1974-79 TUNE-UP PROCEDURES
Jensen-Healey 4-Cylinder

Interceptor

ENGINE IDENTIFICATION

All models use a twin overhead cam engine with 4 valves per cylinder.

ENGINE COMPRESSION

With engine at normal operating temperature, throttles fully open and all spark plugs removed, crank engine to take compression reading.

COMPRESSION PRESSURE SPECIFICATIONS

Application	Pressure
All Models	150-170 psi (10.5-11.9 kg/cm²)

VALVE CLEARANCE

NOTE: DO NOT turn camshafts with engine at TDC as valve damage can result. Turn crankshaft back 90 degrees to bring pistons halfway down cylinders. DO NOT turn crankshaft back more than 90 degrees as valve damage may result.

1) Drain coolant and remove radiator. Remove cooling fan and belt guard. Place a drip pan under exhaust manifold and remove battery. Set engine at TDC with distributor rotor pointing straight up. At this point, marks on camshaft sprockets should be aligned with and adjacent to each other.
2) Loosen lock nut securing belt tension pulley. Using Wrench (PT 0026) on large nut behind pulley, turn nut counterclockwise to loosen cam drive belt. Remove camshaft drive belt. *See Fig. 1.*
3) Remove camshaft covers and discard gasket. Turn camshaft until heel of lobe is above cam follower. Check all valve clearances and note which valves require adjustment.
4) To adjust valves, remove camshaft housing taking care that cam followers do not lift out and allow adjustment shims to drop. Calculate new shim thickness required for valve adjustment and install a single new shim which gives the correct clearance.
5) Reinstall camshaft housing. DO NOT use sealer on gasket. Make sure that oil hole in gasket is correctly aligned with hole in camshaft housing. Tighten nuts to 18-20 ft. lbs. (24-27 N.m).

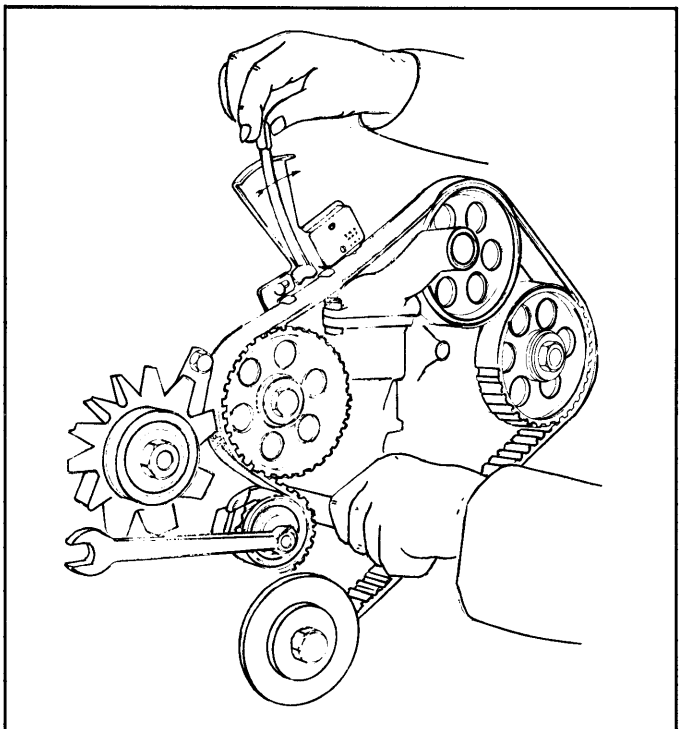

Fig. 1: Camshaft Drive Belt Tension Adjustment

VALVE CLEARANCE SPECIFICATIONS

Application	Intake In. (mm)	Exhaust In (mm)
All Models	.005-007 (.13-.18)	.010-.012 (.25-.31)

6) Recheck valve clearance and repeat steps **3)** through **5)** if clearances are not correct. Install camshaft covers using a new gasket and RTV sealer. Tighten cover bolts to 3-4 ft. lbs. (4.1-5.4 N.m) from the center outward. Ensure that gasket is correctly seated.
7) Turn camshafts until timing marks on sprockets are aligned with and adjacent to each other. Rotate engine back to TDC and reinstall toothed cam drive belt.
8) Place Strand Tension Gauge (KM 128) and belt thickness compensator in belt run, between intake camshaft and auxiliary shaft pulleys, but as close to auxiliary shaft pulley as possible. Check that reading on gauge is 3-3 1/2 when buzzer sounds or when reading is 66.1-77.2 lbs. (30-35 kg).
9) Adjust belt tension by loosening lock nut on tension pulley. Using Wrench (PT 0026) on large nut behind pulley, turn nut clockwise or counterclockwise to loosen belt tension. Tighten lock nut and recheck belt tension.
10) Reinstall belt guard, cooling fan, radiator, and battery. Start engine and check for oil leaks from cam covers. If cover(s) leak, retighten cover bolts to 4 ft. lbs. (5.4 N.m). If leak persists, remove cover and check sealing surfaces for damage.

VALVE ARRANGEMENT

Right Side - All Intake.
Left Side - All Exhaust.

SPARK PLUGS

SPARK PLUGS

Application	Specification
Gap	.025" (.64 mm)
Torque	24-28 ft. lbs. (32-38 N.m)

SPARK PLUG TYPE

Application	Champion No.
All Models	N7Y

DISTRIBUTOR

All models use Lucas single-point distributors.

DISTRIBUTOR

Application	Specification
Point Gap	.014-.016" (.36-.41 mm)
Dwell Angle	57-63°
Breaker Arm Spring Tension	18-24 oz. (510-680 g)

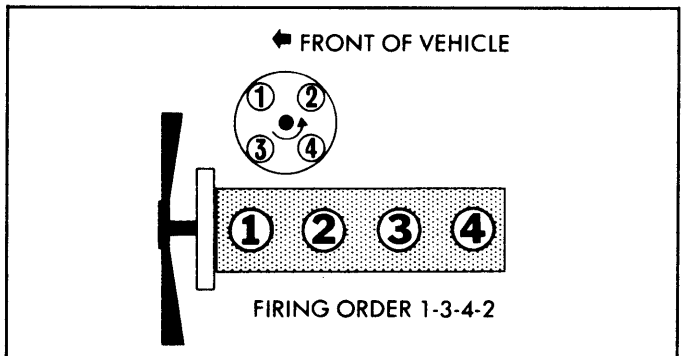

Fig. 2: Firing Order & Distributor Rotation

1974-79 TUNE-UP PROCEDURES
Jensen-Healey 4-Cylinder (Cont.)

IGNITION TIMING

1) Ensure distributor point gap and dwell angle are correct. Turn engine almost 2 complete revolutions until engine is at specified static ignition setting.
2) Loosen distributor clamp bolt and connect a test light between distributor low tension terminal and a known good ground. Turn ignition on and rotate distributor slightly in either direction until bulb lights and tighten pinch bolt.
3) Recheck timing by turning engine through one revolution and note that bulb lights when specified static setting is obtained. Turn ignition off and connect timing light to vehicle.
4) Start and run engine at 975 RPM. With at least 18" Hg vacuum in intake manifold, timing should move from static setting to dynamic setting. Accelerate engine to 2500 RPM and check for maximum advance.

IGNITION TIMING SPECIFICATIONS

Application	Timing @ RPM
Static Setting	10°BTDC
Dynamic Setting	TDC@975
Maximum Advance	14-18°@2500

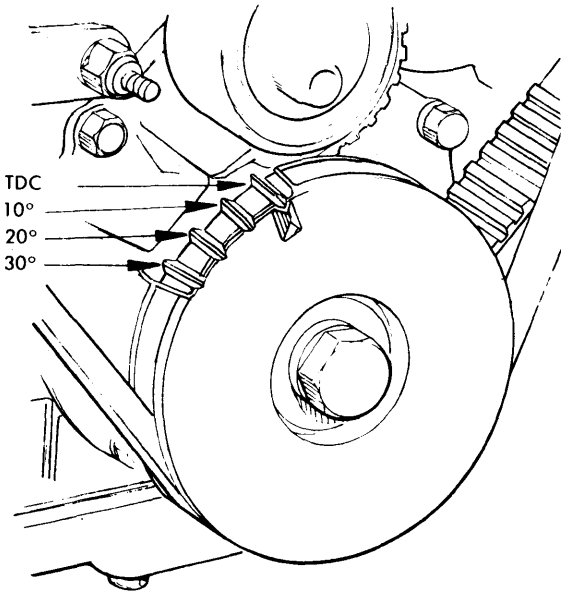

Fig. 3: Ignition Timing Marks

HOT (SLOW) IDLE RPM

1) Warm engine to normal operating temperature. Ensure carburetor piston dampers are filled with engine oil to 1/2" (13 mm) above top of hollow piston rod.
2) Connect tachometer and exhaust gas analyzer to vehicle. Using carburetor synchronizer, ensure that air flow through both carburetors is equal. Set idle speed to specifications and check CO% level.
3) If CO% value is incorrect, stop engine and remove dashpot plug and damper. Using Wrench (S 353), adjust mixture equally in each carburetor. Turn wrench clockwise to increase CO% reading, counterclockwise to lower CO% reading.
4) Start engine, set idle speed to specifications, and recheck CO% level. If CO% is still incorrect, repeat adjustment procedure until specified idle speed and CO% value are obtained.

IDLE SPEED & CO% LEVEL SPECIFICATIONS

Application	Idle RPM	CO%
All Models	950-1000	2.5-4.0

EXHAUST EMISSION SYSTEMS

See appropriate articles in EXHAUST EMISSION SYSTEMS section.

IGNITION SYSTEM

DISTRIBUTOR

All models use Lucas single-point distributors.
Other Data & Specifications – See Lucas Distributors in DISTRIBUTORS & IGNITION SYSTEMS section.

FUEL SYSTEM

CARBURETOR

CARBURETORS

Application	Model
All Models	Zenith-Stromberg 175CD2SE 1-Bbl.

Other Data & Specifications – See appropriate Zenith-Stromberg Carburetor article in FUEL SYSTEMS section.