



## **ATE brake discs and brake drums with wheel bearing**

- Overview of ATE range
- Special mounting information



# Information on repairing ATE brake discs and brake drums with wheel bearing

**One-stop shop: ATE supplies a comprehensive range of spare parts for all of your brake repair requirements.**

## Brake discs:

- Solid and ventilated brake discs
- Grooved PowerDisc
- Perforated brake discs
- Two-piece brake discs
- Coated brake discs
- Brake discs with mounting screws
- Brake discs with wheel bearing

## Brake drums:

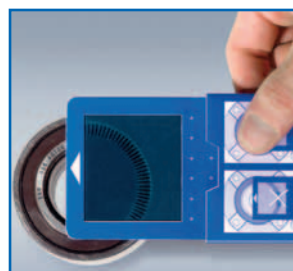
- Wheel cylinders
- ATE drum brake shoes (now also powder coated)
- Complete installation kit
- Genuine ATE TopKit (preassembled kits)
- Brake drums with wheel bearing



- The product range has been continuously extended over the years and offers a very high level of vehicle coverage.
- ATE is following the trend of vehicle manufacturers towards supplying preassembled modules and has been supplying genuine ATE brake discs and brake drums with integrated wheel bearing to the aftermarket sector since the end of 2007.
- These ensure safe and quick repair at the workshop.
- The risk of damaging individual parts – some of which have become very sensitive due to weight and functional optimization measures – is reduced to a minimum.
- Efficient preassembly of modules on the production line ensures the very accurate fit of ATE spare parts.
- ATE brake discs and brake drums with integrated wheel bearing save the workshop time and provide certainty that all important components have been properly replaced.
- Up-to-date expertise is always essential when installing modern spare parts. ATE therefore includes special installation specifications in every package.

## Here's how it's done

### Fitting ATE brake discs and ATE brake drums with integrated wheel bearing



Before mounting the brake disc/brake drum, the ABS encoder wheel must be checked for damage. This allows the professional installer to avoid subsequent fault messages from the ABS – caused by faulty sensor signals.



The encoder wheel must be protected against strong magnetic fields. Otherwise, the encoder wheel may be damaged – rendering the wheel bearing unusable.

The mounting of brake discs and brake drums with integrated wheel bearing must be carried out with great care at the workshop. Correct mounting of the brake discs and brake drums has an important influence on the service life of the wheel bearings.



Generally, bearing damage becomes apparent at an early stage due to running noise. However, in isolated cases a wheel bearing can fail without prior warning. In this case, the brake disc/brake drum may no longer be properly supported. This seriously limits braking power and can result in total failure of the brake system.

**Important:** If a wheel bearing is pulled apart or the bearing inner race is pressed out during assembly, the wheel bearing is irreparably damaged. The wheel bearing may no longer be installed.

In order to avoid damaging the wheel bearing during assembly, thus reducing the service life, the following basic steps must be observed during professional installation:

Make sure that the wheel bearing is not tilted when fitting the brake disc/brake drum. The axle spindle should always be lightly greased to facilitate installation. It is also important to ensure that force is only applied via the bearing inner race when pushing the brake disc/brake drum on the axle spindle (see Figure 1 and 2). Use special assembly tools if necessary (see FAG tool catalog).

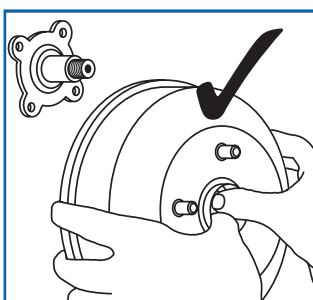


Figure 1

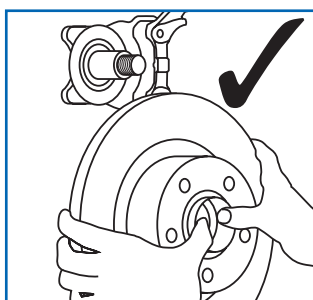


Figure 2



Excessive force must **not** be used to install the brake disc/brake drum. The fit between the axle spindle and bearing inner race is designed to allow the brake disc/brake drum to be pushed on to the axle spindle by hand. Hammers or other types of striking tools must never be used.

If excessive force is used during installation, the wheel bearing may be irreparably or seriously damaged. In the worst case scenario, this can reduce the service life of the wheel bearing to less than 500 km.



The hub retaining nuts must be fitted and tightened by hand. An impact wrench must not be used under any circumstances to install the brake disc/brake drum or attach the hub retaining nut.

After installing the brake disc/brake drum, the hub retaining nut must be tightened to the **specified tightening torque** of the vehicle manufacturer. The exact tightening torque must be used. A higher or lower tightening torque will reduce the service life of the wheel bearing.

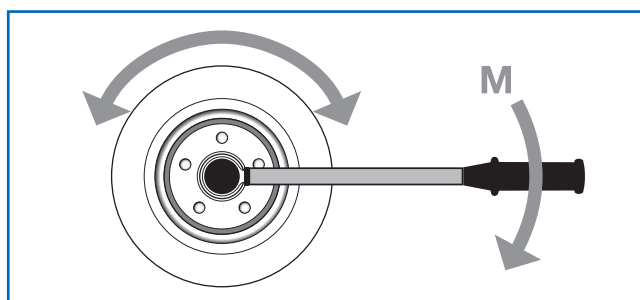


Figure 3



The brake disc/brake drum must be turned during the tightening process (see Figure 3). The rolling elements align themselves during this important step. This prevents damage to the bearing shells.

# Correct mounting with the correct tightening torque

ATE currently has 10 different brake discs and 9 different brake drums with wheel bearing in its range. To ensure that these are installed with the correct tightening torque, ATE has

compiled the tightening torques as specified by the vehicle manufacturers by way of example. The table is continuously updated and is available for download from [www.ate.de](http://www.ate.de).

## Tightening torques for ATE brake discs with bearing (extract)

Veh. model	Vehicle	Wheel bearing tightening torque [Nm]	ATE part no.
CITROEN	C3 Picasso (09-)	300	24.0109-0100.2
CITROEN	C4 (04-)	70*	24.0109-0100.2
CITROEN	C4 (04-)	300	24.0109-0150.2
CITROEN	DS3 (09-)	300	24.0109-0100.2
NISSAN	Primastar Bus (01-)	280	24.0112-0177.2
NISSAN	Primastar Van (02-)	280	24.0112-0177.2
OPEL	Vivaro (01-)	280	24.0112-0177.2
PEUGEOT	207 Saloon (06-)	300	24.0109-0100.2
PEUGEOT	207 CC (07-)	300	24.0109-0100.2
PEUGEOT	307 Saloon (00-07)	300	24.0109-0150.2
PEUGEOT	307 Break (02-08)	300	24.0109-0150.2
PEUGEOT	307 CC (03-09)	300	24.0109-0150.2
PEUGEOT	307 SW (02-08)	300	24.0109-0150.2
RENAULT	Clio III (05-)	175	24.0108-0114.2
RENAULT	Clio III Grandtour (08-)	175	24.0108-0114.2
RENAULT	Espace IV (02-)	280	24.0111-0100.2
RENAULT	Grand Scenic (04-09)	Std. chassis: 220 Long chassis: 280	24.0111-0148.2
RENAULT	Grand Scenic (04-09)	Std. chassis: 220 Long chassis: 280	24.0110-0325.2
RENAULT	Laguna II Grandtour (01-07)	280	24.0111-0101.2
RENAULT	Megane I Grand Tour (98-03)	175	24.0111-0166.2
RENAULT	Megane II Saloon 3/5-door (02-)	220	24.0108-0114.2
RENAULT	Megane II Coupe/Convertible (03-)	220	24.0108-0114.2
RENAULT	Megane II Saloon 4-door (03-)	220	24.0108-0114.2
RENAULT	Megane II Grandtour (03-)	Std. chassis: 220 Long chassis: 280	24.0110-0325.2
RENAULT	Megane II Saloon 3/5-door (02-)	Std. chassis: 220 Long chassis: 280	24.0110-0325.2
RENAULT	Megane II Saloon 4-door (03-)	Std. chassis: 220 Long chassis: 280	24.0110-0325.2
RENAULT	Modus / Grand Modus (04-)	175	24.0108-0114.2
RENAULT	Scenic I (99-03)	175	24.0111-0166.2
RENAULT	Scenic II (03-09)	Std. chassis: 220 Long chassis: 280	24.0110-0325.2
RENAULT	Traffic II (01-)	280	24.0112-0177.2
RENAULT	VelSatis (02-)	280	24.0111-0100.2
RENAULT	VelSatis (02-)	280	24.0111-0167.2

\* CITROEN C4 (04-): 70 Nm +45° +/- 5° angular tightening

For questions on ATE brake discs and ATE brake drums with integrated wheel bearing, including mounting issues, workshops can obtain specialist information from the ATE Hotline

under telephone number **+49 (0) 1805/22 1242 \*\***.

\*\* (for your phone rate please contact your local carrier)

## Tightening torques for ATE brake drums with bearing (extract)

Veh. model	Vehicle	Wheel bearing tightening torque [Nm]	ATE part no.
CITROEN	AX (86-98)	140	24.0216-5701.2
CITROEN	SAXO (96-04)	140	24.0216-5701.2
DACIA	LOGAN Saloon (04-)	280	24.0218-0732.2
DACIA	LOGAN MCV Estate (07-)	280	24.0218-0732.2
FORD	FOCUS I (98-04)	235	24.0220-3720.2
PEUGEOT	106 (91-96)	140	24.0216-5701.2
PEUGEOT	106 (96-04)	185	24.0216-5701.2
PEUGEOT	205 (83-90)	215	24.0218-0714.2
PEUGEOT	205 (91-98)	215	24.0218-0714.2
PEUGEOT	205 (83-90)	215	24.0218-0715.2
PEUGEOT	205 (91-98)	215	24.0218-0715.2
PEUGEOT	309 (85-93)	215	24.0218-0715.2
PEUGEOT	306 Saloon (3/5-door) (93-01)	200	24.0218-0716.2
PEUGEOT	306 Saloon (4-door) (94-01)	200	24.0218-0716.2
PEUGEOT	306 Convertible (94-03)	200	24.0218-0716.2
PEUGEOT	309 (85-93)	215	24.0218-0716.2
PEUGEOT	106 (91-96)	140	24.0218-0717.2
PEUGEOT	106 (96-04)	185	24.0218-0720.2
PEUGEOT	206 Saloon (98-09)	200	24.0218-0720.2
PEUGEOT	206 PLUS (09-)	230	24.0218-0720.2
RENAULT	EXPRESS/RAPID (85-98)	160	24.0218-0713.2
RENAULT	R21 Saloon (86-93)	160	24.0218-0713.2
RENAULT	CLIO I Saloon (90-98)	160	24.0218-0732.2
RENAULT	CLIO I Van (91-98)	160	24.0218-0732.2
RENAULT	CLIO II Saloon (98-05)	175	24.0218-0732.2
RENAULT	CLIO II Van (98-05)	175	24.0218-0732.2
RENAULT	R5 SUPER (85-96)	160	24.0218-0732.2
RENAULT	R9 (82-89)	160	24.0218-0732.2
RENAULT	R11 (83-89)	160	24.0218-0732.2
RENAULT	R19 (3/5-door) (88-95)	160	24.0218-0732.2
RENAULT	R19 CHAMADE (89-95)	160	24.0218-0732.2
RENAULT	R19 Convertible (91-96)	160	24.0218-0732.2
RENAULT	THALIA (98-)	175	24.0218-0732.2
RENAULT	TWINGO I Saloon (93-07)	170	24.0218-0732.2
RENAULT	TWINGO I Van (93-07)	170	24.0218-0732.2