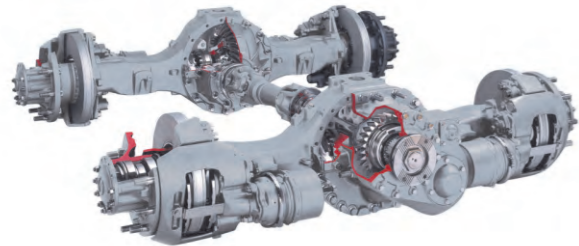
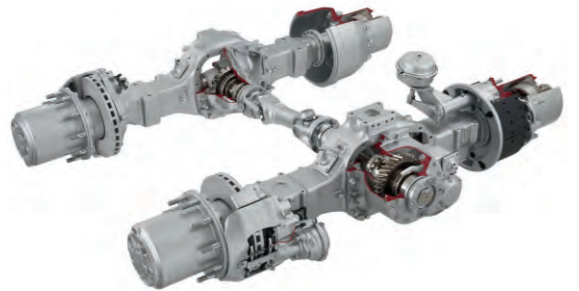


**MS-13-17X Single Reduction Solo Drive Axle**

- GAWR: 13 tonnes
- GCWR: 44 tonnes
- Ratios from 2.64 to 6.17
- Available with cast or stamped housing
- Driver controlled differential lock option

**MT-150 Single Reduction Tandem Drive Axle**

- GAWR: 23 tonnes
- GCWR: 70 tonnes
- Driver operated cross-axle differential lock on front and rear axles and inter-axle differential lock
- Fitted with Meritor air disc brakes as standard, other brakes optional
- Available with cast iron or fabricated steel housing
- Ratios from 2.43 to 6.17

**MT-32-610 Planetary Hub Reduction Tandem**

- GAWR: 32 tonnes
- GCWR: 100 tonnes
- Final ratios from: 3.61 to 7.21
- Driver operated cross-axle differential lock on front and rear axles and inter-axle differential lock

**ArvinMeritor stands for**

- **Advanced Gear Technologies**
  - Through Surface Hardening
  - Simplified Heat Treatment
  - Higher Throughput
- New Cutting Methodologies
  - Higher Capacity, Quieter Gearing
- Noise Management
  - More Demanding Requirements for Future Bus and Coach Markets
- High Speed Gearing
  - Electric Drive Applications
- **High Power Density**
- **Component integration**
  - Optimize System Design
  - Maximize ArvinMeritor Content
  - Use Strength of Meritor Axles and Brakes to Pull Through Other Components

Since 1909 ArvinMeritor has been leading the heavy-duty axle market with reliable, long-life axles and advanced gearing technology. The company's nearly 100 years of axle-producing experience has led the group to become the world's largest independent manufacturer of heavy-duty truck axles for a vast range of vehicle applications, including front axles, single rear, tandem drive, tridem drive and trailer axles.

This complete family of products allows ArvinMeritor to offer the right axle to meet steer, drive and trailer axle requirements of customers in many vocations.

Additionally, all products are backed by industry's finest sales, service and support network.

**Single Reduction Hypoid Drive Axle MS-13-17X**

The MS-13-17X Single Reduction Hypoid Axle is designed for on-highway applications and represents ArvinMeritor's latest product generation for European line haul operations. In order to meet increasingly demanding specific needs, this new drive axle offers increased capacity, higher efficiency and improved structural rigidity, all at reduced weight.

The product features GAWR of 13 tonnes, GCW of 44 tonnes and ratios ranging from 2.64 to 6.17. The MS-13-17X is available with cast or stamped housing and with an optional driver controlled differential lock.

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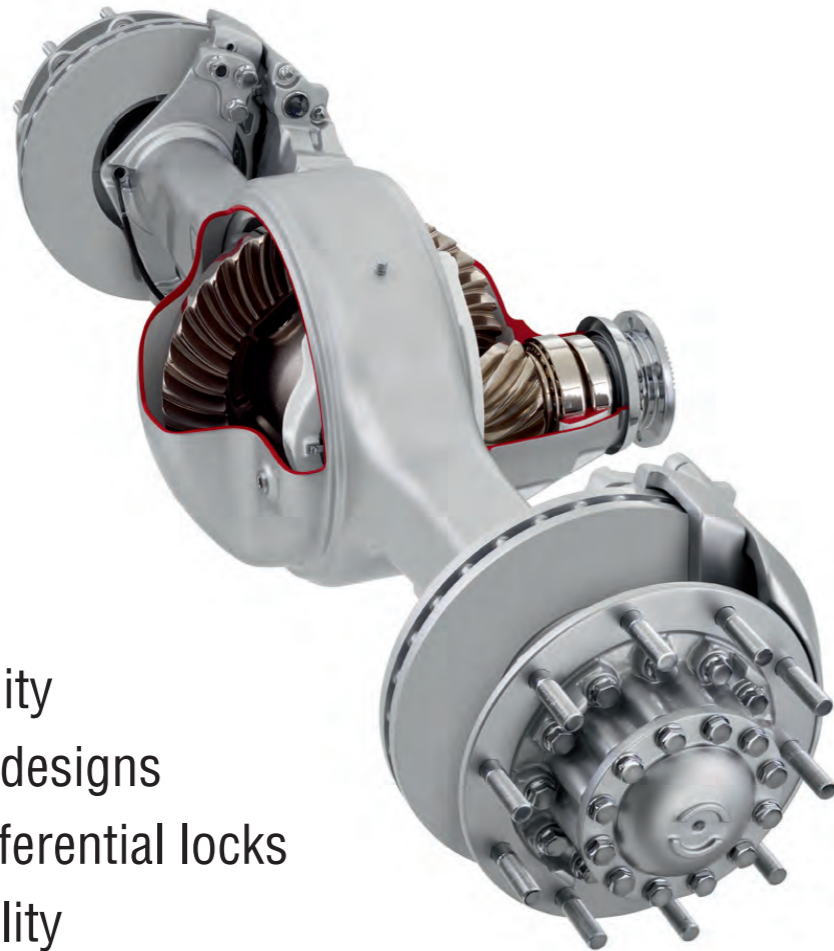


**MS-13-17X Solo Rear Drive Axle**

The new Heavy Duty-Line Haul axle has the following technical features:

- High Volume - 145K p.a.
- Longer Life - 1.250.000km
- High Efficiency
- Part Count Reduced - 28% less
- Weight Reduced - 7% less
- Reduced Oil Quantity
- Advanced Manufacturing Technologies
  - LBW: Laser Beam Welding
- Advanced Features
  - ECDL: Electronic Controlled Differential Lock
  - ILLC: Intelligent Lube Level Control
  - OQM: Oil Quality Monitoring

- High efficiency gearing
- High efficiency lubrication
- Integral brake to axle design and manufacturing capability
- Wide ratio availability
- Weight optionised designs
- Driver operated differential locks
- Worldwide availability



| Feature                             | MS-13-17X        |
|-------------------------------------|------------------|
| <b>Axle Type</b>                    | Single Reduction |
| <b>GAW Rating</b>                   | 13T              |
| <b>Ring Gear Diameter</b>           | 462.0mm          |
| <b>Nominal GCW Rating</b>           | 44T              |
| <b>Differential Spherical Diam.</b> | 174.5mm          |
| <b>Tooth Combination</b>            | 9 x 14           |
| <b>Housing Box Section</b>          | As Required      |
| <b>Standard Fabrication</b>         | 134.0x117.0mm    |
| <b>Axle Shaft Body Diameter</b>     | 55.5mm           |
| <b>Ratio Availability</b>           | 2.64 - 6.17      |

**Laser Welding for Commercial Vehicle Drive Axles**

The use of laser welding means that the drive ring and differential case become an extremely stiff unit, thus eliminating fretting and allowing a higher torque capacity. This also ensures that the gears are able to mesh better, resulting in a 30% increase in durability, which was proven on dynamometer tests and field trials.

In the predecessor generation the external ring gear, the differential case, the pinion housing to the carrier casting and the axle housing were joined by a total of 36 screws. (Figure 1 below) Elimination of the screws made it possible to optimise the flange of one half of the differential case as well as to remove the ribs in order to achieve a flat surface. This resulted in a reduction in flow resistance and turbulence in the transmission and therefore in fewer losses due to oil splashing.



The using of laser welding enables the axle carrier now to be 13kg lighter than the predecessor design and to have smaller assembly dimensions.

The lower weight, especially of the rotating parts, results in substantial reductions of fuel consumption.



Figure 1: Predecessor design with bolts and screws (left) and new design.



Figure 2: New laser welded design with flat surface.