

# Economical All Along the Line. DIWA.6 Automatic Transmission





DIWA.6 automatic transmissions in MAN city buses reduce costs, increase driving comfort and cut down on emissions.

Specifically developed for city buses, DIWA automatic transmissions offer the ideal conditions for economical operations. This is proven by more than 300 000 delivered transmissions worldwide.

All DIWA.6 versions meet the demanding requirements of the Euro-6 norm.



#### DIWA.6 - Better on the road all along the line

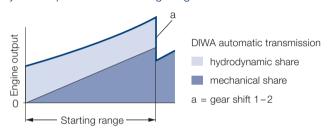
Like all DIWA automatic transmissions, the DIWA.6 operates on the power split principle. It allows stepless starts across a speed range where other transmissions need two to three gearshifts. Up to  $50\,\%$  fewer gearshifts reduce wear and increase driving comfort.

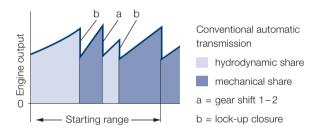
With DIWA.6 Voith provides the answer to the rising demands: lower consumption and fewer emissions. The intelligent start-up management and the need-based reduction of the operating pressure reduce fuel consumption by up to 5 %! This protects the environment—by lower  $\mathrm{CO}_2$  emissions. The newly designed housing and an optimized operating strategy allow lower noise emissions.

Supplemented by the electronic E 300.1 control, the topography-dependent gear-shifting program SensoTop and the ALADIN diagnosis software the DIWA.6 automatic transmission is the perfect example of an economical citybus transmission.

#### Reduced wear and comfort become visible

#### by the stepless DIWA starting range





#### E 300.1 transmission control with SensoTop

- Recognizes the route topography
- · Optimally adapted to all axle ratios
- · Adapts all gear-shifting points ideally to the route
- · Therefore minimizes fuel consumption
- Supports preventive maintenance and early failure detection by comprehensive operating data recording

#### **ALADIN** diagnosis software

- · High range of function, low complexity
- · Intuitive operation
- · Is integrated into MAN bus diagnosis system
- · Allows detailed operating data evaluation
- · Easy failure localization and elimination



#### Success needs reliable partners

Benefit from our systems competency and our close partnership with vehicle manufacturers.

## DIWA Excellence – Driving down costs and increasing availability

With DIWA Excellence Voith offers a comprehensive service and advisory program, starting from the configuration of the driveline and reaching across the entire life cycle. Apart from targeted measures aimed at fuel economy the modular program also includes individual solutions for service and maintenance up to service and maintenance contracts. And all this with state-of-the-art technologies, for example the DIWA SmartNet telemetry system.

#### More than just a transmission

Combined with the topography-dependent gear-shifting program SensoTop and DIWA SmartNet, DIWA proves how much more efficiency can be gained from a drive with a perfectly adapted system: This also applies to traffic concepts with high service frequency such as "Bus Rapid Transit" (BRT), where only the most advanced drive technology manages to achieve the required efficiency.

#### All advantages at a glance

- + High efficiency by mechanical-hydrodynamic power split
- + High availability by superior cooling concept
- + Low fuel consumption thanks to topography-dependent gear-shifting program SensoTop
- + Protection of the driveline by significantly reduced gearshifting movements, especially in the lower speed range
- + Efficient retarder: always instantly available, no impairment by frequent down shifts
- + Maximum driving comfort by stepless acceleration
- + Optimum service back-up across the entire service life with the DIWA Excellence program
- + Low maintenance costs thanks to long service intervals
- + High reliability and long service life

#### Advantages for MAN city- and intercity buses

- + Transmission filled ex works with part-synthetic oil
- + E 300.1 adapted to the MAN electronics structure
- + Compatible with MAN-cats III diagnosis

### DIWA Transmissions in MAN city- and intercity buses

Vehicle type	Engine	Euro norm	Engine speed [kW/min <sup>-1</sup> /Nm]	Tranmission type	Tire size	Axle ra V <sub>max</sub> [kn			
						х	х	5.77	6.21
Lion's City	D0836 LOH	Euro 6	184/2300/1000	854.6	275/70 R22.5	х	×	100	93
			213/2300/1100						
Lion's City M	D0836 LOH	Euro 6	184/2300/1000	854.6	275/70 R22.5	х	х	100	93
			213/2300/1100						
						4.54	5.13	5.74	6.20
Lion's City Lion's City Ü	D2066 LUH	Euro 6	206/1900/1350	864.6	275/70 R22.5		95	85	79
			235/1900/1600			108			
			265/1700/1800						
	E2876 LUH	Euro 6	200/2000/1050	854.6	275/70 R22.5	×	Х	87	81
			228/2000/1250			×	98	87	81
Lion's City C	D2066 LUH	Euro 6	235/1900/1600	864.6	275/70 R22.5	x	95	85	79
Lion's City L			265/1700/1800						
Lion's City CLE	E2876 LUH	Euro 6	228/2000/1250	854.6	275/70 R22.5	X	98	87	81
Lion's City LLE			220/2000/1200	004.0		^			
Lion's City G	D2066 LUH	Euro 6	235/1900/1600	864.6	275/70 R22.5	×	X	85	79
Lion's City GL			265/1700/1800			X	95	85	79
Lion's City GLE	E2876 LUH	Euro 6	228/2000/1250	854.6	275/70 R22.5	Х	98	87	81
Lion's City GLLE			2207200071200		2707701122.0				
						4.56	х	5.67	х
Lion's Regio	D2066 LUH	Euro 6	235/1900/1600	864.6	295/80 R22.5	117	х	×	х
Lion's Regio C			265/1700/1800						
Lion's City LE/LE Ü	D0836 LOH	Euro 6	184/2300/1000	854.6	275/70 R22.5	×	×	101	x
			213/2300/1100		295/80 R22.5			110	_ ^
Lion's Intercity Lion's Intercity C	D0836 LOH	Euro 6	213/2300/1100	854.6	295/80 R22.5	x	×	110	×

 $\mathbf{V}_{\mathrm{max}}\!\!:\!$  Speed calculated with rpm of governed speed

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