



Performance Catalogue Edition 1



Est. UK1958
Bearmach
LAND ROVER PARTS



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Bearmach
LAND ROVER PARTS

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BEARMACH COIL SPRINGS

THE LEGEND

Our legendary Bearmach Blue Coil Springs are designed as a superior performance replacement part for mass-produced O.E (Original Equipment) coil springs, they exceed original ratings by 10% - 50% (depending on the application), thus handling is dramatically improved. Ride height variations are available for most Land Rover models.

MANUFACTURE

Bearmach coil springs are manufactured to the highest standard. Made of micro alloy steel. Insuring the ultimate in handling and ride comfort in extreme conditions and on road. Proven in extensive testing competitive events around the world.

All heating and tempering furnaces are electronically controlled to precise temperatures. Each spring is individually hot coiled on a variable speed PLC (Programmable Logic Controlled) coiling machine. After oil quenching and tempering, the springs are rate tested on a sample basis.

The springs are then shot peened ready for protective surface finishing, prior to powder coating. After final inspection the springs are packaged in pairs in a protective cardboard box ready for dispatch.

INSTALLATION

Measure your vehicle's ride height before installing Bearmach Springs. This will ensure you know the amount of lifting after installation. On a level surface, measure from the upper wheel rim to the highest point of the wheel arch, before installation and after. Before you measure 'after' dimension, drive the car for approximately ten miles to allow the springs, spacers, etc. to settle.

Before removing springs from your car, put a sequential number mark on each component, from top to bottom. This will help you reassemble the new and existing parts in correct order.

Mark the position of all alignment-related mounting bolts. This allows a good starting point for the post-installation alignment.

Work on one corner of the car at a time. Some assemblies have up to 10 pieces which must be assembled in the exact order in which the factory installed them. Disassemble one corner, and if you make a mistake or lose track of the order of assembly, you can refer to the corresponding assembly as a reference.

Reinstall all bolts in the same orientation (up or down) in which the manufacturer installed them.

Bearmach springs are designed to reuse all factory fittings, however we do recommend fitting new to prevent noise and premature wear.

- Manufactured to UK/European bs en 1906:2002
- Corrosion resistance: 240 hours, neutral salt spray (nss) test
- Compression tested to 200,000 cycles (no cracking or distortion)

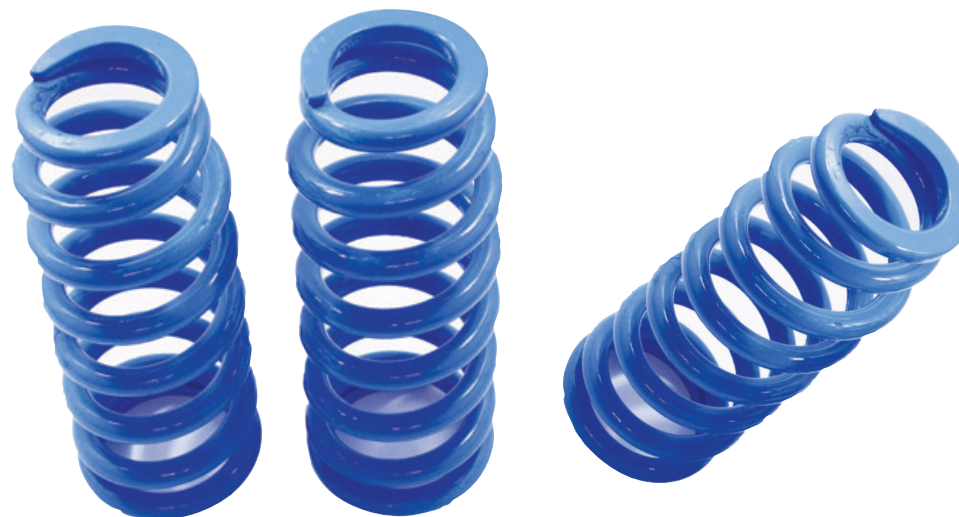


Tech Tip

Take note on the current routing and mounting positions of all wires, cables, brake lines and anti-lock brake sensors, as re-installing the links differently from the factory position can result in damage or brake failure.

Always use the proper spring compressor to remove springs from your car, or when disassembling. Springs store an enormous amount of energy and can cause serious injury to you or someone else if this energy is released unexpectedly.

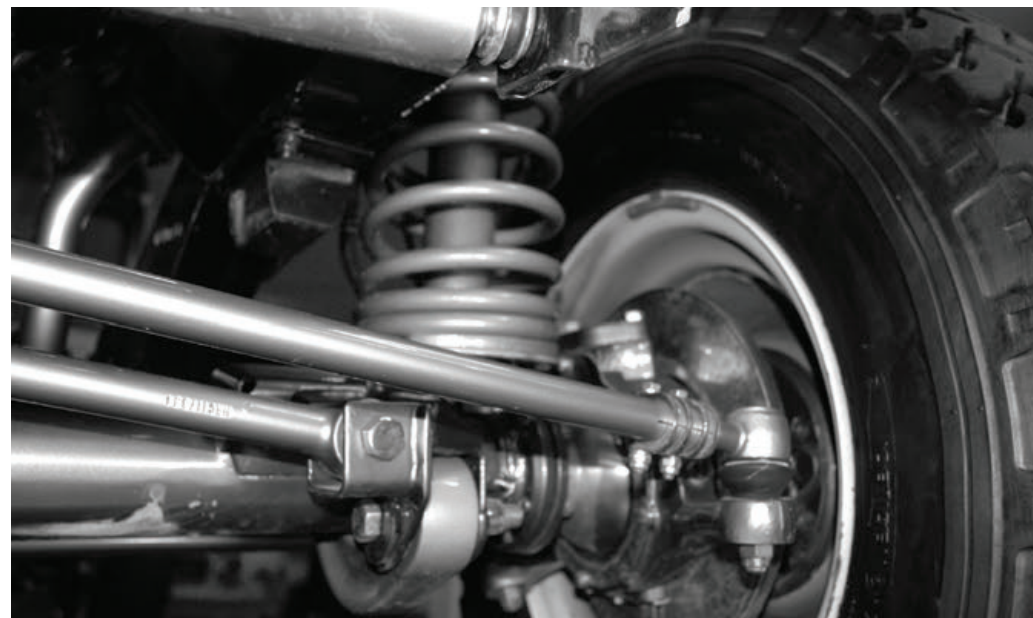
Coil Springs Front				
Model	Application	Ride Height	Rate	Part Number
90	All models	+45mm	380lbs	BA 2101
90	All models	+50mm (Off road use only)	175lbs	BA 2251
110	All models	+45mm	380lbs	BA 2101
110	All models	+50mm (Off road use only)	175lbs	BA 2251
Defender 90	All models	+45mm	380lbs	BA 2101
Defender 90	All models	+50mm (Off road use only)	175lbs	BA 2251
Defender 110	All models	+45mm	380lbs	BA 2101
Defender 110	All models	+50mm (Off road use only)	175lbs	BA 2251
Defender 130	All models	+45mm	380lbs	BA 2101
Discovery 1	All models	+0mm	195lbs	BA 2106
Discovery 1	All models	+30mm	196lbs	BA 2104
Discovery 1	All models	+50mm (Off road use only)	149lbs	BA 2254
Discovery 2	All models	+30mm	195lbs	BA 2104
Discovery 2	All models	+45mm	208lbs	BA 2231
Discovery 3	All models	+30mm		BA 2233
Range Rover Classic	All models	+0mm	196lbs	BA 2106
Range Rover Classic	All models	+30mm	195lbs	BA 2104
Range Rover Classic	All models	+50mm (Off road use only)	133lbs	BA 2256



Coil Springs Rear				
Model	Application	Ride Height	Rate	Part Number
90	All models	+20mm	240lbs	BA 2103
90	All models	+40mm	295lbs	BA 2102
90	All models	+50mm (Off road use only)	225lbs	BA 2252
110	All models	+40mm	420lbs	BA 2100B
110	All models	+40mm	510lbs	BA 2100
110	All models	+50mm (Off road use only)	330lbs	BA 2253
Defender 90	All models	+20mm	240lbs	BA 2103
Defender 90	All models	+40mm	295lbs	BA 2102
Defender 90	All models	+50mm (Off road use only)	225lbs	BA 2252
Defender 110	All models	+40mm	420lbs	BA 2100B
Defender 110	All models	+40mm	510lbs	BA 2100
Defender 110	All models	+50mm (Off road use only)	330lbs	BA 2253
Defender 130	All models	+40mm	510lbs	BA 2100
Discovery 1	All models	+0mm	194lbs	BA 2105
Discovery 1	All models	+20mm	240lbs	BA 2103
Discovery 1	All models	+40mm	295lbs	BA 2102
Discovery 1	All models	+50mm (Off road use only)	207lbs	BA 2255
Discovery 2	All models	+20mm	240lbs	BA 2103
Discovery 2	All models	+45mm	295lbs	BA 2232
Discovery 3	All models	+30mm		BA 2234
Range Rover Classic	All models	+0mm	195.5lbs	BA 2107
Range Rover Classic	All models	+20mm	240lbs	BA 2103
Range Rover Classic	All models	+40mm	295lbs	BA 2102
Range Rover Classic	All models	+50mm (Off road use only)	150lbs	BA 2257



Over the years, Bearmach and their employees forged a tradition of high performance, based on maintaining quality rather than selling down to a price. That's why the springs are legendary. This history gives Bearmach unique experience, technical skills, and the knowledge of our customers needs.



Coil Spring Specifications						
Part Number	Wire Diameter (mm)	Weight (Kgs)	Turns	Height (mm)	Internal Dims (mm)	End Construction
BA 2100	20.8	9.7	7.14	410	179	Grind
BA 2100B	20.8	10.4	7.64	419	179	Forge
BA 2101	16.8	6.5	8.64	382	154	Grind
BA 2102	17.8	7.9	9	439	156.5	Grind
BA 2103	16.8	6.8	9	420	154	Grind
BA 2105	15.8	6	9	397	152	Grind
BA 2106	15.9	6.1	9	442	152	Grind
BA 2107	15.8	6	9	369	152.5	Grind
BA 2232	18			430		
BA 2234	20			370		
BA 2251	15.9	6.1	9	415	153	Grind
BA 2252	15.7	6.3	9.65	427	151	Grind
BA 2253	16.7	6.7	9	433	154	Grind
BA 2254	19.7	10.4	8.5	456	177.5	Forge
BA 2255	15.2	6	9.75	447	151	Grind
BA 2256	14.5	5	9	443	149	Grind
BA 2257	15	5.42	9.14	456	151	Grind



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Air Spring Conversion Kit			
Model	Application	Ride Height	Part Number
Range Rover Classic			BA 2226
Range Rover P38	All models	Standard	BA 2227
Range Rover P38	All models	+20mm	BA 2227A
Discovery 2*	Rear only		BA 2230
Discovery 3			BA 2236

*Diagnostic equipment is required to change the ECU from air to coil.

AIR SPRING CONVERSION KIT

DESIGNED FOR COMFORT

These Bearmach coil spring conversion kits convert the vehicle to a reliable coil spring suspension system. Our springs are designed to give your vehicle a smooth ride comparable to the original air suspension. Springs fit perfectly in the seat without welding or modifying the original suspension.

WHAT DO YOU GET?

The kit features world renowned powder coated Bearmach Blue coil springs. Bearmach has been the industry leader in manufacturing quality Land Rover replacement suspension parts for over 50 years. Bearmach is committed to its valued customers and customer satisfaction is top priority. Bearmach BLUE springs, and spring conversion kits are painstakingly engineered, tested and assembled right here in our state of the art facility in Wales. Bearmach has revolutionised Land Rover suspension technology by both improving upon and developing the most comprehensive and advanced components and manufacturing processes.

- Engineered, assembled and tested in uk
- Quality fit every time.
- Quality coded tracking in the manufacturing process
- Durable, dependable Blue spring.
- Coil springs engineered and designed for each specific vehicle.
- Custom wiring kit for P38.
- Custom designed rubber isolators, CNC machined aluminium spring perches, and new mounting hardware for coil spring conversion kits.
- Can also be supplied with higher and stiffer springs on request.
- No more repetitive faults , and expensive EAS bills .

RANGE ROVER COIL CONVERSION

The Range Rover coil spring conversion kit with our legendary springs is the ultimate suspension solution for Range Rover 2.5 4.0 and 4.6 1995 – 2002. (Please state diesel or petrol).

Bearmach makes the switch from air suspension to coil springs quick and easy. Our premium heavy duty coil conversion kit comes with all of the components necessary for the job , heavy duty coil springs, all necessary hardware and accessories and our exclusive EAS Override Wiring Harness. The EAS Override Harness suppresses vehicle error codes that can occur when converting to coil springs.

Installation takes approximately four hours start to finish, and each kit comes complete with detailed photo instructions.

Save hundreds – if not thousands – of pounds over the lifespan of your Range Rover and switch to coil springs today!

OUR PREMIUM KIT FEATURES:

- Detailed step-by-step instructions.
- The Bearmach Exclusive EAS Override Harness overrides all typical computer errors seen when converting to a coil spring system.
- Aluminium spring perch adapters
- Affordable alternative to expensive, reoccurring air suspension failures.
- Kit provides everything needed to complete a professional installation.

DISCOVERY COIL CONVERSION

Bearmach rear air spring to coil spring conversion kit to fit all Land Rover Discovery 2 Models.

This kit contains all the parts required to remove the air suspension and replace it with coil springs. The springs are heavy duty standard ride height.

By fitting this coil conversion it eliminates the need for expensive sensors, pipes and compressors and air-bags.

IMPORTANT you will have to disable the air suspension compressor and re-programme the vehicle to "coil" suspension. This can be done easily with our Hawkeye / Hawkeye Pro diagnostic tool.

WHO SHOULD USE THESE KITS?

Owners who use their vehicles for towing and/or heavy off-road use. Heavy duty plus 20mm or standard height coil springs provide enhanced ride height lift and improved articulation capabilities in off-road situations. Fitting new shock absorbers ensures a pleasant ride and vehicle stability.



Body Lift Kit			
Model	Application	Ride Height	Part Number
Freelander 1*	All models	Front and rear +50mm	BA 2225

*Must be fitted with BFA 6002 camber pins

BODY LIFT KIT

Give your Freelander the ground clearance for better off road ability.

Suspension Lift Kit			
Model	Application	Ride Height	Part Number
90	All models	Front and rear +50mm	BA 3750
110	All models	Front and rear +50mm	BA 3752
Defender 90	All models	Front and rear +50mm	BA 3750
Defender 110	All models	Front and rear +50mm	BA 3752
Discovery 1	All models	Front and rear +50mm	BA 3751
Discovery 2*	All models	Front and rear +50mm	BA 3755
Range Rover Classic	All models	Front and rear +50mm	BA 3751

Suspension Lift Kit

CONTAINS

Bearmach legendary blue springs that are designed as a superior replacement part for mass produced O.E (Original Equipment) coil springs, manufactured with finest quality micro alloy spring steel. *They are manufactured to the highest standards in accordance with ISO9002, demonstrating our on going commitment to developing the highest quality products and services.*

Pro Comp ES9000 shock absorbers with high quality features and tuned valving are the number one choice when it comes to high performance shocks for your Land Rover, you always get the most out of your vehicle on the road or on the trail.

The ES9000 Series are performance gas shocks

- Twin tube nitrogen stabilized • 10 stage velocity sensitive valving
- Expanded twin tube design increases fluid capacity up to 50%
- 1 3/8" nylon banded piston rod

Kit contains:-

4x plus 2" (50mm) Springs

4x Pro Comp +2" (50mm) Pro

Comp ES9000 Shock Absorbers

*Contains Tuffback Shocks.



Air Suspension Aid	
Model	Part Number
Range Rover Classic	BA 2163
Defender 90	BA 2163
Defender 110	BA 2164
Discovery 1	BA 2163

TOW & CARRY WITH SAFETY AND COMFORT

Air Lift adjustable air springs (also called air bags) provide the highest level of safety and comfort when towing or carrying a heavy load with your Land Rover.

HOW THEY WORK

The air springs work with your existing coil suspension to give you more load support in the rear of your vehicle when you need it. Air Lift air springs stabilise your vehicle, giving you up to 1,000 pounds of levelling capacity.

To operate, simply inflate the air springs when you need more load support and deflate when riding empty.

When weight is properly distributed to all four tyres, it results in:

- Better braking
- Less sway
- Better steering control
- Better headlight aim
- A smoother ride
- Less bottoming out

You can tailor and adjust the pneumatic spring set-up to your requirements, so no matter whether you're towing or on safari, carrying loads all the time or not, just fill up with air. Use a tyre inflator or an on board compressor.

Contains poly air cells and cell seats that fit inside your coil springs, with piping that allows you to connect to a standard tyre inflator.

EASY INSTALLATION

Air Lift adjustable air springs are easily installed in under 2 hours with common hand tools. You can install them yourself.



Tech Tips

Lay out kit components and raise vehicle on jack stand.
Install the brackets and air springs on your vehicle's frame.
Insert air bags inside coil springs.
Route air lines and check installation.

Air Suspension Compressor Kit	
Model	Part Number
Range Rover Classic	BA 2163A
Defender	BA 2163A
Discovery 1	BA 2163A

AIR SUSPENSION COMPRESSOR KIT

For convenient on-the go air spring control, add an Air Lift On-Board Air Compressor system. This system lets you inflate and deflate air pressure in your air suspension aid bags/springs from inside or outside your vehicle with the touch of a button. Our On-Board Air Compressor system eliminates the search for fuel stations that have a working compressor, saving you time, energy and money.

All Air Lift compressor systems are compatible with our brand of air suspension aid springs/bags and come with a compressor, controller and all parts you need to install. The compressor mounts easily to your vehicle's frame and attaches to an air line that runs to your air suspension aid bags. You can easily install the system yourself in a few hours.

Also can be adapted to inflate tyres.



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Parabolic Springs Front					
Model	Application	Ride Height	Leaf	Brand	Part Number
Series II 88"	All models	+20mm	2	Bearmach	BA 2113
Series II 88"	All models	+20mm	2	British Springs	BA 2113B
Series II 109"	All models	+20mm	2	Bearmach	BA 2113
Series II 109"	All models	+20mm	2	British Springs	BA 2113B
Series IIA 88"	All models	+20mm	2	Bearmach	BA 2113
Series IIA 88"	All models	+20mm	2	British Springs	BA 2113B
Series IIA 109"	All models	+20mm	2	Bearmach	BA 2113
Series IIA 109"	All models	+20mm	2	British Springs	BA 2113B
Series III 88"	All models	+20mm	2	Bearmach	BA 2113
Series III 88"	All models	+20mm	2	British Springs	BA 2113B
Series III 109"	All models	+20mm	2	Bearmach	BA 2113
Series III 109"	All models	+20mm	2	British Springs	BA 2113B

PARABOLIC SPRINGS

Bearmach's modern implementation is the parabolic leaf spring. This design is characterised by fewer leaves whose thickness varies from centre to ends following a parabolic curve. In this design, inter-leaf friction is unwanted, and therefore there is only contact between the springs at the ends and at the centre where the axle is connected. Spacers prevent contact at other points.

IMPROVED RIDE QUALITY

Aside from a weight saving, the main advantage of parabolic springs is their greater flexibility, which translates into vehicle ride quality that approaches that of coil springs, they are not as "stiff" as conventional "multi-leaf" springs. There is however, a trade-off in the form of reduced load carrying capability.

PARABOLIC SPRINGS "V" MULTI-LEAF SPRINGS

Conventional multi-leaf springs often require somewhere from 8 to 11 leaves within the pack to carry the desired weight demanded by many 4WD owners. Parabolic Springs will do the same job with only two leaves and half the weight.

Parabolic springs have leaves with a tapered profile. This tapering is based on the parabola that for every mm that the leaf thickness decreases this amount relates to the square function of the leaf. This is the technical way to say that each parabolic leaf has the same shape & function of a complete multi-leaf spring - thick at the centre and thinner at the outer ends. This means that a single parabolic leaf is able to cope with the same forces inside the leaf as a complete conventional 8 multi-leaf or more spring. It will also give you better articulation when off roading.



Parabolic Springs Rear					
Model	Application	Ride Height	Leaf	Brand	Part Number
Series II 88"	All models	+30mm	3	Bearmach	BA 2114
Series II 88"	All models	+30mm	3	British Springs	BA 2114B
Series II 88"	All models	+40mm	4	Bearmach	BA 2115
Series II 109"	All models	+30mm	4	Bearmach	BA 2115
Series IIA 88"	All models	+30mm	3	Bearmach	BA 2114
Series IIA 88"	All models	+30mm	3	British Springs	BA 2114B
Series IIA 88"	All models	+40mm	4	Bearmach	BA 2115
Series IIA 109"	All models	+30mm	4	Bearmach	BA 2115
Series III 88"	All models	+30mm	3	Bearmach	BA 2114
Series III 88"	All models	+30mm	3	British Springs	BA 2114B
Series III 88"	All models	+40mm	4	Bearmach	BA 2115
Series III 109"	All models	+30mm	4	Bearmach	BA 2115

SET-UP

The ideal parabolic spring only requires one single leaf but for safety reasons our British designed and manufactured 4WD parabolic springs have a minimum of two leaves. The other leaf's are a wrap style leaf acting as a safeguard in the unlikely event of a breakage. Bearmach parabolic springs have been designed to be 100% compatible with standard suspension fittings, however it is recommended to upgrade the shock absorbers to high quality, far reaching, for maximum performance. We recommend Procomp.

INSTALLATION TIPS FOR PARABOLIC /LEAF SPRINGS

Check your leaf spring selection to ensure you have the correct spring for your intended application. When fitting, the Military Wrap end of the leaf spring is always fitted to the fixed pin chassis mount point. It is also advisable to check centre-bolts on spring before installation. New high tensile Bearmach U-Bolts and nuts must be used when fitting Bearmach leaf springs.

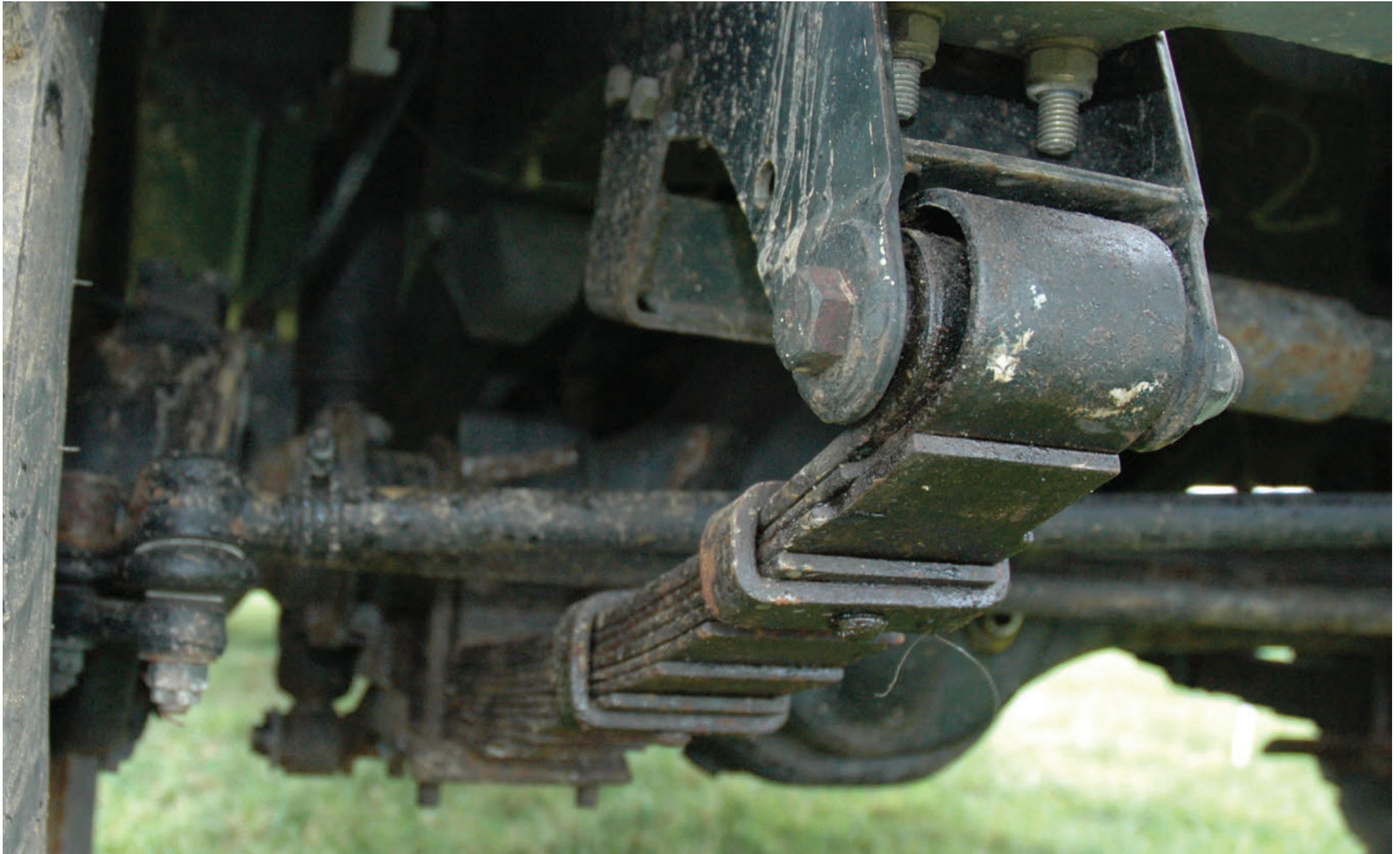
IMPORTANT: U-Bolts must be checked regularly and re tensioned for maximum leaf spring life. After fitment of Bearmach leaf springs, U-bolts must be re tensioned after 500 miles with vehicle fully laden.

We recommend all U-bolts be checked regularly (at normal service intervals) and re tensioned if required.

We also recommend that you replace all bushes' on the shackle's in the chassis along with new bolts.

Install as instructed in the workshop data manual.





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Pro Comp Suspension Systems test all of its Land Rover suspension on its own Baja-style proving grounds. It's called "concept-to-reality" design, and it has made Pro Comp shock absorbers second-to-none.

ES1000 SERIES

The ES1000 performance series shock absorber is designed to replace the factory shock and provides optimum performance enhancing driving comfort and vehicle control. To provide a superior seal for the S-924 high temperature shock fluid, a multi-lip, spring tensioned rod seal is used. The ES1000 includes a black poly-vinyl boot engineered to shield the large 5/8" chrome hardened piston rod from the elements, which in turn prolongs the life of the shock. Utilizing a 1 3/8" nylon banded full displacement piston head and double welded shock mounts, the ES1000 assures strength and long lasting durability for even the most demanding of driving conditions.

ES3000 SERIES

The twin tube cellular gas design of the ES3000 is engineered to substantially improve driving comfort and performance both on and off the road. With its 10 stage velocity sensitive valving, the ES3000 self adjusts to various road conditions while improving your vehicle's handling characteristics. The large 5/8" chrome hardened piston rod and unique Teflon rebound stop delivers a comfortable road ride and the ability to handle the most demanding driving conditions. With double welded shock mounts for maximum strength and the exclusive Pro Comp Suspension limited lifetime warranty, the ES3000 will ensure ultimate performance for as long as you own your vehicle.

ES9000 SERIES

The Pro Comp ES9000 is the ultimate nitrogen gas charged shock absorber. With its twin tube design and 10 stage velocity sensitive valving, the ES9000 delivers not only a smooth, comfortable road ride, but it also enhances off road handling and performance. Engineered for those driving enthusiasts demanding optimum capacity for heavy loads as well as the most demanding driving conditions. It's 1 3/8" nylon banded full displacement piston head and double welded shock mounts ensure maximum strength and long lasting durability.

Features

- Shock absorber Type
- Pro Comp E S9000 Series
- Damping Type: Non-adjustable
- Twin-tube Design
- White Colour/Finish
- 1.38 in. nylon banded full displacement piston
- 0.63 in. chrome hardened piston rod
- Nitrogen gas charge
- Maximum versatility to changing road conditions with 10-stage velocity sensitive valving system
- Increases fluid capacity up to 50 percent with its expanded twin-tube design

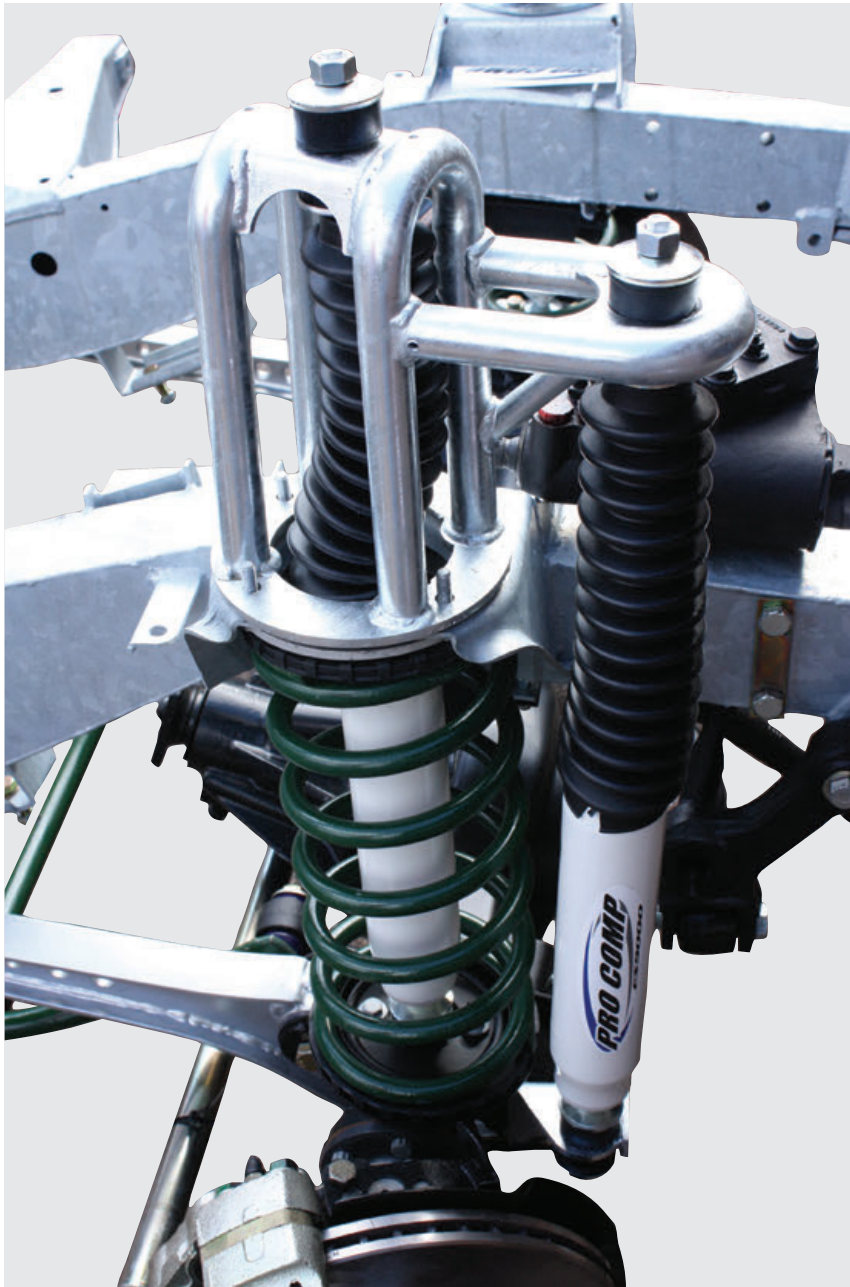
Pro Comp Gas Shock Absorbers								
Model			Front +25mm	Rear +25mm	Front +50mm	Rear +50mm	Front +100mm	Rear +100mm
Series III 88"	All models	ES3000			BA 2113A	BA 2114A		
Series III 88"	All models	ES9000			BA 2113C	BA 2114C		
Series III 109"	All models	ES3000			BA 2113A	BA 2115A		
Series III 109"	All models	ES9000			BA 2113C	P921573		
90	All models	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL
110	All models	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL
Defender 90	All models	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL
Defender 110	All models	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL
Range Rover Classic	All models (except air suspension)	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL
Discovery 1	Up to 1994	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL
Discovery 1	1994 on*	ES9000	BR 0645P	BR 1077P	BR 0645L	BR 1077L	BR 0645XL	BR 1077XL

* Removal of lower suspension pin cups may be required.



Tech Tip
Always fit shock absorbers in pairs.

Pro Comp Shock Adaptor		
Model		Part Number
Various	Converts from eye to pin fitting, increase length by 1.5"	P690001
Various	Converts from eye to pin fitting, increases length by 2"	P690002



Check Strap		
Model		Part Number
Various	22 Inch	P5222
Various	26 Inch	P5262

CHECK STRAPS

These heavy-duty Pro Comp nylon straps help protect off-road suspension systems by preventing over-extension of suspension components.

Most commonly, they are approximately ½" to 1" shorter than the full extension of the suspension and are mounted to the upper and lower shock eyebolts.



Pro Comp Boot Kit			
Model		Colour	Part Number
Various	Includes cable ties	Black	BA 9000
Various	Includes cable ties	Royal Blue	P12100
Various	Includes cable ties	Fluorescent Orange	P12110
Various	Includes cable ties	Fluorescent Green	P12115
Various	Includes cable ties	Light Blue	P12120
Various	Includes cable ties	Red	P12128
Various	Includes cable ties	Yellow	P12129

PROCOMP SHOCK BOOTS

Procomp shocker boots made of Poly-Vinyl rubber/material. Here are your solutions for exterior styling on your Land Rover with specialised coloured shock boots. Choose from seven colours, to match or contrast your vehicle body colour, or just to replace those old worn out shock boots.

Heavy-duty construction and unique design features make the pro comp boot kit the quality choice for maximum rod protection and improved strut life. Will fit other applications.

Damaged boots may not protect the rod finish. A pitted piston rod can lead to premature strut failure.



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Tuffback Gas Shock Absorbers					
Model	Application	Front +50mm	Rear +50mm	Front +50-100mm	Rear +50-100mm
90	All models	BA 2502	BA 2503	BA 2514	BA 2515
110	All models	BA 2502	BA 2503	BA 2514	BA 2515
Defender 90	All models up to (VIN) WA159806	BA 2502	BA 2503	BA 2514	BA 2515
Defender 90	All models from (VIN) XA159807 on	BA 2510	BA 2511	BA 2524	BA 2525
Defender 110	All models up to (VIN) WA159806	BA 2502	BA 2503	BA 2514	BA 2515
Defender 110	All models from (VIN) XA159807 on	BA 2510	BA 2511	BA 2524	BA 2525
Discovery 1	All models up to (VIN) LA081991	BA 2502	BA 2503	BA 2514	BA 2515
Discovery 1	All models from (VIN) MA081992 on	BA 2510	BA 2511	BA 2524	BA 2525
Discovery 2	All models	BA 2500	BA 2501		
Range Rover P38	All models	BA 2540	BA 2541		

TUFFBACK SHOCK ABSORBERS

Introducing Bearmach's own range of Twin-Tube Long Travel Performance Gas Charged Tuffback shock absorbers, designed and made in the Australian outback to offer superior performance and durability. With increased capacity to help with cooling on prolonged use.

WHY CHOOSE TUFFBACK

Manufactured for the Land Rover enthusiast who require an exceptional responsive and robust suspension system. With new and improved technology derived from years of research and development and actual testing by ourselves. Designed to match Bearmach's blue springs, plus 2" off-road use and raised heavy duty coil springs and spring rates.

These shock absorbers will offer excellent value for money and offer many unique features for Land Rover vehicles, not often seen in aftermarket suspension systems .

FEATURES

- 36mm bore and huge 60mm expanded body design provides up to twice the oil capacity of O.E. shock absorbers to maximise fade resistance, run cooler and allow faster reaction time to road changes.
- Heavy duty twin tube construction.
- Bonded sintered iron piston construction with multi stage valving for increased durability and accurate tolerances.
- Teflon banded steel pistons and Nylon mechanical top out stops.
- Piston retainer nuts mechanically peened to stop failure at high temperature.
- Multi stage valving system to allow a progressive dampening effect from slow to fast piston velocity thus automatically adjusting to all conditions.
- Shafts are manufactured from tough 18mm hardened chrome, precision engineered to withstand the harshest of environments, while reducing friction and wear.
- Piston rod seals are high quality, high temperature multi-lip design to again reduce friction and provide longer life.
- Robust 2mm thick external tube walls and 2mm thick internal walls.
- Gas charged with low pressure nitrogen gas to maximise fade resistance under extreme conditions without harshness while providing more responsive control.
- All eyes and pin mounts are fully welded for extra strength and long life.
- Performance valve codes for the ultimate in handling and response.
- Heavy duty rubber cover to prevent shaft damage.

Installation Tips.

Check your shock absorber selection to ensure you have the correct part number to suit your springs and application. Ensure the shock absorber has the correct amount of travel on both extension and compression strokes. This is very important, because if you fit shock absorbers to a vehicle that has sagged springs with a higher free height (ie. Over 2.5 inches or 65mm) shock absorbers may bottom out (on compression) or top out (on extension) which may cause premature failure of the shock absorber .



Koni Gas Shock Absorbers			
Model	Application	Front +25mm	Rear +25mm
90	All models	BR 0645K	BR 1077K
110	All models	BR 0645K	BR 1077K
Defender 90	All models	BR 0645K	BR 1077K
Defender 110	All models	BR 0645K	BR 1077K
Range Rover Classic	All models (less air suspension)	BR 0645K	BR 1077K
Discovery 1	Up to 1994	BR 0645K	BR 1077K
Discovery 1	1994 on*	BR 0645K	BR 1077K

*Removal of lower suspension cups may be required

KONI HEAVY TRACK SHOCK ABSORBERS FOR 4x4s

Shocking conditions or winding roads? When asphalt becomes boring and gravel, dirt and dust are too tempting, HEAVY TRACK® 4x4 shock absorbers by Koni are the ideal all-terrain option. This shock absorber will deliver optimum road holding and comfort both on and off road. These 4x4 shock absorbers have been specially developed by Koni for 4WD vehicles.

Tested under extreme conditions, these dampers for Land Rovers satisfy the highest offroad demands regarding safety, stability and grip.

In short, HEAVY TRACK® shock absorbers from KONI are perfect 'all road' shock absorbers. Irrespective of the driving conditions.

- Optimum handling, road holding and grip.
- Adjustable rebound forces for all on and off road conditions
- Specially developed, high quality materials for maximum performance
- Better driving characteristics
- Rugged construction

HOW MUCH STIFFER ARE KONI COMPARED TO THE FACTORY FIT SHOCK?

This is a difficult question to answer because every Koni application is developed for that specific vehicle to get the best handling characteristics.

In general, most factory shocks are under-damped for optimised handling so Koni engineers select firmer valvings.

Unfortunately factory shocks are generally chosen for financial reasons rather than performance so lower technology, cheaper shocks are standard. In some instances, a factory shock may have good characteristics in some parts of the working range but need some help in other parts and there are even a few instances where the Koni engineers found better handling by softening the factory units.



Delphi Gas Shock Absorbers					
Model	Application	Front Standard	Rear Standard	Front +50mm	Rear +50mm
90	All models	BA 2241	BA 2242	BA 2249	BA 2250
110	All models	BA 2241	BA 2242	BA 2249	BA 2250
Defender 90	All models	BA 2241	BA 2242	BA 2249	BA 2250
Defender 90	All models from (VIN) XA159807 on*	BA 2241	BA 2246	BA 2249	BA 2250
Defender 110	All models	BA 2241	BA 2242	BA 2249	BA 2250
Defender 110	All models from (VIN) XA159807 on*	BA 2241	BA 2246	BA 2249	BA 2250
Range Rover Classic	All models	BA 2241	BA 2242	BA 2249	BA 2250
Discovery 1	Up to 1994	BA 2241	BA 2242	BA 2249	BA 2250
Discovery 1	1994 on*	BA 2241	BA 2242	BA 2249	BA 2250

* Removal of lower suspension cups may be required.

DELPHI GAS SHOCK ABSORBERS

DELPHI PERFORMANCE SERIES

- These twintube performance shock absorbers use pressurized gas to deliver more precise valving and setting as well as superior heat resistance for off-road.
- Designed, engineered and manufactured to OE quality standards.
- Comprehensive twintube technology.



Est. UK 1958
Bearthmach
LAND ROVER PARTS

Monroe Gas Shock Absorbers (Standard Height)			
Model	Application	Front	Rear
Series III 88"	All models	BR 1486M	BR 1081M
Series III 109"	All models	BR 1486M	BR 1401M
90	All models	BR 0645M	BR 1077M
110	All models	BR 0645M	BR 1077M
Defender 90	All models	BR 0645M	BR 1077M
Defender 110	All models	BR 0645M	BR 1077M
Range Rover Classic	All models from (VIN) GA417085 to LA647644	BR 0645M	BR 1077M
Range Rover Classic	All models up to (VIN) GA417084	BR 3108M	BR 3109M
Range Rover Classic	All models from (VIN) MA647645 on	STC2849M	STC2850M
Range Rover Classic	Air suspension models	STC2832M	STC2833M
Range Rover P38	All models	STC1882M	STC1881M
Freelander 1	All models	BA 2117	BA 2118

MONROE GAS SHOCK ABSORBERS

COMFORT AND EFFICIENCY

The Monroe® Gas-Magnum® is designed for mid to full size, hard working Land Rovers. These units provide firm control without a harsh ride. With up to twice the fluid capacity of standard 1" bore shocks, Monroe Gas-Magnum shocks work more efficiently with less effort. These units provide firm control without a harsh ride.

Provides precise, proportional damping based on the speed of vehicle-to-road impact, ensuring the ideal balance of comfort and control for any driving condition.

Shock absorbers are quite possibly the most misunderstood part of any vehicle's essential systems most people don't even realise they're designed to keep your tyres in contact with the road! Your steering, stability, handling, ride comfort and brakes all rely on your shock absorbers to function at optimum levels. Monroe Shock absorbers provide safety and control for most of the vehicles on, and off, our roads.

HOW LONG DO SHOCK ABSORBERS LAST?

The way you drive, where you drive, what you drive, the loads you carry, the weather, many things can impact on shock absorber life - so there is no hard and fast answer to this question. However, Bearmach and other leading automotive experts recommend that you have a trained specialist inspect your shock absorbers for signs of wear every 20,000km/13,000 miles.

Super duty gas charged shock absorbers. Engineered for 4x4 and light commercial vehicles for on and off-road use. When you inspect the manufacturing, gruelling testing and quality control processes of these shock absorbers, you know that you are getting the best possible 4WD shock absorber replacement product.



Armstrong Oil Shock Absorbers (Standard Height)		
Model	Application	Rear
90	All models	BR 1077H
110	All models	BR 1077H
Defender 90	All models up to (VIN) WA159806	BR 1077H
Defender 110	All models up to (VIN) WA159806	BR 1077H
Discovery 1	All models up to (VIN) LA081991	BR 1077H
Range Rover Classic	All models from (VIN) GA417085 to LA647644	BR 1077H

ARMSTRONG OIL SHOCK ABSORBER (HEAVY DUTY)

Armstrong Oil filled standard height shock absorbers are fitted with a heavy duty valve.

Designed using special internal valving, the absorber is relatively soft to compression (allowing a soft response to a bump) and relatively stiff to extension, controlling "rebound", which is the vehicle response to energy stored in the vehicles springs.

Similarly, a series of valves controlled by internal springs change the degree of stiffness according to the velocity of the impact or rebound.

This budget unit is a heavy duty shock that can be used for towing or off-road use.

Armstrong Gas Shock Absorbers (Standard Height)			
Model	Application	Front	Rear
90	All models	BR 0645AG	BR 1077AG
110	All models	BR 0645AG	BR 1077AG
Defender 90	All models up to (VIN) WA159806	BR 0645AG	BR 1077AG
Defender 110	All models up to (VIN) WA159806	BR 0645AG	BR 1077AG
Discovery 1	All models up to (VIN) LA081991	BR 0645AG	BR 1077AG
Range Rover Classic	All models from (VIN) GA417085 to LA647644	BR 0645AG	BR 1077AG

ARMSTRONG GAS SHOCK ABSORBER

ANOTHER ONE OF OUR BEST SELLERS.

Armstrong gas standard height shock absorbers are pressurised with compressed nitrogen, to reduce the tendency for the oil to cavitate under heavy use. This eliminates foaming which temporarily reduces the damping ability of the unit. This budget unit is a very heavy duty shock that can be used for towing or off-road use.

Bilstein Gas Shock Absorbers (Standard Height)			
Model	Application	Front	Rear
90	All models	BA 2122	BA 2119
110	All models	BA 2122	BA 2119
Defender 90	All models	BA 2122	BA 2119
Defender 110	All models	BA 2122	BA 2119
Range Rover Classic	All models except air suspension	BA 2122	BA 2119
Range Rover P38	All models	BA 2122B	BA 2119B
Discovery 2	All models	BA 2119C	BA 2119D

BILSTEIN GAS SHOCK ABSORBERS

SHEER DRIVING ENJOYMENT

Driving a vehicle equipped with Bilstein Gas Pressure Shock Absorbers is an exhilarating experience. There is, quite literally, nothing like it. Unbelievable control and stability. Precise handling. Ultimate performance. And incredible comfort.

TECHNOLOGY

Over time, the mono-tube gas pressure technology developed by BILSTEIN has established itself as a standard in automotive construction. This technology involves keeping the oil in the shock absorber under pressure, the use of nitrogen ensures that the shock absorber oil is permanently under pressure which prevents it from foaming when temperatures and loads are increasing. As a result, full damping power is retained even when the system is placed under extreme stress, a feature that can be observed in the self-lowering piston.

Bilstein shock absorbers ensure a high level of traction and more precise handling.

With gas pressure shock absorbers, this loss of damping force does not occur. As a result, the driving performance of a car fitted with gas pressure shock absorbers can be precisely defined and remains reliably stable, whatever the situation; this constitutes a substantial bonus in terms of safety. Gas pressure shock absorbers are available with twin-tube technology. The proven twin-tube system represents top-class technology at an attractive price and improves the vehicle's overall driving performance and provides greater damping force, thereby improving safety and fun at the wheel, even under heavy load, for example, with high superstructures, gas units or when used with trailers.

Road-Tested by Bilstein.

TESTING

To achieve that celebrated Bilstein driving experience, engineers rely on not only technology that is truly at the cutting edge, but also something that has withstood the test of time: how it feels to the driver. As a result, all high-performance shock absorbers, undergo a rigorous testing programme.

On the Nürburgring and in their own test centre at the Papenburg off road test track, Bilstein drivers test how balanced the driving characteristics of various vehicles are in a variety of different driving situations.

Only when they have passed this programme of tests with distinction are they allowed to bear the Bilstein name. This way, they can guarantee that celebrated Bilstein driving experience.



OME Gas Shock Absorbers			
Model	Application	Front +25mm	Rear +25mm
Discovery 2	All models	BA 2228	BA 2229

OLD MAN EMU SHOCK ABSORBERS

THE DIFFERENCE

Old Man Emu's shock absorbers were specifically designed with Australia's unique driving conditions in mind, where vehicles are often heavily loaded, fitted with accessories and driven on harsh, outback roads for prolonged periods.

PERFORMANCE AND IMPROVEMENTS

Designed for superior performance across all terrain, an Old Man Emu shock absorber will provide noticeable improvements to your Land Rovers performance, including load carrying ability and control characteristics.



Est. UK 1958
Bearmach
LAND ROVER PARTS

Single Shock Absorber Brackets Front

Model	Front Standard	Front Short
Defender	BA 2156	BA 2156S
Discovery 1	BA 2156	BA 2156S
Range Rover Classic	BA 2156	BA 2156S

Twin Shock Absorber Brackets Front

Model	Front Standard	Front Short
Defender	BA 2157	BA 2157S
Discovery 1	BA 2157	BA 2157S
Range Rover Classic	BA 2157	BA 2157S

SHOCK ABSORBER BRACKETS FRONT

Off-road and arduous conditions can be bad enough to test the standard equipment on your Land Rover to the limit of their endurance. Coil sprung Land Rovers suffer from well known weak spots on the front and rear shock mounts.

When the turrets corrode, as they inevitably do, they cause the shock absorber to break off the turret.

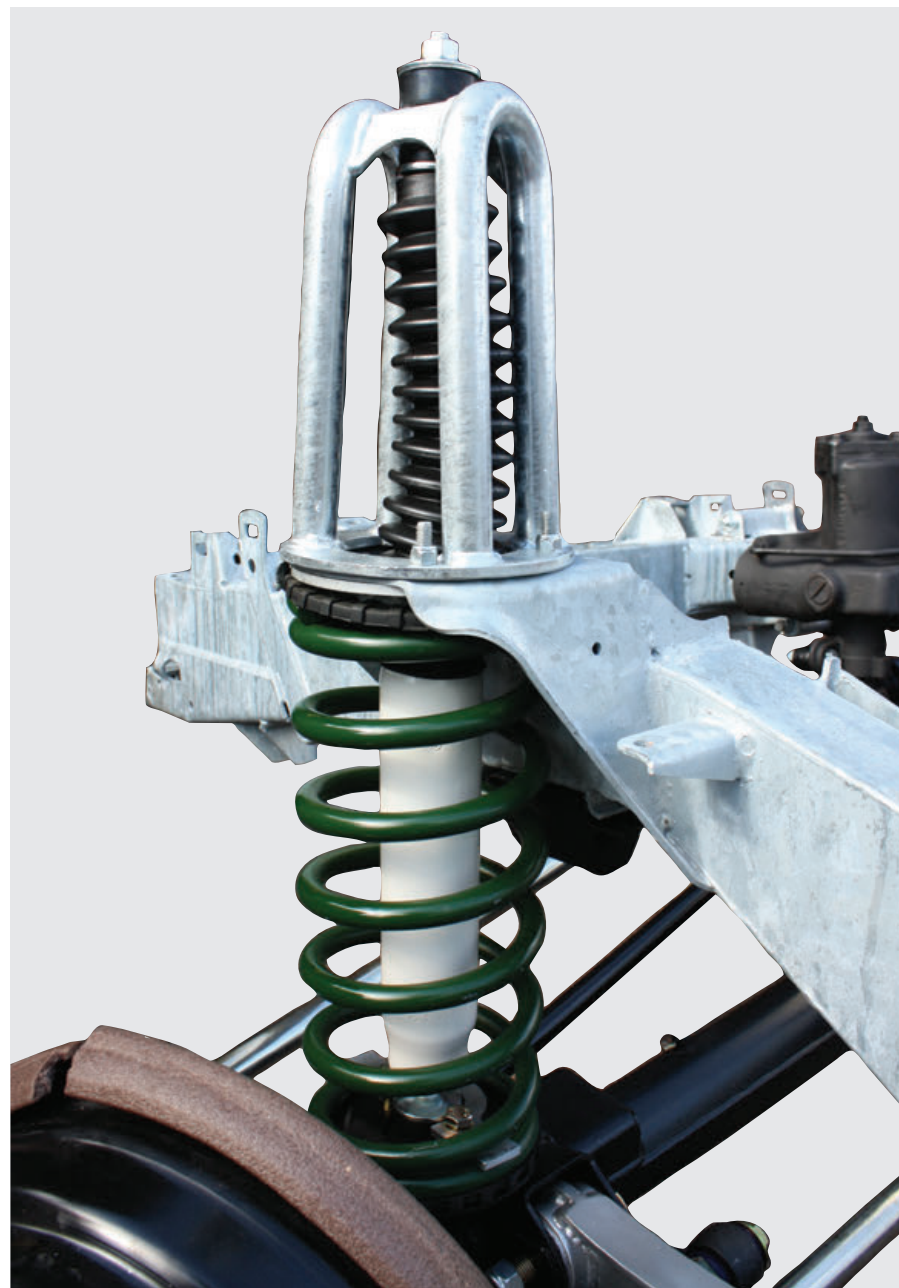
We have a solution - single or twin shock mounts.

FRONT SINGLE SHOCK ABSORBER BRACKET

Manufactured from heavy-duty steel and replaces the existing turret mount which is susceptible to corrosion by allowing a build up of dirt inside which is hard to clean thoroughly. The new design is harder wearing and easier to clean.

FRONT TWIN SHOCK ABSORBER BRACKET

Manufactured from the same quality steel as the single shock absorber bracket but allows for the fitment of an additional shock absorber. The benefits of having extra shock absorbers fitted to your Land Rover is that any extreme force encountered is divided between the two shock absorbers for a more comfortable ride for you and your passengers. Using twin shocks is also beneficial when carrying loads both on and off-road as it improves the load carrying ability of the vehicle.





Twin Shock Absorber Brackets Rear		
Model	Rear	Rear*
Defender	BA 2158	BA 2158B
Discovery 1	BA 2158	BA 2158B
Range Rover Classic	BA 2158	BA 2158B

*Lower axle bracket only

SHOCK ABSORBER BRACKETS REAR

These brackets are suitable for heavily laden expedition, fast off road vehicles, they will also give better handling for on road vehicles as it reduces shock stress and inherent heat build up.

Note: Rear brackets involve welding to fit.



Rear Shock Dropper		
Model	Description	Part Number
Defender	Shock dropper (rear)	BA 3656
Range Rover Classic	Shock dropper (rear)	BA 3656
Discovery 1	Shock dropper (rear)	BA 3656

SHOCK DROPPER

This pair of lowered rear top shock absorber mounts allow more suspension travel to keep the wheels in contact with the ground in extreme conditions.

A great way of increasing traction, even when using standard springs and shock absorbers.

Recommended use with dislocation cones and extended bump stops.

Made in the UK from high grade steel.

Can also be used with longer springs and longer stroke shock absorbers for extreme axle travel. Zinc coated for corrosion resistance, Recommended as a heavy duty or a direct replacement for original top mounts or twin mounts

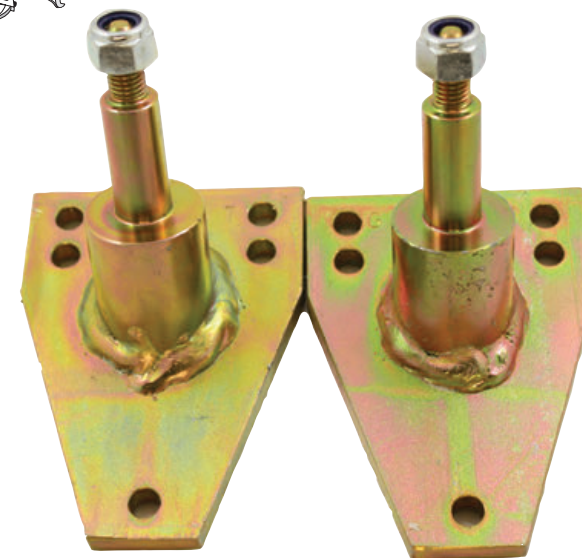


Suitable for use on all 1st Generation John Thompson Coil Sprung Chassis' Land Rovers.



TECH TIPS

We recommend new fixing nuts and bolts are used.



Est. UK 1958
Bearthmach
LAND ROVER PARTS

Dislocation Cone (Pair)				
Model	Front Standard	Rear Standard	Front Heavy Duty	Rear Heavy Duty
Range Rover Classic	BA 3650	BA 3651	BA 3650HD	BA 3651HD
Defender 90	BA 3650	BA 3651	BA 3650HD	BA 3651HD
Defender 110	BA 3650	BA 3653	BA 3650HD	
Discovery 1	BA 3650	BA 3651	BA 3650HD	BA 3651HD

DISLOCATION CONE

WHY ARE THEY NEEDED?

They ensure the front springs relocate after dropping away on full suspension articulation when using longer travel shocks or lowered front shock turrets. They will guide the spring back into the location cup if they pop out under extreme axle articulation. This clever product ensures your springs relocate correctly when using your Land Rover in extreme conditions.

Use in conjunction with spring retainers.

WHICH ONES DO YOU NEED?

Standard cones to be used for lifted vehicles using standard shock absorbers to gain extra travel with minimum alterations. Heavy duty cones to be used in extreme situations with long travel springs and shock absorbers.

Front and rear dislocation cones made in the UK.



Heavy Duty Retaining Plate		
Model	Description	Part Number
Defender	Retaining plate (rear)	NTC6106HD
Range Rover Classic	Retaining plate (rear)	NTC6106HD
Discovery 1	Retaining plate (rear)	NTC6106HD
Defender	Retaining plate (front)	BA 3652HD
Range Rover Classic	Retaining plate (front)	BA 3652HD
Discovery 1	Retaining plate (front)	BA 3652HD

HEAVY DUTY RETAINING PLATE

Bearmach heavy duty front and rear coil spring retainers are made in the UK from heavy duty precision laser cut 5mm steel. *Zinc Coated for Corrosion Resistance.*

These Coil Spring Retainers are a must have upgrade for the serious 'off roader'. Particularly when the suspension has been modified to increase the axle articulation. These clamps hold the bottom of the front coil spring firmly to the axle preventing it 'falling off' the vehicle when off-roading.

Also recommended for any spring replacement or relocation cones.

Suitable for all Coil Sprung Land Rover Defender, Discovery and Range Rover Classic models.



TECH TIPS

*Recommend new longer bolts and lock nuts.
New spring plates*



Heavy Duty Retaining Ring	
Model	Part Number
Defender	BA 2157A
Discovery 1	BA 2157A
Range Rover Classic	BA 2157A

HEAVY DUTY RETAINING RING

A MUST FOR UPGRADED SHOCKS.

These robust & heavy-duty turret rings are made to replace the existing standard turret rings.

Heavy-duty front shock turret securing rings are ideal for off road use. Suitable for use with tubular and twin front shock turret as the bolts aren't long enough on the standard rings.

Bearmach have designed and tested these rings as the standard rings are not adequate for an upgraded suspension system, they are made from high quality steel,



Supplied as single units

Tech Tip

*Use a metric M8 stud not the old UNF.
8mm nyloc nuts P/n BR 1250.*



Panhard Rod Assembly			
Model			Part Number
90	All models	RHD or LHD length adjustable for raised suspension	BA 3666
110	All models	RHD or LHD length adjustable for raised suspension	BA 3666
Defender 90	All models up to (VIN) 2A626645	RHD or LHD length adjustable for raised suspension	BA 3666
Defender 90	All models from (VIN) 2A626646 on	RHD	BA 3668
Defender 110	All models up to (VIN) 2A626645	RHD or LHD length adjustable for raised suspension	BA 3666
Defender 110	All models from (VIN) 2A626646 on	RHD	BA 3668
Range Rover Classic	All models	RHD or LHD length adjustable for raised suspension	BA 3666
Discovery 1	All models	RHD or LHD length adjustable for raised suspension	BA 3666
Discovery 2	All models up to (VIN) 2A999999	LHD	BA 3667
Discovery 2	All models from (VIN) 3A000001 on	LHD	BA 3665
Discovery 2	All models from (VIN) 3A000001 on	RHD	BA 3669

PANHARD ROD ASSEMBLY

The sole purpose of a panhard bar fitted to first generation Land Rover coil chassis is to solidly locate the axle in such a way as to eliminate any lateral movement and to avoid any interference with vertical movement. While the concept is simple, the execution is very complicated because the geometry of the system must be exactly right or else the panhard bar will cause more problems than it cures. Especially when you alter the distance from the axle to the chassis.

The panhard bar must naturally follow the arc of the suspension and steering as the axle articulates up and down. Nowhere in the suspension's travel may the panhard bar work against the springs or the radius arms, otherwise binding, bump steer and overexertion damage could occur.

Bolted to the steering box support arm and located into the axle on the opposite side, the bar must be set to the proper length and should be as close to optical length to centralise the axle to the chassis.

Bearmach recommend this adjustable panhard bar for a range of different lift heights you can centralise your axle to your chassis for an improved steering feel and stop your Land Rover crabbing and pulling to one side.

This heavy duty constructed, high grade steel, zinc coated panhard rod is constructed and tested in Australia. Supplied with heavy duty bushing.



Tech tips
Replace fixing nuts and bolts.
Lightly grease the threaded components.



Diff Ball Joint Adjustable	
Model	Part Number
Defender	TRE 76RS
Range Rover Classic	TRE 76RS
Discovery 1	TRE 76RS

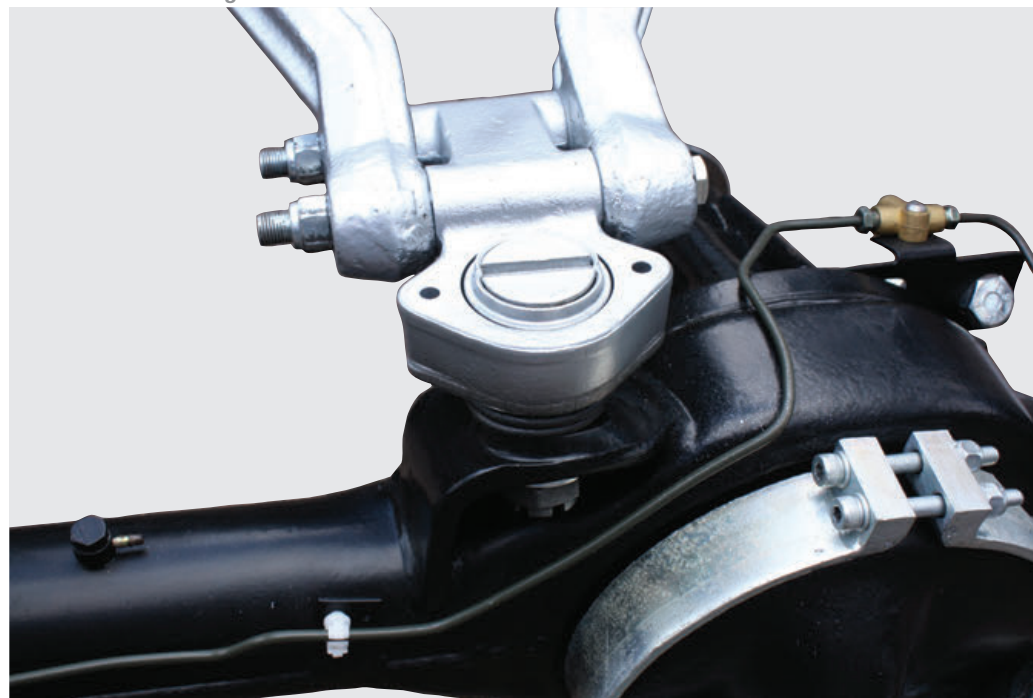
ADJUSTABLE BALL JOINT "THE ORIGINAL"

Bearmach's heavy duty adjustable axle bracket ball joints are made out of top grade steel. As they wear (as all these ball joints do) you are able to adjust them to take up any slack. Replacing these is one of the worse jobs to do on a Land Rover, so being able to increase their life span is a extra bonus.

They also come with another benefit - increased articulation. There is more available movement in these ball joints than standard units, therefore they work perfectly with extreme/lifted suspension by allowing even more axle travel.



Tech tip
Assemble with copper grease on external surfaces use new retaining bolts and nuts.



Est. UK 1958
Bearmach
LAND ROVER PARTS

QT Radius Arm			
Model		Camber	Part Number
90	All models	Standard	BA 3670
90	All models with 2" lift kit	3°	BA 3671
90	All models with 4" lift kit	6°	BA 3672
110	All models	Standard	BA 3670
110	All models with 2" lift kit	3°	BA 3671
110	All models with 4" lift kit	6°	BA 3672
Defender 90	All models	Standard	BA 3670
Defender 90	All models with 2" lift kit	3°	BA 3671
Defender 90	All models with 4" lift kit	6°	BA 3672
Defender 110	All models	Standard	BA 3670
Defender 110	All models with 2" lift kit	3°	BA 3671
Defender 110	All models with 4" lift kit	6°	BA 3672
Range Rover Classic	All models	Standard	BA 3670
Range Rover Classic	All models with 2" lift kit	3°	BA 3671
Range Rover Classic	All models with 4" lift kit	6°	BA 3672
Discovery 1	All models	Standard	BA 3670
Discovery 1	All models with 2" lift kit	3°	BA 3671
Discovery 1	All models with 4" lift kit	6°	BA 3672

When first generation coil sprung Land Rovers are lifted the caster angle alters, giving vagueness and a lack of self-centring of the steering. This must be altered as the axle is not in parallel to the chassis and caster correction arms are the best way to combat this. Manufactured for extreme durability with QT's own unique 'I' beam construction. Also fitted with a rock slider/stiffener to give maximum protection. These arms are cranked at both ends to allow the chassis bush to be unstressed and at the axle end to prevent lockup on extreme articulation.

With QT logo

For vehicles with 2 inches of suspension lift, we recommend 3° caster corrected radius arms to return the steering to the correct geometry.

For vehicles with over 2 inches of suspension lift, we recommend the 6° castor corrected radius arms.

These front radius arms are designed to accept the 45mm wide bushes that have been fitted from around 1992.



Tech tips.

Make sure that the correct bushes are fitted.

Replace all nylocs and bolts.



Bearnmach Radius Arm			
Model		Camber	Part Number
90	All models with 2" lift kit	3°	BA 3671R
110	All models with 2" lift kit	3°	BA 3671R
Defender 90	All models with 2" lift kit	3°	BA 3671R
Defender 110	All models with 2" lift kit	3°	BA 3671R
Range Rover Classic	All models with 2" lift kit	3°	BA 3671R
Discovery 1	All models with 2" lift kit	3°	BA 3671R

For vehicles with 2 inches of suspension lift, we recommend 3° caster corrected radius arms to return the steering to the correct geometry. These arms are our performance replacements without the rock slider. *No logo.*

For vehicles with over 2 inches of suspension lift, we recommend the 6° castor corrected radius arms.

QT Trailing Arm Rear Heavy Duty (Rose Jointed)		
Model		Part Number
90	All models	BA 3676
110	All models	BA 3676
Defender 90	All models	BA 3676
Defender 110	All models	BA 3676
Range Rover Classic	All models	BA 3676
Discovery 1	All models	BA 3676

ROSE JOINT TRAILING ARM

Designed, made and race proven in the UK by QT. These rose jointed heavy duty trailing arms are suitable for lifts from 50mm/2" to 100mm/4". These arms have been designed to maximise the axle articulation by allowing greater trailing arm twist.

Fitted with high grade rose joints and supplied complete with dust seals and all chassis mountings. These arms will provide maximum performance for the rear of your vehicle.



Tech Tips

We recommend all nuts and bolts are renewed.



Bearmach Trailing Arm Rear Heavy Duty		
Model		Part Number
90	All models	BA 3676R
110	All models	BA 3676R
Defender 90	All models	BA 3676R
Defender 110	All models	BA 3676R
Range Rover Classic	All models	BA 3676R
Discovery 1	All models	BA 3676R

TRAILING ARM (NO ROSE JOINT)

High quality type without the rose joint, utilising the standard triangular bush fitting and the standard axle trailing arm bush, these will have to be purchased separately.



TECH TIPS

We recommend all nuts and bolts are renewed.

For total performance fit Bearmach Polyurethane bushes.



Anti Roll Bar		
Model		Part Number
Defender 90	All models from (VIN) MA960430 on	BA 2220
Defender 110	All models from (VIN) MA960430 to WA159806	BA 2220

Cranked Rear Trailing Arm		
Model		Part Number
Defender	All models	BA 3655
Discovery	All models	BA 3655
Range Rover Classic	All models	BA 3655



Est. UK 1958
Bearthmach
LAND ROVER PARTS

Quick Ratio Steering Box		
Model	Part Number LHD	Part Number RHD
Defender	BA 226	BA 225
Discovery 1	BA 226	BA 225
Range Rover Classic	BA 226	BA 225

QUICK RATIO STEERING BOXES

With only 2.8 turns lock to lock, these steering boxes offer a quicker response when needing to turn to full lock.

This Advest steering box is engineered to be the ultimate in bolt-on power steering performance for those Land Rovers used for on and off-road driving.

Designed to give the most powerful and nimble steering with the least amount of effort, the box features the largest piston available and a special spool valve to increase turning force.

Total bearing control locks in the sector shaft for smooth steering.

WHY DO YOU NEED IT?

If you're increasing engine output, suspension performance, and braking power, you need a steering system that keeps up with vastly improved vehicle performance. The 4 bolt box will fit with NO modifications to the original chassis-member and is a direct bolt in to the factory mounting location.

With 2.8 turns rather than 3.5 turns lock-to-lock. This box will give you a tighter and more responsive firm modern feel.



TECH TIPS

1. We recommend replacing the PAS pump if worn.
2. Check all other steering/suspension components for wear.
3. Replace all nyloc nuts and tab washers where necessary.
4. Prime pump and bleed box as per workshop manual
5. Use new high grade steering fluid.
6. Flush out old steering fluid before fitting.
7. We recommend a wheel alignment check.
8. When replacing steering box, fit a new steering damper

For 3 or 6 bolt steering boxes you will need the adaptor to convert to a 4 bolt, Part Number: BA 3110



Note: Warranty void if used off road

Heavy Duty Steering Rod		
Model		Part Number
90	All models	BA 220
110	All models	BA 220
Defender 90	All models up to (VIN) JA917433	BA 220
Defender 110	All models up to (VIN) JA917433	BA 220
Range Rover Classic	All models up to (VIN) JA615503	BA 220
Range Rover Classic	All models from (VIN) JA615504 on	BA 222
Discovery 1	All models up to (VIN) JA018174	BA 220
Discovery 1	All models from (VIN) JA 018175 on	BA 222
Discovery 2		BA 2240

HEAVY DUTY STEERING ROD

If you're using your Land Rover in extreme conditions or on road the steering is one item that cannot fail. Clearance is an important factor for Performance off-road driving. The lowest points of the vehicle will inevitably make contact with the ground at some stage while driving in ruts or on rocks and tree stumps. The steering rods on Land Rover are very vulnerable and can easily get bent. Affecting tracking alignment and steering ability. Bent steering rods can cause excessive tyre wear and poor handling. The original bars can easily be damaged whether you're on an expedition safari or rambling down a rutted trail, fitting Bearmach track rods are an essential upgrade to any Land Rover. These steering Rods are made from solid high grade steel and are supplied with precisely machined left and right hand threads, locking nuts and Bearmach's quality greaseable track rod ends.

Kit contains:

2 x high density rods

3 x lock nuts

3 x greaseable track rod ends

Bolt on steering bracket available BA 220B for pin /pin steering damper.

Discovery 1/Range Rover Classic

This is recommended to stop the steering wheel shake (death rattle) that can occur at higher speeds.



TECH TIPS

We recommend that all other steering components are in a suitable condition i.e. swivel hubs, steering box and the damper.

Ensure tracking is set correctly.



Delphi Heavy Duty Steering Damper	
Model	Part Number
Defender	BA 2248
Discovery 1	BA 2247
Range Rover Classic	BA 2247

HEAVY DUTY STEERING DAMPERS

Extensively developed and tested, these state of the art gas steering dampers are far superior to the standard oil filled units, giving a much smoother transition on lock to lock and smoother dampening in a straight line.



Aluminium Power Steering Reservoir Tank	
Model	Part Number
Defender	BA 2323
Discovery 1	BA 2323
Range Rover Classic	BA 2323

ALUMINIUM POWER STEERING RESERVOIR TANK

Whether you want to up-grade for better cooling for your PAS system, finish off the look of a performance engine bay, or you just want to replace the dull, plastic OEM tank, this high grade race specification aluminium reservoir tank is a perfect solution.

This Allisport PAS reservoir tank is guaranteed to improve the performance and aesthetics of your Land Rovers PAS with its polished aluminium finish.

A direct replacement for the original. (P/n ANR1998)



Est. UK 1958
Bearthmach
LAND ROVER PARTS

ARB Diff Air Lockers

Model		Year	Diff Type	Spline	Ratio	Part Number	Note
Series I,II,IIA,III	Front	1948-1983	Rover type	10	4.7	BA 205	2+3
Series I,II,IIA,III	Rear	1948-1983	Rover type	10	4.7	BA 205	2+3
Series I,II,IIA,III	Rear	1948-1983	Salisbury	24	4.7	BA 206	
Defender 90	Front	1984-1993	Rover type	10	3.54	BA 205	1
Defender 90	Front	1993on	Rover type	24	3.54	BA 205A	1+4
Defender 90	Rear	1984-1993	Rover type	10	3.54	BA 205	1
Defender 90	Rear	1993on	Rover type	24	3.54	BA 205A	1
Defender 90 (including Puma)	Rear	2002on	Rover type-P38 variant	24	3.54	BA 204	4+5
Defender 110/130	Front	1984-1993	Rover type	10	3.54	BA 205	1
Defender 110/130	Front	1993on	Rover type	24	3.54	BA 205A	1+4
Defender 110/130	Rear	1983-2002	Salisbury	24	3.54	BA 206	
Defender 110/130	Rear	2002on	Rover type	24	3.54	BA 205A	4
Defender 110/130 (including Puma)	Rear	2002on	Rover type-P38 variant	24	3.54	BA 204	4+5
Range Rover Classic	Front	To 1993	Rover type	10	3.54	BA 205	1+3
Range Rover Classic	Front	1993-1996	Rover type	24	3.54	BA 205A	1+4
Range Rover P38	Front	1994-2001	Rover type	24	3.54	BA 204	4+5
Range Rover Classic	Rear	To 1993	Rover type	10	3.54	BA 205	1+3
Range Rover Classic	Rear	1993-1996	Rover type	24	3.54	BA 205A	1+4
Range Rover P38	Rear	1994-2001	Rover type	24	3.54	BA 204	4+5
Discovery 1	Front	To 1993	Rover type	10	3.54	BA 205	1
Discovery 1	Front	1993-1998	Rover type	24	3.54	BA 205A	1+4
Discovery 1	Rear	To 1993	Rover type	10	3.54	BA 205	1
Discovery 1	Rear	1993-1998	Rover type	24	3.54	BA 205A	1+4
Discovery 2	Front	1998-2004	Rover type	24	3.54	BA 205A	1+4
Discovery 2	Rear	All	Rover type	24	3.54	BA 205A	4
Discovery 2	Rear	All	Rover type-P38 variant	24	3.54	BA 204	4+5

Notes:

1. If vehicle made in 1993, check spline count
2. Spacer ring required BA 205SA
3. Imperial bearing sleeves required BR 2051R
4. Some crown wheel bolts may need to be replaced
5. Spacer ring required BA 205S

DIFF AIR LOCKERS

Air Locker locking differentials allow you to tackle the toughest terrain. As the world's premier traction aid, ARB Air Lockers keep your Land Rover moving in all conditions.

DESIGN & ENGINEERING

A relentless commitment to research and design, the use of quality materials, and an uncompromising approach to manufacturing have all contributed to the Air Locker's success in over 100 countries worldwide. The patented design of the ARB Air Locker is extremely strong, with structural components manufactured from aerospace grades of high alloy steel.

The design process of an Air Locker involves countless hours of testing. Computerised Finite Element Analysis (FEA) allows the designer to subject each Air Locker design to 'virtual' off road driving stress simulations much more extreme than those experienced in real life, including extreme temperatures and harsh wheel spin.

TESTING

Prototypes are tested to ensure the strength of the Air Locker exceeds that of the axles or other driveline components. Finally, field testing is carried out with units being fitted to 4WDs that operate in the harshest environments imaginable. Once this exhaustive design phase is complete, Air Lockers are manufactured in Australia by ARB, and sold throughout the world.

THE REQUIREMENT

Many people believe that 4WD and traction go hand in hand... you can't have one without the other. However, your vehicle's standard (or open) differential is designed to allow each wheel to turn independently, thus eliminating binding during turns. Off road, this becomes a major burden as engine power will take the path of least resistance, which occurs at the wheels with little or no traction.

Newer vehicles with limited slip differentials may offer some improvement, but more often you'll find the slipping is not 'limited' enough to maintain forward progress. Automatic locking differentials also have their disadvantages. Aside from being noisy when disengaging, they can also upset the on-highway driving characteristics of your vehicle.

SIMPLICITY

Created to give your Land Rover 100% traction on demand, without sacrificing any of your vehicle's road driving performance, ARB Air Lockers need a 12 volt air compressor designed to activate (and deactivate) a solid and durable locking mechanism inside the differential. This gives you the traction you need, when you need it, all at the flick of a switch, and all from the safety and comfort of the driver's seat.

HOW IT WORKS

The advantage of the ARB Air Locker lies in the pneumatically operated locking system inside the differential. When activated, the Air Locker prevents the differential gears from rotating and therefore prevents the axle shafts from turning independently of each other. With both wheels tied directly to the rotation of the crown wheel, the vehicle maintains maximum possible traction at all times. When unlocked, it operates just like a conventional 'open' differential.

In addition to providing outright improvements to a 4x4's off road capabilities, the Air Locker offers significant environmental benefits. An Air Locker equipped vehicle can be driven in a slower, safer and more controlled manner, greatly reducing the likelihood of vehicle damage and environmental impact.

Installation

Air Lockers can be installed in both the front and rear axles.

No special tools or skills are required apart from those necessary for fitting a standard differential.



Est. UK 1958
Bearthmach
LAND ROVER PARTS

Diff Lockers					
Model		Spline/Diff		Brand	Part Number
Series	True Trac	10/Rover	Front	Bearmach	BA 209F
Series	True Trac	10/Rover	Rear	Bearmach	BA 209
Series	Detroit Locker	10/Rover		Bearmach	BA 207
Series	Detroit Locker	Salisbury	Rear	Bearmach	BA 208
Defender	Detroit Locker	10/Rover		Bearmach	BA 207
Defender	Detroit Locker	24/Rover		Bearmach	BA 207A
Defender	Detroit Locker	Salisbury	Rear	Bearmach	BA 208
Defender	True Trac	24/Rover	Front	Bearmach	BA 209AF
Defender	True Trac	24/Rover	Rear	Bearmach	BA 209A
Defender	True Trac	10/Rover	Front	Bearmach	BA 209F
Defender	True Trac	10/Rover	Rear	Bearmach	BA 209
Defender	True Trac	Salisbury		Eaton	BA 209S
Range Rover Classic	True Trac	10		Bearmach	BA 209
Range Rover Classic	True Trac	10	Front	Bearmach	BA 209F
Range Rover Classic	True Trac	24	Front	Bearmach	BA 209AF
Range Rover Classic	True Trac	24	Rear	Bearmach	BA 209A
Range Rover Classic	Detroit Locker	10		Bearmach	BA 207
Range Rover Classic	Detroit Locker	24		Bearmach	BA 207A
Discovery 1	True Trac	10	Front	Bearmach	BA 209F
Discovery 1	True Trac	10	Rear	Bearmach	BA 209
Discovery 1	True Trac	24	Front	Bearmach	BA 209AF
Discovery 1	True Trac	24	Rear	Bearmach	BA 209A
Discovery 1	Detroit Locker	10		Bearmach	BA 207
Discovery 1	Detroit Locker	24		Bearmach	BA 207A
Discovery 2	True Trac	24	Front	Bearmach	BA 209AF
Discovery 2	True Trac	24	Rear	Bearmach	BA 209A
Discovery 2	Detroit	24		Bearmach	BA 207A

TRUETRAC DIFFERENTIAL

The Eaton Detroit Truetrac® limited-slip differential is the pioneer in helical gear based traction technology. Wheel spin out is limited by the differential, which employs pinion and side-gear separation forces to automatically transfer torque to the wheel with the best traction. Mobility, stability and handling are enhanced, and drivers can be confident knowing that up to 3.5 times more torque is being transferred to the high-traction wheel. Operation of the Truetrac® is smooth and quiet, and the unit will engage without any driver knowledge or action required. It also has no wearable parts and requires no maintenance, meaning a lower overall cost for the customer.

TRUETRAC® OPERATION

The Truetrac® operates as a standard or open differential under normal driving conditions, allowing one wheel to spin faster or slower as necessary. When a wheel encounters a loss of traction, the gear separation forces take effect and transfers torque to the high-traction wheel. The helical-shaped pinion gears continue to mesh with the side gears with increasing force until wheel spin is slowed or completely stopped. When the vehicle exits the low traction situation, the separation forces cease and the differential resumes normal operation.

- Smooth operation
- Performs open until needed
- Fully automatic limited slip

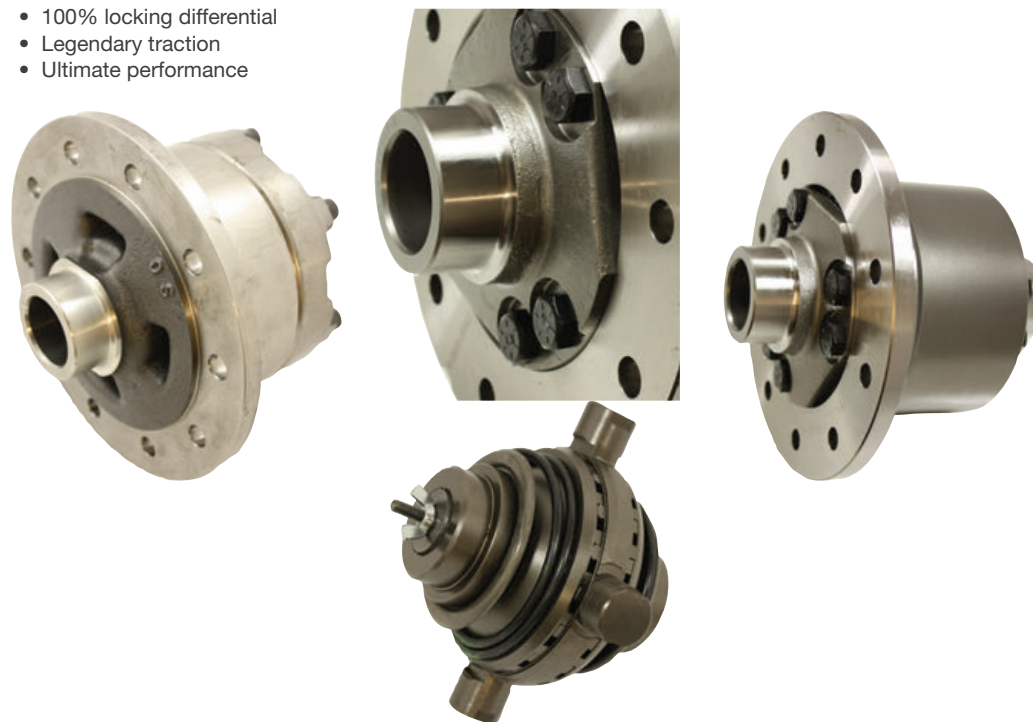
DETROIT LOCKER DIFFERENTIALS

The legendary Detroit Locker began the revolution in performance differentials and still leads the industry today as an Eaton brand. The Detroit Locker is the most durable and dependable locking differential available.

The Detroit Locker maximises traction by delivering 100% of the torque to both drive wheels. It is engineered to keep both wheels in a constant drive mode, and has the ability to automatically allow wheel speed differentiation when required.

No other performance differential has the reputation for delivering traction in mud, snow, rocks and on the track. The choice of professional racers and off-road enthusiasts around the world! The durability of the Detroit Locker is unmatched!

- 100% locking differential
- Legendary traction
- Ultimate performance



Diff Spacer Ring (4:7:1 Diffs)			
Model			Part Number
Series	Bearing carrier	(Imperial)	BA 2051R
Series		Including bolts	BA 205SA
Defender 110	02MY on	Including bolts	BA 205S
Range Rover P38		Including bolts	BA 205S
Discovery 2		Including bolts	BA 205S

DIFF LOCK SPACER RING

4:7:1 Spacer ring, to fit a 4:7 ring and pinion to a 3.54 ratio diff centre.

Performance differentials are made to fit the more common 3.54 ratio, if you are fitting 4:7 ratio gears, the crown wheel offset is different and you will need to use one of these spacers.



Crown Wheel and Pinion			
Model		Type	Part Number
Series III	4.12	Front	BA 5700F
Series III	4.12	Rear	BA 5700
Defender	4.12	Front	BA 5700F
Defender	4.12	Rear	BA 5700
Discovery 1	4.12	Front	BA 5700F
Discovery 1	4.12	Rear	BA 5700
Range Rover Classic	4.12	Front	BA 5700F
Range Rover Classic	4.12	Rear	BA 5700

CROWN WHEEL AND PINION

We are very pleased to announce Heavy Duty ring and pinions for the Rover axle,

These high performance ring and pinion gear sets are made using the highest quality metals and the latest high tech machining processes to make them the strongest, longest lasting, differential gears on the market.

They are available for almost every Land Rover in a wide range of ratios to meet the needs for the hard core off-roader, a high performance racer, or even your expedition vehicle.



Compressor for ARB Diff Lockers	
Model	Part Number
Various	BA 215

COMPRESSOR FOR ARB DIFF LOCKERS

ARB air compressor provides many advantages, air compressors suitable for numerous tasks including ARB Air Locker activation. Can be adapted to inflate tyres with our BA 215A. Tyres perform best when they're set at a pressure that's appropriate for the terrain. While road use calls for a relatively high pressure rate, lowering your air pressure will dramatically improve your Land Rovers traction in a range of off road environments.

Compressed air allows you the freedom to adjust the tyre inflation level of your vehicle to suit the conditions.

An equally beneficial feature is the ability to re-inflate tyres that have been repaired – in gruelling off road conditions, it's not unusual to get several punctures in one day. And when coupled with good quality tyre repair equipment, an ARB air compressor provides the off road traveller with independence and peace of mind.



CV Joint and Shaft Assembly		
Model		Part Number
Discovery 2	Front	BA 5748
Discovery 2	Rear	BA 5749

CV JOINT AND SHAFT ASSEMBLY

There has for some time been a need for stronger CV joints especially with the recent trend of fitting 35" tyres or similar. We have manufactured the CV from scratch using improved materials, the inner cage is made from 300M and the bell is from 4340 alloy steel. There are a number of design changes which have been incorporated to produce a CV far exceeding the strength of anything else on the market.

These units have been subject to some very thorough testing in the UK and Europe and allow the driver to confidently use the front locker when on full steering lock even with the vehicle on it's nose. These CVs are ABS compatible.



Est. UK 1958
Bearmach
LAND ROVER PARTS

Ashcroft

Model			CV Joint	Front Shaft 23/24S (Pair)	Rear Shaft 24/24S (Pair)	Drive Flange (Front/Rear)
Defender 90	Turbo Diesel (Circa 1989) 200Tdi up to (VIN) KA930455	See note 1	BA 5764	BA 5752	BA 5750	BR 0645A
Defender 90	200Tdi from (VIN) LA930456	See note 1	BA 5760	BA 5752	BA 5758	FTC859A
Defender 90	300Tdi / Td5 / 2.4Tdc	See note 5	BA 5760	BA 5752	BA 5758	FTC859A
Defender 110	Turbo Diesel (Circa 1989) 200Tdi up to (VIN) KA930455	See note 1	BA 5764	BA 5752		BR 0645A
Defender 110	200Tdi from (VIN) LA930456	See note 1	BA 5760	BA 5752	BA 5751	FTC859A
Defender 110	300Tdi (non ABS) / Td5 up to (VIN) 2A638164 (Salisbury)	See note 2&5	BA 5760	BA 5752	BA 5751	FTC85A
Defender 110	300Tdi (ABS) / Td5 up to (VIN) 2A638164 (Salisbury)	See note 2&5	BA 5761	BA 5752	BA 5751	FTC859A
Defender 110	Puma (Non ABS) / Td5 from (VIN) 2A638165 (Wolf/P38 variant)	See note 2&5	BA 5760	BA 5752	BA 5758	FTC859A
Defender 110	Puma (ABS) / Td5 from (VIN) 2A638165 (Wolf/P38 variant)	See note 2&5	BA 5761	BA 5752	BA 5758	FTC859A
Discovery 1	Up to (VIN) JA032850 (Non ABS)	See note 3	BA 5764	BA 5752	BA 5750	BR 0645A
Discovery 1	From (VIN) JA032851 (Non ABS)	See note 3	BA 5760	BA 5752	BA 5758	FTC859A
Discovery 1	From (VIN) JA032851 (ABS)		BA 5761	BA 5752	BA 5758	FTC859A
Range Rover Classic	Up to (VIN) CA-JA624516 (Non ABS)	See note 1&3	BA 5764	BA 5752	BA 5750	BR 0645A
Range Rover Classic	(VIN) CA-KA624756 on (Non ABS)	See note 1&3	BA 5760	BA 5752	BA 5758	FTC859A
Range Rover Classic	(ABS)	See note 7	BA 5761	BA 5752	BA 5758	FTC859A

- Note 1: If replacing standard stock 10 spline you will also require some form of 24 spline diff centre.
- Note 2: Our CV joints can only be fitted with our or other 23 spline shafts. If your rear shafts have integral flanges it will be necessary for you to fit other flanges.
- Note 3: To fit our CV joints you will need to purchase modified stub axles (part no.Mod stubs) & you will need our BR 0465A to fit.
- Note 4: The standard shafts have integral flanges and it will be necessary for you to fit our modified flanges.
- Note 5: The CV joint ABS style can only be fitted with our range of shafts.
- Note 6: If you have a 32 spline at the CV end of the shaft you will have to also fit our front shafts.
- Note 7: You will also require 2 x FTC5268 oil seal.

HEAVY DUTY SHAFTS

Defender front half shafts use a 24/23 spline shaft and can only be used with the original CV joint to 1989 model. For later models it is either necessary to retro fit the earlier joint, and change the hub assembly, or to use a special CV joint for the conversion.

Rear shafts require the use of heavy duty driving members BR 0645A (pre 1989) or FTC859A (1989 on).

HEAVY DUTY FLANGE


Bearmach's heavy duty drive flanges are made from superior quality steel compared to the originals with increased spline contact area for additional strength. They also have a removable steel threaded dust cap. *Manufactured from upgraded materials (EN24T) to reduce spline wear, zinc coated to resist corrosion and with spin on caps.*

FTC859A

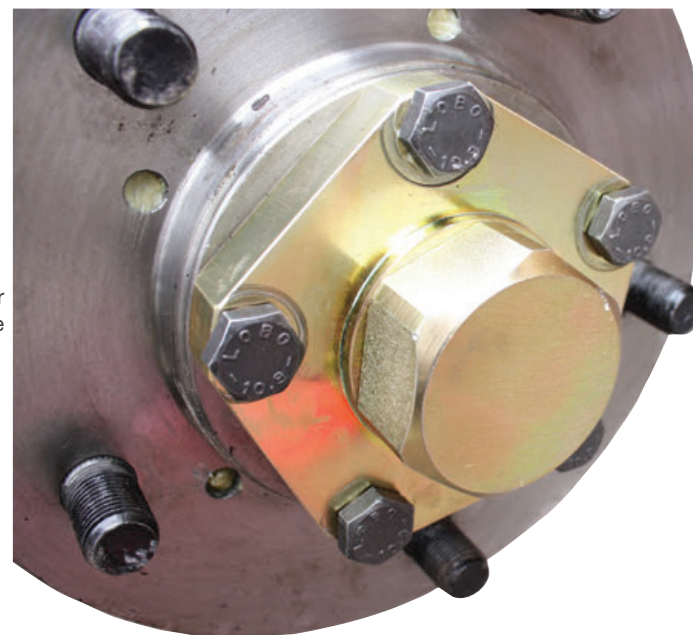
This type is to replace the later thinner flange as fitted to the 300Tdi/ Td5 Defender and Discovery. These replace the Land Rover part number FTC859 which supersedes to RUC105200.

BR 0465A

This type is to replace the earlier thicker flange as fitted to the early Defenders, replacing the Land Rover part number FRC5806.

 **Tech tips**
Use hylomar to seal thread on locking nut
FTC859AN spare nut for member.
We recommend new flange bolts

Model		Part Number
Various	Driving member nut	FTC859AN





EBC Ultimax Brake Pads Axle Sets			
Model			Part Number
90	All models	Front, non vented	BA 2197
110	RHD to to (AXLE) 20L21632B	Front	BA 2201
110	RHD from (AXLE) 20L21633B	Front	BA 2202
110	LHD up to (AXLE) 21L18648B	Front	BA 2201
110	LHD from (AXLE) 21L18649B	Front	BA 2202
Defender 90	All models up to (VIN) KA930455	Front, non vented	BA 2197
Defender 90	All models from (VIN) HA701010 on	Front	BA 2202
Defender 110	All models	Front	BA 2202
Defender 110	All models from (VIN) LA930456 to 1A614447	Rear, solid discs	BA 2200
Range Rover Classic	All models from (VIN) GA399973 on	Front, vented, with sensors	BA 2194
Range Rover Classic	All models from (VIN) CA on	Rear, with sensors	BA 2198
Range Rover Classic	All models from (VIN) CA to FA399972	Front, non vented	BA 2199
Range Rover P38	All models	Front	BA 2196
Range Rover P38	All models	Rear	BA 2195
Range Rover L322	All models up to (VIN) 4A159170	Front, less armoured	BA 2217
Range Rover L322	3.6L V8 diesel from (VIN) 6A228067 to 9A999999	Front	BA 2216
Range Rover L322	4.2L AJ V8 supercharged petrol from (VIN) 6A228067 to 9A999999	Front	BA 2216
Range Rover L322	All models from (VIN) 6A000001 to 9A999999	Rear	BA 2213
Range Rover L322	3.6L V8 diesel from (VIN) BA333986 on	Rear	BA 2213
Range Rover L322	5.0L SGDI NA V8 petrol from (VIN) BA333986 on	Rear	BA 2213
Range Rover Sport	4.2L AJ V8 supercharged petrol up to (VIN) 9A999999	Front	BA 2216
Range Rover Sport	3.6L V8 diesel up to (VIN) 9A999999	Front	BA 2216
Range Rover Sport	3.6L V8 diesel from (VIN) AA000001 to BA264632	Front	BA 2218
Range Rover Sport	5.0L SGDI NA V8 petrol engine from (VIN) AA000001 to BA264632	Front	BA 2218
Range Rover Sport	4.4L AJ V8 petrol up to (VIN) 9A999999	Front	BA 2212
Range Rover Sport	2.7 Lion V6 diesel up to (VIN) 9A999999	Front	BA 2212
Range Rover Sport	All models up to (VIN) 9A999999	Rear	BA 2213
Range Rover Sport	All models with 3.6L V8 diesel	Rear	BA 2213
Range Rover Sport	5.0L SGDI NA V8 petrol from (VIN) AA000001 on	Rear	BA 2213
Discovery 1	All models from (VIN) KA034314 on	Front, vented, with sensors	BA 2194
Discovery 1	All models	Front, non vented	BA 2197
Discovery 1	All models up to (VIN) KA034313	Front, non vented	BA 2199
Discovery 1	All models	Rear, with sensors	BA 2198
Discovery 2	All models	Front	BA 2196
Discovery 2	All models	Rear	BA 2195

EBC Ultimax Brake Pads Axle Sets			
Model			Part Number
Discovery 3	All models	Front	BA 2212
Discovery 3	All models	Rear	BA 2213
Discovery 4	5.0L SGDI NA V8 petrol from (VIN) AA000001 to BA 553135	Front	BA 2218
Discovery 4	3.0L AJ133 diesel from (VIN) AA000001 to BA 553135	Front	BA 2218
Discovery 4	2.7L Lion V6 diesel	Front	BA 2212
Discovery 4	4.0L Cologne V6 petrol	Front	BA 2212
Discovery 4	2.7L Lion V6 diesel	Rear	BA 2213
Discovery 4	4.0L Cologne V6 petrol	Rear	BA 2213
Discovery 4	5.0L SGDI NA V8 petrol	Rear	BA 2213
Discovery 4	3.0L AJ133 diesel	Rear	BA 2213
Freelander 1	All models up to (VIN) YA999999	Front	BA 2193
Freelander 1	All models from (VIN) 1A000001 on	Front	BA 2193B
Freelander 2		Front	BA 2214A

EBC[®] Ultimax[®] BRAKES

Premium OE replacement pad, the worlds first totally ECO friendly pad containing no heavy metals or sulphides. New AF42/66 friction material which prevents heat expansion cracks and reduces brake noise.

Unique powder coat finish to both pad and back plate, gives lifetime resistance to corrosion and prevents moisture ingress.

All pads feature edge chamfers which have major technical benefits, chamfers prevent "edge lifting" under left and right extremities of pad which can cause corrosion ingress and eventual pad de-bond. EBC's research has shown that chamfers can actually extend pad life by virtue of improved pad efficiency.



100% British Made

EBC Greenstuff Brake Pads Axle Sets			
Model			Part Number
110	RHD from (AXLE) 20L21633B	Front	BA 2202A
110	LHD from (AXLE) 21L18649B	Front	BA 2202A
Defender 90	All models up to (VIN) KA930455	Front	BA 2197A
Defender 90	All models from (VIN) HA701010 on	Front	BA 2202A
Defender 110	All models	Front	BA 2202A
Defender 110	All models from (VIN) LA930456 to 1A614447	Rear	BA 2200A
Range Rover Classic	All models from(VIN) GA399973 on	Front, vented, with sensors	BA 2194A
Range Rover Classic	All models from (VIN) CA on	Rear, with sensors	BA 2198A
Range Rover Classic	All models from (VIN) CA on	Front, non vented	BA 2199A
Range Rover P38	All models	Front	BA 2196A
Range Rover P38	All models	Rear	BA 2195A
Range Rover L322	All models up to (VIN) 4A159170	Front, less armoured	BA 2217A
Range Rover L322	3.0L M57 D30 Diesel from (VIN) 6A000001 to 9A999999	Front	BA 2212A
Range Rover L322	4.4L AJ V8 Petrol from (VIN) 6A000001 to 9A999999	Front	BA 2212A
Range Rover L322	All models from (VIN) 6A000001 to 9A999999	Rear	BA 2213A
Range Rover L322	3.6L V8 diesel from (VIN) BA333986 on	Rear	BA 2213A
Range Rover L322	5.0L SGDI NA V8 petrol from (VIN) BA333986 on	Rear	BA 2213A
Range Rover Sport	4.4L AJ V8 petrol up to (VIN) 9A999999	Front	BA 2212A
Range Rover Sport	2.7 Lion V6 diesel up to (VIN) 9A999999	Front	BA 2212A
Range Rover Sport	AI models up to (VIN) 9A999999	Rear	BA 2213A
Range Rover Sport	All models with 3.6L V8 diesel	Rear	BA 2213A
Range Rover Sport	5.0L SGDi NA V8 petrol from (VIN) AA000001 on	Rear	BA 2213A
Discovery 1	All models from (VIN) KA034314	Front, vented, with sensors	BA 2194A
Discovery 1	All models from (VIN) KA034314	Front, non vented	BA 2197A
Discovery 1	AI models up to (VIN) KA034313	Front, non vented	BA 2199A
Discovery 1	All models	Rear, with sensors	BA 2198A
Discovery 2	All models	Front	BA 2196A
Discovery 2	All models	Rear	BA 2195A
Discovery 3	All models	Front	BA 2212A
Discovery 3	All models	Rear	BA 2213A
Discovery 4	2.7L Lion V6 diesel	Front	BA 2212A
Discovery 4	4.0L Cologne V6 petrol	Front	BA 2212A
Discovery 4	2.7L Lion V6 diesel	Rear	BA 2213A
Discovery 4	4.0L Cologne V6 petrol	Rear	BA 2213A
Discovery 4	5.0L SGDI NA V8 petrol	Rear	BA 2213A
Discovery 4	3.0L AJ133 diesel	Rear	BA 2213A

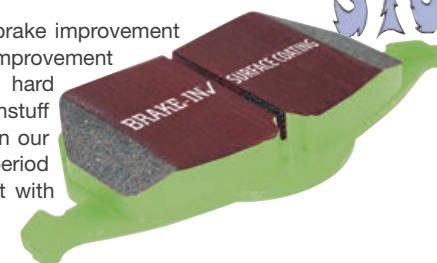
EBC Greenstuff Brake Pads Axle Sets			
Model			Part Number
Freelander 1	All models up to (VIN) YA999999	Front	BA 2193C
Freelander 1	All models from (VIN) 1A000001 on	Front	BA 2193A
Freelander 2		Rear	BA 2215
Freelander 2		Front	BA 2214

An excellent solution for 4x4 use, this heavy duty Greenstuff formulation has the benefit of longer life and better resistance to off road conditions of dust and sand etc. It has an extremely low disc wear factor and medium to good lifetime.

Greenstuff 6000 series is regarded as a first level brake improvement over standard pads and can deliver up to 15% improvement in stopping power. However, Greenstuff is not a hard and long lasting pad and drivers may find Greenstuff lasts less miles on 4x4 than standard pads which in our opinion are designed primarily to pass the warranty period but Greenstuff are a good quality pad replacement with medium dusting and good brake effect.

100% British Made

**GREEN
STUFF**



EBC Yellowstuff Brake Pads Axle Sets			
Model			Part Number
Range Rover L322	All models up to VIN 5A999798	Rear, less armoured	BA 2218A
Range Rover L322	3.6L V8 diesel from (VIN) 6A228067 to 9A999999	Front	BA 2216A
Range Rover L322	4.2L Aj V8 supercharged petrol from (VIN) 6A228067 to 9A999999	Front	BA 2216A
Range Rover Sport	3.6L V8 diesel engine from (VIN) AA000001 to BA264632	Front	BA 2218A
Range Rover Sport	4.2L Aj V8 supercharged petrol up to (VIN) 9A999999	Front	BA 2216A
Range Rover Sport	3.6L V8 diesel up to (VIN) 9A999999	Front	BA 2216A
Discovery 4	5.0L SGDI NA V8 petrol from (VIN) AA000001 to BA553135	Front	BA 2218A
Discovery 4	3.0L AJ133 diesel from (VIN) AA000001 to BA553135	Front	BA 2218A

EBC yellow 1793 compound is a true winner all round, it has high friction from cold, does not require warm up for street use yet when loaded up and really hot the brakes just get better. Even up to 4x4 weights these pads grip and do not heat fade. Yellowstuff is a high performance upgrade but are not low dust.

**Yellow
STUFF**



100% British Made



Est. UK 1958
Bearthmach
LAND ROVER PARTS

EBC 3GD SERIES DIMPLED AND SLOTTED PERFORMANCE BRAKE DISCS

EBC manufacture many of its discs in either its own sister company foundry in the UK or in Italy, all discs are machined and finished in the UK and in the USA. Where castings or finished discs have to be bought in to complement the range, the strictest quality controls you can imagine ensure the safety and quality of the parts we sell. EBC adds value to its products by strictest quality controls and specifications and a 100% run out and dimensional check, plus all USA sport discs are slotted at the Los Angeles facility of the USA operation. In times when everyone has run off to the Far East and many disc suppliers are nothing more than brokerage houses, EBC has done its part in every way possible to maintain UK, European and in particular US jobs. We employ 14 people in our USA disc machining facility alone.

Choose EBC sport discs wide aperture 3GD series for cooler running. On a global scale most EBC discs are made from British castings and 100% of these are precision machined in either the UK or the USA. EBC Brakes has 14 machining centres in these two countries to manufacture these precision parts. Discs are made from high quality grey iron to exacting standards and undergo extensive testing and rigorous quality control and are then precision machined to the chosen slot or dimple pattern.

The dimple drilled disc was invented by EBC back in the 90's and has been imitated by many because of its ability to offer pad degassing without "Through Drilling" disc holes which has been shown to promote disc cracks.

The wide aperture slots on the EBC units actually draw cool air under the brake pad and disc interface and help cool the temperatures of the pad contact which can shoot up to well over 1,000 degrees at the very heart of the brake pad during heavy braking and can cause brake fade or loss of brake effect.

These "Full sweep" slots on the EBC Sport Brake disc also help remove dirt, dust and water from the braking area but without doubt the main benefit of such sport disc is their ability to maintain a flat and parallel pad surface throughout the lifetime of the brake pad set.



EBC Brake Discs			
Model	Application		Part Number
90	All models	Front, Not Vented	BR 1792P
110	All models	Front, Not Vented	BR 1792P
Defender 110	Vented disc brake models from (VIN) LA930456 to 9A777776	Front, Vented	BR 1257P
Defender 110	Non vented disc brake models up to (VIN) 9A777776	Front, Not Vented	BR 1792P
Defender 110	Non vented disc brake models from (VIN) XA159807 to (VIN) 9A777776	Rear, Not Vented	SDB100980P
Defender 90	Vented disc brake models from (VIN) LA930456 to 9A777776	Front, Vented	BR 1257P
Defender 90	All models from (VIN) LA930456 to 9A777776	Rear, Not Vented	BR 1269P
Defender 90	Non vented disc brake models up to (VIN) 9A777776	Front, Not Vented	BR 1792
Discovery 1	All vented disc brake models	Front, Vented	BR 1257P
Discovery 1	All models	Rear, Non Vented	BR 1269P
Discovery 1	All non vented disc brake models	Front, Non Vented	BR 1792P
Discovery 2	All models	Front, Vented	ANR4582P
Discovery 2	All models	Rear, Not Vented	NTC8781P
Discovery 3	All models with 2.7L Lion V6 diesel engine	Front	SDB000602P
Discovery 3	All models with 4.0L Cologne V6 petrol engine	Front	SDB000602P
Discovery 3	All models with 4.4L AJ V8 petrol engine	Front	SDB000612P
Discovery 3	All models with 2.7L Lion V6 diesel engine	Rear	SDB000635P
Discovery 3	All models with 4.0L Cologne V6 petrol engine	Rear	SDB000635P
Discovery 3	All models with 4.4L AJ V8 petrol engine	Rear	SDB000645P
Discovery 4	All models with 2.7L Lion V6 diesel engine	Front	SDB000602P
Discovery 4	All models with 4.0L Cologne V6 petrol engine	Front	SDB000602P
Discovery 4	All models with 5.0L SGDI NA V8 petrol engine	Front	SDB000622P
Discovery 4	All models with 3.0L AJ133 diesel engine	Front	SDB000622P
Discovery 4	All models with 2.7L Lion V6 diesel engine	Rear	SDB000635P
Discovery 4	All models with 4.0L Cologne V6 petrol engine	Rear	SDB000635P
Discovery 4	All models with 5.0L SGDI NA V8 petrol engine	Rear	SDB000645P
Discovery 4	All models with 3.0L AJ133 diesel engine	Rear	SDB000645P



EBC Brake Discs

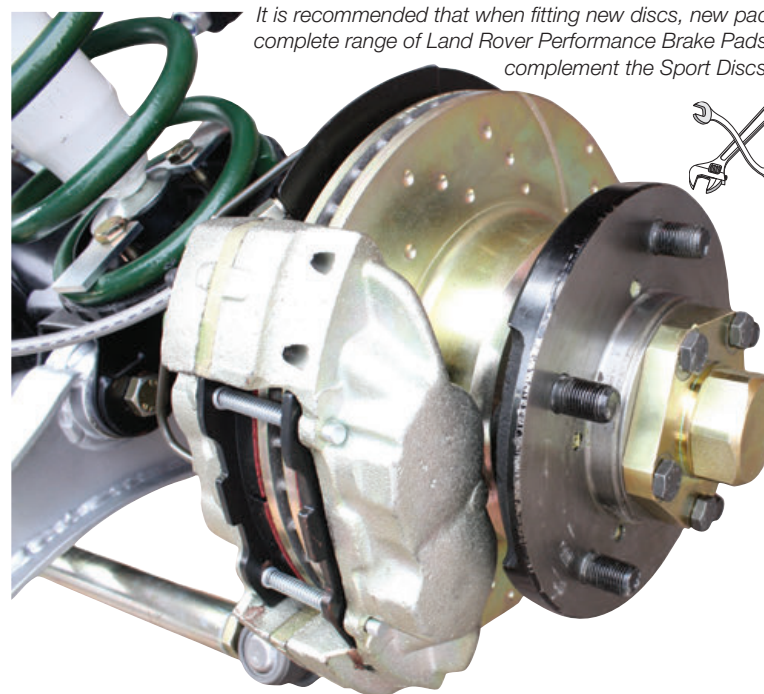
Model	Application		Part Number
Freelander 1	All models up to (VIN) YA999999	Front, Not Vented	ANR4983P
Freelander 1	All models from (VIN) 1A000001 on	Front, Vented	SDB101070P
Freelander 2	All models with 3.2L petrol engine	Front	LR000470P
Freelander 2	All models with 2.2L diesel engine	Rear	LR001018P
Freelander 2	All models with 3.2L petrol engine	Rear	LR001019P
Freelander 2	All models with 2.2L diesel engine	Front	LR007055P
Range Rover Classic	All models from (VIN) GA399973 on	Front, Vented	BR 1257P
Range Rover Classic	All models from (VIN) CA (1986) on	Rear, Not Vented	BR 1269P
Range Rover Classic	All models from (VIN) CA to FA399972	Front, Not Vented	BR 1792P
Range Rover Evoque	All Models	Front	LR007055P
Range Rover Evoque	All Models	Rear	LR027123P
Range Rover L322	3.0L M57 D30 Diesel from (VIN) 6A228067 to 9A999999	Front	SDB500181P
Range Rover L322	4.4L AJ V8 Petrol from (VIN) 6A228067 to 9A999999	Front	SDB500181P
Range Rover L322	4.2L AJ V8 supercharged petrol engine from (VIN) 6A228067 to 9A999999	Front	SDB500192P
Range Rover L322	All models with 3.6L V8 diesel engine	Front	SDB500192P
Range Rover L322	5.0L SGDI NA V8 petrol engine from (VIN) AA000001 on	Front	SDB500192P
Range Rover L322	All models from (VIN) 6A228067 to 9A999999	Rear	SDB500201P
Range Rover P38	All models	Rear, Not Vented	NTC8781P
Range Rover Sport	2.7L Lion V6 diesel engine up to (VIN) 9A999999	Front	SDB000602P
Range Rover Sport	4.4L AJ V8 petrol engine up to (VIN) 9A999999	Front	SDB000612P
Range Rover Sport	4.2L AJ V8 supercharged petrol engine up to (VIN) 9A999999	Front	SDB000622P
Range Rover Sport	All models with 3.6L V8 diesel engine	Front	SDB000622P
Range Rover Sport	5.0L SGDI NA V8 petrol engine from (VIN) AA000001 on	Front	SDB000622P
Range Rover Sport	2.7L Lion V6 diesel engine up to (VIN) 9A999999	Rear	SDB000635P
Range Rover Sport	4.2L AJ V8 supercharged petrol engine up to (VIN) 9A999999	Rear	SDB000645P
Range Rover Sport	All models with 3.6L V8 diesel engine	Rear	SDB000645P
Range Rover Sport	4.4L AJ V8 petrol engine up to (VIN) 9A999999	Rear	SDB000645P
Range Rover Sport	2.7L Lion V6 diesel engine up to (VIN) 9A999999	Rear	SDB000645P
Range Rover Sport	5.0L SGDI NA V8 petrol engine from (VIN) AA000001 on	Rear	SDB000645P

EBC 3GD SERIES DIMPLED AND SLOTTED PERFORMANCE BRAKE DISCS

- British Made Brake Discs for British made vehicles
- Wide slots help brakes run up to 150 degrees cooler at speed
- Reduces brake fade under load and at speed
- Removes dirt dust and debris from braking zone
- Great for 4x4 vehicles off and on road, even towing
- Finished in anodised gold for corrosion resistance



The latest in British made sport discs feature wide aperture slots that draw cool air into the braking contact area and reduce temperatures preventing brake fade. Dimple drilling avoids stress cracks and the new gold anodized EBC finish provides great looks whilst preventing corrosion. Another great feature of slotted discs is the way they MAINTAIN FLAT AND PARALLEL PAD WEAR and avoid the record grooves or scoring common with non-slotted discs. This improves pad contact and braking throughout the life of the disc and pad set.



It is recommended that when fitting new discs, new pads are also fitted. We stock a complete range of Land Rover Performance Brake Pads from EBC to enhance and complement the Sport Discs.



Tech Tip
Always fit discs in pairs.
Always fit new pads when fitting disc.
Ensure to bed in brakes correctly (approximately 100 miles) or discs may become warped.



GOODRIDGE

FLUID TRANSFER SYSTEMS

Stainless Steel Braided Brake Hoses

Model	Application	Standard	+50mm
Series IIA 88"	All models	BA 157	BA 157L
Series IIA 109"	All models	BA 157	BA 157L
Series III 88"	All models up to June 1980	BA 157A	BA 157AL
Series III 109"	All models up to June 1980	BA 157A	BA 157AL
90	All models	BA 158	BA 158L
110	All models	BA 161	BA 161L
Defender 90	All models up to (VIN) WA159806	BA 158	BA 158L
Defender 90	Non ABS models from (VIN) XA159807 to 4A683087	BA 159	BA 159L
Defender 90	All models from (VIN) 4A683088 on	BA 164A	BA 164AL
Defender 90	ABS models from (VIN) XA159807 to 4A683087	BA 164	BA 164L
Defender 110	Non ABS models from (VIN) XA159807 to 4A683087	BA 159	BA 159L
Defender 110	All models up to (VIN) WA159806	BA 161	BA 161L
Defender 110	All models from (VIN) 4A683088 on	BA 164A	BA 164AL
Defender 110	ABS models from (VIN) XA159807 to 4A683087	BA 164	BA 164L
Range Rover Classic	Non ABS models from (VIN) AA (July 1984 on) (Metric)	BA 211	BA 211L
Range Rover Classic	ABS models from (VIN) JA610294 on	BA 216	BA 216L
Range Rover Classic	ABS models from (VIN) GA to HA610293	BA 217	BA 217L
Range Rover Classic	All models up to (VIN) AA (June 1984) (Imperial thread)	BA 210	BA 210L
Discovery 1	Up to (VIN) KA034313	BA 163	BA 163L
Discovery 1	From (VIN) KA034314 to LA081991	BA 213	BA 213L
Discovery 1	Non ABS models from (VIN) MA081992 on	BA 214A	BA 214AL
Discovery 1	ABS models from (VIN) MA081992 on	BA 214	BA 214L
Discovery 2*	All models	BA 218	BA 218L
Freelander 1	All models up to (VIN) YA999999		BA 2210
Freelander 1	All models from (VIN) 1A000001 on		BA 2211
Range Rover Evoque	All models 2011 on	BA 219	

Kits contain a complete vehicle set.

* Does not include jump hoses from ABS modulator.

GOODRIDGE HOSES

HISTORY

Goodridge, founded in 1969 is one of the worlds leading manufacturers of performance steel hoses for automotive and motorcycle braking and clutch lines. Starting from a small single seat racing team in Canada, they have become globally recognized as one of the worlds most popular companies for quality fluid transfer products.

As Land Rover engines have become more advanced, it has become common to want to increase the performance of your vehicle. Not only is it good to make your vehicle go faster but also just as important to make it stop quicker. This is very useful for both on road & off road conditions as you will not have to work the brakes as hard to bring the vehicle to a slower speed or standstill.

Goodridge stainless steel braided brake lines have become the standard in racing and off roading, and this technology is now available for most models of Land Rover, including vehicles fitted with lift kits.

Goodridge kits feature the finest quality stainless steel braided hose, which improves braking performance, eliminates the spongy feel of rubber hoses and provides superior resistance to corrosion a must with Land Rover.

Constructed from steel outer braided PTFE lines, fitting Goodridge hoses to your vehicles braking system will dramatically increase braking and clutch responsiveness by reducing hose expansion when under load and not perish over time.

With these critical advantages, an ever-expanding service initiative and our long history of performance under pressure, we will continue to provide you, the on road /off roader, the best Fluid Transfer Products and solutions. Go ahead, Push the Limits, we'll take care of the pressure.

- Eliminates spongy feel
- Improved braking efficiency
- Abrasion and corrosion resistant





Kits contain a complete vehicle set.

* Does not include jump hoses from ABS modulator.

Bearmach Stainless Steel Braided Brake Hoses

Model	Application	Standard	+50mm
Series IIA 88"	All models	BA 157P	BA 157LP
Series IIA 109"	All models	BA 157P	BA 157LP
Series III 88"	All models up to June 1980	BA 157AP	BA 157ALP
Series III 109"	All models up to June 1980	BA 157AP	BA 157ALP
90	All models	BA 158P	BA 158LP
110	All models	BA 161P	BA 161LP
Defender 90	All models up to (VIN) WA159806	BA 158P	BA 158LP
Defender 90	Non ABS models from (VIN) XA159807 to 4A683087	BA 159P	BA 159LP
Defender 90	All models from (VIN) 4A683088 on		BA 164ALP
Defender 90	ABS models from (VIN) XA159807 to 4A683087		BA 164LP
Defender 110	Non ABS models from (VIN) XA159807 to 4A683087	BA 159P	BA 159LP
Defender 110	All models up to (VIN) WA159806	BA 161P	BA 161LP
Defender 110	All models from (VIN) 4A683088 on		BA 164ALP
Defender 110	ABS models from (VIN) XA159807 to 4A683087		BA 164LP
Range Rover Classic	Non ABS models from (VIN) AA (July 1984 on)	BA 211P	BA 211LP
Range Rover Classic	ABS models from (VIN) JA610294 on	BA 216P	BA 216LP
Range Rover Classic	ABS models from (VIN) GA to HA610293		BA 217LP
Range Rover Classic	All models up to (VIN) AA (June 1984) (Imperial thread)		BA 210LP
Range Rover P38	Up to VA	BA 212P	
Range Rover P38	From VA	BA 212AP	
Discovery 1	Up to (VIN) KA034313		BA 163LP
Discovery 1	From (VIN) KA034314 to LA081991	BA 213P	BA 213LP
Discovery 1	Non ABS models from (VIN) MA081992 on	BA 214AP	BA 214ALP
Discovery 1	ABS models from (VIN) MA081992 on	BA 214P	BA 214LP
Discovery 2*	All models	BA 218P	BA 218LP
Freelander 1	All models up to (VIN) YA999999		BA 2210P

STAINLESS STEEL BRAKE LINES

Bearmach are pleased to launch our new range of Performance Stainless Steel Brake Lines. The end fittings and the fixing nuts are all made of stainless.

This was a requirement that we insisted on to offer our customers longer life and more aesthetically pleasing performance hose.

OE Rubber hoses and mild steel fittings are cheap but we all know how rubber hoses bulge under pressure, and allow brake fluid to absorb water vapour from the atmosphere. Mild steel fittings rust.

These top quality lines come with fully stainless steel end fittings, PVC covered stainless steel braided Teflon hose lines, dual seat fittings and 3 point sealing into the lines.

These hoses are resilient to damage, corrosion, oil, perishing. The brakes feel more responsive by reducing hose expansion with hard braking. Less weight per hose over standard.



Est. UK 1958
Bearmach
LAND ROVER PARTS

K&N Air Filters

Model	Application		Part Number
Series IIA 88"	2.25L petrol with 36IV/34ICH carburettor		BA 2314
Series IIA 109"	2.25L petrol with 36IV/34ICH carburettor		BA 2314
Series III 88"	2.25L petrol with 36IV/34ICH carburettor		BA 2314
Series III 109"	2.25L petrol with 36IV/34ICH carburettor		BA 2314
90	2.5L petrol models up to (VIN) FA375497		NRC9238K
90	2.25L petrol with 36IV/34ICH		NRC9238K
90	All V8 petrol engine models	Clamps to CD175 carb adaptor	BA 2308
90	All diesel models up to (VIN) FA375497		NRC9238K
110	2.25L petrol models up to (VIN) FA375497		NRC9238K
110	All V8 petrol engine petrol	Clamps to CD175 carb adaptor	BA 2308
110	All diesel models up to (VIN) FA375497		NRC9238K
Defender 90	All V8 EFI petrol models	Clamps to mass air flow meter	BA 2318
Defender 90	All V8 EFI petrol models		RTC4683K
Defender 90	All V8 carburettor models	Clamps to CD175 carb adaptor	BA 2308
Defender 90	All 200Tdi diesel models		NTC6660K
Defender 90	All 300Tdi diesel models		NTC1435K
Defender 90	Td5 diesel models up to (VIN) 6A999999		ESR4238K
Defender 110	All V8 carburettor models	Clamps to CD175 carb adaptor	BA 2308
Defender 110	All 200Tdi diesel models		NTC6660K
Defender 110	All 300Tdi diesel models		NTC1435K
Defender 110	Td5 diesel models up to (VIN) 6A999999		ESR4238K
Range Rover Classic	All V8 EFI petrol models	Clamps to mass air flow meter	BA 2318
Range Rover Classic	All V8 EFI petrol models up to (VIN) LA647644		RTC4683K
Range Rover Classic	All V8 EFI petrol models from (VIN) MA647645 on		ESR1445K
Range Rover Classic	All 200Tdi diesel models		ESR1049K
Range Rover Classic	All 300Tdi diesel models		ESR1445K
Range Rover Classic	All 2.4L VM turbo diesel models		NTC1435K
Range Rover Classic	All 2.5L VM turbo diesel models		NTC1435K



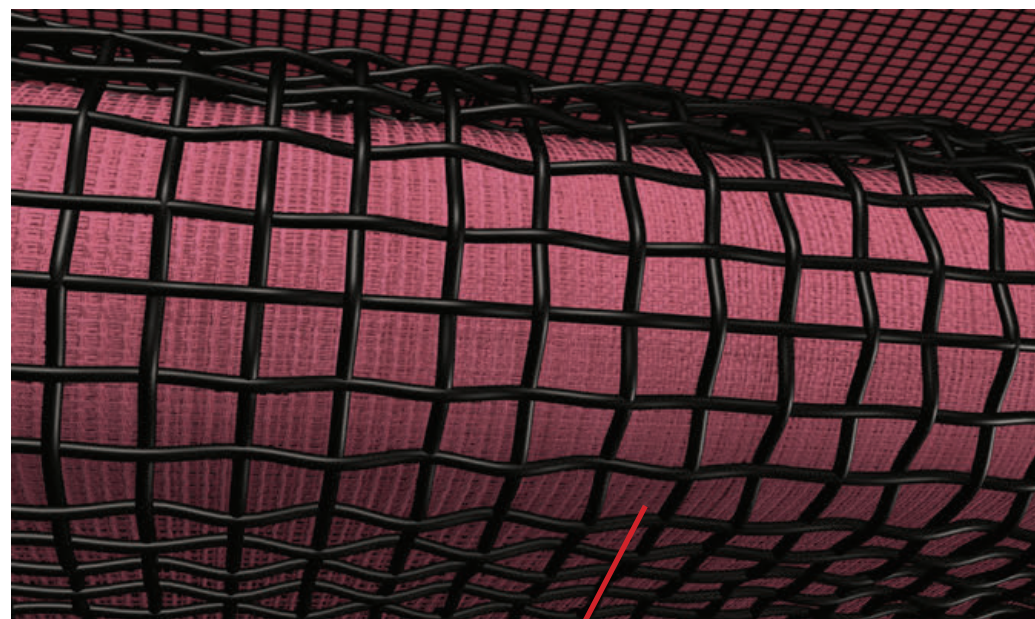
K&N FILTERS

DESIGNED TO INCREASE HORSEPOWER

This original High-Flow Air Filter™ Invented by K&N. It is made with layers of woven cotton for a washable filter that offers high airflow that can increase your car's horsepower and acceleration. For better performance and value over the life of your car, you cannot go wrong with these most popular filters.

SAVE MONEY

Using the washable air filter can save you money in the long run. One K&N O/E Replacement Air Filter costs far less than replacing disposable air filters over and over again. Even better, they only require cleaning every 50,000 miles under normal driving conditions.



Thousands of microscopic cotton gauze fibres naturally hold specially designed oil in suspension to create a powerful filtering medium

Drops into your factory air box in 5 minutes and helps your car run better

Washable and reusable High-Flow Air Filter™ can go up to 50,000 miles between cleanings under normal driving conditions



**WASHABLE
&
REUSABLE™**

Multiple layers of premium cotton gauze help maintain high airflow rates with outstanding filtration

Made in the USA using only the finest materials, K&N OE Replacement Air Filters are washable and backed by the World's First Million Mile Limited Warranty.



K&N Air Filters

Model	Application		Part Number
Range Rover P38	All V8 EFI petrol models up to (VIN) TA346793 and from (VIN) WA376580 to WA385948		ESR341K
Range Rover P38	All V8 EFI petrol models from (VIN) VA346794 to VA376579 and from (VIN) WA385949 on		ESR4238K
Range Rover P38	All 2.5 6 cylinder diesel models up to (VIN) VA376579		ESR341K
Range Rover P38	All 2.5L 6 cylinder diesel models from (VIN) WA376580 on		ESR4238K
Range Rover L322	4.4L V8 petrol 2002-2009 M62		PHE000050K
Range Rover L322	5L V8 petrol 2010-2012 / 4.4D V8		LR011593K
Range Rover L322	4.4Efi / 3.6D / 4.25C		PHE500021K
Range Rover Sport	2.7 / 3.6 / 4.25C		PHE000112K
Range Rover Sport	All 4.4L V8 AJ petrol engine models / 2.2D		PHE000112K
Range Rover Sport	5L V8 petrol 2010 on		LR011593K
Range Rover Evoque	All 2.0L 16v petrol engine models		LR029078K
Discovery 1	All V8 EFI petrol models	Clamps to mass air flow meter	BA 2318
Discovery 1	All V8 EFI petrol models up to (VIN) LA081991		RTC4683K
Discovery 1	All V8 EFI petrol models from (VIN) MA081992 on		ESR1445K
Discovery 1	All 2.0 Mpi petrol models		ESR1445K
Discovery 1	All 200Tdi diesel models up to (VIN) JA018272		NTC1435K
Discovery 1	All 200Tdi diesel models from (VIN) JA018273 to LA081991		ESR1049K
Discovery 1	All 300Tdi diesel models		ESR1445K
Discovery 2	All Td5 diesel models		ESR4238K
Discovery 2	All V8 EFI petrol models		ESR4238K
Discovery 3	V6 diesel models / 2.7D / 4.4 / 4.0 Petrol		PHE000112K
Discovery 4	All 4.4L V8 AJ petrol engine models / 4.0 Petrol / 2.7D / 3.0D		PHE000112K
Discovery 4	5L V8 petrol 2010 on		LR011593K
Freelander 1	All models with 1.8L petrol engines		ESR4103K
Freelander 1	All models with KV6 petrol engines		ESR4238K
Freelander 1	All models with 2.0L L series diesel		ESR4103K
Freelander 1	All 2.0L TD4 diesel models		PHE10050K
Freelander 2	3.2L petrol 2006 on		LR005816K
Freelander 2	2.2 Diesel		LR0298078K

Cleaning Kit for K&N Filters

Model		Part Number
All models fitted with K&N filter	Includes cleaner and oil	BA 2317



Bearthmach
LAND ROVER PARTS

Pipercross

Performance Air Filters

PIPERCROSS PERFORMANCE AIR FILTERS

Pipercross has been making high performance air filters for the motor sport and domestic markets for over 25 years.

Based in Northampton, England Pipercross is situated in the country along with some of the biggest names in motorsport engine design and manufacture in the world.

In these 25 years our high performance filters have helped many race and off road teams win major championships on the British, European and World stage, including Baja, Paris/ Dakar, Paris to Peking and hill rally's.

The development work carried out whilst dealing with these teams has enabled us to produce some of the most technologically advanced filters on the market.

For drivers that require 30% more airflow and a lifetime, washable air filter** but without an increase in intake sound, a Pipercross replacement element panel filter provide the perfect solution.

Designed as an original equipment replacement, a Pipercross panel filter replaces the factory air filter within the airbox.

Ideal for Land Rover applications using snorkels/raised air intakes.

Installation is as simple as opening the airbox, discarding the old filter and replacing it with a free-flowing Pipercross air filter.

As air-born dirt particles are trapped by a paper or cotton-gauze air filter, there is a dramatic increase in pressure drop which essentially robs the engine of airflow and power. Due to the deep foam construction of each Pipercross air filter, airflow is able to negotiate trapped dirt.

Air filter service intervals are extended with the Pipercross panel filter, with a life-span (between cleaning) of double that of the same paper filter and nearly three times that of a cotton-gauze filter. By simply cleaning and refitting the Pipercross panel filter, there is less waste and service costs are reduced.

Ideal for arduous off road conditions that Land Rover owners find themselves in.

****lifetime warranty when cleaned with genuine Pipercross service kits BA 5800.**



Cleaning Kit for Pipercross Filters

Model	Part Number
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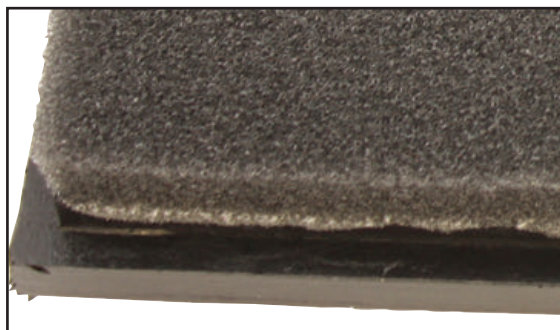
All models fitted with Pipercross filter Includes cleaner and oil **BA 5800**

Pipercross Air Filters

Model	Application		Part Number
90	All V8 carburettor models	Off road use only	BA 5803
90	All V8 carburettor models	Clamps to carburettor	BA 5804
90	All diesel models up to (VIN) FA375497		BA 5810
110	All V8 carburettor models	Off road use only	BA 5803
110	All V8 carburettor models	Clamps to carburettor	BA 5804
110	All diesel models up to (VIN) FA375497		BA 5810
Defender 90	All V8 carburettor models	Off road use only	BA 5803
Defender 90	All V8 carburettor models	Clamps to carburettor	BA 5804
Defender 90	All V8 EFI petrol models	Clamps to mass air flow meter	BA 5805
Defender 90	All 300Tdi diesel models		BA 5812
Defender 90	Td5 models up to (VIN) 6A999999		BA 5818
Defender 90	All models from (VIN) 7A000001 on		BA 5820
Defender 110	All V8 carburettor models	Off road use only	BA 5803
Defender 110	All V8 carburettor models	Clamps to carburettor	BA 5804
Defender 110	All V8 EFI petrol models	Clamps to mass air flow meter	BA 5805
Defender 110	All 300Tdi diesel models		BA 5812
Defender 110	Td5 diesel models up to (VIN) 6A999999		BA 5818
Defender 110	All models from (VIN) 7A000001 on		BA 5820
Range Rover Classic	All V8 carburettor models	Off road use only	BA 5803
Range Rover Classic	All V8 carburettor models	Clamps to carburettor	BA 5804
Range Rover Classic	All V8 EFI petrol models	Clamps to mass air flow meter	BA 5805
Range Rover Classic	All 200Tdi diesel models		BA 5813
Range Rover Classic	All 300Tdi diesel models		BA 5811
Range Rover Classic	All 2.4L VM turbo diesel models		BA 5812
Range Rover Classic	All 2.5L VM turbo diesel models		BA 5812
Range Rover P38	V8 Efi petrol models from (VIN) VA346794 to VA376579 and from (VIN) WA385949 on		BA 5818
Range Rover P38	2.5L 6 cylinder diesel models from (VIN) WA376580 on		BA 5818



Pipercross Air Filters			
Model	Application		Part Number
Discovery 1	All V8 carburettor models	Off road use only	BA 5803
Discovery 1	All V8 carburettor models	Clamps to carburettor	BA 5804
Discovery 1	All V8 EFi petrol models	Clamps to mass air flow meter	BA 5805
Discovery 1	All 2.0L MPi petrol models		BA 5811
Discovery 1	All 200Tdi diesel models up to (VIN) JA018272		BA 5812
Discovery 1	All 200Tdi diesel models from (VIN) JA018273 to LA081991		BA 5813
Discovery 1	All 300Tdi diesel models		BA 5811
Discovery 2	All Td5 diesel models		BA 5818
Discovery 2	All V8 EFi petrol models		BA 5818
Freelander 1	All 2.0L TD4 diesel models		BA 5816
Freelander 1	All models with KV6 petrol engine		BA 5818



Deep foam construction allowing airflow to negotiate trapped dirt.



Est. UK 1958
Bearthmach
LAND ROVER PARTS



Weber Carburettor Kit

Model	Part Number
Series All 2.25 litre petrol engine	BR 2238W

CARBURETTOR

Bearmach offer this Weber carburettor kit due to carburettors on older Land Rovers causing a disproportionate number of problems for the owner.

In these days of high fuel prices, it makes a lot of sense to get your vehicle running as well as possible to improve performance, fuel economy and minimise emissions.

A Weber carburettor fuel system will also improve your Land Rovers performance on and off-road.

A KIT TO REPLACE ZENITH / SOLEX CARBURETTORS.

This kit will replace Zenith/Solex carburettors, if you're after a bit more economy, but still want performance, this is the carb for you.

REPLACING AND SETTING UP YOUR CARBURETTOR - SERIES VEHICLES

This is a nice easy job and should be well within the capabilities of any mechanically minded enthusiast.

First things first: before removing your old carb, make sure that your ignition system is up to scratch. That means plugs in good condition and correctly gapped, points ditto, and ignition timing properly adjusted. You will not be able to get your vehicle to run smoothly if the ignition system is in bad shape.

The carb removal and replacement procedure is well-explained in both the factory workshop manual and the Haynes manual.



TECH TIPS

1. When you remove the old carburettor, make sure you clean all the old gasket material off the manifold, and use a new gasket when



you fit the new carb. Do not use silicone sealant ("instant gasket") as it has a nasty habit of getting into the air passages in the base of the carb. If you try to re-use the old gasket you will probably get air leaks which will make the carb impossible to set up.

2. Do not overtighten the nuts which secure the carb to the manifold. The carb is made of aluminium and the mounting flange is easily distorted. Again this will cause air leaks. Just tighten the nuts until the locking washers are compressed flat.
3. Make 100% sure that the fuel line is correctly connected and the clamps done up tight. If the fuel line is split or perished, replace it. The carb on these engines sits directly above the exhaust, and a petrol leak is a serious risk.
4. Ideally you need a gas analysis machine to set the mixture, but if you don't have one, run the engine until it is warm, then adjust the idle screw until the idle speed sounds about right. Note that Series Land Rovers idle a bit slower than modern cars - around 600 rpm. The engine should not sound 'fast' at idle. If you have an earlier vehicle with dynamo charging, the charge warning light should be flickering, but not bright. Then slowly screw in the mixture screw until the idle speed drops and the engine starts to run rough. Unscrew it around a quarter of a turn from this point, and re-adjust the idle speed if needed. If the engine idles smoothly at the right speed, your settings will not be far out.
5. This kit requires an adaptor 574749 to turn the carb 90 degrees.
6. The throttle spindle rotates in the opposite direction on the Weber to the original Zenith and even though the original link rod will fit, it may need adjusting in length. Make sure you have full throttle movement.
7. We recommend you renew the air and fuel filters when fitting the new carburettor.

Weber V8 Conversion Kit

Model	Type	Part Number
Series Defender Discovery Range Rover Classic		BR 2236

V8 CONVERSION KIT

A complete carburettor and induction manifold kit from WEBER. It is suitable for Rover V8 vehicles equipped with S.U. or Stromberg carburettors from 1970-1987.

The kit features a Weber 4 barrel downdraught carburettor and dual plane induction manifold. The conversion has been developed for improved engine torque and fuel. Although calibrated for Range Rover 3.5 models it is also suitable for many other Rover V8 applications and for those wishing to carry out engine tuning modifications.

For applications other than Range Rover 3.5 models calibration changes/adjustments may be necessary.

This conversion can be carried out by a competent D.I.Y. mechanic (with basic tool kit) and comes complete with detailed fitting instructions covering various models.

The kit comprises of: Carburettor; Manifold; Air filter; Throttle linkage*; Fuel line connections/Fuel filter; Engine breather/pulse air system; Hose connections; All necessary gaskets, seals and fixtures.

*Automatic transmission vehicles will require supplementary kick down linkage kit - PART NUMBER BR 2236A

Valve Kit Off Road for BR 2236

Model	Type	Part Number
Series Defender Discovery Range Rover Classic		BR 2236R



Needle valve conversion kit

Lumenition		
Model	Type	Part Number
Series	Ignition module (V8)	BA 140
Defender	Ignition module (V8)	BA 140
Range Rover Classic	Ignition module (V8)	BA 140
Discovery 1	Ignition module (V8)	BA 140

LUMENITION

With 30 years of innovative experience, Lumenition is your key to perfect ignition.

Whether it be a simple points replacement for an old series petrol engine, or a modern engine management on the latest Land Rovers, Lumenition has a system to fit your budget and your needs.

Synonymous with quality ignition products, Lumenition's reputation was not earned overnight. It is the result of innovation and commitment to excellence over the past thirty years.

The Lumenition story begins in 1968 when Autocar's then managing director E.H. Ford designed an infrared COpnronic trigger to form the basis of a revolutionary electronic ignition system.

Thirty years on, this trigger system, unaffected by dirt or distributor shaft wear, is still regarded as the most reliable and accurate available.

Adopted as original equipment by specialist performance car manufacturers, fitted to fleet vehicles and made under license in the U.S. by industry giant TRW, the range went on to include a special commission from the Ministry of Defence: an ignition system for Scorpion tanks and Land Rover.

Lumenition was the only manufacturer who could meet their need for an ignition system to withstand the electromagnetic pulse of a nuclear strike!

Lumenition Optronic electronic ignition system converts contact breaker ignition to electronic ignition.

Ideal for all performance Land Rovers, particularly Off road/race and road/safari applications.

Overall Diameter:	8mm
Resistance:	5.6kOhms per metre (nom) as standard
Reinforcement:	Glass fibre braid over insulation
Test Voltage:	8.0mm dia Silicone - 3.50 - 40.0kV RMS BDV (typically)
Specification:	Fully approved to ISO3808:2002(R) Class E Type 4
Termination:	All lead sets use brass, beryllium copper or stainless terminals with silicone or EPDM connector covers, many of which are sourced from the Original Equipment Manufacturers.

Glow Plug Parallel Conversion Kit		
Model	Type	Part Number
Series	Diesel models up to 1980	BR 1554

PARALLEL GLOW PLUG CONVERSION KIT.

This kit is for early Series diesel engine Land Rovers. It will enable you to convert your in-series type wired glow plug to the later parallel wired probe type. Totally eliminating a glow plug failure if one plug goes down.

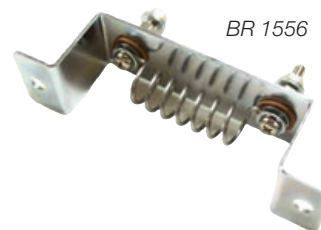
Better start up when cold.

Wiring and installation diagram included.



TECH TIP

We recommend that you fit a new resistor BR 1556.



High Performance Ignition Leads		
Model		Part Number
90	3.5L V8 DIN fitting	BR 3524P
90	2.5 4 Cylinder	BR 3054P
109	3.5L V8 DIN fitting	BR 3524P
109	2.5 4 Cylinder	BR 3054P
110	3.5L V8 DIN fitting	BR 3524P
110	2.5 4 Cylinder	BR 3054P
Series 88"	2.25 4 Cylinder	BR 3054P
Series 109"	2.25 4 Cylinder	BR 3054P
Defender 90	3.5L V8 DIN fitting	BR 3524P
Defender 110	3.5L V8 DIN fitting	BR 3524P
Discovery	3.5L V8 DIN fitting	BR 3524P
Discovery	3.9L V8 DIN fitting	BR 3524P
Discovery	3.9L V8 DIS with DIN fitting - no coil	BRA 2001P
Discovery	3.9L V8 DIS coil pack M4 fitting	BRA 2002P
Discovery	4.0L V8 DIS with DIN fitting	BRA 2001P
Range Rover	3.5L V8 DIN fitting	BR 3524P
Range Rover	3.9L V8 DIN fitting	BR 3524P
Range Rover	4.6i V8 DIS with DIN fitting - no coil	BRA 2001P
Range Rover	4.6i V8 DIS coil pack M4 fitting	BRA 2002P
Freelander	1.8i 16v semi direct	BRA 2005P
Freelander	1.8i	BRA 2003P

FERROFLEX® PREMIUM BRAND CABLES.

The core consists of a fibreglass base coated with a ferromagnetic compound and tightly wound with a stainless steel resistance wire under a coat of conductive lacquer.

The design ensures maximum spark quality with minimum voltage loss while maintaining excellent Electro Magnetic Pulse suppression.

Our lead sets are designed to equal or exceed the design of the original lead set without compromising on fit or function.

Lumenition Fitting Kit		
Model	Type	Part Number
Defender	Fitting kit (4cyl - Lucas distributor)	BA 138
Series	Fitting kit (4cyl) Lucas	BA 139
Various	Fitting kit (V8)	BA 137



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LAND ROVER PARTS

V8 Timing Kit		
Model	Engine	Part Number
Series	3.5/3.9 V8	BA 2179
Defender	3.5/3.9 V8	BA 2179
Discovery 1	3.5/3.9 V8	BA 2179
Range Rover Classic	3.5/3.9 V8	BA 2179



TIMING KIT

Consists of

- Cam gear
- Crank gear
- Timing chain (heavy duty)
- (Does not include Camshaft)

Designed to exceed customer requirements, this timing chain and gear set is a direct replacement for the factory OEM plastic/nylon covered cam gear, chain and sprocket.

The timing chain uses only the finest grades of steel for the links and pins, which means higher quality tensile, wear and fatigue characteristics.

Made from Billet Steel the cam sprocket is made to blue print specification and will not wear and fail like the original type.

Induction Heat-Treated, Billet Steel Crank Sprocket, exceeds blue print specification, precision cut for accurate timing.

Bearmach have used this timing set in all types of competition Land Rovers.



MALLORY UNILITE® ELECTRONIC SERIES

Electronic ignition with a one-piece self-contained optical pickup and module, utilises easy 3-wire hookup, and adjustable mechanical advance.

ACCURATE TIMING THAT'S MAINTENANCE FREE.

These Mallory UNILITE® Distributors give you accurate, maintenance free ignition timing. Replacing the old-fashioned points system, they have photo-optic LED triggering systems that never vary or wear out.

BENEFITS

You get increased RPM potential, improved combustion, longer spark plug life, and better cold-weather starting.

INSTALLATION

Hooking one up is a simple 3-wire connection, and they come with your choice of adjustable mechanical and/or vacuum advance, self lubricating bushings, and a Super-Duty Cap and Rotor Arm.

Includes Mallory Super-Duty Cap (Points Style) and Rotor Arm with brass terminals.



Tech Tip

Mallory distributor ballast resistor should be fitted with distributor.



V8 Mallory Timing		
Model	Type	Part Number
Defender	Distributor	BA 5050
Discovery 1	Distributor	BA 5050
Range Rover Classic	Distributor	BA 5050
Defender	Distributor cap	BA 5051
Discovery 1	Distributor cap	BA 5051
Range Rover Classic	Distributor cap	BA 5051
Defender	Ballast resistor	BA 5054
Discovery 1	Ballast resistor	BA 5054
Range Rover Classic	Ballast resistor	BA 5054
Defender	Ignition module	BA 5053
Discovery 1	Ignition module	BA 5053
Range Rover Classic	Ignition module	BA 5053
Defender	Rotor arm	BA 5052
Discovery 1	Rotor arm	BA 5052
Range Rover Classic	Rotor arm	BA 5052

Composite Head Gasket			
Model		Type	Part Number
Series	3.5 V8		BR 3178C
Defender	3.5 V8		BR 3178C
Defender	3.9/4.2 V8	1.2mm thick	ETC7819C
Discovery	3.9/4.2 V8	1.2mm thick	ETC7819C
Discovery	3.5 V8		BR 3178C
Range Rover Classic	3.5 V8		BR 3178C
Range Rover Classic	3.9/4.2 V8	1.2mm thick	ETC7819C

COMPOSITE HEAD GASKET

HISTORY

Bearmach composite head gaskets were introduced in about 1993 and are by far the best gasket choice for all Rover V8 Engines of all capacities and all ages.

BENEFITS

The main benefit of using our composite head gaskets on early engines that originally had shim steel gaskets is that they seal much better, especially if you are refitting heads without re-facing them first. Perhaps a slight downside is there will be some slight loss in the compression ratio, due to increased thickness but this seldom makes any noticeable difference due to the fact that the improved seal now eliminates compression leakage that your engine was most likely suffering from.

MANUFACTURE

These gaskets use very reliable high quality "asbestos-free" raw material in the manufacturing process, combined with different structures necessary to achieve the maximum grade of sealing in any condition. The version named GM-SA which is considered the most reliable, and versatile is based on pure reinforced graphite, excellent for its micro-adaptability to the head surface and the block; outstanding sealing properties and resistance to gas and high temperatures excluding the hot spots.

The advanced technology versions are particularly suitable for high powered carburettors, fuel injected, supercharged and turbocharged engines.



TESTING

Bearmach composite gaskets have been approved to a very high specification and tested in competition, Hill Rally, Comp Safari, Trialing. The gaskets are rigorously tested on test beds, continuously running for 309 hours and meet the TS16949 Standard, and will directly replace the earlier metal gasket.

RESULTS

Every V8 engine we have ever dismantled was suffering from all 8 cylinders leaking compression into the valley (Crankcase) of the engine, thus resulting in 'Crankcase pressurisation' that cause many V8 engines to suffer from excessive sludge build up and constant oil leaks around the centre 'Valley' tin gasket, Crankshaft seals, Distributor seal and Rocker covers - this problem can be fully alleviated by the fitting of composite style head gaskets.

Land Rover are now using Composite 'valley cover' gaskets, and Composite head gaskets also. The Rover V8 engine is being constructed with the 8 outer head bolts omitted, thus further ensuring a gas tight seal.



Tech Tips

Refit the outer 4 offending bolts as Land Rover, but torque them to only 20-25ft/lb so they fill the hole, but have no detrimental effect, this is generally the best option if your head and block faces are new or in near perfect order.

We recommend replacing old head bolts. It is too big a job, to risk 'not' replacing. We supply a kit that includes the eight 3rd row bolts. (P/n BK 0119).

Composite gaskets are thicker than conventional gaskets by a compression factor of about 0.6-1.

Further Advice.

Some compression can be restored if you reface your heads but be aware the more you take off your cylinder head face, the more you will effect the 'Tappet Pre-Load'. Intake Port alignment, as well as risking valve to piston contact in extreme cases.

Multi-layer Head Gasket		
Model		Part Number
Freelander	1.8 K series	LVB500190

This latest version of cylinder head gasket for Rover 'K' series engines is a recent development and has been produced for the Land Rover 1.8 K Series engine fitted on models such as Freelander.

Land Rover, determined to reduce drastically the very high rate of failure caused by the cylinder head gasket, has formulated a substantial change that can be identified by two main factors:

1. New head gasket in Multi Layer Steel (MLS).
2. Special steel shim in metal-rubber with a treatment called "Headsaver".

Bearmach provides this new version of cylinder head gasket that is identical to the original above with regards to dimensions and structure. The steel dowels supplied with this gasket have a different diameter compared to the original, however these are a direct replacement for the original dowels.

These are In the kit.



Tech tips

Use new head bolts and cam belt

Do not move pistons/crank when head is off, liners can move.

Make note of position of cam lobes before belt is removed

We recommend a thermostat modification kit be fitted

Check toggle valve in the cooling side of the inlet manifold

If the head has been skimmed check clearance of dowels to stop pinch on the tightening process



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LAND ROVER PARTS

Power Chip			
Model		Type	Part Number
Defender	Td5	+33BHP/65NM	BA 2178
Defender	Puma	+28BHP/55Nm	BA 21782
Discovery 2	Td5	+33BHP/65NM	BA 2178
Range Rover P38	2.5TD/DSE	+25BHP/42Nm	BA 2174
Range Rover L322	6.0 TD6		BA 4200



POWER CHIPS, PLUG AND DRIVE.

Ecobox for common-rail engines, through reduction of fuel consumption, cares for your pocket and the environment.

The units are programmed specifically for Land Rovers various groups of engines.

Using information extracted from Land Rover factory ECU rail pressure maps, the unit modifies pressure control, resulting in increased quality of burning rate of the fuel and mileage.

DIESEL EVOLUTION

Before 1996, there were no diesel engined vehicles regulated by electronic control units (ECU). The whole of the engine worked mechanically and the fuel pump was not controlled by an original computer. Put simply, the pressure of the foot on the accelerator itself managed the output!

But things have really changed. Diesel engines are these days better performing and less noisy, and with less CO₂ emissions. This evolution has enabled mechanic enthusiasts to work directly on the improvement in performance of turbo-diesel engines, by grafting a second system parallel to the original management system.

DEVELOPMENT

To develop an additional power box we have drawn up basic electronic diagrams: resistors, transistors and micro-controllers linked together. The result offers a micro-programme for the management of the various peripherals, and in strict partnership with the original management system.

The development of this type of unit demands a detailed know-how and perfect command of thermal engines, electronics, and computers.

Real up-to-the-minute technology, power units are constantly evolving due to the ever-greater complexity of the original management systems.

Save fuel!!!!



WHO SHOULD USE THIS PRODUCT

Main customer groups for this product line are Land Rover owners looking for better performance and torque, on road and off road. Large numbers of individual customers buy PowerPlus, as they are interested in reduced fuel consumption and also noticeable increase of power and torque.

If you wish to reduce fuel consumption by up to 12% and you will be satisfied with a power & torque increase of up to 10% - this product is for you and your car.

HOW IT WORKS?

The unit is connected to rail pressure sensor line with factory-like adapters. It compares actual rail pressure sensor readings with Land Rover factory rail pressure map, coded in ECU.

Whole development of maps for every type of engine is done on our professional dynos. Also developed and approved on long road test by Bearmach in all types of conditions, and regions.

PowerPlus increases slightly the rail pressure in that area of working map, when the car is accelerating, but while cruising with almost stable speed, it will reduce the pressure.

Also in places of ECU map, where characteristics of pressure is not stable or inconsistent - PowerPlus will correct this.

When you cruise, your engine works more silently and softly. If you have to overtake or simply accelerate, PowerPlus gives additional power and increases power of the engine, sometimes felt as extra "overboost".

This solution seems outwardly simple. But original maps of rail pressure from factory ECU for exact type of your engine must be coded into our box, also we have to use fast micro controller to analyse maps and readings coming from rail sensor in real-time. Based on accurate knowledge of specific engine power and torque curves, PowerPlus can be very efficient in increasing mileage per gallon.

WHAT RESULTS CAN I EXPECT?

Reduction in fuel consumption (while driving conditions remain same as before) - up to 12%

Increase of power and torque in whole range of RPM - up to 10%

Smoother acceleration and reduction of acceleration time

Slightly more silent engine run, especially while cruising at lower RPM range

Simple installation - 5 minutes, factory-like plugs, printed instructions

Kent Camshaft +18-22BHP		
Model	Application	Part Number
Series	3.5/3.9 V8	BA 2186
Defender	3.5/3.9 V8	BA 2186
Discovery 1	3.5-3.9 V8	BA 2186
Discovery 2	4.0 V8	BA 2187
Range Rover Classic	3.5/3.9 V8	BA 2186
Range Rover P38	4.0/4.6 V8	BA 2187

KENT CAMSHAFT+ 18-22BHP

Camshaft wear is notorious in this V8 engine, Kent Cams and Bearmach have been the pioneers in developing this cam for good road and off road performance, combining cost effectiveness and reliability.

With Kent Cams the difference is in the detail. That is why Kent Cams are the manufacturer of choice to the world's leading motor-sport engine builders.

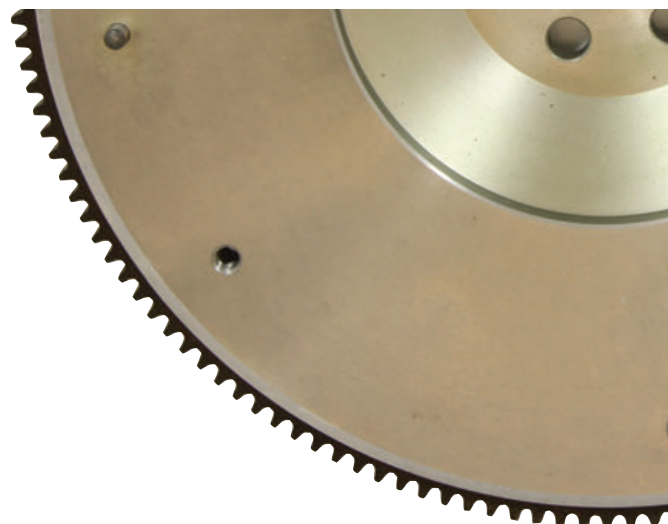
Their cams are used in most major motor-sport events around the world. A very popular upgrade, to the legendary V8.



TECH TIP

We recommend, as a general rule, it is important to ensure good oil flow during the camshafts first 20 minutes of life. Consequently it is essential to run the engine at a fast idle (above 2000RPM) to ensure adequate lubrication of the camshaft and followers.

This will allow the surfaces of the cam lobes and followers to bed in properly and guarantee long component life.



Performance Flywheel (V8)	
Model	Part Number
Series	BA 2031
Defender	BA 2031
Range Rover Classic	BA 2031
Discovery	BA 2031

LIGHTENED AND BALANCED FLYWHEEL (EARLY V8)

Another performance item, that will give you more power at the wheel. Around one third of the weight of a production flywheel.

The figures speak for themselves. If you remove 1kg from a flywheel will give you around 40kg weight saving from the chassis.

Accepts the standard Tdi clutch for multi spline clutch STC8358.

- Gives faster engine response.
- Takes competition clutch or standard 9.5" clutch.
- Complete with locating dowels and ring gear.
- Uses M8 bolts for the cover.
- Manufactured in billet machined alloy steel.

Heavy Duty Clutch Release Bearing	
Model	Part Number
Series 3	BR 2295M
Defender	BR 2295M
Range Rover Classic	BR 2295M
Discovery 1	BR 2295M
Discovery 2	BR 2295M

HEAVY DUTY CLUTCH RELEASE BEARING

The bearing features a unique sealing system that keeps contaminants and water out while keeping the grease in. Ideal for the serious off roader or enthusiast. A quality bearing with excellent resistance to wear that gives longer service life. Also minimises noise and vibration.

Proven in competition in series 3 LT95 LT85 LT77 R380 gearboxes. A high performance bearing, with an aluminium carrier.



TECH TIPS

Lubricate the shaft and pivot ball with copper grease. We recommend to use heavy duty clutch fork (P/n BR 1952HD)

*Seal bell housing with hylomar
Wading plug used while wading.
Use new slippers and pin*



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LAND ROVER PARTS

Allisport Intercoolers			
Model	Application	Type	Part Number
Defender	300Tdi	Drop in	BA 2303
Defender	200/300Tdi	Front mounted	BA 2320
Defender	300Tdi (Air Con models)	Double core	BA 2303A
Defender	Td5		BA 2306
Discovery	300Tdi	Drop in	BA 2303
Discovery	300Tdi (Air Con models)	Double core	BA 2303A
Discovery	200/300 Tdi	Front mounted	BA 2321
Discovery	200/300 Tdi (Air con models with manual gearbox)*	Front Mounted	BA 2326
Discovery 2	Td5	Front mounted	BA 2307
Range Rover Classic	300Tdi	Drop in	BA 2303
Range Rover Classic	200/300Tdi	Front mounted	BA 2321

*Comes complete with extra pipes to enable fitment around obtrusive oil cooler.

INTERCOOLERS

100% BRITISH made.



BENEFITS

Intercoolers increase the efficiency of the induction system by reducing induction air heat created by the turbocharger and promoting more thorough combustion, increasing the output of the engine.

CONSTRUCTION

Units feature top quality materials and construction for strength and durability against vibration. Each and every core is pressure tested to ensure flawless performance. Cores utilise state of the art tube and fin type construction. This design has proven itself to be a top performer in almost every Land Rover racing arena from Paris Dakar to Off Road Trialing and On road applications.

Our cores offer a high density of fins for quick and efficient heat dissipation.

AlliSport differ from many of the competitors in that they design and manufacture all intercoolers in-house. Their renowned high quality intercooler fabrication combined with British Standard Coded aluminium TIG welding, CAD design and CNC machining produces the best product possible.

AlliSport Ltd has become synonymous with turbo diesel tuning and aluminium motorsport fabrication, particularly for Land Rover products. We have tested these intercoolers in the most extreme conditions proving every product to be as efficient and durable as possible.



Tech TIP,

Combined with fuel metering and chipped ECU upgrades the best way of getting your engine to exceed the manufactures tuning specifications.

EGR blanking kits and replacement silicone hose kits are a good combination when choosing this upgrade.



Aluminium Radiator		
Application	Description	Part Number
Defender 200 Tdi		BA 2780
Defender Discovery 300 Tdi		BA 2781
300Tdi with Ige Front Mount Intercooler	70mm	BA 2782
Defender Td5 and Puma Defender		BA 2783
Range Rover P38 diesel		BA 2784
Range Rover P38 Petrol		BA 2785

ALUMINIUM RADIATOR

Over 25% better cooling than the standard fitment using special vacuum brazed cores and optimum 12 fins per inch (FPI) for maximum cooling. These items include an integral oil cooler as per specification. Hand built and fully TIG welded in high grade aluminium to resist corrosion.

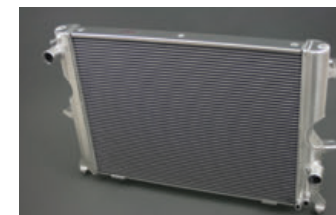
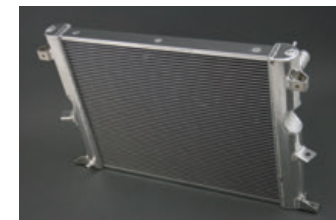
Less than half the weight of the standard item, but designed to withstand the rigours of harsh environments likely to be encountered by Land Rovers.

AlliSport products are regularly developed and used in events such as the Dakar rally.

All pipe connections are swaged for pipe security and all radiators are pressure tested before despatch.

Bearmach have tested and sold this product all over the world.

A quality performance part, customers spend thousands of pounds and endless labour hours building engines and neglect the cooling system. These products build in quality and give you the confidence that you are not going to damage a performance engine through a poor inadequate cooling system.



Aluminium Header Tank		
Application	Description	Part Number
Defender	200/300 Tdi / V8	BA 2324
Defender	Td5	BA 2325
Discovery 1	200/300 Tdi / V8	BA 2324
Range Rover	300 Tdi / V8	BA 2324

REPLACEMENT ALUMINIUM HEADER TANK EXPANSION RESERVOIR FROM ALLISPORT LTD.

Designed to replace the original problematic header tank. The original plastic items are prone to splitting along the seam caused by the constant expansion and contraction. This upgrade eliminates the problem and also aids cooling by increasing surface area and being a conductor of heat not an insulator. Build-in quality so that it does not fail causing engine failure, manufactured in the UK with high quality CNC stamp cut 2mm aluminium and is fully TIG welded by hand in house. Swaged pipe connections for extra pipe security. This tank uses the original mounts and hose connections and has been designed to take the original Land Rover pressure cap, a good thing if you want to carry a spare. *Visually enhances the under bonnet looks.*



Radiator / Intercooler Mounting Frame		
Application		Part Number
Defender	200/300 Tdi	BA 2790

HAND MADE ALLOY RADIATOR/INTERCOOLER MOUNTING FRAME

High quality hand made alloy radiator and intercooler mounting frame. This frame is designed for use with our 70mm larger alloy radiator and standard size front mount Intercooler. *Made from high quality lightweight aluminium and includes stainless steel bolts and washers. Precision CNC stamp cut.*

Radiator Frame		
Application	Description	Part Number
Defender	Large	BA 2792
Discovery 1	Large	BA 2791
Discovery 2	Large	BA 2793



High Performance Engine Breather Oil Catch Tank		
Application		Part Number
Defender	200/300 Tdi	BA 2329
Discovery	200/300 Tdi	BA 2329
Range Rover Classic		BA 2329

UPDATED ENGINE BREATHER OIL CATCH TANK

All Land Rover engines need to breathe crankcase pressure into the atmosphere and most are designed to re-enter the air intake system after the air cleaner. The standard breather pots use a gauze and mesh design which over time become blocked with oil deposits, reducing the capacity to release crankcase pressure and also allowing more oil vapour to enter the intake system. This high performance replacement is designed to effectively reduce crankcase pressure build up on Tdi engines by using an internal baffle rather than the standard gauze and mesh design. This product is designed to have a practical purpose offering an improvement over the original black plastic units, and it will also look great in the engine bay. *The unit is designed to fit all Tdi engines including 2.8 TGV*



High Output Heater Matrix			
Application			Part Number
Defender	All models 1996-2006	Downward facing pipes replaces AAP817	BA 2370
Defender	All Models 1986-2006	Horizontal facing pipes replaces UTP1725	BA 2380

HIGH OUTPUT HEATER MATRIX

A cold subject on the Defender, the heater takes a long time to warm up. Designed in 1986 and not modified sufficiently till 2007. This direct replacement performance matrix will conduct heat 30% to 40% quicker. Clearing the screen and the cabin of that condensation on cold damp mornings. Giving you control of the heating inside your cabin, that you would find on any modern vehicle. Bearmach have tested this product world wide and found other benefits. In hot climates it helps dissipate the heat of the engine in extreme conditions, helping the engine to stay cool. Another benefit are that they are made in the UK of top quality aluminium and use high quality vacuum brazed cores. They are not going to fail if you're going on an expedition or require a cooling system upgrade that has to perform.



Est. UK 1958
Bearthmach
LAND ROVER PARTS

Electric Fan Kit 14"

Model	Type	Part Number
Series	Single fan	BA 031
Series	Twin fan	BA 031A
Defender	Single fan	BA 031
Defender	Twin fan	BA 031A
Range Rover Classic	Single fan	BA 031
Range Rover Classic	Twin fan	BA 031A
Discovery 1	Single fan	BA 031
Discovery 1	Twin fan	BA 031
Discovery 2	Single fan	BA 031
Discovery 2	Twin fan	BA 031A

Model	Type	Part Number
Various	Fitting kit	BA 031K
Various	Thermostat kit	BA 031T

ELECTRIC FAN KIT

Electric fans keep your engine cool, and improve the horsepower and torque at the wheels by eliminating the parasitic drag of the stock belt-driven fan. Also helps in wading conditions as you can turn the fan off, with an override switch.

Using the latest high efficiency fans with adjustable electronic controller these kits are designed to replace the standard original mechanical fan, reducing the load on the engine, noise and improving both power and mpg.

Electric fans allow quicker warm ups and cool downs, longer water pump life, less fan noise, improved air conditioner performance and improve miles per gallon.

Keeping your Land Rover engine running at optimum temperature will ensure you get the best performance and economy.

Unlike other fan kits that use a universal mounting system through the radiator core (BA 031K negative earth only). These fans are reversible and balanced, to push or pull. Giving you choice of positions in different applications.

Simply remove fan from water pump hub, then fix electric fan through radiator with special fixings.

Complete with fitting kit, thermostat and instructions.

Co-designed and manufactured by Bearmach.

The electric fan kit replaces the belt driven unit.



Save fuel!!!!



keep cool!!!!





Bearmach Silicone Turbo Hose Kits

Model	Application	Part Number Green	Part Number Blue
Defender	200Tdi	BA 2330G	BA 2330
Defender	300Tdi	BA 2332G	BA 2332
Defender	Td5*	BA 2334G	BA 2334
Defender	Puma 2.4	BA 2340G	BA 2340
Discovery 1	200Tdi	BA 2332G	BA 2332
Discovery 1	300Tdi	BA 2332G	BA 2332
Discovery 2	Td5*	BA 2334G	BA 2334
Discovery 3		BA 2341G	BA 2341
Range Rover Classic	200Tdi	BA 2332G	BA 2332
Range Rover Classic	300Tdi	BA 2332G	BA 2332
Range Rover Sport		BA 2341G	BA 2341
Range Rover Evoque	2.2Td	BA 2342G	BA 2342
Range Rover Evoque	2.0 Turbo petrol	BA 2343G	BA 2343
Freelander 1	TD4	BA 2335G	BA 2335
Freelander 2	2.2Td	BA 2342G	BA 2342

*Some vehicles require shortening of one of the hoses

HEAVY DUTY PERFORMANCE SILICONE HOSE KITS

These are a direct replacement hose, a popular product and sold world wide.

Specially tested and developed by the Bearmach design team!

Ideal to replace standard perished items and essential with a tuned engine running higher boost pressure.

Silicone hoses are stronger and do not de-laminate like the original items. Bearmach offer a huge range of Land Rover specific silicone hose kits.

Produced in blue or green.

These Silicone hoses will outperform and outlast conventional rubber type hoses which make them ideal for use in the performance application.

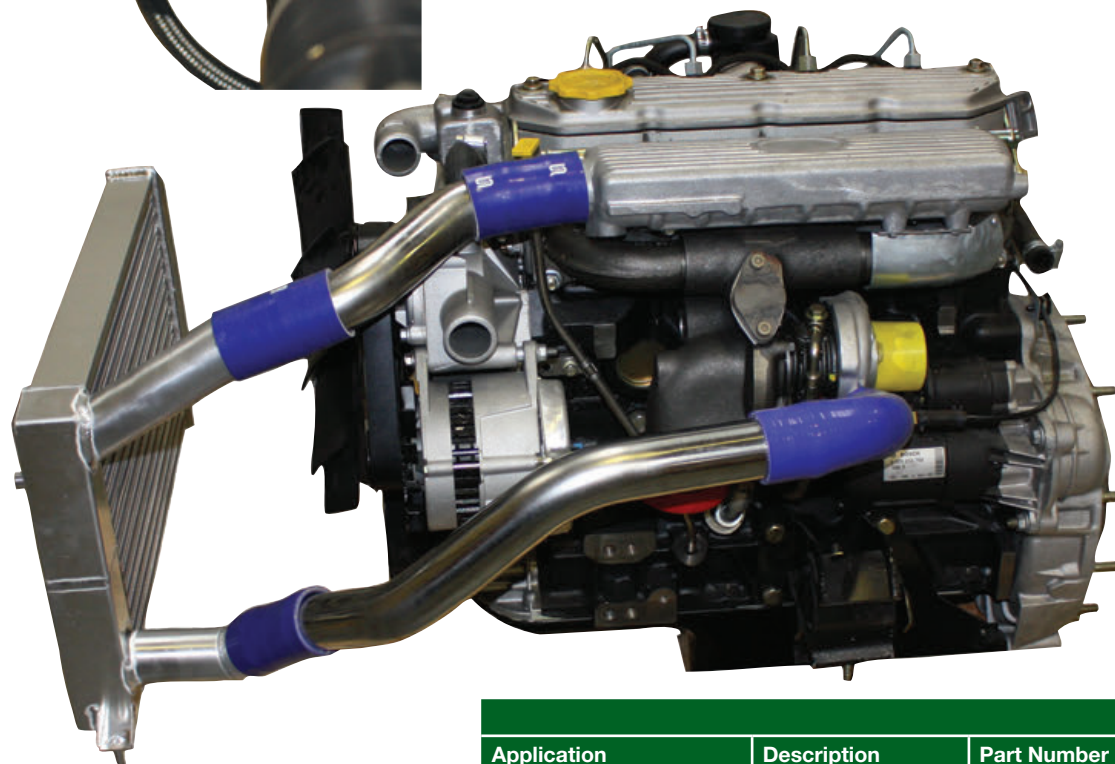
Able to withstand higher temperatures, pressures. Oil resistant.



Tech Tip

If your vehicle is fitted with an Exhaust Gas Recirculation system (EGR) we recommend that this is blanked off.

See our other listings for our EGR removal kits on page 53



Application	Description	Part Number
Discovery 3, Range Rover Sport	Intercooler pipe Easy Fit	BA 2327



SFS PERFORMANCE®

Exclusively designed and manufactured in the UK SFS Performance silicone hoses are proven at the highest levels of Motorsport and Fast road applications. These silicone hoses have a track record second-to-none.

With high tensile strength, wide temperature range from -60°C to +220°C and excellent resistance to UV, water, ozone and oxygen, these are the hoses that thrive on the high pressures and extreme temperatures found in high performance engines.

Whatever the demands, SFS performance hoses deliver uncompromising, long-term performance.

- Operate at a much high temperature and pressure.
- Premium grade silicone rubber used through-out the hose.
- The most expensive pigments used to avoid colour fade over time.
- All hoses made in the UK.
- SFS are accredited to ISO9001 for quality.
- Easy to clean, soapy water is best to avoid colour degradation.
- Available in black or blue



SFS Silicone Coolant Hose Kits				
Application	Part Number (Black)	Part Number (Blue)	Description	Contents
Defender 300Tdi	BA 2355	BA 2355B	Silicone Expansion/Bleed Kit	Expansion Tank Bleed Hose (x3) - No Valve
Defender 90/110 200Tdi	BA 2356	BA 2356B	Silicone Coolant Hose Kit	Bottom Hose Top Hose Water Pump Hose Top Rail Hose Expansion Tank Hose
Defender 90/110 300Tdi	BA 2357	BA 2357B	Silicone Coolant Hose Kit	Bottom Hose Top Hose Water Pump Hose
Defender 90/110 Td5	BA 2358	BA 2358B	Silicone Coolant Hose Kit	Top Hose Only
Defender 90/110 Td5	BA 2359	BA 2359B	Silicone Heater Hose Kit	Water Hose (x2)
Discovery 1 200Tdi to LA081991	BA 2352	BA 2352B	Silicone Coolant Hose Kit	Bottom Hose Top Hose Water Pump Hose
Discovery 1 300Tdi from MA081992	BA 2353	BA 2353B	Silicone Coolant Hose Kit	Bottom Hose Top Hose Water Pump Hose
Discovery 2 Td5	BA 2354	BA 2354B	Silicone Coolant Hose Kit	Top Hose Only
Discovery 300Tdi	BA 2355	BA 2355B	Silicone Expansion/Bleed Kit	Expansion Tank Bleed Hose (x3) - No Valve

Temperature range of -60°C to +180°C (aramid reinforced -60°C to +220°C)

Resistant to coolant solutions

Excellent resistance to ozone

Excellent resistance to oxidation

Excellent resistance to ultraviolet light

Resistant to cracking, peeling and ageing

Standard wall thickness 3.5mm to 5.5mm depending on bore size and number of layers



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LAND ROVER PARTS

Stainless Steel Exhaust Systems			
Model			Part Number
Defender 90	All V8 carb models	Complete system (with extractor manifolds)	BA 2192
Defender 110	3.5 V8	Complete sport system (with extractor manifolds)	BA 2192A
Range Rover Classic	3.5 V8	Complete sport system (with fitting kit)	BA 2160
Range Rover Classic	3.5 V8	Extractor manifold	BA 039
Range Rover Classic	3.9 V8	Complete sport system (with fitting kit)	BA 2161
Range Rover P38	4.0/4.6 V8	Complete sport system (with finishing pipes)	BA 2191A
Range Rover P38	4.0/4.6 V8	Complete twin pipe system	BA 2191

DOUBLE S EXHAUST SYSTEMS

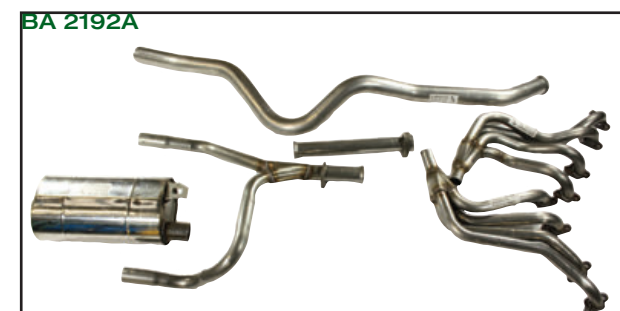
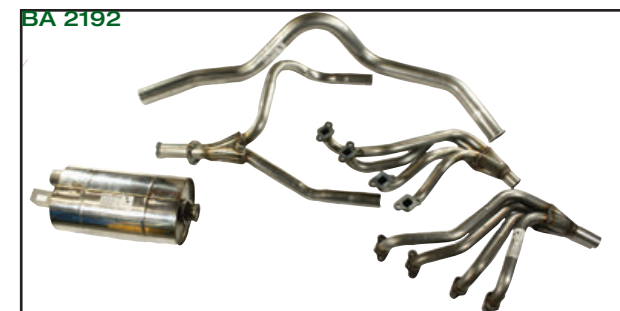
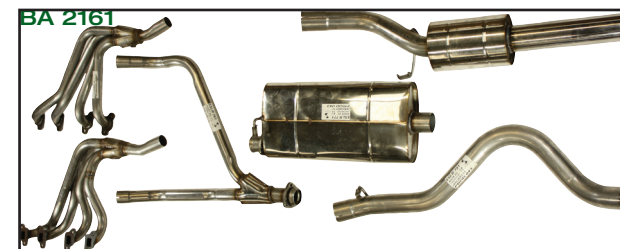
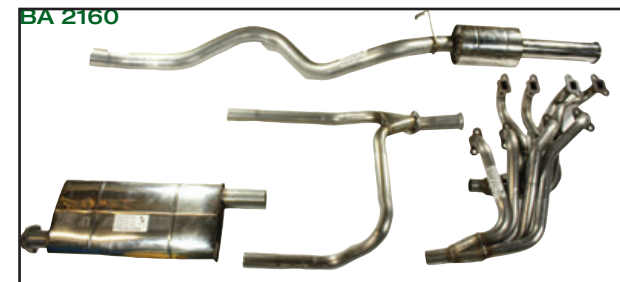
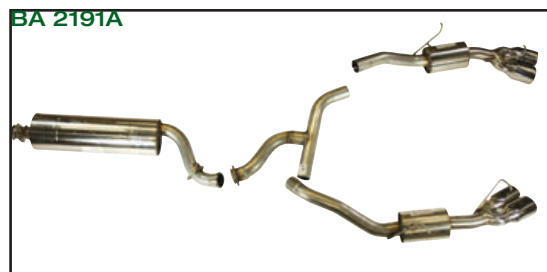
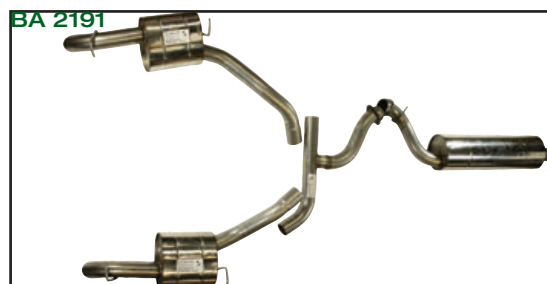
MANUFACTURE

All Double S systems are manufactured using three main types of stainless steel.

- Specifically developed for exhaust applications by Jaguar cars and now also extensively used for catalytic converters Type 409 (Ferritic) combines good elevated temperature corrosion resistance with medium strength and good formability making it an ideal material for exhaust systems.
- Defined as Chromium-Nickel austenitic alloy and having excellent corrosion resistance qualities Type 304 (Austenitic) has a minimum of 18% chromium and 8% nickel, combined with a maximum of 0.08% carbon.
- Widely used in the marine industry Type 316 has excellent saline corrosion resistance properties and plays an integral role in the manufacture of the systems.

Double S have a complete silencer manufacturing and assembly line, utilising pneumatic baffle and roving (packing) insertion to accurately achieve the sound quality our customers require. During prototyping the stainless steel silencers can be tested in three frequency bands to check the success of their noise absorption rates. This gives Double S a benchmark which they use to test all new packing materials as they come on the market to gauge their effectiveness.

Using CAD design, CNC mandrel forming and being one of the few manufacturers worldwide in the industry to use computerised measuring and testing equipment. Double S provide the highest levels of quality control. Quality Management system to BS EN ISO 9001:2008 Certificate #GB00816.



Stainless Steel Exhausts (Centre Pipe)		
Model		Part Number
Series III	SWB Centre Pipe	BR 1295S
Defender 90	All 2.5L 200Tdi models	BA 2269
Defender 90	All 2.5L 300Tdi up to (VIN) TA999221	BA 2267
Defender 90	All 2.5L 300Tdi from (VIN) TA999222 on	BA 2267A
Defender 90	All 2.5L Td5 models	BA 2265
Defender 90	All V8 petrol models	BA 2265
Defender 110	All 2.5L 200Tdi models	BA 2290
Defender 110	All 2.5L 300Tdi models	BA 2268
Defender 110	All 2.5 Td5 models	BA 2266
Discovery 1	2.5L 200Tdi	BA 2264
Discovery 1	2.5L 300Tdi	BA 2263
Discovery 2	2.5L Td5	BA 2261
Discovery 2	V8	BA 2262

BA 2261



BA 2267



BA 2262



BA 2267A



BA 2263



BA 2268



BA 2264



BA 2269



BA 2265



BA 2290



BA 2266



Cat By-Pass Pipe		
Model		Part Number
Defender	2007	WCD501910

D-Cat PIPE (STRAIGHT THROUGH FRONT PIPE)

For off road use only.



EGR Blanking Kit		
Model		Part Number
Defender	300Tdi	BA 2332A
Defender	Td5	BA 2336
Range Rover Classic	300Tdi	BA 2332A
Range Rover P38	2.5D	BA 2339
Range Rover Sport	TDV6	BA 2338
Discovery	300Tdi	BA 2332A
Discovery 2	Td5	BA 2336
Discovery 3	TDV6 (up to 2007)	BA 2338
Freelander 1	TD4	BA 2337

EGR BLANKING

THE EXHAUST RE-CIRCULATION (EGR) SYSTEM

This EGR blanking kit allows the engine to breathe oxygenated air rather than hot exhausted air.

So, WHY DO WE HAVE IT?

The EGR System is a simple and problematic emissions reducing device specifically introduced to reduce NOx emission.

When the combustion gases heat up excessively, nitrous oxide NOx is produced. To reduce the production of NOx, the engine's combustion temperatures need to be reduced and the EGR system allows re-circulated exhaust gas back into the inlet side of the engine.

This is a continuous process and the EGR valve remains open on cruise and all the way up to just before wide open throttle. At wide open throttle (WOT) emissions are not tested and so manufacturers close the valve and allow a full shot of fresh air to allow the engine to develop max power.

BLOCKING THE EGR SYSTEM GIVES US TWO MAIN BENEFITS.

1. Blocking the EGR will certainly stop the soot from the exhaust clogging up the inlet manifold. 300Tdi engines have had the inlet manifolds virtually blocked.
2. When blocking the EGR port you are redirecting the exhaust gases back out via the turbo, (where it was meant to go). The turbo now has more pressure turning the blades and the turbo will spool quicker. Most people will even be able to feel this by the "seat of their pants" dyno. ie you will feel a marginal increase in performance and that's a good thing. Variable vane Turbo Charges are also ok with blanking the EGR.

Yes, the engine is producing more NOx emissions however the reduced throttle position (because of EGR blanking) means you will be using less diesel and producing less soot or particulate matter (PM).



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Bearthmach
LAND ROVER PARTS

POLYURETHANE BUSHES

BEARMACH POLYURETHANE BUSHES

The fitment of Bearmach Polyurethane bushes have been developed to give more positive location at pivot or fulcrum points. These suspension components are particularly recommended if you regularly take your Land Rover off road, tow or carry heavy loads.

Polyurethane Bushes have been taking over the automotive suspension industry.

Bearmach's bushes are different from others in the market, made to our high standard, these bushes have a high capacity to bear tension and compression and have been tested at temperatures from -100°C to +100°C. They are resistant to deterioration and swelling caused by oil, grease or chemicals.

Tested in Australia and New Zealand in all weather conditions.

- Polyurethane allows suspensions to work positively 100% of the time... giving the driver that "in control" feeling.
- Makes a dramatic improvement in vehicle handling.
- Maintains proper alignment throughout suspension travel.
- Will not rot or deteriorate from atmospheric conditions such as smog, ozone, road salts, Impervious to gas, oils and other petroleum products.
- Polyurethane is an extremely durable material with the best features of rubber and plastic.

The Bearmach lubricant supplied is designed to optimise bush durability and performance. Bearmach grease is a molybdenum disulphide (LM) based grease and has excellent stability and extreme pressure qualities for extended life and high melting point.

Bearmach's Polyurethane is accredited to ISO9001:2000. As part of our quality process we undertake certain checks and tests on each batch of material. Ensuring that the Polyurethane product is correct and suited to the material requirements.

These include:

- Hardness build-up (hardness whilst curing) Durometer
- Ratio of mixed material
- Tear test
- Tensile test and elongation



TECH TIPS

How do I know when my suspension bushings need replacing?

Usually if your vehicle suffers from any or all of these symptoms it is a good indication that your suspension bushings need replacing.

Poor wheel alignment or unable to maintain wheel alignment settings

Vague steering response

Abnormal or excessive tyre wear

Noisy suspension

Excessive movement in suspension components

Shuttering under braking

Vehicle excessively following road contours

Bushings showing signs of fatigue, swelling, irregular shape & general wear and tear.

Grease supplied in the kits where required should only be used and applied to the bush surfaces designed to pivot (eg flange faces and internal bores) DO NOT grease pressed fit surfaces (eg outer shell) or outside surface of shackle bushings. DO NOT use rubber grease as this can affect urethane bushings.

Anti Roll Bar Mounting Bush Polyurethane			
Model			Part Number
90	All models	Front standard bar	BR 0388P
110	All models	Front standard bar	BR 0388P
Defender 90	All models	Front standard bar	BR 0388P
Defender 90	All models from (VIN) MA960430 to WA159806 except V8 EFi	Rear 16mm bar	BR 0374P
Defender 110	All models	Front standard bar	BR 0388P
Defender 110	All models from (VIN) MA930430 to WA159806 except V8 EFi	Rear 16mm bar	BR 0374P
Range Rover Classic	All models	Front standard bar	BR 0388P
Range Rover Classic	All models	Rear 16mm bar	BR 0374P
Range Rover P38	All models	Front	ANR3305P
Discovery 1	All models	Front standard bar	BR 0388P
Discovery 1	All models	Rear 16mm bar	BR 0374P
Discovery 2	All models with air suspension without active cornering enhancement	Rear	RBX101700P
Discovery 2	All models with coil spring suspension without active cornering enhancement	Rear	RBX101710P

ANTI ROLL BAR BUSHES

Bearmach recommend polyurethane anti roll bar bushes to ensure a tight fit to the bar. This avoids knock and squeaks from loose bushes and minimises wear. This performance bush is the best for durability in all conditions, reducing body roll and sharpening up steering.

Anti Roll Bar Link Bush Kit			
Model			Part Number
90	All models	Set of 8	BA 032L
110	All models	Set of 8	BA 032L
Defender 90	All models	Set of 8	BA 032L
Defender 110	All models	Set of 8	BA 032L
Range Rover Classic	All models	Set of 8	BA 032L
Discovery 1	All models	Set of 8	BA 032L

Anti Roll Bar Link Polyurethane		
Model		Part Number
90	All models fitted with anti roll bar	BR 1083P
110	All models fitted with anti roll bar	BR 1083P
Defender 90	All models fitted with anti roll bar	BR 1083P
Defender 110	All models fitted with anti roll bar	BR 1083P
Range Rover Classic	All models fitted with anti roll bar	BR 1083P
Discovery 1	All models fitted with anti roll bar	BR 1083P



Anti Roll Bar Mounting Bush (Set of 2)			
Model			Part Number
90	All models	Rear for 22mm bar	BA 034D
110	All models	Rear for 22mm bar	BA 034D
Defender 90	All models	Rear for 22mm bar	BA 034D
Defender 110	All models	Rear for 22mm bar	BA 034D
Range Rover Classic	All models	Rear for 22mm bar	BA 034D
Discovery 1	All models	Rear for 22mm bar	BA 034D



Front Sway Bar D Bush 24mm		
Model		Part Number
Defender	Pair	BA 032D
Discovery	Pair	BA 032D
Range Rover Classic	Pair	BA 032D



Anti Roll Bar Link Adjustable		
Model		Part Number
Range Rover P38	Front	ANR3304ADJ
Freelander 2	Front	LR002626ADJ
Freelander 2	Rear	LR002876ADJ
Discovery 3	Rear	RGD000311ADJ
Discovery 4	Rear	RGD000311ADJ
Range Rover Sport	Rear	RGD000311ADJ
Range Rover Sport	Rear	RGD500140ADJ
Range Rover L322	Rear	RGD500150ADJ
Range Rover Evoque	Rear	LR002876ADJ
Range Rover Evoque	Front	LR024474ADJ



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LAND ROVER PARTS

POLYURETHANE BUSHES

Shock Absorber Mounting Bush			
Model			Part Number
Series II 88"	All models	Front upper and lower / Rear lower	BR 1083P
Series II 88"	All models	Rear lower	BR 1083P
Series II 109"	All models	Front upper and lower / Rear lower	BR 1083P
Series III 109"	All models	Rear lower	BR 0695P
Series IIA 88"	All models	Front upper and lower / Rear lower	BR 1083P
Series IIA 88"	All models	Rear lower	BR 1083P
Series III 109"	All models	Front upper and lower / Rear lower	BR 1083P
Series IIA 109"	All models	Rear lower	BR 0695P
Series III 88"	All models	Front upper and lower / Rear lower	BR 1083P
Series III 88"	All models	Rear lower	BR 1083P
Series III 109"	All models	Front upper and lower / Rear lower	BR 1083P
Series III 109"	All models	Rear lower	BR 0695P
90	All models	Front upper and lower / Rear lower	BR 0695P
90	All models	Rear upper	BR 1083P
110	All models	Front upper and lower / Rear lower	BR 0695P
110	All models	Rear upper	BR 1083P
Defender 90	All models	Front upper and lower / Rear lower	BR 0695P
Defender 90	All models	Rear upper	BR 1754P
Defender 90	All models from (VIN) XA159807 on	Rear lower	ANR1721P
Defender 110	All models	Front upper and lower / Rear lower	BR 0695P
Defender 110	All models	Rear upper	BR 1754P
Defender 110	All models from (VIN) XA159807 on	Rear lower	ANR1721P
Range Rover Classic	All coil sprung models	Front upper and lower	BR 0695P
Range Rover Classic	All models up to (VIN) HA	Rear upper	BR 1083P
Range Rover Classic	All models HA on	Rear upper	BR 1754P
Range Rover Classic	All models up to (VIN) LA647644	Rear lower	BR 0695P
Range Rover Classic	All models from (VIN) MA647645 on	Rear lower	ANR1721P
Range Rover Classic	All models with air suspension	Front lower	ANR1721P
Range Rover P38	All models up to (VIN) VA348053	Front lower	ANR1721P
Discovery 1	All models	Front upper and lower	BR 0695P
Discovery 1	All models	Rear upper	BR 1754P
Discovery 1	All models up to (VIN) LA081991	Rear lower	BR 0695P
Discovery 1	All models from (VIN) MA081992 on	Rear lower	ANR1721P



Monroe Shock Absorber Bush Kit (Pin End)		
Model		Part Number
Series III 109"	All models	BR 0645MK
90	All models	BR 0645MK
110	All models	BR 0645MK
Defender 90	All models	BR 0645MK
Defender 110	All models	BR 0645MK
Range Rover Classic	All coil spring models	BR 0645MK
Discovery 1	All models	BR 0645MK



Pro Comp Bush Shock Absorber		
Model		Part Number
Defender	Procomp	P1029



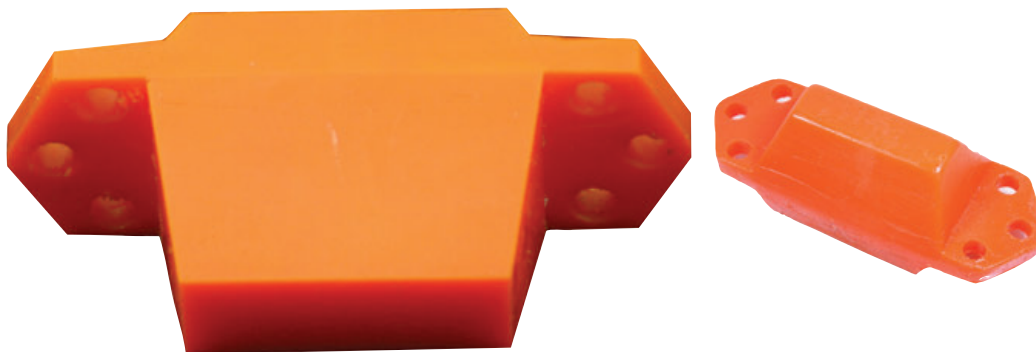
Bump Stop				
Model		Height		Part Number
90	All models	Standard	Front	BFM 236P
90	All models	Extended	Front/Rear	BFM 237PE
110	All models	Standard	Front	BFM 236P
110	All models	Extended	Front/Rear	BFM 237PE
Defender 90	All models	Standard	Front	BFM 236P
Defender 90	All models	Extended	Front/Rear	BFM 237PE
Defender 110	All models	Standard	Front	BFM 236P
Defender 110	All models	Extended	Front/Rear	BFM 237PE
Range Rover Classic	All models with coil spring suspension	Standard	Front	BFM 236P
Range Rover Classic	All models with coil spring suspension	Extended	Front/Rear	BFM 237PE
Discovery 1	All models	Standard	Front	BFM 236P
Discovery 1	All models	Extended	Front/Rear	BFM 237PE

EXTENDED BUMP STOP

Bearmach recommend if you have fitted a +2"plus lift and dampers then you should fit extended bump stops as well.

The problems occur when the suspension is on maximum compression - the axle could try and travel further "upwards" than the springs or dampers will allow and thus cause damage to them. The problem is not when the axle articulates in a downward direction, it's when it is in compression. There is another 2" of spring and damper length to "lose" and sometimes the spring or damper can't compress enough when the axle is on it's original bump stops and damage (usually to the damper) can occur.

Also recommended if your carrying weight or towing on a standard suspension set up.



Suspension Bush Kit			
Model			Part Number
Series IIA 109"	All models	Front and Rear Suspension Bush Polyurethane	BA 2073A
Series III 88"	All models	Front and Rear Suspension Bush Polyurethane	BA 2073A
Series III 109"	All models	Front and Rear Suspension Bush Polyurethane	BA 2073
Defender 90	All models up to 1995	Front and Rear Suspension Bush Polyurethane	BA 2072
Defender 90	All models from (VIN) MA to 2A626645	Front and Rear Suspension Bush Polyurethane	BA 2071
Defender 90	All models from (VIN) 2A626646 on	Front and Rear Suspension Bush Polyurethane	BA 2071A
Defender 110	All models up to 1995	Front and Rear Suspension Bush Polyurethane	BA 2072
Defender 110	All models from (VIN) MA to 2A626645	Front and Rear Suspension Bush Polyurethane	BA 2071
Defender 110	All models from (VIN) 2A626646 on	Front and Rear Suspension Bush Polyurethane	BA 2071A
Range Rover Classic	All models up to (VIN) BA	Front and Rear Suspension Bush Polyurethane	BA 2070
Range Rover P38	All models	Front and Rear Suspension Bush Polyurethane	BA 2074
Range Rover Sport	All models	Front and Rear Suspension Bush Polyurethane	BA 2076
Discovery 1	All models	Front and Rear Suspension Bush Polyurethane	BA 2071
Discovery 2	All models without ACE	Front and Rear Suspension Bush Polyurethane	BA 2075
Discovery 3	All models	Front and Rear Suspension Bush Polyurethane	BA 2076
Discovery 4	All models	Front and Rear Suspension Bush Polyurethane	BA 2076



Est. UK 1958
Bearmach
LAND ROVER PARTS

POLYURETHANE BUSHES

Spring Bush Polyurethane

Model			Part Number
Series I SWB	All models from 1954 on	Front and rear spring eye, rear spring shackle	BSC 075P
Series I LWB	All models	Front and rear spring eye, rear spring shackle	BSC 075P
Series II 88"	All models	Front and rear spring eye, rear spring shackle	BSC 075P
Series II 109"	All models	Front and rear spring eye, rear spring shackle	BSC 075P
Series IIA 88"	All models	Front and rear spring eye, rear spring shackle	BSC 075P
Series IIA 109"	All models	Front and rear spring eye, rear spring shackle	BSC 075P
Series III 88"	All models	Front and rear spring eye, rear spring shackle	BSC 075P
Series III 109"	All models	Front and rear spring eye, rear spring shackle	BSC 075P



Upper Link Bush Pair Polyurethane

Model			Part Number
90	All models	Rear suspension	BSC 200P
110	All models	Rear suspension	BSC 200P
Defender 90	All models	Rear suspension	BSC 200P
Defender 110	All models	Rear suspension	BSC 200P
Range Rover Classic	All models	Rear suspension	BSC 200P
Discovery 1	All models	Rear suspension	BSC 200P



Lower Flexible Link Arm Bush (Pair) Polyurethane

Model		Part Number
Defender		BFM 491P
Discovery		BFM 491P
Range Rover Classic	Up to 1985	BFM 361P
Range Rover Classic	1986 on	BFM 491P



Wishbone Bushes

Model			Part Number
Discovery 3	Front arm	Upper	RBX500301P
Discovery 3	Front arm	Lower	RBX500311P
Discovery 3	Rear arm	Lower	RGX500290P
Discovery 3	Front arm	Lower	RBX500291P
Discovery 3	Rear arm	Lower	RGX500111P
Discovery 3	Rear arm	Upper	RGX500121P
Discovery 3	Rear arm	Upper	RGX500131P
Discovery 4	Front arm	Upper	RBX500301P
Discovery 4	Front arm	Lower	RBX500311P
Discovery 4	Rear arm	Lower	RGX500290P
Discovery 4	Rear arm	Lower	RGX500111P
Discovery 4	Rear arm	Upper	RGX500121P
Discovery 4	Rear arm	Upper	RGX500131P
Range Rover Sport	Front arm	Upper	RBX500301P
Range Rover Sport	Front arm	Lower	RBX500311P
Range Rover Sport	Rear arm	Lower	RGX500290P
Range Rover Sport	Front arm	Lower	RBX500291P
Range Rover Sport	Rear arm	Lower	RBX500111P
Range Rover Sport	Rear arm	Upper	RGX500121P
Range Rover Sport	Rear arm	Upper	RGX500131P



Spring Bush Polyurethane

Model		Part Number
Series IIA 88"	Front	BSC 089P
Series IIA 109"	Front	BSC 089P



Bush Shackle Polyurethane

Model			Part Number
Series IIA 109"	All models from (VIN) suffix H on	Front suspension	BSC 204P
Series III 109"	All models	Front suspension	BSC 204P



Radius Arm Caster Bush (Set of 4) Polyurethane			
Model			Part Number
90	All models	Front suspension, axle end	BSC 202PC
110	All models	Front suspension, axle end	BSC 202PC
Defender 90	All models up to (VIN) KA930455	Front suspension, axle end	BSC 202PC
Defender 90	All models (VIN) LA on	Front suspension, axle end	BSC 206PC
Defender 110	All models up to (VIN) KA930455	Front suspension, axle end	BSC 202PC
Defender 110	All models (VIN) LA on	Front suspension, axle end	BSC 206PC
Range Rover Classic	All models up to (VIN) BA	Front suspension, axle end	BSC 202PC
Range Rover Classic	All models from (VIN) CA	Front suspension	BSC 206PC
Discovery 1	All models	Front suspension	BSC 206PC
Discovery 2	All models	Front suspension, axle end	RBX101680PC

RADIUS ARM CASTER BUSH

These Bearnmach replacement (polyurethane/steel shroud) front radius arm bushes are the preferred way to regain the correct caster angle for a Land Rover when the first generation John Thompson coil chassis has been lifted.

No need to replace your radius arms with cranked ones.

The bushes have eccentric centres which rotate the axle the 3° required to correct the steering geometry for vehicles lifted 2-3 inches.

Thin type early models BSC 202PC

Wider type later models BSC 206PC .

Position and fitting diagrams included.



Tech tips.

Press required.

We recommend new nuts and bolts.



Panhard Rod Bushes Polyurethane				
Model				Part Number
90	All models	Front	Pair	BSC 103P
110	All models	Front	Pair	BSC 103P
Defender 90	All models up to (VIN) 2A626645	Front	Pair	BSC 103P
Defender 90	All models from (VIN) 2A626646 on	Front		RBX101340P
Defender 110	All models up to (VIN) 2A626645	Front	Pair	BSC 103P
Defender 110	All models from (VIN) 2A626646 on	Front		RBX101340P
Range Rover Classic	All models up to (VIN) BA	Front	Pair	BSC 203P
Range Rover Classic	All models from (VIN) MA648605 on	Front	Pair	BSC 103P
Range Rover P38	All models	Front		RBX101340P
Discovery 1	All models from (VIN) MA085513 on	Front	Pair	BSC 103P
Discovery 2	All models	Front		RBX101340P

Radius Arm Bush (Set of 4) Polyurethane			
Model			Part Number
90	All models	Front suspension, chassis end	BR 2170P
90	All models	Front suspension, axle end	BSC 202P
110	All models	Front suspension, chassis end	BR 2170P
110	All models	Front suspension, axle end	BSC 202P
Defender 90	All models up to (VIN) VA130784	Front suspension, chassis end	BR 2170P
Defender 90	All models	Front suspension, axle end	BSC 202P
Defender 110	All models up to (VIN) VA130784	Front suspension, chassis end	BR 2170P
Defender 110	All models	Front suspension, axle end	BSC 202P
Range Rover Classic	All models from (VIN) CA on	Front suspension, chassis end	BR 2170P
Range Rover Classic	All models up to (VIN) BA	Front suspension, axle end	BSC 202P
Range Rover Classic	All models from (VIN) CA	Front suspension	BSC 206P
Range Rover Classic		Front suspension chassis end	BR 1093P
Range Rover P38		Front suspension	ANR3332P
Discovery 1	All models	Front suspension, chassis end	BR 2170P
Discovery 1	All models	Front suspension	BSC 206P
Discovery 2	All models	Front suspension, chassis end	RBX101730P
Discovery 2	All models	Front suspension, axle end	RBX101680P
Discovery 2	All models	Rear suspension, axle end	ANR6947P
Discovery 2	All models	Rear suspension, chassis end	RBX101730P



Radius Arm Bush (Pair) Polyurethane			
Model			Part Number
90	All models	Rear suspension	BSC 205P
110	All models	Rear suspension	BSC 205P
Defender 90	All models	Rear suspension	BSC 205P
Defender 110	All models	Rear suspension	BSC 205P
Range Rover Classic	All models	Rear suspension	BSC 205P
Range Rover P38	All models	Rear Suspension	ANR3285P
Discovery 1	All models	Rear suspension	BSC 205P



Est. UK 1958
Bearnmach
LAND ROVER PARTS

Securon Belt 4 Point Red (E marked)

Model	Part Number
Various	BA 2580

3" Webbing with eyelet mountings.
Suitable for all competition types.



Securon Belt 4 Point Blue

Model	Part Number
Various	BA 2581

3" Webbing with eyelet mountings.
Suitable for all competition types.



Securon Belt 4 Point Black

Model	Part Number
Various	BA 2582

3" Webbing with eyelet mountings.
Suitable for all competition types.



Securon Safety Harness 3 Point

Model	Part Number
Various	BA 2154

Ideal for off road use, this three point harness securely holds the driver and passenger in place. Mounts on lower seat belt fixings but top mount will need to be repositioned.



Universal Xenon Ultima Bulbs

Model	Part Number
448 H1	BR 0448P
472 H4	BR 0472P
477 H7	BR 0477P
711 H11	BR 0711P

Microfilament technology and 100% Xenon gas for improved performance.

- Other road users can be seen more clearly at a distance of 75m on dipped beam.
- Provides better reflections from road marking and signs.
- H4, H7, H11 have silver caps to blend in with reflector when unlit.
- No changes to wiring required.





Hawkeye Pro

Part Number

BA 5082

HAWKEYE PRO

DIAGNOSTIC TOOL FOR THE WORKSHOP OR MOBILE TECHNICIAN

The HawkEye Pro diagnostic tool is extremely robust and comes with its own storage case. It is very easy to use and is powered directly from the vehicle. Fully unlocked for ALL Land Rover vehicles* the unit comes complete with one cable that will suit all the vehicles manufactured after 2001 - No dongles required.

*Except Evoque - Coming Soon.

The added bonus is that this unit can be upgraded to include 29 vehicle manufacturer diagnostics.



For more details and application data visit:
www.bearmach.com/downloads.php

Hawkeye

Part Number

BA 5070

HAWKEYE

DIAGNOSTIC TOOL FOR THE HOME MECHANIC

At Bearmach we sincerely believe the HawkEye is every bit as useful as carrying a spare tyre with you. It's compact enough to carry in the glove-box at all times particularly if you're on a long holiday journey or off-road adventure. Modern vehicles have advanced engine management systems and hi-tech developments in suspension and braking systems – and so there's a host of problems that can only be properly identified using expensive equipment at the main dealers. HawkEye is an inexpensive solution that gives the home mechanic or small independent garage the ability to diagnose most common faults. Once the fault is repaired, HawkEye can be used to verify the work and clear the fault codes.



Code Breaker Manual

Part Number

CODEBREAKER

CODE BREAKER MANUAL

Using Hawkeye or HawkEye Pro to find the coded fault on your vehicle, then easily translate that code with this invaluable code breaker manual.



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