

Tracing Faults

| Sequence of Testing. | Possible Trouble. | Remedy. |
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| Engine will not start. | | |
| Depress tickler on carburettor to check whether fuel is reaching carburettor. | No fuel reaching carburettor air lock in petrol pipe. | Turn tap to ON, refill tank, clear air vent in filler cap. |
| If no fuel, even when tap is on and fuel is in tank. | Choked petrol pipe, filter on tap, filter in tank. Fuel needle sticking in seating. | Remove and clean out. |
| Test for spark by holding sparking plug body on cylinder head. | Leak along insulation of plug or high tension lead. | Try a new plug of the type recommended and/or new H.T. lead. |
| If still no spark: Test for spark at end of H.T. lead held $\frac{1}{8}$ " from cylinder fins. | Plug points may be oily or sooted up, if no spark at end of H.T. lead, contact breaker point gap may be excessive or points pitted or dirty or oily. | Clean plug or fit new one. Adjust point gap to .015". Clean. |
| | Moisture on insulation of condenser. | Clean and dry out. |
| | Damaged insulating sleeving on wires connecting contact breaker to coil or condenser. | Replace with new sleeving. |
| | Faulty connection to low tension wire of ignition coil. | Correct. |
| | Faulty condenser. | Replace. |
| | Faulty ignition coil. | Replace. |
| If above tests are satisfactory but engine will not start. | Mixture may be too rich due to use of strangle, or incorrect setting of taper needle. Air leaks at carburettor stub or manifold joint causing weak mixture. Incorrect ignition timing. | Open throttle wide and depress kickstarter several times to clear engine of petrol, drain crankcase. Tighten joints evenly. Check instructions given. |
| Engine Four or Eight Strokes. | | |
| Air control lever may not be fully open or taper needle in a too high position. Air filter may need cleaning. | Mixture too rich. | Lower taper needle by moving to a WEAKER position. |

TRACING FAULTS — (continued)

| Sequence of Testing. | Possible Trouble. | Remedy. |
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| Engine Four or Eight Strokes — continued | | |
| Check by watching for excessive smoke from exhaust pipe or silencer. | Engine may four stroke for a little while after standing due to accumulation of oil in crankcase. | Usually ceases when engine has been running for a few minutes unless too much oil has been mixed with the petrol. |
| | Flooding of carburettor. | Persistent flooding is usually due to dirt under fuel needle seating or sticking fuel needle, damaged seating or punctured float. |
| Engine Lacks Power. | | |
| | Engine out of tune, bearings worn. Unsuitable sparking plug. | Overhaul. Replace with recommended type. |
| | Loss of compression. | Tighten cylinder head bolts. Replace worn piston rings. |
| | Incorrect "petrol" mixture. | Refer to pages 9 and 10. |
| | Excessive carbon deposit on piston crown and cylinder head. | Decarbonise. |
| | Exhaust system choked with carbon. | Clean out silencer and exhaust pipes. |
| | Incorrect carburettor setting. | Check and adjust. |
| | Air cleaner choked. | Wash in petrol, drain and dip in thin oil. |
| | Obstruction in fuel supply. | Clean out tap, fuel pipe and filters. |
| | Incorrect ignition timing. | Check and adjust. |
| | Brakes binding. | Adjust. |
| | Driving chains too tight. | Adjust. |
| Engine will not run Slowly. | | |
| | Weak mixture due to air leaks at carburettor stub or manifold joint, crankcase and cylinder base joints. | Tighten all joints evenly. Renew "O" rings. |
| | Crankcase drain screw loose or missing. | Tighten or replace. |
| | Worn crankshaft bearings or leaking seal. | Replace. |
| | Ignition timing too far advanced. | Correct. |
| Engine Suddenly Stops Firing. | | |
| | Spark plug lead detached. | Replace. |
| | Plug points bridged by oil, carbon, or deposit caused by use of leaded petrol. | Clean or replace. |
| | Short circuit of high tension lead to frame possibly by water on H.T. lead. | Insulate. If wet, dry out. |