TUNE-UP

928

ENGINE IDENTIFICATION

The engine identification number is stamped on the front reinforcing rib in the top half of the crankcase, directly behind the fan. The first 3 digits in engine number identify type and model year.

Application	Engine Type	Code
928		
Man. Trans.	M28/15	811
Auto. Trans.	M28/16	811

COMPRESSION PRESSURE

With engine at normal operating temperature, remove all plugs and allow 12 compression strokes per cylinder. Pressure should not vary more than 21 psi (1.5 kg/cm²) between cylinders.

Compression Pressure Specifications

Application	Pressure psi (kg/cm²)
Normal	142-199 (10-14)
Minimum	114 (8)

VALVE CLEARANCE

Porsche 928 models are equipped with hydraulic valve lifters and no adjustments are necessary.

VALVE ARRANGEMENT

Both Banks — I-E-I-E-I-E-I-E (front to rear)

SPARK PLUGS

Application	Gap In. (mm)	Torque Ft. Lbs. (N·m)
All Models	.028 (0.7)	18 (24)

Spark Plug Type

Application	Bosch
All Models	WR8DS

HIGH TENSION WIRE RESISTANCE

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

Resistance (Ohms) Per Wire

Application	Ohms
All Wires	2,500

DISTRIBUTOR

All models use Bosch breakerless electronic ignition and no adjustment in distributor is necessary.

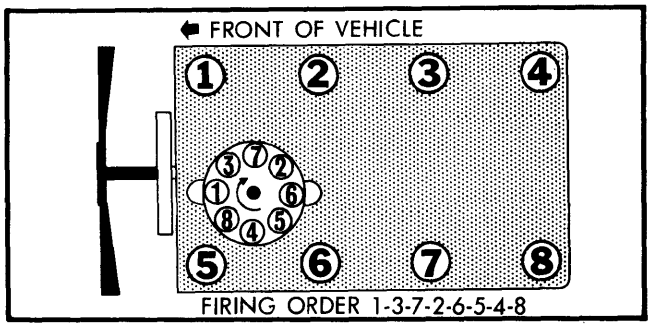

Fig. 1 Firing Order and Distributor Rotation

IGNITION TIMING

1) With engine at normal operating temperature, disconnect and plug hoses at distributor advance unit. Stop engine and connect timing light to No. 1 cylinder and tachometer to connection stud above ignition control unit in engine compartment.

CAUTION — *Dangerous voltage exists on primary and secondary side of entire ignition system as well as wiring from ignition control unit to tachometer, plug connections and any testing equipment connected. Ignition must be off when attaching or removing testing equipment, or severe shock may occur.*

2) Start engine and increase speed to 3000 RPM. Timing should be as specified. Adjust if necessary by turning distributor. Return engine to idle and connect vacuum hoses. Timing should now read TDC to 7° BTDC. If not, distributor should be removed and tested.

Ignition Timing Specifications

Application	RPM	Timing
All Models	3000	①23° BTDC

① — With distributor vacuum advance hoses disconnected and plugged.

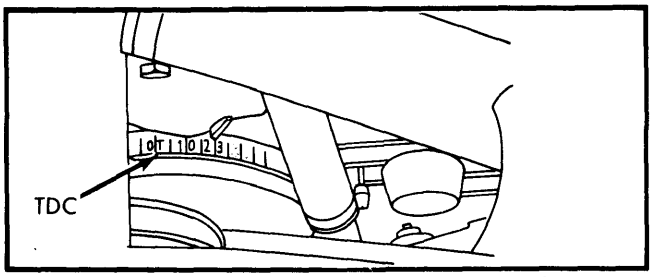

Fig. 2 Timing Marks on Crankshaft Pulley

IDLE SPEED & MIXTURE

1) Fold up foot support on passenger side under dashboard. Disconnect plug for oxygen sensor (left side of footwell). Connect CO meter to test point on catalytic converter and connect tachometer.

2) Adjust idle speed using screw in front of throttle housing. If mixture must be adjusted, insert tool through opening in air flow sensor. Turn clockwise to richen mixture and counterclockwise to lean mixture.

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TUNE-UP (Cont.)

3) When idle mixture and speed are correct, remove test equipment. Connect oxygen sensor plug and coat threads of catalytic converter test cap with anti-seize compound.

Idle Speed & CO Level

Application	Idle RPM	CO%
All Models	700-800	①0.4-0.8

① — With oxgen sensor disconnected.

FUEL PUMP PRESSURE & VOLUME

Pressure (At Idle) ..... 26-32 psi (1.8-2.2 kg/cm²)
Volume ..... 1.2 qts. in 30 sec.

EXHAUST EMISSION SYSTEMS

See EXHAUST EMISSION SYSTEMS section.

GENERAL SERVICING

IGNITION

DISTRIBUTOR

All models are equipped with Bosch transistorized ignition systems.

IGNITION COIL

Coil Resistance (Ohms@68°F)

Application	Primary	Secondary
All Models	0.4-0.6	650-790

FUEL SYSTEMS

FUEL INJECTION

All models are equipped with Bosch AFC Lambda fuel injection system with oxygen sensor.

ELECTRICAL

BATTERY

Application	Amp. Hr. Rating
All Models	66 or 88

Battery Location — Battery is located under spare tire in rear of passenger compartment.

STARTER

Bosch ..... Overrunning Clutch

Starter Test Specifications

Application	Volts	Amps	Test RPM
All Models	11.5	55-85	8500-10,500

ALTERNATOR

Application	Rated Amp. Output
All Models	90

ALTERNATOR REGULATOR

All Models use Bosch or Motorola solid state alternator regulators.

BELT ADJUSTMENT

Tension is correct when belts can be depressed .4" (10 mm) by thumb pressure on center portion of belt.

FILTERS

Filter	Service Interval (Miles)
Oil Filter	Replace every 15,000
Air Filter	Replace every 30,000
Fuel Filter	Replace every 30,000

CAPACITIES

Application	Quantity
Crankcase (Includes Filter)	8.5 qts.
Cooling System	16.8 qts.
Man. Trans. (SAE 75W-90)	①4.0 qts.
Auto. Trans. (Dexron II)	①5.8 qts.
Differential (SAE 90)	2.1 qts.
Fuel Tank	23.0 gals.

① — Includes Limited Slip Differential.
② — Including Torque Converter, 6.4 qts.

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