

TJM XGS
SERIES 4000

Xtreme Gas Suspension
4000

ON AND OFF ROAD WORK OR PLAY



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TJM XGS
SERIES 4000
Extreme Gas Suspension

If wheels were your car's feet, then suspension would be the legs. Just as the strength, length and flexibility of your legs impact on the way in which you move and the way you connect to the ground, different types of suspension determine the functionality, safety and comfort of your vehicle on different terrain. Made up of several parts that work together like joints and bones, suspension affects absolutely every aspect of driving.

Given the importance of suspension, it's surprising how frequently people place priority on installing bull bars, roof racks and other 4WD accessories without even considering their suspension needs. Whether you're tackling corrugated roads, rough terrain, or you need to tow a caravan, the right TJM suspension will contribute to the car's road handling, braking ability, cushioning of the ride from bumps, noise and vibration for occupants, and protect the vehicle and its contents from wear and tear.

4WD's have factory-engineered suspension, but it's usually only enough to accommodate a boot load of gear and general road driving or limited off-road driving. Installing a set of shock absorbers, a pair of springs or a full TJM XGS Series 4000 suspension kit will immediately transform your vehicle's ride, handling, load carrying and towing capabilities. So don't forget to talk to your local TJM distributor about your individual suspension needs.

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DOES YOUR VEHICLE HAVE ANY OF THE FOLLOWING UNDESIRABLE CHARACTERISTICS?

TJM XGS SERIES 4000 SUSPENSION KIT

Whether you install only shock absorbers, springs or a complete TJM XGS SERIES 4000 suspension kit you are sure to notice an immediate improvement in the vehicle's ride, handling, towing & load carrying qualities. That's why TJM XGS Series 4000 suspension is the wise choice for the four wheel driver or light commercial vehicle user who values optimum performance on and off road.



LACK OF GROUND CLEARANCE?



UNCONTROLLED BOUNCE?



NOSE DIVES UNDER BRAKES?



EXCESSIVE BODY ROLL?



STEERING WHEEL WOBBLE?



TAIL DRAG UNDER LOAD?



UNSTABLE WHEN TOWING?



ROUGH, HARSH RIDE?



LIMITED WHEEL TRAVEL OFF ROAD?





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TJM XGS SERIES 4000



20MM HARD CHROMED PISTON ROD
HIGH PRESSURE THRESHOLD OIL SEAL

N2 CHARGED
TWIN TUBE DESIGN

40MM BIG BORE PISTON
QUALITY BANDED TEFLON PISTON SEAL

1.6MM OUTER TUBE WALL
HIGH GRADE DAMPER OIL

COMPACT OUTER CASE DIAMETER
MULTI STAGE VELOCITY CONTROLLED VALVING

SEAMLESS WELDS & STITCH WELDED CONSTRUCTION
HIGH DURABILITY BUSHES

YEAR 3 WARRANTY 100,000KM



TJM XGS Xtreme Gas Suspension SERIES 4000

**WE'VE CREATED THE SIMPLEST & MOST EFFECTIVE HEIGHT
LEVELLING STRUT EVER.**

The TJM XGS Series 4000 strut utilizes a unique multi-adjustable spring seat which can be adjusted for different vehicle springs/heights to effectively level the front end of the vehicle.



TJM XGS Series 4000
Multi-adjustable spring seat



Corrected with
TJM XGS Series 4000

TJM XGS Series 4000 avoids problems found in spacer kits.

When strut spacer kits are fitted above the top mount assembly the shock assembly can bottom out before the lower control arm reaches the bump stop. This can possibly lead to major structural damage and/or complete shock failure.

**TJM XGS Series 4000 maintains complete
up-travel (bump) to the original factory design.**

Suspension up-travel (Bump)



Suspension down-travel (Droop)



When strut spacer kits are fitted above the top mount assembly it can create over-extended down-travel (droop) this over-extension can cause ball joint, CV joint and/or component damage.

**TJM XGS Gold prevents over-extension
whilst still providing an increase in overall
wheel travel.**

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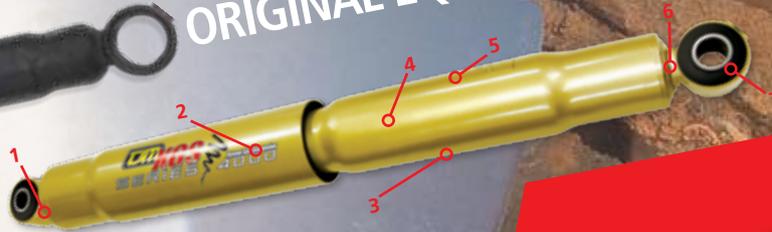
TJM XGS SERIES 4000

TJM XGS Xtreme Gas Suspension
SERIES 4000



XGS

ORIGINAL EQUIPMENT



- 1 Machined one piece mounts for extra strength
- 2 Up to 40% thicker piston rod size
- 3 Up to 40% larger tube body
- 4 Increased oil volume for longer life
- 5 Up to 50% increase in tube thickness
- 6 Stronger welding on mounts doubling the strength
- 7 Higher density rubber for improved longevity

40%
LARGER
TUBE BODY

50%
THICKER
TUBE BODY

↑↑
LONGER
TRAVEL

↑
INCREASED
OIL VOLUME

**STRONGER
TUBE WELDS**

①
SINGLE
PIECE MOUNTS

**OE
STRUTS**



VS XGS /SHOCKS

OE VS XGS STEERING DAMPENERS

50%
LARGER
TUBE BODY

50%
THICKER
TUBE BODY



**STRONGER
TUBE WELDS**

**FOAM CELL
TECHNOLOGY**

2x
DOUBLE
WELDED MOUNTS

ORIGINAL EQUIPMENT



- XGS**
- 1 Easily replaceable bushes
 - 2 Stronger welding
 - 3 Enhanced valving system to control bigger wheels & tyres
 - 4 Foam cell technology inside, which maintains absolute control during rapidly changing on & off road conditions
 - 5 Up to 50% increase in tube thickness
 - 6 Up to 50% larger tube body
 - 7 Twin tube construction
 - 8 Increased oil volume for longer life
 - 9 Stronger welding on mounts doubling the strength
 - 10 Stronger mounting system

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TJM XGS Series 4000 leaf springs provide a significant improvement to your vehicle's load carrying ability, towing safety, ride comfort and directional stability. TJM XGS Series 4000 quality leaf springs use high grade spring steel and are available for today's four wheel drive and tradesman vehicles. Off road, the improved flexibility of TJM XGS leaf springs result in better traction from increased wheel travel and ground clearance. Cutting edge design and manufacturing techniques produce a smooth riding spring. For most vehicles, the TJM XGS Series 4000 leaf springs are available in either medium or heavy duty load carrying capacities and for certain applications, TJM XGS Series 4000 suspension also provides a commercial range of leaf springs.

1 Military & 1/2 wraps* for safety.

If the main leaf should break, the spring is retained in a drivable position
*Where available



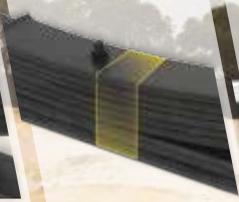
2 High strength spring steel.

Used to maximise strength and improve the overall life of the leaf pack.



3 Graphite coated.

Reduces friction for supple performance.



4 Bolt clips.

Used for better rebound control. Bolt clip liners also reduce any chance of squeaks.



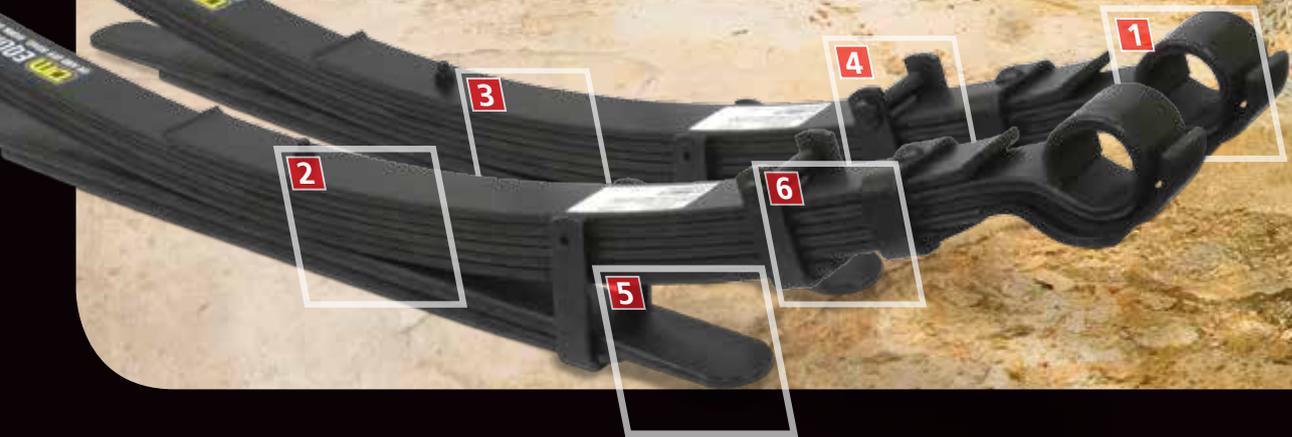
5 Tapered & diamond cut ends.

Reduces inter-leaf friction and improves the distribution of pressure.



6 Graphite grease.

Lubricated with graphite grease in between each leaf to reduce friction and improve corrosion resistance.



A detailed view of the undercarriage of a heavy-duty truck, showing the suspension system, axles, and frame. The truck is driving on a dirt road, with dust kicked up around the wheels. The background shows a rocky, hilly landscape under a clear sky.

DMXGS Xtreme Gas Suspension
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- › **Precision moulded & die-formed:**
Ensures consistency of the design specifications.
- › **Load rate tested:**
To ensure product meets our specifications.
- › **Prestressed:**
To eliminate the possibility of sagging.
- › **Accurately heat treated:**
To ensure product performance meets our requirements.
- › **Quality assured:**
A strict quality program is adhered to throughout all stages of manufacturing.

TJM XGS SERIES 4000





TJM XGS *Series* 4000 Extreme Gas Suspension

TJM XGS Series 4000 coil springs
Springs are one of the hardest working suspension components in any vehicle, supporting the vehicle's weight, 24 hours a day. Often the original springs will fatigue and perform less than adequately with additional load or when used in extreme environments. TJM XGS Series 4000 suspension offers one of Australia's largest range of coil springs. Each spring is made to our exact specifications designed by local engineers and incorporates many unique design features to suit today's four wheel drives.

TJM XGS Series 4000 coil springs are available in linear and progressive designs. They come in various heights and load carrying capacities enabling the optimum suspension system to be achieved. TJM XGS Series 4000 coil springs are manufactured on computer controlled coiling machines, scragged before and after shot peening, load tested and supplied in a durable powder coat finish.

Linear coil springs

Linear or constant rate coils offer consistent spring rate in all situations. This coil spring design is suited to most 4WD vehicles to increase ride height and improve stability. They are ideally suited for installation to vehicles equipped with accessories such as steel bull bars and winch combinations.

Progressive coil springs

Progressive rate coils provide a smooth and comfortable ride when the vehicle is unladen, and improved stability and load carrying ability when the vehicle is loaded. Designed to increase the spring rate as the load increases, the vehicle displays less tendency to bottom out, thus improving ride comfort. It's an ideal solution for vehicles that carry weight periodically.



1

1. TJM XGS Greasable shackles

TJM XGS greasable shackles make the relatively messy and time consuming task of bush lubrication incredibly easy. A greased shackle pin greatly reduces friction and operating temperatures and prolongs the life of the bush. However, grease will dissipate over time and is therefore necessary to regrease. Standard shackles make this an arduous task but TJM XGS greasable shackles and pins allow the greasing of bushes without the need to remove the springs.

Available for most leaf spring vehicles, TJM XGS greasable shackles are heavy duty replacement components made to exacting tolerances and nickel plated for long service life.

2



2. TJM XGS U-bolts

When springs are installed on a vehicle, quite often the existing u-bolts are re-used, which could create a potentially dangerous situation. If the original u-bolt is re-used the pitch of the thread may be stretched and the u-bolt nut may loosen allowing the spring pack to become loose.

It is advisable to replace U-bolts when new springs are installed. TJM XGS u-bolts are matched in length to the TJM XGS leaf spring range to accommodate the increased stack height of the TJM XGS spring.

3. TJM XGS Panhard rods

The purpose of suspension is to allow the wheels to move vertically with respect to the body, when raised height suspension is applied to some coil-sprung 4WD vehicles, the fixed length of the original front or rear panhard rod can cause the axle to shift, allowing it to move forward and backwards, or from side to side.

TJM adjustable panhard rods are designed to eliminate this problem by enabling you to set the rod to the most appropriate position for whatever suspension type or lift height your 4WD has.

3



4



4. TJM XGS Castor correction kits & bushes

Raising the suspension height on certain vehicles can result in a reduced amount of positive castor. Reducing the castor angle is when the top of the steering axis pivot is tilted towards the front of the vehicle or the lower steering axis pivot is tilted towards the rear of the vehicle.

Undesirable driving characteristics such as vague steering, understeer and straight line instability are common side effects of low castor. To permanently correct this TJM have developed a range of castor correction kits and bushes to suit many vehicles.

5. TJM XGS Sway bar link pins

A sway bar in general terms is a torsion bar mounted laterally on a vehicle's suspension and chassis and is designed to reduce body roll. The sway bar transfers movement from one side of the suspension to the other. This is done through the connection of a torsion bar to each side of an axle by sway bar links.

Extending the sway bar links is a common practice as this corrects the sway bar angle in raised vehicles. TJM have an extensive range of extended sway bar links to suit most popular model four wheel drives.

6. TJM XGS Polyurethane bushes

The TJM XGS polyurethane suspension bushes offer longer life when compared to rubber bushes in their specific applications. They ensure positive location of suspension components leading to direct responsive steering, low maintenance and improved stability. TJM offers a wide range of bush kits including leaf spring, panhard rod and control arm bushes.

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7. TJM XGS torsion bars

TJM XGS torsion bars have been designed to carefully match the complete XGS suspension range.

Torsion bars are designed to be used on the front of many two and four wheel drive vehicles. While providing excellent ride quality, some vehicles fitted with torsion bars may suffer in their ability to carry loads and nose-dive under braking which results in loss of ground clearance. TJM XGS torsion bars are available as an upgrade to improve a vehicle's load carrying ability and stability, both on and off road. TJM XGS torsion bars are often larger in diameter to the original unit, increasing spring rate which ensures ride height is maintained and vehicle handling both on and off the road is improved. To significantly improve your vehicle's suspension performance TJM XGS torsion bars work best when TJM coil or leaf springs are fitted to the rear of your vehicle.

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- › Premium grade spring steel with an unobtrusive powder coat to avoid unnecessary attention and to protect against corrosion.
- › Hardened and tempered to exact specifications for improved ride and performance.
- › Drop forged ends are precision drawn for excellent strength and integrity.
- › Pressure rolled splines increases spline durability and allows precise fitment.
- › Preset and hardened which increases life cycle and prevents sagging.

POLYAIR SPRING®

Air adjustability is the difference

Stiff steel factory suspensions must compromise between ride comfort and load hauling capacity. Smooth ride suspensions can't carry heavy loads; heavy springs ride rough, especially when the vehicle is unloaded.

Polyair adjustable air springs solve these problems by allowing you to tune your suspension under all load and road conditions. Just add air when towing or hauling and then remove air for a softer ride when unloaded.

Coil spring fitment

With coil springs, the Polyair unit is fitted into the coils. Hoses are attached with one end connected to each air spring and the other attached to a valve mounted on the vehicle to allow air pressure to be altered. A pressure increase of between 5 to 25 psi will give a load increase between 10 to 60%.

Leaf spring fitment

For leaf spring suspension, the air springs are supplied with their own auxiliary coil spring. One end of the air lift coil is attached to the leaf spring by the brackets provided, the other is bolted to the vehicle's frame. Hoses are then attached in the same way as on coil spring vehicles. Kits come complete with all necessary hardware, air lines, and valves. A pressure increase of between 5 to 25 psi will give a load increase between 10 to 60%.

Bellows fitment

For heavy duty applications on leaf spring suspension, the bellow air system is supplied with its own vehicle specific brackets and unique flex member bag designed to carry up to the GVM of the vehicle, while maintaining normal ride characteristics when unladen. A pressure increase of between 5 to 100 psi will give a load increase between 10 to 60%. All kits come complete with all necessary hardware and allow for individual adjustments.

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FROM A CAMPSITE IN THE KIMBERLEY TO A BEACH IN BINALONG BAY, TJM HAS THE COUNTRY COVERED FOR GETTING 4WD EQUIPPED.

Since 1973, TJM has designed, tested and developed the most comprehensive and innovative range of 4WD equipment available in Australia today.

Our work goes on in the toughest testing ground we know, our own backyard.

Whether you're camping or fishing, drilling or fencing, or just picking up the kids from school, get yourself TJM equipped. For anything.

TJM bull bars, nudge bars, side bars and steps, alloy and steel, engineered and refined to stringent Australian Safety Standards.

Roof rack and trade rack solutions for all makes of vehicle - heavy duty or lightweight.

TJM Airtac snorkels, TJM XGS suspension, TJM recovery gear, TJM winches, TJM Pro Lockers, TJM roof top tents and awnings, dual battery systems and a whole lot more.

The list keeps growing like a good bush yarn, because at TJM we're always striving for new ideas that'll help and protect our customers while they enjoy their 4WD experience.

To see the complete TJM range of products and find your local distributor visit www.tjm.com.au where you'll get a real good look at how TJM will get you equipped.

TO FIND YOUR LOCAL STORE & THEIR TRADING HOURS SCAN THIS UNUSUALLY LARGE CODE OR VISIT WWW.TJM.COM.AU



PART NUMBER - 300PASSUSP

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TJM EQUIPPED
ON AND OFF ROAD. WORK OR PLAY.