



**BRAKE DISC  
WITH BEARING**



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## BRAKE DISC WITH ASSEMBLED BEARING

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The brake disc with assembled bearing is a solution adopted in recent years for non-drive rear wheels of many Citroen, Peugeot and Renault medium-low range models.

The bearing used in this solution is a wheel bearing with two roller crown wheels (aka bi-conical).

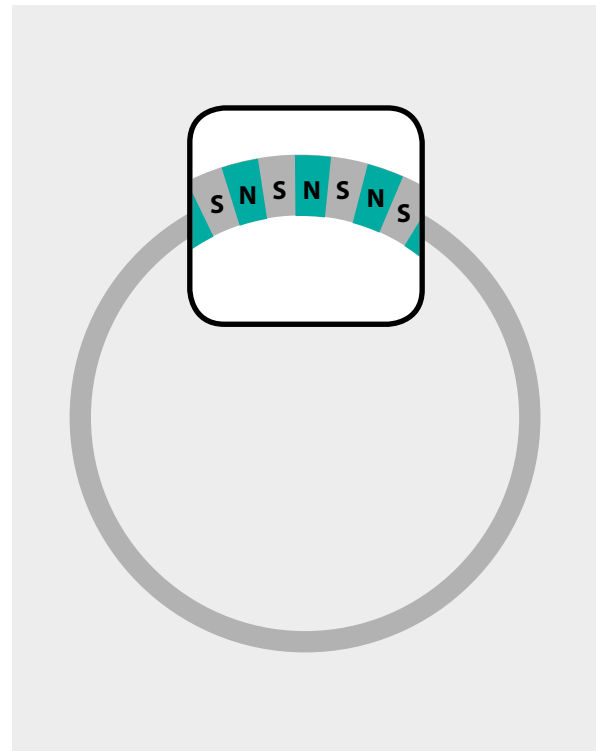
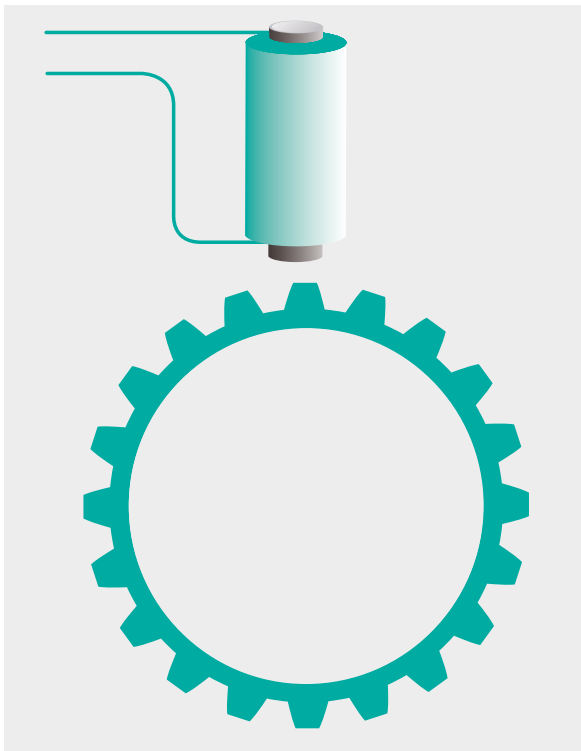


## PHONIC WHEEL / MAGNETIC ENCODER

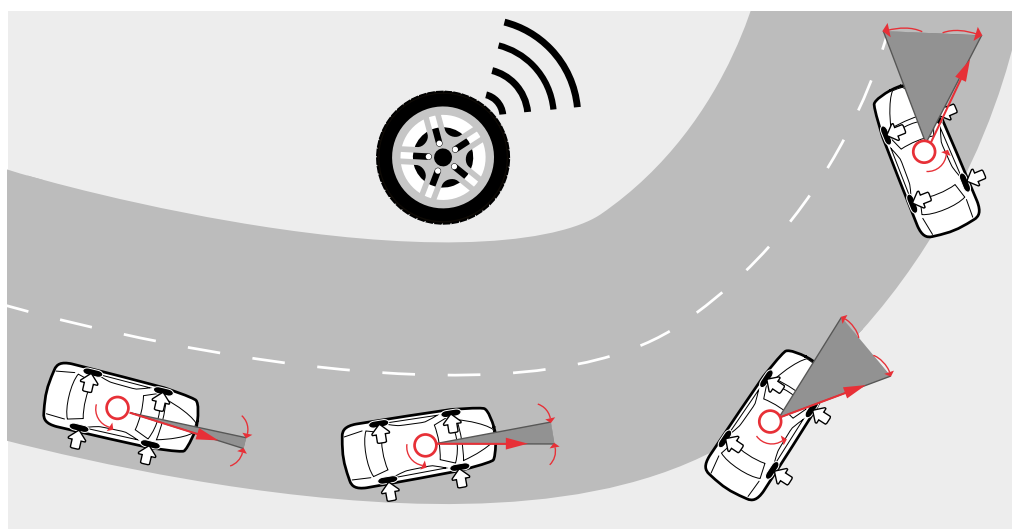
The brake disc hub with bearing is fitted with a phonic wheel or a magnetic encoder.

**The phonic wheel or encoder is used to detect the speed of the vehicle wheel, basic information for the operation of the vehicle's ABS system.**

The magnetic encoder has a very precise sequence of north and south poles and, through a sensor fitted in the proximity, sends a digital signal which corresponds to the wheel's speed of rotation. In the case of a phonic wheel, its metallic teeth generate the signal.



This signal is received by the vehicle ECU and is used in the operation of ABS, ESP, electric parking brake and navigation systems as well as other functions controlling vehicle stability.



**The advantages of the magnetic encoder solution rather than a phonic wheel are its ability to detect even the smallest wheel movements, better signal quality, compact dimensions, low weight and ease of assembly, to name a few.**

Much of the development potential of this technology is in the possible future connectivity to other important vehicle features.

## PRE-ASSEMBLED BREMBO KIT

Machining discs with bearings, as well as the bearings themselves, requires absolute precision.

Only compliance with the very strict tolerances defined in the design stage can ensure correct operation of components involved in active vehicle safety.

**For this reason, in the case of a disc with an assembled bearing, replacing the single spare part is not advised, since disassembly and reassembly may damage both the bearing and the disc.**

For this reason, the preferred method is to replace both the disc and bearing, as supplied by Brembo in a single piece.

Using a Broom pre-assembled kit has the following advantages:



- No specific mounting equipment is needed since the bearing is already fitted to the brake disc.



- No loss of time: Brembo has already mounted the bearing on the disc.



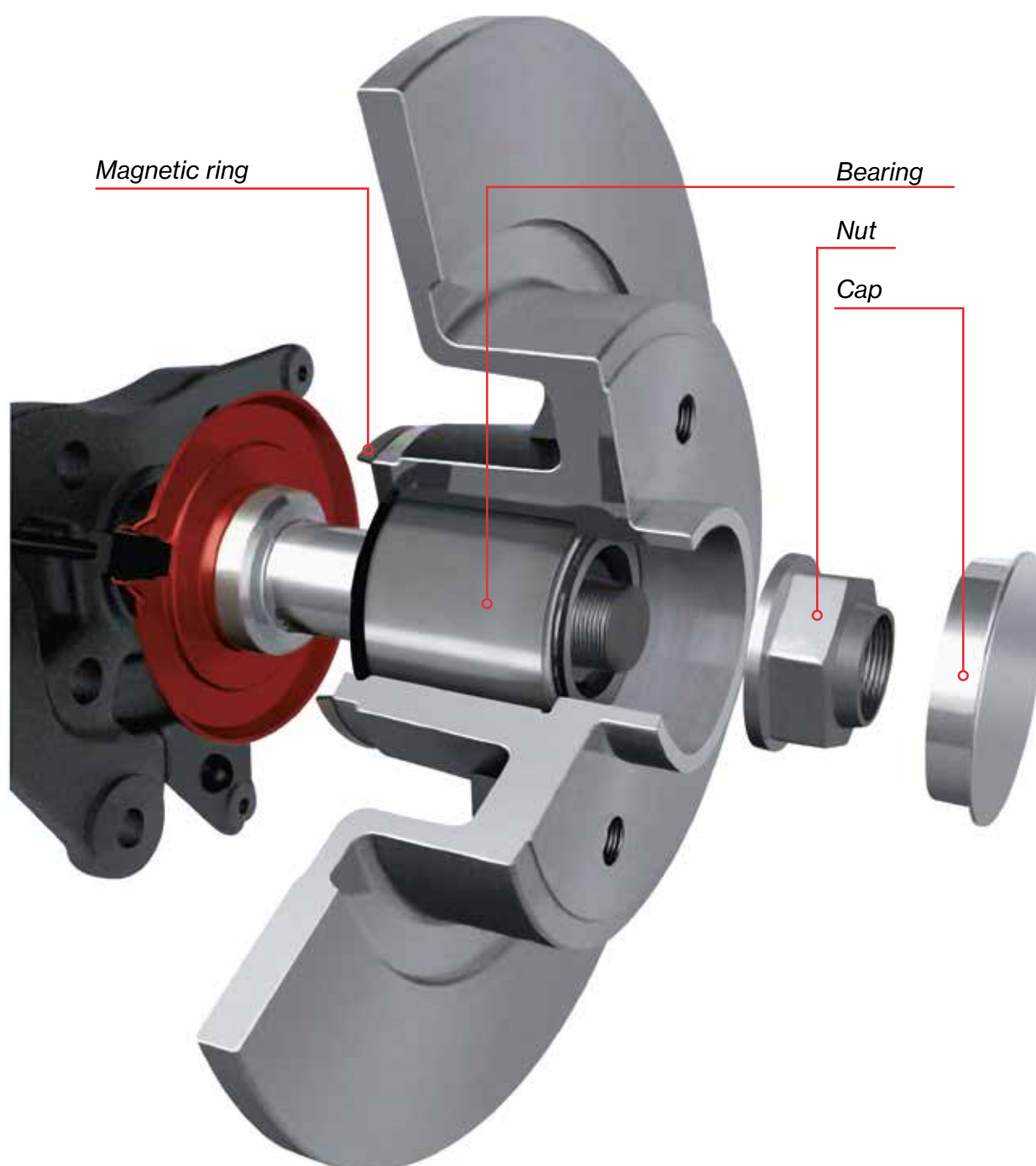
- There is no risk of damaging the bearing in an attempt to extract it from the old disc.



- Safe assembly of components is ensured by Brembo's skill and in-line controls. Each disc, after mounting the bearing and encoder, is 100% checked for:
  - Torque
  - Disc swing
  - Oscillation of the encoder



Brembo's solution also includes - for models where applicable per the manufacturer - a magnetic encoder or phonic wheel built into the disc-bearing unit.



## FITTING THE DISC WITH INTEGRATED BEARING

Before fitting the new disk with the bearing, follow these steps:



1. Consult the vehicle's maintenance handbook and follow manufacturer instructions



2. Make sure that the encoder is working properly and has not been damaged using a standard encoder detector. A marked or damaged encoder is unsuitable for use. Avoid blows/shocks and make sure that the encoder is clean.



3. Do not place the encoder near magnetic sources which could affect its operation



4. Make sure that the stub axle pin is sufficiently lubricated before fitting the disk with the bearing.

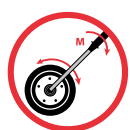


5. During installation, apply pressure to the inner bearing raceway. Use specific equipment if necessary.





6. Fitting the disk-bearing does not require excessive pressure. The tolerances of the two elements allow installation to be performed using simple manual pressure. Hammers and similar tools must NEVER be used. The use of excessive force during installation may seriously damage the bearings, thereby compromising their durability and correct operation.



7. The stub axle nut must be initially fitted by hand and only then tightened using a torque wrench to the torque specified by the manufacturer (see *table*). Incorrect torque will reduce bearing service life.



## BEARING WEAR AND CRITICAL STATUS

A faulty wheel bearing creates more friction, which in turn causes the typical noise always synonymous with a serious problem.

As well as causing noise, a defective bearing causes all adjacent parts (hub, shock absorber, etc.) to function incorrectly and thereby causing premature wear.

**Periodic inspection and replacement of bearings is essential for correct vehicle maintenance.**

It is best practice to check the condition of the wheel bearings whenever the brakes are replaced and whenever the following problems occur:



● Noise



● Premature wear

Wheel bearing deterioration can be caused by:



● High mileage



● An accidental blow or impact



● Incorrect assembly





Bearing wear and critical status



## BREMBO RANGE OF DISCS WITH BEARINGS

The range of discs with assembled bearing supplied by Brembo is indicated below.

For each item, pre-mounted or loose components in the packaging are indicated.

Where available, the tightening torque of the stub axle nut is also indicated.

**The applications listed are for informative purposes only; for more complete and accurate information, refer to the Brembo catalogue. [www.brembo.com](http://www.brembo.com)**

BREMBO BRECO AP	OE NR	MAKE & MODEL (REAR AXLE)	BEARING	PHONIC WHEEL	ENCODER	CAP	NUT	WHEEL BEARING TIGHTENING TORQUE (NM)
08.5833.15 BC 7483 14552 C	77.00.805.148 77.01.204.303	RENAULT CLIO I (05/90-09/98)	✓	-	-	-	-	NA
08.5833.25 BC 7484 14565 C	77.00.805.006 77.01.204.302 77.01.208.054	RENAULT CLIO II (09/98-) / RENAULT CLIO I (05/90-09/98)	✓	NA	-	-	-	NA
08.5834.15 BC 7485 14567 C	77.00.780.077	RENAULT 19 II (04/92-12/95) / RENAULT 19 I (01/88-12/92)	✓	-	-	-	-	NA
08.5834.25 BC 7486 14568 C	77.00.780.078 77.01.204.294 77.01.204.901	RENAULT MEGANE I (03/96-08/03) / RENAULT CLIO II (09/98-) RENAULT 19 II (04/92-12/95)	✓	NA	-	-	-	NA
08.5834.37 BY 7724 14934 Y	77 01 207 611	RENAULT CLIO II (09/98-)	✓	✓	-	✓	✓	NA
08.9512.17 BY 7679 14900 Y	424629 4249.34	PEUGEOT 307 (03/02-) / CITROËN C4 (11/04-)	✓	-	✓	✓	✓	300
08.9512.27 BY 7694 14911 Y	4249.19 4249.32	PEUGEOT 307 (03/02-) / PEUGEOT 207 (06/07-) / CITROËN DS3 (04/10-) CITROËN C4 (07/06-) / CITROËN C3 (02/09-)	✓	-	✓	✓	✓	300
08.9597.17 BY 7699 14910 Y	43206-00QAB 77 01 206 846 91159916	VAUXHALL / OPEL VIVARO (04/03-) / RENAULT TRAFIC II (03/01-) NISSAN PRIMASTAR (09/02-)	✓	✓	-	✓	✓	280
08.9792.17 BY 7695 14912 Y	7701 472 838 7701 713 008 8200 367 094	RENAULT LAGUNA II (03/01-)	✓	-	✓	✓	✓	280
08.A135.17 BY 7696 14918 Y	77 01 207 898	RENAULT SCÉNIC II (06/03-) / RENAULT MEGANE II Estate (08/03-)	✓	-	✓	✓	✓	220 Std. chassis 280 Long chassis
08.A141.17 BY 7697 14919 Y	77 01 207 823	RENAULT WIND (07/10-) / RENAULT TWINGO (03/07-) / RENAULT MODUS (12/04-) RENAULT MEGANE (09/03-) / RENAULT CLIO III (05/05-)	✓	-	✓	✓	✓	175

BREMBO BRECO AP	OE NR	MAKE & MODEL (REAR AXLE)	BEARING	PHONIC WHEEL	ENCODER	CAP	NUT	WHEEL BEARING TIGHTENING TORQUE (NM)
08.A238.17 BY 7730 14939 Y	77 01 208 230	RENAULT GRAND SCÉNIC II (04/04-)	✓	-	✓	✓	✓	220 Std. chassis 280 Long chassis
08.A238.47 BY 7731 14940 Y	77 01 206 328	RENAULT SCÉNIC I (09/99-08/03) / RENAULT MEGANE I (03/99-08/03)	✓	-	✓	✓	✓	175
08.A239.17 BY 7728 14937 Y	82 00 244 108 82 00 649 353	RENAULT VEL SATIS (06/02-) / RENAULT ESPACE IV (11/02-)	✓	-	✓	✓	✓	280
08.A239.27 BY 7729 14938 Y	82 00 018 407	RENAULT VEL SATIS (06/02-)	✓	-	✓	✓	✓	280
08.A729.17 BY 7781 14989 Y	424945 424946	CITROEN BERLINGO (04/08-) / CITROEN C4 (11/09-) / CITROEN PICASSO (02/07-) CITROEN GRAN PICASSO (07/08-) / CITROEN DS4 (04/11-) / PEUGEOT 308 SW(01/07-) PEUGEOT 3008 (06/09-) / PEUGEOT 5008 (06/09-)	✓	-	✓	✓	✓	NA
08.A826.17 BY 7782 14990 Y	40202-0003R	RENAULT LAGUNA III (01/08-) / RENAULT LAGUNA III GRAND-TOUR (10/07-)	✓	-	✓	✓	✓	NA
08.A858.17 BY 7778 14987 Y	42.49.66	CITROËN C4 (11/09-) / CITROËN DS4 (04/11-) / PEUGEOT 308 (09/07-) PEUGEOT 308 CC (06/09-) / PEUGEOT 308 WAGON (06/09-)	✓	-	✓	✓	✓	NA
08.A858.27 BY 7779 14988 Y	4249.65	CITROËN C4 (11/09-) / CITROËN DS4 (04/11-) / PEUGEOT 308 (09/07-) PEUGEOT 308 CC (06/09-) / PEUGEOT 308 WAGON (06/09-)	✓	-	✓	✓	✓	NA

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