Xm

31st MAY 1995

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ABONNEMENT GME

PRESENTATION

● 1995 MODEL YEAR RANGE

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GB

AUTOMOBILES CITROËN
DIRECTION COMMERCE EUROPE
DOCUMENTATION APRÈS VENTE

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PRESENTATION : 1995 MODEL YEAR RANGE OF VEHICLES

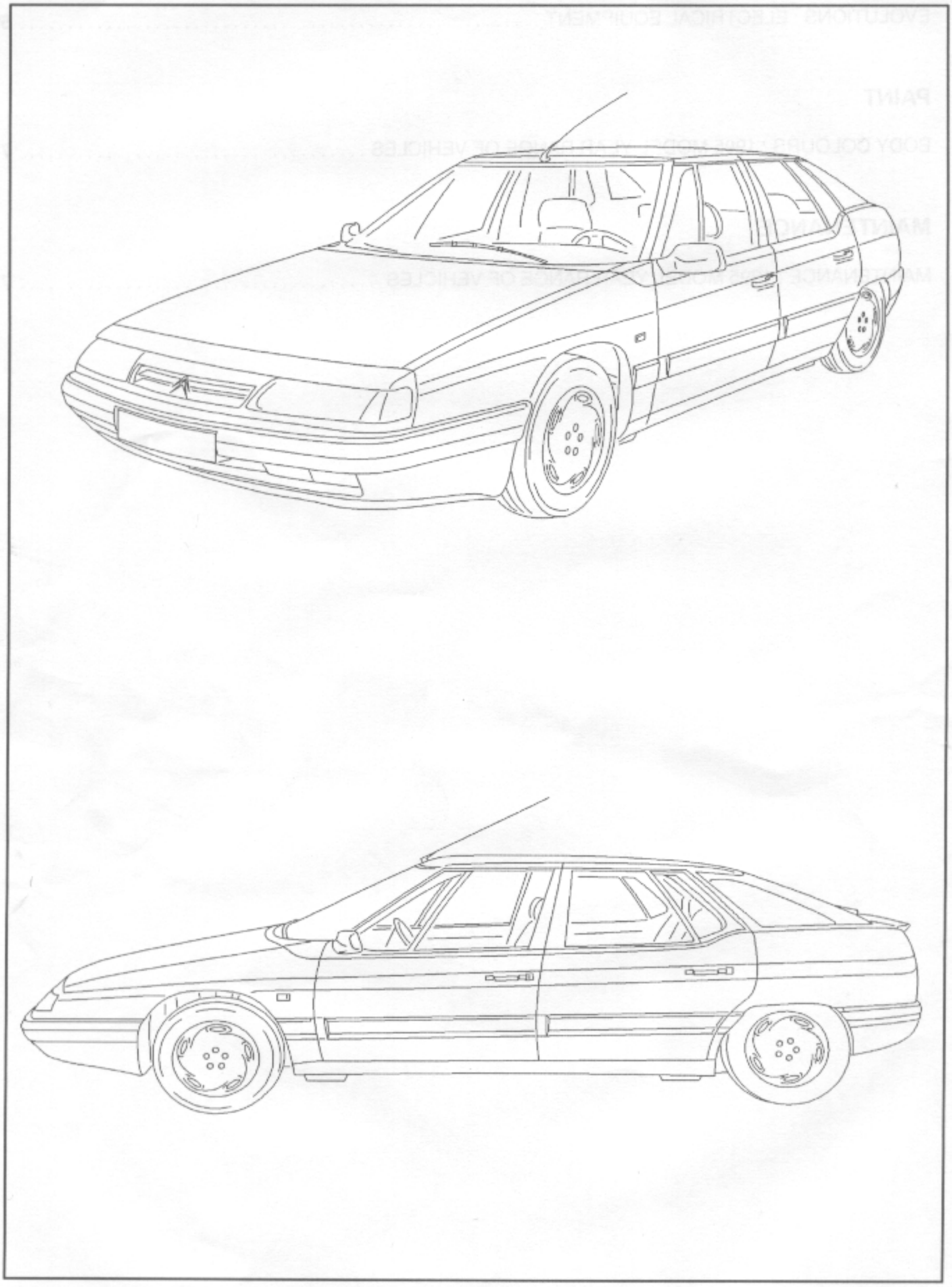


Fig. : E1-R00EP

The 1995 Model Year is characterised by :
- an exterior and interior restyling
- new equipment
- mechanical modifications among which the introduction of two new engines and a new gearbox
- an evolution of the range of models

1 – EXTERIOR RESTYLING

The restyling involves :
- the front bumper (including the direction indicators and fog lamps)
- the grille with integrated chevrons
- the windscreen wiper
- the direction indicator side repeaters

Improvement of the rear spoiler on the CITROEN XM Saloon.

The tailgate of the CITROEN XM Estate is unchanged.

2 – INTERIOR RESTYLING

The restyling involves :
- the dashboard, instrument cluster with electronic speedometer and air conditioning front panel
- the steering shaft surround
- the 4–spoke steering wheel with AIRBAG and with or without radio controls
- the interior trims

3 – EQUIPMENT

Introduction of new equipments such as :
- AIRBAG and pyrotechnic pre–tensioners fitted to all models as standard
- remote control with high frequency hertzian waves
- deadlocking allied to the High Frequency remote control
- passenger's rear view mirror with setting possible in reverse
- one–touch driver's glass with anti–pinch device
- GSM radio telephone pre–equipment
- alarm on the R.H.D models

New audio system :
- 3040 PHILIPS audio system, composed of a radio cassette and remote control on the steering wheel
- 4040 PHILIPS audio system comprising : a radio cassette, a compact disc changer, remote control on the steering wheel and a dot–matrix message display repeating the radio messages

4 – MECHANICAL EVOLUTIONS

Introduction of two new engines :
- a 16–valve, 1998 cc petrol engine (XU10J4R), producing 135 HP, available with manual and automatic gearboxes
- a 12–valve, 2446 cc turbo Diesel engine DK5ATE producing 130 HP (DK5ATE engine) available with manual gearboxes only

The DK5ATE engine is equipped with an electronic injection system (E.C.U. + injection pump) managing the on–board computer, the coded anti–theft device and the cruise control.

Introduction of a new manual gearbox (MG5T) fitted to the DK5ATE, ZPJ and ZPJ4 engines, in replacement of the ME5T for the ZPJ and ZPJ4.

Introduction of the SC/MAC (CITROEN system for retaining a constant ride height) limiting the settling of the vehicle at rest, with the engine switched off (on DK5ATE and XU10J4R models, only).

Introduction of the 6+2 piston high pressure pump on the DK5ATE and XU10J4R engines.

5 – EVOLUTION OF THE RANGE

The CITROEN XM range comprises 3 trim levels :
- an SX trim level corresponding to an improved "Presence" trim level
- a VSX level, intermediate between the Sensation and Ambiance trim levels
- an "Exclusive" trim level equivalent to the 1994 Model Year "Exclusive" trim level

NOTE : the CITROEN XM Estate is only available in SX and VSX trim levels.

PRESENTATION : 1995 MODEL YEAR (SALOON)

1 – INDEX

Countries :
- F = France
- D = Germany
- A = Austria
- B = Belgium
- DK = Denmark
- E = Spain
- SF = Finland
- I = Italy
- NL = Netherland
- P = Portugal
- N = Norway
- GB = Great–Britain
- S = Sweden
- CH = Switzerland

References used :
- (a) French fiscal rating in HP
- (b) long gearbox
- (c) level of emission standards : L = EEC93, Z = US83 = US87

2 – PETROL VEHICLES

CITROEN XM 2 I injection (1 998 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–TX	RFV XU10J4R /L	97.4 (135)	20CM67 BE3 (b)	X (7)													
	Y4–CZ	RFV XU10J4R /L		20CM36 BE3	X (10)			X		X			X			X		
		RFV XU10J4R /Z				X			X		X				X		X	X
VSX		RFV XU10J4R /L			X (10)					X								
		RFV XU10J4R /Z				X												

CITROEN XM 2 I injection (1 998 cc), with automatic gerbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–TV	RFV XU10J4R /L	97.4 (135)	20GZ6B 4HP18	X (10)			X					X			X		
		RFV XU10J4R /Z				X			X		X				X		X	
VSX		RFV XU10J4R /L			X (10)													
		RFV XU10J4R /Z				X												

CITROEN XM 2 I turbo injection (1 998 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–GG	RGX XU10J2TE /Z	108 (150)	20GM32 ME5T		X			X		X	X	X		X		X	
VSX					X (9)	X	X	X	X	X		X	X			X		X
Exclusive					X (9)			X				X		X		X		

CITROEN XM 2 L turbo injection (1 998 cc), with automatic gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–TT	RGX XU10J2TE /Z	108 (150)	20GZ6C 4HP18		X			X		X		X		X	X	X	
VSX					X (9)	X	X	X	X	X			X			X		X
Exclusive					X (9)			X				X				X		

CITROEN XM 6 cylinder (2 963 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
VSX	Y4–GN	UFZ ZPJ /Z	123 (170)	20KM01 MG5TB	X (16)	X			X	X	X		X		X		X	X
	Y4–GP	UFY ZPJ /Z	120 (166)					X										
Exclusive	Y4–GN	UFZ ZPJ /Z	123 (170)		X (16)	X	X											
	Y4–GP	UFY ZPJ /Z	120 (166)					X										

CITROEN XM 6 cylinder (2 963 cc), with automatic gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
VSX	Y4–TR	UFZ ZPJ /Z	123 (170)	20GZ1C 4HP18	X (16)	X			X	X	X		X		X		X	X
	Y4–TP	UFY ZPJ /Z	120 (166)					X										
Exclusive	Y4–TR	UFZ ZPJ /Z	123 (170)		X (16)	X	X	X	X			X	X					X
				20GZ3C 4HP18												X		

CITROEN XM 6 cylinder 24 V (2 963 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
Exclusive	Y4–GU	UKZ ZPJ4 /Z	147 (200)	20KM01 MG5TB	X (16)	X	X	X	X	X		X	X	X				X

3 – DIESEL VEHICLES

CITROEN XM D12 (2 138 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
For conversion into ambulance	Y4–GV	PJZ XUD11A /L	60 (83)	20CM36 BE3	X (7)													
SX					X (7)			X		X			X					

CITROEN XM Turbo D12 (2 088 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
For conversion into ambulance	Y4–GX	P8B XUD11ATE /L	80 (110)	20GM31 ME5T	X (6)													
SX	Y4–GX	P8B XUD11ATE /L			X (6)			X		X		X	X			X		
	Y4–NF	PHZ XUD11ATE /Y				X	X		X						X		X	
VSX	Y4–GX	P8B XUD11ATE /L			X (6)			X		X		X	X			X		
	Y4–NF	PHZ XUD11ATE /Y				X	X											X
Exclusive	Y4–GX	P8B XUD11ATE /L			X (6)									X				

CITROEN XM Turbo D12 (2 088 cc), with automatic gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–TD	P8B XUD11ATE /L	80 (110)	20GZ1A 4HP18	X (6)			X					X			X		
	Y4–CX	PHZ XUD11ATE /Y				X	X		X						X		X	
VSX	Y4–TD	P8B XUD11ATE /L				X	X											X
					X (6)			X		X			X			X		
Exclusive					X (6)									X				

CITROEN 2.5 l turbo diesel (2 446 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
VSX	Y4–NX	THY DK5ATE /L	94,5 (130)	20KM02 MG5TB	X (7)			X		X		X	X			X		
		THY DK5ATE /Y				X	X								X		X	X
Exclusive		THY DK5ATE /L			X (7)			X				X				X		
		THY DK5ATE /Y				X	X											

PRESENTATION : 1995 MODEL YEAR (ESTATE)

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References used :
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- (c) level of emission standards : L = EEC93, Z = US83, Y = US87

2 – PETROL VEHICLES

CITROEN XM 2 I injection (1 998 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–GB	RFV XU10J4R /L	97,4 (135)	20GM36 ME5T	X (10)			X					X			X		
		RFV XU10J4R /Z				X			X		X				X		X	X
VSX						X												

CITROEN XM 2 I injection (1 998 cc), with automatic gerbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–TU	RFV XU10J4R /L	97.4 (135)	20GZ6B 4HP18	X (10)			X					X			X		
		RFV XU10J4R /Z				X					X				X		X	
VSX						X												

CITROEN XM 2 L Turbo injection (1 998 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–GM	RGX XU10J2TE /Z	108 (150)	20GM33 ME5T								X					X	
VSX					X (9)	X	X	X	X			X	X	X		X		X
Varebiler															X			

CITROEN XM 2 L Turbo injection (1 998 cc), with automatic gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4-TS	RGX XU10J2TE /Z	108 (150)	20GZ6C 4HP18													X	
VSX					X (9)	X	X	X	X			X	X			X		X

CITROEN XM 6 cylinder (2 963 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
VSX	Y4-GR	UFZ ZPJ /Z	123 (170)	20KM01 MG5TB	X (16)	X	X		X	X		X	X					X
				20KM00 MG5TB												X		
	Y4-GS	UFY ZPJ /Z	120 (166)	20KM01 MG5TB				X										

CITROEN XM 6 cylinder (2 963 cc), with automatic gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
VSX	Y4-TN	UFZ ZPJ /Z	123 (170)	20GZ1C 4HP18	X (16)	X	X		X				X					X
				20GZ3C 4HP18												X		
	Y4-TM	UFY ZPJ /Z	120 (166)	20GZ1C 4HP18				X										

3 – DIESEL VEHICLES

CITROEN XM D12 (2 138 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4-GW	PJZ XUD11A /L	60 (83)	20CM51 BE3	X (7)			X					X					

CITROEN XM Turbo D12 (2 088 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–GY	P8B XUD11ATE /L	80 (110)	20GM31 ME5T	X (6)			X		X		X						
	Y4–NM	PHZ XUD11ATE /Y				X	X		X						X		X	X
VSX						X												
	Y4–GY	P8B XUD11ATE /L			X (6)			X				X	X	X		X		
Varebiler	Y4–NM	PHZ XUD11ATE /Y													X			

CITROEN XM Turbo D12 (2 088 cc), with automatic gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
SX	Y4–CY	PHZ XUD11ATE /Y	80 (110)	20GZ1A 4HP18		X			X						X		X	X
VSX	Y4–NW	PHZ XUD11ATE /L			X (6)			X				X	X			X		
	Y4–CY	PHZ XUD11ATE /Y				X	X											X
Varebiler															X			

CITROEN XM 2.5 I Diesel injection (2 446 cc), with manual gearbox :

Vehicles		Engine		Gearbox	Countries													
Trim level	Official designation	Plate and type (c)	Power in kW (in HP)		F (a)	D	A	B	DK	E	SF	I	NL	P	N	GB	S	CH
VSX	Y4–NY	THY DK5ATE /L	94.5 (130)	20KM02 MG5TB	X (7)			X				X	X			X		
		THY DK5ATE /Y				X	X								X		X	X
Varebiler															X			

PRESENTATION : ENGINE XU10J4R

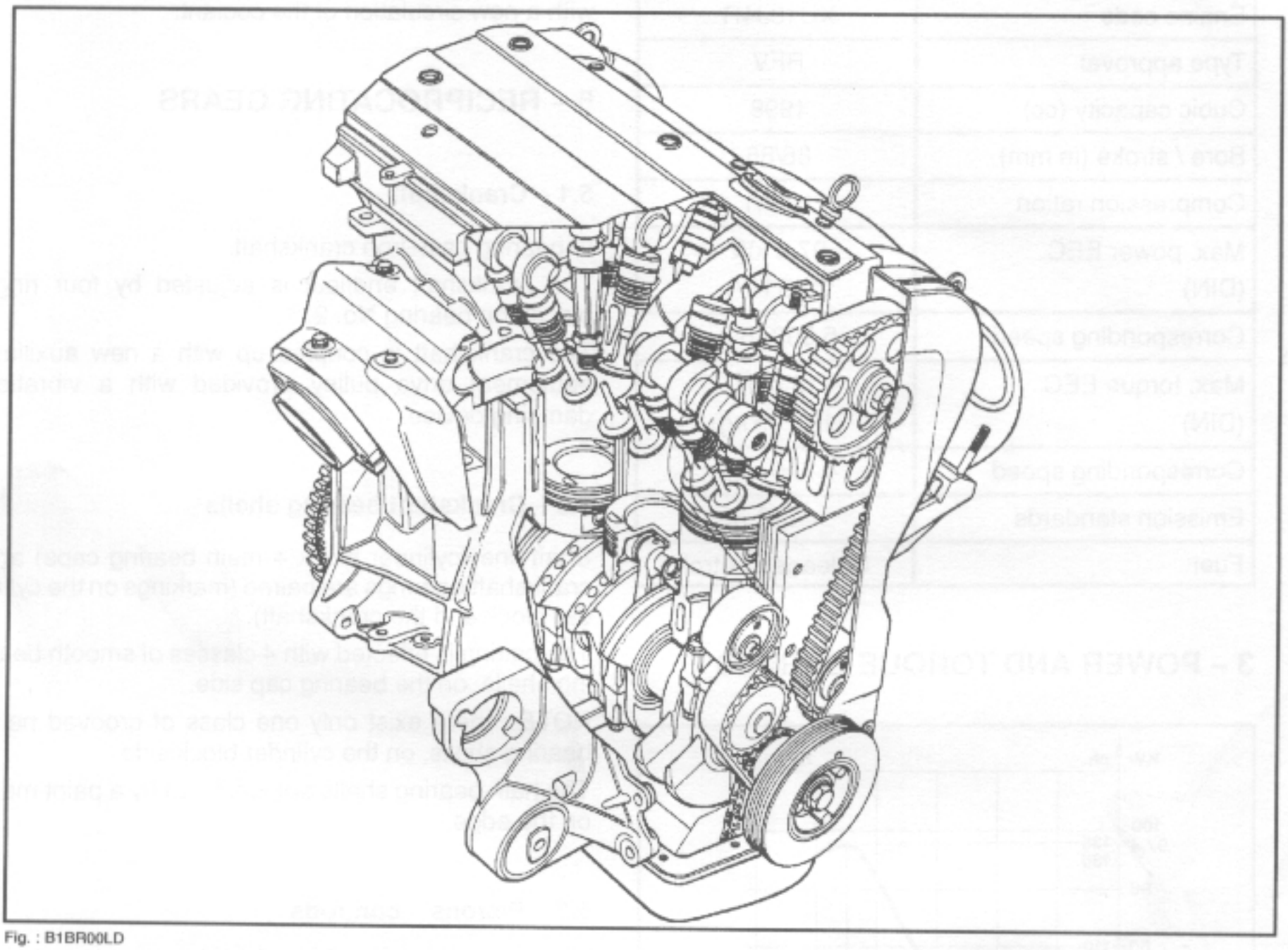


Fig. : B1BR00LD

1 – INTRODUCTION

The CITROEN XM injection is equipped with a new 2 l, 16 valve petrol engine.

This new engine has the following designation :
- XU10J4R (design type)
- RFV (type approval designation)

The 16 valve technology provides :
- improved combustion for a better driveability
- a reduction in exhaust emission to comply with the emission standards

The XU10J4R engine is different from the XU10J2 by :
- the cylinder block
- the cylinderhead assembly
- the valve timing (2 overhead camshafts)
- the reciprocating gears
- the inlet manifold
- the throttle butterfly housing
- the injection E.C.U. (BOSCH MP 5.1.1)

2 – SPECIFICATION

Engine code	XU10J4R
Type approval	RFV
Cubic capacity (cc)	1998
Bore / stroke (in mm)	86/86
Compression ration	10.4:1
Max. power EEC (DIN)	97.4 kW (135 HP)
Corresponding speed	5 500 rpm
Max. torque EEC (DIN)	18 daN (18.7 m.kg)
Corresponding speed	4 200 rpm
Emission standards	L/Z
Fuel	Unleaded petrol

3 – POWER AND TORQUE CURVES

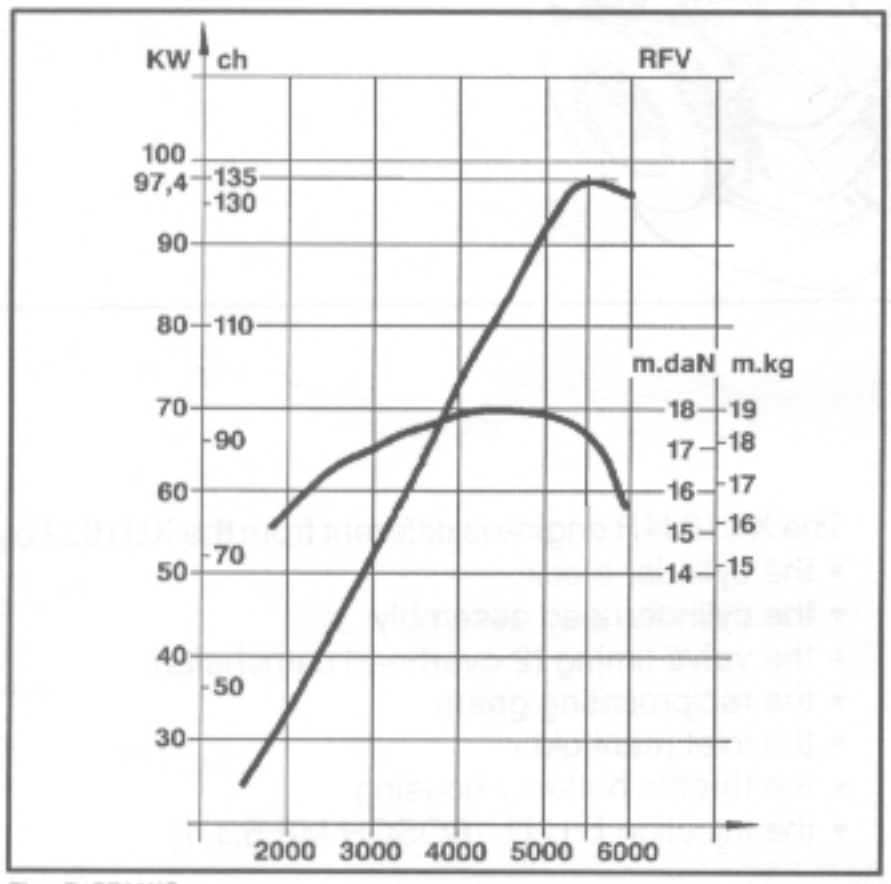


Fig. : B1BR00KC

4 – CYLINDER BLOCK

New cylinder block derived from the XU10J2 engine with a new circulation of the coolant.

5 – RECIPROCATING GEARS

5.1 – Crankshaft

5–bearing cast–iron crankshaft.

The crankshaft endfloat is adjusted by four rings placed on bearing No. 2.

The crankshaft is coupled up with a new auxiliary equipment drive pulley provided with a vibration damping device.

5.2 – Crankshaft bearing shells

Shaft line (cylinder block + main bearing caps) and crankshaft bearings are paired (markings on the cylinder block and the crankshaft).

The pairing is effected with 4 classes of smooth bearing shells, on the bearing cap side.

NOTE : there exist only one class of grooved half–bearing shells, on the cylinder block side.

The half–bearing shells are identified by a paint mark on the edge.

5.3 – Pistons – con.rods

New con.rods (158 mm between centres).

New light alloy pistons with valve recesses.

The piston gudgeon pin is tight fitted in the con.rod small end.

6 – CYLINDERHEAD ASSEMBLY

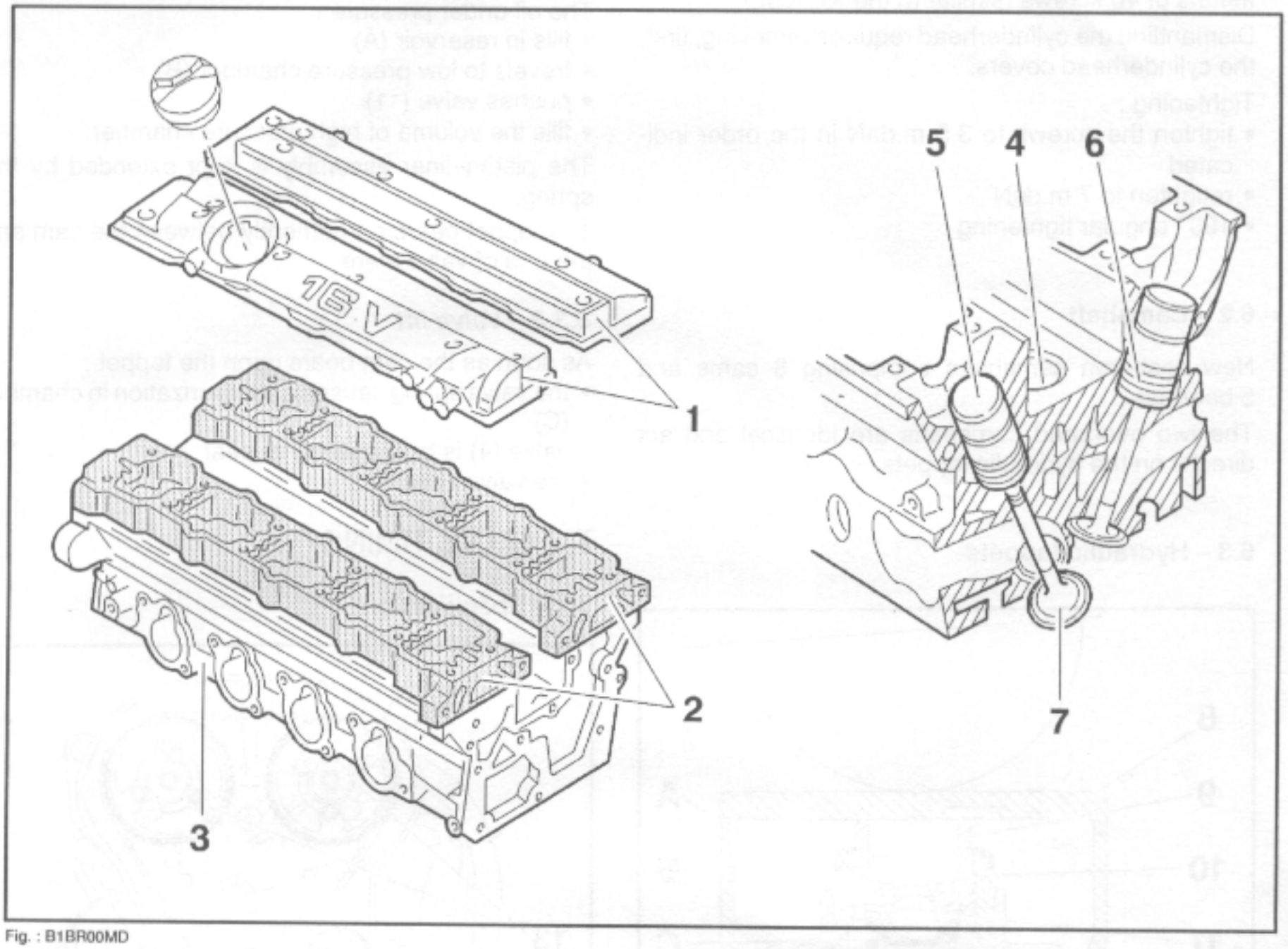


Fig. : B1BR00MD

1 : cylinderhead cover.

2 : camshaft main bearing cap cover.

3 : cylinderhead.

4 : sparking plug location.

5 : hydraulic tappet.

6 : spring.

7 : valve.

The cylinderhead assembly is composed of :
- the cylinderhead covers
- the camshaft bearing cap covers
- the cylinderhead receiving the valve gear

Camshaft bearing cap cover and cylinderhead are made of light alloy.

The sealing between the two cap covers and the cylinderhead is ensured by a sealing compound (on repairs, use LOCTITE Autojoint Or).

6.1 – Cylinderhead

New 16 valve aluminium cylinderhead (4 valves per cylinder, 2 inlet, 2 exhaust).

The sparking plugs are centered in the chambers.

The cylinderhead receives the ignition coil assembly called BBC (compact coil block).

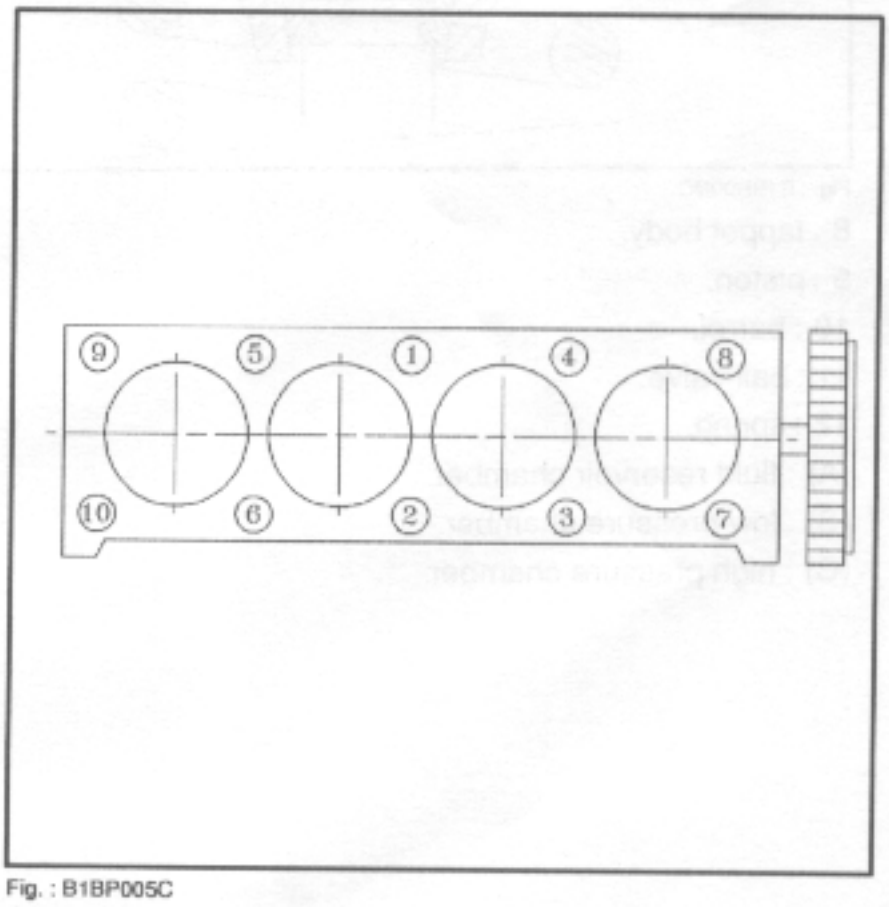


Fig. : B1BP005C

The cylinderhead is secured to the cylinder block by means of 10 screws (similar to the XU10J2).

Dismantling the cylinderhead requires removing, first, the cylinderhead covers.

Tightening :
- tighten the screws to 3.5 m.daN in the order indicated
- retighten to 7 m.daN
- 160° angular tightening

6.2 – Camshaft

New cast–iron camshafts comprising 8 cams and 5 bearings.

The two overhead camshafts are identical and act directly on the hydraulic tappets.

6.3 – Hydraulic tappets

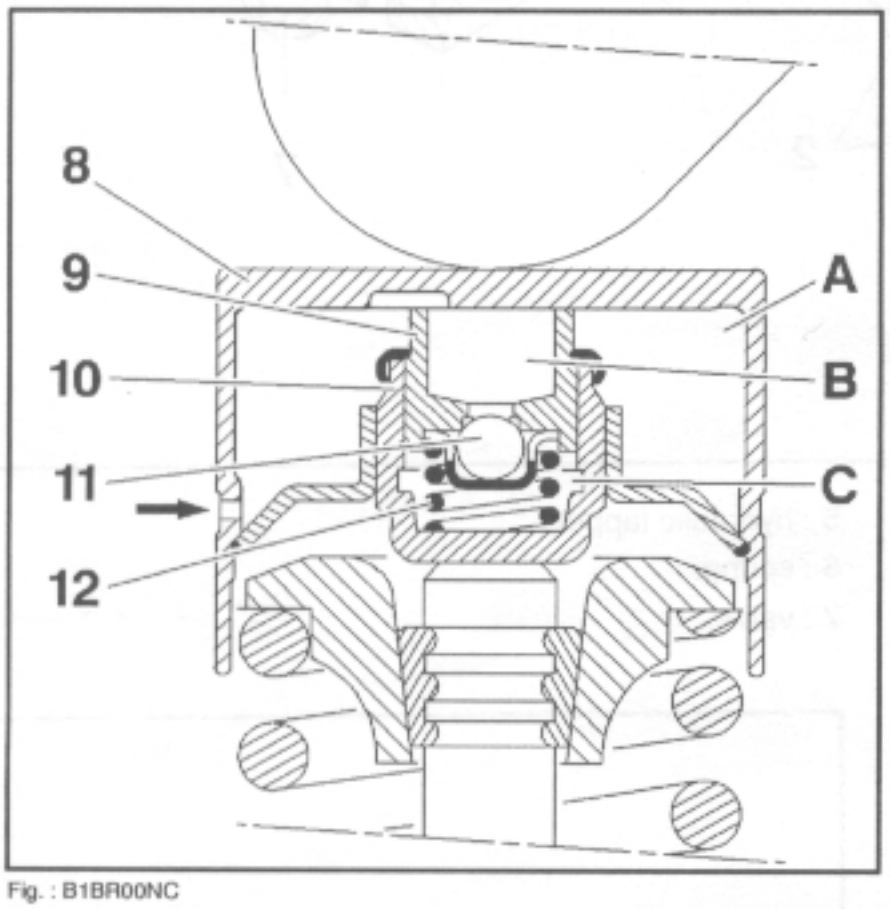


Fig. : B1BR00NC

8 : tappet body.
9 : piston.
10 : barrel.
11 : ball valve.
12 : spring.
(A) : fluid reservoir chamber.
(B) : low pressure chamber.
(C) : high pressure chamber.

6.3.1 – Oil pressure built up in a tappet

The oil under pressure :
- fills in reservoir (A)
- travels to low pressure chamber (B)
- pushes valve (11)
- fills the volume of high pressure chamber

The piston–liner assembly is kept extended by the spring.

The tappet bears permanently between the cam and the end of valve stem.

6.3.2 – Valve lift

As soon as the cam bears upon the tappet :
- the valve spring causes a pressurization in chamber (C)
- valve (4) is held against its seat
- the valve rises

7 – VALVE TIMING

7.1 – Specification

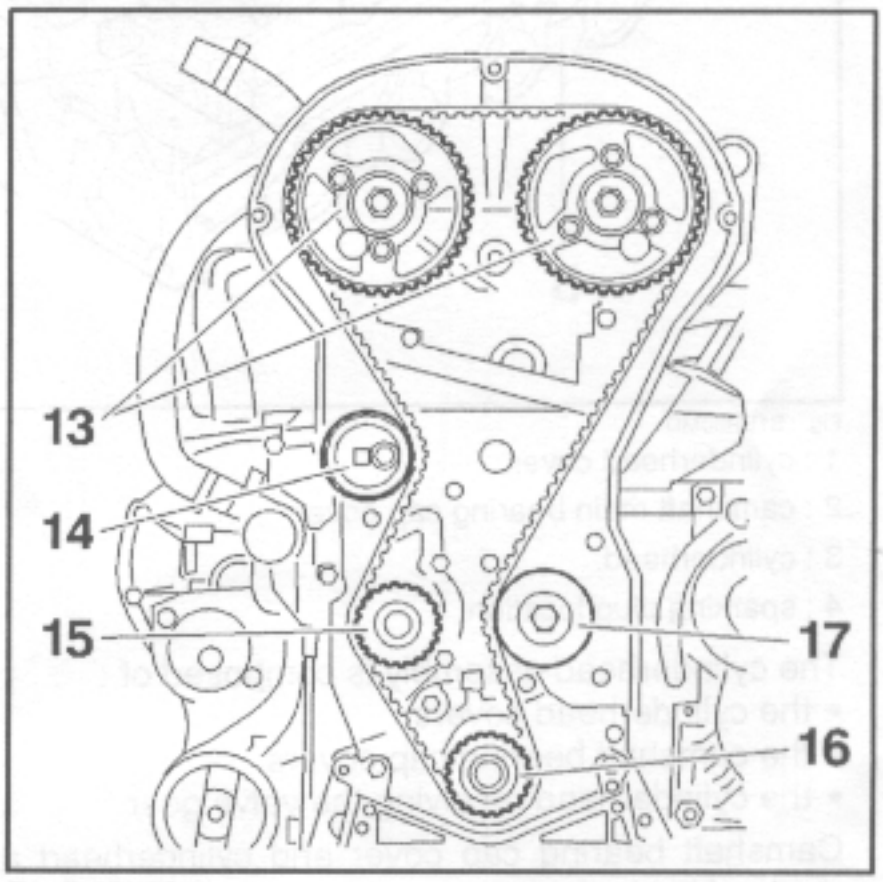


Fig. : B1BR00PC

13 : camshaft gear wheels.
14 : eccentric roller tensioner.
15 : water pump pinion.
16 : crankshaft sprocket.
17 : roller tensioner.

The valve timing arrangements comprises two overhead camshafts with direct action.

The crankshaft, water pump and camshaft pinions have a specific module (noise limiting, special water pump).

Specification of the timing belt :

Belt width	25.4 mm
Number of teeth	136
Material	HSN

The belt tensioning is ensured by the eccentric roller.

Belt replacement intervals in normal conditions of use : 72,000 miles (120 000 kms).

7.2 – Pinions which can be disengaged

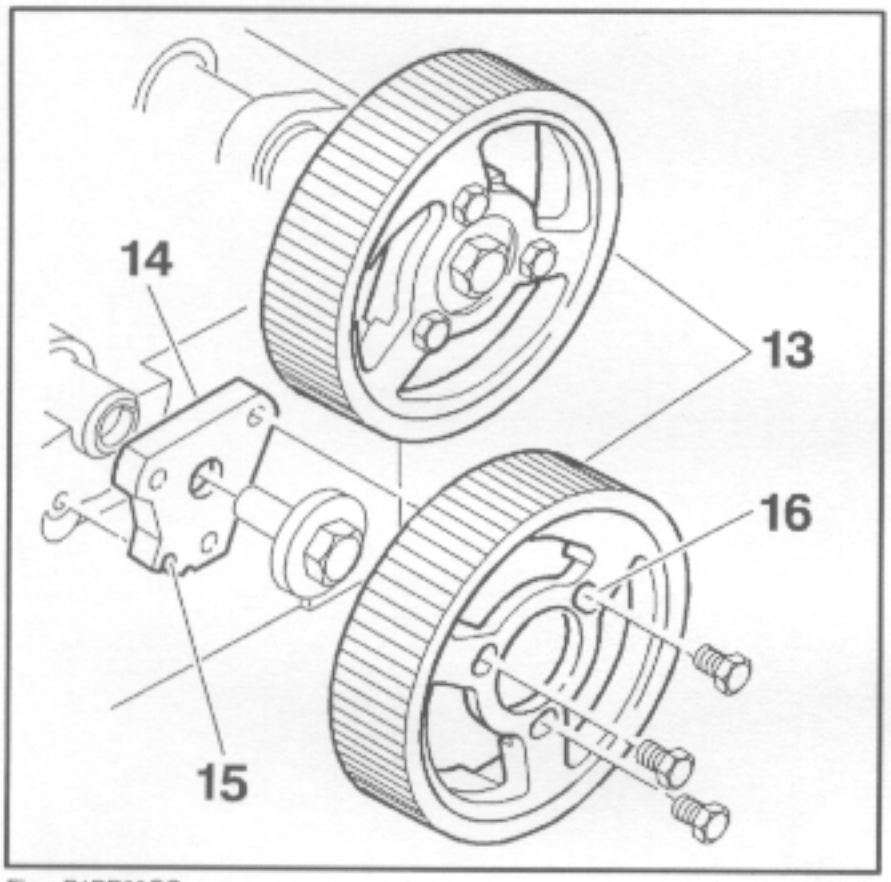


Fig. : B1BR00QC

13 : camshaft gearwheel.

14 : camshaft hub.

15 : notch for pegging.

16 : oblong hole.

The camshaft gear wheels can be disengaged.

The camshafts can be pegged through their hub (keyed on the shaft).

The pinions are attached to their hub by means of three screws.

When the three fixing screws are slackened, the pinions can rotate freely within the limit of the oblong holes.

The two camshaft hubs differ in their geometry.

The hub can be identified by a mark on the tab :
- inlet without marking
- exhaust with marking

This arrangement enables :
- a more precise timing,
- a better distribution of the belt tension between the belt runs to be obtained.

8 – LUBRICATION

8.1 – Specification

Oil capacity :
- without oil filter change : 4 l
- with oil cartridge replacement : 4.3 l
- between the min. and the max. marks on the dipstick : 1 l

Filter cartridge : PURFLUX LS 867A.

8.2 – Lubrication circuit

Lubrication under pressure by a gear type oil pump.

The oil pump is driven by chain.

8.3 – Engine draining

The draining should be carried out while hot, immediately after the engine switch–off.

The engine can be drained by suction.

The end of the dipstick guide is widened to allow connecting a 14 mm Ø nozzle.

It remains possible to drain the engine by taking out the drain plug from the oil sump.

9 – COOLING CIRCUIT

9.1 – Specification

Cooling circuit capacity : 8.5 litres.

Pressure setting of the de–aeration chamber filler plug : 1.4 bar.

Coolant : special CITROEN.

Protection : –37°.

Replacement intervals : every two years.

9.2 – Description

New water outlet housing comprising the water temperature sensors, secured to the cylinderhead, above the clutch bell housing.

The de–aeration chamber is :
- built in the radiator (versions without refrigeration)
- offset on the R.H. front wheelarch (versions with refrigeration)

10 – AIR SUPPLY

New aluminium induction claw comprising, on the cylinder block side :
- a 1.3 litre capacity
- a pressure sensor

New throttle butterfly housing composed of :
- an idling actuator (stepper motor)
- a heating element
- an inlet air thermal sensor

11 – INJECTION SYSTEM

Supplier : BOSCH.

Injection type : MP 5.1.1 (derived from the BOSCH MP 5.1 injection).

The MP 5.1.1 injection system differs from the MP 5.1 injection in :
- the addition of a knock sensor on the cylinder block
- the addition of a stepper motor to control the idling speed
- the addition of a compact ignition coil block (BBC)

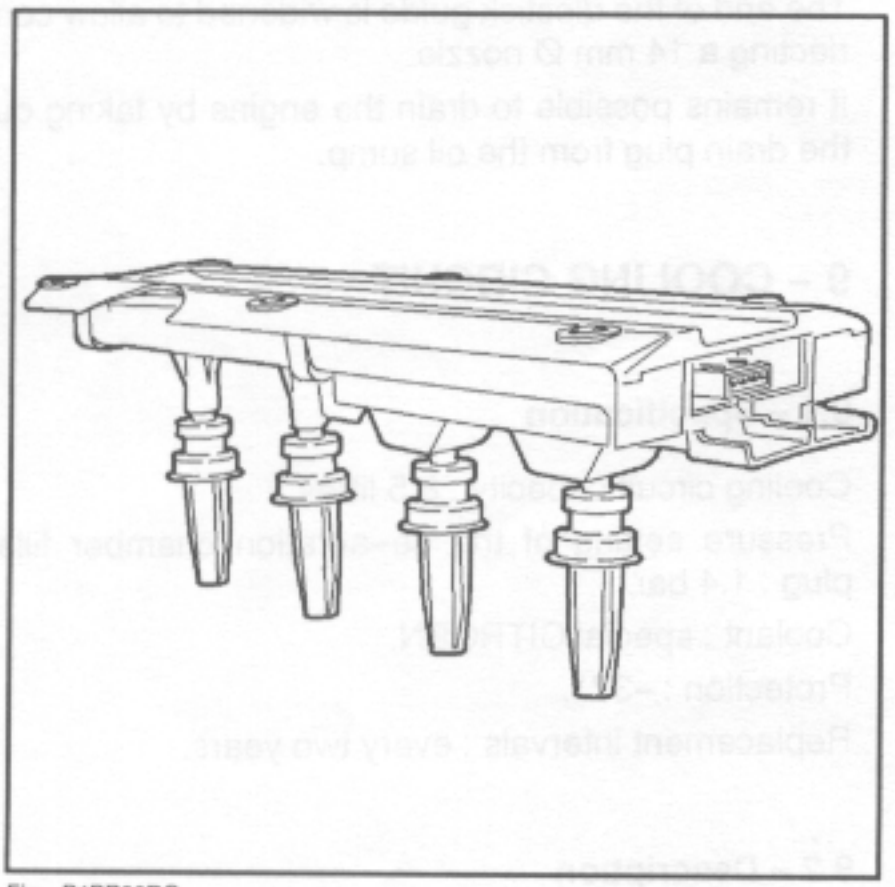


Fig. : B1BR00RC

Compact ignition coil block.

The block is a single-piece assembly placed above the cylinderhead.

It incorporates :
- 2 coils
- 4 high voltage outlets

The ignition is a static twin wasted-spark system.

Each coil output is connected to a sparking plug.

PRESENTATION : DK5ATE ENGINE

1 – DESCRIPTION

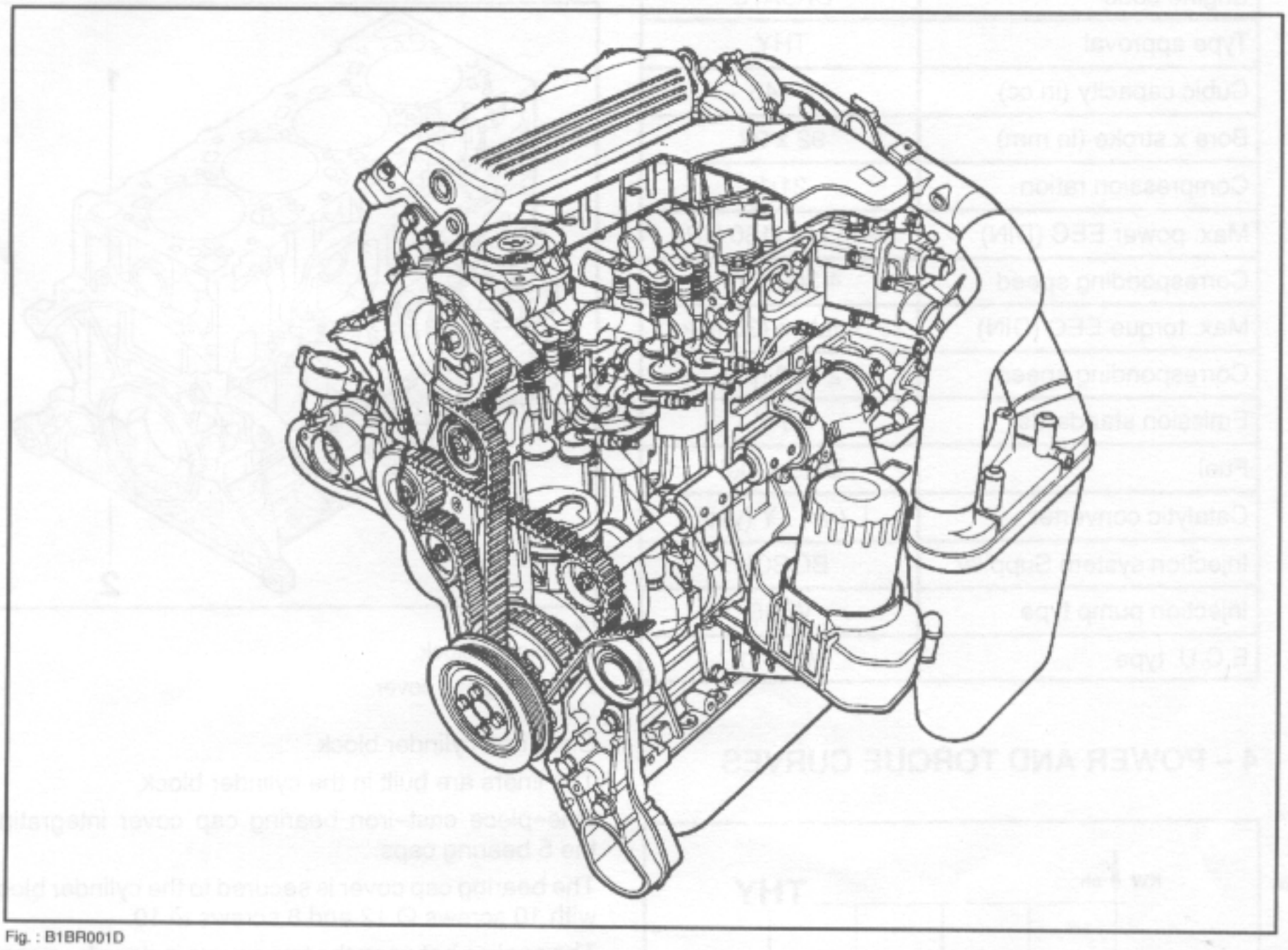


Fig. : B1BR001D

2 – INTRODUCTION

The CITROEN XM is equipped with a new engine : the DK5ATE.

The DK5ATE is a 2 446 cc, 4 cylinder Turbo Diesel with indirect injection.

This engine incorporates :

- a 12 valve technology (three valves per cylinder)
- two balance shafts which provides a reduction in the vibrations caused by the engine
- an electronic management of the injection system (E.C.U. + injection pump)

The electronic management :

- improves the driveability
- complies with the emission standards

In addition the new electronic control system :

- manages the cruise control
- and the coded anti–theft device
- transmits the instantaneous fuel consumption signal to the on–board computer

3 – SPECIFICATION

Engine code	DK5ATE
Type approval	THY
Cubic capacity (in cc)	2 446
Bore x stroke (in mm)	92 x 92
Compression ration	21:1
Max. power EEC (DIN)	94.5 kW (130 HP)
Corresponding speed	4 300 rpm
Max. torque EEC (DIN)	28.5 daNm (30 m.kg)
Corresponding speed	2 000 rpm
Emission standards	L / Y
Fuel	Diesel fuel
Catalytic converter	L (no) / Y (yes)
Injection system Supplier	BOSCH
Injection pump type	VP36
E.C.U. type	MSA 11

4 – POWER AND TORQUE CURVES

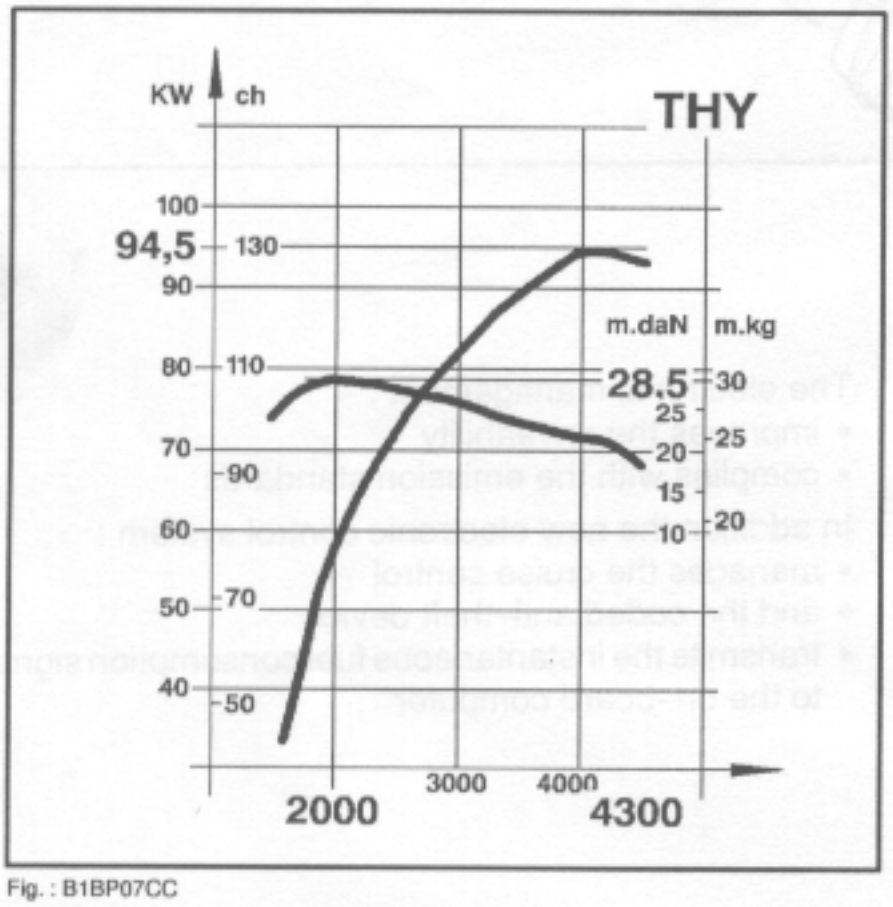


Fig. : B1BP07CC

5 – CYLINDER BLOCK AND MAIN BEARING CAP COVER

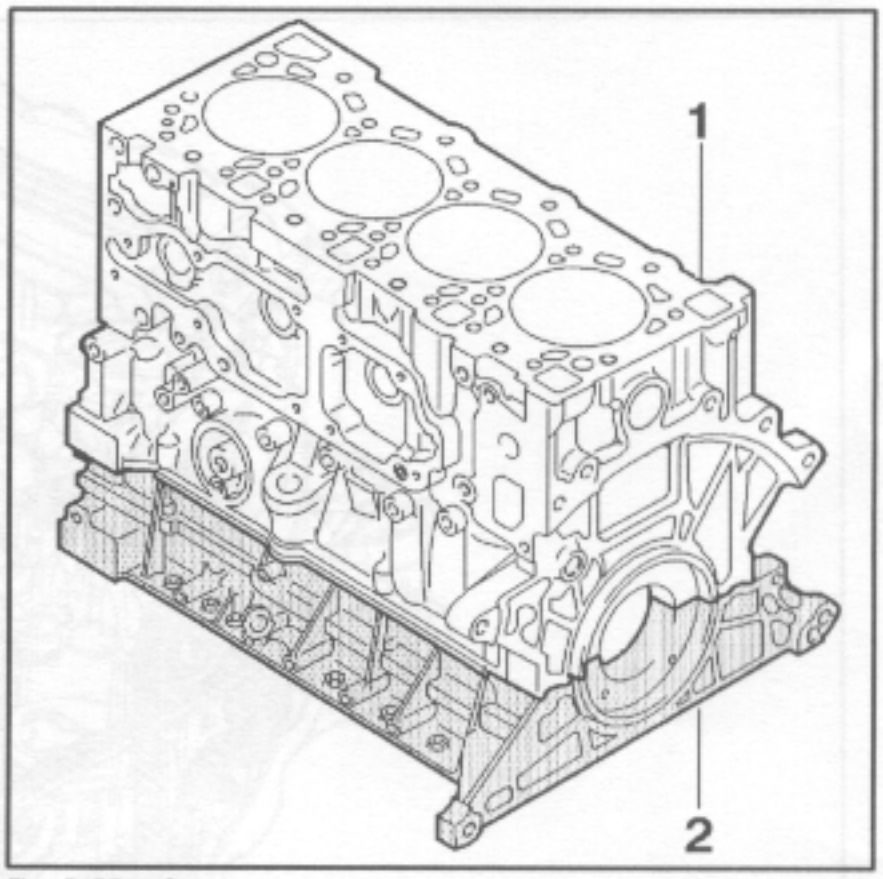


Fig. : B1BR003C

1 : cylinder block.

2 : bearing cap cover.

Cast–iron cylinder block.

The liners are built in the cylinder block.

One–piece cast–iron bearing cap cover integrating the 5 bearing caps.

The bearing cap cover is secured to the cylinder block with 10 screws Ø 12 and 8 screws Ø 10.

The sealing between the two covers is done by a sealing compound (during repairs, use LOCTITE Autojoint Or).

6 – RECIPROCATING GEARS

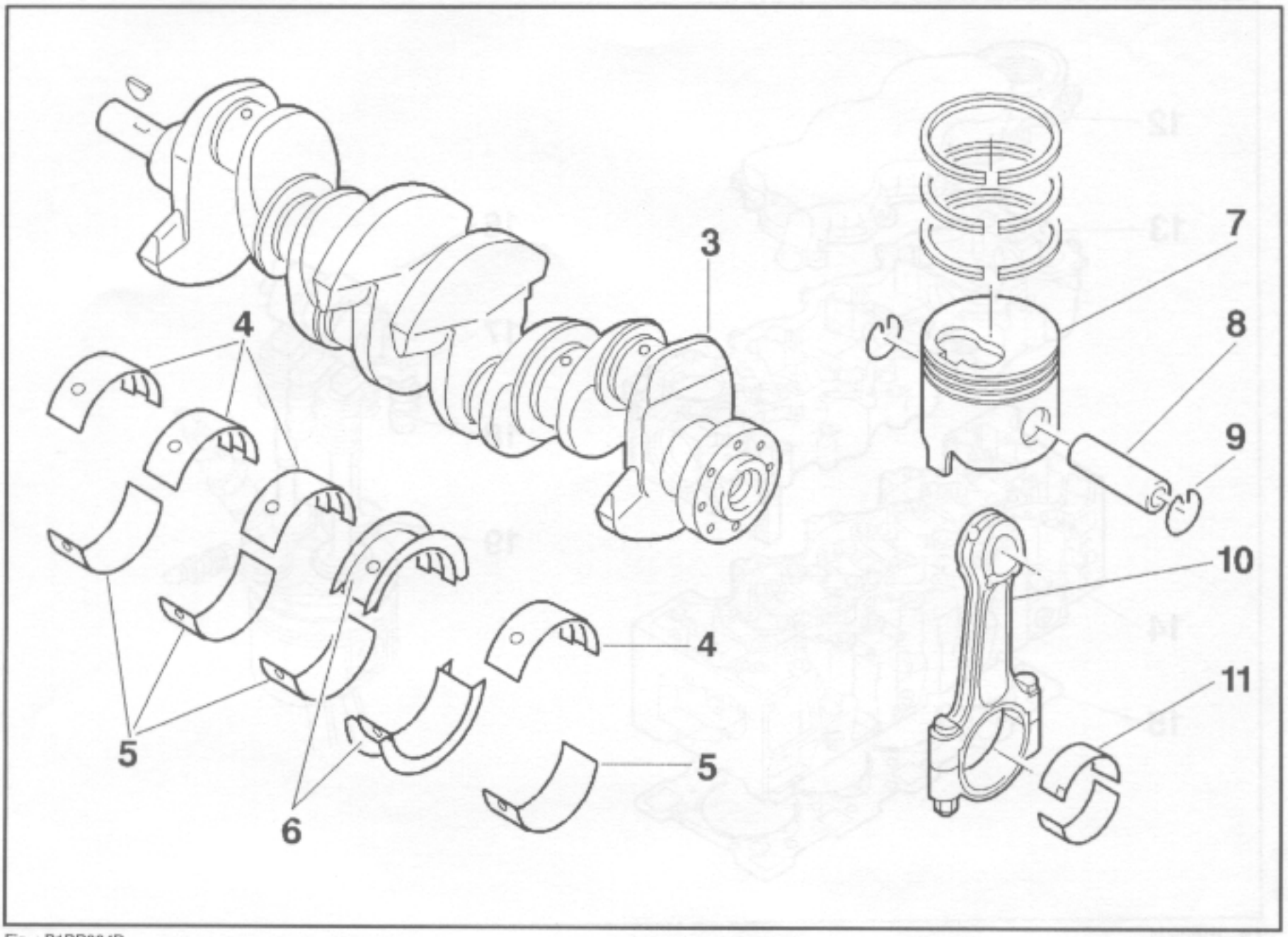


Fig. : B1BR004D

3 : crankshaft.
4 : upper half–bearing shells.
5 : lower half–bearing shells.
6 : bearing 2 half–bearing shells.
7 : piston.
8 : gudgeon pin.
9 : circlip.
10 : con. rod.
11 : con.rod big end half–bearing shell.

6.1 – Crankshaft

Steel crankshaft with 5 bearings balanced by four counterweights.

The crankshaft endfloat is adjusted by the washers incorporated in the half–bearing shells of bearing No.2.

6.2 – Crankshaft bearing shells

The half–bearing shells are :
- grooved on the cylinder block side
- plain on the bearing cap cover side

6.3 – Con. rods

The con.rod small end has a viper head shape.

The con. rod half–bearing shells are lugged.

6.4 – Pistons

Light–alloy pistons with a passage under head allowing them to be cooled by oil spray.

The piston gudgeon pin is :
- loose fitted
- locked by two circlips

7 – CYLINDERHEAD ASSEMBLY

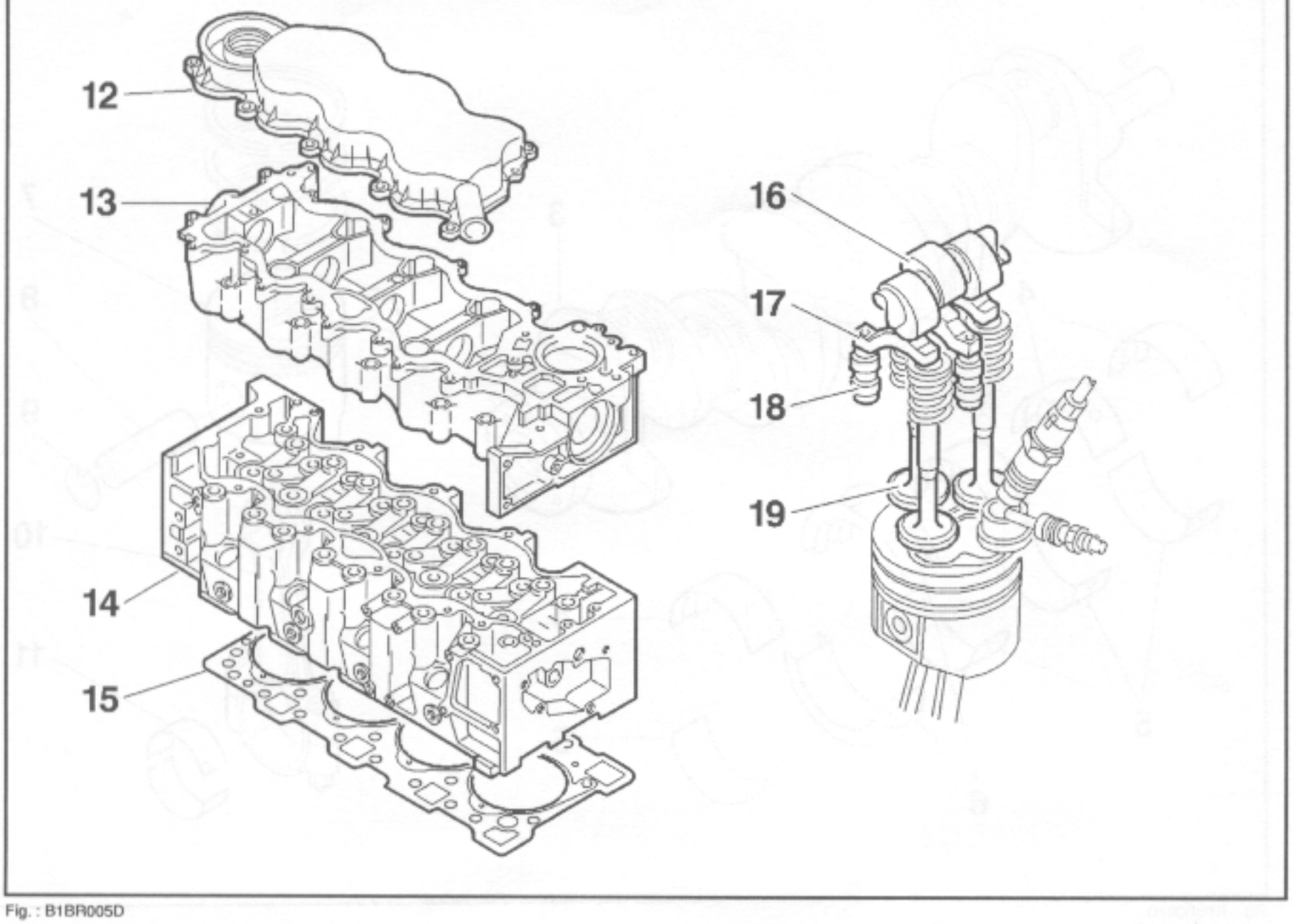


Fig. : B1BR005D

12 : cylinderhead cover (oil filler orifice integrated).

13 : camshaft housing.

14 : cylinderhead.

15 : cylinderhead gasket.

16 : camshaft.

17 : cam follower.

18 : hydraulic tappet.

19 : valve.

The cylinderhead assembly is composed of :
- the cylinderhead cover
- the camshaft housing
- the cylinderhead comprising the valve gear

The camshaft housing and cylinderhead are made of light alloy.

7.1 – Camshaft housing

The housing includes 5 bearings and accepts the 12–cam shaft.

The 5 bearings are lubricated.

7.2 – Cylinderhead

12 valve cylinderhead.

Three valves per cylinder (2 inlet and 1 exhaust).

The technology employed to open the inlet and exhaust orifices is similar to that utilised on the XUD 11.

7.2.1 – Cylinderhead fixing

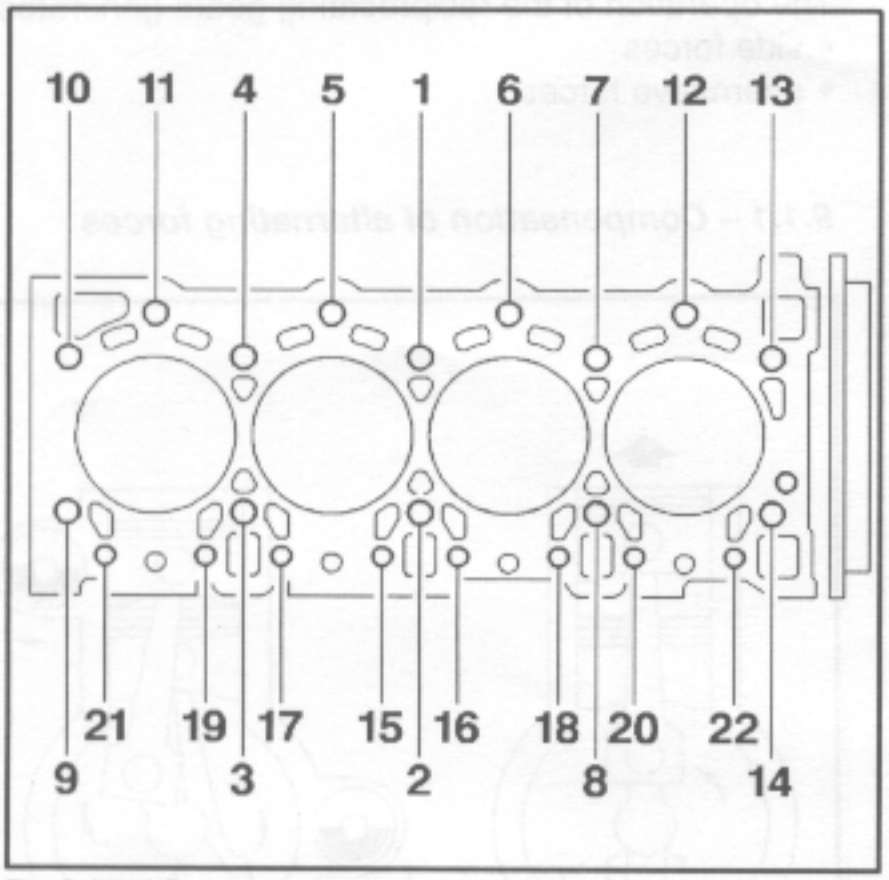


Fig. : B1BP03XC

The cylinderhead is secured to the cylinder block by means of 22 screws :

- 14 screws Ø 12 (ref.1 to 14)
- 8 screws Ø 10 (ref.15 to 22)

The cylinderhead can be removed without having to remove first the camshaft cover.

NOTE : no cylinderhead retightening at the First Service.

7.2.2 – Tightening

This operation must be carried out in 2 stages.

First stage :

- proceed screw by screw in the indicated order (1 to 14)
- tighten the Ø 12 screws to 5 m.daN
- proceed screw by screw in the order indicated (15 to 22)
- tighten the Ø 10 screws to 3.5 m.daN

Second stage :

- proceed screw by screw in the order indicated (1 to 22)
- angular tightening to 120°± 5°

7.3 – Camshaft

12–cam 5–bearing shaft.

The lubrication is ensured by two longitudinal passages.

The oil is directed towards the bearings and cams via side passages.

The camshaft is fitted with a pulley, gearbox side, driving the water pump.

The camshaft comes in touch with the rocker arms which push the valves.

The hydraulic tappets adjust the wear by maintaining a zero clearance between the cam follower and the camshaft (similar operation to the XUD11 engine).

8 – VALVE TIMING

8.1 – Specification

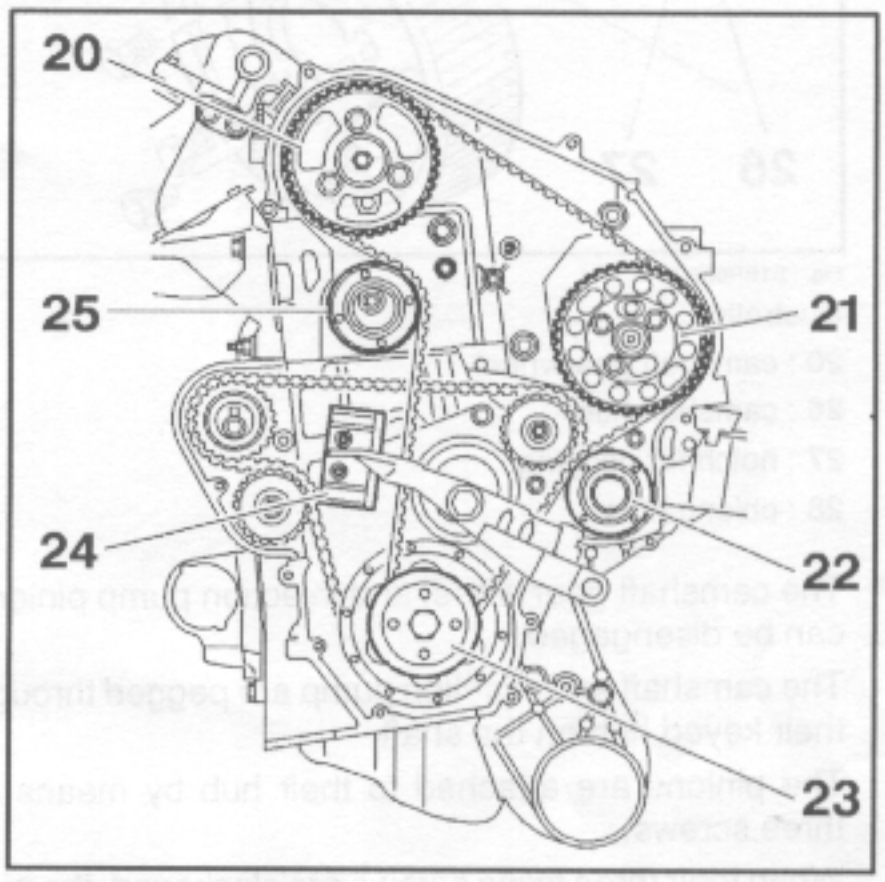


Fig. : B1BR006C

20 : camshaft gearwheel.

21 : injection pump pinion.

22 : roller tensioner.

23 : crankshaft sprocket.

24 : guide limiting the movement of the belt.

25 : eccentric type roller tensioner.

Specification of the timing belt :

Belt width	25.4 mm
Number of teeth	143
Material	HSN

The belt tensioning is ensured by the eccentric roller.

Belt replacement intervals in normal conditions of use : 72 000 miles (120 000 km).

8.2 – Pinions which can be disengaged

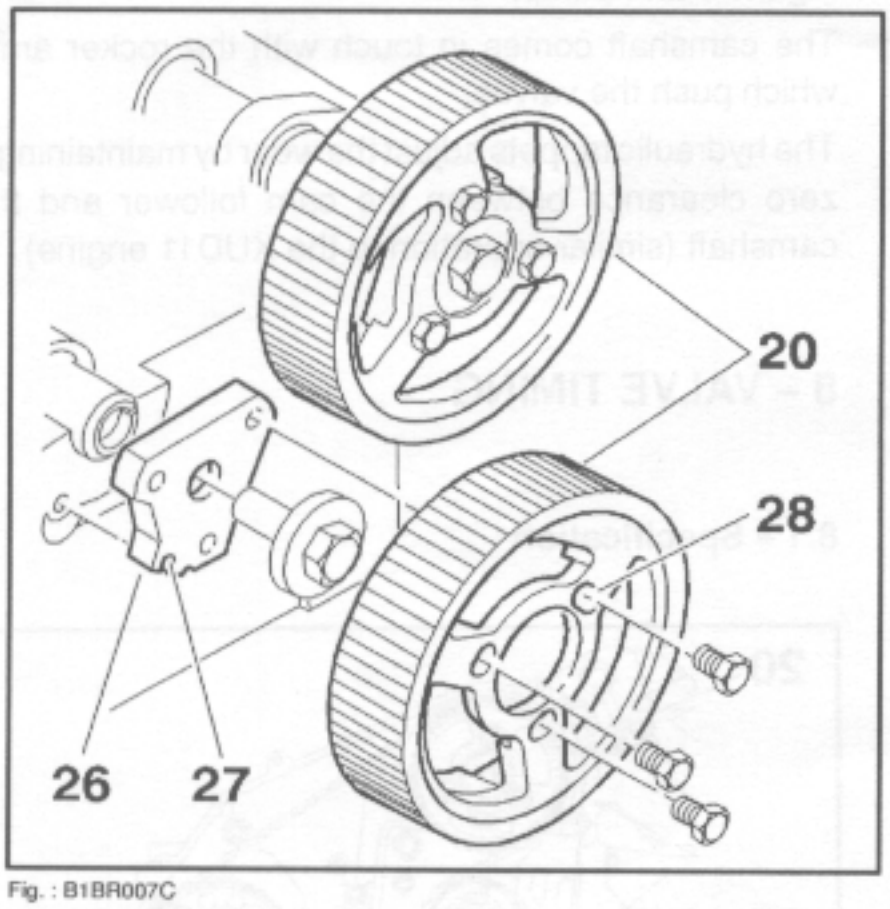


Fig. : B1BR007C

Illustration.

20 : camshaft gearwheel.

26 : camshaft hub.

27 : notch for pegging.

28 : oblong hole.

The camshaft gear wheel and injection pump pinions can be disengaged.

The camshaft and injection pump are pegged through their keyed hub on the shaft.

The pinions are attached to their hub by means of three screws.

When their three fixing screws are slackened, the pinions can rotate freely, within the limit of the length of the oblong holes.

This arrangement enables :

- a more precise timing
- a better distribution of the belt tension between the belt runs

9 – BALANCE SHAFTS

Two balance shafts are fitted on each side of the engine.

The front balance shaft is situated behind the injection pump.

The rear balance shaft is situated close to the turbo-charger.

These shafts reduce the vibrations caused by the reciprocating gears of the 4–cylinder engines.

9.1 – Operating principle

The operation of the reciprocating gears generates :

- side forces
- alternative forces

9.1.1 – Compensation of alternating forces

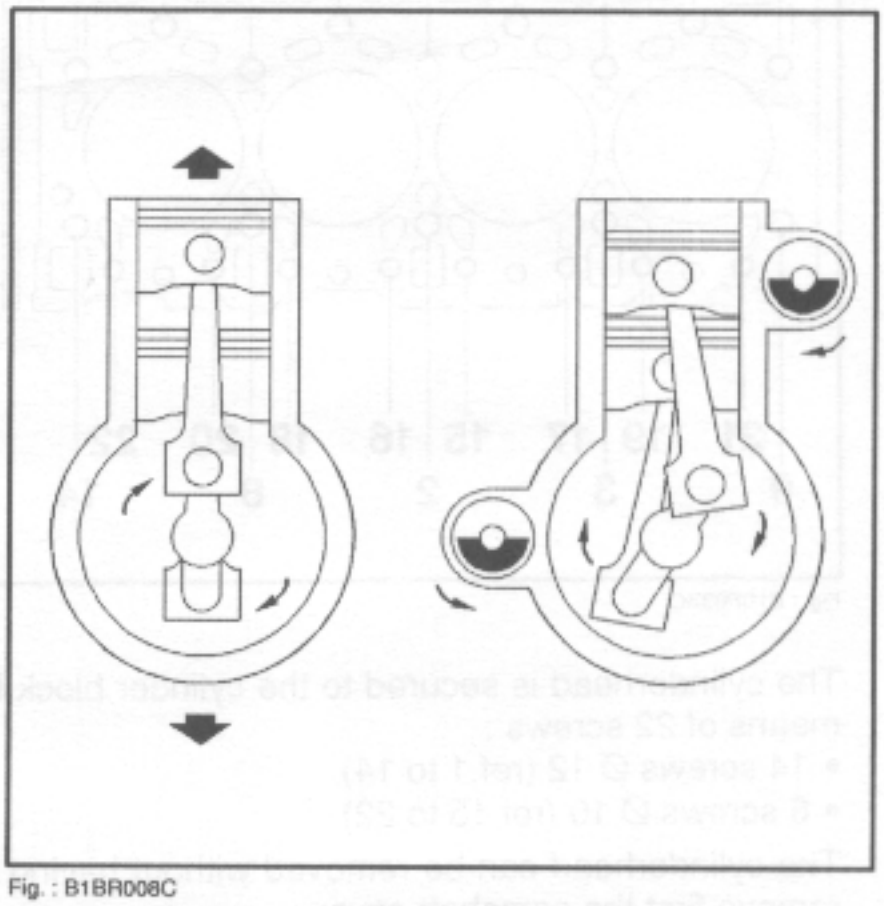


Fig. : B1BR008C

In a 4–cylinder engine, vibrations appear during the alternative displacement of the pistons in pair.

Pistons 1 and 4 are at the Top Dead Centre (TDC) when pistons 2 and 3 are at the Bottom Dead Centre and reciprocally.

The forces developped by the con.rod/piston assemblies are more important during the displacement towards the Top Dead Centre than towards the Bottom Dead Centre, which creates vibrations.

To achieve a balance between these two forces, the force developed in the displacement towards the bottom dead centre is increased by the balance weights of the shafts.

The balance weights should be in the low position whenever a pair of pistons is at the T.D.C..

The balance shafts rotate twice as rapidly as the crankshaft since the piston–con.rods pass twice at TDC per crankshaft revolution.

9.1.2 – Side forces compensation

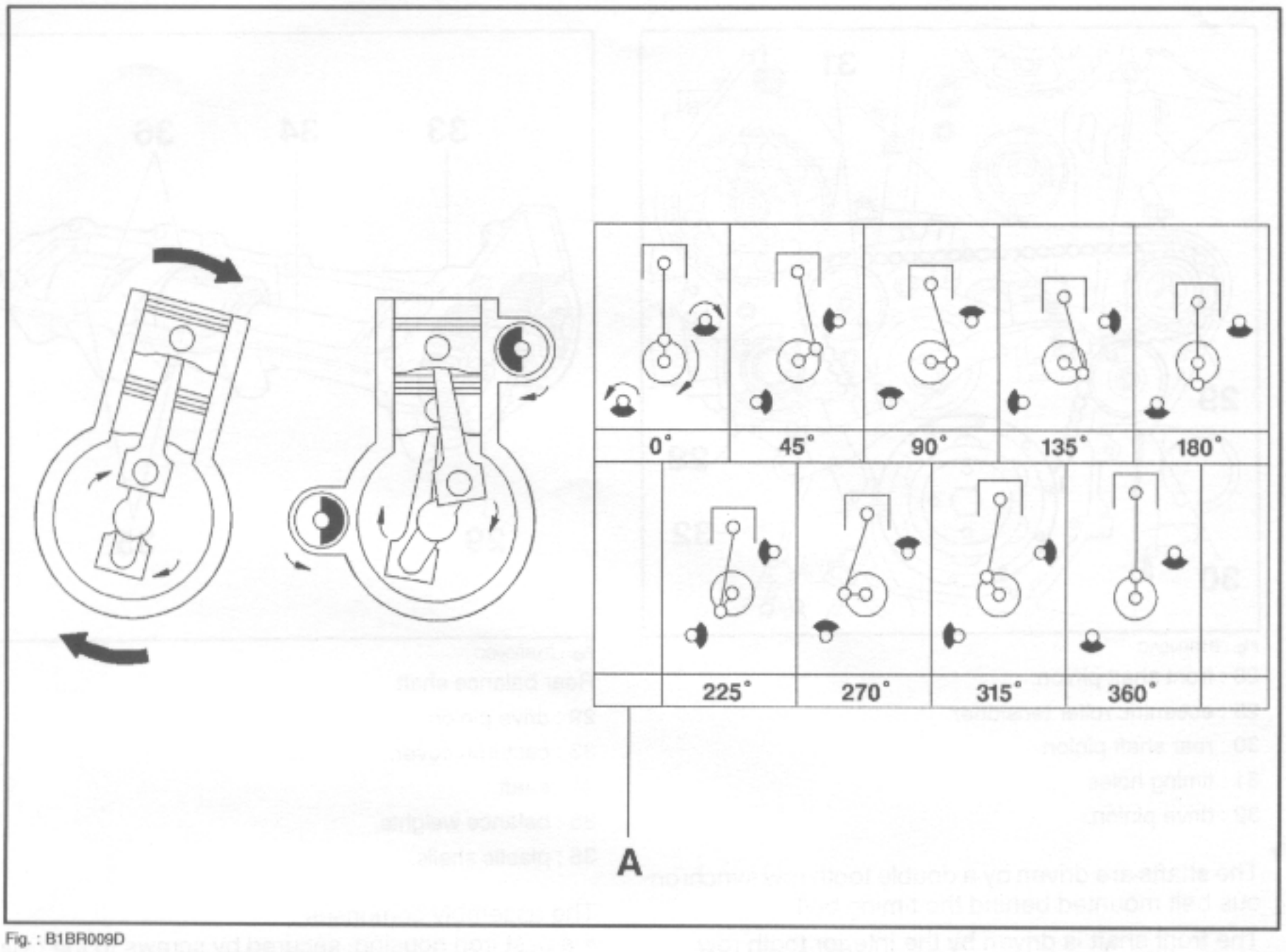


Fig. : B1BR009D
A : position of the weights after a crankshaft turn.

The side forces developed by the piston motions tend to rotate the cylinder block around a centre line.

In order to oppose the forces, the balance shafts are placed at precise heights on the cylinder block and the position of the weights allows adverse forces to be exerted at the exact moment.

To do that, the shafts rotate twice as fast as the crankshaft and in the opposite direction.

9.2 – Shaft drive

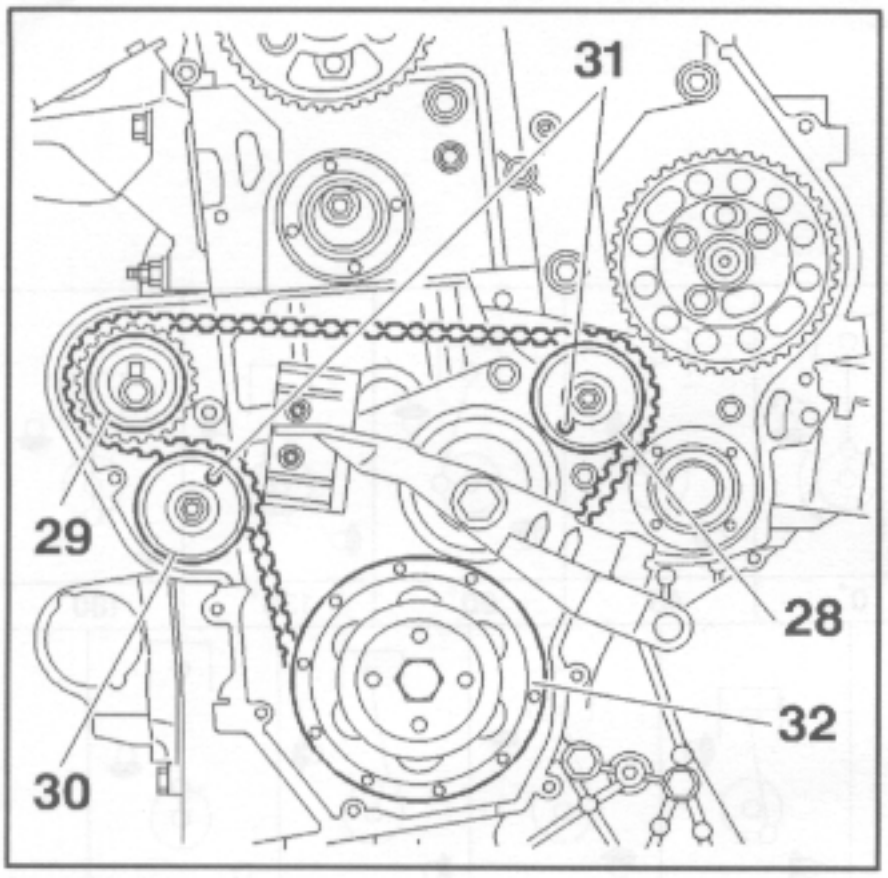


Fig. : B1BR00AC

28 : front shaft pinion.

29 : eccentric roller tensioner.

30 : rear shaft pinion.

31 : timing holes.

32 : drive pinion.

The shafts are driven by a double tooth row synchronous belt mounted behind the timing belt.

The front shaft is driven by the interior tooth row.

The rear shaft is driven by the outer teeth.

Specification of the timing belt :

Belt width	19 mm
Number of teeth on each side	106
Material	HSN

The timing hole in the drive pinions of the shafts are intended to keep a correct weight positioning when removing the belt.

Belt replacement intervals in normal conditions of use : 72 000 miles (120 000 km).

WARNING : a bad positioning of the weights in relation to the reciprocating gears (incorrect pegging) can create major engine vibrations.

9.3 – Constitution of the shafts

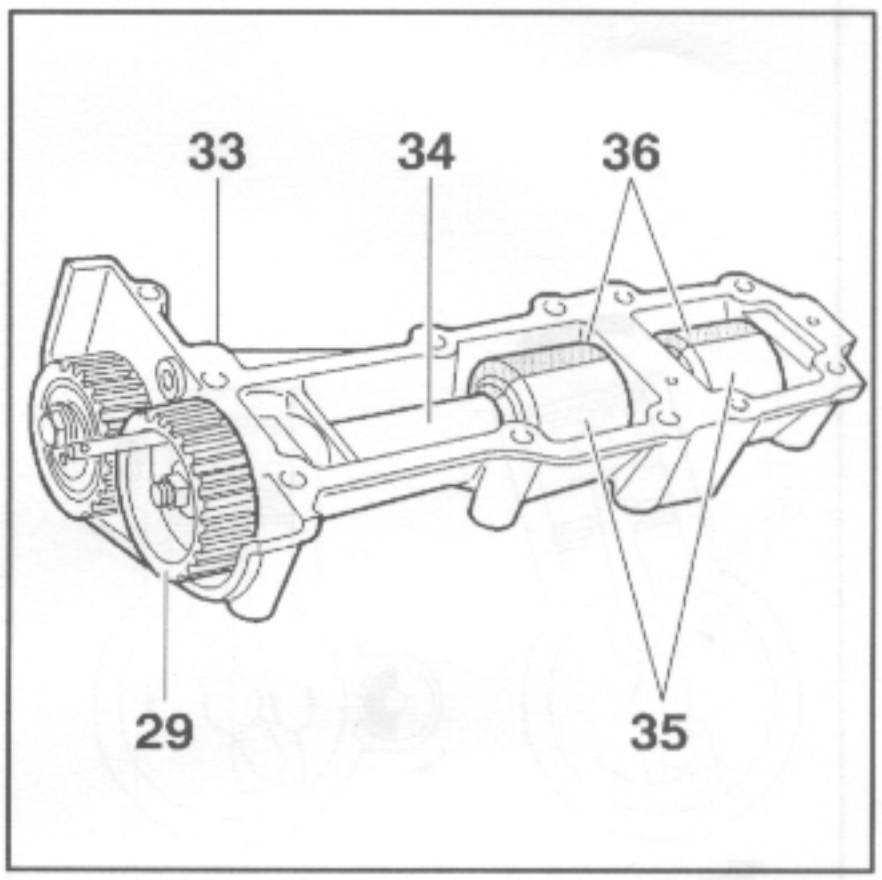


Fig. : B1BR00BC

Rear balance shaft.

29 : drive pinion.

33 : cast iron cover.

34 : shaft.

35 : balance weights.

36 : plastic shells.

The assembly comprises :

- a cast iron housing, secured by screws to the cylinder block
- a driving gear with locating lug secured by a stud
- a shaft with three bearings and a central oil passage
- two weights (secured by two screws)
- two plastic shells eliminating oil pumping and emulsifying

10 – SUSPENSION OF THE POWER UNIT

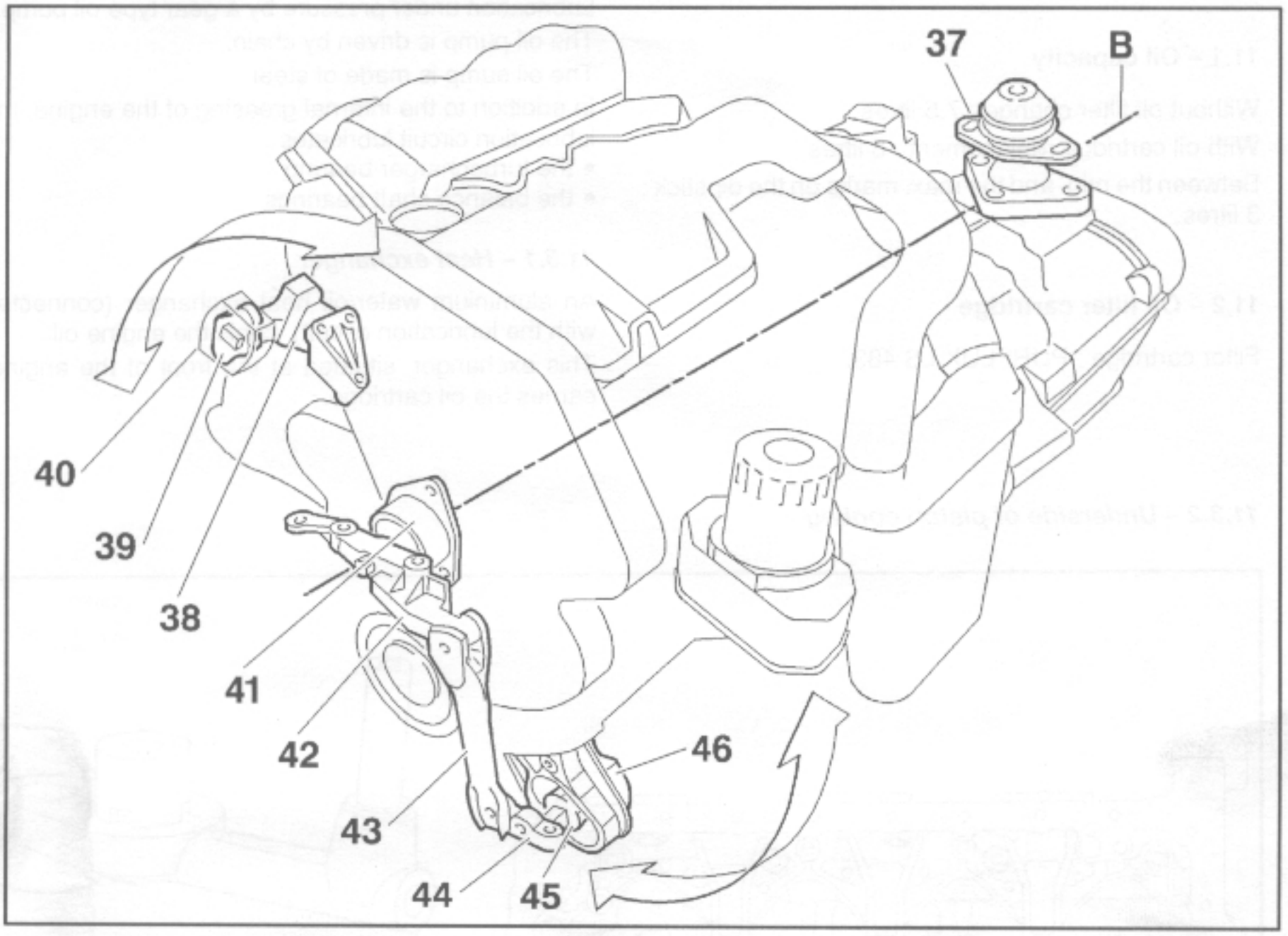


Fig. : B1BR00CD

37 : gearbox hydro–elastic mounting.
38 : cast–iron intermediate bracket.
39 : flexible stop.
40 : steel support welded to the wheelarch.
41 : hydro–elastic engine support.
42 : engine support base.
43 : connecting rod.
44 : flexible torque stay on cradle.
45 : flexible stop.
46 : torque stay on engine.
B : natural roll axis.

The suspension consists in :

- two hydro–elastic supports connecting the extremities of the power unit assembly
- two torque stays bearing respectively upon the R.H. front wheelarch and the cradle

This type of suspension offers the following advantages :

- low vibrations at idle (dead center)
- reduction in the vibrations transmitted to the bodyshell on starting and stopping the engine, or during misfiring

10.1 – R.H. lower engine torque stay (44–45–46)

It consists of :

- the torque stay on the engine
- the torque stay on the cradle
- the flexible stop spindle

10.2 – R.H. upper engine torque stay (38–39–40)

It consists of :

- the steel support welded to the wheelarch
- the intermediate cast iron bracket secured to the cylinderhead
- the shaft carrying the flexible stop

10.3 – R.H. engine mounting bracket (41–42–43)

The hydro–elastic type engine support bracket is placed on the natural roll axis of the power unit assembly.

The support armature is attached to the cylinder block.

The base, connected to the engine mounting bracket by a screw, is fixed under the sill panel.

Con.rod (43) is used :

- for positioning the lower engine torque stay
- for reinforcing the structure of the vehicle

11 – LUBRICATION

11.1 – Oil capacity

Without oil filter change : 7.5 litres.

With oil cartridge replacement : 8 litres.

Between the min. and the max. marks on the dipstick : 3 litres.

11.2 – Oil filter cartridge

Filter cartridge : PURFLUX LS 483.

11.3 – Lubrication circuit

Lubrication under pressure by a gear type oil pump.

The oil pump is driven by chain.

The oil sump is made of steel.

In addition to the internal greasing of the engine, the lubrication circuit lubricates :

- the turbocharger bearing
- the balance shaft bearings

11.3.1 – Heat exchanger

An aluminium water/oil heat exchanger (connected with the lubrication circuit), cools the engine oil.

This exchanger, situated at the front of the engine, carries the oil cartridge.

11.3.2 – Underside of piston cooling

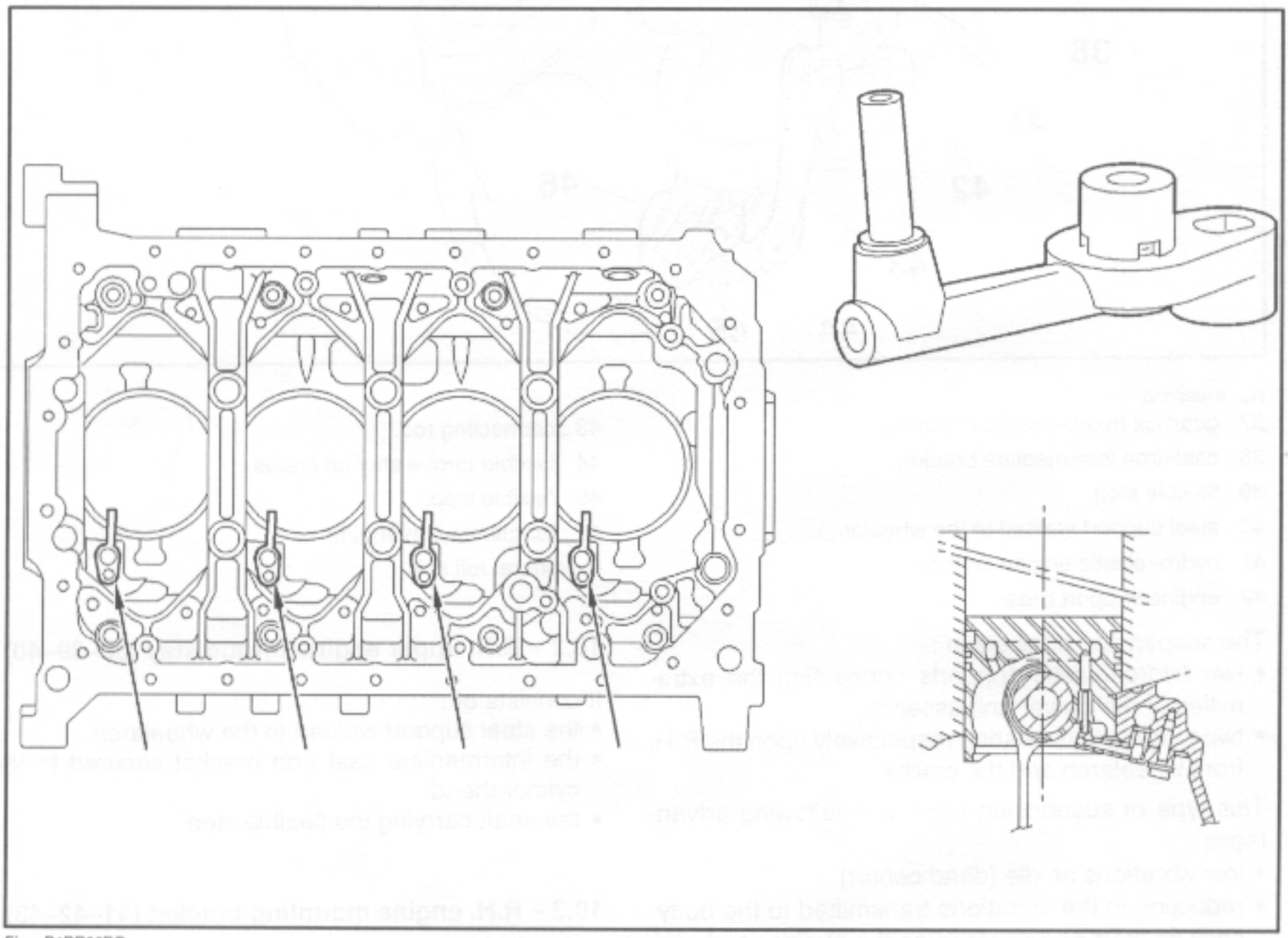


Fig. : B1BR00DD

A few jets, placed on the main oil feed line, ensure the cooling of the underside of pistons.

There is an annular passage under the head of the pistons which facilitates their cooling.

11.3.3 – Hydraulic tappets

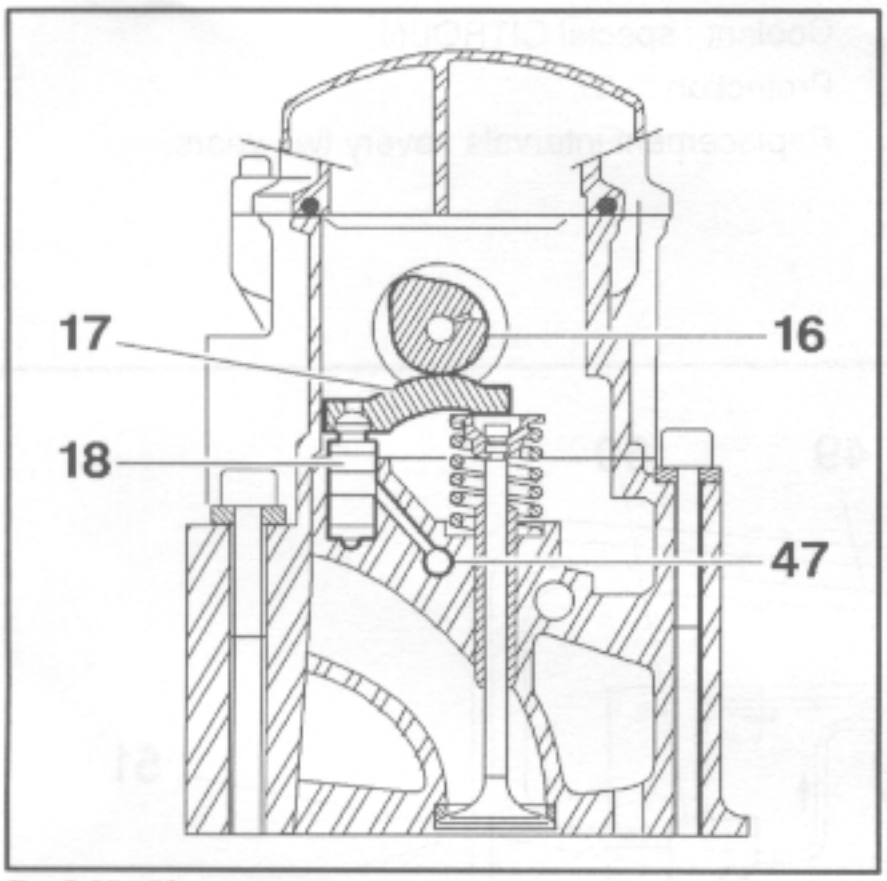


Fig. : B1BR00EC

16 : camshaft.

17 : cam follower.

18 : hydraulic tappet.

47 : tappet oil feed passage.

11.4 – Engine draining

IMPERATIVE : the draining should be carried out while hot, immediately after the engine switch–off.

The engine can be drained by suction.

The end of the dipstick guide has been widened out to allow coupling a nozzle connected to a suction draining equipment.

NOTE : the engine can still be drained by connecting the drain plug of the oil sump.

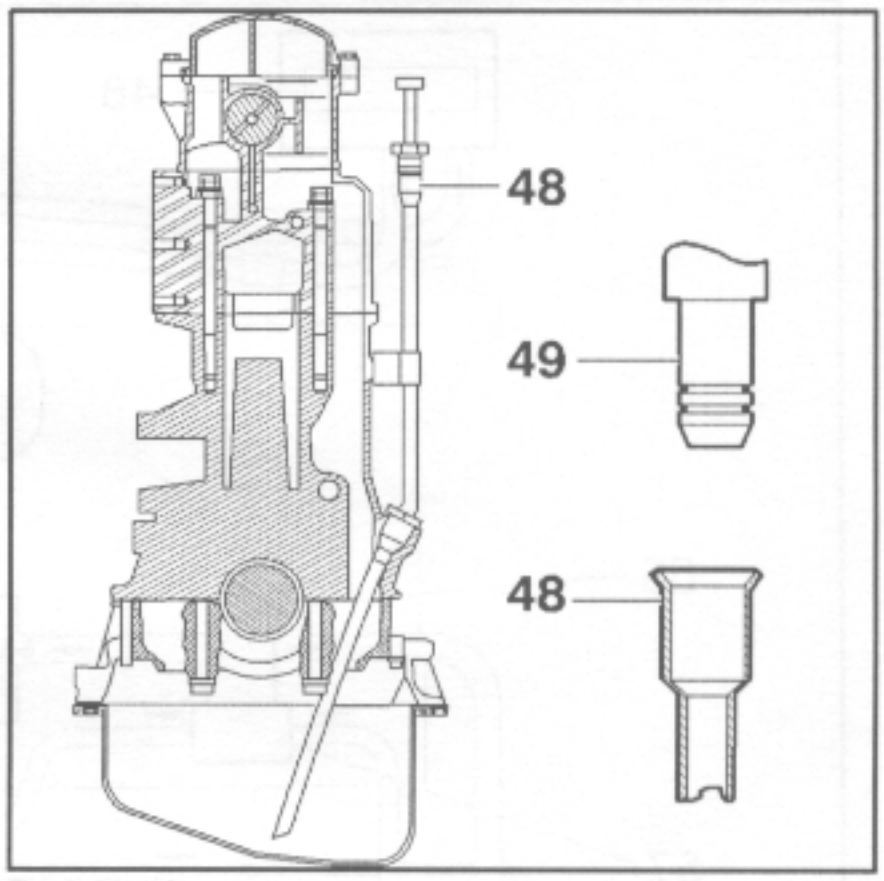


Fig. : B1BR00FC

48 : dipstick guide extremity.

49 : nozzle diameter : 16 mm.

12 – COOLING CIRCUIT

12.1 – Specification

Cooling circuit capacity : 13 litres.

Pressure setting of the de–aeration chamber filler plug : 1.4 bar.

Coolant : special CITROEN.

Protection : –37°.

Replacement intervals : every two years.

12.2 – Circuit diagram

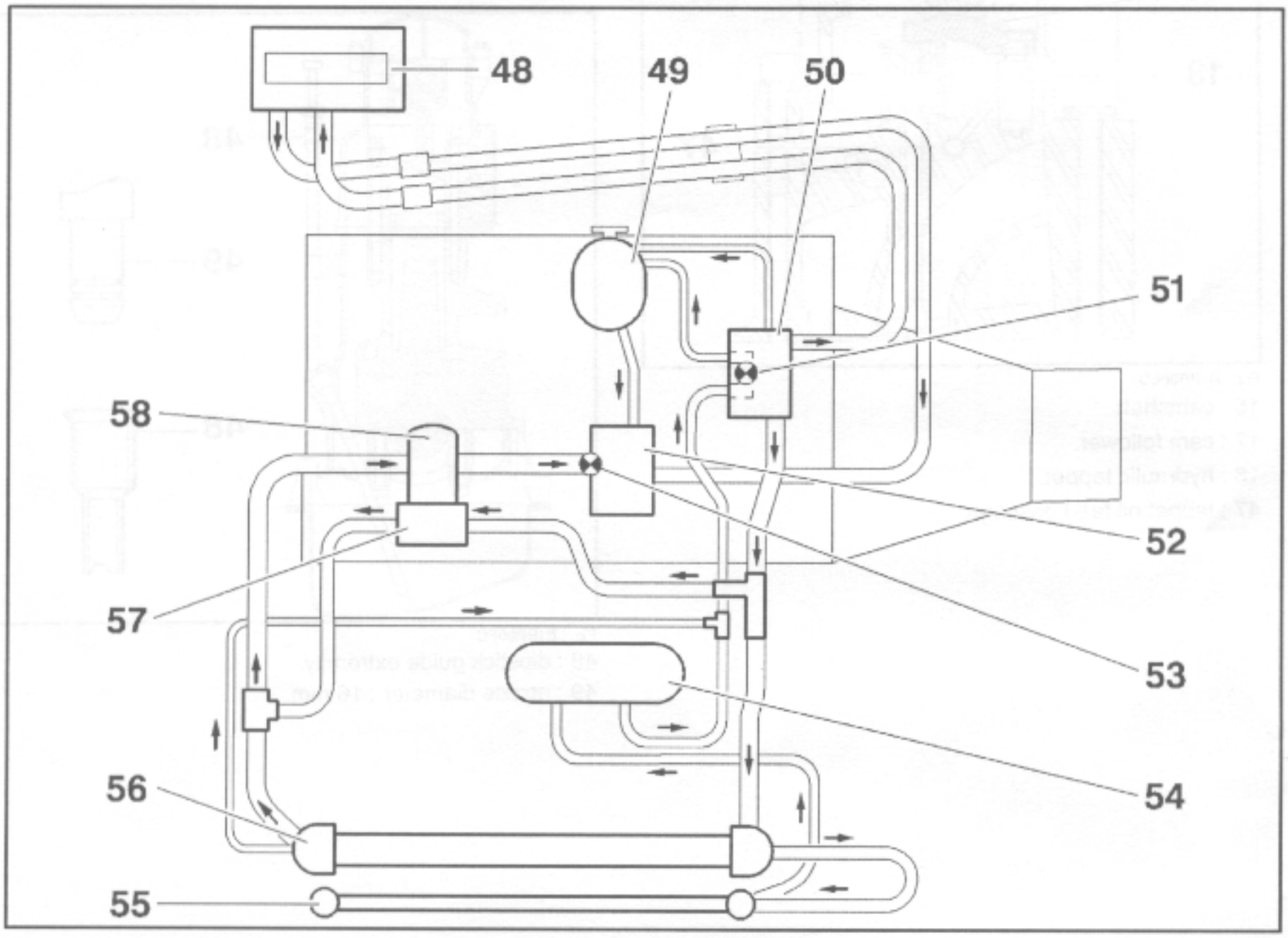


Fig. : B1BR00GD

48 : heater matrix.

49 : de–aeration chamber.

50 : water outlet housing.

51 : thermal switch.

52 : water pump.

53 : thermal switch.

54 : water–to–air heat exchanger.

55 : secondary radiator.

56 : main radiator.

57 : water–to–oil heat exchanger.

58 : filter cartridge.

The de–aeration chamber is located on the engine.

The water outlet housing (comprising water temperature sensors) is secured to the cylinderhead.

The water pump, driven by the camshaft pulley and a belt is located on the cylinder block.

The cooling circuit comprises two radiators :
- the main radiator
- the secondary radiator

The main radiator :
- cools the engine
- provides the secondary radiator with cooled water

The secondary radiator :
- cools the water from the main radiator
- supplies the water–to–air heat exchanger

The compressed air being cooled by a water–to–air heat exchanger, a secondary radiator is necessary.

The water temperature at the water–to–air heat exchanger inlet is around 60° C in normal driving conditions.

13 – AIR CIRCUIT

The DK5ATE engine is overcharged with air by a turbocharger.

13.1 – Turbocharger

The turbo is situated at the rear of the engine (bulkhead side).

The turbine is driven by the exhaust gases.

13.2 – Inlet air ducts

The air ducts are partly integrated in the protection cover of the camshaft pulley.

13.3 – Water–to–air heat exchanger

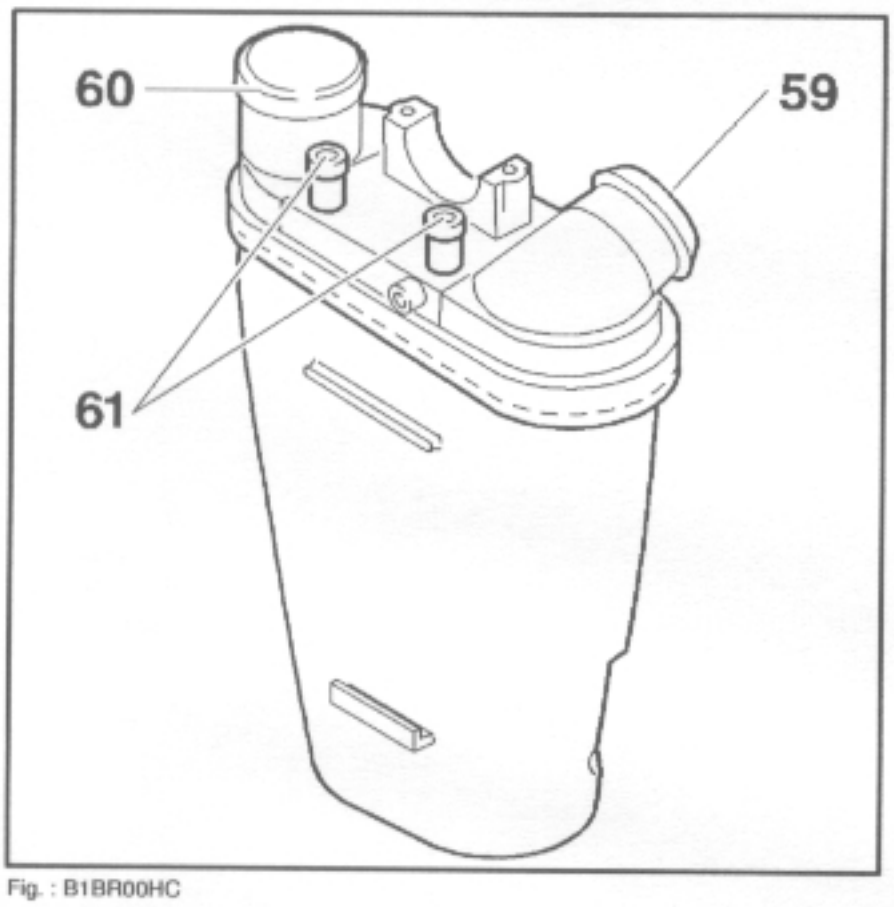


Fig. : B1BR00HC

59 : turbocharger air inlet.

60 : air outlet towards the inlet manifold.

61 : water inlet and outlet.

The compressed air is cooled by an air/water heat exchanger.

The exchanger is fixed at the front of the engine on a bracket fitted to the cylinder block.

The water–to–air heat exchanger allows, compared with an air–to–air heat exchanger :

- improving the inlet air cooling over a large engine operating range
- a reduction of the size of the exchanger

The air temperature in the inlet manifold is around 60 °C in normal driving conditions.

14 – INJECTION SYSTEM

The injection system of the DK5ATE engine is electronic.

The system comprises :

- a new injection pump
- an injection E.C.U.

14.1 – Injection pump

Manufacturer : BOSCH.

Type : VP36.

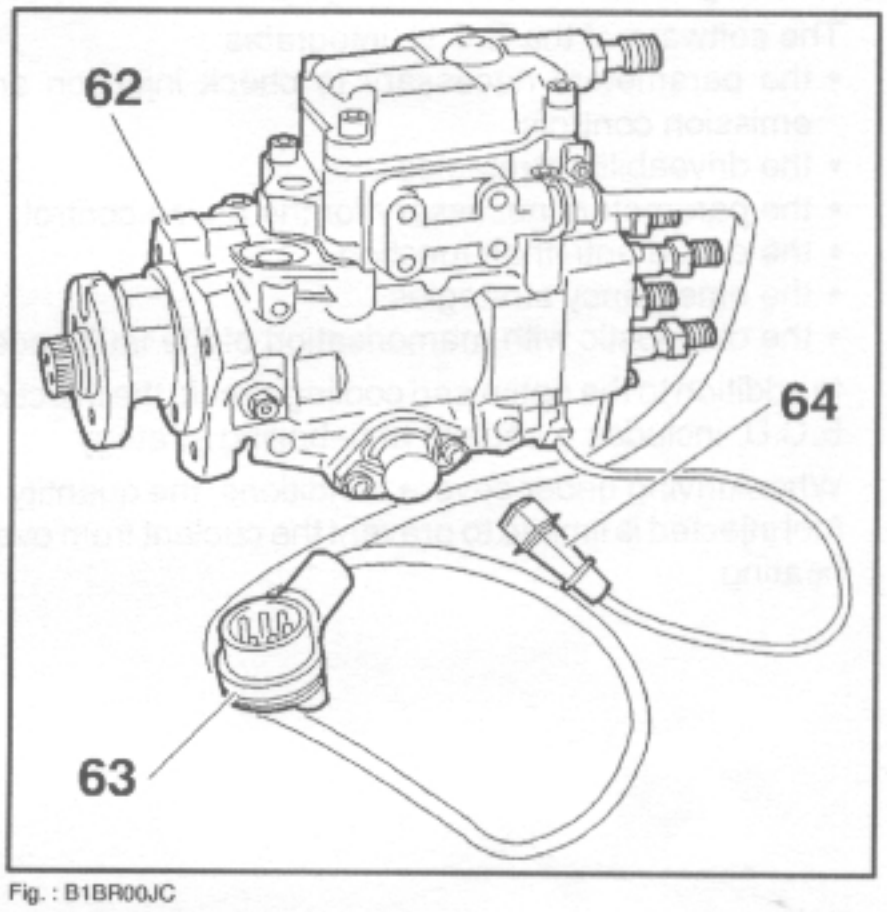


Fig. : B1BR00JC

62 : injection pump.

63 : pump connector.

64 : advance electrovalve connector.

The injection pump is derived from the BOSCH pump type VE.

This pump incorporates :

- the Diesel fuel electric actuator (replacing the load lever, linkage and springs)
- an injection advance control electrovalve

14.2 – Injection E.C.U.

Manufacturer : BOSCH.

Type : MSA 11.

The E.C.U. checks electrically :

- the injection pump
- the exhaust gas recycling electrovalve
- the pre–post heater control unit

The E.C.U. delivers :

- an engine tachometer signal to the instrument cluster
- the instantaneous fuel consumption signal to the on–board computer
- the signal to cut–off the refrigeration

The software of the E.C.U. integrates :

- the parameters necessary to check injection and emission controls
- the driveability strategies
- the parameters necessary for the cruise control
- the coded anti–theft function
- the emergency strategies
- the diagnostic with memorisation of the fault codes

In addition to the optimised cooling circuit, the injection E.C.U. includes a coolant anti–boiling strategy.

When driving under severe conditions, the quantity of fuel injected is limited to prevent the coolant from over-heating.

PRESENTATION : HYDRAULIC CLUTCH CONTROL

1 – INTRODUCTION

The CITROEN XM V6, V6.24 and 2.5 l Turbo Diesel are equipped with a hydraulic clutch control.

This type of control improves the convenience : force exerted on the pedal reduced by comparison with a cable–operated clutch.

Pre–filled with a hydraulic brake type fluid (DOT 3 with additives), this sealed and maintenance–free control adjusts the clutch pedal travel automatically (no pedal travel adjustment).

2 – CONSTITUTION



Fig. : B2BR001C

(1) : master cylinder.
(2) : reservoir.
(3) : quick–fit union.
(4) : connecting pipe.
(5) : slave cylinder.

The clutch control is made of :
- a hydraulic pressure master cylinder secured to the pedal gear in the vehicle interior
- a hydraulic fluid reservoir, clipped to the pedal gear, connected with the master cylinder
- a flexible pipe and a quick–fit union connecting the two parts of the clutch control
- a pressure slave cylinder secured to the clutch bell housing allowing for the displacement of the fork

3 – POSITIONING

3.1 – Pedal gear side

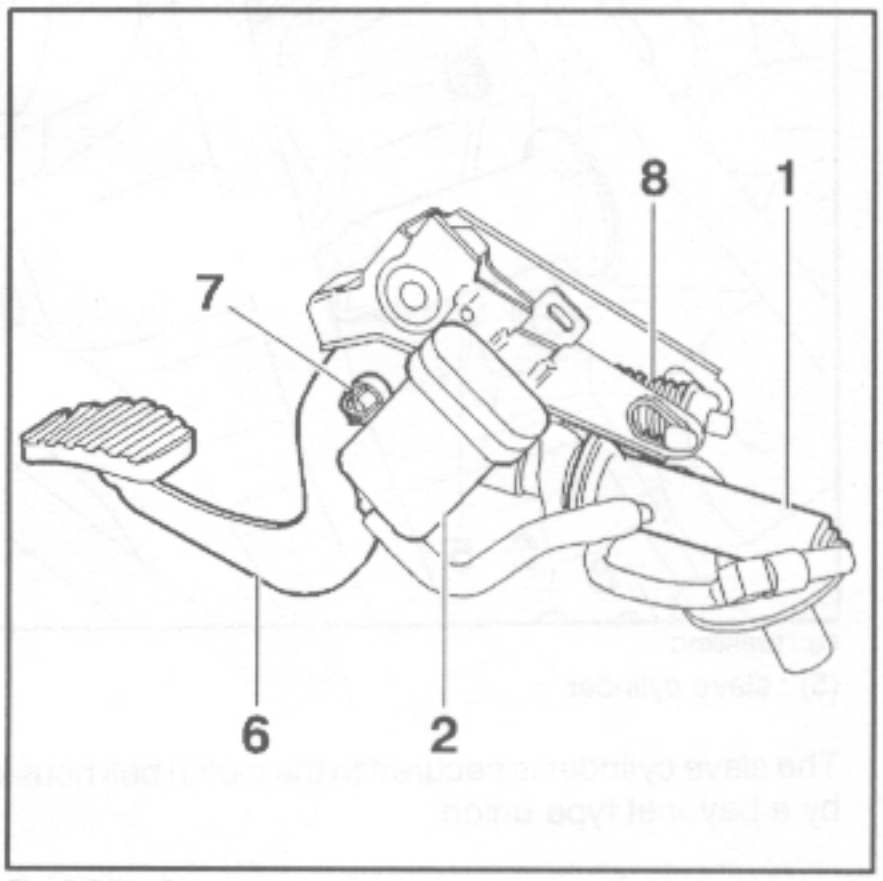


Fig. : B2BR002C

(1) : master cylinder.
(2) : hydraulic fluid reservoir.
(6) : clutch pedal.
(7) : push rod.
(8) : auxiliary spring.

The master cylinder is secured to the pedal gear (inside the vehicle) with a bayonet type union.

The push rod is clip–fastened to the pedal.

The reservoir is retained by a clip on the pedal bracket.

3.2 – Gearbox side

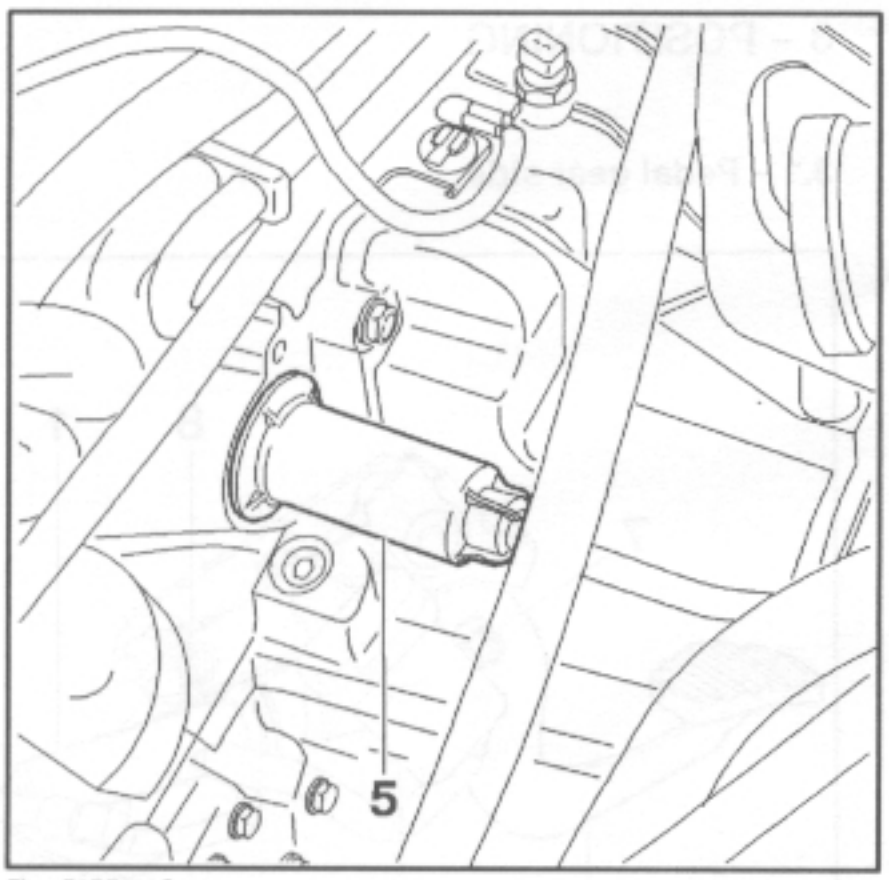


Fig. : B2BR003C

(5) : slave cylinder.

The slave cylinder is secured to the clutch bell housing by a bayonet type union.

3.3 – Quick–fit union

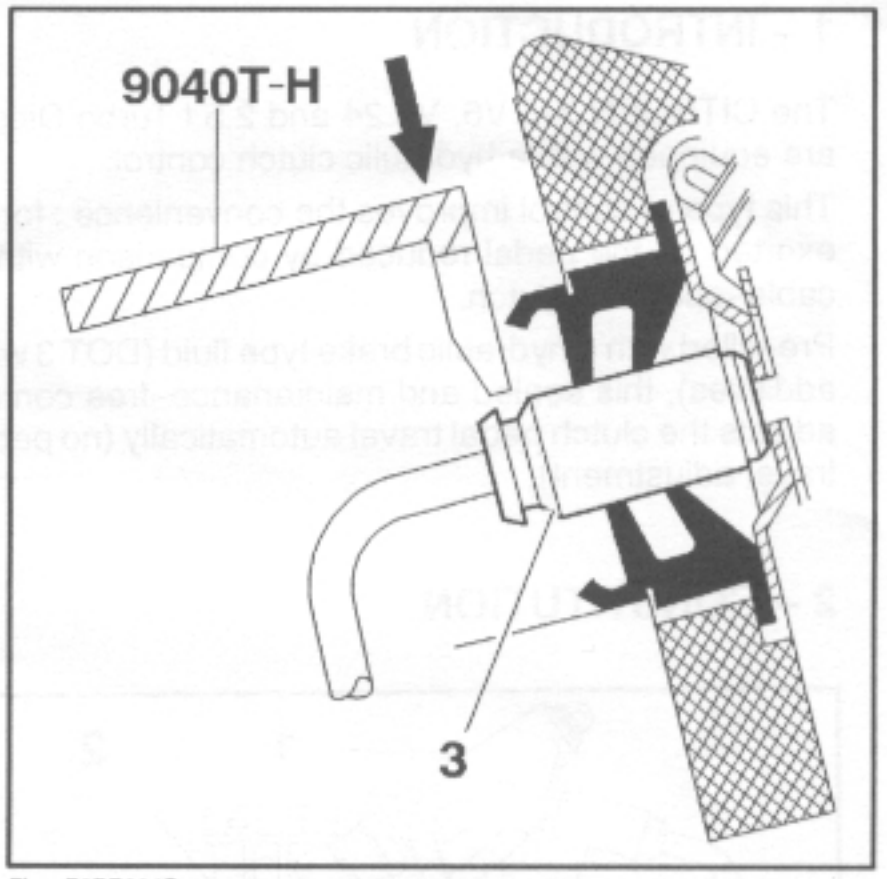


Fig. : B2BR004C

(3) : quick–fit union.

The union is located near the bulkhead, at the L.H. front of the vehicle.

The union ensures the tightness :

- of the control assembly
- of each part of the control when it is disassembled

The union must be dismantled with a special REF tool : 9040 T–H.

When removing/refitting the power unit or repairing the clutch :

- remove the slave cylinder
- do not dismantle the quick–fit union
- push the slave cylinder towards the L.H. front wheel-arch

It is necessary to dismantle the quick–fit union when removing entirely the master cylinder.

WARNING : the union should not be dismantled/ rebuilt more than 4 or 5 times ; do not dismantle it if it is not necessary.

4 – DESCRIPTION AND OPERATION

4.1 – Pedal gear side

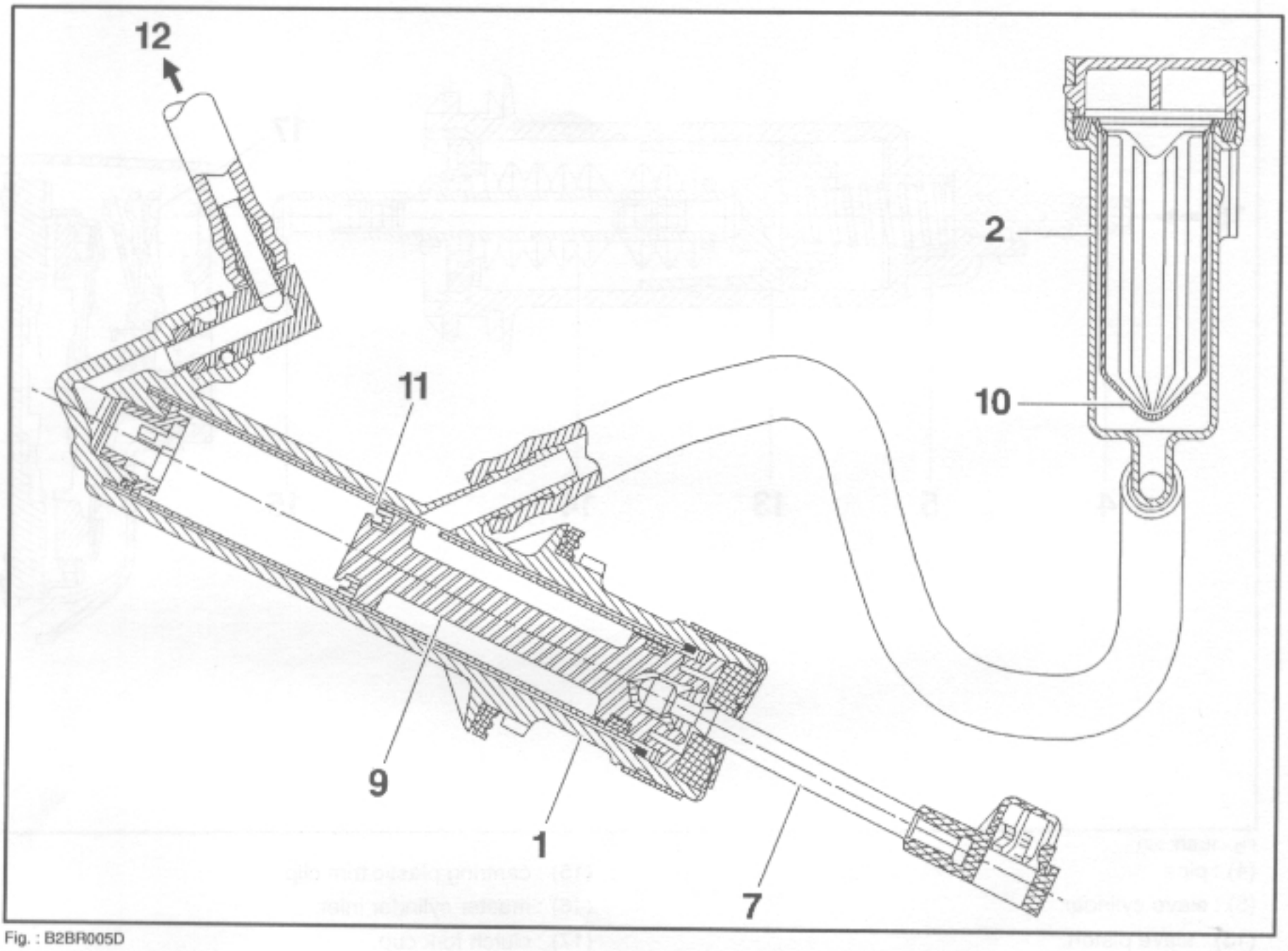


Fig. : B2BR005D

(1) : master cylinder.
(2) : reservoir.
(7) : push rod.
(9) : piston.
(10) : flexible diaphragm.
(11) : hydraulic connection orifice.
(12) : towards the slave cylinder.

When the clutch pedal is depressed, the piston moves via the push rod and pushes the hydraulic fluid towards the slave cylinder.

The hydraulic fluid is under the diaphragm of the reservoir.

The reservoir is connected to the hydraulic circuit via the orifice when the pedal is released, only.

By design, it is not necessary :
- to bleed the clutch control
- to carry out a topping up

4.2 – Gearbox side

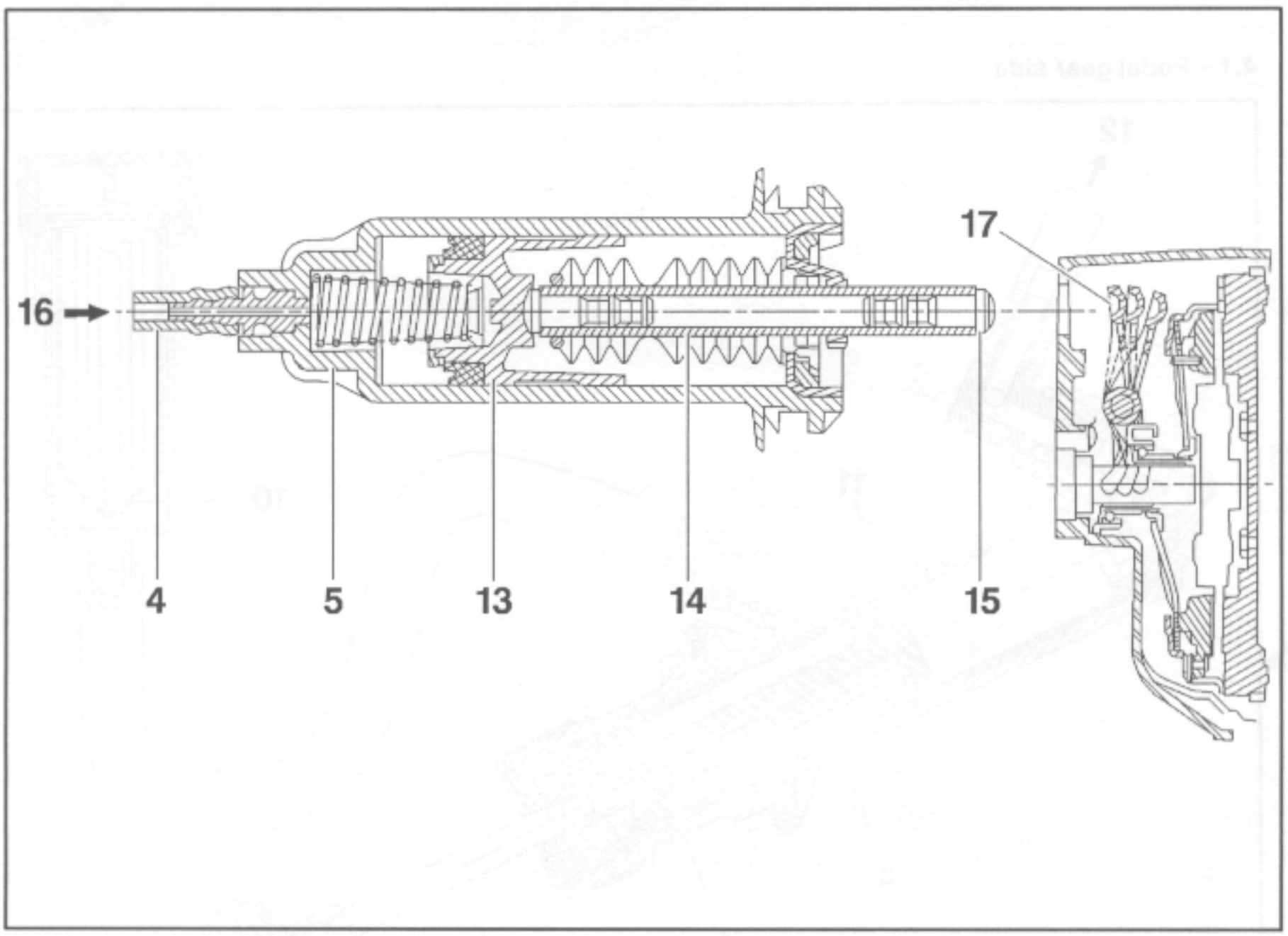


Fig. : B2BR006D

(4) : pipe.
(5) : slave cylinder.
(13) : slave piston.
(14) : push rod.
(15) : centring plastic trim clip.
(16) : master cylinder inlet.
(17) : clutch fork cup.

The gearbox clutch is a pulled type clutch.

When pushed, the cup integral with the fork causes the disengagement of the clutch.

The push rod is centered in the fork cup.

4.3 – Operation

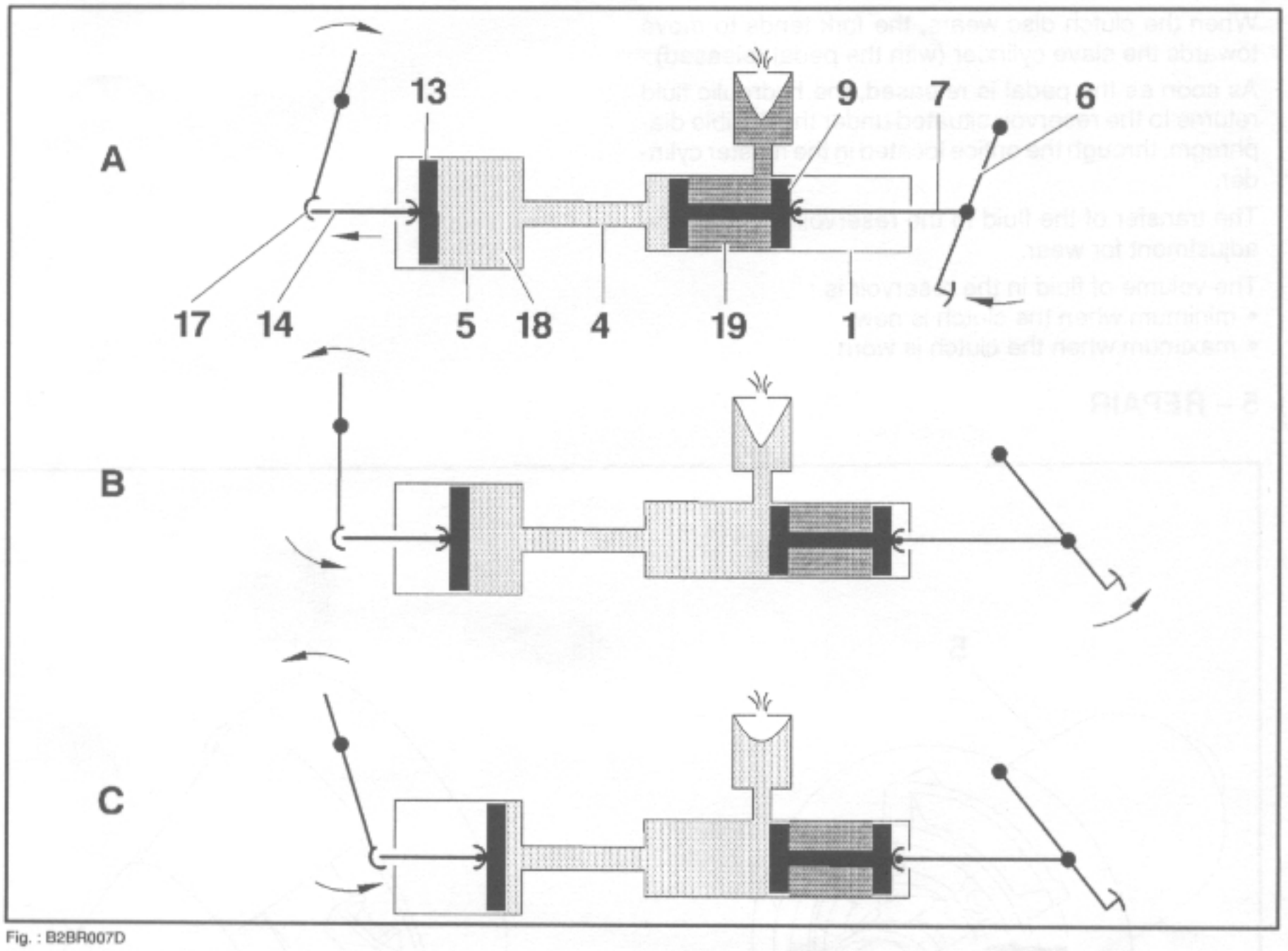


Fig. : B2BR007D

(A) : clutch disengagement.
(B) : clutch engagement.
(C) : clutch disc wear.
(1) : master cylinder.
(4) : connecting pipe.
(5) : slave cylinder.
(6) : clutch pedal.
(7) : push rod.
(9) : master cylinder piston.
(13) : slave cylinder piston.
(14) : slave cylinder push rod.
(17) : clutch fork cup.
(18) : area 1.
(19) : area 2.

The fluid of area 1 participates in the clutch engagement/disengagement.

The fluid of area 2 lubricates the contact surface of the master cylinder piston.

4.3.1 – Clutch disengagement

The clutch release travel is determined :
- by the length of the travel and the diameter of the master or slave cylinder pistons
- the clutch fork lever

When the clutch pedal is depressed, the master cylinder piston is moved by the push rod and pushes the hydraulic fluid towards the slave cylinder.

The clutch release is assisted by the auxiliary spring.

The displacement of the slave piston under the action of the hydraulic fluid causes :
- the push rod and
- the fork to move and reach the disengagement position

4.3.2 – Clutch engagement

The mechanism pushes the hydraulic fluid in the body of the master cylinder (with the pedal released) via the fork, push rod and piston of the slave cylinder.

When the pedal is released :
- the clutch mechanism pushes back the fork and the push rod
- the piston of the slave cylinder moves and expels the hydraulic fluid

4.3.3 – Clutch disc wear

When the clutch disc wears, the fork tends to move towards the slave cylinder (with the pedal released).

As soon as the pedal is released, the hydraulic fluid returns to the reservoir situated under the flexible diaphragm, through the orifice located in the master cylinder.

The transfer of the fluid to the reservoir provides the adjustment for wear.

The volume of fluid in the reservoir is :
- minimum when the clutch is new
- maximum when the clutch is worn

5 – REPAIR

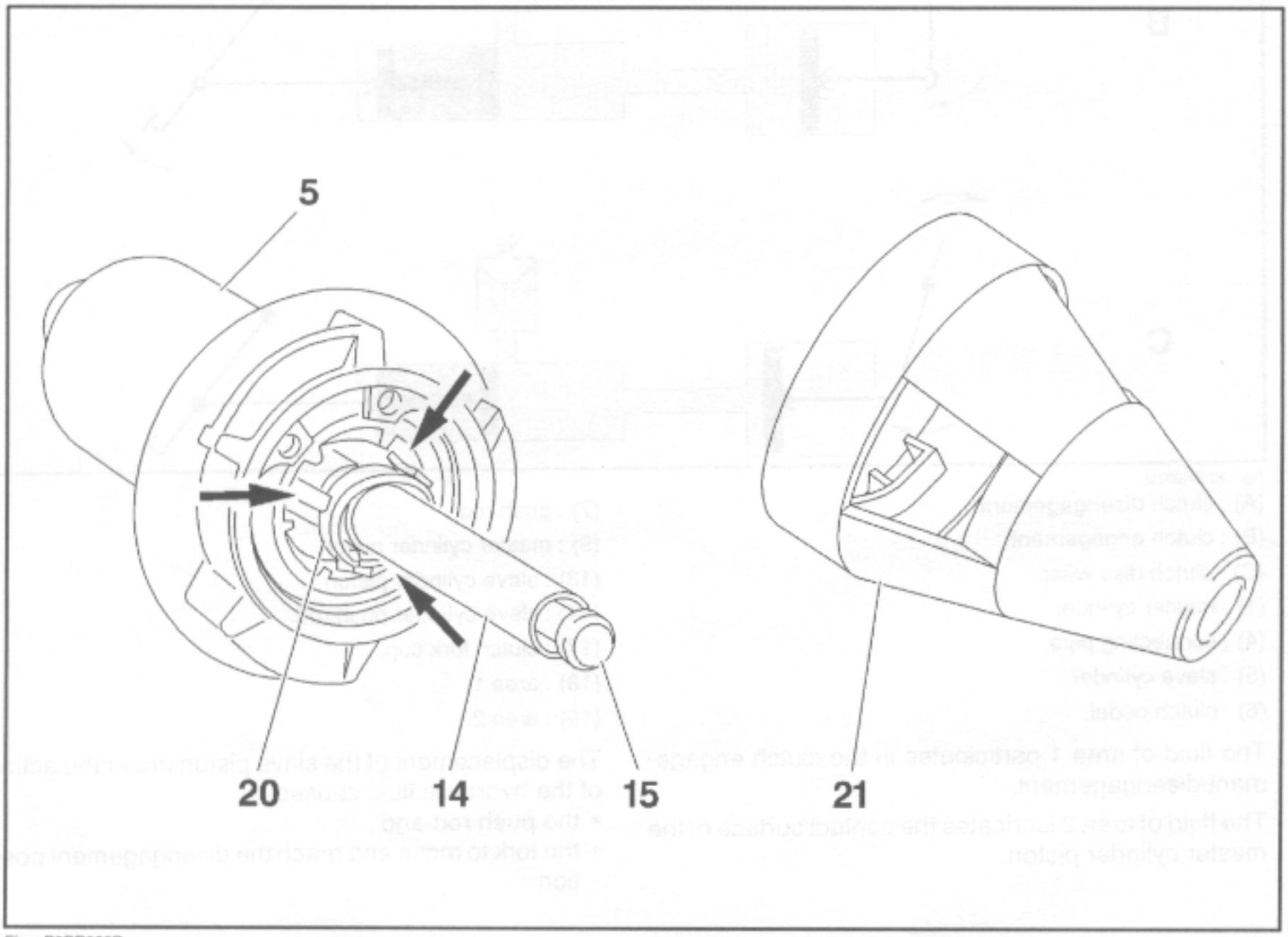


Fig. : B2BR008D

(5) : slave cylinder.
(14) : slave cylinder push rod.
(15) : centring peg.
(20) : push–rod retaining bush.
(21) : protection cone.

5.1 – Replacement parts

Because of the transfer of the hydraulic fluid between the slave cylinder and the reservoir, only the complete clutch control is available from the Replacement Parts Department.

The control is delivered in two parts (quick–fit union not connected).

IMPERATIVE : in the case of a failure, the complete clutch control is to be replaced.

5.2 – New clutch control

The slave cylinder of the clutch control is supplied with a cone intended to protect the push rod during handling.

The protection cone should not be removed before the slave cylinder attachment : the cone prevents the cylinder from bursting if the clutch pedal is involuntarily depressed.

The plastic ring holds the pushrod of the slave cylinder in place. It breaks at the first clutch disengagement and remains on the push rod.

When first used, the locating peg comes out. It allows centering the slave cylinder push–rod in the fork cup.

During the first clutch disengagement, it will go down into the push rod.

Precautions to be taken :

- do not actuate the master cylinder (whether in situ or not) when the slave cylinder is not in position
- do not actuate the push–rods of the slave and master cylinders when the union is not connected
- do not fit a new clutch control whose plastic bush is broken

For the control to operate, it is necessary to fully depress the clutch pedal several times. Move it upwards by hand, if required.

5.3 – Repairing the clutch

Precautions to be taken :

- each time an operation is carried out on the clutch and the slave cylinder removed, the protective cone REF. : 9040 T–F must be placed immediately
- do not dismantle the quick–fit union

After repairs, it is necessary to fully depress the clutch pedal several times and if need be, lift it by hand.

5.4 – Failure of the clutch control

In the event of a failure of the clutch control, (control leaking, for example), change it entirely both on the pedal gear and gearbox sides.

PRESENTATION : GEARBOX MG5TB

1 – INTRODUCTION

The CITROEN XM V6, V6.24 and 2.5 I Turbo Diesel are equipped with a new manual gearbox.

This new gearbox is called : MG5TB.

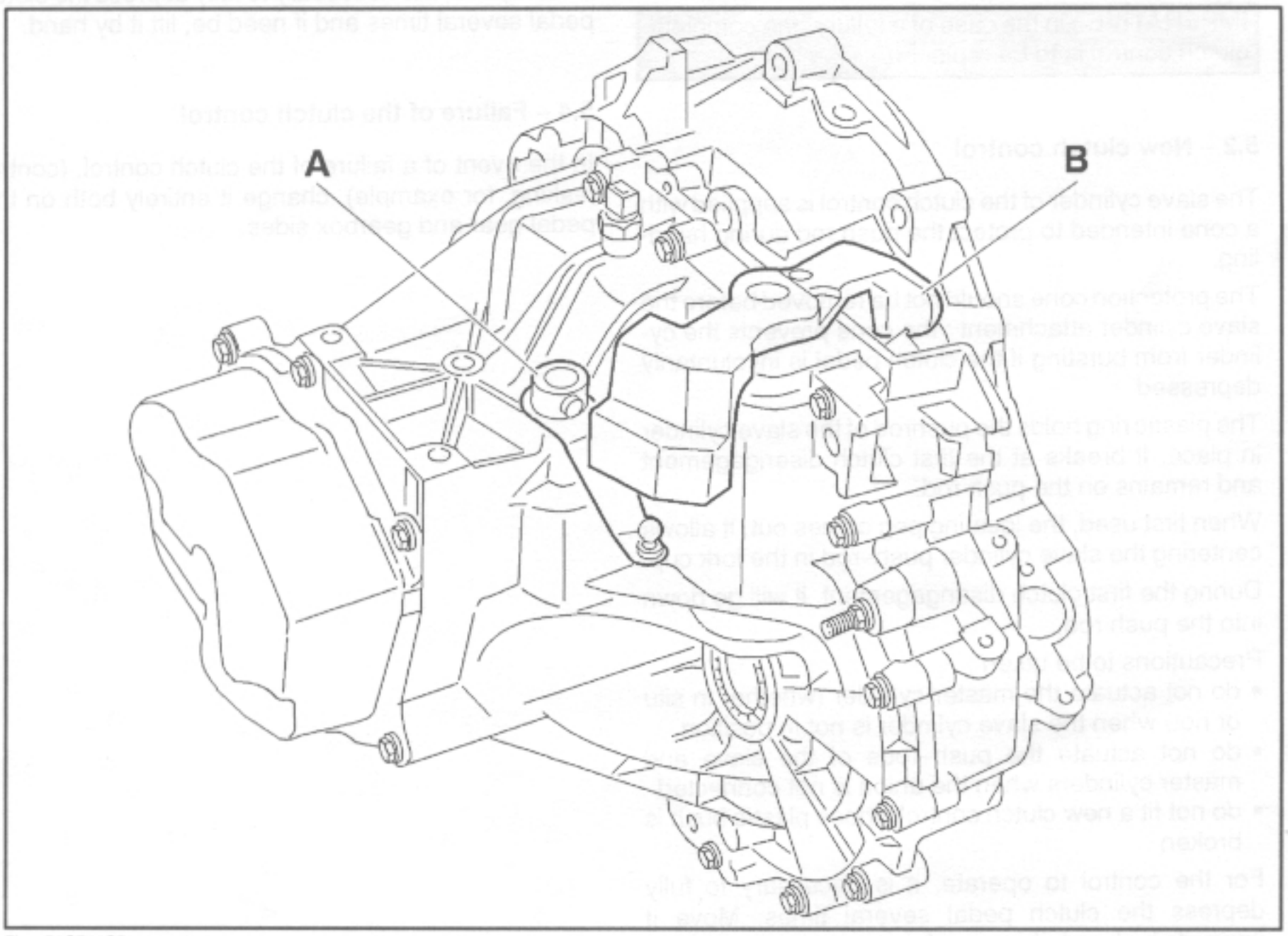


Fig. : B2CR00GD

A : selector lever.

B : engagement lever with anti–vibration weights.

This gearbox comprises 5 synchromesh forward speeds and one reverse.

2 – CONSTRUCTION

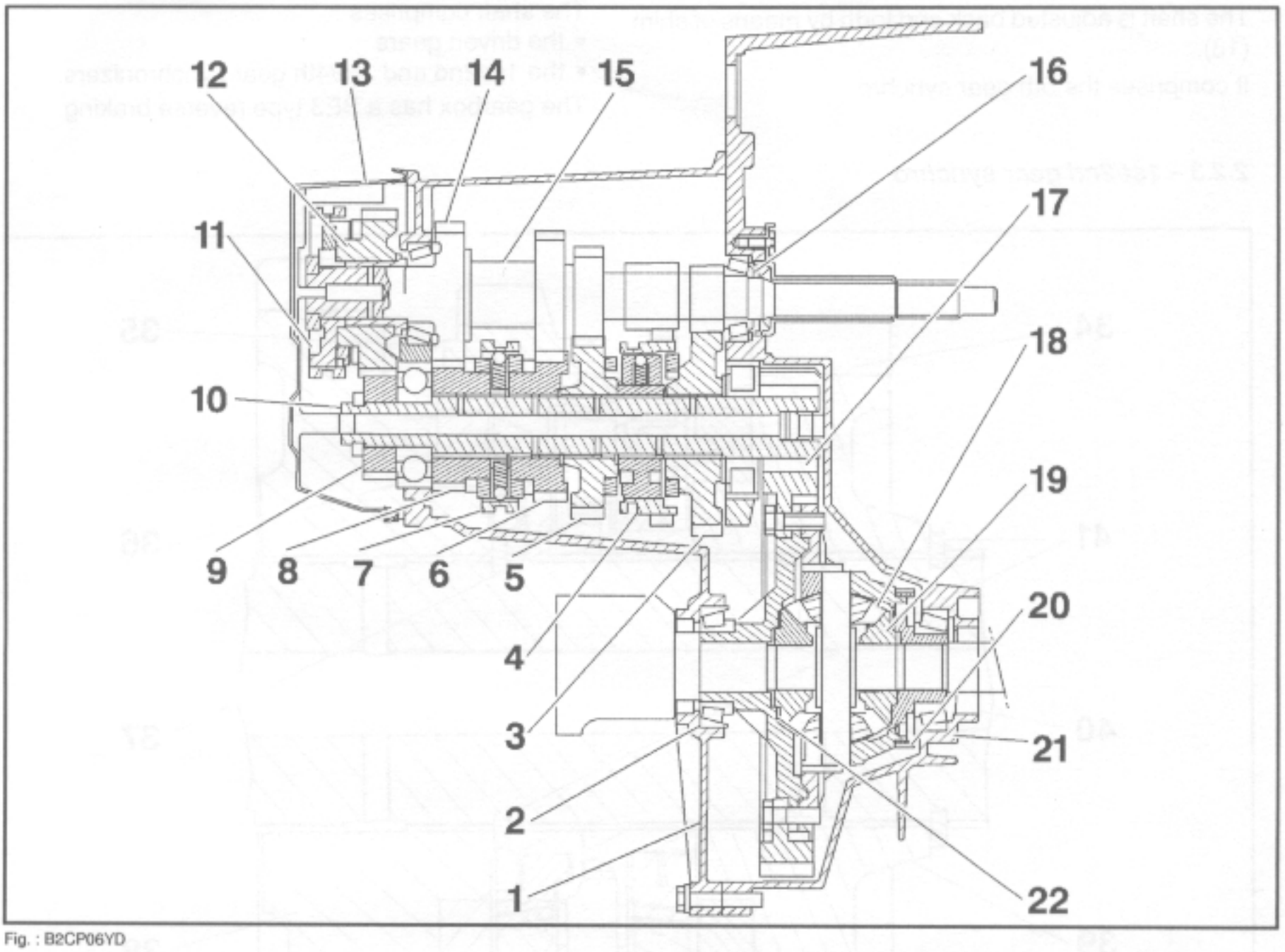


Fig. : B2CP06YD

(1) : gearbox casing.
(2) : differential bearing adjustment shim.
(3) : 1st speed driven pinion.
(4) : 1st/2nd gear synchro.
(5) : 2nd speed driven pinion.
(6) : 3rd speed driven pinion.
(7) : 3rd/4th gear synchronizer.
(8) : 4th speed driven pinion.
(9) : 5th speed driven pinion.
(10) : output shaft.
(11) : 5th gear synchronizer.
(12) : 5th speed driving pinion.
(13) : steel cover.
(14) : 4th speed driving pinion.
(15) : input shaft.
(16) : primary shaft bearing clearance adjustment shim.
(17) : differential crownwheel.
(18) : planet wheels.
(19) : sun wheels.
(20) : speedometer drive gear.
(21) : clutch and differential housings.
(22) : sun wheel adjustment shim.

2.1 – Housings

The gearbox assembly is made up of :
- an aluminium clutch bell housing
- an aluminium gearbox casing
- a steel casing

Changing the clutch bell housing or the gearbox casing, only, is possible but it requires :
- the back and forth adjustment of the primary shaft
- the adjustment of the differential bearings

2.2 – Shafts

The gearbox is constituted of two shafts :
- a primary shaft receiving the engine motion
- a secondary shaft

2.2.1 – Input shaft

The shaft is adjusted back and forth by means of shim (16).

It comprises the 5th gear synchro.

2.2.2 – Output shaft

The shaft comprises :
- the driven gears
- the 1st/2nd and 3rd/4th gear synchronizers

The gearbox has a BE3 type reverse braking.

2.2.3 – 1st/2nd gear synchro

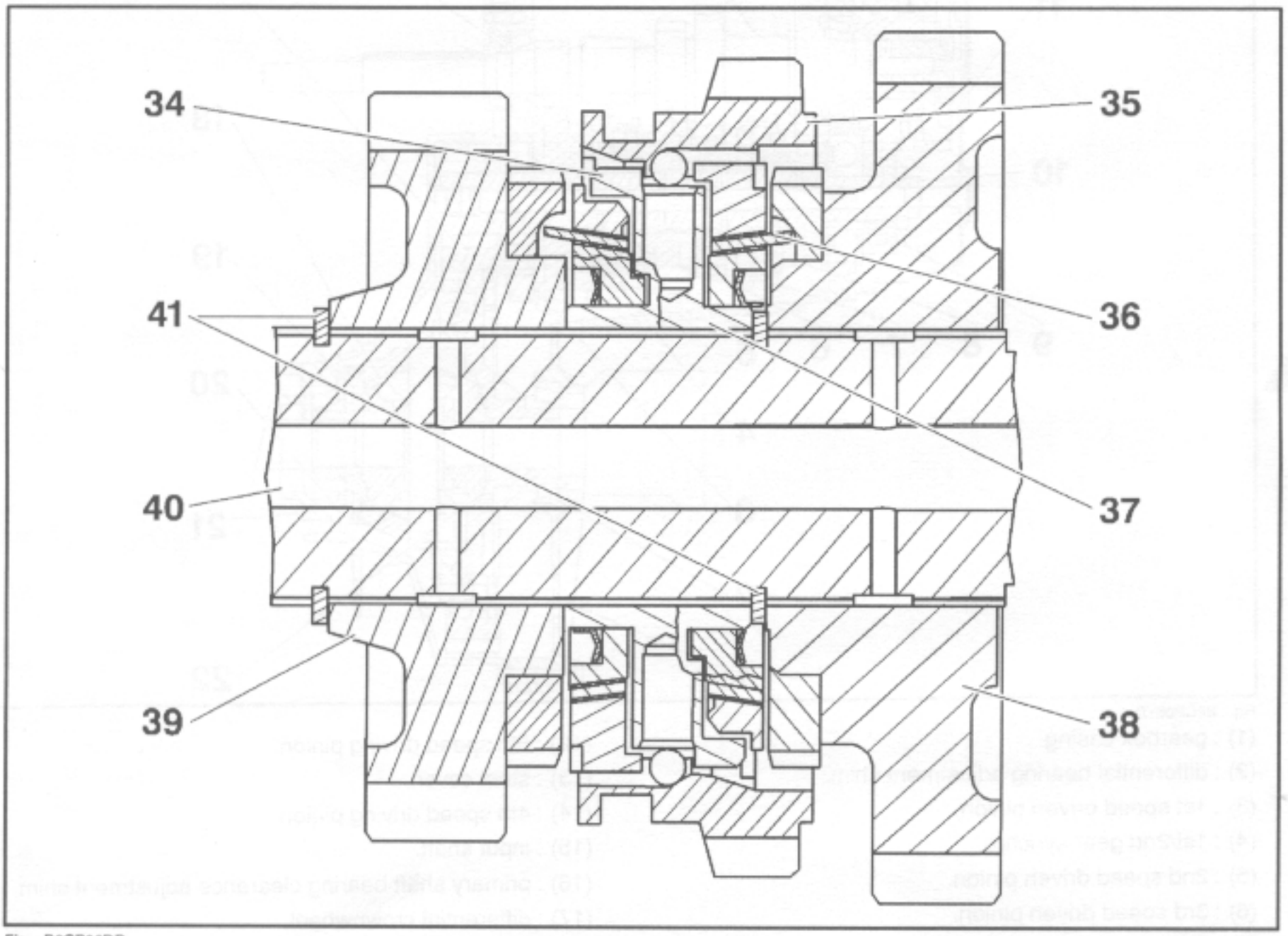


Fig. : B2CP06DD

(34) : double synchro.
(35) : synchro crownwheel.
(36) : synchronizer cones.
(37) : synchronizer hub.

The synchro is of a new type.

This new conception consisting in braking on two conical contact surfaces, provides a better gear change.

They are 7° cones.

NOTE : the 3rd/4th and 5th gear synchronizer cones are 6° cones.

(38) : 1st speed pinion.
(39) : 2nd speed pinion.
(40) : output shaft.
(41) : stop ring.

2.3 – Differential

The open type differential comprises :
- two planet pinions
- two satellite pinions

The crown wheel is screwed to the differential housing.

The speedometer drive gear is fitted to the differential housing.

The planet pinions are adjusted with shims.

The differential housing bearings are slightly tightened.

3 – LUBRICATION

The gearbox is lubricated for life.
The lubrication is by splash.
Oil capacity : 2.2 litres.
Periodic level check every 36,000 miles (60 000 km).

3.1 – Drain plug

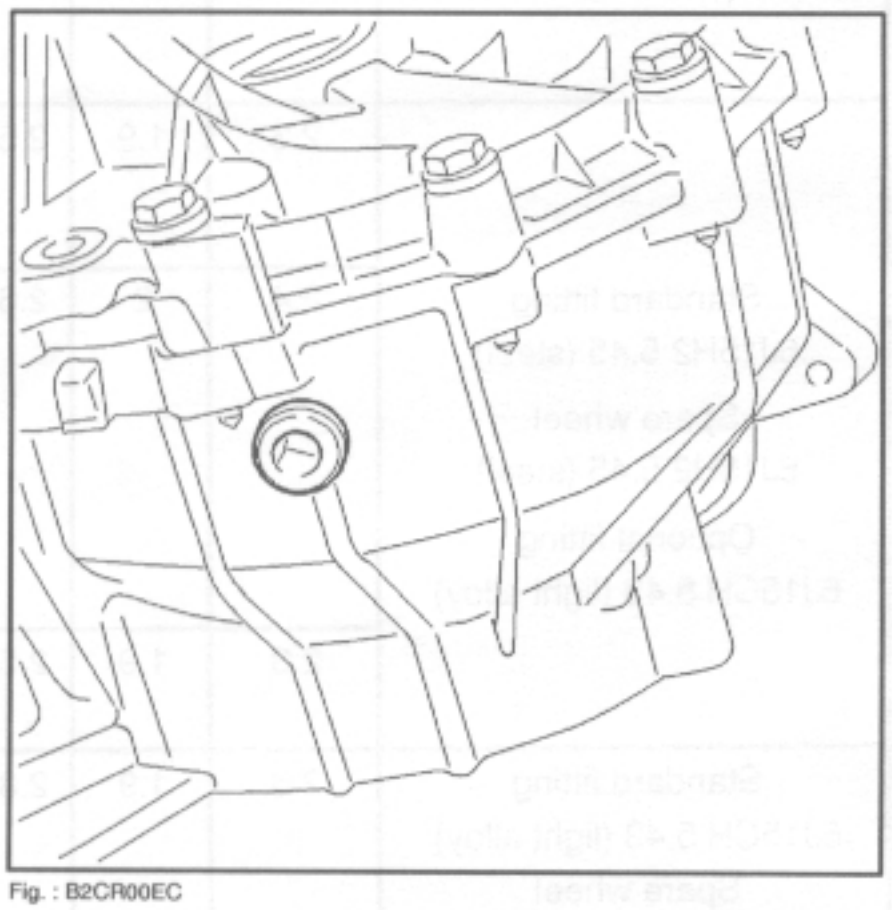


Fig. : B2CR00EC

The drain plug is located on the L.H. driveshaft side.

3.2 – Level/filler plug

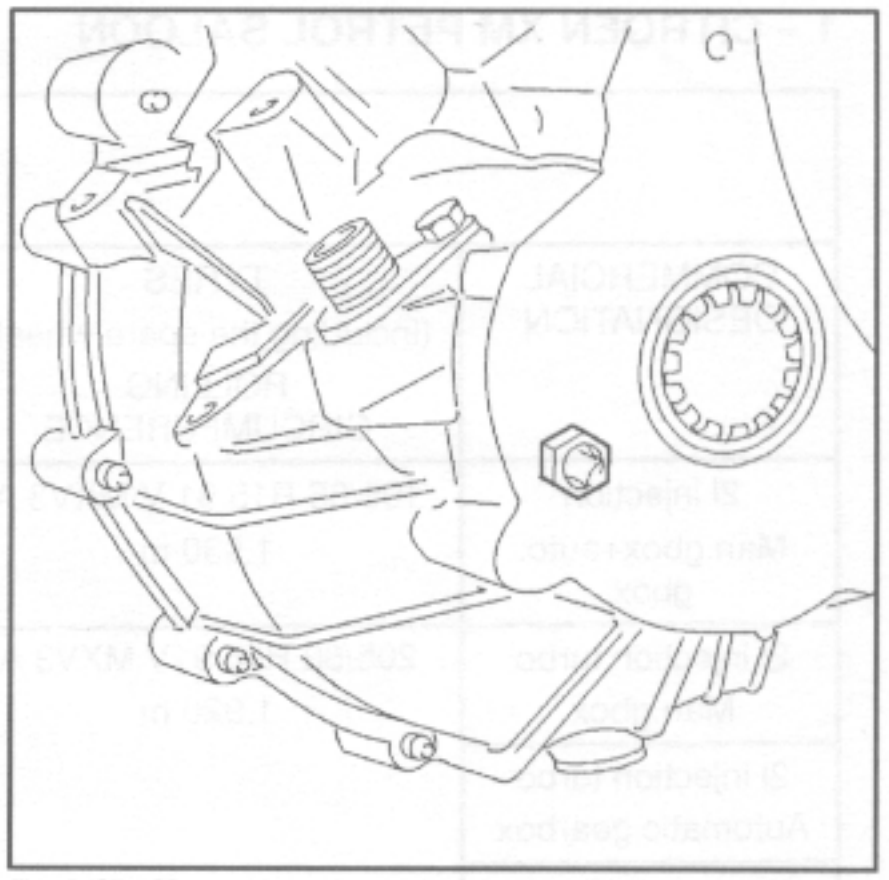


Fig. : B2CR00FC

The plug is located on the R.H. driveshaft side, close to the speedometer drive gear.

SPECIFICATION : WHEELS AND TYRES

1 – CITROEN XM PETROL SALOON

			INFLATION PRESSURES (in BARS)		
COMMERCIAL DESIGNATION	TYRES (including the spare wheel) ROLLING CIRCUMFERENCE	WHEELS	FRONT	REAR	SP
2l injection Man.gbox+auto. gbox	195/65 R15 91 V MXV3 A 1.930 m	Standard fitting 6J15H2 5.45 (steel) Spare wheel 6J15H2 5.45 (steel) Optional fitting 6J15CH 5.43 (light alloy)	2.3	1.9	2.5
2l injection turbo Man.gbox	205/60 R15 91V MXV3 A 1.920 m		2.4	2	2.6
2l injection turbo Automatic gearbox					
V6 Man.gbox					
V6 Automatic gearbox	205/65 R15 94V MXV3 A 1.970 m		2.3	1.9	2.5
V6 24S Man.gbox	205/60 ZR15 91W MXM 1.970 m	Standard fitting 6J15CH 5.43 (light alloy) Spare wheel 6J15H2 5.45 (steel)	2.6	1.9	2.8

2 – CITROEN XM DIESEL SALOON

			INFLATION PRESSURES (in BARS)		
COMMERCIAL DESIGNATION	TYRES (including the spare wheel) ROLLING CIRCUMFERENCE	WHEELS	FRONT	REAR	SP
Diesel Man.gbox	195/65 R15 91T MXT 1.930 m	Standard fitting 6J15 H2 5.45 (steel) Spare wheel 6J15 H2 5.45 (steel) Optional fitting 6J15 CH 5.43 (light alloy)	2.2	2	2.4
Turbo Diesel Man.gbox	195/65 R15 91H MXV3 A 1.930 m		2.3	1.9	2.5
Turbo Diesel Automatic gearbox	205/65 R15 94V MXV3 A 1.970 m				
2.5l Turbo Diesel Man.gbox					

3 – CITROEN XM PETROL ESTATE

			INFLATION PRESSURES (in BARS)		
COMMERCIAL DESIGNATION	TYRES (including the spare wheel) ROLLING CIRCUMFERENCE	WHEELS	FRONT	REAR	SP
2l injection Man.gbox+auto. gbox	195/65 R15 91H MXV3 A 1.930 m	Standard fitting 6J15 H2 5.45 (steel) Spare wheel 6J15 H2 5.45 (steel) Optional fitting 6J15 CH 5.43 (light alloy)	2.4	2.4	2.6
2l injection turbo Man.gbox	205/60 R15 91V MXV3 A 1.920 m				
2l injection turbo Automatic gearbox					
V6 Man.gbox	205/60 R15 91V MXV3 A 1.920 m				
V6 Automatic Gearbox	205/65 R15 94V MXV3 A 1.970 m		2.3	2.3	2.5

4 – CITROEN XM DIESEL ESTATE

			INFLATION PRESSURES (in BARS)		
COMMERCIAL DESIGNATION	TYRES (including the spare wheel) ROLLING CIRCUMFERENCE	WHEELS	FRONT	REAR	SP
Diesel Man.gbox	195/65 R15 91T MXT 1.930 m	Standard fitting 6J15 H2 5.45 (steel) Spare wheel 6J15 H2 5.45 (steel) Optional fitting 6J15 CH 5.43 (light alloy)	2.4	2.4	2.6
Turbo Diesel Man.gbox	195/65 R15 91H MXV3 A 1.930 m				
Turbo Diesel Automatic gearbox	205/65 R15 94V MXV3 A 1.970 m		2.3	2.3	2.5
2.5l Turbo Diesel Man.gbox					

EVOLUTIONS : SUSPENSIONS

1 – INTRODUCTION

The CITROEN XM suspension is modified as a result of :

- the changed dia. of the piston rods in the front suspension units (of certain versions)
- the modified dia. of the pistons in the rear suspension cylinder
- the introduction of the SC/MAC system (CITROEN system for retaining a constant ride height) on the XU10J4R and DK5ATE models, only
- the adoption of a hydractive suspension E.C.U. specific for the DK5ATE versions

2 – FRONT SUSPENSION UNITS

Specification :

	Saloon and Estate
Engine	Piston rod diameter
XU10J2 XU10J4R XUD11A	22 mm
XU10J2TE ZPJ ZPJ4 XUD11ATE DK5ATE	25 mm

The piston diameters of the suspension units are unchanged : 40 mm for the Saloon and Estate versions.

3 – REAR SUSPENSION CYLINDERS

Piston diameter increased from 35 to 37 mm for all the Saloon versions.

42.5 mm piston diameter retained for the Estate versions.

4 – ANTI–ROLL BAR

Secification of the anti–roll bars :

	Saloon		Estate	
Engine	Front	Rear	Front	Rear
XU10J2 XU10J4R XUD11A	23 mm Ø	Ø 21mm	25 mm in Ø	22.5 mm in Ø
XU10J2TE	→ RPO 6415 24 mm Ø RPO 6416 → 23 mm Ø	Ø 22 mm		
ZPJ ZPJ4 DK5ATE XUD11ATE	24 mm Ø			

5 – CITROEN ANTI–SINK SUSPENSION SYSTEM (SC/MAC)

5.1 – General features

The SC/MAC is a system which limits the settling of the vehicle at rest, with the engine switched off.

This system reduces the rising time of the vehicle.

5.2 – Operating principle

Two valves (one at the front and one at the rear) isolate hydraulically the suspension units. The valves close, preventing the pressure, in the latters, from dropping.

There exist two valve types :

- one type for the hydraulic suspension
- one type for the hydractive suspension

6 – HYDRACTIVE SUSPENSION E.C.U.

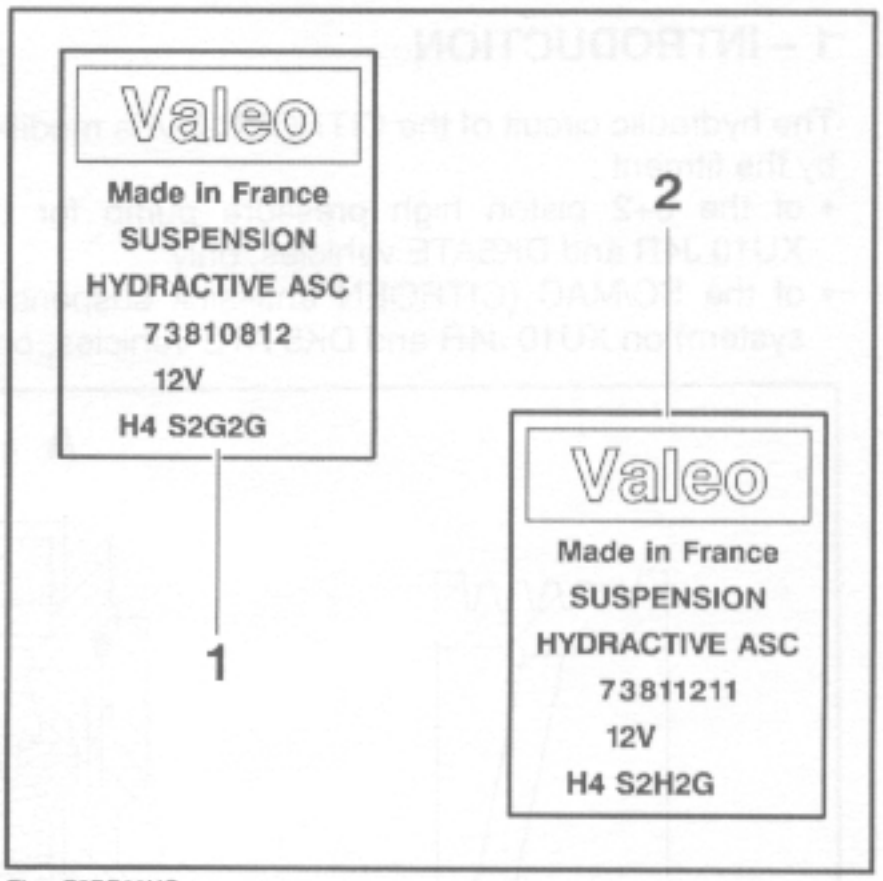


Fig. : B3BR00HC

Introduction of a new E.C.U., specific to the DK5ATE engine, with evolution index H4 S2H2G, ref. 2.

The DK5ATE type E.C.U. differs from the other E.C.U. by the memorised maps defining the transition from the soft to the firm conditions.

E.C.U. with level of modification H4 S2G2G retained for all hydractive fitted vehicles, except those having DK5ATE engines (ref.1).

IMPERATIVE : a DK5ATE type E.C.U. should not be fitted to other engine types and reciprocally.

IMPERATIVE : do not fit a CITROEN XANTIA hydractive suspension E.C.U. to a CITROEN XM and reciprocally.

EVOLUTIONS : SOURCE AND RESERVE OF PRESSURE

1 – INTRODUCTION

The hydraulic circuit of the CITROEN XM is modified by the fitment :

- of the 6+2 piston high pressure pump for the XU10 J4R and DK5ATE vehicles, only
- of the SC/MAC (CITROEN anti–sink suspension system) on XU10 J4R and DK5 ATE vehicles, only

2 – 6+2 PISTON HIGH PRESSURE PUMP

This high presure pump has two stages :

- a 2–piston stage for the brake and suspension circuits
- a 6–piston stage for the steering circuit

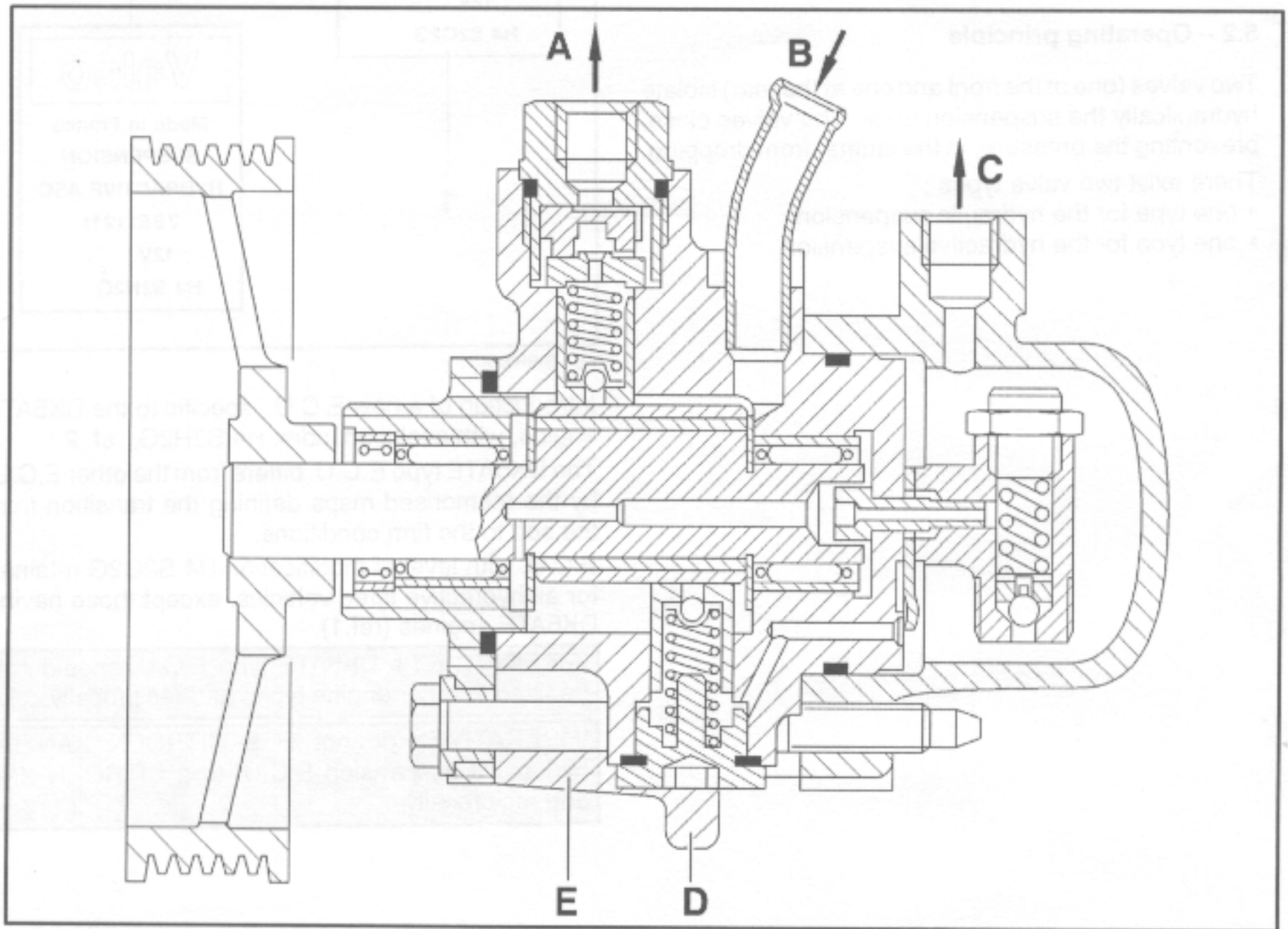


Fig. : B4BR001D

A : output to suspension–braking system.

B : inlet.

C : output to steering system.

D : 6–piston stage.

E : 2–piston stage.

The use of this pump has entailed the deletion of the flow distributor.

The pressure of the suspension and brake circuits is regulated by the pressure regulator.

The pressure of the steering circuit is regulated by the pressure relief valve located in the pump.

EVOLUTIONS : EXTERIOR FITTINGS

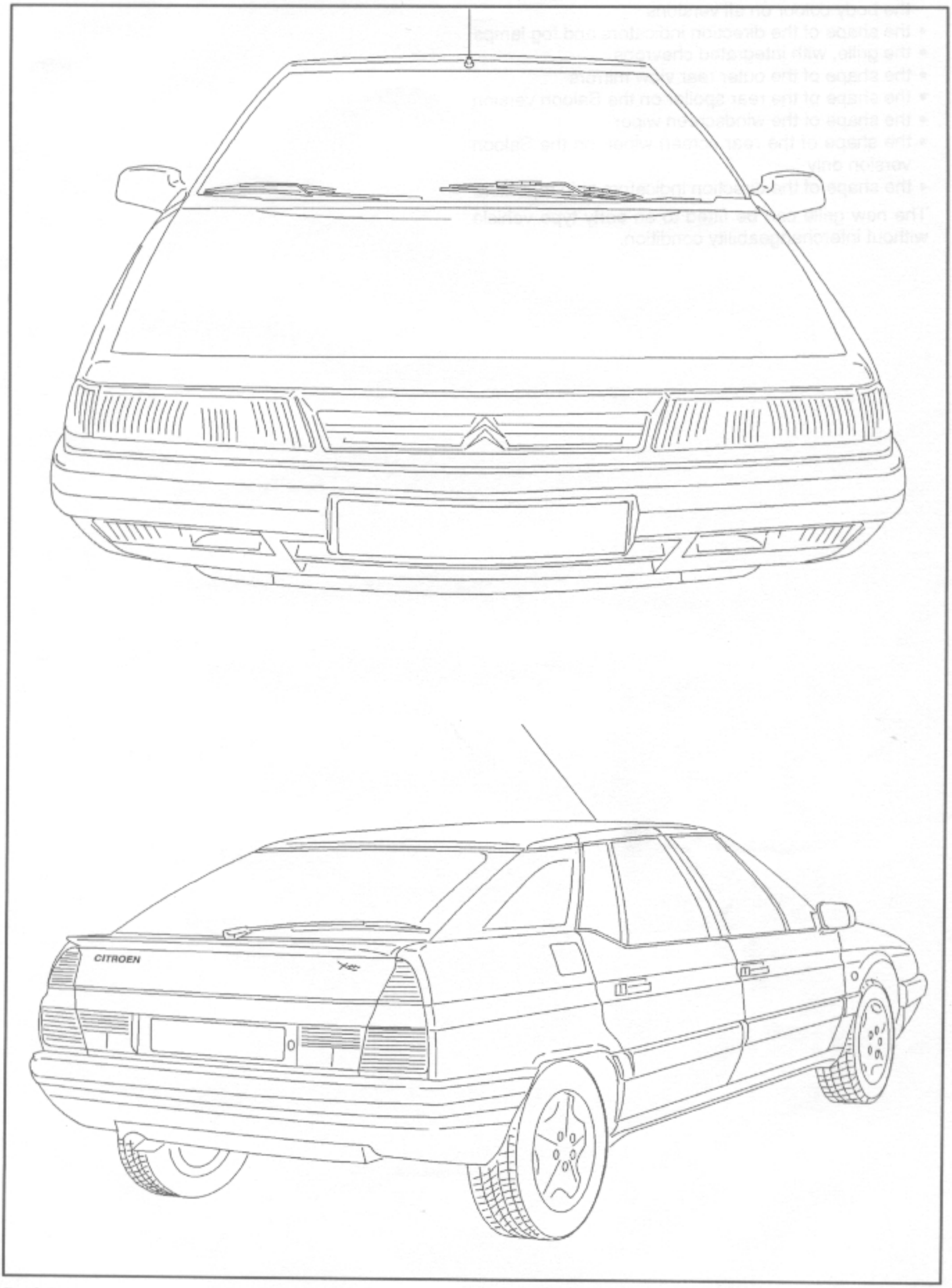


Fig. : C4ER002P

The restyling of the CITROEN XM involves :

- the front bumper, with the lower section painted in the body colour on all versions
- the shape of the direction indicators and fog lamps
- the grille, with integrated chevrons
- the shape of the outer rear view mirrors
- the shape of the rear spoiler on the Saloon version
- the shape of the windscreen wiper
- the shape of the rear screen wiper, on the Saloon version only
- the shape of the direction indicators side repeaters

The new grille can be fitted to an early type vehicle without interchangeability condition.

EVOLUTIONS : INTERIOR EQUIPMENTS

Dashboard, instrument cluster and console are the main components of the CITROEN XM interior equipment reshaped for the 1995 Model Year.

1 – DASHBOARD

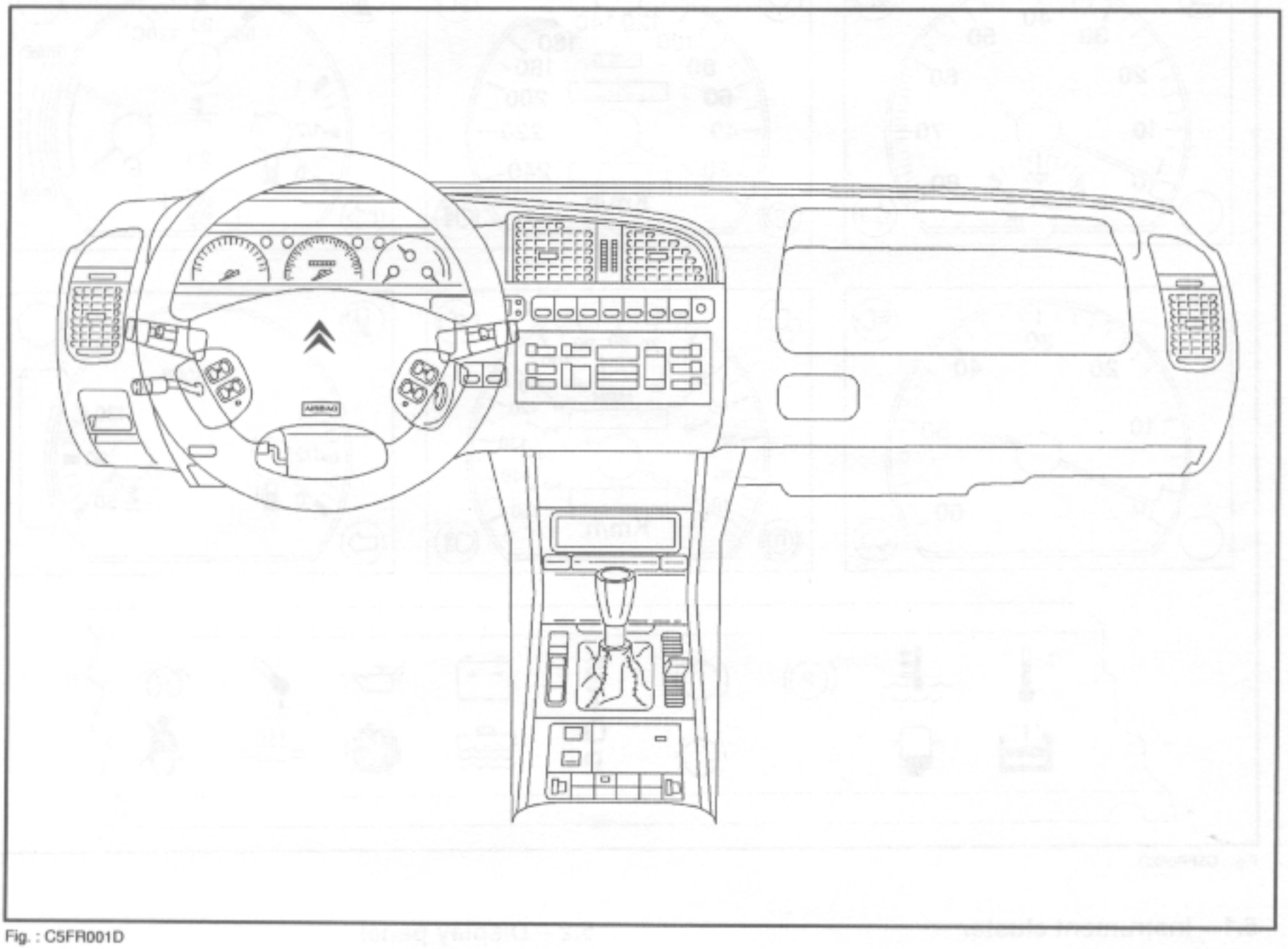


Fig. : C5FR001D

New dashboard with integral instrument cluster visor.
The 1995 Model Year dashboard is different from the previous one in :

- the dashboard moulding
- the lower trimming (incorporating a new access flap for the central diagnostic socket)
- the glove box (modified size and location of the lock mechanism)
- the metal tweeter grilles instead of plastic
- the centre and side louvres, operated with a thumb-wheel

2 – CONSOLE

Introduction, on the console, of a new flap. The first–fit car radio is no longer concealed by the flap.

Deletion of the cruise control switch located now under the central vents.

3 – STEERING WHEEL

New four branch steering wheel with integrated AIR-BAG.

Steering gaiter with illuminated anti–theft device.

New steering column reinforced for the AIRBAG equipment.

4 – CONTROL SWITCHES

Under the centre louvres, the following components are gathered :

- front foglamps switch
- rear fog lamps switch
- rear screen de–frosting switch
- hazard warning device switch
- interior lamp switch
- cruise control switch
- alarm switch
- alarm warning lamp

NOTE : the CITROEN XM, R.H.D. switches, are positioned symetrically from the L.H.D. switches.

5 – INSTRUMENT CLUSTER AND DISPLAY PANEL

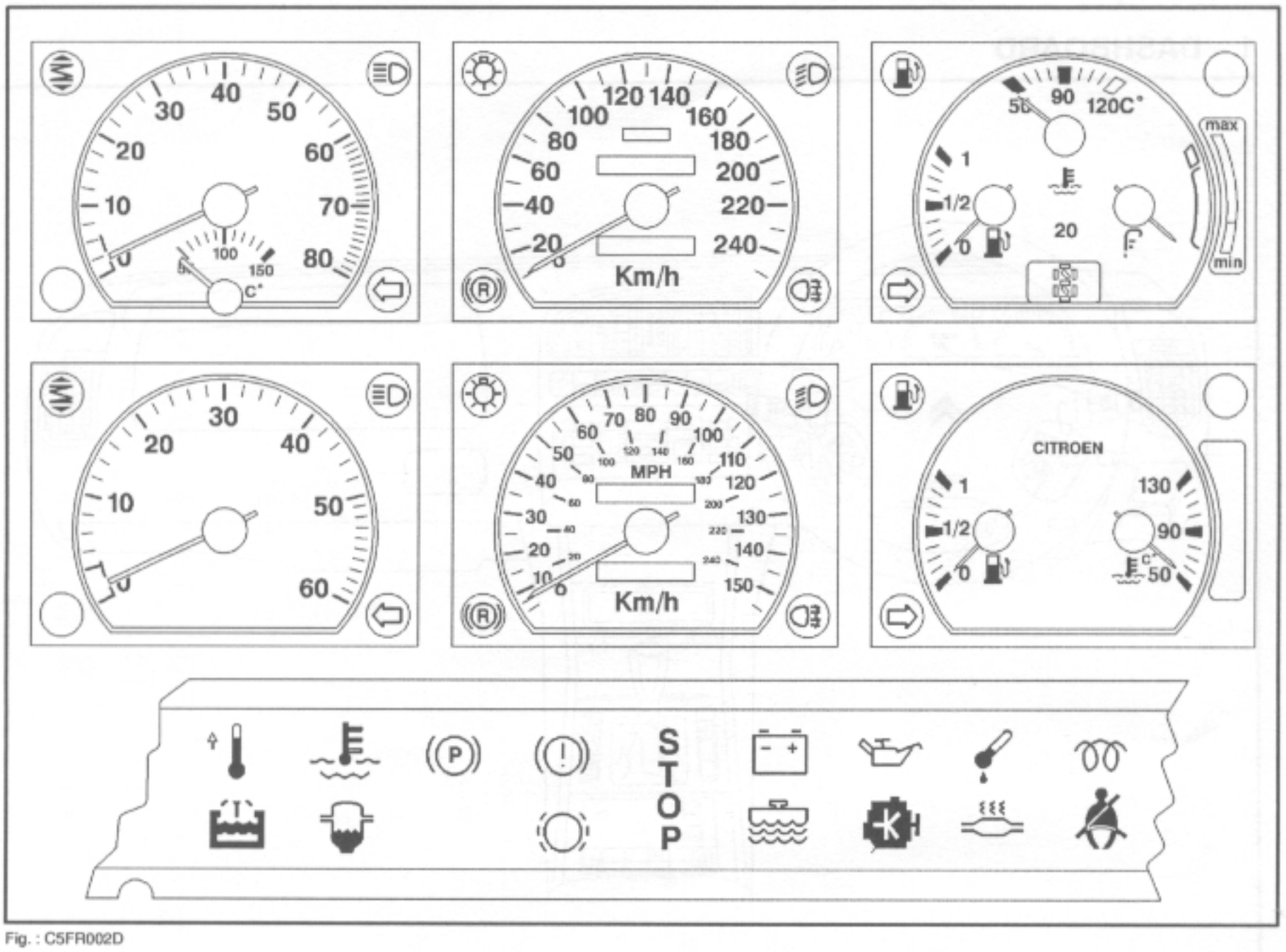


Fig. : C5FR002D

5.1 – Instrument cluster

The modifications involve :
- the shape of the instrument cluster
- the re–allocation of the warning lamps for the main beams, min. fuel level, L.H. and R.H. direction indicators and rear fog lamps
- the introduction of an electronic speedometer
- the deletion of the turbo pressure indicator for the XUD11 ATE

NOTE : dismantling the instrument cluster necessitates the previous disassembly of the fascia.

5.2 – Display panel

The modifications involve :
- different location for the following warning lamps : front brakes pad wear, water temperature alert, water temperature pre–alert, engine oil pressure and diagnostic
- Diesel pre–heater warning lamp added
- the addition of the safety belt warning lamp (for the Distant Export versions)
- addition of the engine oil temperature warning lamp
- new dot–matrix associated with the radio option

6 – HEATER CONTROLS

The modifications to the heater controls involve the location and/or shape of the controls.

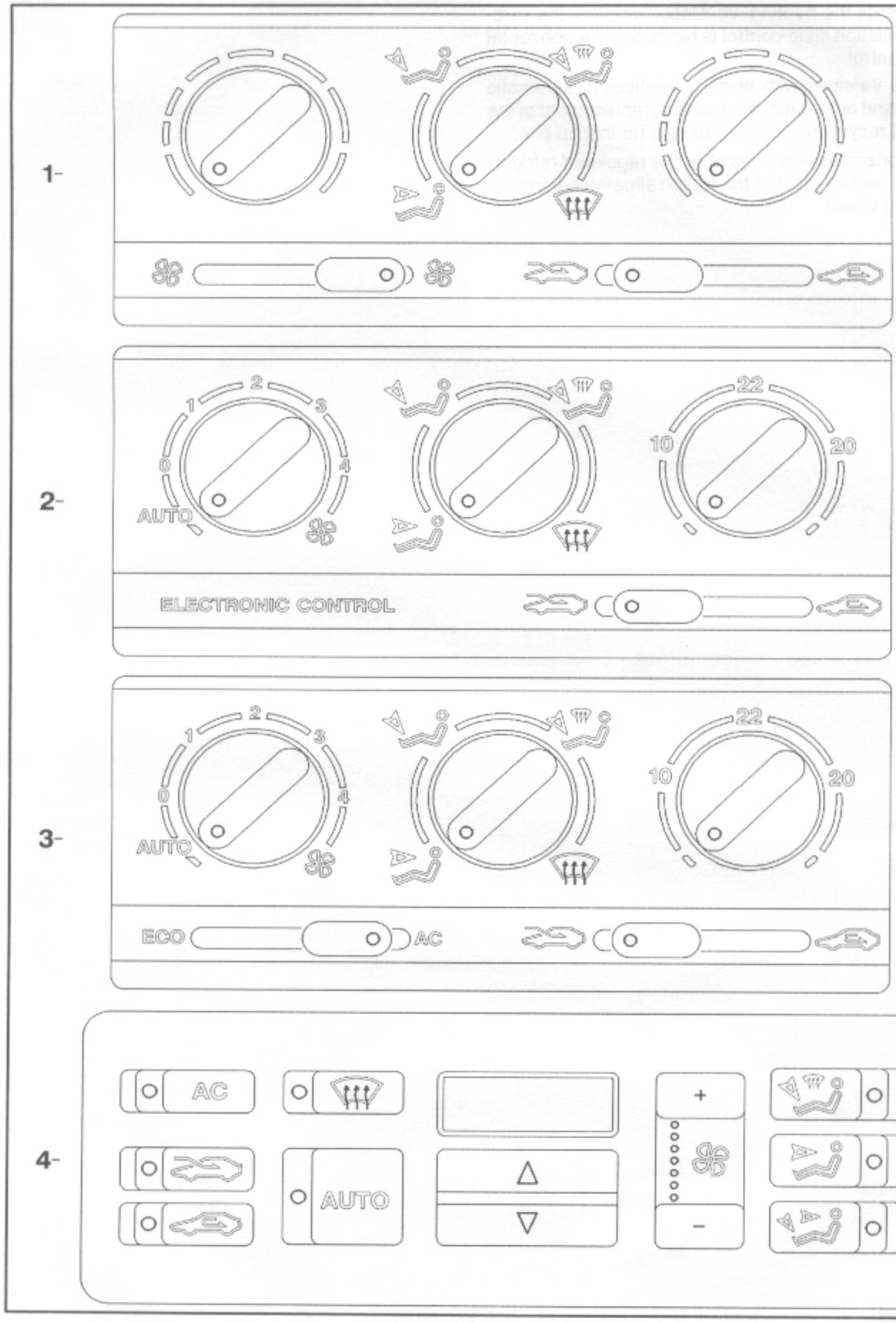


Fig. : C5FR003P

(1) : heating–ventilation controls.

(2) : automatic heater controls.

(3) : automatic refrigeration controls.

(4) : fully automatic refrigeration controls.

As regards the heating–ventilation version, the vertical ventilation slide control is replaced by a horizontal slide control.

For the versions with heating–ventilation, automatic heater and automatic refrigeration, replacement of the vertical recycling slide control by a horizontal one.

New horizontal slide control for the regulated refrigeration in replacement of the switch situated behind the steering wheel.

EVOLUTIONS : PROTECTION AND SAFETY

The CITROEN XM has been fitted with new equipments intended to improve the safety of the occupants, such as :
- driver's Airbag (standard)
- pyrotechnic safety belts (standard)
- one–touch electric window with anti–pinch device

1 – DRIVER'S AIRBAG SYSTEM

The 1995 Model Year CITROEN XM vehicles are equipped with the driver's AIRBAG system.

The AIRBAG system is a passive safety device, complementary to the safety belt ; therefore, the belt MUST still be worn.

When a violent frontal impact occurs, the airbag is deployed instantaneously ; it comes between the driver and the steering wheel, thus avoiding an impact of the head and chest against the steering wheel.

The bag deflates after the impact.

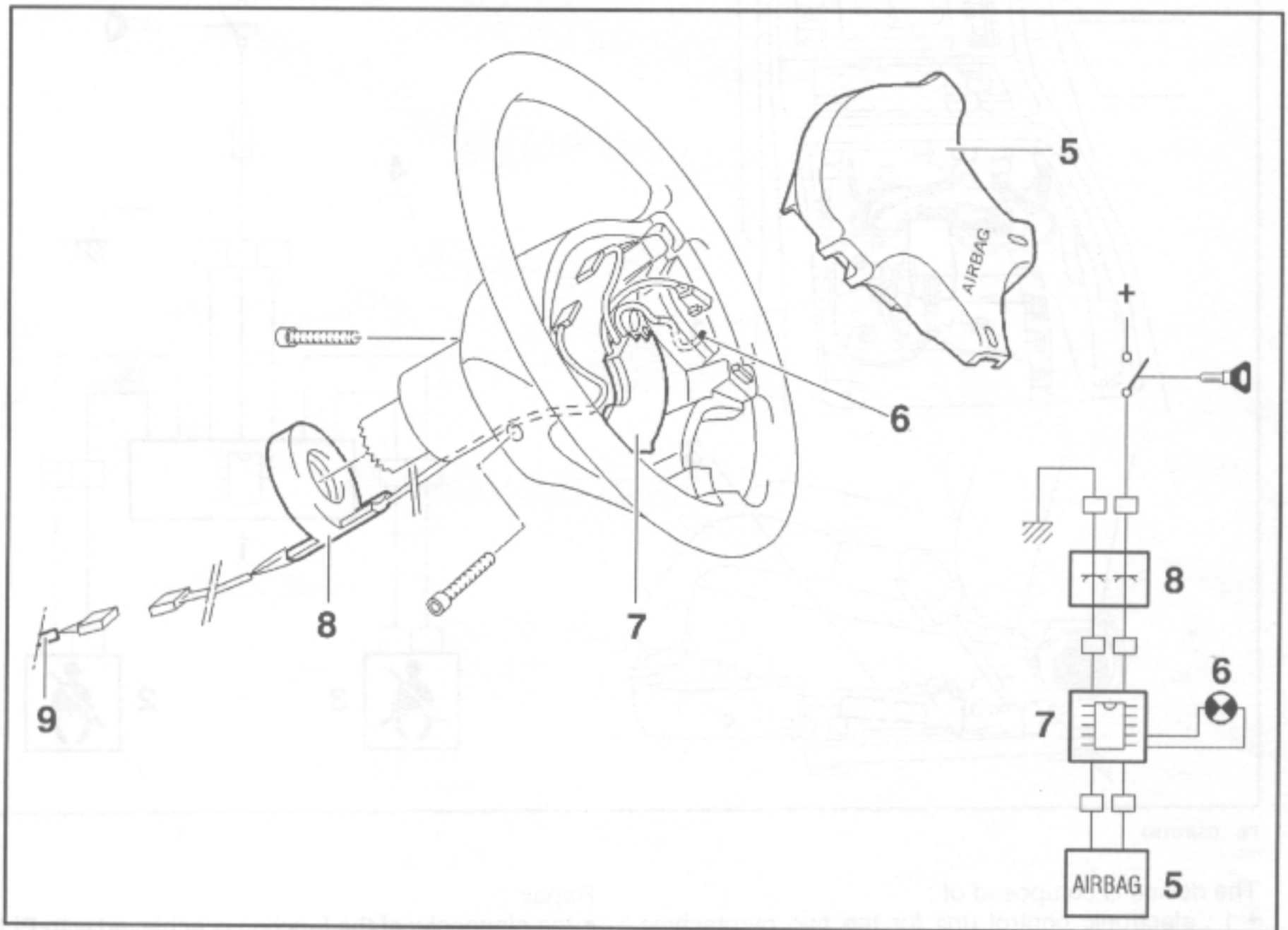


Fig. : C5JR018D

The device is composed of :
- 5 : cushion pad including the airbag and the firing unit
- 6 : diagnostic warning lamp
- 7 : firing unit E.C.U.
- 8 : rotary switch
- 9 : vehicle wiring harness

The firing element, pyrotechnically activated, is connected with the E.C.U. which ensures the following functions :
- impact detection
- storage of the energy required ; so that the firing can operate even if there is a rupture of the electrical supply when an impact occurs
- firing unit triggering
- diagnostic, carried out via the warning lamp situated on the steering wheel

Repair :
- the diagnostic of the function is achieved via the warning lamp
- the AIRBAG system containing an explosive, the necessary precautions must be taken before carrying out an operation : disconnect the battery, avoid impacts, temperature rises, ...
- never throw out an active steering wheel cushion pad ; to destroy the airbag, operate in the vehicle, using the CITROEN tool
- the E.C.U. cannot be separated from the steering wheel

2 – PYROTECHNIC SEAT BELTS

From the 1995 Model Year, the XM vehicles have been equipped with front safety belts with pyrotechnic pre–tensioners instead of mechanical.

The pyrotechnic pre–tensioner draws in the seat belt in the event of an impact.

The seat belt is drawn in by the firing of an explosive cartridge.

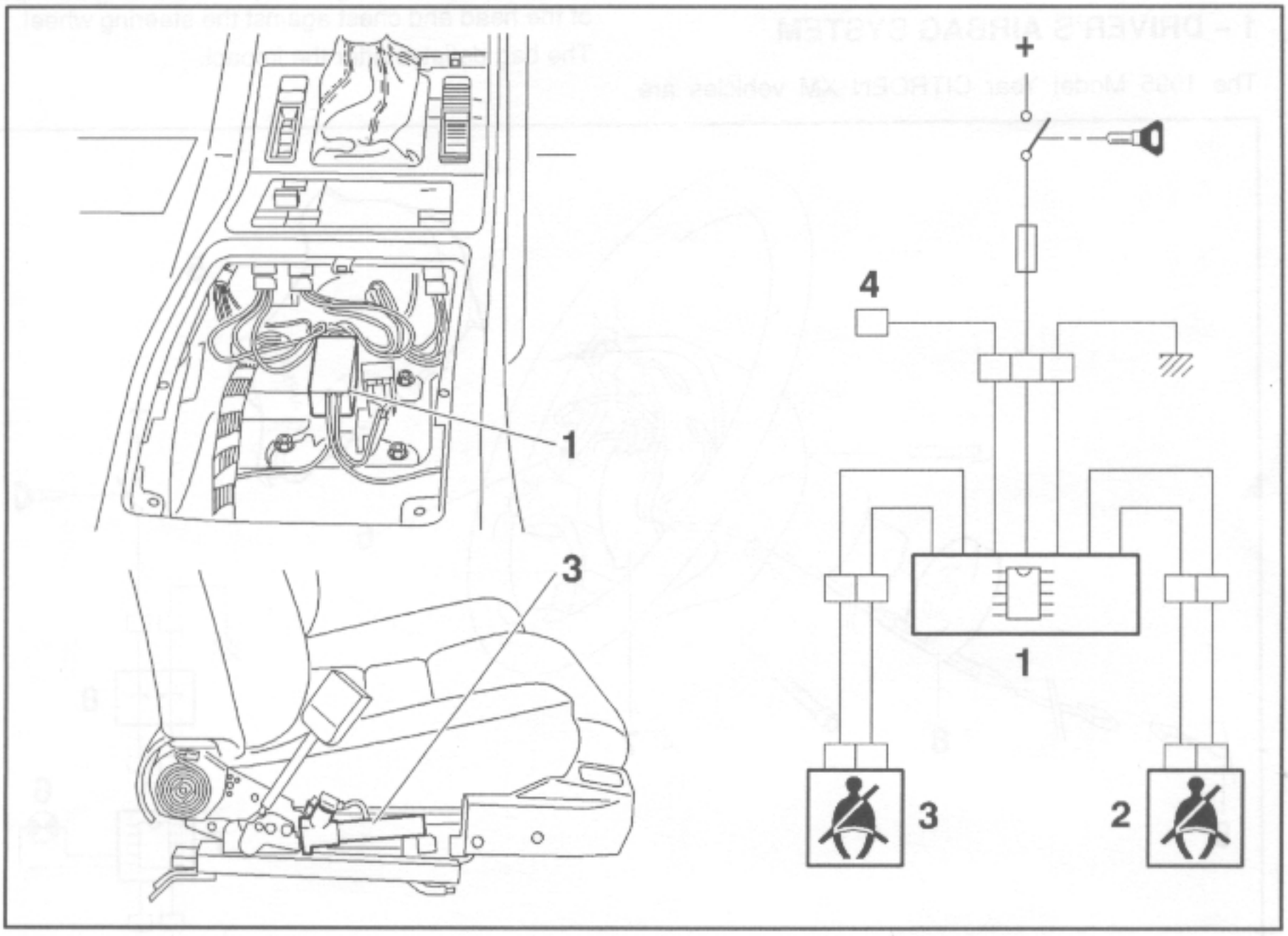


Fig. : C5JR019D

The device is composed of :

- 1 : electronic control unit for the two pyrotechnic pre–tensioners
- 2 : firing unit of the R.H. pyrotechnic pre–tensioner
- 3 : firing unit of the L.H. pyrotechnic pre–tensioner
- 4 : diagnostic socket

The pyrotechnically activated firing units are connected to the E.C.U., which ensures the following functions :

- impact detection
- storage of the energy required to control the firing operations, even if the electrical supply is disconnected during impact
- firing units control
- diagnostic

In the event of an impact, the L.H. and R.H. front pre–tensioner ignition devices of the safety belt are fired simultaneously.

Repair :

- the diagnostic of the function is achieved with ELIT test unit or SOURIAU 26 A station
- the pyrotechnic pre–tensioner containing an explosive, take the necessary precautions before repairs (disconnect the battery, the firing elements ; avoid impacts, heat etc.)
- never throw away an active firing unit ; to destroy the airbag, operate in the vehicle, using the CITROEN tool

3 – DRIVER'S WINDOW ONE–TOUCH CONTROL

In addition to the one–touch function, the driver's electric window is provided with an anti–pinch device.

This anti–pinch device is only fitted to one–touch electric windows.

This device enables stopping the rise of the window and then its movement down, within its lower protection limit, in the case where the glass would encounter an obstacle in a defined protected zone.

During the whole anti–pinch safety cycle, every action on the control switches is ignored.

3.1 – Protected zone

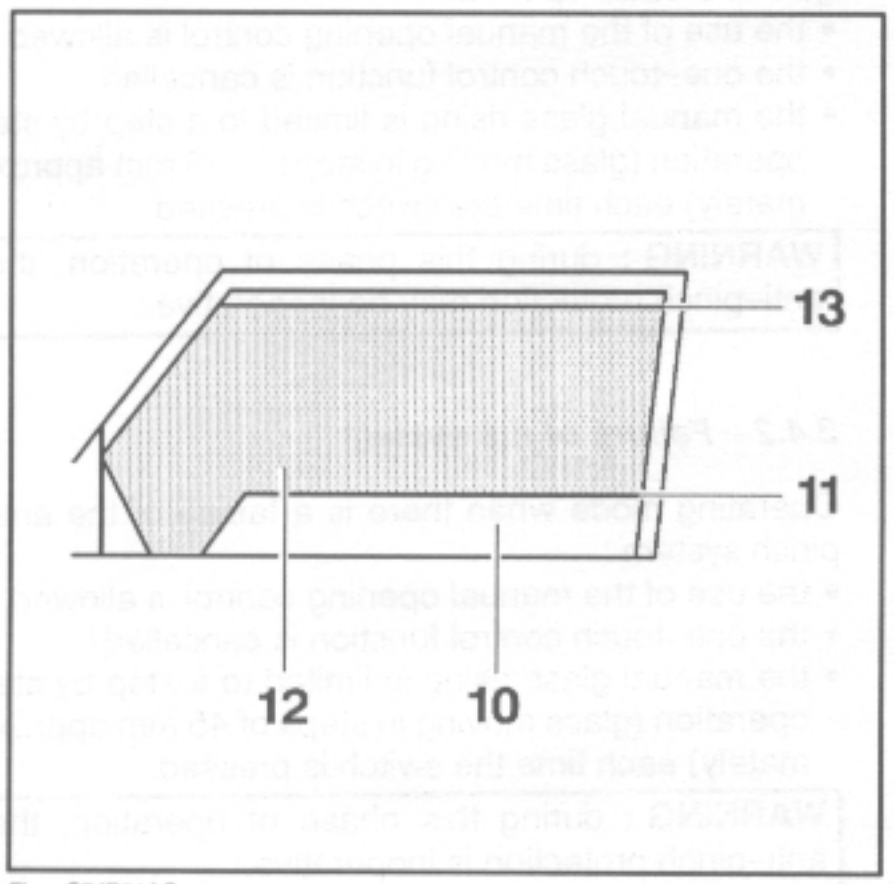


Fig. : C5JR01AC

10 : glass.

11 : lower limit of protection.

12 : anti–pinch detection zone.

13 : upper limit of protection.

The detection area is within :

- the lower protection limit, being approximately 60 mm under the glass
- the upper protection limit, situated 4 mm approx. from the end of travel of the glass (window closed)

NOTE : outside the protected zone, there is no anti–pinch safety.

3.2 – To initialise the system

The anti–pinch detection is achieved by an electronic control unit incorporated in the electric window mechanism.

This control unit keeps in memory the value of the current necessary for a correct operation of the electric window.

If this value is exceeded (over voltage), the system goes into anti–pinch mode.

Whenever the electrical supply is disconnected (battery, for example), there is a loss, by the E.C.U. memory of the reference current value. It is therefore necessary to re–initialise the system ; if not, the system will operate in the back up mode.

To re–initialise the system :

- raise the glass in the manual mode to the fully closed position. The one–touch mode is inhibited ; the glass rises in steps of about 45 mm at each press on the switch
- press the switch to raise the glass for one second approximately

At the end of this procedure, the system is initialised and operates normally.

NOTE : during this phase, the automatic closing and opening controls are ignored.

3.3 – Cancelling the anti–pinch safety

If the glass is frozen, the anti–pinch system must be over–ridden so as to be able to close the window, the frost causing the system to go into the anti–pinch mode.

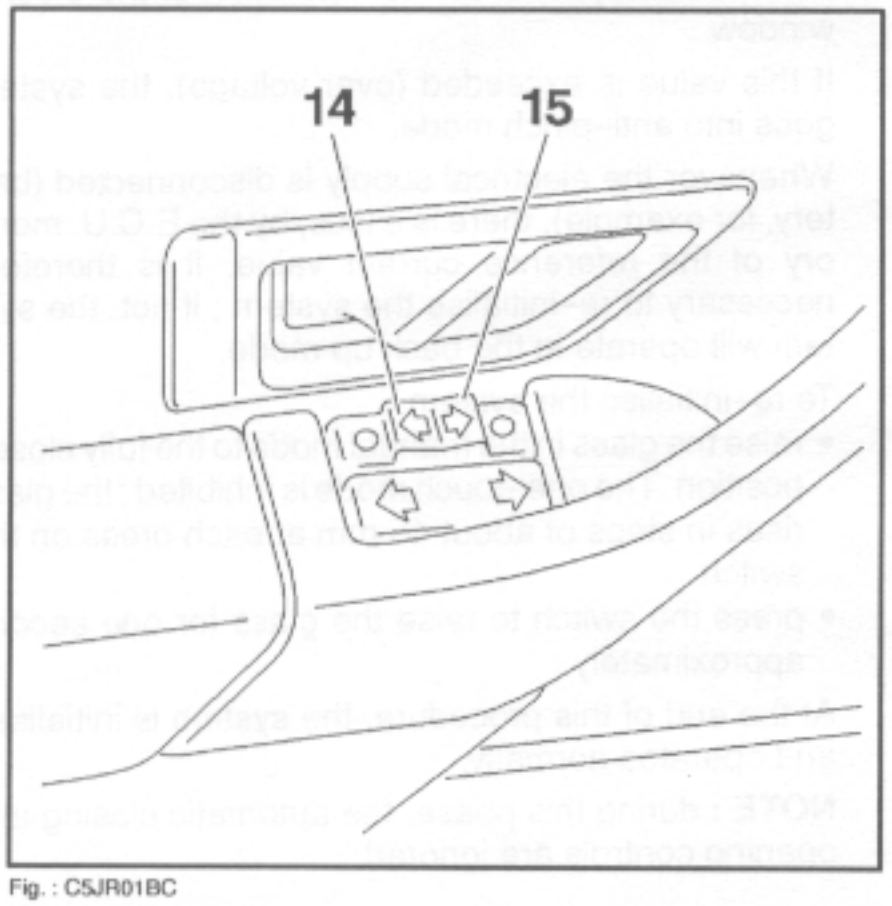


Fig. : C5JR01BC

14 : manual glass opening switch.

15 : manual glass rising switch.

After having passed through the anti–pinch cycle of operation (glass at the lower limit of the protected zone) :

- immediately press the manual switch (ref.14) to lower the glass fully and stop when the relay clicks
- after the relay has clicked, immediately press the switch ref.15 to raise the glass
- only release the switch after the glass has stopped at the fully closed position

WARNING : during this phase of operation, the anti–pinch protection is inoperative.

3.4 – Back up mode

The system is in a back up mode in the following cases :

- the system has not been initialised after the electrical supply has been cut off
- there is a failure of the anti–pinch device

3.4.1 – No initialisation

The protected zone can be offset.

The position of the glass after re–establishing the electrical supply is registered as being the upper limit of the protected zone ; under this limit, the operation of the electric window is normal.

Above this new upper protection limit, the system will go into a back–up mode :

- the use of the manual opening control is allowed
- the one–touch control function is cancelled
- the manual glass rising is limited to a step by step operation (glass moving in steps of 45 mm approximately) each time the switch is pressed

WARNING : during this phase of operation, the anti–pinch protection may be inoperative.

3.4.2 – Failure of the system

Operating mode when there is a failure of the anti–pinch system :

- the use of the manual opening control is allowed
- the one–touch control function is cancelled
- the manual glass rising is limited to a step by step operation (glass moving in steps of 45 mm approximately) each time the switch is pressed

WARNING : during this phase of operation, the anti–pinch protection is inoperative.

EVOLUTIONS : ELECTRICAL EQUIPMENT

1 – INTRODUCTION

The electrical equipment of the 1995 Model Year CITROEN XM has been modified following :
- the introduction of new equipment
- the evolution of already existing equipments

New equipment :
- deadlocks
- high frequency (HF) remote control
- rear view mirror passenger side, with setting possible in reverse
- electronic speedometer replacing the cable–driven speedometer
- cruise control on vehicles having V6, V6.24 and 2.5 l Turbo Diesel engines and manual gearboxe
- new audio system with radio messages repeated on the dot–matrix
- GSM telephone pre–equipment
- central diagnostic socket
- perimeter and volumetric alarm on R.H.D. models

Evolution :
- of the coded anti–theft keyboard (for certain countries)
- of the electrical harnesses following the introduction of new equipment
- of the instrument cluster further to the repositioning of certain warning lamps and the replacement of the manual speedometer by an electronic speedometer

2 – DEADLOCKING

The deadlocking equipment is allied to the high frequency remote control with two buttons.

This equipment can :
- lock the exterior controls of the vehicle (central door locking)
- lock the interior controls of the vehicle (deadlocking)

The system is composed of :
- four 3–position door actuators (unlocked, locked, deadlocked)
- 2 two–position actuators (unlocked, locked) for the fuel filler flap and the boot
- 1 deadlocking control unit (located under the glove compartment)
- a high frequency remote control system

NOTE : the door actuators are made of two electrical motors, one for locking and the other for deadlocking.

The remote control has two buttons :
- a button for locking and unlocking the doors, boot and bonnet
- one button for deadlocking (after locking, only)

WARNING : when the doors, boot and bonnet are deadlocked,it is impossible to open the vehicle from inside.

3 – HIGH FREQUENCY REMOTE CONTROL

The high frequency remote control ensures the remote control of the car locks. It is allied to the deadlocking equipment.

The introduction of a system for the transmission of messages, the hertzian wave high frequency locking/unlocking signals compared to the infra–red system, makes it possible :
- to improve the range of the remote control (10 metres min. with new batteries), in every direction around the vehicle
- to avoid using the receiver for the orders to be sensed
- to eliminate the shadowed areas where the remote control is inoperative

This equipment comprises two elements :
- a remote control
- a receiver situated in the passenger compartment

3.1 – Remote control transmitter

The remote control is made up of :
- a transmitter
- an integral transmission antenna

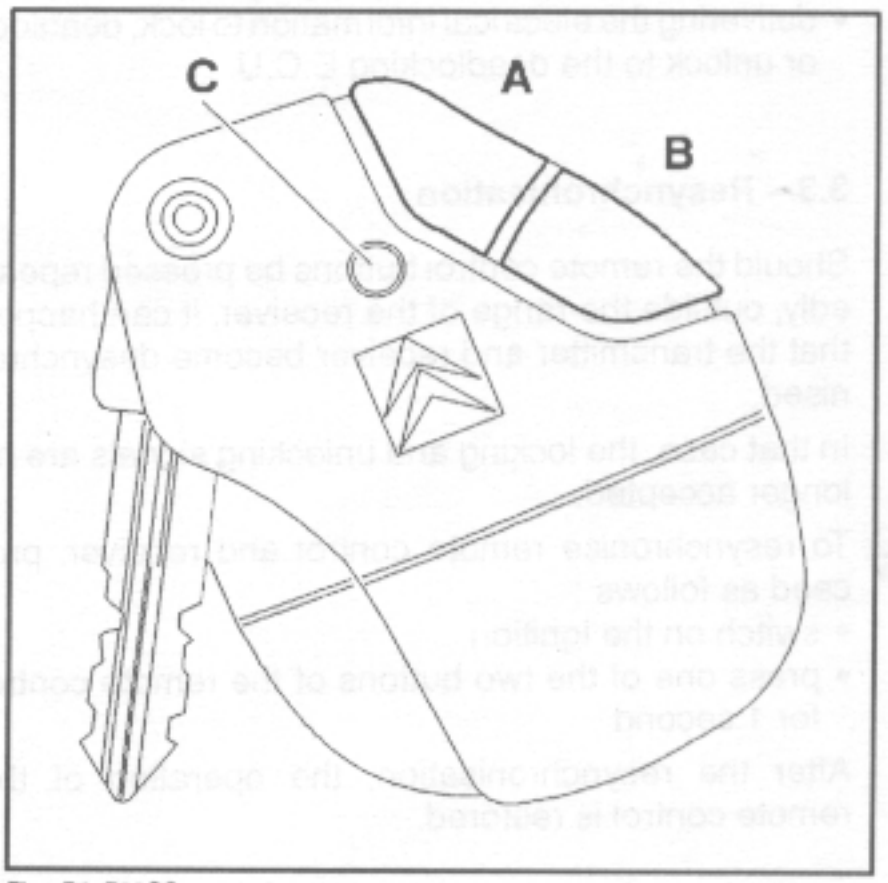


Fig. : D6–R00QC

A : locking/unlocking button.

B : deadlocking button.

C : warning lamp for battery charging.

This remote control has two buttons :
- a button (A) for locking and unlocking the doors, boot and bonnet
- a button (B) for deadlocking (only after locking)

When button (A) or button (B) is pressed, the red warning lamp (C) illuminates.

A coded message is transmitted each time one of the two buttons of the remote control is pressed.

The emission frequency is about 433 MHz for Europe.

The remote control operates by means of two batteries, type CR 2032 (20mm in dia., 3 mm thick) having a 3–volt nominal voltage.

The red warning lamp (C) indicates the state of charge of the batteries.

The min. range of the remote control is about 10 metres, with new batteries.

WARNING : pressing the remote control placed less than 30 m from the vehicle, can lock, unlock or deadlock the vehicle.

3.2 – Receiver

The receiver with integrated antenna is located under the dashboard armature, beneath the glove box.

It allows :
- converting the hertzian waves received by its aerial into electrical signals
- decoding the signals and verifying their validity
- delivering the electrical information to lock, deadlock or unlock to the deadlocking E.C.U.

3.3 – Resynchronisation

Should the remote control buttons be pressed repeatedly, outside the range of the receiver, it can happen that the transmitter and receiver become desynchronised.

In that case, the locking and unlocking signals are no longer accepted.

To resynchronise remote control and receiver, proceed as follows :
- switch on the ignition
- press one of the two buttons of the remote control for 1 second

After the resynchronisation, the operation of the remote control is restored.

3.4 – Coding

Remote control and receiver are electrically coded.

If the remote control code does not correspond to the receiver code, the signals to lock, unlock or deadlock are ignored.

Should the remote control be lost, apply to the Replacement Parts Department, mentioning the code appearing on the label bonded to the receiver housing.

4 – ELECTRONIC SPEEDOMETER

The mechanical cable–driven speedometer has been replaced by an electronic speedometer on CITROEN XM all types.

4.1 – Description and operation

The system comprises :
- an electric speedometer incorporated in the instrument cluster
- a vehicle speed sensor
- an electrical wiring between the speed sensor and the instrument cluster

The Hall effect type speed sensor delivers electrical signals at a frequency proportional to the speed of the vehicle.

The signals are routed to the instrument cluster via the wiring harnesses of the vehicle.

The electronic control system (built–in the instrument cluster) :
- supplies the galvanometer that moves the vehicle speed needle
- brings a feed to the stepper motor spooling the total or trip mileage recorder

4.2 – Speed sensor

There exist two types of speed sensors :
- an electrical type (a 3–way connector) situated on the gearbox for the versions with power assisted steering
- an electrical type (a 3–way connector) at the end of the ex–speedometer cable for the models with the varipower assisted steering versions

NOTE : the speed interface control unit, fitted on the V6 version, is no longer available.

5 – CRUISE CONTROL

The CITROEN XM V6, V6.24 and 2.5 l Turbo Diesel with manual gearbox can be equipped with a cruise control.

This device, previously only available on models with the automatic gearbox, is now extended to vehicles fitted with manual gearboxes.

The operation of the device for the user is similar to that on the versions fitted with automatic gearbox ; refer to Technical Bulletins XM 0 No.7 and XM 1 No.15.

On V6 and V6.24 versions, the device is electro–pneumatic.

For the 2.5 l Turbo Diesel version, the device is entirely electronic.

5.1 – Reminder of the necessary parameters

The cruise control maintains the speed of the vehicle at the value programmed by the driver :
- whatever the road
- without action on the accelerator pedal or the brake pedal

The driver can :
- exceed the programmed speed by operating the accelerator pedal
- revert to a conventional operation, without cruise control, by pressing the brake or clutch pedal, the cruise control selector switch or the on/off switch
- modify the programmed speed by acting upon the cruise control switch

NOTE : the cruise control only operates for an engine speed greater than 40 kph.

5.2 – V6 and V6.24 (ZPJ, ZPJ4) versions

The cruise control device is similar to the device fitted to the V6 version with automatic gearbox : it is electro–pneumatic.

5.2.1 – Composition of the system

The device comprises :
- a vehicle speed sensor
- a cruise control switch situated under the lighting switch
- a contact switch under the brake pedal cover
- a switch located under the clutch pedal cover
- an electrovalve/electrical vacuum pump assembly at the front of the R.H. front wheelarch
- a vacuum capsule acting on the throttle butterfly by means of a link rod
- a cruise control on/off switch under the centre vents
- an electronic control unit at the front of the E.C.U.s housing, connected to the various above mentioned components

5.2.2 – Operation

When the cruise control is operating, the E.C.U. permanently compares the programmed speed with the actual speed of the vehicle.

The speed information is transmitted by the speed sensor.

When the programmed speed exceeds the instantaneous speed, the control unit operates the vacuum pump, which increases the vacuum in the capsule operating the throttle housing : the vehicle accelerates until both speeds are equal.

When the speeds are equal, the supply to the vacuum pump is cut–off and the vacuum in the capsule is retained.

When the programmed speed is inferior to the instantaneous speed, the control unit operates the electrovalve, which achieves the capsule venting : the vehicle decelerates.

The more the vacuum pressure increases in the capsule, the more the throttle butterfly housing opens.

Any action on the brake or clutch pedal, or the cruise control switch cancels the cruise control function : the deceleration is very rapid (accelerator pedal released and clutch engaged).

When the control of the speed is cancelled by the switch (behind the steering wheel), the deceleration is slow (accelerator pedal released).

5.3 – 2.5 l Turbo Diesel (DK5ATE) version

The injection system of the DK5ATE engine is electronic.

The injection pump is characterised by the electronic control of the injection advance and quantity of fuel injected functions.

Fuel distributor and timing device incorporated in the pump are operated electronically by the injection E.C.U. according to parameters measured by sensors.

The mechanical connection between the accelerator pedal and the injection pump is no longer existing.

In addition to the injection, driveability and depollution strategies, the E.C.U. has the ability to operate with a cruise control system.

5.3.1 – Composition of the system

The device comprises :
- a vehicle speed sensor mounted on the gearbox
- a cruise control switch situated under the lighting switch
- a contact switch under the brake pedal cover
- a switch located under the clutch pedal cover
- a cruise control on/off switch under the centre vents
- the Diesel fuel injection E.C.U.
- the Diesel injection pump

5.3.2 – Operation

When the cruise control is operating, the injection E.C.U. compares permanently the programmed speed with the instantaneous speed of the vehicle.

The speed information is transmitted by the speed sensor located under the gearbox.

When the programmed speed exceeds the instantaneous speed, the injection E.C.U. increases the fuel delivery : the vehicle accelerates until both speeds are equal.

When the programmed speed is lower than the instantaneous speed, the injection E.C.U. reduces the Diesel fuel delivery : the vehicle decelerates.

Any action on the brake or clutch pedal, or the cruise control switch cancels the cruise control function : the deceleration is very rapid (accelerator pedal released and clutch engaged).

When the cruise control operation is cancelled by the switch (behind the steering wheel), the deceleration is slow (accelerator pedal released and clutch engaged).

6 – AUDIO SYSTEM

The XM vehicles can be produced with a car radio.

Good radio performances and acoustics are the objectives of this option.

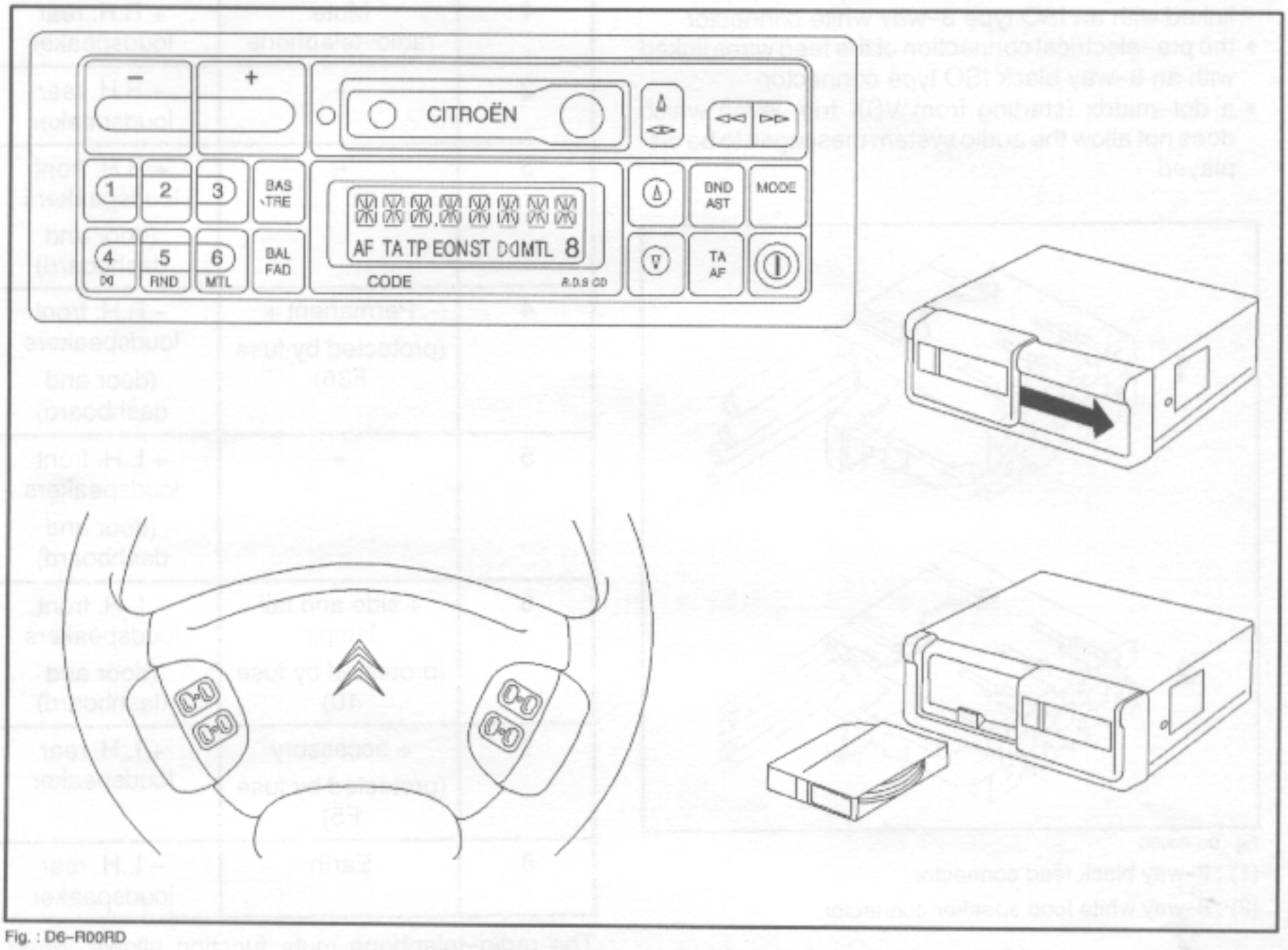


Fig. : D6–R00RD

Two option levels are available :
- the 3040 audio system
- the 4040 audio system

6.1 – Composition of the options

The audio 3040 system comprises :
- a PHILIPS car radio
- a remote control on the steering wheel
- 6 loudspeakers
- a roof aerial
- a specific dot–matrix on VSX and EXCLUSIVE only, allowing the audio system message display to be repeated
- an interference suppressor

NOTE : the compact disc changer of the 4040 audio system option can be fitted.

The audio system 4040 comprises :
- a PHILIPS car radio
- a PHILIPS compact disc changer
- a remote control on the steering wheel
- six loudspeakers
- a roof aerial
- a specific dot–matrix on VSX and EXCLUSIVE only, allowing the audio system message display to be repeated
- an interference suppressor

NOTE : the car radios are identical for both options.

6.2 – Interference suppression

The interference suppressor consists of :
- 2 bonnet earth straps (for the 4 cylinder petrol versions, only)
- 1 2.2 µF capacitor (for the 4 cylinder petrol versions, only)
- a metal cap under the aerial base

6.3 – Radio pre–equipment

The radio pre–equipment comprises :
- a roof aerial + cable
- an interference suppressor
- the pre–electrical connection of the 6 loud speakers linked with an ISO type 8–way white connector
- the pre–electrical connection of the feed wires linked with an 8–way black ISO type connector
- a dot–matrix (starting from VSX trim level) which does not allow the audio system messages to be displayed

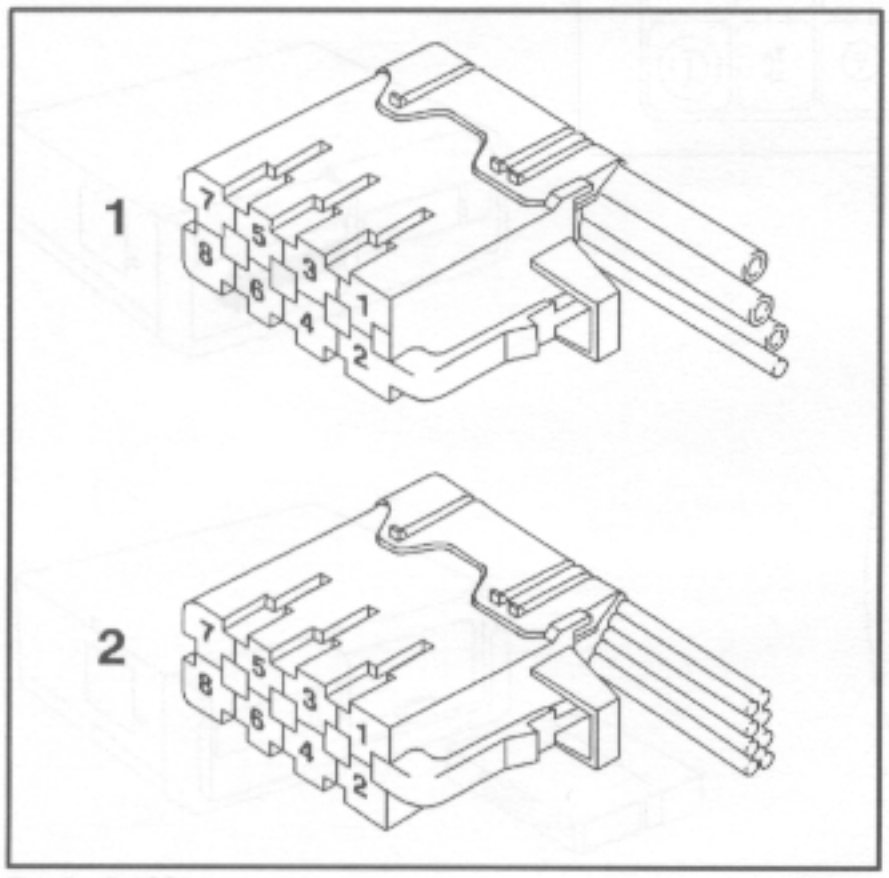


Fig. : D6–R00SC

(1) : 8–way black feed connector.

(2) : 8–way white loud speaker connector.

Allocation of the ways of the connectors :

Channels	Black feed connector	White loudspeaker connector
1	Mute radio–telephone	+ R.H. rear loudspeaker
2	–	– R.H. rear loudspeaker
3	–	+ R.H. front loudspeakers (door and dashboard)
4	Permanent + (protected by fuse F36)	– R.H. front loudspeakers (door and dashboard)
5	–	+ L.H. front loudspeakers (door and dashboard)
6	+ side and tail lamps (protected by fuse 10)	– L.H. front loudspeakers (door and dashboard)
7	+ accessory (protected by fuse F5)	+ L.H. rear loudspeaker
8	Earth	– L.H. rear loudspeaker

The radio–telephone mute function allows, when a radio–telephone is connected and there is a phone call :
- muting the sound in the radio mode
- stopping the cassette or the compact disc spooling

6.4 – Radio functions

The radio comprises a three waveband digital tuner (LW/MW/FM) with RDS system, EON and traffic information.

The radio controls enable :
- the automatic search to be carried out in every direction
- the manual station searching in both directions
- automatically entering in memory the 6 more powerful transmitters
- memorising the stations (FM : 18, MW : 6, LW : 6)

The RDS, Radio Data System, allows :
- displaying the name of the radio station
- selecting automatically the frequency on which the best reception is achieved
- listening traffic information when playing a cassette or CD

The EON (Enhanced Other Networks) function makes it possible to listen to traffic information in certain conditions, in common network.

6.5 – Cassette functions

The cassette player is autoreverse.

The functions of the cassette player are the following :
- playing
- fast advance and return
- manual metal/chrome selection
- dolby B
- radio monitor (the radio can be heard during the cassette rewind and fast forward winding)

6.6 – Remote control on the steering wheel

Placed on the steering wheel, it enables recalling the main functions :
- increase (+) volume
- decrease (–) volume
- stored radio stations search
- automatic station search in both directions
- manual station search in every direction
- mute (sound muted in the radio mode or cassette or compact disc spooling stopped)
- mode (source changing : cassette, compact disc or radio)

6.7 – Amplification

The amplifier is rated at 4 x 25 watts.

The possible adjustments are the following :
- decrease (–) or increase (+) volume checking
- adjustment of bass
- adjustment of treble
- left/right balance
- front/rear balance (fader)

The loudness function, (which increases the bass levels) is automatic.

6.8 – Loudspeakers

Loudspeakers on dashboard :
- 2 tweeters
- fixing screw dimension between centres : 72 mm
- 2–way white connector with 5 mm clips

Loudspeakers in the front doors :
- 2 boomers
- exterior diameter : 165 mm
- 2–way yellow connector with 5 mm terminals

Loudspeakers on the rear shelf support :
- 2 double cones
- 130 mm exterior dia.
- 2–way yellow connector with 5 mm terminals

6.9 – Radio connections

The car radio is connected to :
- one 8–way black supply connector
- one 8–way white connector for the loudspeakers
- 1 connector for the remote control on the steering wheel (7–way black)
- 1 10–way black connector for the compact disc changer

The car radio is protected by a 10 amperes fuse located near the connectors.

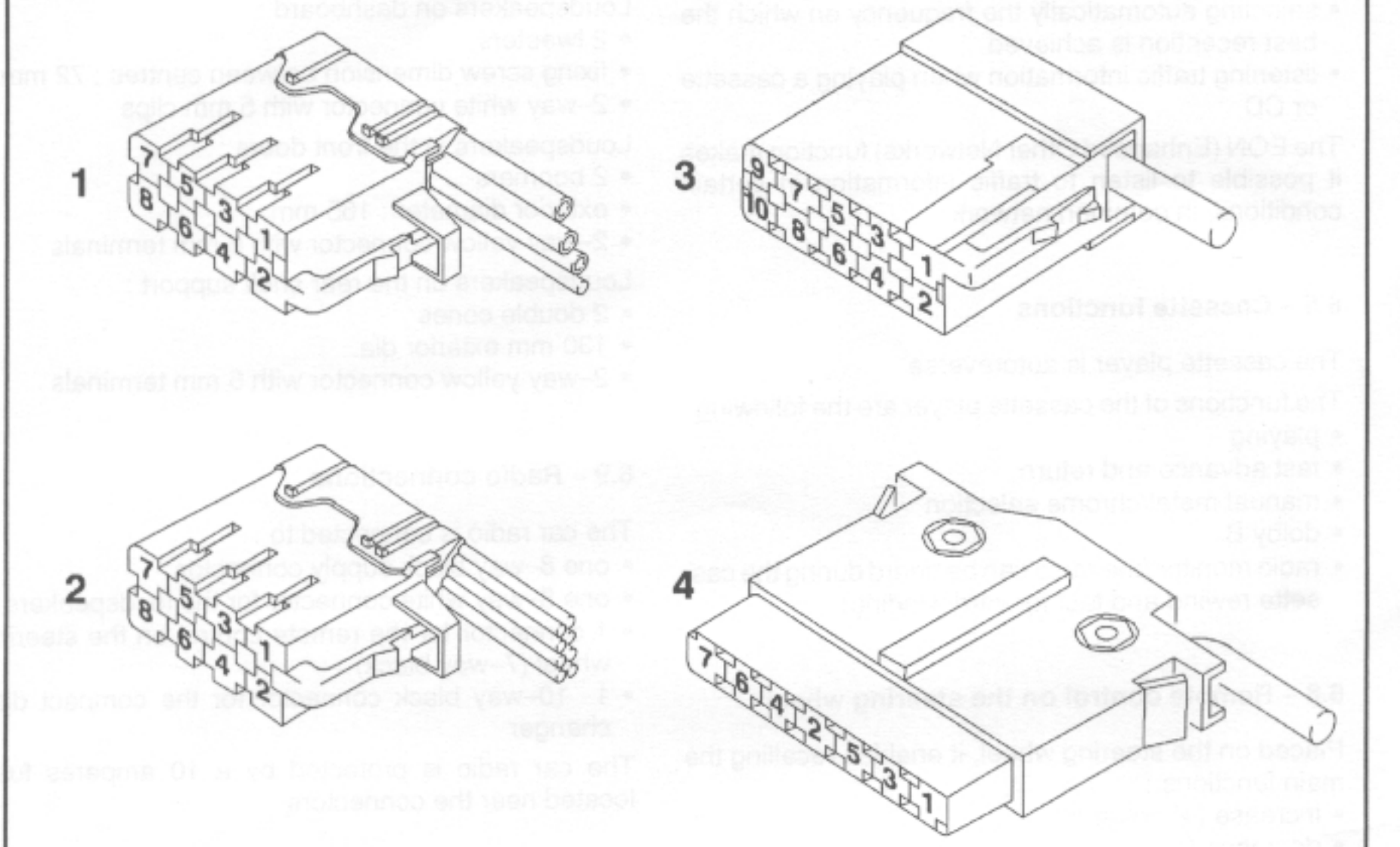


Fig. : D6–R00TD

(1) : black feed connector.

(2) : white loudspeaker connector.

(3) : compact disc changer black connector.

(4) : remote control on steering wheel black connector.

Allocation of the ways of the connectors :

Channels	Black feed connector	White loudspeaker connector
1	Mute radio–telephone	+ R.H. rear loudspeaker
2	Dot matrix connection	– R.H. rear loudspeaker
3	Dot matrix connection	+ R.H. front loudspeakers (door and dashboard)
4	Permanent + (protected by fuse F36)	– R.H. front loudspeakers (door and dashboard)
5	+ controlled (electrical antenna for example)	+ L.H. front loudspeakers (door and dashboard)
6	+ side and tail lamps (protected by fuse 10)	– L.H. front loudspeakers (door and dashboard)
7	+ accessory (protected by fuse F5)	+ L.H. rear loudspeaker
8	Earth	– L.H. rear loudspeaker

The radio–telephone mute function allows, when a radio–telephone is connected and there is a phone call :

- muting the sound in the radio mode
- stopping the cassette or the compact disc spooling

Applying a 0 V (earth) voltage to the radio–telephone mute connection of the radio mutes the sound.

6.10 – Dot matrix

The dot matrix is specific when the vehicle is equipped with one of the two audio systems (factory option).

The dot matrix can be identified by No. 9615625980 engraved at the rear of the matrix.

NOTE : a SX trim level vehicle is not equipped with a dot matrix.

The radio messages are transmitted via a series VAN (Vehicle Area Network communication protocol, an ISO standard).

This communication protocol is already used on the CITROEN XM MTX (multiplex) vehicles.

The visual messages of the audio system are not given priority over the other messages displayed by the dot matrix (door open, etc.).

WARNING : the dot matrix used on a VSX or EXCLUSIVE vehicle, without audio option, is conventional. The messages could not be repeated if a post–equipment is fitted.

6.11 – Personal code

The car radio has been coded in the factory with a four–figure code.

To enter the code, proceed as follows :

- switch on the radio
- press preset button 1
- press the vertical arrows (to the right of the display unit) to modify the first figure
- press button 1 (the first figure is memorised)
- press the vertical arrows (to the right of the display unit) to modify the second figure
- press button 1 (the second figure is memories)

Continue until the fourth figure of the security code is displayed.

The code should be introduced after the supply has been interrupted, only (battery disconnected, for example).

If you lose your security code, you will be able to find it back by interrogating the card index centre, with the chassis number of your vehicle (upon evidence of proof of purchase : grey card).

6.12 – Compact disc changer

The compact disc changer is a part of the 4040 audio system option, only.

It is a 6–compact disc changer, mounted under the front passenger's seat.

IMPERATIVE : do not place small size compact disc (8 cm in dia.) in the magazine.

The changer is controlled by the radio via a screened cable.

The cable is linked to a 7–way black connector, car radio side and a 13–way round black connector, changer side.

6.12.1 – Disc loading

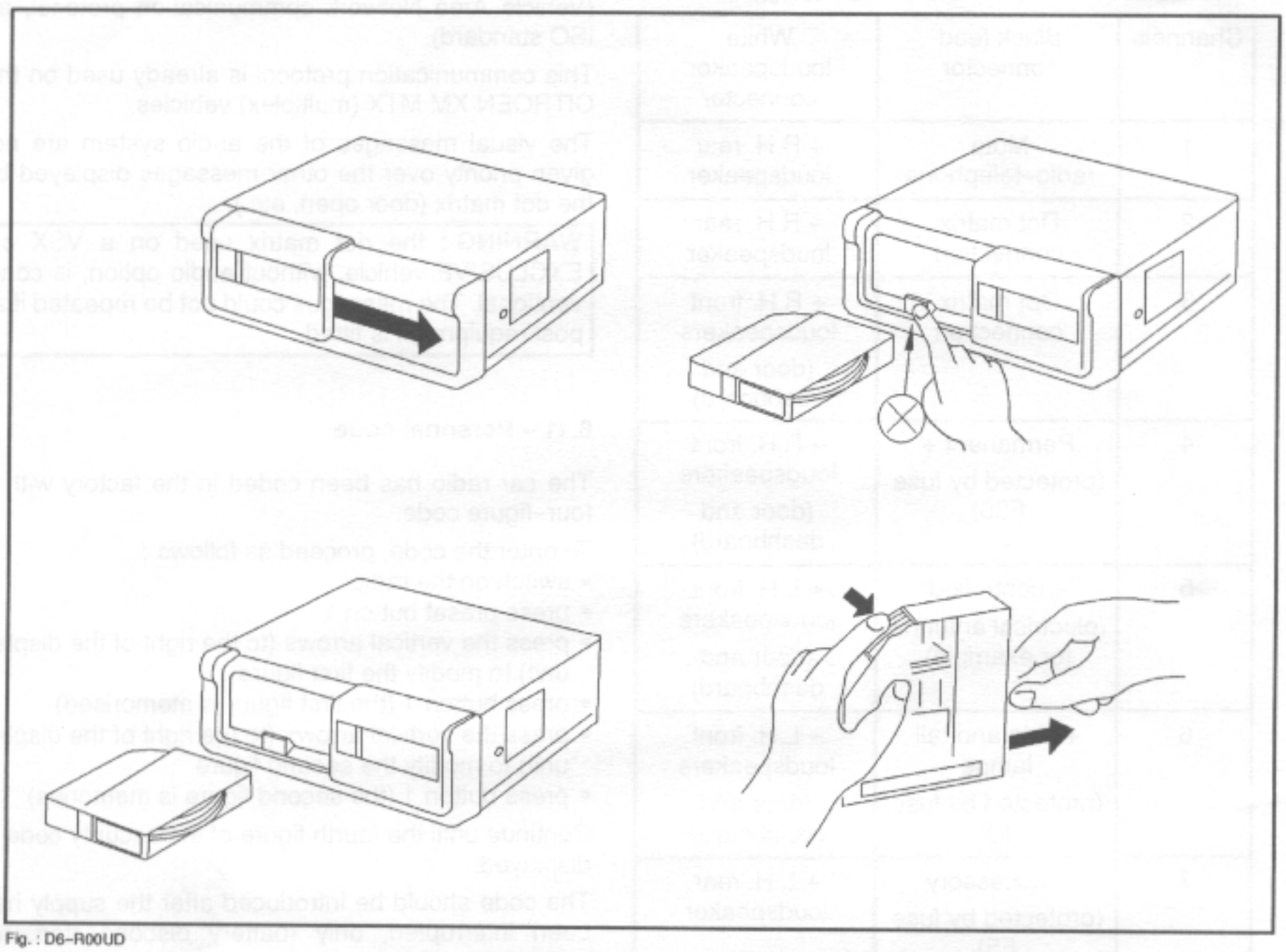


Fig. : D6–R00UD

Loading the CD changer magazine :
- slide the changer door
- place the magazine in the changer
- push the magazine cautiously in until it stops
- close the door of the changer

Withdrawing the disc magazine :
- open the changer door
- press the 'eject' key
- withdraw the magazine

The discs should be placed with the sticker directed towards the top, the magazine being in the same horizontal position as in the changer.

To withdraw the discs from the magazine, it is necessary to depress the lever corresponding to the selected disc.

6.12.2 – Repair

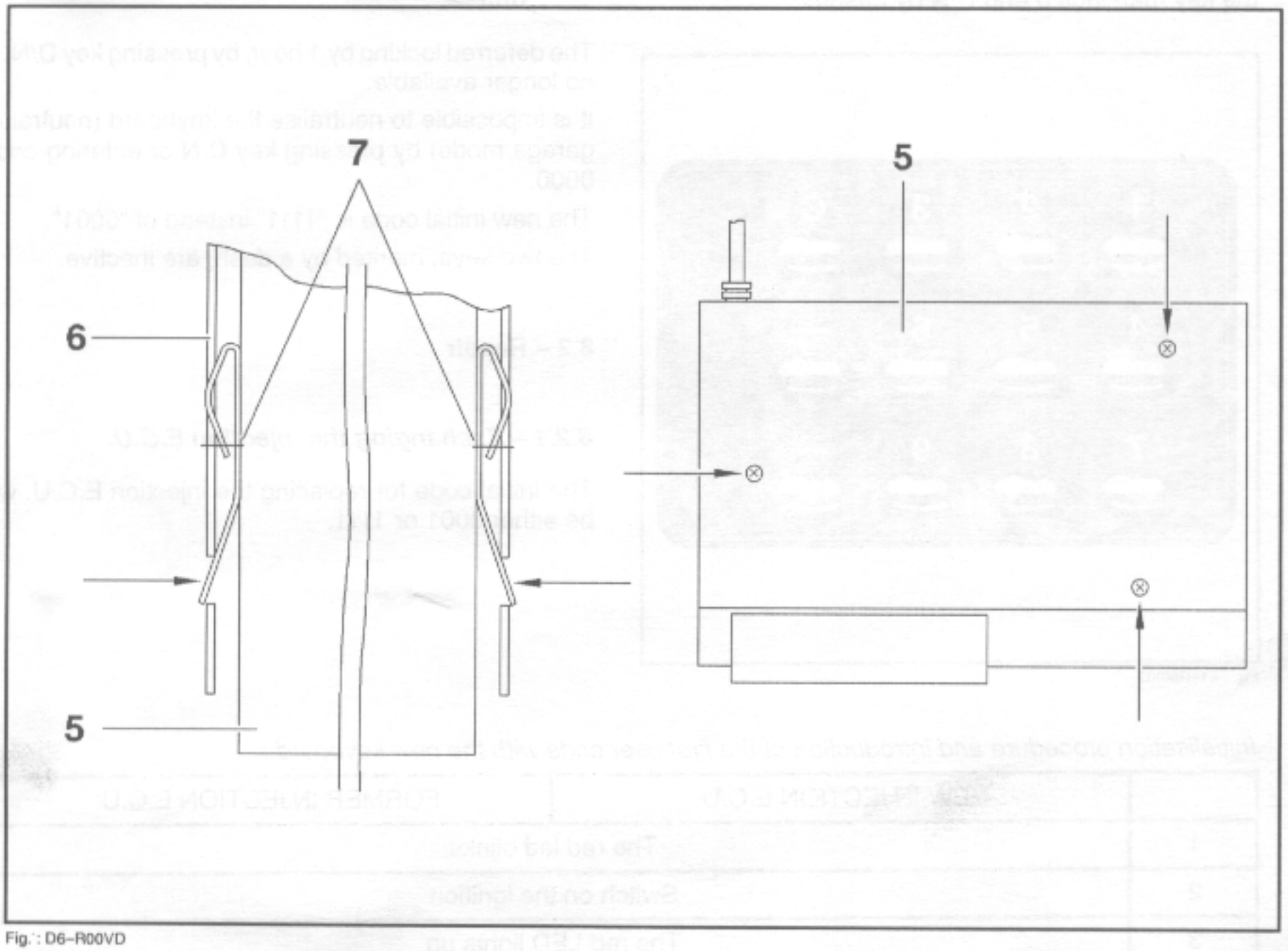


Fig.: D6–R00VD

(5) : compact disc changer.

(6) : changer support.

(7) : changer retaining clips.

The compact disc changer is equipped with clips on each side.

To dismantle the changer :

- clear the clips on each side using a screwdriver, for example
- pull the changer to extract it from its mounting

When the compact disc changer must be transported off the vehicle (parcel post, for example),the internal mechanism has to be immobilised ; otherwise, there is a risk of damage.

The three screws on top of the changer must be screwed in the locations arrowed under the changer.

When receiving a changer from the Replacement Parts Department or returned from guarantee :

- take the three screws out of the arrowed locations
- secure the three screws on top of the changer

IMPERATIVE : only use the screws on top of the changer to immobilise the mechanism.

7 – CENTRAL DIAGNOSTIC SOCKET

The CITROEN XM is equipped with a central diagnostic socket enabling all the components provided with an auto–diagnostic system to be tested.

This socket replaces all the diagnostic connectors present (until the 1994 Model Year) in the E.C.U. housing.

The diagnostic socket is located on the lower trim panel of the dashboard, to the right of the steering wheel.

8 – CODED ANTI–THEFT DEVICE

As from the 95 M.Y., the vehicles marketed in certain countries have a coded anti–theft device without neutralisation or deferred locking.

The keyboard can be identified by the replacement of the key markings 0 and D/N by dashes.

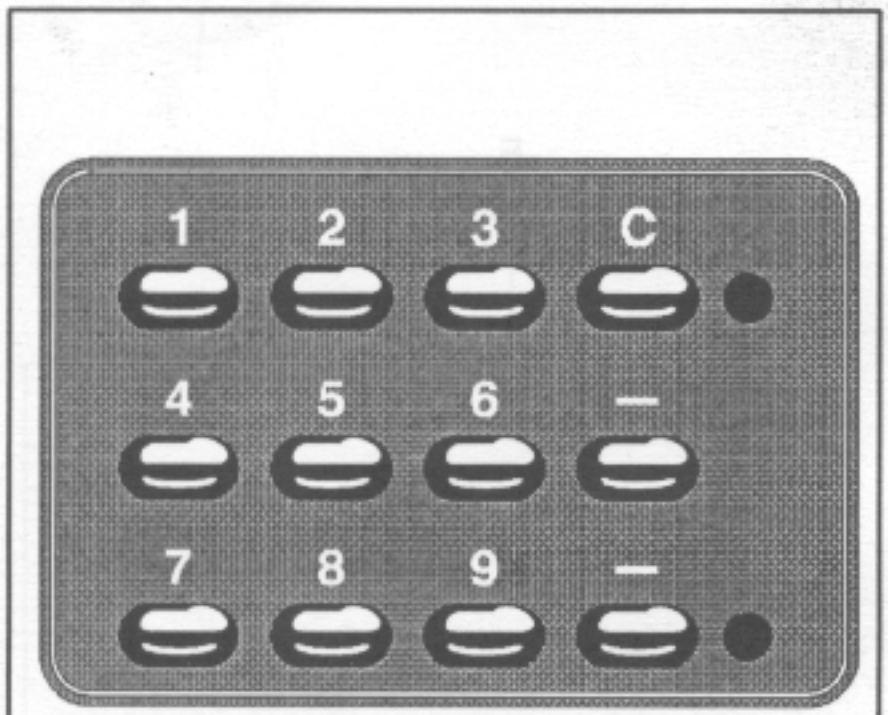


Fig. : E1-R00KC

Initialisation procedure and introduction of the first user code with the new keyboard :

	NEW INJECTION E.C.U.	FORMER INJECTION E.C.U.
1	The red led blinks	
2	Switch on the ignition	
3	The red LED lights up	
4	Enter code "1111"	
5	The green LED blinks 4 times with 4 audible beeps	The red led stays on
6		Obtain and connect a keyboard having keys "O" and "D/N"
7		Enter code 0001
8		The red LED blinks 4 times with 4 audible beeps
9		Press key C
10		Enter code "1111"
11		Press key C
12		The green LED blinks 4 times with 4 audible beeps
13		Refit the original keyboard
14	Proceed with the initial procedure	

When returned under guarantee, write the code on the E.C.U..

8.1 – Evolutions connected with the new control unit

The deferred locking by 1 hour, by pressing key D/N, is no longer available.

It is impossible to neutralise the keyboard (neutral or garage mode) by pressing key D/N or entering code 0000.

The new initial code is "1111" instead of "0001".

The two keys, marked by a dash, are inactive.

8.2 – Repair

8.2.1 – Exchanging the injection E.C.U.

The initial code for replacing the injection E.C.U. will be either 0001 or 1111.

8.2.2 – Exchanging the coded anti-theft keyboard

The two keyboard versions are available from the Replacement Parts Department.

Refit a keyboard corresponding to the original definition.

BODY COLOURS : 1995 MODEL YEAR RANGE OF VEHICLES

1 – BODY COLOURS

			Allocation per trim level		
			Saloon		Estate
Colour	Colour code	Quality	SX and VSX trim levels	EXCLUSIVE trim level	SX and VSX trim levels
Polar white	EWP	1	•	•	•
Sable	ECZ	3	•		
Tempest	ETK	3	•	•	
Quartz	EYC	3	•	•	•
Silver moss	ERZ	3	•		
Astral blue	KLS	3	•		
Sapphire blue superlustre	ENU	2	•		•
Midnight blue	EPG	4	•	•	•
Forest green	ESY	3	•		•
Emerald	ERY	4	•	•	•
Maple red	EKL	4	•	•	•
Bronze	EEB	4	•	•	•
Black superlustre	EXY	2	•	•	

(1) : solid colour.

(2) : straight superlustre colour.

(3) : superlustre metallic finish.

(4) : superlustre pearl finish.

2 – INTERIOR TRIM

2.1 – CITROEN XM Saloon

Trim level	Standard cloth	Options		
SX	Velvet Megalithe			
VSX	Velvet Louvre	Orage leather	Ouragan leather	Savane leather
EXCLUSIVE	Ouragan leather	Savane leather	Alcantara + Velvet	

2.2 – CITROEN XM Estate

Trim level	Standard cloth	Options		
SX	Velvet Megalithe			
VSX	Velvet Louvre	Ouragan leather	Savane leather	
		VIP pack Ouragan leather	VIP pack Savane leather	VIP pack Alcantara + Velvet

MAINTENANCE : 1995 MODEL YEAR RANGE OF VEHICLES

Since July 1994, the maintenance schedule for CITROEN vehicles has been modified as follows.

1 – FIRST SERVICE AT THE 1 000/1 500 MILES (1 500/2 500 KM)

Petrol vehicles, All Types	First technical inspection (no engine oil change) The first technical 1,000/1,500 mile service is entirely free of charge (labour, materials and lubricants)

Diesel vehicles All Types	First service (engine oil change) The labour for the 1st service (1,000/1,500 miles) is free of charges The materials and lubricants, only, are chargeable to the customer

2 – SERVICING SCHEDULE

Vehicle type	Conditions for use	Servicing schedule	
		Service	Maintenance
Private car Petrol	Normal	9,000	36,000
	Severe	6,000	24,000
Utility vehicle Petrol	Normal	6,000	36,000
	Severe	4,500	18,000
Private car Diesel	Normal	6,000	36,000
	Severe	4,500	18,000
Utility vehicle Diesel	Normal	6,000	36,000
	Severe	4,500	18,000

3 – SEVERE DRIVING CONDITIONS

Town use, mainly.
Very hot countries (Distant Export).
Dusty atmosphere (building site).
Short journeys (engine cold).