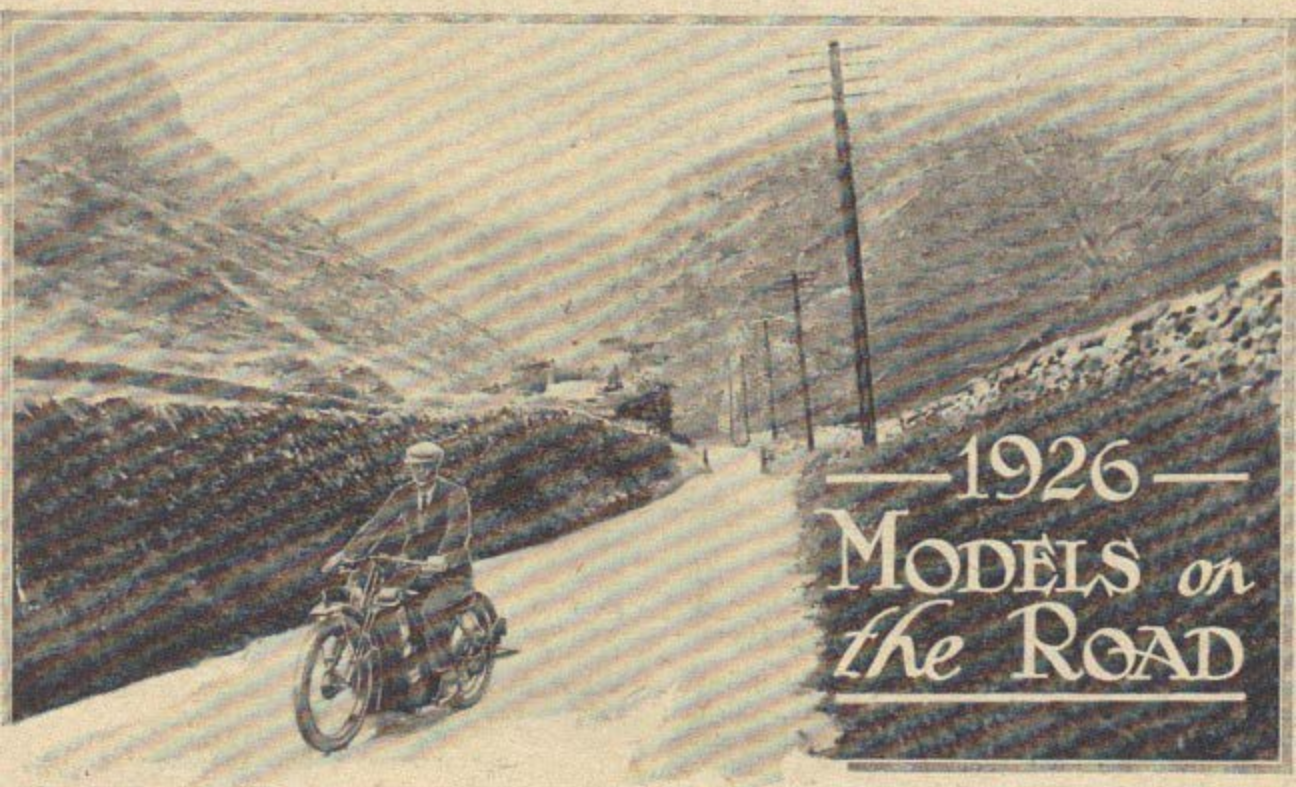


The 596 c.c. FLYING SQUIRREL.

SPECIFICATION.

ENGINE: 74·6 × 68·25 mm. (596 c.c.) twin cylinder two-stroke.
GEARS: Makers' two-speed, with kick-starter.
CARBURETTER: Amac two-lever.
LUBRICATION: Best and Lloyd mechanical pump; hand pump to gears.
BRAKES: Internal expanding front and rear.
TRANSMISSION: ½ × ⅜ in. chains.
TYRES: 650 × 65 mm. (700 × 80 mm. £1 extra).
PRICE: £89 5s. (With 498 c.c. Engine, £86 2s.)

IT is refreshing in this mechanicalised age to witness not only the survival of a delightfully simple design but its steady advance in popularity. For the fallacious idea that complexity is synonymous with efficiency still persists most strongly, and the simple engine is usually looked down upon to-day as being old-fashioned.

Whatever charge has in the past been made against the Scott on the score of complication cannot be directed against the engine. No twin-cylinder engine now in production, and only one marketed single-cylinder unit of the same size, has fewer moving parts than the Scott. Yet it has been found possible, without adding one single extra part, very considerably to improve the efficiency of the Scott engine, the most up-to-date example of which appears in the fascinating new Flying Squirrels.

T.T. Machines in Production.

It has been the highly commendable practice of the firm to put into production machines which have proved successful in the Isle of Man. Thus the first Squirrel, in 1921, was undoubtedly the direct descendant of those wonderful pre-war Scotts which made fastest lap of the Island in 1911, '12, '13, and '14, and won the 1912 and 1913 Senior races.

Similarly, the 596 c.c. Squirrel of 1924 represented Langman's famous 1923 Sidecar T.T. machine, which held the record lap till this year; the 498 c.c. Super Squirrel of last Olympia came down to us from the same rider's Senior T.T. bus on which he gained second place last year; and the Flying Squirrels are almost exact replicas of this year's T.T. Scotts.

The Great Tank Controversy.

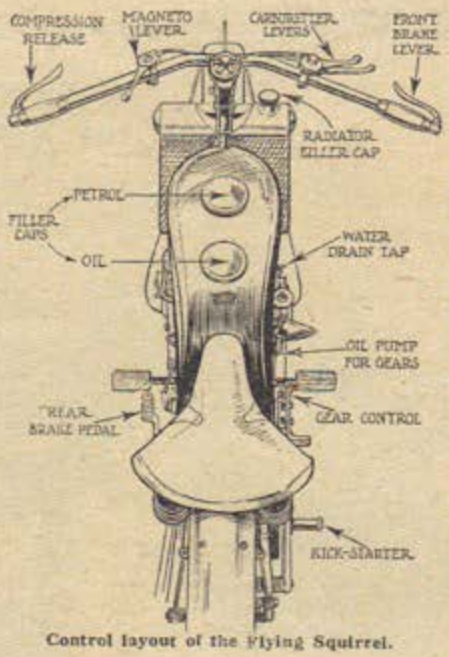
Controversy is raging in Scott circles about the most obvious change which distinguishes the Flying Squirrel, namely, the paradoxical fuel tank—paradoxical because it is a highly unconventional tank placed in the conventional position, linking the steering head to the saddle tube.

From the æsthetic point of view, the merits of the change *are* debatable, but practically there is no valid objection to, and much to recommend, the new design. The centre of gravity is not raised by its adoption to any appreciable degree, but the former type of separate fuel and oil tanks, both liable to displacement resulting in fractured feed pipes, are combined in an extremely rigid, neat, and practicable manner in the new tank. The æsthetic side of the question may be settled later

1926 Models on the Road.—if a revival of the "Beauty" controversy should be called for!

One result of modifications to the engine suggested by the T.T. is that the Flying Squirrel is actually overcooled in cold weather, and until the engine has been very thoroughly warmed up the plugs show a marked tendency to collect more than their share of the lubricant in the cylinders. On the machine tested by *The Motor Cycle*, in spite of the fact that the mechanical pump—another blessed legacy of the T.T.—was open only two notches, the plugs were continually getting oily. The views of the competitions representative of a famous sparking plug firm, whose sports plugs are recommended for the Flying Squirrel, confirmed the writer's opinion as to the coolness of the engine.

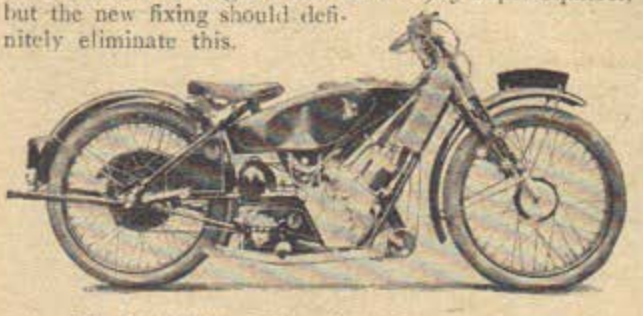
This is, however, a very easily excused fault. The fact is that the latest system for circulating the water extremely close to the screwed body of the plug keeps that accessory much cooler than before, with the result that an ordinary sports plug functions quite successfully in the Flying Squirrel, whereas a hot-stuff plug merely oils up. In confirmation of this it may be stated that the writer has had very successful results with a 4s. "commercial" Bosch plug and a Lodge H1, the former obtained as a last resort late at night when a pair of sports plugs had utterly failed.



Control layout of the Flying Squirrel.

Improved Radiator Fixing.

So much for the improved cooling. The radiator is identical in design with the older pattern, but for 1926 all Scott radiators have a greatly improved fixing, with very large rubber washers insulating them from shocks transmitted through the frame. The writer had a little trouble with a leaking radiator on his 1925 Super Squirrel, but the new fixing should definitely eliminate this.


The latest 596 c.c. Flying Squirrel evolved from—

All the delightful characteristics of the Scott are, if not magnified in their entirety, at least as discernible as ever in the new model. Definitely better road holding is given by the B. and D. fork stabilisers, which need to be adjusted very loosely for ordinary road work, but must be tightened for badly pot-holed roads and trials. The André steering damper is a godsend, and its value was forcibly demonstrated to the writer on two separate occasions.

On the first the machine dived unexpectedly at a totally improper angle into a notorious pothole on the Portsmouth Road near Brooklands and, on emerging, shook itself, dog-like, then carried on quite unperturbed. This self-same pot-hole a short time ago effected the complete *bouleversement* of a rider on a big twin famous alike for its magnificent steering and contempt for pot-holes: this to show that it is no ordinary crater which shook the Flying Squirrel.

The value of the damper was proved a second time when the rider turned his head, when travelling at 40 m.p.h., to see if a friend was following, and accidentally caught the footrest in a projection of the grass bank at the roadside. One terrific swerve resulted, but no sickening, hedge-to-hedge wobble succeeded it, for the damper had checked the swing of the handle-bars after the first wrench out of the straight.

Exceptional Power Increase.

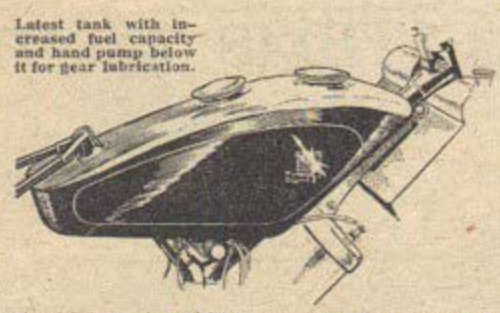
The increase in power of the 596 c.c. "Flying" over the corresponding "Super" Squirrel engine is almost unbelievable. The writer has had experience of both 498 c.c. and 596 c.c. Super Squirrels during the year, and, though both impressed him as being very considerably "hotter" than the old type Squirrel, the gap between the latest Flying Squirrels and their year-old sisters is exceedingly wide.

Much of the extra power is gained from the higher compression, in its turn made possible by improved cooling and port design. This might be described as "positive power gain." In addition, there is "negative power gain" (*i.e.*, power not lost), owing to the re-designed main exhaust outlet, the diameter of which has been increased to 2in. This improvement is a definite and noteworthy forward step in two-stroke construction.

In touring trim 78 m.p.h. is about the maximum solo speed of the 596 c.c. Flying Squirrel. At this speed there is a certain amount of back wheel bounce, probably attributable to the shortness of the wheelbase, which


—Langman's Sidecar T.T. machine, used in the Isle of Man.

1926 Models on the Road.—shortness undoubtedly contributes largely to the superlative cornering abilities of the Scott. With the steering damper in use, however, there is no tendency for the machine to deviate from the straight, and the front wheel is in almost continuous contact with the ground owing to the excellence of the damped front springing.



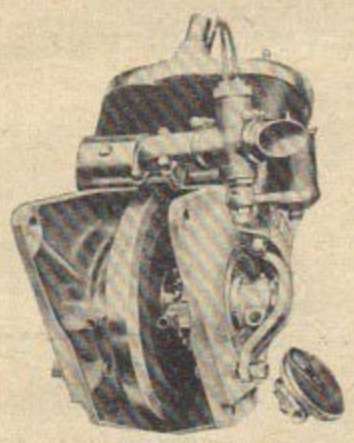
Latest tank with increased fuel capacity and hand pump below it for gear lubrication.

With a sports sidecar fitted, and a passenger, over 60 m.p.h. should be quite within the powers of the machine, which makes very few bones about hauling an attachment, and seems just as happy as when in single harness. Indeed, the 596 c.c. engine possesses a remarkable combination of pulling and revving powers, which makes the larger Flying Squirrel a peculiarly suitable machine for fast sidecar work.

Reverting again to solo performance, the question of tyre sizes is a very pertinent one in the case of a Scott. The test machine was fitted with 700 × 80 mm. tyres with a normal type of diamond stud tread. The writer's 1924 Super Squirrel has 650 × 65 mm. three-rib tyres. It is difficult to believe what a change is wrought by the variation in tyre section.

Big tyres render the Flying Squirrel noticeably less "Scotty" and more conventional to handle, and make the steering slightly heavy at low speeds. On the other hand, they give greater comfort than 650 × 65 mm. covers, and greater immunity from puncture risks. It is worth remarking that 650 × 65 mm. tyres are the standard equipment, and that the larger tyres cost extra. The out-and-out Scott enthusiast will be well advised to take the standard equipment and risk punctures for the sake of enjoying the Scott's proverbially wonderful steering combined with the charms of the latest engine.

One or two criticisms come to mind after a fairly extensive test. The brakes, though excellent, have not been increased in size in keeping with the enhanced speed capabilities of the engine. On test, when they are new, brakes usually work well, and no exception can be made here; but a front brake as large as the rear pattern would be an acceptable luxury—almost a necessity to-day. One should be able to pull up a modern sports machine quickly on its front brake alone.



Mechanical pump fixing and link drive from crankshaft screw.

In order to adjust the mechanical pump, it is necessary to open the tool-box, take out a spanner and a screwdriver, slacken and move aside the cranked strap holding the pump in place, and juggle with two screws on the top of the pump, using the screwdriver in an offset position owing to the overhang of the crank case.

If the jet holder be removed from the carburetter for the purpose of cleaning the jet, the carburetter body clip must be slackened on the induction pipe and the carburetter moved outwards before the jet holder can be made to re-engage with the internal threads. This is because an oil pipe is led so close to the carburetter that the jet holder, when half unscrewed, fouls it.

These are the only complaints the writer can find to make about the Flying Squirrel. They are finicky little points, but even they should not exist on a super sports machine costing nearly £90. Luxuries which help to offset them are the 2½in. car type filler caps—surely the largest on any motor cycle?—twin drawbolts for adjustment of the two-speed gear; small hand pump below the tank for injecting a charge of oil into the gears; all-black finish, with the exception of handle-bar levers, front brake drum, radiator (non-rusting), and filler caps (Klitto); wide D-section mudguards; 3½ gallons petrol capacity; and sight-feedless mechanical oil pump (a considerable blessing).

The enthusiast will realise that the Flying Squirrel fulfils his expectations, and the man who has not yet made acquaintance with the Scott needs more than mere verbal praise to make him appreciate its best qualities. Both types of rider will find that a trial of this machine gives rise to new thoughts and thrills. The Flying Squirrel is essentially a motor cycle which must be "On the Road"—preferably a fast road—to be understood and enjoyed to the full extent of its charms.

LIGHTWEIGHTS' RATIONAL TYRES.

IN the past I have written almost despairingly of the very flimsy tyres fitted to certain baby machines. Punctures are just as much of a nuisance whether you encounter them with a big twin or a 150 c.c. baby, and reasonable immunity from tyre stops is one of the fundamental needs of any motor cycle. The obvious trouble with the babies was that a heavier tyre meant heavier everything, and put the price up. I urged one or two tyre experts to life their smaller covers with sharkskin or try Sorbo.

They have not found it necessary, however, to make such breaches with the conventional. They have perfected the materials and construction of the standard cord to such a degree that the 1925-6 cover of 2in. section or thereabouts will really stand up to hard work, and I have plenty of evidence that these little tyres will not be appreciably more vulnerable to ordinary punctures than the bigger fry. This is probably the greatest single advance which the lightweights have made during the past year or two.—IXION.