1982 Peugeot 4 Tune-Up

TUNE-UP

505

ENGINE IDENTIFICATION

The gas engine in all 505 models is referred to as XN6 version. Engine codes are stamped on camshaft tunnel on left side of block.

ENGINE CODE

Application	Code
505	
Man. Trans.	M5 BVM
Auto. Trans.	A3 BVA

ENGINE COMPRESSION

Check compression with battery fully charged and engine at normal operating temperature.

COMPRESSION SPECIFICATIONS

Compression Ratio	8.4:1

VALVE CLEARANCE

Valves must be set with engine cold. To adjust valves, remove valve cover and rotate crankshaft until valve listed in 1st column of table is fully open. Adjust valves listed in 2nd column of table. Replace valve cover.

NOTE: Valves and cylinders are numbered from rear to front.

VALVE ADJUSTMENT SEQUENCE

Exhaust Valve Open	Valves to Adjust
No. 1	No. 3 Int. & No. 4 Exh.
No. 3	No. 4 Int. & No. 2 Exh.
No. 4	No. 2 Int. & No. 1 Exh.
No. 2	No. 1 Int. & No. 3 Exh.

VALVE CLEARANCE SPECIFICATIONS

Application	Intake In. (mm)	Exhaust In. (mm)
All Models [1]	.004 (.10)	.010 (.25)

[1] - Set valves with engine cold.

VALVE ARRANGEMENT

Right Side — All Exhaust
Left Side — All Intake

SPARK PLUGS

SPARK PLUG TYPE

Application	Bosch No.
All Models	WR7DS

SPARK PLUG SPECIFICATIONS

Application	Gap In. (mm)	Torque Ft. Lbs. (N.m)
All Models	.024 (.61)	15 (20)

HIGH TENSION WIRE RESISTANCE

Carefully remove high tension wires from spark plugs and distributor cap. Using an ohmmeter, check high tension wire resistance while gently twisting wire. If resistance is not to specification or fluctuates from infinity to any value, replace wire(s).

WIRE RESISTANCE

Application	Ohms
All Models	6000

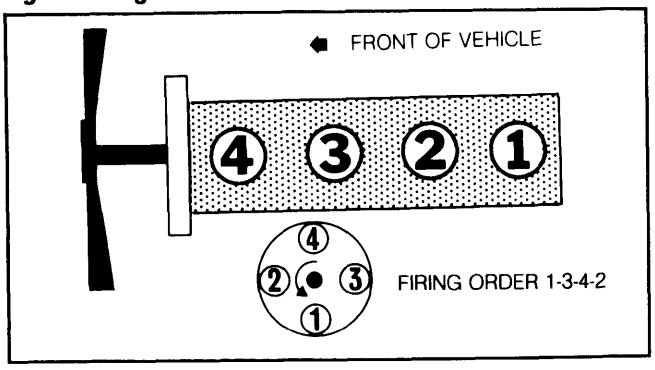
DISTRIBUTOR

All models use a Ducellier single pick-up breakerless distributor in conjunction with an AC Delco coil and transistorized amplifier module. The only adjustment provided is for air gap between the reluctor and pick-up coil in the distributor. Measure gap using a non-magnetic feeler gauge.

AIR GAP SPECIFICATIONS

Application	In. (mm)
All Models	.012-.020 (.30-.50)

Fig. 1: Firing Order and Distributor Rotation



IGNITION TIMING

1) Disconnect and plug distributor vacuum line. Connnect a timng light to No. 1 cylinder. Start engine and warm to normal operating temperature.

2) With engine idling at 800 RPM, check ignition timing. If timing is not correct, loosen distributor flange and rotate distributor to adjust timing to correct specification. When timing is correct, tighten distributor flange and reconnect distributor vacuum hose.

1982 Peugeot 4 Tune-Up

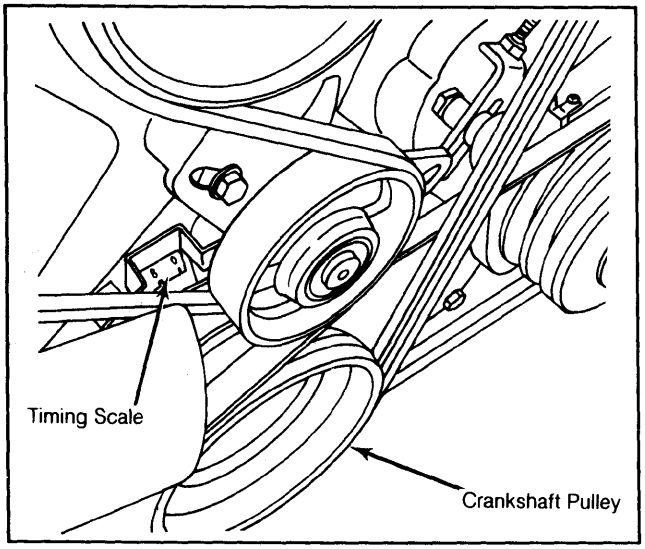
TUNE-UP (Cont.)

IGNITION TIMING (Degrees BTDC@RPM)

Application	Timing
505	[1] 8@800-850

[1] - Transmission in neutral.

Fig. 2: Ignition Timing Marks



IDLE SPEED & MIXTURE

NOTE: Mixture adjustment is not a part of normal tune-up procedure and should not be performed unless mixture control unit is replaced or vehicle fails emissions testing.

1) Connect CO meter to front tap in catalytic converter. Disconnect wire 47C from thermovalve and ground it. Disconnect and plug vacuum supply hose to canister purge valve and air injection hose at diverter valve.

2) With air conditioning and all accessories off, connect tachometer. Insure that transmission is in neutral and air cleaner is in place. Start engine and warm to normal operating temperature. Using Allen wrench, adjust idle at air bleed screw. Check CO reading. If reading is not to specification given in table, proceed with mixture adjustment.

3) Stop engine and disconnect battery. Remove mixture control unit and set it upside down. Pull out plug at mixture adjustment opening. Push anti-stall stop into control unit. Reinstall mixture control unit and reconnect battery.

4) Start engine and warm to normal operating temperature. If necessary, readjust idle at air bleed screw. Using Allen wrench adjust fuel mixture to obtain correct CO specification. Accelerate engine and recheck CO reading. If not correct, repeat adjustment procedure.

5) Remove testing equipment and reconnect thermovalve wire 47C, canister purge and air injection hoses. Install new plug in mixture adjustment opening.

IDLE SPEED & CO LEVEL

Application	Idle RPM	CO%
505	800-850	[1] 0.3-1.3

[1] - With air injection disconnected.

COLD (FAST) IDLE RPM

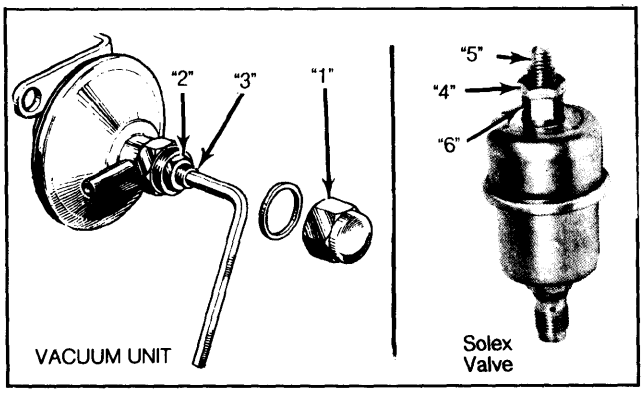
1) With engine at operating temperature and idle correctly adjusted, place transmission in neutral and turn off all accessories. Stop engine.

2) Disconnect hose with green ring from vacuum "T" near Solex valve (right fender panel). Disconnect hose with red ring from Solex valve and connect it to "T". This applies vacuum to idle speed diaphragm.

3) Remove domed nut "1" shown in *Fig. 3.* Loosen lock nut "2" and start engine. Engine speed should be as specified.

4) If engine speed is not correct, adjust screw "3" to specification, using a 3 mm Allen wrench. Tighten lock nut "2" and install domed nut "1", making sure gasket is in place.

Fig. 3 Adjusting Fast Idle at Deceleration Vacuum Unit



5) Return vacuum hoses to original locations. Loosen lock nut "4" on Solex valve (not vacuum unit). Screw in threaded rod "5" to obtain 1500 RPM idle.

NOTE: Always hold nut with wrench when loosening or tightening lock nut on deceleration valve, so as not to exert force on diaphragm.

6) Increase engine speed to 3000 RPM without load, and allow engine speed to decrease. Unscrew threaded rod "5" one-half turn at a time until normal idle (800 RPM) is obtained.

7) Unscrew threaded rod one additional half turn and tighten lock nut.

FAST IDLE SPEED

Application	RPM
All Models	1500-1550

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

1982 Peugeot 4 Tune-Up

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Ducellier breakerless electronic ignition systems.

IGNITION COIL

RESISTANCE Ohms@68°F (20°C)

Application	Primary	Secondary
All Models	.48-.61	9000-11,000

FUEL SYSTEMS

FUEL INJECTION

All models are equipped with Bosch Lambda Continuous Injection System (CIS) fuel injection with oxygen sensor.

ELECTRICAL

BATTERY

BATTERY SPECIFICATIONS

Application	Amp. Hour Rating
All Models	60

STARTER

All models use Paris-Rhone starters.

ALTERNATOR

All models use Paris-Rhone Alternators.

ALTERNATOR SPECIFICATIONS

Application	Rated Amp. Output
All Models	75

ALTERNATOR REGULATOR

A solid state, integral alternator regulator is used on all models.

SERVICE SPECIFICATIONS

BELT ADJUSTMENT

1) Loosen idler pulley mounting bolts and apply 36 ft. lbs. (48 N.m) to pivot nut above idler pulley. Tighten bolts, then turn engine 1 revolution. Loosen bolts and apply 58 ft. lbs. (77 N.m) to pivot nut. Tighten idler pulley mounting bolts.

2) Air conditioning belt is tightened by pivoting compressor. The belt from crankshaft pulley to water pump is a force-fit and no adjustment is possible.

REPLACEMENT INTERVALS

Component	Miles
Oil Filter	7500
Air Filter	30,000
Fuel Filter	60,000
Spark Plugs	30,000
Oxygen Sensor	30,000

FLUID CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	4.2 qts. (4.0L)
Cooling System	
Man. Trans.	7.5 qts. (7.0L)
Auto. Trans.	7.7 qts. (7.3L)
Man. Trans. (SAE10W-40)	3.4 pts. (1.6L)
Auto. Trans. (Dexron)	5.5 qts. (5.0L)
Rear Axle (SAE80)	3.3 pts. (1.5L)
Fuel Tank	18.0 gals. (68.0L)