

## TUNE-UP

505

### ENGINE IDENTIFICATION

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

|                    |             |
|--------------------|-------------|
| <b>Application</b> | <b>Code</b> |
| 505                |             |
| Man. Trans. ....   | M5 BVM      |
| Auto. Trans. ....  | A3 BVA      |

### VALVE CLEARANCE

Valves must be set with engine cold. To adjust valves, remove valve cover and rotate crankshaft until valve listed in first column of table is fully open, then adjust valves listed in second column of table. Replace valve cover.

**NOTE** — Valves and cylinders are numbered from REAR to FRONT.

|                   |                         |
|-------------------|-------------------------|
| <b>Valve Open</b> | <b>Valves to Adjust</b> |
| No. 1 Exh. ....   | No. 3 Int. & No. 4 Exh. |
| No. 3 Exh. ....   | No. 4 Int. & No. 2 Exh. |
| No. 4 Exh. ....   | No. 2 Int. & No. 1 Exh. |
| No. 2 Exh. ....   | No. 1 Int. & No. 3 Exh. |

#### Valve Clearance Specifications<sup>ⓐ</sup>

|                    |                        |                         |
|--------------------|------------------------|-------------------------|
| <b>Application</b> | <b>Intake In. (mm)</b> | <b>Exhaust In. (mm)</b> |
| All Models .....   | .004 (10)              | .010 (25)               |

<sup>ⓐ</sup> — Engine cold.

### VALVE ARRANGEMENT

All Models  
 Right Side — All Exhaust.  
 Left Side — All Intake.

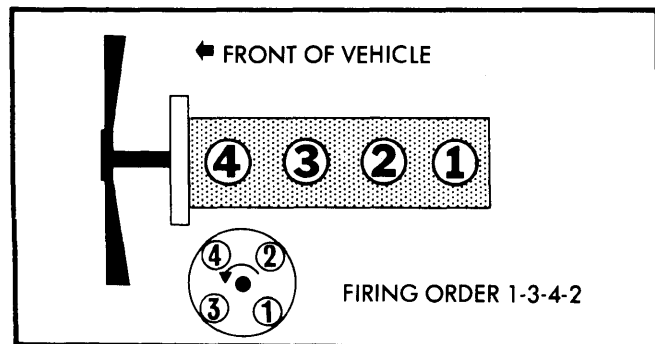


Fig. 1 Firing Order and Distributor Rotation

### SPARK PLUGS

Gap ..... .024" (.6 mm)

#### Spark Plug Type

|                    |                  |
|--------------------|------------------|
| <b>Application</b> | <b>Bosch No.</b> |
| All Models .....   | WR7DS            |

### 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).

#### Resistance (Ohms) Per Wire

|                    |             |
|--------------------|-------------|
| <b>Application</b> | <b>Ohms</b> |
| All Models .....   | 6000        |

### DISTRIBUTOR

All models use a Ducellier single pickup 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 pickup coil in the distributor. Measure gap using a non-magnetic feeler gauge. If gap is not to specifications, loosen pickup coil screws and adjust gap.

Air Gap ..... .012-.020" (.30-.50 mm)

### IGNITION TIMING

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

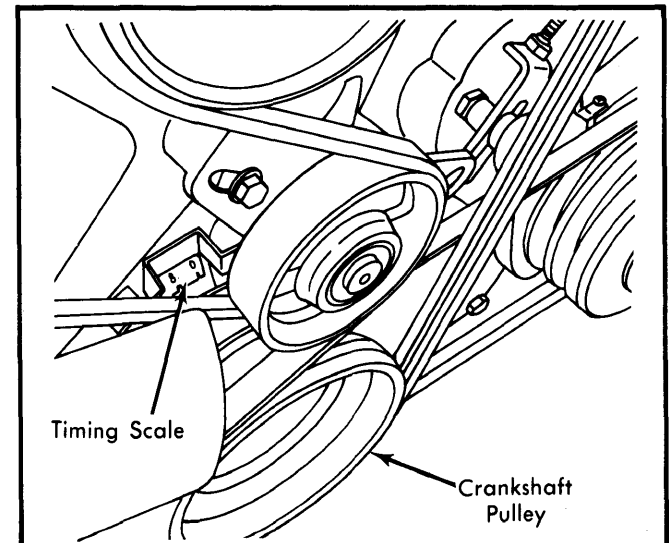


Fig. 2 Ignition Timing Marks

## TUNE-UP (Cont.)

2) With engine idling at 900 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.

### Ignition Timing Specifications (Degrees BTDC @ RPM)

| Application | Timing |
|-------------|--------|
| 505 .....   | ⓐ8@900 |

ⓐ — Transmission in neutral

### 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. To adjust, first remove tamper-proof plug.

1) Connect CO meter to front tap in catalytic converter. Disconnect wire 47C from thermostable valve 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 special screwdriver (Peugeot Part No. 8.0141 BA), adjust idle at air bleed screw to 900-950 RPM. 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 special tool (Peugeot Part No. 8.014 LZ), 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 thermostable valve wire 47C, canister purge and air injection hoses. Install new plug in mixture adjustment opening.

### Idle Speed & CO Level

| Application | Idle RPM      | CO%      |
|-------------|---------------|----------|
| 505 .....   | 900-950 ..... | ⓐ0.5-1.5 |

ⓐ — 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" in Fig. 3. Loosen lock nut "2" and start engine. Engine speed should be 1500-1550 RPM.

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.

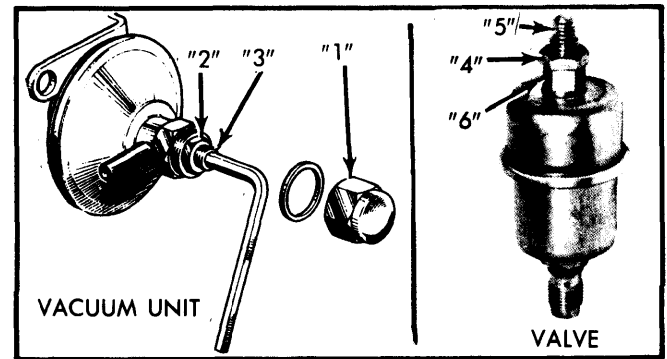


Fig. 3 Adjusting Fast Idle at Deceleration Vacuum Unit

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 part "6" 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 a turn at a time until normal idle (900 RPM) is obtained.

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

### Fast Idle RPM

| Application      | RPM       |
|------------------|-----------|
| All Models ..... | 1500-1550 |

## EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

# 1981 Peugeot 4 Tune-Up

## GENERAL SERVICING

### IGNITION

#### DISTRIBUTOR

All models are equipped with Ducellier breakerless electronic ignition systems.

#### IGNITION COIL

##### Coil Resistance (Ohms@68°F)

| 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

| Application      | Amp. Hour Capacity |
|------------------|--------------------|
| All Models ..... | 60                 |

**Battery Location** — Left side of engine compartment.

#### STARTER

All models use Paris Rhone starters.

#### ALTERNATOR

All models are equipped with Paris Rhone Alternators.

| Application      | Rated Amp. Output |
|------------------|-------------------|
| All Models ..... | 75                |

### ALTERNATOR REGULATOR

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

#### BELT ADJUSTMENT

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

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.

#### FILTERS

| Filter            | Service Interval (Miles) |
|-------------------|--------------------------|
| Oil Filter .....  | ⓪ Replace every 10,000   |
| Fuel Filter ..... | Replace every 30,000     |
| Air Filter .....  | Replace every 30,000     |

⓪ — First replacement at 5000 miles.

#### CAPACITIES

| Application                       | Quantity   |
|-----------------------------------|------------|
| Crankcase (Includes Filter) ..... | 4.2 qts.   |
| Cooling System                    |            |
| Man. Trans. ....                  | 7.5 qts.   |
| Auto. Trans. ....                 | 7.7 qts.   |
| Man. Trans. (SAE10W-40) .....     | 3.4 pts.   |
| Auto. Trans. (Dexron) .....       | 5.5 qts.   |
| Rear Axle (SAE80) .....           | 3.3 pts.   |
| Fuel Tank .....                   | 18.0 gals. |