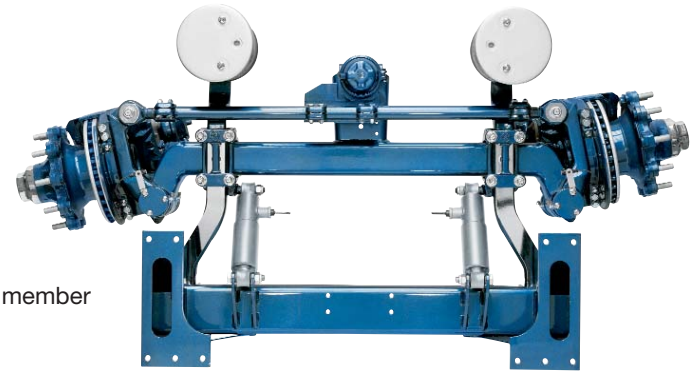
BPW NEWS
BPW BERGISCHE ACHSEN

BPW LL self-steering axle, the better solution.

The **reduced tyre wear resulting** from the use of a self-steering axle is **not disputed**. Nor is the **increased** manoeuvrability of a semi-trailer unit with self-steer axle compared with one with three rigid axles. The low tyre wear can be explained by **considerably reduced rolling resistance** when cornering, which also has a marked **influence on the tractive effort required**.
In issue 3 of the "Kfz-Anzeiger" [the "Motor Vehicle Advertiser"], this connection was investigated for the first time by means of a road test.

Mr. Braun's tests detected potential fuel savings in urban traffic of up to 10 %. On average the



BPW LL self-steering axle with
3D trailing arms and channel cross member

potential savings - in a mixture of cross-country journeys and urban traffic - amounted to 5.5 %.
BPW specifies the following **reference values as the minimum fuel savings** to be expected when the LL self-steering axle is used.

- **6% in local traffic**
- **4% in mixed traffic**
- **2% in in long-distance traffic**

The **advantages** of the **BPW LL self-steering axle** summarised once more:

- **The lightest self-steering axle on the market**
- **Purely load-dependent steering stabilisation thanks to the unique, patented functional principle of the BPW self-steering axle with undulating thrust discs**
- **Definitely lower and more even tyre wear**
- **Up to 10% saving in fuel consumption in urban traffic conditions**
- **Increased manoeuvrability, less space required for vehicle movement**
- **Less strain on the tractor vehicle, body, frame, chassis, suspension and road**
- **Optimum integration into standard chassis by means of 3D trailing arms and channel cross members**

BPW offers an individualised profitability study relating to the use of a steering axle. This calculation can be conducted on the customer's premises together with the responsible member of BPW staff.

Sample calculation: Local traffic, tri-axle semi trailer with 22.5" tyres.

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Local traffic

	With steering axle	Without steering axle
Cost of purchase in € (This is only a sample calculation. The real figures may vary considerably depending on the vehicle equipment)	30,000.00	27,000.00
Depreciation and interest		
Depreciation period in years	8.00	8.00
Interest costs in % per annum	5.00	5.00
Total capital cost in €		
Interest costs per year in €	1,500.00	1,350.00
Depreciation costs per year in €	3,750.00	3,375.00
Total capital cost in €	5,250.00	4,725.00
Distance covered in km per year	80,000	
Cost of maintenance, repairs, tyre wear		
Hourly workshop rate in €	50.00	50.00
Time taken per axle for a tyre change, in hours	1.00	1.00
Cost per tyre, size 385/65 R 22.5, in €	50.00	50.00
Costs of a tyre change per axle in €	315.00	315.00
Maintenance costs per year, steering axle/rigid axle, in €	250.00	0.00
Total costs (maintenance, repair, tyre wear) in €	2,290.00	3,264.00
Basis for calculation of tyre wear: Average distance covered with steering axle, approx. 80,000 km without steering axle, approx. 50,000 km		
Fuel costs		
Fuel consumption in litres/100 km	33.84	36.00
Possible fuel savings in %	6.00	
Price per litre in €	0.85	0.85
Fuel costs per 100 km in €	28.76	30.60
Total fuel costs per year in €	23,008.00	24,480.00
Total cost per year in €	**30,548.00**	**32,469.00**
Annual savings to be expected, in €	**1,921.00**	

The example illustrated above results in an **amortisation period of approx. 1.6 years.**