P3M01AA01

3/4 front view of vehicle, 5 door version

P3M01AA02

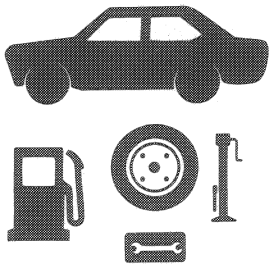
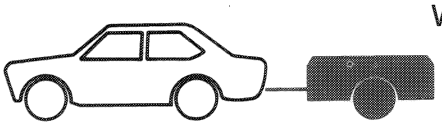
3/4 rear view of vehicle, 5 door version

Introduction
Identification data – Weights
00.0

	CHASSIS	ENGINE	VERSION	TRIM LEVEL	3 DOOR	5 DOOR	GEARBOX 5 speed
1581	ZFA 176.000	176 A9.000	176 AL 53 P	SX 90	●		●
			176 BL 53 P(*)		●		●
			176 AL 55 P			●	●
			176 BL 55 P(*)			●	●
			176 AL 53 A	ELX 90	●		●
			176 BL 53 A(*)		●		●
			176 AL 55 A			●	●
			176 BL 55 A(*)			●	●

(*) For the French market

WEIGHTS (in kg)

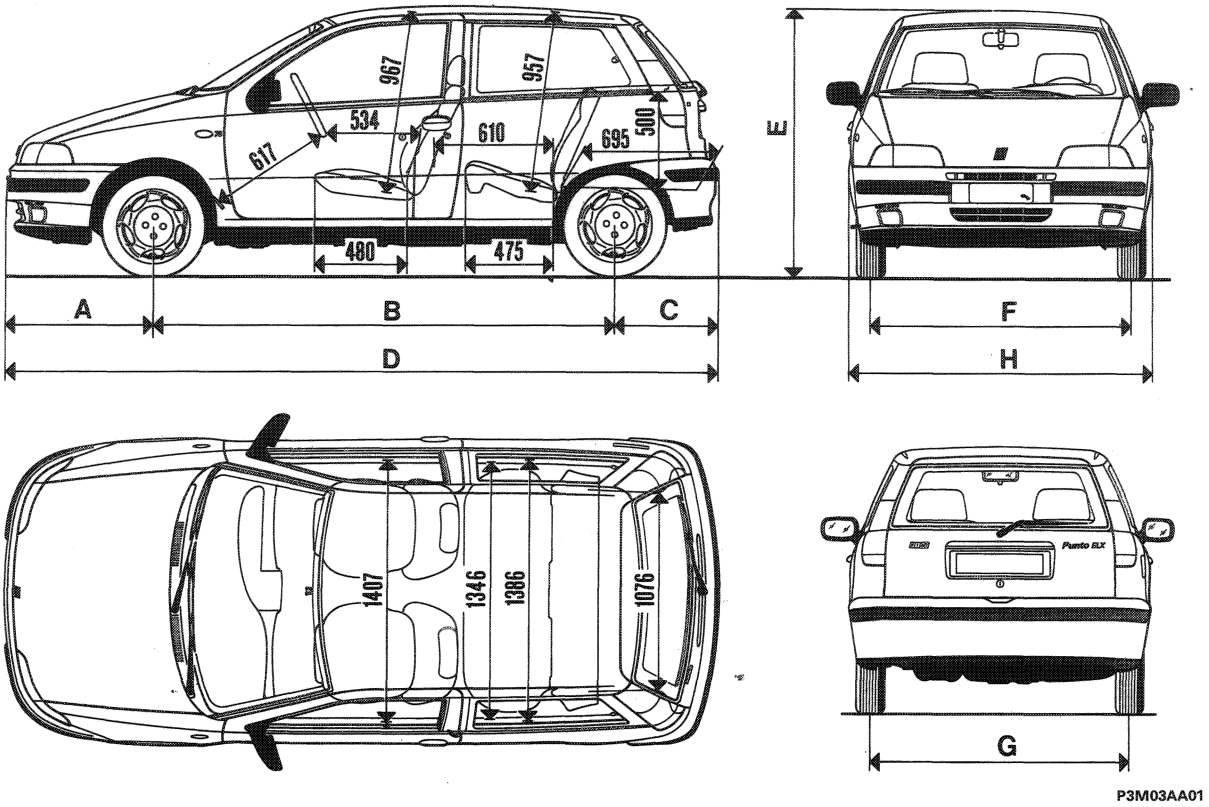
	3 door	965/975 (**)
	5 door	980/990 (**)
+450 = 	3 door	1415/1425 (**)
	5 door	1430/1440 (**)
Maximum permissible loads at the axles ■ 		750
		700
Maximum permissible load on the roof		75
Maximum load on the tow hook (trailer with braking system)		70
	Without braking system	400
	With braking system	1000

■ Loads which should never be exceeded

NOTE FOR ACCESSORIZED VERSIONS: Where there is special equipment (non standard air conditioner, sun roof, trailer tow hook), the empty weight increases and therfore the carrying capacity may decrease, in relation to the maximum permissible loads.

(**) The first figure refers to the vehicle without optional equipment; the second to it complete with optional equipment.

3 DOOR VERSION



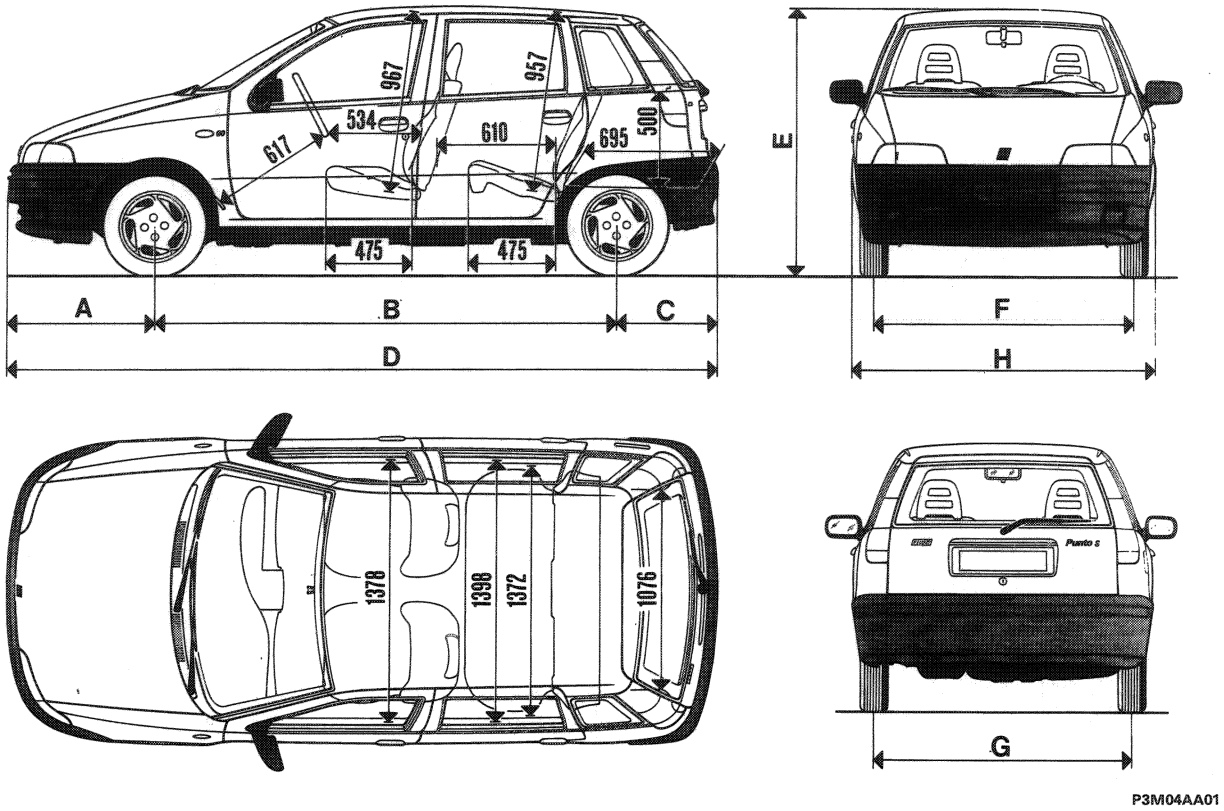
P3M03AA01

TRIM LEVELS	DIMENSIONS (mm)							
	A	B	C	D	E	F	G	H
SX 90	775	2450	535	3760	1455	1366	1352	1625
ELX 90	775	2450	545	3770	1455	1366	1352	1625

Luggage compartment capacity (VDA standards):
- in normal conditions: 275 dm^3;
- extended, with load at roof level: 1080 dm^3.

The height refers to an unladen vehicle

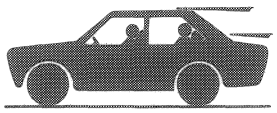
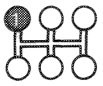
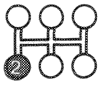
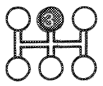
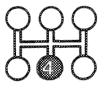
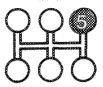
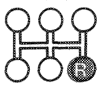
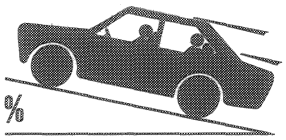
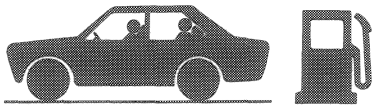
5 DOOR VERSION



TRIM LEVELS	DIMENSIONS (mm)							
	A	B	C	D	E	F	G	H
SX 90	775	2450	535	3760	1455	1366	1352	1625
ELX 90	775	2450	545	3770	1450	1366	1352	1625

Luggage compartment capacity (VDA standards):
- in normal conditions: 275 dm^3;
- extended, with load at roof level: 1080 dm^3.

The height refers to an unladen vehicle

Speed kph (average load) 		46
		84
		123 (135●)
		162 (178●)
		178
		47
Max climable grad. fully laden 		40
EEC fuel consumption figures (litres/100 km) 	Urban cycle (A)	9,5 (9,4●)
	Constant speed 90 km/h (B)	6 (5,8●)
	Constant speed 120 km/h (C)	8 (7,5●)
	Av. consump. (CCMC proposal) $\frac{A + B + C}{3}$	7,8 (7,6●)

(●) For the French market

The fuel consumption figures in the table have been defined in the course of official tests and in accordance with procedures laid down by EEC regulations. In particular the bench tests measure simulated urban cycle consumption whilst the consumption figures at constant speed of 90 and 120 km/h are measured both directly on a flat, dry road and in bench tests.
These figures can provide useful information for a comparison between different vehicles.
Traffic conditions, driving styles, atmospheric conditions and the general state of the vehicle can in practice lead to fuel consumption figures which differ from those obtained through the above legal procedures.

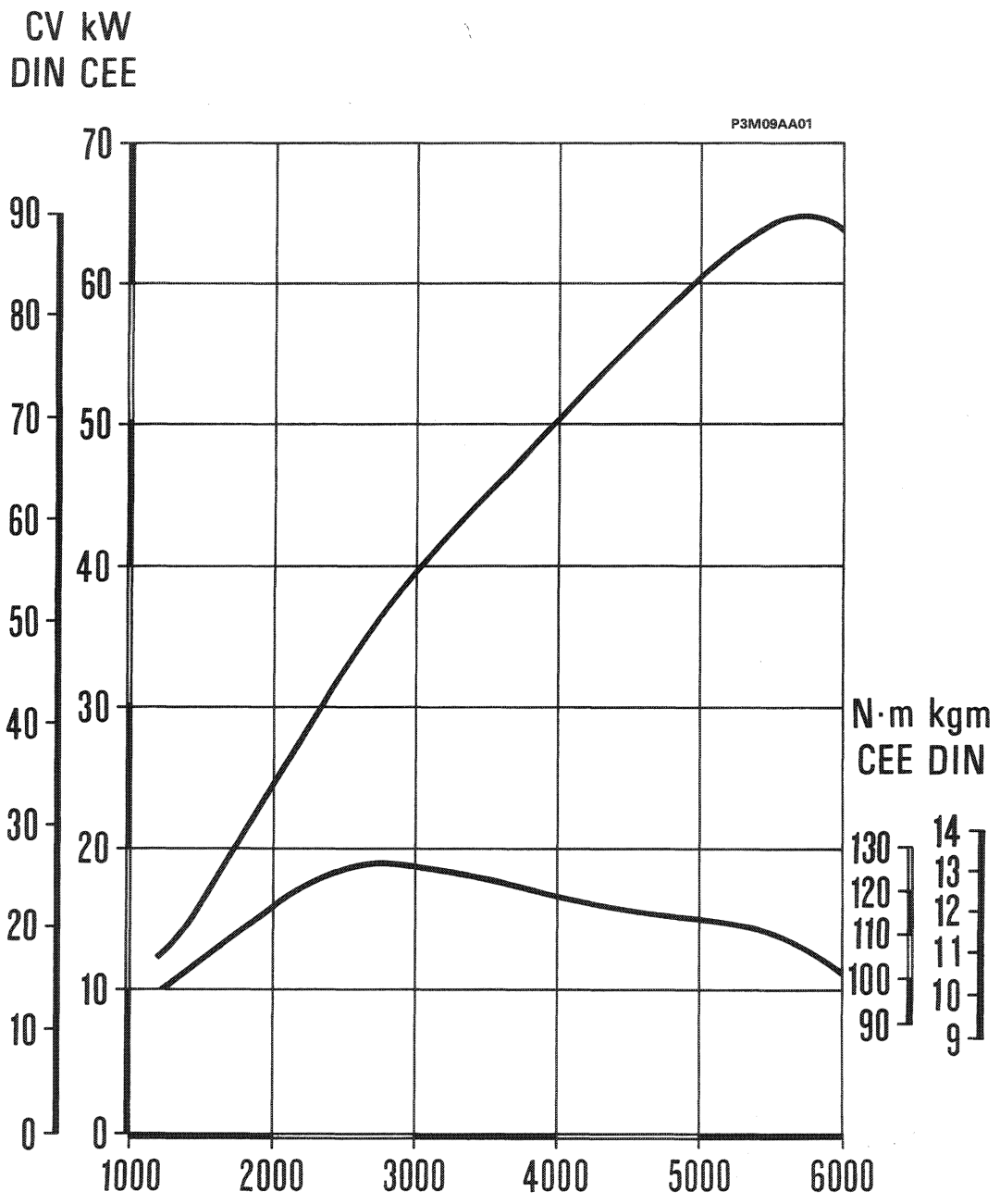
Introduction
Capacities
00.0

Capacities	Unit	Quantity dm³(l)	Quantity (kg)
Petrol ⩾ O.R. 95 (●)		47	–
50% + (▲)	Total capacity cooling system	5,9	–
Petrol engines: SELENIA (SAE 15 W/40)	Total capacity	4,15	3,75
Diesel engines SELENIA Turbo Diesel (SAE 15 W/40)	Partial capacity (periodic replacement)	3,63 3,3*	3,3 3*
a = TUTELA ZC 80S		a 2,37	2,15
b = TUTELA GI/A		b –	–
a = TUTELA GI/A	a	a –	0,65
b = K 854	b	b –	–
c = TUTELA MRM2	c	c –	0,080
TUTELA TOP 4 (270°C)	Total capacity: without ABS	0,4	–
	Total capacity: with ABS	0,5	–
+ AREXONS	3% ~ - 10°C 50% ~ - 20°C 100%	2,5 (7 w h/l w/w)	–

(▲) Distilled water
(●) Unleaded petrol only must be used
* Engine sump only

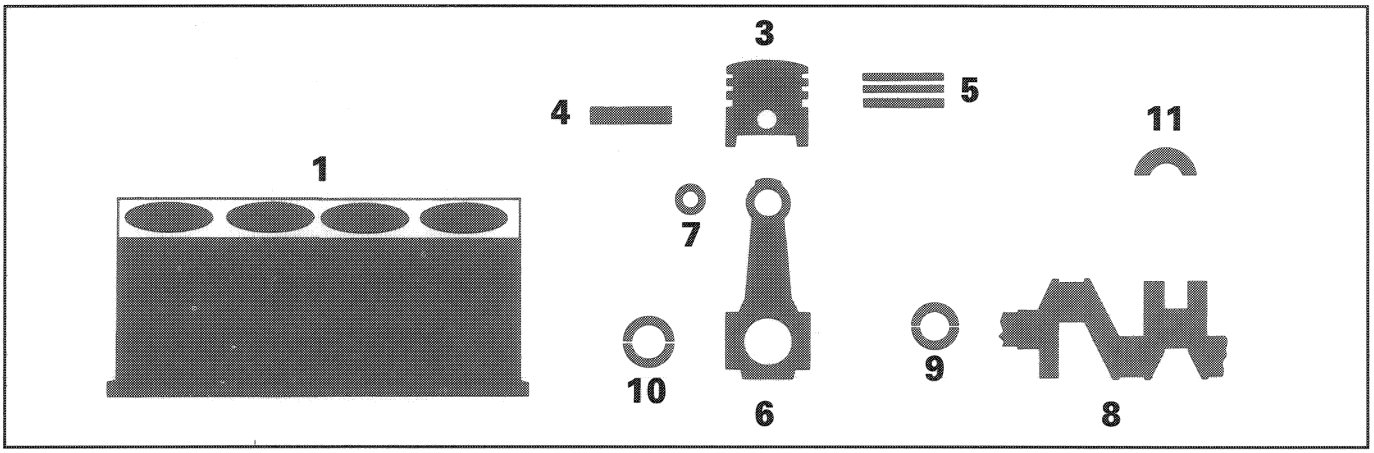
Name of product	Description International designation	Usage
SELENIA SAE 15 W/40	Semi-synthetic multigrade engine oil. Exceeds specifications API SG, CCMC-G4 and UNI 20153	Temperature - 15°C ÷ 40°C
VS MAX SAE 15 W/40	Mineral based multigrade engine oil. Exceeds specifications API SG, CCMC-G4 and UNI 20153	Temperature - 15°C ÷ 40°C
SELENIA Turbo Diesel SAE 15 W/40	Semisynthetic multigrade engine oil. Exceeds specifications API CD, CCMC-PD2, UNI 20153	Temperature - 15°C ÷ 40°C
VS MAX Diesel SAE 15 W/40	Mineral based multigrade engine oil. Exceeds specifications API CD, CCMC and UNI 20153	Temperature - 15°C ÷ 40°C
TUTELA ZC 80S	SAE 80W EP oil. Satisfies standards MIL-L-2105 and API GL4	Manual gearboxes and differentials
TUTELA ZC 90	Non EP SAE 80 W/90 oil, for manual gearboxes, containing anti-wear additives.	Gearboxes and non hypoid differentials
TUTELA W 90/M DA	Special SAE 80 W/90 EP oil for normal and self-locking differentials. Satisfies standards MIL–L–2105 D and API GL5	Hypoid differentials Self-locking differentials. Steering boxes
TUTELA GI/A	"DEXRON II type oil for automatic transmissions.	Automatic gearboxes. Power assisted steering
TUTELA CVT Universal	Oil for continuous variation automatic transmissions.	Continuous variation automatic gearboxes
TUTELA JOTA 1	Lithium soap based grease, consistency NLGI = 1	Greasing the vehicle except for components particularly exposed to water requiring special greases
TUTELA MRM2	Water-repellant, lithium soap based grease containing molybdenum disulphide, consistency NLGI = 2	Constant velocity joints
TUTELA MR3	Lithium soap based grease, consistency NLGI= 3	Wheel hub bearings, st/rod, various comps
TUTELA PLUS 3 (240 °C)	Synthetic fluid, F.M.V.S.S. n° 116 DOT 3 ISO 4925, CUNA NC 956-01	Hyd. brakes and hyd. op. clutches
TUTELA TOP 4 (270 °C)	Synthetic fluid, F.M.V.S.S. n° 116 DOT 4 ISO 4925, CUNA NC 956-01	Hyd. brakes & hyd. op. clutches
K 854	Lithium soap based grease, consistency NLGI = 000, containing molybdenum disulphide	Rack and pinion steering boxes
SP 349	Special grease compatible with brake fluid	Load proportioning valve Load proportioning valve rod bush
Arexons DP1	Mix. of alcohol, H2O & surf. act. agents CUNA NC 956-11	To be used neat or diluted in windscreen washer systems
Paraflu[11]	Mono-ethylene glycol based anti-freeze for cooling system , CUNA NC 596 - 16	Cooling circuits. Percentage to be used 50% up to - 35°C
Diesel Mix Arexons	Additive for diesel fuel with protective action for diesel engines	To be mixed with diesel fuel (25 cc per 10 litres)

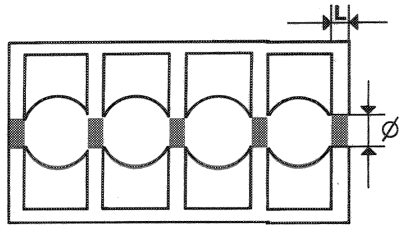
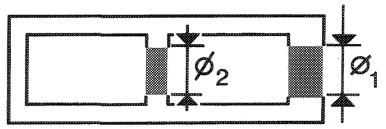
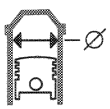
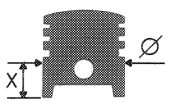
CHARACTERISTICS		1108
	Cycle	OTTO 4 stroke
	Timing	single overhead cam
	Type of fuel system	M.P.I. G.M. integrated electronic injection/ignition
	Number of cylinders	4
	Cylinder liner (bore) mm	86,4
	Stroke mm	67,4
	Capacity cc	1581
	Compression ratio	9,5 $^{+0,1}_{-0,2}$
Max power	kW (CEE) (CV) (DIN)	65 (90)
	rpm	5750
Max torque	daNm (CEE) (kgm) (DIN)	12,7 (13,2)
	rpm	2750



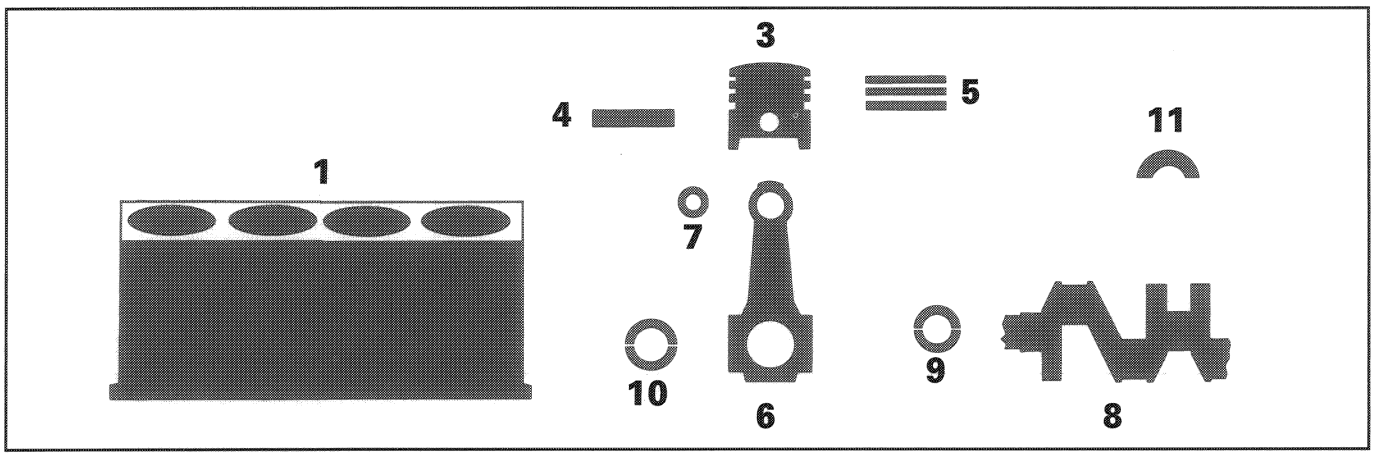
Engine power curves obtained by EEC method

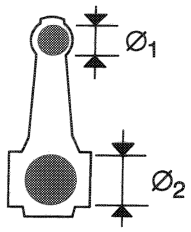
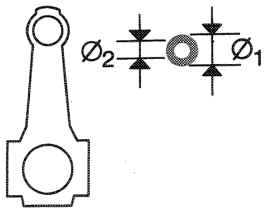
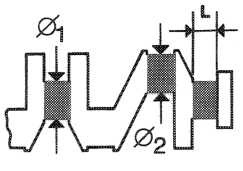
The power curve illustrated can be obtained with the engine overhauled and run in, without a fan, with a silencer and air filter fitted, at sea level.



DESCRIPTION		Values in mm
 Main bearing supports	L	22,140 ÷ 22,200
	Ø	54,507 ÷ 54,520
1  Auxiliary shaft bush housings	Ø1	38,700 ÷ 38,730
	Ø2	35,036 ÷ 35,066
 Cylinder bore Ø(0,010)		86,400 ÷ 86,450
3  Piston	X	12
	Ø A	86,360 ÷ 86,370
	Ø C	86,380 ÷ 86,390
	Ø E	86,400 ÷ 86,410
	Ø FIAT >	0,4

DESCRIPTION		Values in mm
3	Difference in weight between pistons	± 2,5 g
3-1	Piston - Cylinder bore	0,030 ÷ 0,050
3	Gudgeon pin housing ⌀ 1	21,996 ÷ 21,999
	⌀ 2	21,999 ÷ 22,002
4	Gudgeon pin ⌀ 1	21,991 ÷ 21,994
	⌀ 2	21,994 ÷ 21,997
	⌀ FIAT >	0,2
4-3	Gudgeon pin - Housing	0,002 ÷ 0,008
3	Piston ring grooves 1	1,535 ÷ 1,555
	2	1,760 ÷ 1,780
	3	3,020 ÷ 3,040
5	Piston rings L 1	1,475 ÷ 1,490
	2	1,725 ÷ 1,740
	3	2,975 ÷ 2,990
	⌀ FIAT >	0,4
5-3	Piston rings Piston ring grooves 1	0,045 ÷ 0,070
	2	0,020 ÷ 0,055
	3	0,030 ÷ 0,065
5-1	Opening at end of piston rings in cylinder bore 1	0,20 ÷ 0,40
	2	0,30 ÷ 0,50
	3	0,25 ÷ 0,50



DESCRIPTION			Values in mm
6 	Small end bush or pin housing	Ø1	23,939 ÷ 23,972
	Big end bearing housing	Ø2	48,630 ÷ 48,646
7  Small end bush		Ø1	24,016 ÷ 24,041
		Ø2 1	22,004 ÷ 22,007
		Ø2 2	22,007 ÷ 22,010
4-7 	Gudgeon pin Small end bush		0,010 ÷ 0,016
7-6 	Small end bush Bush housing		0,044 ÷ 0,102
8 	Main journals	Ø1 1	50,790 ÷ 50,800
		Ø1 2	50,780 ÷ 50,790
	Crank pins	Ø2 A	45,513 ÷ 45,523
		Ø2 B	45,503 ÷ 45,513
		L	26,975 ÷ 27,025

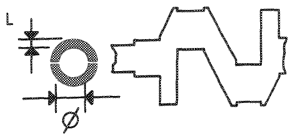
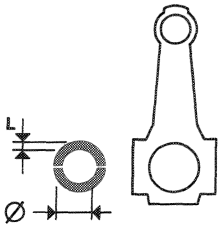
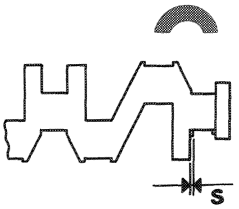
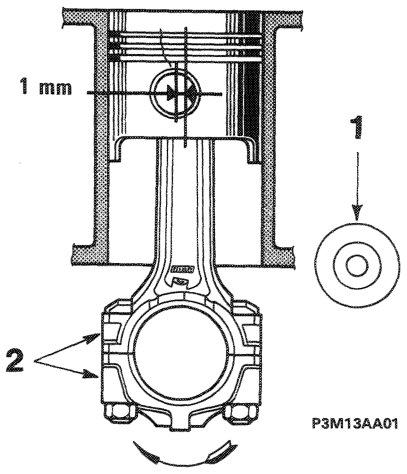
DESCRIPTION		Values in mm
9  Crankshaft bearings	L 1	1,840 ÷ 1,844
	L 2	1,845 ÷ 1,849
	Ø FIAT <	0,254 - 0,508
9–8 	Crankshaft bearing - Main journals	0,019 ÷ 0,050
10  Big end bearings	L A	1,535 ÷ 1,541
	L B	1,540 ÷ 1,546
	Ø FIAT <	0,254 - 0,508
10–8 	Big end bearings - Main journals	0,025 ÷ 0,063
11 	Thrust washers S	2,310 ÷ 2,360
	S FIAT >	0,127
11–8 	Crankshaft end float	0,055 ÷ 0,265

Diagram showing connecting rod - piston assembly and direction of rotation in engine

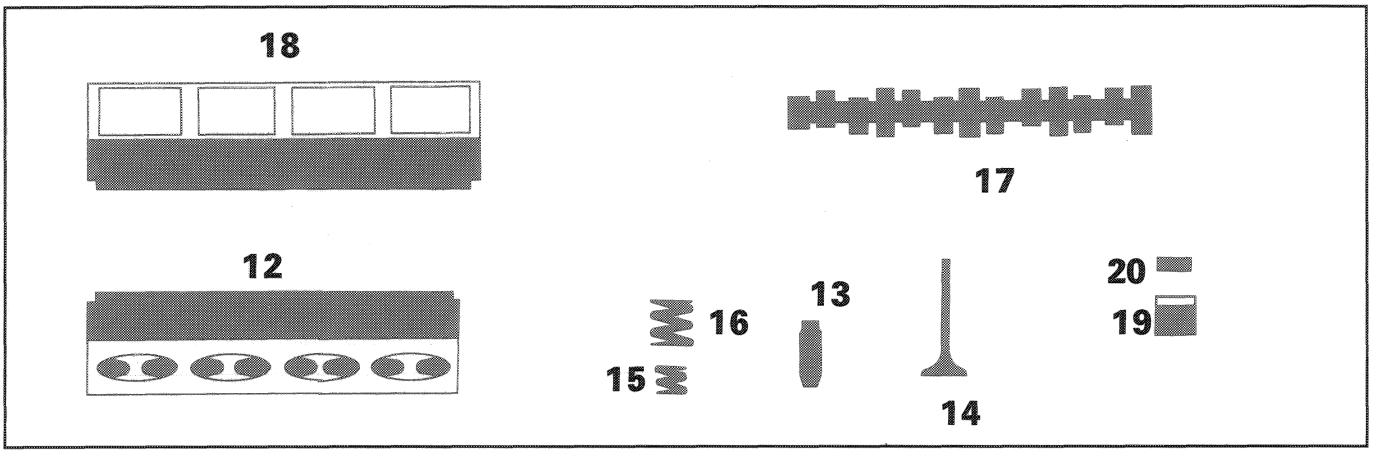


1 - Auxiliary shft

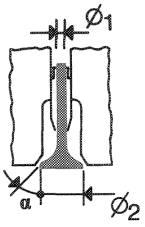
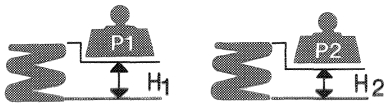
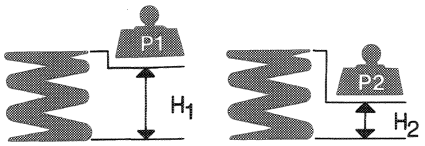
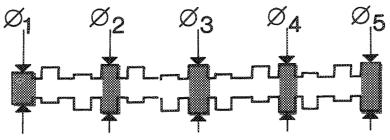
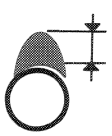
2 - Stamped on connecting rod

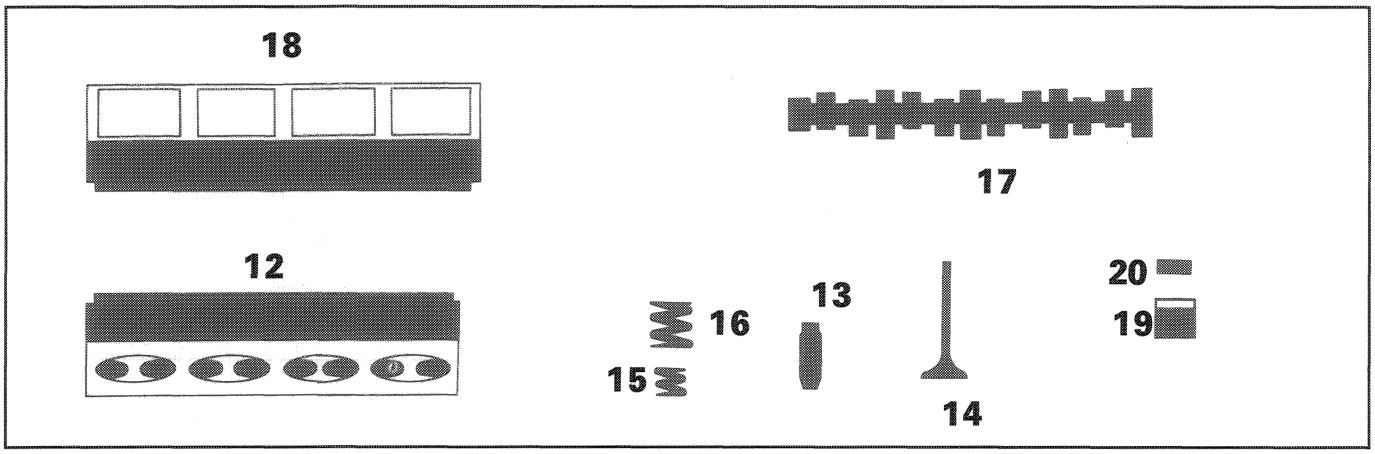
1mm = Offset between connecting rod axie and piston axis.

The arrow indicates the direction of rotation of the engine



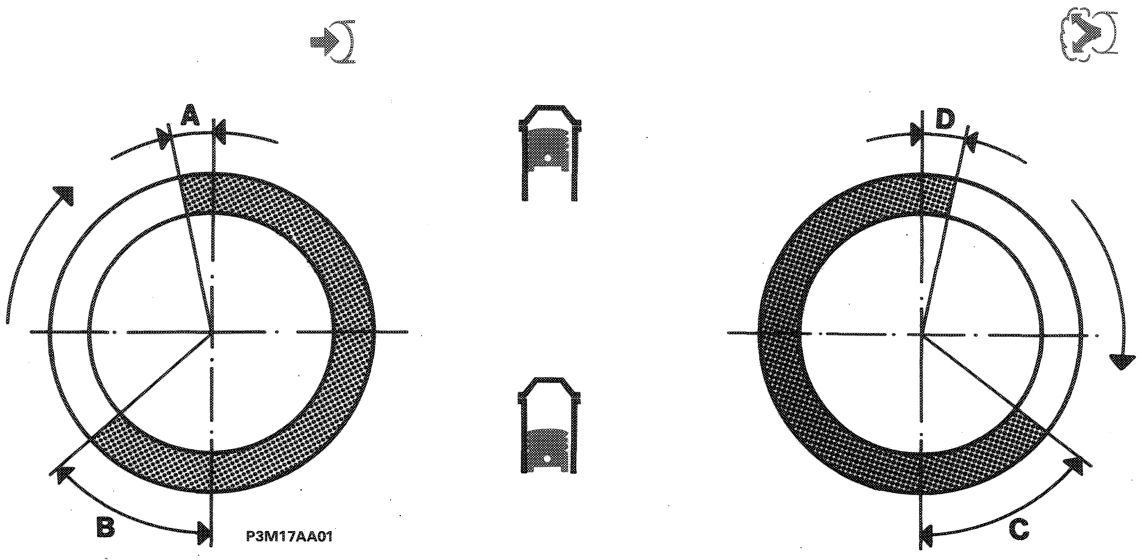
DESCRIPTION		Values in mm
Valve guide bore in cylinder head	⌀	13,950 ÷ 13,977
12 Valve seats	α (→)	45° ± 5′
	α (exhaust)	45° ± 5′
	L	about 2
Volume of combustion chamber in cylinder head	cc	32
13 Valve guide	$⌀_1$	8,022 ÷ 8,040
	$⌀_2$ (→)	14,040 ÷ 14,058
	$⌀_2$ (exhaust)	14,040 ÷ 14,058
	$⌀_2$ FIAT	0,05 - 0,10 - 0,25
13-12 Valve guide - Bore in cylinder head	(→)	0,063 ÷ 0,108
	(exhaust)	0,063 ÷ 0,108

DESCRIPTION		Values in mm
14  Valves	$\varnothing_1$	7,974 ÷ 7,992
	$\varnothing_2$	39,300 ÷ 39,700
	α	45°30' ± 5'
	$\varnothing_1$	7,974 ÷ 7,992
	$\varnothing_2$	30,850 ÷ 31,150
	α	45°30' ± 5'
14-13  Valve - Valve guide		0,030 ÷ 0,066
15  Internal valve spring	P_1	14,1 ÷ 15,1 daN
	H_1	31
	P_2	26,4 ÷ 28,7 daN
	H_2	21,5
16  External valve spring	P_1	36,7 ÷ 39,6 daN
	H_1	36
	P_2	55,9 ÷ 60,8 daN
	H_2	26,5
17  Camshaft bearings	$\varnothing_1$	29,944 ÷ 29,960
	$\varnothing_2$	47,935 ÷ 47,950
	$\varnothing_3$	48,135 ÷ 48,150
	$\varnothing_4$	48,335 ÷ 48,350
	$\varnothing_5$	48,535 ÷ 48,550
 Cam lift		9,60
		9,65



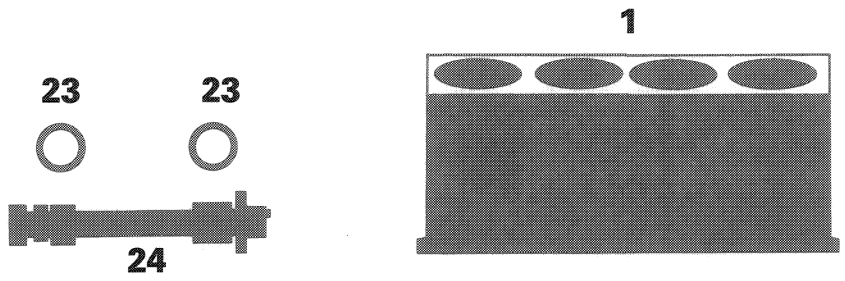
DESCRIPTION		Values in mm
18 Camshaft bearings in camshaft housing	Ø1	29,990÷30,014
	Ø2	47,980÷48,005
	Ø3	48,180÷48,205
	Ø4	48,380÷48,405
	Ø5	48,580÷48,605
Tappet housings	Ø	37,000÷37,025
17-18 Camshaft bearings Camshaft housing supports		0,030÷0,070
19 Tappet	Ø	36,975÷36,995
19-18 Tappet - Housing in camshaft housing		
20 Shim	S (0,05)	3,25÷4,70
17-20 clearance for timing check		0,80
		0,80
operational clearance		0,40 ± 0,05
		0,50 ± 0,05

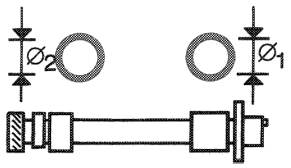
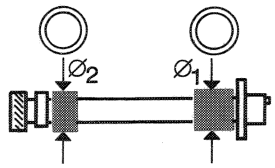
TIMING DIAGRAMS

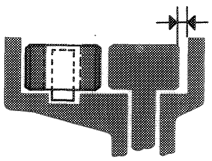
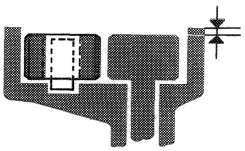
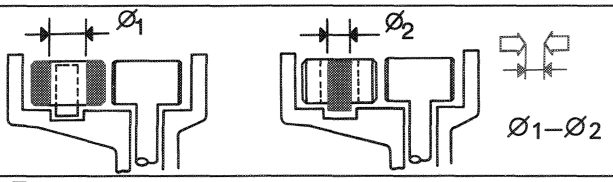
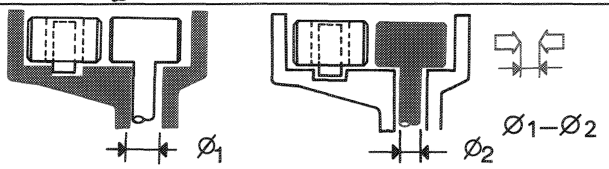
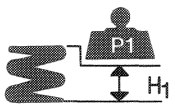


Timing angles

A	Inlet	opens before TDC	6°
B		closes after BDC	46°
C	Exhaust	opens before BDC	47°
D		closes after TDC	7°



DESCRIPTION		Values in mm
23  Bushes for auxiliary shaft in housing	$\varnothing_1$	35,664 ÷ 35,684
	$\varnothing_2$	32,000 ÷ 32,020
24  Auxiliary shaft bearings	$\varnothing_1$	35,593 ÷ 35,618
	$\varnothing_2$	31,940 ÷ 31,960
23-1  Bushes for shaft Cylinder block seats		must be an interference fit
24-23  Shaft bushes Bushes	$\varnothing_1$	0,046 ÷ 0,091
	$\varnothing_2$	0,040 ÷ 0,080

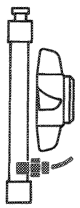
LUBRICATION – Description		Values in mm
Engine lubrication system		forced feed via geared pump with cartridge oil filter series
Oil pump: type		gears
Pump operated		through auxiliary shaft
Oil pressure relief valve		incorporated in oil pump
Full flow filter		cartridge
Insufficient oil pressure sender unit		electrical
 between the edge of the gears and the pump casing		0,110 ÷ 0,180
 between the upper side of the gears and the pump cover		0,020 ÷ 0,105
		0,010 ÷ 0,050
		0,016÷0,055
 between the drive gear and the driven gear		0,31
 Operating pressure at 100°C	idle speed	1 bar
	at 4000 rpm	3,7 bar
	P_1	4,36 ÷ 4,65 daN
	H_1	22,5

Technical data

Engine: cooling system - fuel system

00.10

COOLING SYSTEM

Cooling circuit		coolant circulation via centrifugal pump, radiator and electric fan operated by thermostatic switch
Water pump operation		through belt
 Thermostatic switch to engage fan		90° ÷ 94°C
		85° ÷ 89°C
Engine coolant thermostat	opening	85° ÷ 89°C
	max opening	96° ÷ 100°C
	valve travel	⩾ 7,5 mm
Fitting clearance between impeller blades and pump casing 		0,8 ÷ 1,3 mm
Press. for checking rad. water tightness		0,98 bar
Pressure for checking calibration of exhaust valve on expansion tank cap		0,98 bar

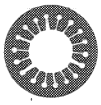
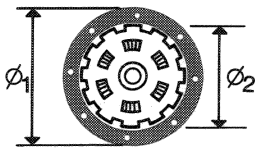
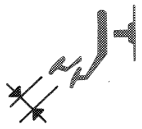
FUEL SYSTEM

Type	M.P.I. G.M. integrated electronic injection/ignition
Pump	electrical
Capacity	about 90 l/h
Calibration of fuel pressure regulator	3 bar

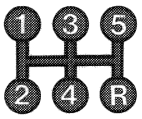
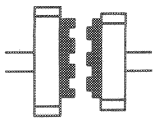
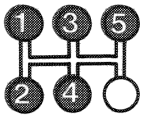
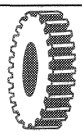
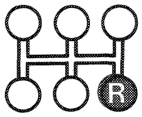
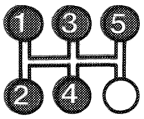
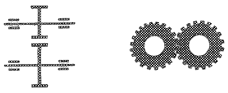
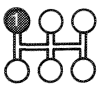
Checking concentration of pollutant emissions during idling	CO (%)	HC (p.p.m.)	CO2 (%)
Upstream of the catalytic converter	0,4 ÷ 1	⩽600	⩾ 12
Downstream of the catalytic converter	⩽0,35	⩽90	⩾ 13

ELECTRONIC INJECTION SYSTEM COMPONENTS

Electronic control unit	DELCO ELECTRONICS ITM5-6
Absolute pressure sensor	DELCO ELECTRONICS 16137039
Injector	AC ROCHESTER 17088276
Fuel pressure regulator	G.M. 17109673
Coolant temperature sensor	AC SPARK PLUG 25036898
Electric fuel pump	AC SPARK PLUG 6443604
Lambda sensor	AC SPARK PLUG 25133509
Fuel filter	G.M. 25121074
Idle actuator	AC ROCHESTER
Butterfly valve position sensor (potentiometer)	AC ROCHESTER 17087653
Fuel vapour solenoid valve	DELCO REMY 1997199
EGR solenoid valve	AC ROCHESTER 17094050
TDC and rpm sensor	DELCO REMY 10456118

		Values in mm
Type		 dry, single plate
 Operating mechanism		 diaphragm spring
Spring loading	daN	400
 Lining	$\varnothing_1$	190
	$\varnothing_2$	134
	Distance between pedal in end of travel position and rest position	140 ± 5
Clutch release		mechanical

GEARBOX

			
		Tipo	C.514.5.13
 Synchronizers	spring ring (Porsche type)		–
	baulk ring type		
 Gear	straight toothed		
	helical toothed		
 Gear ratios			3,909
			2,157
			1,480 (1,345●)
			1,121 (0,974●)
			0,902 (0,808●)
			3,818

(●) For the French market

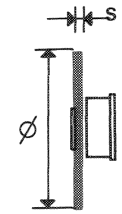
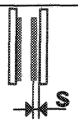
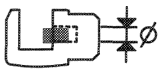
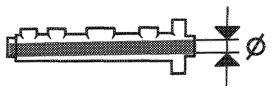
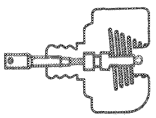
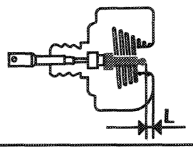
00.21-27

DIFFERENTIAL

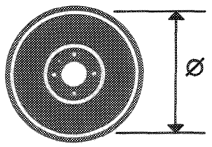
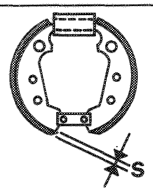
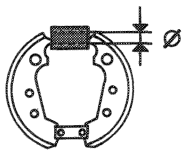
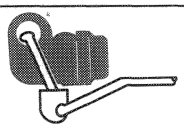
Ratio crown wheel & pinion reduction	3,563 (16/57)
Ratio at the wheels — 3M055A	13,928
	7,685
	5,273 (4,792●)
	3,994 (3,470●)
	3,214 (2,879●)
	13,603
Differential internal casing bearing	conical roller bearings
Adjustment of bearing pre-loading	by shims
Thickness of shims — 0,10 mm	2,00 ÷ 3,00
Interference to obtain exact bearing pre-loading — mm	bearings not pre-loaded = 0,12 bearings pre-loaded (350 dan) = 0,08
Clearance between planet & sat. gears — mm	⩽0,10
Adjust. of clrnce btwn planet & sat. gears	no adjustment is carried out

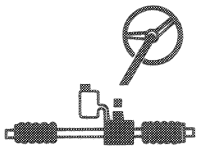
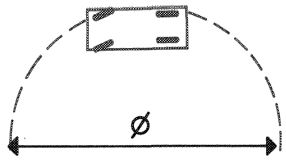
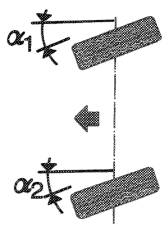
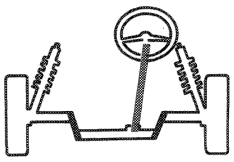
(●) For the French market

FRONT BRAKES

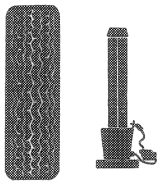
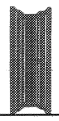
		Values in mm
	Disc ⌀	257
	Disc s	11,80÷12,10
	Disc s < allowed	10,55
	Disc s allowed	10,20
	Brake pads s < allowed	1,5
	Caliper ⌀	48
	Master cylinder (pump) ⌀	20,65 (13/16")
	Servo brake	ISOVAC 8" hydro-pneumatic vacuum servo acting on all four wheels
	Distance of hydraulic piston push rod from master cylinder support plate d	22,45 ÷ 22,65

REAR BRAKES

	Drum ⌀	180,00 ÷ 180,25
	Drum ⌀ <	180,85
	Drum ⌀ allowed	181,35
	Shoes s < allowed	1,5
	Wheel cylinders ⌀	20,65 (13/16")
	Pressure regulators	acting on the rear wheels
	Ratio (reduction)	0,25

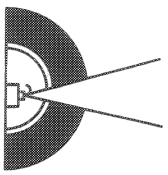
Type	 rack and pinion power assisted
Ratio — no. of turns lock to lock	about 2,9
Ratio — rack travel	137 mm
 Minimum turning circle	9,7 m
 Steering angle — outer wheel α_1	33°46′
Steering angle — inner wheel α_2	38°02′
 Steering col.	 with 2 universal joints

WHEELS

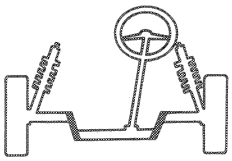
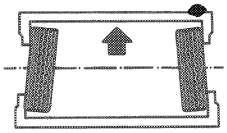
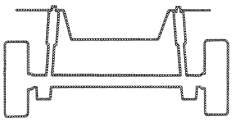
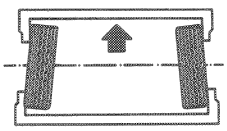
 Tyre	type		175/60 - R14"
	front	average load	2,1 bar
		heavy load	2,2 bar
	rear	average load	2 bar
		heavy load	2,2 bar
 Rim			steel 5,0 Bx14"

NOTE Spare wheel with 4.5 Bx14" rim and 135/80 B14" tyre. Speed limit: 80 km/h. Inflation pressure: 2,8 bar.

WHEEL GEOMETRY



unladen car (*)

 Front suspension	camber (**)		– 15′ ± 30′
	caster (**)		2° 50′ ± 30′
	toe in		0 ± 1 mm
	front wheel offset (▲)		0°
 Rear rear	camber (**)		– 25′ ± 30′
	toe in (**)		1 ± 2 mm
	rear wheel thrust angle (▲)		0°

(*) With tyres inflated to the correct pressure and vehicle in running order
(**) Angles cannot be adjusted
(▲) Angular values, which cannot be adjusted, used for the correct alignment of the vehicle

Front suspension independent, Mac Pherson type with track control arms connected by two flexible bushes to a cross member.
Offset coil springs and double acting hydraulic shock absorbers.
For-life joints.
Anti-roll torsion bar.

Coil springs

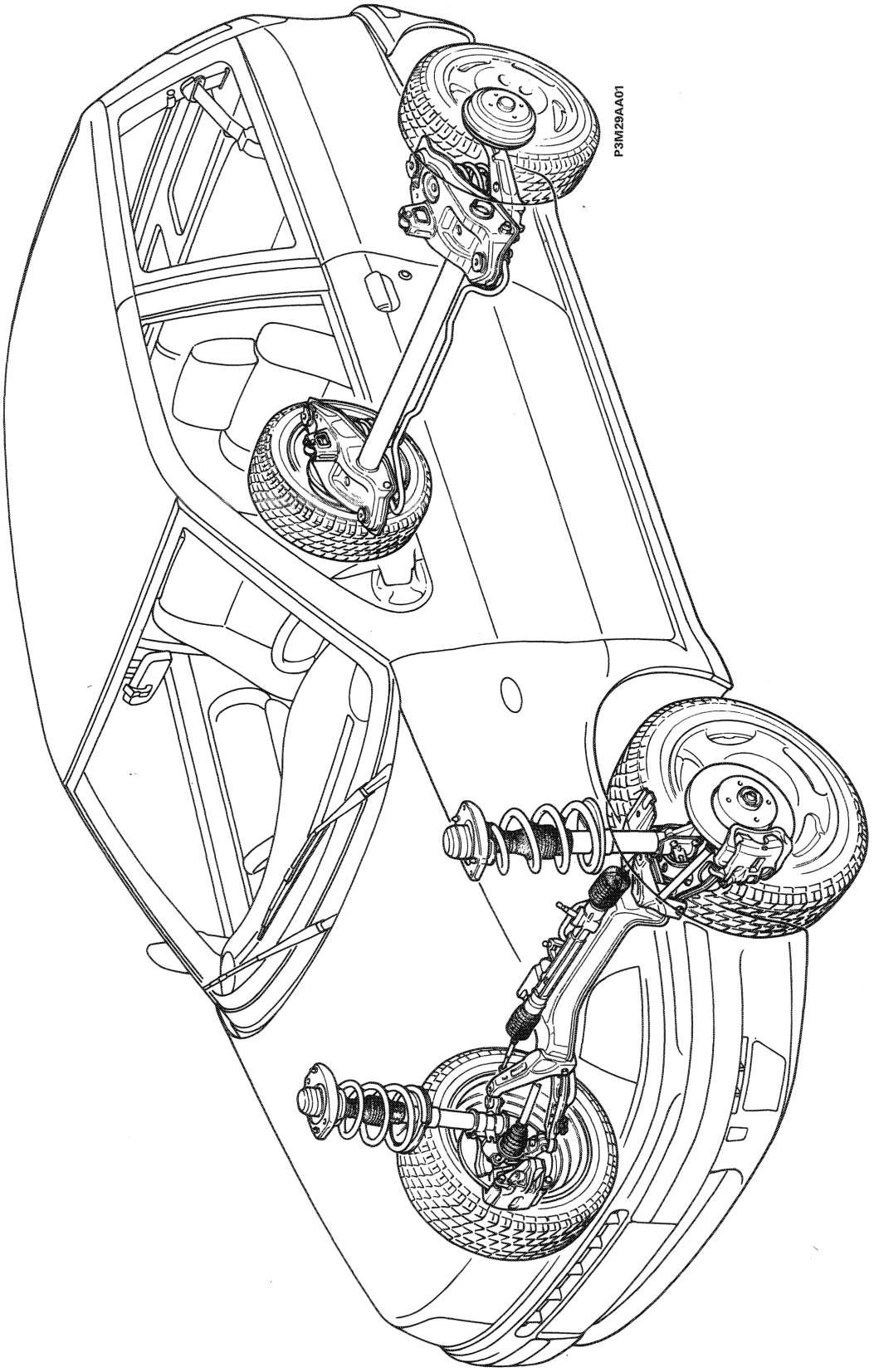
			1581	1581 air conditioning
Diameter of wire		mm	11,7±0,1	12,2±0,1
Number of turns			5,25	5,25
Direction of coil			clockwise	
Height of spring released		mm	435	423,5
Height of spring under a load of:	310±10 daN	mm	210,5	-
	343±10 daN	mm	-	210,5
The springs are subdivided into two categories, identifiable by a mark:				
yellow (1) for those under a load of:	310±10 daN	height of mm	>210,5	-
	343±10 da	height of mm	-	>210,5
green (1) for those under a load of:	310±10 daN	height of mm	⩽210,5	-
	343±10 daN	height of mm	-	⩽210,5

(1) Springs of the same category must be fitted.

Shock absorbers

Type:		Telescopic, hydraulic, double acting
Stroke (start of damping action)	mm	161
Maximum extension	mm	466±2,5

DIAGRAM SHOWING FRONT AND REAR SUSPENSION FITTED ON VEHICLE



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Technical data

Rear suspension

00.44

Rear suspension independent with cast iron track control arms.
Coil springs and gas shock absorbers with vulcanized bushes.
Anti-roll torsion bar.
Auxiliary H shaped frame made up of a transverse tubular element and two pressed steel longitudinal side members welded to it.

Coil springs

Diameter of wire		mm	11,9±0,05
Number of turns			4,75
Direction of coil			clockwise
Height of spring released		mm	277
Height of spring under a load of:	294±10 daN	mm	185
The springs are subdivided into two categories, identifiable by a mark:			
yellow (1) for those under a load of:	294±10 daN	height of mm	>185
green (1) for those under a load of:	294±10 daN	height of mm	⩽185

(1) Springs of the same category must be fitted.

Shock absorbers

Type: telescopic, double acting		low pressure gas
Stroke (start of damping action)	mm	88
Maximum extension	mm	300 ± 2

SUMMARY OF DATA

STARTER MOTOR	M. Marelli E80 - 12V - 1kW
ALTERNATOR	M. Marelli A115I-14V-38/65A M. Marelli A127I-14V-50/85A (●)
VOLTAGE REGULATOR	Built in electronic
BATTERY	12V - 40 Ah - 200A 12V - 45 Ah - 250A (●)
IGNITION SYSTEM	M.P.I. G.M. integrated electronic injection/ignition
IGNITION COIL	AC Rochester 1103905
SPARK PLUGS	Fiat/Lancia 7GYSSR Champion RC7YCC

(●) For versions equipped with air conditioning

Technical data

Electrical equipment: starting

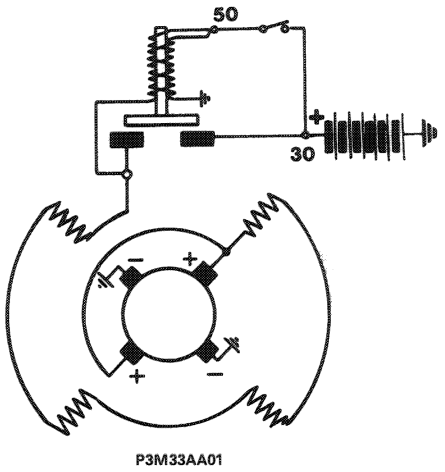
00.55

Type		M.Marelli E80-12V-1kW
Voltage	V	12
Nominal power	kW	1
Rotation, pinion side		clockwise
No. of poles		4
Field coil		series
Engagement		free wheel
Operation		solenoid
End float of armature shaft	mm	0,1 ÷ 0,5
Data for bench test		
Operating test (*):		
current	A	200
speed	rpm	2200
voltage	V	9,8 ÷ 10
torque developed	daNm	0,38
Engagement test (*):		
current	A	440
voltage	V	7,6
torque developed	daNm	⩾1,25
Free running test (*):		
current	A	44 ÷ 48
voltage	V	11,4 ÷ 11,5
speed	rpm	11400 ÷ 12300
Relay		
Winding resistance (*) pull in	Ω	0,32
Winding resistance (*) hold in	Ω	1,09
Lubrication		
Internal splines and shaft bushes		VS⁺ SAE 10 W
Engagement sleeve and intermediate disc		TUTELA MR3

(*) Data obtained at an ambient temperature of 20°C.

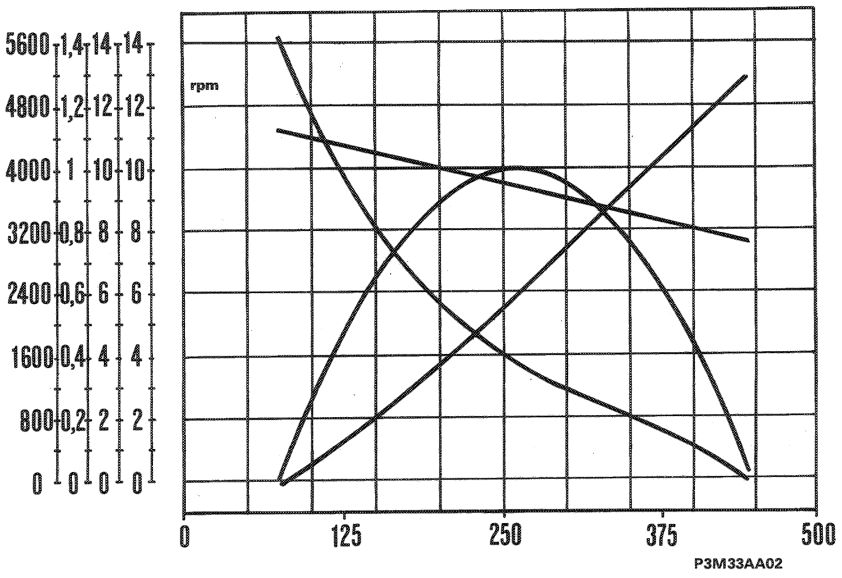
NOTE *When overhauling it is not necessary to under the insulator between the commutator bars*

Starter motor wiring diagram



M. Marelli E80-12V-1kW

Typical curves for starter motor



M. Marelli E80-12V-1kW

ALTERNATOR

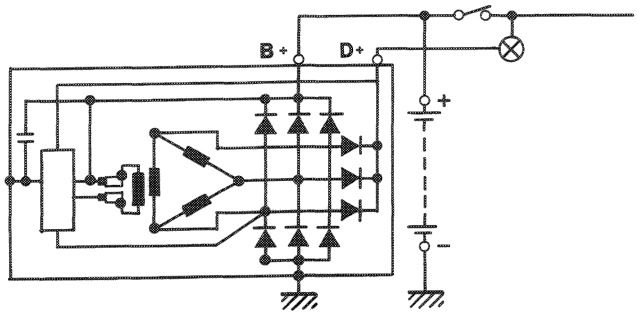
Type		M.Marelli A115I-14V-38/65A	M.Marelli A127I-14V-50/85A (●)
Nominal voltage	V	14	
Maximum current	A	65	85
Nominal current at 1800 rpm	A	38	50
Nominal current at 6000 rpm	A	65	85
Field winding resistance between the slip rings (*)	Ω	2,4	2,587 ÷ 2,613
Direction of rotation (seen from control side)		clockwise	
Diode rectifiers		bridge	

(*) Data obtained at an ambient temperature of 20°C.
(●) For vehicles with air conditioning.

VOLTAGE REGULATOR		Built in electronic	
Type		RTM 121 A	24 TR/B
Alternator speed for test	rpm	7000	
Thermal stabilization current	A	-	
Test current	A	-	
Regulation voltage (*)	V	14,3 ÷ 14,6	

(*) Data obtained at an ambient temperature of 20°C.

Alternator wiring diagrams



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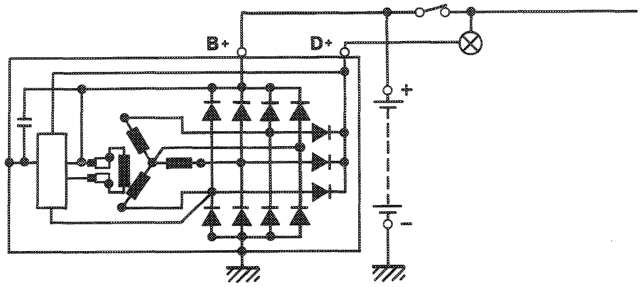
M. Marelli A115I - 14V - 38/65A



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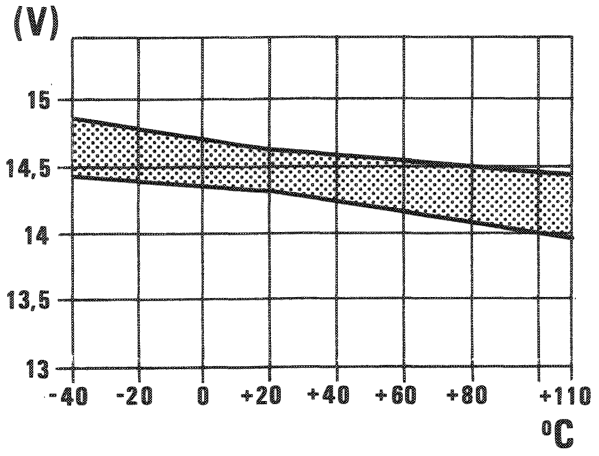
M. Marelli A127 I - 14V - 50/85A

Typical voltage regulator curves



P3M071A03

M. Marelli RTM 121 A

M. Marelli 24 TR/B

G.M. STATIC ADVANCE ELECTRONIC INJECTION/IGNITION

Type	DELCO Electronics
Type	ITMS-6
Firing order	1 – 3 – 4 – 2

IGNITION COIL WITH 2 HIGH TENSION PICK UPS

Make		AC Rochester
Type		1103905
Ohmic resistance of primary winding at 25°C	Ω	-
Ohmic resistance of secondary winding at 25°C	Ω	4500÷6400

RPM AND TOP DEAD CENTRE SENSOR

Make and type		DELCO REMY DIVISION-10456118
Sensor winding resistance	Ω	486 ÷ 594
Distance (gap) between sensor and crankshaft pulley tooth	mm	1 ± 0,7

ADVANCE ON ENGINE

With engine idling	10° ± 5°

SPARK PLUGS

Make and type	Champion	RC7YCC
	Fiat/ Lancia	7GYSSR
Thread		M 14×1,25
Electrode gap	mm	0,85 ÷ 0,95

ENGINE

1850088000 Spanner (13 mm) for adjusting manifold fixing nuts

1850113000 Spanner (14 mm) for engine oil drain plug

1850132000 Spanner (13 mm) with 1/2" socket, for camshaft housing fixing bolts

1850150000 Spanner (32-36 mm) for crankshaft fixing nut

1850167000 Spanner (13 mm) for adjusting water pump pipe fixing bolts

1850172000 Pair of spanners (17 mm), 1/2" socket, for cylinder head fixing bolts

1850193000 Spark plug wrench

1854041000 Spanner for adjusting ring nut on fuel tank

1854043000 Spanner for adjusting fuel level gauge sender unit on tank

1860054000 Drift (⌀ 22 mm) for removing and refitting gudgeon pin bush

1860162000 Pressure gauge and unions for checking oil pump

1860183000 Pliers (⌀ 75÷110 mm) for removing and refitting piston rings

1860303000 Tool for fitting gudgeon pin circlips on piston

1860313000 Drift for fitting oil seal on valve guide

1860372000 Drift for removing and refitting auxiliary shaft bushes

1860395000 Drift for removing valve guides

1860442000 Support for cylinder head whilst removing and refitting valves

1860455000 Support for cylinder head whilst replacing tappet shims (operation at the vice)

1860462000 Drift for fitting valve guides

1860470000 Tool for retaining cylinder head whilst overhauling

1860490000 Tool for retaining valve leakage test equipment 1895868000 (to be used with 1860470000)

1860592000 Universal hook for lifting and moving engine/gearbox assembly

1860642000 Tool for retaining tappets whilst replacing shim during adjustment of valve clearance

1860644000 Tool for removing and refitting valves

1860700000 Band (⌀ 60÷125 mm) for fitting normal and oversize pistons in cylinders

1860744000 Tool for rotating crankshaft (at the bench)

1860745100 Tool for tensioning toothed belts (to be used with specific tools)

1860745300 Tool for timing system toothed belt tensioning (to be used with 1860745100)

1860765000 Tool for retaining camshaft toothed pulley or auxiliary shaft toothed pulley whilst adjusting fixing bolts

1860765000 Tool for retaining camshaft toothed pulley or auxiliary shaft toothed pulley whilst adjusting fixing bolts

1861001032 Bracket for fixing engine, timing side, to rotating stand 1861000000

1861001034 racket for fixing engine, flywheel side, to rotating stand 1861000000

1867019000 Drift for removing and reiftting bush on crankcase for oil pump drive gear

1867029000 Flywheel lock

1876036000 Cable with contacts for rotating engine whilst adjusting valve clearance (operation on the vehicle)

1887001000 Pliers for removing engine valve tappet shims

1890310000 Reamer (⌀ 8 mm) for engine valve guide openings

1890365000 Reamer for auxiliary shaft bushes

1895376000 Cooling system leakage test equipment

1895683000 Device for checking engine cylinder compression (scale 4,05÷18,2 bar)

1895683002 Cards for device 1895683000

1895762000 Dynamometer to check V and poly-V belt tension

1895868000 Valve leakage test equipment

1895890000 Fuel pump delivery pressure gauge with unions

1895890020 Line with union for fuel pump delivery pressure measurement (to be used with 1895890000)

1895890040 Unions to detect fuel pump delivery pressure (to be used with 1895890000))

1895895000 Tool for positioning static advance ignition sensor carrier plate

1896219000 Gauge for checking valve stem height after refacing seats

CLUTCH

1875086000 Guide pin for centering driven disc

GEARBOX-DIFFERENTIAL

1842133000 Tool for removing differential bearing and gearbox gears

1842134000 Tool for removing gearbox gears and hubs

1845028000 Tool for removing differential bearings

1845057000 Tool for removing 5th speed gear bush

1847056000 Tool for extracting differential output shafts

1850113000 Spanner for gearbox oil drain plug

1855035000 Spanner for removing-refitting gearbox with engine fitted on vehicle

1860691000 Drift for removing and refitting gear hardening ball plug

00.A

1870152000 Drift for fitting hubs and gears on main and lay shafts

1870419000 Tool for fitting seals for main shaft on bell housing (to be used with 1870007000)

1870469000 Tool for fitting differential bearing (to be used with 1870007000)

1870595000 Support for engine in vehicle whilst removing gearbox/differential unit

1870600000 Support for gearbox/differential unit whilst removing-refitting (to be fitted to the hydraulic jack)

1870601000 Pair of supports for cross member supporting engine whilst removing-refitting gearbox/differential unit (to be used with 1870595000)

1870629000 Drift for fitting differential casing cover seal (to be used with 1870007000)

1870630000 Drift for fitting differential casing seal (to be used with 1870007000)

1870631000 Drift for fitting main and lay shaft bearings and gears

1870632000 Drift for fitting bearings

1870633000 Drift for fitting clutch release shaft bush

1871001014 Support for gearbox/differential unit whilst overhauling (to be fitted to 1861000000 or 1871000000)

1874140005 Pair of tools for staking gearbox shaft ring nuts (to be used with 1874140001)

1875088000 Drift for fitting main shaft front bearing

1881124000 Pliers for removing-refitting drive shaft circlip

1895655000 Tool for determining thickness of diff. bearing adjustment shims (to be used with 1895884000)

BRAKING SYSTEM

1856132000 Spanner (10-11 mm) for adjusting brake pipe unions

1872273000 Set of tools for retaining brake cylinder piston whilst fitting shoes

STEERING

1847035000 Tool for extracting track rod ends

1874556000 Tool for adjusting power assisted steering track rod ends

SUSPENSION AND WHEELS

1845026000 Tool for removing front hub bearing inner race from flange (to be used with 1840005002, 1840005301 and 1840005400)

1847014000 Percussion extractor for wheel hub caps

1857017000 Spanner (32 mm) for tightening rear wheel hub fixing nut to torque

1857509000 Spanner (18 mm) for adjusting front shock absorber fixing nut on vehicle with vehicle on the ground (to be used with 1874551000 and 6mm spanner)

1860627000 Drift for fitting bearings

1874372000 Tool for removing rear hub bearing from steering knuckle

1874551000 Tool for retaining front shock absorber stem whilst adjusting fixing nut (to be used with 1857509000 and 6 mm spanner)

1874552000 Tool to fit front wheel hub bearings

1874555000 Pneumatic tool for compressing suspension springs when removing shock absorbers

1875059000 Drift for fitting rear wheel hub covers

ELECTRICAL EQUIPMENT

1860440000 Pliers for removing cigar lighter housing

1876046000 Lever for removing terminal from contact holder block

BODYWORK

1878017000 Pliers to clamp seat spring hooks

1878031000 Set of clamps (4) for lifting windscreen and rearscreen glass

1878033000 Wire with grabs to remove windshield and back window glass bonding bead

1878034000 Tool for removing window opening handles

1878076000 Tool for cutting car interior plastic lining

1878077000 Tool to remove door trim panels or plastic buttons

1878079000 Tool for fitting steel wire for tool 1878033000 in bonding

1878080000 Tool for positioning door check strap whilst fitting flexible retaining pin (to be used with 1878081000)

1878081000 Pliers for removing-refitting door check strap flexible retaining pin (to be used with 1878080000 whilst refitting)

1878082000 Bush to be fitted to torque wrench 1895697000 for checking manual window opening torque

1878086000 Tool for removing-refitting side door window trims

1878087000 Tool for removing button fixing side door lowering window

ORDINARY TOOLS

1840005000 Universal extractor

1840005003 Three arm bridge (complete with brackets)

1840206000 Percussion extractor (to be used with specific tools)

1846017000 Base for puller half-rings

1847017001 Percussion extractor (to be used with specific tools)

1861000000 Rotating stand for overhauling engine (also used for featboxes and differentials)

1861000001 Pair of sections for brackets supporting the engine on rotating stand 1861000000

1870007000 Grip for drifts and fitting tools

1870404000 Support for measuring depths and projections (to be used with 1895881000)

1874140001 Pliers for staking nuts (to be used with specific tools)

1874550000 Support for raising side of vehicle (to be used with hydraulic jack)

1876048000 Extractor for Mini Hylok Contact (MHF) type terminals ⌀ 2,15 mm

1882001010 Tool board to be fixed to the wall or to rotating stand 1882003000 (complete with hooks)

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1882003000 Stand to hold two tool boards

1895113000 Feeler gauge (0.05-0.10 ... 0.80 mm) for checking various clearances

1895684000 Dial gauge with magnetic base

1895697000 Torque meter (0-4.90 Nm) to gauge bearing rolling torque

1895881000 Dial gauge to be used with specific tools (measuring capacity mm 10; shank length mm 16,7)

1895884000 Dial gauge to be used with specific tools (measuring capacity mm 5; shank length mm 16,5)

1895885000 Dial gauge to be used with specific tools (measuring capacity mm 25; shank length mm 17)

DESCRIPTION	Thread size	Tightening torques daNm

ENGINE

Caps to crankcase fixing, bolt	M10×1,25	8
Engine breather to crankcase fixing, bolt	M8	2,3
Front cover to crankcase fixing, bolt	M10x1,25	4,9
	M8	2,5
Rear cover to crankcase fixing, bolt	M6	1
Toothed belt lower shield fixing, bolt	M8	2,5
Power unit mounting support to crankcase fixing, bolt	M10x1,25	8
Cylinder head to crankcase fixing, bolt	M10x1,25	4+90°+90°
Cylinder head to crankcase side fixing, bolt	M8	3
Camshaft housing to cylinder head fixing, bolt	M8	2,8
Inlet and exhaust manifold to cylinder head fixing, nut	M8	2,8
Caps fixing, nut	M9x1	5,1
Flywheel to crankshaft fixing, bolt	M10x1,25	8,3
Crankshaft pulley fixing, nut	M20x1,5	15,5
Camshaft driven gear fixing, bolt	M10x1,25	8,3
Aluminium tappet cover fixing, nut	M6	0,85
Bearing to belt tensioner mounting fixing, nut	M8	2,5
Auxiliary shaft driven gear fixing, bolt	M10x1,25	8,3
Oil sump to crankcase fixing, bolt	M6	1

DESCRIPTION	Thread size	Tightening torques daNm
Oil sump to covers fixing, nut	M6	1
Alternator to upper bracket fixing, nut for bolt	M10x1,25	4,9
Alternator to lower mounting fixing, nut	M10x1,25	4,9
Lower alternator mounting to crankcase fixing, bolt	M10x1,25	4,9
Spark plugs	M14x1,25	2,7
Oil pressure switch	M14x1,5	3,2
Coolant temperature sender unit	M16x1,5 tapered	3,4

ENGINE EXHAUST

Exhaust manifold fixing, nut	M8	2,4
Flange to exhaust pipe fixing, nut	M8	2,4
Exhaust manifold to cylinder head fixing, nut for stud	M8	2,4
IVK coupling to exhaust manifold fixing, nut	M8	2,4
End section of exhaust pipe mounting bracket fixing, bolt	M8	2,7
Lambda sensor	M18x1,5	5,3
CO intake closure bolt	M12x1,5	6
ollar joining rear section of pipe to catalytic converter fixing, nut	M8	2,4
eat shield on rear pipe fixing, bolt	M6	0,8
ront section of catalytic converter fixing, nut	M8	2,4
ear section of catalytic converter fixing, nut	M10x1,25	4

DESCRIPTION	Thread size	Tightening torques daNm
Heat shield to handbrake support fixing, nut	M8	1,6
Exhaust manifold to crankcase fixing, bolt	M8	2,2
Front exhaust pipe to manifold fixing, nut with flange	M8	2,5

EXTERNAL GEARBOX CONTROLS

Support to bodyshell fixing, lower bolt with wide flange	M8	2,7
Support to bodyshell fixing, upper bolt with flat, unlosable washer	M8	2,7
Flexible bracket to gearbox fixing, bolt	M8	2,4
Selector rod to gear lever fixing, nut	M8	1,7
Gear selector lever support fixing, nut	M6	0,6
Control rod to gear selector lever fixing, nut	M6	1

GEARBOX AND DIFFERENTIAL

5th speed mounting fixing, bolt with flange	M6	1,2
5th speed selector fork fixing, bolt with flange	M6	1,2
Reverse gear support fixing, bolt	M8	1,5
5th speed gears to main and lay shaft fixing, ring nut	M20x1,5	11,8
Controls support to gearbox casing fixing, bolt with flange	M8	2
Speedometer drive shaft fixing, bolt with flange	M6	0,5
Selector lever flange to controls support fixing, nut with flange	M8	1,5
Differential casing to complete support retaining flange fixing, bolt	M8	2

DESCRIPTION	Thread size	Tightening torques
		daNm
Gearbox casing to bell housing fixing, bolt	M8	2
Cover to gearbox casing fixing, bolt with flange	M6	0,5
Differential casing to bell housing fixing, bolt with flange	M8	2
	M10x1,25	3,5
Threaded plug for introducing oil into the gearbox casing	M22x1,5 tapered	4
Engine/gearbox reinforcement to gearbox lower fixing, nut	M10x1,25	3,5
Engine/gearbox reinforcement to gearbox lower fixing, bolt	M12x1,25	5
Engine/gearbox reinforcement to crankcase upper fixing, bolt	M8	2,8
Threaded plug for draining oil from gearbox casing	M16x1,5 tapered	2,2
Bearing retaining plate to gearbox casing fixing, bolt	M8	2
Reverse gear shaft fixing, bolt	M8	2,6
Gearbox to engine fixing, stud bolt	M12x1,25	4
Gearbox to engine fixing, bolt	M12x1,25	8,5
Gearbox to engine fixing, nut	M12x1,25	8,5
Gearbox to engine fixing, bolt with flange	M12x1,25	8,5
Starter motor fixing, bolt with flange	M8	2,6
Flywheel cover fixing, bolt with flexible washer	M6	0,4
	M8	1,5

DESCRIPTION	Thread size	Tightening torques daNm

POWER UNIT MOUNTING

Mounting and complete bracket to side member fixing, bolt (engine side)	M10x1,25	5
Support to engine fixing, bolt	M10x1,25	5
Flexible mounting to engine support fixing, nut	M12x1,25	9
Flexible mounting to side member fixing, bolt (gearbox side)	M10x1,25	5
Support to gearbox fixing, bolt	M12x1,25	5,5
Flexible mounting to gearbox support fixing, nut	M10x1,25	5
Flexible mounting to cross member fixing, bolt with flange (differential side)	M8	4
Support to gearbox fixing, nut (differential side)	M10x1,25	9
Flexible mounting to support fixing, bolt (differential side)	M10x1,25	5

STEERING

Filler for oil union between power assisted steering and reservoir	M12x1,5	2
Filler, on pump, for adjustable oil supply union from pump to power assisted steering	M16x1,5	3,5
Filler for oil return union from reservoir to pump	M18x1,5	3,4
Filler, on power assisted steering, for oil supply union from pump to power assisted steering	M14x1,5	3
Bracket fixing, bolt with flange	M6	0,8
Support fixing, nut with border	M6	0,45
Ball joint to steering knuckle fixing, nut	M10x1,25	4
Steering box to cross member fixing, bolt with unlosable, flat washer	M12x1,5	7
Steering wheel to steering control shaft fixing, nut (adjustable steering column)	M16x1,25	5,5

DESCRIPTION	Thread size	Tightening torques daNm
Upper and lower coupling fixing, nut (adjustable steering column)	M8	2,2
Adjustment lever fixing, nut	M12x1,25	6,5
Cam fixing, bolt	M6	0,45÷0,6
Steering control shaft to bodyshell fixing, nut	M6	0,55

BRAKING SYSTEM

Support to floor fixing, bolt with normal flange	M8	2,4
Handbrake to bodyshell fixing, bolt with wide flange	M8	2,7
Support to toothed sector fixing, bolt with normal flange	M8	2,7
Handbrake lever to support fixing, bolt	M8	2
Discs and drums to hubs fixing, bolt	M8	1,2
Flexible pipe connecting union to front brake caliper	M10x1	1,4
Bleed screw on front brake calipers and rear brake wheel cylinders	M8	0,64
Cylinder to brake back plate fixing, bolt	M6	1
Male union for pipes with inflated ends on pipes: pump, 2 way, flexible, rear cylinders	M10x1	1,4
Handbrake cable retaining bracket to rear suspension fixing, bolt with washer	M8	1,6
Brake back plate to rear suspension arm fixing, bolt (drum brakes)	M8	2,4

ANTISKID

Control unit mounting bracket to bodyshell fixing, nut	M8	2,4
Control unit bracket fixing, bolt with tapered end with tapered, flexible, unlosable washer	M8	2

DESCRIPTION	Thread size	Tightening torques daNm
Control unit to bracket fixing, nut with tapered, flexible, unlosable washer	M6	0,44
Brake fluid reservoir to control unit mounting bracket fixing, bolt	M6	0,55
Filler for pipe union on control unit	M10x1	1,1
Male union with inflated end for fixing pipes to control unit, pump and control unit union	M10x1	1,4
Male union for tightening two outlets onto pump	M10x1	1,4
Bracket retaining sensor cable to bodyshell fixing, bolt with tapered, unlosable washer	M6	0,6
Sensor cable to shock absorber fixing, nut with washer	M6	0,55
Earth connecting cable to control unit, nut	M6	0,55
Rear sensor cable mounting brackets fixing, nut with flange	M8	2
Connector retaining brackets fixing, nut with flange	M6	0,55
Rear sensor fixing, bolt with flexible, unlosable washer	M6	0,7
Sensor cable retaining, bolt with flange	M6	0,7
Connector fork fixing, nut with flange	M6	0,7

FUEL CIRCUIT

Tank and filler to bodyshell fixing, bolt with wide flange	M8	2,8
Supply, recirculation and breather unions to tank fixing, ring nut	131x6	6
Tank fixing, bolt with wide flange	M8	2,7
fuel filter collar, nut	M6	0,5
Union for fuel system	M22x1,5	3,8

DESCRIPTION	Thread size	Tightening torques daNm
Fuel system bracket fixing, bolt	M6	0,7
Filler bracket fixing, bolt with flange	M6	0,9
Fuel vapours filter fixing, nut	M6	0,55

PEDALS

Strut to bodyshell upper fixing, nut	M6	0,55
Brake servo to dashboard upper and lower fixing, nut	M8	1,7
Brake and clutch pedals to pedal mounting fixing, nut	M8	3,2
Plate fixing, bolt with flange	M8	1,8
Accelerator plate fixing, bolt with flange	M6	0,6
Brake servo to pedals fixing, nut with border	M8	1,5
Accelerator pedal support fixing, nut	M6	0,5
Clutch cable flange to dashboard fixing, nut	M6	0,45

FRONT SUSPENSION

Complete support to shock absorber fixing, nut	M12x1,25	5,9
Steering knuckle to shock absorber fixing, nut	M10x1,25	7
Brakes to hub fixing, bolt	M8	1,2
Brake caliper to steering knuckle fixing, bolt	M10x1,25	5,3
Brake shield to steering knuckle fixing, flanged bolt	M6x1	0,5
Wheel to hub fixing, bolt	M12x1,25	8,6

DESCRIPTION	Thread size	Tightening torques daNm
Front wheel hub fixing, nut	M22x1,5	24
Track control arm front bush fixing, bolt	M12x1,25	9,5
Track control arm rear bush fixing, bolt with tapered, flat, unlosable washer	M10x1,25	7
Ball joint to steering knuckle fixing, nut	M8x1,25	3,2
Front and rear cross member fixing, bolt with tapered, flat, unlosable washer	M12x1,25	11,5
Shock absorber support to turret fixing, flanged bolt	M10x1,25	4,9
Anti-roll bar to track control arm fixing, flanged bolt	M8x1,25	3
Anti-roll bar to cross member fixing, flanged bolt	M8x1,25	3,5
Dampers to cross member fixing, bolt with tapered washer	M10x1,25	3,5

REAR SUSPENSION

Trak control arm to chassis fixing, nut with flange	M14x1,5	15,5
Shock absorber lower fixing, bolt with normal flange	M12x1,25	9,5
Shock absorber upper fixing, bolt with normal flange	M10x1,25	6,2
Flexible mounting fixing, bolt with flat, tapered, unlosable washer	M12x1,25	10
Anti-roll bar front fixing, bolt with normal flange	M8	3
Anti-roll bar rear fixing, bolt with normal flange	M10x1,25	5,6
Rear hub fixing, nut for stub axle	M22x1,5	28
Wheel to hub fixing, bolt	M12x1,25	8,6
Cable support hook to suspension arm fixing, bolt with unlosable, split washer	M8	1,6

DESCRIPTION	Thread size	Tightening torques daNm
ELECTRICAL EQUIPMENT		
Injection control unit fixing, bolt with flange	M6	0,8
Injection control unit to bodyshell fixing, nut with border	M6	0,5
Bracket for injection control unit fixing, nut	M8	1,9
Control unit to bracket fixing, bolt with flange	M6	0,8
Battery drip tray to bodyshell fixing, bolt	M8	2,9
Windscreen wiper arm fixing, nut	M8	1,6
Earth for rear light clutsters fixing, bolt with flange	M8	2,4
Battery earth cable fixing, bolt with flange	M8	2,4
Electronic injection components bracket fixing, nut with border	M8	1,9
Antiskid hydraulic control unit earth cable to body-shell fixing, bolt with flange	M8	2,4
Front earth cables and antiskid plate fixing, bolt with flange	M8	2,4
Earth under dashboard connecting, bolt with flange	M8	2,4
Speedometer sensor fixing	M14	2,5
Earth to gearbox connecging, self-locking nut	M8	2,4
Battery mounting bracket fixing, bolt with flange	M8	1,7
BODYWORK		
Seats to floor fixing, bolt with tapered, unlosable washer	M8	2,4
Seat backrest lower fixing, bolt with flange	M8	2,4
Rear cushion fixing, bolt	M8	2,4

DESCRIPTION	Thread size	Tightening torques
		daNm
Tailgate hinges fixing, bolt with flange	M8	2,4
Lid hinges fixing, bolt with wide flange	M8	2,4
Front seat belt reel and rings to pillar and side member fixing, bolts	7/16"	4
Webbing stalk to front seat, inner side, fixing, bolt	7/16"	4
Front seat belt adjuster to door pillar fixing, bolt	M8	2
Rear seat belts to floor and reel fixing to upper partition fixing, bolt	7/16"	4
Locks to side doors fixing, bolt	M8	2
Tailgate lock striker fixing, bolt	M6	0,85