

## Shock Absorber CAT-LVGAB-10



Jürgen Mehlis 08.2010

# CAT-LVGAB-10 Cover



Catalogue Region: Europe

Total Number of References: 1467

Product Groups: Shock Absorber, Strut Mount Kits

Number of Applications: 47.550

Vehicle Range: Passenger Cars and Light Commercial

Park Coverage: 77,88 % Europe

# CAT-LVGAB-10 Additional Content

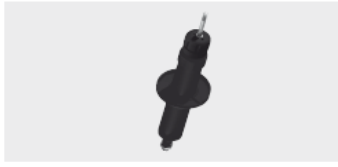


## **i** Gabriel

### Gabriel Shock Absorber Range



**Complete MacPherson strut**  
Hydraulic 35000/55000      Gas G35000/G55000/G56000



**Shock absorber with spring seat**  
Hydraulic 51000      Gas G51000



**MacPherson strut insert**  
Hydraulic 44000      Gas G44000



**Telescopic shock absorber**  
Hydraulic 42000      Gas 69000



**Extra heavy duty shock absorber**  
Hydraulic 83000      Gas G63000



**Load compensating shock absorber**  
Hydraulic 41000

## Gabriel GB

### Regular Check

Worn shock absorbers have a multitude of negative influences on the driveability of the vehicle and as a consequence on driver's safety.



A worn shock absorber reduces the contact between road and wheel. Steering is massively reduced!



Worn shock absorbers can affect everything from braking to handling:

- Braking distance increased by 15%
- 15% greater chance of aquaplaning
- Tyre life reduced by 25%
- Disruption of vehicle stability systems

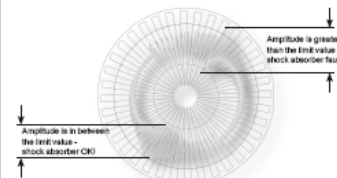
Worn shock absorbers can also cause stress on many other parts, from wheel bearings to steering system. Replacing them at the right time could prevent more costly repairs at a later date.

It is recommended that all four shocks are replaced at the same time. At the very least shock absorbers should be replaced in pairs, with either the front or rear pair changed at the same time. Shock absorbers with uneven wear or different types of shock absorbers on the vehicle will affect vehicle handling and performance.

Gabriel recommends to check the shock absorbers every 20,000 - 30,000 km and replace them at about 90,000 km in pairs to ensure a safer journey!

### Workshop test

A visual check of a shock absorber can only give a partial hint of its technical condition. In order to determine, whether a shock absorber must be renewed, a test on a special test stand is necessary. Usually at least two shock absorbers are examined at the same time by being shifted in oscillation. These are then noted over the entire frequency range. The picture shows the recording of a defective (right side) and an intact (left side) shock absorber.



If the measured resonance amplitude is greater than the limit value given (area between the green circles), the damper is faulty. With such an instrument, the workshop is able to explain the necessity for a shock absorber change to its customer.

### Diagnosis



#### Rubber block

The rubber block or bump stop is an essential part in many systems. Its function is to limit the piston travel during the compression phase. The elastic rubber block prevents the valve on the lower end of the piston from hitting the bottom of the shock and being destroyed.

If the rubber block is damaged it has to be replaced in axle sets.



#### Top mount

The top mount has two functions. The bearing inside allows the MacPherson strut to turn during steering. The bearing is vulcanised into a bracket. This rubber also dampens the vibrations from the road.

#### Dust Cover

Rubber block and dust cover are the shield of the shock absorber.

The dust cover protects the piston rod from any outside "aggression" like stones, gravel, sand etc.

Protecting the piston rod helps to prevent leaking which is the main cause of shock absorber malfunction.



#### Uneven tire wear

Worn out spots along the centreline of a tire may be the indication of defect shock absorbers. The reduced contact between road and tire, caused by worn shocks, results in tire wear as shown on the picture above.

### Successful Repair

- Utmost cleanliness is required when working on shock absorbers
- Shock absorbers must only be replaced in axle sets
- Always replace self-locking nuts, bolts and splints
- Replace all fitting parts delivered with the shock absorbers
- Welding and straightening work on steering and suspension parts is not permitted
- Always use the appropriate tools - do not use airtools for assembly
- Do not grip the piston rod in any way
- Always tight the screws and nuts with the correct torque and the wheels on the ground

Always refer to the vehicle manufacturers guidelines when replacing shock absorbers!




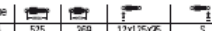

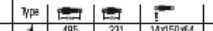




















# CAT-LVGAB-10 Additional Content



**Gabriel**  G35226

**X → Gabriel**

G35207	G35214	G35216
		
Type  525 369 12x125x05 S	Type  536 369 M12x75 S	Type  495 331 14x150x64 S
<p>OPEL VECTRA B [36_]VECTRA B Estate (31...) VAUXHALL VECTRA VECTRA Estate VECTRA Hatchback</p>	<p>FIAT PALIO (178BX) PALIO Estate (178DX) SIENA (17R...)</p>	<p>ALFA ROMEO GTV [916C_] SPIDER [916S...]</p>
G35217	G35218	G35219
		
Type  490 526 14x150x64 S	Type  534 369 12x125x05 S	Type  525 369 12x125x05 S
<p>ALFA ROMEO GTV [916C_] SPIDER [916S...]</p>	<p>FIAT COUPE [FA/175]</p>	<p>OPEL VECTRA B [36_]VECTRA B Estate (31...) VAUXHALL VECTRA VECTRA Estate VECTRA Hatchback</p>
G35220	G35221	G35222
		
Type  479 328 12x125x06 S	Type  523 368 12x125x05 S	Type  692 498 14x150x66 S
<p>MITSUBISHI CARISMA [DA_] CARISMA Saloon [DA...] VOLVO S40 [V5]V40 Estate [W]</p>	<p>OPEL ASTRA F CLASSIC Estate ASTRA F CLASSIC Hatchback VAUXHALL ASTRA Mk II Convertible ASTRA Mk IV...</p>	<p>ALFA ROMEO 156 [932]</p>
G35223	G35225	G35226
		
Type  541 373 14x150x29 S	Type  479 328 12x150x06 S	Type  523 368 12x125x05 S
<p>PEUGEOT 206 Hatchback [2A/C, 13E]</p>	<p>MITSUBISHI CARISMA [DA_] CARISMA Saloon [DA...] VOLVO S40 [V5]V40 Estate [W]</p>	<p>OPEL ASTRA F CLASSIC Estate ASTRA F CLASSIC Hatchback... VAUXHALL ASTRA Mk II Convertible ASTRA Mk IV...</p>

BMW (...)	Gabriel	BMW (...)	Gabriel	CHRYSLER (...)	Gabriel	CITROEN (...)	Gabriel
3121227256	G44799	3352125770	G51330	4656196	G65690	7940R00085	44857
3121229612	G95227	3352125802	G51330	4694760	G63426	7940R00086	44857
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3121650786	G95472	3352126257	G651346	4743128	G63426	9495301644	51316
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3121650952	G95474	3352126748	G9436	4656429B	69473	5202CF	G35422
3121091554	G44497	3352126749	G9436	4656781A	69473	5202CG	G35423
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3121134635	G44931	33526750782	G9627			5202H1	G35150
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3121135445	G44775	33526750784	G9627			5202H3	G35402
3121135445	G44660	33526750785	G9628			5202H4	G35403
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3121136836	G44493	33526751000	G9630			5202J5	36164
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3122035731	G4713	37121134450	G51346			5202K9	G35442
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33521092309	G9663					5202QH	G35480
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33521094052	G9999					5202R2	G35410
33521094057	G9999					5202R3	G35411
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33521095097	G9999					5202S3	G35424
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3352126249	G51330	3352126249	G51330	4743125	G63426	9495300946	51320
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3352225697	G51346	3352225697	G51346	4742415AC	G63426	5202FF	G35430
3352227258	G						

# Application Part



Gabriel		i		PRO ONE		Alternative		i		PRO ONE		Alternative	
<b>ALFA ROMEO (.../...)</b>													
<b>156 (932) (.../...)</b>													
2.4 JTD	10.00-09.05	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	10.00-09.05	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
2.5 V6 24V	09.97-10.00	f	∅ (+)		GS1231			f	11.98, ∅ (-) Ch. VETD116245>		GS3288		
	09.97-10.00	f	∅ (+)		GS1217			f	11.98, ∅ (+), ∅ (-) Ch. VETD116245>		GS3288		
	10.00-09.05	f	∅ (+)		GS1231			f	-10.96, ∅ (-), ∅ (-) Ch. ->VETD116245		GS3288		
	10.00-09.05	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
3.2 GTA	03.02-09.05	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	03.02-09.05	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
<b>156 Estate (932)</b>													
1.6 16V T.SPARK	05.00-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	05.00-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
1.8 16V T.SPARK	05.00-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	05.00-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
1.9 JTD	05.00-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	05.00-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
JTD 16V	11.02-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	11.02-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
2.0 16V T.SPARK	05.00-01.02	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	05.00-01.02	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
JTS	03.02-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	03.02-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
2.4 JTD	05.00-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	05.00-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
2.5 V6 24V	05.00-10.00	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	10.00-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
3.2 GTA	03.02-05.06	f	∅ (+)		GS1231			f	∅ (+), ∅ (-)		GS3288		
	03.02-05.06	f	∅ (+)		GS1217			f	∅ (-)		GS3288		
<b>164 (164)</b>													
2.0 T.S.	06.87-09.92	f	∅ (-)	∅ (-)	GS3100		GK141				GS3101		GP020
	06.87-09.92	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
	09.92-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
Turbo	10.87-09.98	f	∅ (-)	∅ (-)	GS3100		GK141		∅ (-)		GS3101		GP020
	10.87-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
V6 Turbo	03.91-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
2.5 V6	09.92-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
2.5 JTD	06.87-09.92	f	∅ (-)	∅ (-)	GS3100		GK141				GS3101		GP020
	06.87-09.92	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
	09.92-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
3.0 24V, 24V QV, V6	09.92-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
	09.92-09.98	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
	06.87-09.92	f	∅ (-)	∅ (-)	GS3100		GK141				GS3101		GP020
	06.87-09.92	f	∅ (-)	∅ (-)	GS3105		GK141		∅ (-)		GS3101		GP020
<b>166 (936)</b>													
2.0 T.SPARK	09.98-10.00	f			GS1238						GS1238		
V6	09.98-10.00	f			GS1238						GS1238		
2.4 JTD	07.05-10.00	f		V1,ESP(-)	GS1238						GS1238		
2.5 V6 24V	09.98-10.00	f			GS1238						GS1238		
3.0 V6 24V	09.98-10.00	f			GS1238						GS1238		
3.2 V6 24V	10.03-10.00	f			GS1238						GS1238		
<b>ALFASUD Coupe (902.A)</b>													
1.4	07.79-12.89	f	∅ 1.84		GS3983		∅ 01.84				GS028		
		f	∅ 1.84		GS3984						GS028		
1.5	07.79-12.89	f	∅ 1.84		GS3983		∅ 01.84				GS028		
		f	∅ 1.84		GS3984						GS028		

ALFA ROMEO

Gabriel		i		PRO ONE		Alternative		i		PRO ONE		Alternative	
<b>NISSAN (.../...)</b>													
<b>ALMERA TINO (V10) (.../...)</b>													
2.0	08.00-09.03											GS1299	
2.2 dCi	09.03-09.00											GS1299	
												GS1299	
<b>BLUEBIRD (910)</b>													
1.6	01.80-11.82	f	∅		4489								
1.8	01.80-12.82	f	∅		4489								
2.0 I	01.82-12.82	f	∅		4489								
2.0 D	01.80-12.82	f	∅		4489								
TD	01.83-09.82	f	∅		4489								
<b>BLUEBIRD (T72, T12)</b>													
1.6	03.86-06.90											GS4070	f-GK23,GP01 -GK27,GP01
1.8 I 16V	02.89-12.90											GS4070	f-GK23,GP01 -GK27,GP01
Turbo	12.85-05.90											GS4070	f-GK23,GP01 -GK27,GP01
2.0	12.85-12.87											GS4070	f-GK23,GP01 -GK27,GP01
I	12.85-12.90											GS4070	f-GK23,GP01 -GK27,GP01
2.0 D	03.86-12.90											GS4070	f-GK23,GP01 -GK27,GP01
<b>BLUEBIRD (U11)</b>													
1.6	11.82-06.88											GS4070	f-GK23,GP01 -GK27,GP01
Turbo	04.84-05.90											GS4070	f-GK23,GP01 -GK27,GP01
2.0 I	04.84-01.88											GS4070	f-GK23,GP01 -GK27,GP01
2.0 D	04.84-01.88											GS4070	f-GK23,GP01 -GK27,GP01
<b>BLUEBIRD Estate (W910)</b>													
1.8	01.80-05.84											GS4147	
2.0 D	01.80-05.84											GS4147	
<b>BLUEBIRD Estate (WU11)</b>													
2.0	04.86-09.90											GS4070	f-GK23,GP01 -GK27,GP01
I	04.84-12.90											GS4070	f-GK23,GP01 -GK27,GP01
	09.88-09.90											GS4070	f-GK23,GP01 -GK27,GP01
2.0 D	04.84-01.88											GS4070	f-GK23,GP01 -GK27,GP01
	03.86-12.90											GS4070	f-GK23,GP01 -GK27,GP01
<b>BLUEBIRD Hatchback (T72, T12)</b>													
1.6	03.86-06.91											GS4070	f-GK23,GP01 -GK27,GP01
1.8 I 16V	02.89-12.90											GS4070	f-GK23,GP01 -GK27,GP01
Turbo	12.85-05.90											GS4070	f-GK23,GP01 -GK27,GP01
2.0	12.85-12.87											GS4070	f-GK23,GP01 -GK27,GP01
I	12.85-12.90											GS4070	f-GK23,GP01 -GK27,GP01
2.0 D	03.86-12.90											GS4070	f-GK23,GP01 -GK27,GP01

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