Meritor Trailer Systems
About ArvinMeritor

ArvinMeritor Inc., is a premier $7.5 billion global transportation industry supplier of a broad range of integrated systems, modules and components, serving the light vehicle, commercial truck, trailer and specialty original equipment manufacturers and related aftermarket. In addition, the company is the leader in coil coating applications, including those for the transportation, appliance, construction and furniture industries.

The company is headquartered in Troy, Michigan, USA and employs 36500 people at more than 120 facilities in 25 countries.

The company is organised into the following business units:

- **Commercial Vehicle Systems** – This global business supplies drivetrain systems and components as original equipment on heavy and medium-duty commercial trucks, trailers and specialty vehicles.

- **Commercial Vehicle Aftermarket** – provides global support and sales distribution through multi-channel outlets for commercial vehicle product lines and has an expanding range of aftermarket products.

- **Light Vehicle Systems** – This international business has grown dramatically as a provider of a number of innovative vehicle aperture and undercarriage systems for cars, light trucks and sport utility vehicles.

- **Light Vehicle Aftermarket** – provides global support and sales distribution through multi-channel outlets, for light vehicle product lines.

- **Exhaust Systems** – This business is a leading supplier of original equipment exhaust systems to the global passenger car and commercial vehicle industries.

- **Roll Coater** – A business with the largest coil-coating capacity in the world. With wide product versatility and market application, Roll Coater serves the automotive, appliance and building industries, among others.

ArvinMeritor Commercial Vehicle Systems is a leading supplier of complete drivetrain and trailer systems and components for medium and heavy-duty trucks, trailers, off-highway equipment and specialty vehicles, including military, bus and coach and fire and rescue. From clutches and transmissions for the North American market to front steer, drive and trailer axles, braking systems, exhaust systems, transfer cases, drivelines and universal joints, trailer air suspension and tyre inflation systems and aftermarket parts. ArvinMeritor covers virtually every heavy vehicle and trailer application.
Meritor, the largest manufacturer of heavy duty trailer axles in the world, offers a full equipment package for the modern trailer. The legendary ROR brand heritage provides a renowned pedigree of proven reliability with over thirty years experience of combining axle, brake and suspension to produce an unbeatable harmonised trailer system. Meritor provides industry leading product engineering and operates one of the world’s largest independent technical development centres, at over 20,000 square metres, where latest designs are extensively tested and refined. These resources enable the production of industry leading, weight saving products with unrivalled reliability and durability.
Meritor Trailer Axles

The Meritor European Trailer Axle Range comprises of the TM, LM and new TA series. The axle range encompasses a variety of applications including low loader, command steer and self steer - increasingly popular choices for reduced tyre costs, road scrub and increased manoeuvrability. Hubodometers can be fitted to all axles.

Cartridge bearing technology for 1,000,000km maintenance free hubs

Meritor were the first in Europe to offer a unitised, zero maintenance trailer bearing. Both the LM and TA axle series feature the option of fully sealed, maintenance free cartridge bearings guaranteed for 1,000,000km or 7 years operation. The cartridge bearing offers the optimum combination of bearing performance and reduced service times. Whilst the hub can be left for up to 7 years without removal, the sealed bearing allows for quick and clean routine servicing should the hub need to be removed more frequently, avoiding the problems of bearing damage due to dirt ingress.

The cartridge bearing is manufactured to extreme levels of accuracy enabling it to be operated in a precisely controlled preloaded condition for optimum life performance. This is very difficult to achieve with a conventional separate bearing.

Meritor strongly believe that this unique cartridge solution is by far the best on offer for optimum whole life costs. Alternative low maintenance solutions, based on an “Insert Bearing” principle, do not offer such advantageous service times when the hub is dismantled and are dependent to a higher degree on the precision of the hub machining operation.
• 9 tonne axle ideally suited for tri-axle super single trailers

• 22.5 inch wheel for 10 stud 335mm pcd M22 x 1.5p ISO mountings

• Low weight, low maintenance Meritor 19.5 inch disc brake or enhanced Q Plus drum brake

• 2 years unlimited mileage warranty on disc brake rotor and caliper

• Available with no maintenance cartridge bearing or standard bearing

• 7 years or 1 million km warranty on no maintenance cartridge bearings

• Self steer versions available

• Option of cost effective aluminium hub variants available for a weight saving of 13kg per axle
TA Axle Range

- Tandem or single wheel axle with static axle rating up to 13 tonnes
- 22.5 inch wheel for 10 stud 335mm pcd M22 x 1.5p ISO mountings
- Available with no maintenance cartridge bearing or standard bearings
- Low maintenance Meritor D Duco disc brake, Q (420mm x 180mm) or Z (420mm x 220mm) drum brakes
- All drum brake components are fully interchangeable with Meritor’s existing TM range

- Stainless steel hub cap with special laser tracking indent and rubber bonded gasket for optimum hub sealing
- 7 years or 1 million km warranty on no maintenance cartridge bearing option
- Separate tapered roller bearing configuration option optimised for strength, durability and long life whilst retaining industry standard sizes
- 2 years unlimited mileage warranty on disc brake rotor and caliper
Off-set flange hub options

Suitable for 22.5 inch, 19.5 inch or 17.5 inch wheels

Option of oil filled hubs

Low maintenance, low weight Meritor 19.5 inch disc brake (19.5 inch wheel only) or Q brake (420mm x 180mm), Z brake (420mm x 220mm), B brake (350mm x 200mm) or AC brake (310mm x 190mm)

Available in command steer and self steer versions

Well proven axle with 30 years experience

8 or 10 stud M22 x 1.5 ISO, 8 or 10 stud 7/18 ° BSF, 8 or 10 stud M22 x 1.5 DIN, 8 stud M20 x 1.5 JAP wheel fixings

TM Axle Range
Q. Why Disc Brakes?
A. Improved performance!

Today’s vehicle combinations provide higher power to weight ratios and higher average speeds. This coupled with increased congestion and increasingly stringent legislation places demands on braking which stretches conventional drum brake technology to its limit. Meritor disc brakes on both trailers and trucks offer many benefits when compared with drum brakes. The main feature being an overall shorter stopping ability in both routine and emergency braking situations.

The full combination of disc brakes on truck and trailer ensures that response times are matched resulting in safer, more stable braking.

Q. Why Disc Brakes?
A. Lower whole life costs and typically double the pad life!

In addition to improved performance time is HALVED for changing the brake pads compared to conventional drum linings. DISC PAD LIFE IS ON AVERAGE TWICE AS LONG; the result is considerably reduced maintenance costs.

In conjunction with major tyre manufacturers the temperatures of the tyre beads were checked and compared during comprehensive testing at M.I.R.A using the latest temperature monitoring equipment.

This proved conclusively that the temperatures generated by the disc brake were significantly lower than those generated by the equivalent drum brake. Separate independent research by tyre manufacturers has also proven there to be no appreciable difference between either inboard or centrally mounted rotor designs in terms of tyre temperature and life.
Disc Brakes

Specific benefits of Meritor disc brakes
Meritor disc brakes have been designed for optimum reliability and minimal life cycle costs compared to their closest competitors. The well proven Meritor DX195 brake has already become very popular in the tri-axle market due to its low weight (38kg), its flexible actuator positioning, and sealed guide sleeves. The latest D Duco brake has been designed with the following unique combination of key features which in many cases are absent in competing products:

- Double sealing of internals – Protects internals from primary seal failures.
- Stainless Steel internals and stainless steel guide sleeves – to prevent corrosion problems.
- Internal synchronisation with piston travel stops to prevent problems created by excessive manual adjustment.
- Quick and simple visual wear indicator – ideal for trailer applications.
- Hardened steel carrier for superior durability.
- Equal travel and guided tappets – prevents taper wear.

Disc brake axle specifications

<table>
<thead>
<tr>
<th>LM MERITOR 19.5 INCH DISC BRAKE</th>
<th>TA MERITOR 22.5 INCH DISC BRAKE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Axle Load Capacity</strong></td>
<td>9T</td>
</tr>
<tr>
<td><strong>Caliper Design</strong></td>
<td>Twin Piston floating caliper</td>
</tr>
<tr>
<td><strong>Actuation</strong></td>
<td>Single or Double diaphragm spring brake</td>
</tr>
<tr>
<td><strong>Rotor Dimensions</strong></td>
<td>Ø 378 x 45mm</td>
</tr>
<tr>
<td><strong>Adjustment</strong></td>
<td>Automatic integral sealed system.</td>
</tr>
<tr>
<td></td>
<td>Lubricated for life</td>
</tr>
<tr>
<td><strong>ABS</strong></td>
<td>100 tooth pole wheel FULLY ABS and EBS compatible</td>
</tr>
<tr>
<td><strong>Wheel Options</strong></td>
<td>Single 19.5 or 22.5 inch wheel options into 10 stud 33 pcd M22 x 1.5p ISO mountings</td>
</tr>
</tbody>
</table>

* Dependent on legislative requirements and application
The latest range of Meritor trailer disc brakes, gives the operator considerable advantages over the standard trailer drum brake.

**Optimum braking**
The operator now has a system that gives him reduced stopping distances with advanced ABS and EBS compatibility resulting in improved braking performance, achieved through the caliper’s fast, positive actuation and consistent brake force.

**Stability**
Disc brakes have no self energisation effect, normally expressed as brake factor. The benefit of this is demonstrated by the disc brake’s stability compared to that of an equivalent drum brake. The disc brake is more tolerant of friction level changes, and for the operator this translates into increased stability especially under heavy extended braking.

The efficiency of the trailer is further improved with low air consumption, rapid bedding in and consistent performance from new to worn.

**Pad replacement**
When the time comes to change pads the operation can be carried out on a jacked up vehicle in just half the time compared to shoe replacement with a drum brake. The “bedding in period” for disc brake pads is far shorter than for brake shoes.

**Fade**
A well known effect of drum brakes is their loss of performance due to temperature rise under continuous or sustained heavy braking. Disc brakes, although operating at higher temperatures, exhibit a totally different performance characteristic with brake torque largely constant and unaffected by temperature or the number of stops.

**Brake feel**
The inherent rigidity and direct actuation of the rotor and caliper combination give the driver a superior “brake feel” with a controlled progressive pedal further enhanced by the brake’s high resistance to fade.

**Low maintenance**
Operating costs are further reduced with Meritor’s lightweight axle range, extended service intervals, and the use of maximum suspension spring centres.

From the operator’s point of view the combination of a Meritor LMC Low maintenance cartridge bearing axle fitted with a disc brake gives optimum whole life costs due to greatly reduced maintenance requirements.

From the maintenance point of view the operator will see less of his trailer in the work shop. Automatic adjustment is carried out throughout the pad life by an integral self adjustment mechanism. Wear can be monitored easily during routine service.

**Modular concept**
The fleet operator benefits directly from the modular concept with the brake unit (caliper and saddle assembly), hub, rotor pads, and air chamber allowing easy, fast diagnosis of any problem, resulting in reduced, precise service time.

**Wheels**
The Meritor disc brake is a simple modular compact design that protects the integral adjusting mechanism, has simple pad installation and removal, fits 19.5” and 22.5” wheels and has a six bolt caliper mounting for easy removal.

**Lubrication**
The offset rotor coupled with the Meritor grease filled hub means lower tyre and component operating temperatures.
Drum Brakes

- Extended lining life with Meritor Q plus brake (LM axle only)
- Close fitting dust covers for maximum environmental protection and durability
- ABS available on all axles
- All brakes conform to EEC 71/320 requirements, with non-asbestos linings as standard
- Machined camshaft head for optimum brake efficiency
- Well proven over many years and millions of km service

<table>
<thead>
<tr>
<th>BRAKE</th>
<th>DIMENSIONS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AC</td>
<td>310mm x 190mm</td>
<td>Low loader drum brake – TM Series, 17.5 and 19.5 inch wheel sizes</td>
</tr>
<tr>
<td>B</td>
<td>350mm x 200mm</td>
<td>Low loader drum brake – TM Series, 19.5 inch wheel</td>
</tr>
<tr>
<td>Q</td>
<td>420mm x 180mm</td>
<td>Standard drum brake – TM/TA Series, 22.5 inch wheel</td>
</tr>
<tr>
<td>Q Plus</td>
<td>420mm x 180mm</td>
<td>20% Longer brake lining life than Q brake – LM Series, 22.5 inch wheel</td>
</tr>
<tr>
<td>Z</td>
<td>420mm x 220mm</td>
<td>Heavy duty drum brake – TM/TA Series, 22.5 inch wheel</td>
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</table>
Meritor Air Suspensions

Air suspension has become the norm for trailers due to its inherent road friendly characteristics and optimum ride quality for cargo protection. Meritor does not believe that one single air suspension can satisfy the diverse needs of today’s trailer operators. For mainstream European conditions Meritor has maintained its spring beam trailing arm Flexair/ Flexlite designs. Meritor research has shown that spring beam designs can help avoid the larger, potentially damaging loads which can be put into the trailer chassis by some less flexible fabricated arm designs. This is usually particularly the case as suspension deflections become more pronounced with worsening road conditions. The total range consists of:

- **Flexlite** – For the weight conscious tri-axle, on-highway trailer operator.
- **Flexair** – The all round solution for on/off highway and heavier duty use.
- **Indair** – A completely independent suspension providing unbeatable ride quality. Ideal for fragile cargoes.

These suspension variants are offered in a range of formats to cater for all ride heights in overslung and underslung variants, to suit lifting and steer axle requirements. A modular design format makes suspension components as common as possible throughout each range.

A comprehensive range of valve fitting kits are available for all Meritor air suspensions. They comprise of all the valves and fittings necessary to complete an air suspension installation. All fittings are compression type, suitable for nylon pipe with zinc plating for maximum corrosion resistance.

Further enhancements are available such as Axle Lift Control, known as “ELMS”, and Meritor’s patented dock height control system “LevelRide II” (see Ancillaries Section.)
Flexlite Range –
Low Weight Suspension

- Suitable for on highway applications only
- Parallel frame bracket with patented pivot eye tracking as standard
- High roll stiffness
- Standard fasteners
- Cantilevered monoleaf lightweight spring
- Maximised durability through exhaustive testing and trials
- Standard cast spring seat
- Total travel of 200mm
- High lateral stiffness
- Zero airspring offset as standard or 30mm special
- High performance airspring with lightweight composite piston
- In line high performance damper/checkstrap
- Dual side or centre axle lift available
The Flexair Range comprises of a comprehensive selection of hard wearing low maintenance suspensions.

All Meritor suspensions feature high grade anti-corrosion coated steel fasteners. Heavy duty dampers eliminate the need to fit additional stroke limitation in the form of check straps under normal running conditions.

Flexair features a patented pivot eye tracking device to allow fine adjustment after the axle and suspension unit have been fitted to the frame. This eliminates the need to loosen the U bolts and is also a standard feature on Flexlite. Having achieved correct alignment no further adjustment should be necessary during the life of the trailer. Correct axle alignment is essential for optimum tyre wear and removes the possibility of “Trailer Crab”. The Flexair design gives the user a wide range of application duty; from on-highway to off-road in a variety of configurations with minimised roll steer characteristics.

The Flexair range is fully compatible with LM, TM and TA axles. Axle lift options and self steer axles can be incorporated. Ride heights are offered in 25mm increments.
**Flexair FL9000L**
- 9 tonne capacity
- 200 – 275mm ride heights
- Underslung design
- Integral cross member option
- Rationalised frame bracket suitable for 100mm wide flange

**Flexair FL9000M**
- 9 tonne capacity
- 310 – 475mm ride heights
- Specially developed small diameter in line air spring to allow wide mounting centres. Its parallel piston design features highly linear characteristics giving equal axle loadings with varying trailer slopes.
- Monoleaf cranked or straight trailing arm design specially developed for optimum stiffness with low stress for maximum operational life.
- Integral cross member option reduces the number of cross members required on the trailer chassis and eliminates bracing (See photograph)

**Flexair FL9000NB – 9T capacity**
- 9 tonne capacity
- 310 – 475mm ride heights
- Specially developed small diameter in line air spring to allow wide mounting centres. Its parallel piston design features highly linear characteristics giving equal axle loadings with varying trailer slopes.
- Monoleaf cranked or straight trailing arm design specially developed for optimum stiffness with low stress for maximum operational life.
- Integral cross member option reduces the number of cross members required on the trailer chassis and eliminates bracing (See photograph)
Flexair FL11000+

- 11 tonne capacity
- Long travel airspring gives greater allowance for trailer slope and much more power at the fully raised position for laden raise / lower and demount operations
- 250mm – 475mm ride heights
- Rationalised frame bracket suitable for 100mm wide flange

Flexair FL11000L+

- 11 tonne capacity
- Low height heavy duty suspension ideal for low loaders
- 200mm – 250mm ride heights
- For on-highway use ride height of 175mm can be achieved by means of the levelling valve
- Rationalised frame bracket suitable for 100mm wide flange

Flexair Lift Devices

- Total installed package will add no more than 21kg to the weight of the trailer
- Simple retro-fit, no welding or removal of wheels hubs or drums. No special tools required
- No additional chassis member required for mounting
- The system is compact, fits onto hanger bracket lugs or pivot bolt and is attached to the trailing arm without protruding outside the existing suspension package
Indair is Meritor’s premium air suspension system. It includes all of the excellent features of standard air suspension but has many additional benefits. Better ride and handling qualities are achieved by eliminating the direct link between the wheels through the axle beam. This means there is no transfer of bumps from one side to the other through the axle beam giving Indair its famous ride quality and low geometric roll centre. The Indair system has proven to be quieter than conventional suspension and significantly kinder to the roads.

Indair is also designed for minimum maintenance. There are no ‘U’ bolts to be torqued. All of the bushings have been carefully designed and developed for optimum durability. Pivot pins are chrome plated and greased prior to assembly to ensure easy access for servicing in later years.

Indair is supplied fully assembled ready for fitting directly to a frame and is suitable for all applications (single, tandem or tridem) up to 10,500kg per axle. It is available in a range of ride heights from 250mm to 475mm. A special low height variant can achieve a ride height of 150mm for low loader applications.

A pivoted centre lift axle device is available weighing 45kg per axle.
Meritor’s unique position as a manufacturer of the entire system of trailer disc or drum brakes, suspensions and axles enables the creation a fully harmonised combination of brake, suspension and axle designed specifically for optimum performance in trailer applications. The correct combination of axle and suspension, when assembled and supplied by Meritor, provides a system with excellent ride and handling, generating the lowest possible running costs and backed up by a long and comprehensive warranty.

**LM Axle with cartridge bearing option, Meritor 19.5 inch disc brake and Flexlite 9000**

*The low weight, low maintenance trailer running gear solution*

The combination of Flexlite suspension with a LMC disc braked axle results in a system ideal for a tri-axle on highway trailer where payload maximisation and the lowest possible whole life costs are the key. An LMC / Flexlite combination can weigh as little as 440 kg per axle and suspension. In separate bearing aluminium hub form the system weight goes down to an astonishing 424 kg.

**TA Axle with cartridge bearing option, Meritor 22.5 inch disc brake and Flexair 11000**

*The heavy duty, low maintenance trailer running gear solution*

The combination of Flexair 11000 suspension with a TA cartridge disc braked axle results in a system ideal for today’s tandem wheel trailer. This provides one of the most robust, hard wearing and low maintenance systems available for optimum whole life costs. The two leaf trailing arm design gives the user a wide range of applications from highway to off road in a variety of configurations. The axle and suspension combination together, at 375 mm ride height, would weigh 560kg.
Weights quoted for axle and suspension only, exclude brake actuation, + or – 2% accurate, based on 375mm ride height and 2045mm track.
## Flexair Range Summary

<table>
<thead>
<tr>
<th>OPTION</th>
<th>XL9000</th>
<th>XL9000L</th>
<th>FL9000NB</th>
<th>FL9000L</th>
<th>FL9000M</th>
<th>FL9000HLL</th>
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<tr>
<td>Ride Height</td>
<td>375-450mm</td>
<td>200-250mm**</td>
<td>310-475mm</td>
<td>200-300mm</td>
<td>228-253mm</td>
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<tr>
<td>Capacity</td>
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<td>9000 kg</td>
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<td>1150-1400mm**</td>
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<td>80-90/110mm</td>
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<td>65-230mm</td>
<td>85-205mm</td>
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<td>Suitable for drum</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes*</td>
<td>Yes</td>
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<tr>
<td>Suitable for disc (DX195)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes*</td>
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<th>FL11000+</th>
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<th>FL11000L-150</th>
<th>FL11000D</th>
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<tr>
<td>Ride Height</td>
<td>250-475mm</td>
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<td>150mm</td>
<td>225-450mm</td>
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<td>Capacity</td>
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<tr>
<td>Frame Centres (min-max)</td>
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<td>Airspring Offset</td>
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<td>0-95mm</td>
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<tr>
<td>Axle Travel (up/down)</td>
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<td>65/110mm</td>
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<td>Off road suitable</td>
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<td>Suitable for drum</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Suitable for disc (O Guco)</td>
<td>Yes*</td>
<td>Yes*</td>
<td>No</td>
<td>Yes*</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Ride height and offset restrictions apply
** Can be reduced with restriction contact Meritor HVS for details

This list is not exhaustive and for requirements not covered, please contact Meritor.
SMT Mechanical Suspension

Meritor SMT suspension is one of the lightest and simplest mechanical suspensions available today. Meritor offers a full range of single and multi-leaf mechanical suspensions to suit virtually any trailer application.

- Equaliser and torque arm assemblies feature twin tapered bushes providing high durability and minimal maintenance.
- Short hanger bracket design to minimise the torsional loads transmitted to the trailer – particularly when turning.
- Common length torque arms can be fitted front and rear for standard spreads, due to the design of the equaliser bracket.

**Composite springs**

The latest composite materials enable substantially improved weight savings and ride quality to be achieved with a mechanical suspension, replacing the steel spring with a composite alternative. Meritor has been leading and refining this technology for many years to develop composite spring suspensions which are likely to enter the market in the near future.
Anciliary Equipment

Levelride II

- New, highly cost effective design
- Push in fittings suitable for 10mm nylon tubing
- Unit constructed to IP68 standard
- Push button is fitted with weather proof shrouds
- Unique push/pull operation with reset centre button
- Manual raise/lower override
- Easy flange mounting
- Weather proof 2 core cable
- Non corrodible plastic lightweight unit

Even if there is no immediate failure, all these components in an air suspension will have their service lives seriously shortened as a result of the driver’s momentary lapse.

- Can you afford the repair bills which can be up to £1,000 including labour?
- Can you afford the vehicle downtime?

Meritor Levelride II

The Levelride II system is a sealed, plastic unit, proof against water, road dirt, steam cleaning etc., with 1 simple push/pull button control.

- Raise  •  Lower  •  Reset

After raising or lowering the vehicle deck height for loading, the driver simply pushes the reset button, and the system returns the air suspension to normal ride height (A). If he fails to do this – no problem!

The first brake application (B), no matter how light, will send an electrical signal from the vehicle stop light circuit (C) to the Levelride II and it will automatically reset the suspension to normal ride height (D). Never again, will an absent minded moment by the driver result in damaged air suspension and big repair bills.

Air suspension with raise/lower?

Ideal for matching deck height to loading bay, but if the driver forgets to reset the manual raise/lower valve to normal ride height, the result may be:

- Damaged shock absorbers
- Damaged shock absorber attachments
- Check straps ripped off
- Bump stops damaged
- Ruptured air springs

In extremes, damage to welds attaching the air suspension to the chassis can occur, leading to the vehicle being unroadworthy and dangerous.
Why electrical actuation?

During development of the Levelride II system, it was realised that taking a pneumatic signal from the brake system had significant disadvantages.

- Reset would not occur if the first brake application was too light.

- Cutting into the brake service line would interfere with brake response time and result in homologation problems – installations would be a notifiable alteration (VTG10).

These problems are avoided with Meritor’s Levelride II system.

- It always resets
- It is fully compatible when retro-fitted
- It is not a notifiable alteration

The Levelride II system is designed for easy installation on new vehicles and has quick connect push in pneumatic fittings and electrical cable supplied. It may also be retro-fitted, by simply replacing the manual valve with Levelride II and re-routing the existing pipes according to the installation instructions provided.

The Levelride II system from Meritor is covered by Overseas patent applications and UK Patent No. 2,237,780.
Anciliary Equipment

Meritor E.L.M.S.
- Enables automatic raising and lowering of lift axle according to vehicle load ensuring optimum legal operation of the trailer
- 3 minute lift override feature can be tripped by cab switch or reversing light signal (tractor independent)
- Sealed to IP66, integrated system. Does not require signal pulse damping

Fifth Wheels
Meritor offers the complete ‘S’ range of Big D fifth wheels:
- Suitable for all applications up to GCW 65 tonne
- Manufactured under ISO9001 quality systems and robot welded for consistent quality
- Pressed steel construction as strong as cast but up to 25% lighter
- Water based paint primer, tested to 750 hours salt spray test for durable quality finish
- Replaceable rubber cushioned pivot bearings
- Sliding variant available and air operation possible
- 2 year warranty

Landing Legs
Meritor offers a complete range of Big D landing legs designed to meet the exacting performance requirements of today’s international transport operations.
- Choice of continental or universal mounting plates
- Lift capacity 22.5 tonnes, static capacity 72.64 tonnes, weight per set 84 kgs
- Three gear train providing ease of lift
- Square drive cross shaft available in two lengths 1500mm for standard trailer and 1700mm for wide spread frameless trailers eg. Tankers
- Choice of rocker foot, wheels, skid foot or self levelling foot
- Two speed gear box with push / pull action (33 / 2.4 turns per 25mm)
- Cast steel bearing for durability
- Strong ductile iron gears
- Hardened safety retention pin, removes the possibility of losing inner leg
- Low maintenance
- Constant mesh gearing eliminates grease pumping, providing low operator effort whatever the weather and partial engagement which could cause uneven wear or breaking teeth. 90 % of traditional landing leg failures - other than operator abuse - are due to gearbox malfunction.
- Smooth, simple positive drive locking mechanism with “Kwik Shift” action.
- 2 year warranty
Meritor Spring Brakes

Meritor spring brakes, in addition to providing a means of applying the trailer service brake, provide a SAFE and RELIABLE trailer parking brake. Meritor parking brakes meet all European legislative requirements (71/320/EEC) so that if the trailer becomes separated from the towing vehicle, it can be held on a gradient of 18% purely by the spring brake. They ensure that every time the trailer is disconnected it is always automatically and effectively braked even if the driver forgets to set the park valve.

Meritor’s spring brakes achieve this by applying brake force by means of powerful springs normally held compressed by the air reservoir air pressure acting on the spring diaphragm. The reliability of using diaphragms to convert air pressure into the force necessary to apply the brakes is unrivalled and Meritor spring brakes take full advantage of this by utilising diaphragms for both the service and the sealed for life spring chambers. The “sealed for life” concept is only made possible by utilising highly durable internal components. The main power spring is epoxy coated; the spring chamber pushrod is hard chrome plated, ground and polished to minimise seal wear; the sealing between service and spring diaphragms is improved and the spring diaphragm locates in the spring pressure plate to maintain alignment and minimise chafing. Meritor spring brakes are fully covered by a two year unlimited mileage warranty.

Meritor offer a complete range of spring brakes which can be easily incorporated into any trailer brake system. All necessary valves (quick release, double check, park control valve, manoeuvring or shunt valve) can be supplied. A control box to house the manoeuvring park valves is also offered.
Warranty

Should any Meritor equipment fitted to the trailer become unserviceable within the warranty period the trailer manufacturer or Meritor Service Department should be contacted. Meritor warranty includes both parts and related labour provided the labour rate is agreed with Meritor Service Department prior to the repair commencing.

**Meritor Warranty Features**

- **7 years or 1,000,000km**, whichever comes first, warranty on complete beam weld assembly comprising finished axle beam and all welded bracketry on all axles supplied with suspension fitted by Meritor.

- **3 years or 300,000km**, whichever comes first, warranty on axle end fixings, hub and conventional separate bearing assemblies. Flexair and Flexlite suspension units are also covered for 3 years provided they are supplied as complete assemblies with axles fitted by Meritor.

- **2 years unlimited mileage**, warranty on disc brake rotor (mechanical failure only)*, disc caliper assembly*, drum brake camshaft, camshaft bearings, cam rollers and brake anchor pins.

- **1 year or 100,000km**, whichever comes first, warranty on hub cap, dust covers and screws, hub gasket**, ABS sensor with bracket and pole wheel, brake shoe or pad assemblies**, brake retaining and return springs, oil and grease seals**.

* Excludes damage due to off-road usage

** Mechanical failure only, not wear out

For full details of terms and conditions of warranty please refer to publication 4.84.1, “Meritor Warranty Terms and Conditions”.
Brake pad assemblies. Mechanical failure only

1 yr / 100,000 km
Brake retaining clips.

2 yrs unlimited mileage
Caliper assembly

1 yr / 100,000 km
Brake pad assemblies.
Mechanical failure only

2 yrs unlimited mileage
Brake rotor.
Mechanical Failure only

1 yr / 100,000 km
ABS components
Descriptions and specifications were in effect at the time of publication and are subject to change without notice or liability. Meritor reserve the right to make design improvements, change or discontinue parts at any time.