

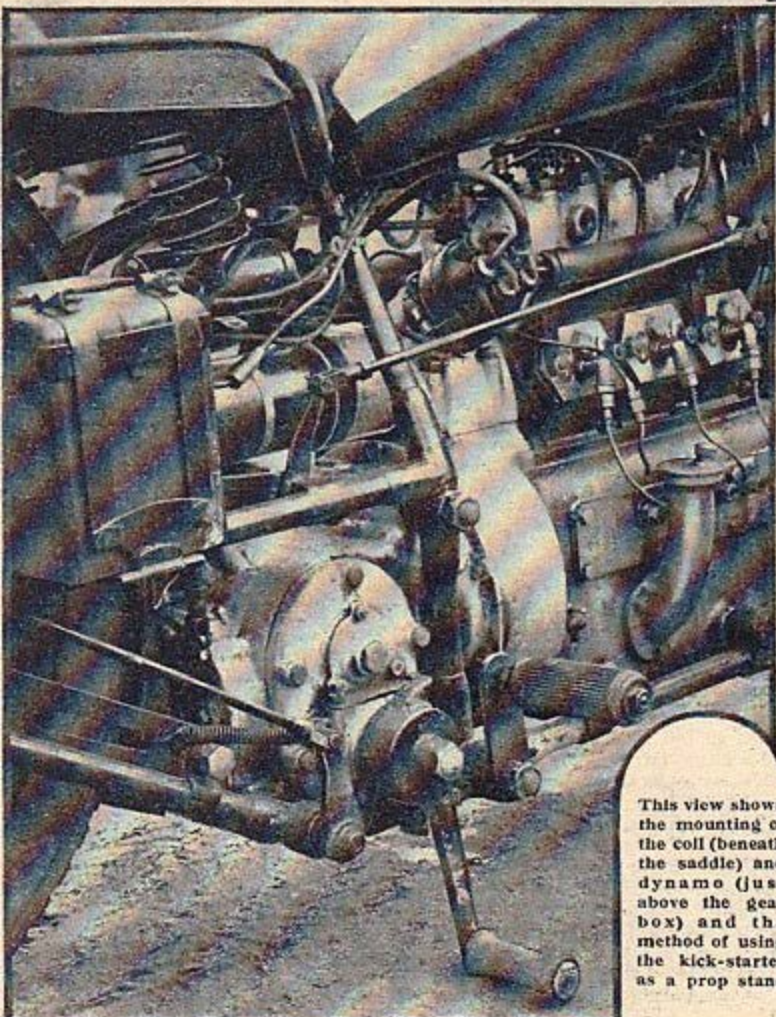
# The 747 c.c. Three-Cylinder SCOTT

WHEN a machine is of an entirely new type, and the particular model is the first to be made, the experienced rider is inclined to anticipate that mental allowances will be necessary. With its three-in-line water-cooled two-stroke engine, the unit-construction Scott is a complete novelty; moreover, the 747 c.c. machine that has undergone test is the first to be produced, but mental allowances are required not so much for any deficiencies as for the unusual nature of its performance. However, the facts speak for themselves. Hardly was the machine under way than one admir-

Road  
Tests  
of  
1934  
Models



(Above) The handle-bar layout of the three-cylinder Scott



This view shows the mounting of the coil (beneath the saddle) and dynamo (just above the gear box) and the method of using the kick-starter as a prop stand

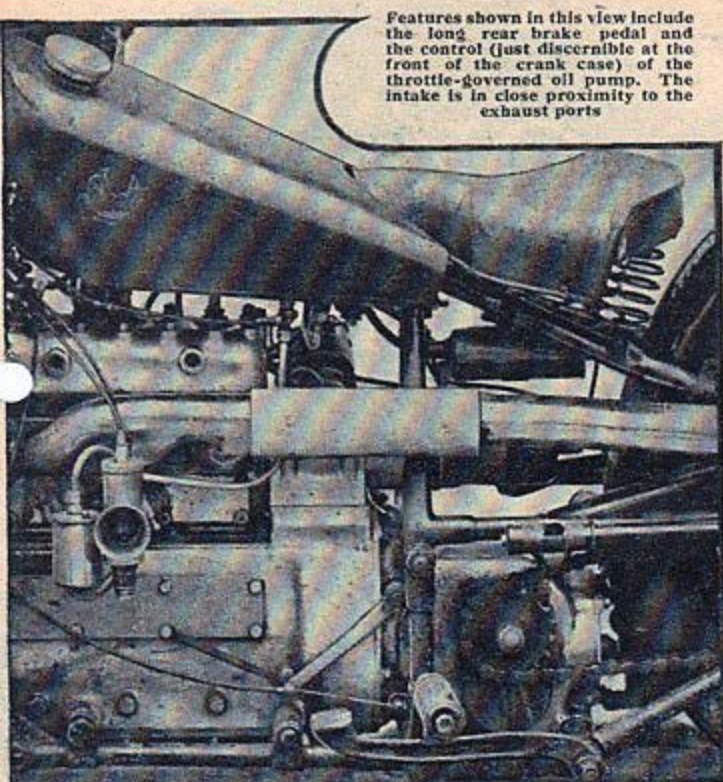
able trait became impressed upon the rider's mind; that is, the Scott's exceptional stability at low speeds. No effort, it was found, was necessary to balance the machine, even at a mere walking pace. This automatic stability proved a boon in traffic and gave the rider a feeling of confidence on grease. Undoubtedly, the 59 in. wheelbase assists in this direction.

The next characteristic to be determined was the unusual range of the advance-and-retard of the coil ignition. The throttle and the ignition control have almost equal effect. Advance the ignition lever with the throttle open and the machine would accelerate in exactly the same way as if the machine were being controlled with the throttle, although, if desired, the ignition can be left alone almost all day long. For the very best performance, whether in acceleration or slow-running, the quick-opening twist-grip throttle and the ignition lever should be operated in unison. Assuming this mode of control, the machine with its six-

cylinder torque would accelerate with a smooth litheness that was enthralling. There was no pause, no flat spot as a result of sudden opening up; the six-cylinder, clatter-free drone would rise to a screaming hum—the war cry of a "Scott-and-a-half."

An important fact is that the machine could be relied upon implicitly to get off the mark in this way, two-

Features shown in this view include the long rear brake pedal and the control (just discernible at the front of the crank case) of the throttle-governed oil pump. The intake is in close proximity to the exhaust ports



stroking perfectly; thus there was no difficulty in gauging time and distance in the matter of overtaking.

Figures show how exceptional was the acceleration: from 20 to 45 m.p.h. the mean times were approximately 4s. in second gear (8.66 to 1); just over 5s. in third (5.44 to 1), and roughly 8s. in top (4.3 to 1).

With its 747 c.c. engine, the Scott has a high performance. The maxima on the four gears were: bottom (13.54 to 1), 40 m.p.h.; second (8.66 to 1), 61 m.p.h.; third (5.44 to 1), 81 m.p.h.; top (4.3 to 1), 86 m.p.h. When these gear ratios are considered it must be borne in mind that 28 x 3.50 in. tyres were fitted. On a long run, whether touring in the forties, fifties, sixties, or more, the rider had the impression of gliding effortlessly along.

At all speeds the steering was of that unwavering type that gives the rider complete confidence. The torque reaction of the engine—the unit is, of course, arranged with its crankshaft in line with the wheelbase—could be felt when the throttle was opened or shut suddenly, and it could just be detected when the machine was being leant over for bends, but at no time was it in any way disconcerting.

Vibration at all speeds was negligible. The machine tested was fitted with the throttle-controlled swash-plate

oil pump, but not with the additional rotary pump to which reference was made in the description of the production design in *The Motor Cycle* of February 1st. After a period of running at below 30 m.p.h., the engine of the machine tested tended to receive too much oil and therefore to misfire. When the machine was stationary for a minute or two and had not previously been cruising at low speeds, it would tick over regularly with the ignition retarded in a manner quite foreign to two-strokes.

The misfiring appeared to be less marked when the oil level dropped; the level was normally kept on the high side because the dip-stick provided did not give a clear indication as to the quantity in the sump. Except when there was an excess of oil—and even then, more often than not—the machine could, if desired, be treated as a top-gear mount, controlled merely on the throttle and the ignition lever.

Mounted internally in the position that the second oil pump is to occupy in production models was a breathe valve, which worked loose during the test and provided an effective brake.

Externally, the engine remained satisfactorily clean.

### Excellent Braking

The riding position proved extremely comfortable. Both brakes were excellent—smooth, powerful, and progressive in their action, while the rear brake pedal is conveniently mounted. The battery mounting, in some what close proximity to the kick-starter (which, incidentally, is designed to form an efficient prop-stand) is not ideal.

Starting was good, and, judging from the way in which the engine started up after being left in the garage for a few days, the arrangement whereby oil is used to form gas seals between the inner crank cases is eminently satisfactory. The method of starting is to flood the carburetter, kick the engine over a few times with hand over the air intake, and then switch on the ignition and kick the engine over normally.

The four gears were easy to change, but the clutch proved a trifle on the heavy side in operation. On all ratios the gears were silent, and there was no detectable noise from the bevel drive. Fuel consumption worked out at just over 67 m.p.g. at a steady 35 m.p.h. On consumption, with the system fitted to this particular machine and the sump excessively full during most of the test, was roughly 600 m.p.g.

To sum up, the Scott Three provided a performance that is sheer joy to any enthusiast, coupled with steering, braking, and general controllability that vie with the best on any machine produced.

### SPECIFICATION

**ENGINE:** Scott three-in-line water-cooled three-port two-stroke, 747 c.c.

**LUBRICATION:** Throttle-controlled mechanical pump.

**IGNITION:** Lucas coil system.

**CARBURETTER:** Amal with twist-grip throttle control.

**GEAR BOX:** Four-speed Scott in unit with engine, hand con-

trol. Ratios: 4.3, 5.44, 8.66 and 13.54 to 1.

**TYRES:** Dunlop 28 x 3.50 in.

**WEIGHT:** 448 lb., fully equipped and with petrol and oil.

**MAKERS:** Scott Motor Cycle Company, Shipley, Yorkshire, and 73, Charlotte Street, London, W.1.