsion bars may look much the same, but because they perform exactly the same function as coil and leaf springs, they must also be rated to match the total suspension system and the weight of the vehicle. Like Pedders' coil springs, TrakRyder torsion bars are made from the highest quality alloy spring steel and are manufactured according to a strict production procedure.

They are fully heat treated for high durability, hardness and consistency. TrakRyder torsion bars are made to a larger diameter than most original bars, providing a stronger rate for greater control, stability and improved load carrying ability. Pedders' TrakRyder torsion bars are heavy-duty replacement units that provide a permanent upgrade for the front suspension.

Whether your vehicle is in standard form or has been fitted with a bull bar, winch, dual battery system or any other heavy accessory, TrakRyder torsion bars provide extra control, stability and traction for enhanced performance.



# Wheel Alignment

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In order to maximise the performance and handling of vehicles modified for load carrying or towing purposes, it is essential to perform a comprehensive wheel alignment while the vehicle is carrying a typical load. A correct wheel alignment will assist to reduce tyre wear and fuel consumption. Furthermore - a correct wheel alignment will also extend the life of your suspension and braking components.

At Pedders we offer 2 and 4 wheel alignment. However we highly recommend that all vehicles get a four wheel alignment, as opposed to a two wheel alignment. Failure to align all four wheels may compromise safety and handling characteristics.



# Brake Pads & Brake Rotors

When loading up a vehicle with extra weight we add extra pressure on our braking systems. That's why at Pedders we highly recommend upgrading your braking components to the very latest in design.

All brakes may look the same but Pedders range of brake parts has been designed to offer distinct benefits to assist you with your load carrying and towing needs. When load carrying and towing your vehicles brake pads work harder to stop the car. Pedders range of brake pads and rotors are designed to tolerate these braking conditions whilst maintaining braking efficiency when load carrying & towing.

Brake fade is common in brakes when load carrying and towing. As the vehicle works harder under load the temperature of the brake components heat up causing the brake system to struggle and maintain braking efficiency as intended. Pedders brake pad friction formula combines the use of ceramic fibre, copper and kevlar. These three core ingredients are the ultimate combination in reducing heat when load carrying and/or towing.

Our range of brake rotors are designed to offer consistent braking feel when towing and load carrying. When combined with Pedders brake pads they make for the ultimate in braking performance especially under heavy loads.

## Pedders Original Equipment Direct Replacement Disc Brake Rotors

### Features and Benefits:

- Made from the highest grade raw materials and manufactured to the highest possible standards
- OEDR – Original Equipment Direct Replacement brake rotors
- Provides longer service life of wheel bearings and steering components
- Guaranteed to fit genuine OEM specifications
- Smooth brake pad bed in



## Pedders Slotted & Geomet Coated Disc Brake Rotors

### Features and Benefits

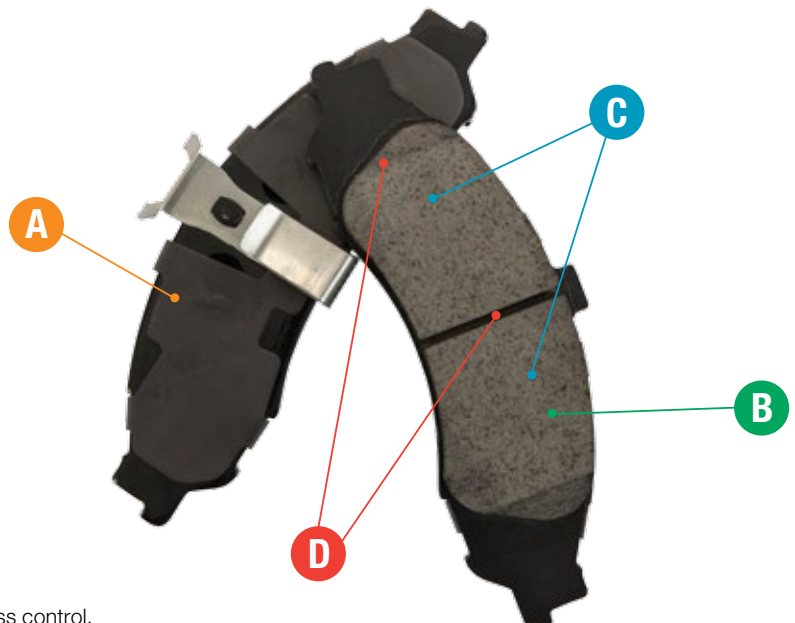
- Made from the highest grade raw materials and manufactured with the highest precision
- Curved slotted brake rotor design
- Designed for consistent brake pedal feel
- Geomet coated for better anti-corrosion protection
- High wear resistance
- Exceptional heat dissipation under extreme conditions



## Pedders Ceramic Brake Pads

### Features and Benefits

- Ceramic technology
- Friction formula specifically designed for your vehicle
- Rotor friendly for longer disc life
- Quiet braking with high wear resistance.
- Shimtech™ advanced shims to reduce vibration and brake noise
- Friction material is slotted and chamfered for noise vibration and harshness control



### Features and benefits:

- A** Shimtech™ advanced shims to reduce vibration and brake noise.
- B** Friction formula specifically designed for your vehicle.
- C** Quiet braking with high wear resistance.
- D** Friction material is slotted and chamfered for vibration and harshness control.

# Pedders GVM Upgrade Solutions

With the rise in popularity of the use of four wheel drives and dual cab utes to carry loads or tow, Pedders has now found that many vehicles coming into our workshops are operating either close to the GVM (Gross Vehicle Mass) limit or well over. It might be a dual cab ute run a by a tradesmen which carries tools and parts for the task at hand. Or it might be a fleet vehicle with stock on board for daily deliveries. It could even be a family that tows a caravan for the holiday season. Consumers and fleet managers expect vehicles to carry loads, tow and to perform better than ever. But the problem is – most vehicles are not designed to consistently carry heavy loads every day. Overloaded vehicles present a major problem on our roads today and these are the symptoms to look out for:

- Sagging rear end under load: Tradesman who carry tools, families who tow caravans and fleet vehicles who carry loads for a living can all be prone at times to being overloaded beyond the vehicles GVM capacity. This causes extra stress on the vehicles suspension and braking systems which weren't designed to be under load all of the time. This also applies to vehicles that carry extra load or tow daily and operate within the GVM limit.
- Unroadworthy: A vehicle that is overloaded is deemed illegal by the road authorities and more importantly is not compliant with insurance. This presents a huge risk to drivers if the vehicle is involved in an accident and the driver or our fleet operator is found to be negligent by being over the GVM rating of the vehicle.

- Worn suspension and brake components: When a vehicle is consistently overloaded the added weight puts a tremendous strain on the original equipment suspension and braking components. This can result in increased braking distances, decreased pad and rotor life plus worn suspension components, rough ride and increased fuel consumption due to poor wheel alignment. All of these symptoms are not ideal and end up costing more money with expensive ongoing maintenance and repairs.

If you think that your vehicle is often prone to being overloaded, then consider having the vehicle checked and weighted at your local Pedders outlet. Pedders offer GVM+ suspension upgrade solutions for selected vehicle models to assist in compliance for GVM ratings. The reason for this solution is to satisfy O.H.& S. requirements, motor vehicle insurance, warranty issues and general road legal policies. Plus they help the vehicle ride smooth and perform to its potential in terms of ride, braking and performance. Through exhaustive and detailed testing, the Pedders GVM+ Upgrade Kits have been approved by the Federal Department of Infrastructure and Transport. In fact every GVM+ kit produced by Pedders undergoes extensive stability control testing as part of our rigorous R & D processes. The results are quite staggering. Our trade customers who have used our GVM+ suspension and brake upgrades on their customers vehicles (including fleet) have provided us with positive feedback. The kits are designed to improve the handling and performance of the vehicle under towing and load carrying situations with an emphasis on compliance to regulatory authorities.

**FEDERAL GOVT.  
APPROVED**



## The largest range Australia wide

- Ford Ranger
- Holden Colorado
- Isuzu D-Max
- Mazda BT50
- Nissan Navara
- Toyota HiAce
- Toyota Hilux/Landcruiser
- Volkswagen Amarok
- Plus more!

**PEDDERS GVM+**

**Before**



**After**



Pedders is Australia's Number 1 Network of franchised under-car specialist stores. We offer a comprehensive range of products and services for all steering, suspension, braking, towing and load carrying needs to suit passenger cars, four-wheel drives, light commercials and high performance vehicles.

Since 1950 Pedders has been designing, manufacturing, selling, fitting and servicing it's own world class products through its unique network of warehouses, company and Licensee stores as well as Authorised Dealers throughout the world.

Every Pedders store offers the most comprehensive specialist under-car diagnosis and repairs with unmatched courteous advice and service. Pedders' range of high quality parts is backed by the commitment of our service centres and regional authorised dealers who are only too happy to offer advice on how you can improve your vehicle's ride, braking, towing, handling and steering.



## Warranty

Pedders Suspension provides a comprehensive two-year, 40,000km nation wide warranty on Pedders brand-name products designed for road use, including shock absorbers, struts, springs, brakes and steering gears.#



#Some exceptions apply. Please contact your local store for further information.

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