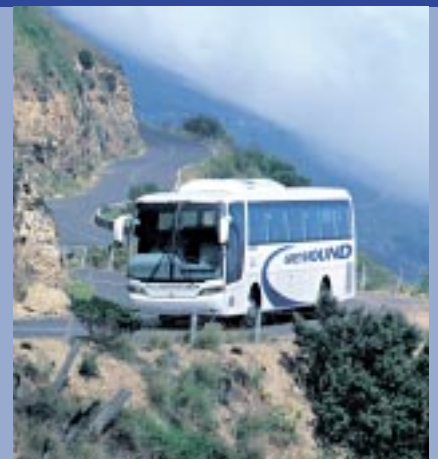


Voith Turbo

**VOITH**

## Voith DIWA® automatic transmissions in Volvo city buses



**More than 150 000 buses world-wide have one thing in common: a DIWA automatic transmission.**

DIWA means economy as a result of superior technology. DIWA automatic transmissions are ideal for applications in all city and long-distance buses.

DIWA transmissions are optimally suited for the full range of modern combustion engines. They are adapted to the environmentally friendly, low-emission combustion engines per EURO-3/-4 norm.

### **Your advantages:**

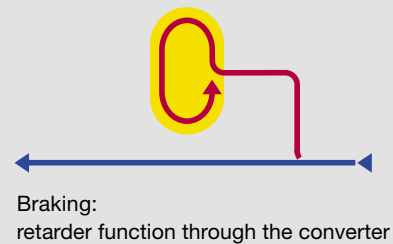
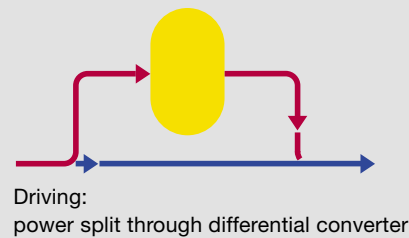
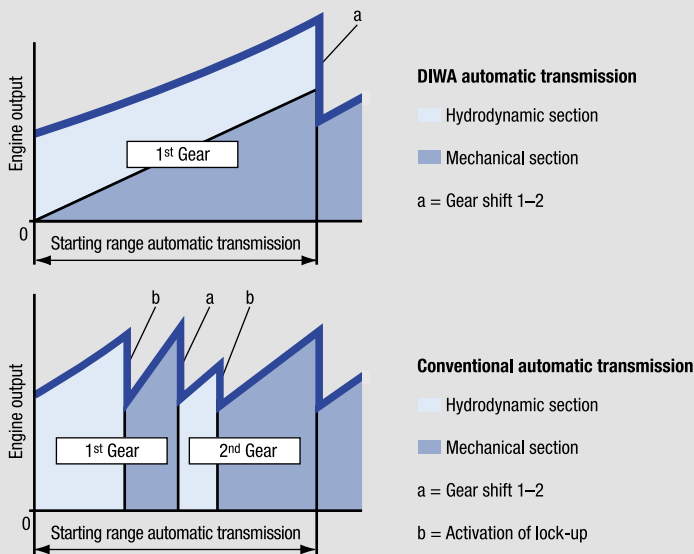
- High efficiency by mechanical-hydrodynamic power split
- High availability by superior cooling concept
- Low fuel consumption by automatic movement into neutral gear stage
- Series-fitted ANS: complete separation of transmission (including converter) and engine
- Optimum overdrive without compromise:
  - low engine speeds in city traffic
  - in long distance-traffic part-load on level routes, traction reserves on ascending roads
- Protection of the drive line by significantly reduced amount of gear-shifts, especially in the lower speed range
- Efficient retarder: always instantly available, no impairment by frequent downward shifts
- Maximum driving comfort by stepless acceleration
- Optimum maintenance back-up by PC-based diagnosis system
- Maximum gear-shifting comfort, even under extreme conditions
- Low maintenance costs by long maintenance intervals
- High reliability and long service life

# DIWA®.5 – the evolution of modern bus transmissions

The proven DIWA power-split principle allows smooth acceleration, where other transmissions require two to three gear-shifts. This, plus the unique combination of transmission, E 300 electronic control and ALADIN diagnosis software, make DIWA.5 a byword for economical bus transmissions. Up to 50 % fewer gear-shifts reduce wear and increase driving comfort.

*Reduced wear and comfort become visible – one gear replaces two conventional gears*

*The Voith principle: driving and braking with one hydraulic circuit*



## DIWA.5 is the consistent further development of a technology that has proven itself world-wide

The shortening of the transmission, the elimination of external pipes or tubes for oil circulation, a heat exchanger that is integrated into the output and the further developed hydrodynamic converter are only a few characteristics of this new transmission. Operators benefit from even higher availability as well as further reduced maintenance and operating costs.

## E 300 – New-generation transmission control: From failure to events storage

- Recognises topography and axle ratio
- Optimises gear-shifting points
- Minimises fuel consumption
- Easy failure localisation and elimination
- Supports preventive maintenance and early failure detection
- Operating data recording of the second generation

## ALADIN – the quantum leap in diagnosis technology

- Comprehensive range of functions, low complexity
- Can be integrated into diagnosis system of vehicle manufacturer
- Intuitive operation
- Detailed operating data evaluation

# Success needs reliable partners

**Benefit from our close partnership with vehicle manufacturers and our overall systems competence.**



## **Further advantages of DIWA automatic transmissions**

- Choice of several gear-shifting programmes as standard
- Can be linked with CAN-J1587 for on-board diagnosis
- DIWA.5 now available in B9TL
- DIWA.5 as standard in all Volvo buses from Euro 4

## **With the Voith Turbo service programme you are on the safe side**

Across the entire service life of your transmissions, we accompany you with our comprehensive DIWA service package – starting with the joint configuration of your vehicles over the optimisation of daily operation up to maintenance and repair.

*We are here for you – no matter when and where you need us*



# DIWA transmissions in Volvo city buses

Vehicle type	Engine type	Output/ Nominal speed (kW/rpm)	Version	Trans- mission type	Tyre size	r dyn in m	Vx in km/h		
							Axle ratio		
							5.13	5.74	6.2
DIWA®.5									
B9TL	D9A300 D9A340	220/1900 250/1900	Euro 3	D 864.5 W22	275/70 R22.5	0.466	89	80	74
DIWA®.3E									
Volvo 7700 B7L	D7C215 D7C250 D7C275	158/2200 184/2200 202/2200	Euro 3	D 864.3E	275/70 R22.5	0.466	108	96	89
Volvo 7700A B7LA	D7C275	202/2200	Euro 3	D 864.3E	275/70 R22.5	0.466	108	96	89
B7TL	D7C215 D7C250 D7C275	158/2200 184/2200 202/2200	Euro 3	D 864.3E W22	275/70 R22.5	0.466		96	89
B10L	GH10C250 GH10C290	184/2000 215/2000	Euro 3	D 863.3E	275/70 R22.5	0.466	68	61	
B10LA	GH10C290	215/2000	Euro 3	D 863.3E	275/70 R22.5	0.466	68	61	
							Axle ratio		
								4.63	5.29
Volvo 8700 B7R/RLE	D7C275	202/2200	Euro 3	D 864.3E	275/70 R22.5	0.466		119	104
					295/80 R22.5	0.506		129	113
Volvo 8700 B12M/B	DH12D340	250/1900	Euro 3	D 864.3E	295/80 R22.5	0.506		107	94