## 1.2 Engine Numbers

## SCOTT ENGINE IDENTIFICATION V5/4 Feb. 1967

The following data is reproduced from one of the Scott Owner's Club Information Sheets. These were prepared and issued in the early days of the Club by the then Registrar, George Stevens. Supplies at the time, however, failed to satisfy the demand and it is considered that the information contained is sufficiently valuable to warrant re-printing for the benefit of those members not fortunate enough to have access to a copy of the original and a great deal more comprehensive.

An attempt has been made, however, to extract the most essential "gen" and will be continued in subsequent "Yowl" issues.

The following list gives basic details of all production Scotts from 1908 to the present day. (1958—*Ed.*).

To quote Tom Ward—"Scotts have always done their best to confuse everybody, which is why so many experts often wear a puzzled frown!" Scott's manufacturing schedules have often been inconsistent and varied to suit availability of components. Detail changes were often made during a production run and not listed or described in the Press.

All the information is from catalogues of official factory releases. There are two hard and fast rules which do not vary.

1. Engine numbers were stamped concurrently in order of machine production, irrespective of model, as listed herein.

2. The factory always brought out new production models towards the end of a year *for the following year*; e.g. the 1927 "New" Flying Squirrels were available in late 1926, after their introduction at that year's T.T. races. It may be taken as a rule that any Scott given a catalogue date would have been available at the end of the previous year. (This accounts for the never-listed 1928 "T.T. Replicas").

Duplex-framed Scotts are all based on the 1926 works' T.T. machines—right up to the last Shipley Scott. 1927 T.T. entries were very special and never reproduced for sale. They were fitted with the straight back crankcase set well back in the frame—the long wheelbase one. 1928 T.T. machines were powered by the first of the long-stroke engines (71.4m.m.), retained even on today's machines. They were available as the first "Replicas" the following year.

The three 1930 T.T. machines—the only vertical Scotts made—were never raced and the ensuing 650 c.c. model made only in prototype form, as was the 750 "Three" and the Grand Prix Scott.

Scotts have used various prefixes and suffixes to identify their engines and exact dates of introduction or withdrawal cannot be given. One certain rule, however, is that all engine NUMBERS—irrespective of model—were stamped in sequence. The following are derived from official Scott records.

Engine numbers only were used until late 1924, when alphabetical prefixes were introduced as below. (Although some earlier engines had "SC" stamped with the number. This indicated that the block had been bored out for sidecar work).

S—Squirrel (70 x 63.5 m.m.—486 c.c.).

T—Standard Touring (73 x 63.5 m.m.—532 c.c.).

Y—Super Squirrel and Standard 596 c.c. models (74.6 x 68.25 m.m.—596 c.c.).

Z—Super Squirrels 498 c.c. (68.25 x 68.25 m.m.—498 c.c.).

FZ (68.25 x 68.25 m.m.—498 c.c.) and FY (74.6 x 68.25 m.m.—596 c.c.). used on the first Flying Squirrels (1926 two and three speed models).

TY (74.6 x 68.25—596 c.c.) introduced for 1926 Touring models and continued until 1928.

FZ—M (68.25 x 68.25 m.m.—498 c.c.).
FY—M (74.6 x 68.25 m.m.—596 c.c.). } "New" Flying Squirrels
FZ—A (68.25 x 68.25 m.m.—498 c.c.). } (Duplex frame, full crankcases).
FY—A (74.6 x 68.25 m.m.—596 c.c.

In 1927, as numbers approached five figures, the suffix "M" was added—up to at least FZ 10096M. Numbers were started—at about the middle of 1927—at some low figure again. Suffix "M" was replaced by "A" towards the end of the year and this was used until mid-1931—but not on replicas.

RZ (66.6 x 71.4 m.m.—498 c.c.). } T.T. replicas.
RY (73.02 x 71.4 m.m.—596 c.c.). } 1929 only.
PZ (66.6 x 71.4 m.m.—498 c.c.). } "Powerplus" replica engines 1930-32.
PY (73.02 x 71.4 m.m.—596 c.c.). }

FZ or FY (No suffix) are late shortstroke motors.

LFZ (66.6 x 71.4 m.m.—498 c.c.). "Longstroke" Flyers—last of the
LFY (73.02 x 71.4 m.m.—596 c.c.). "blind head engines."
DPZ (66.6 x 71.4 m.m.—498 c.c.) Detachable cyl. head replica
DPY (73.02 x 71.4 m.m.—596 c.c.). motors.
GPZ (66.6 x 71.4 m.m.—498 c.c.). "Grand Prix" motors—not many
GPY (73.02 x 71.4 m.m.—596 c.c.). produced.

Included for the sake of completeness are the prefixes X and V and the suffix CS. These are single 300 c.c., vertical 650 c.c. (not produced) and Clubman's Special respectively. Three cylinder engines were coded 3S.

*Works* twins had various letters (SP, M. EXP, etc.).

# BIRMINGHAM SCOTTS

Between 1951 and 1956, Matt Holder made several prototypes. From 1957 to the present time the familiar swinging-arm models have been produced. The more recent machines are fitted with Miller A.C. electrics instead of Lucas D.C. equipment.

Those prefixed DPY are built from Shipley-made engines assembled by Harry Langman. (5427 onwards).

DMS } Motors built by Aerco Jig and Tools Ltd., 1956 onwards.
MDH }

The numbers of Birmingham engines do not run in sequence.

1908(late). First production Scott. Finned air-cooled barrels and deeply-finned aluminium water-cooled cylinder heads. Finned riser pipe to radiator header tank, which was tubular and separate from the flattened tube radiator. U-shape water return pipe. Cylindrical petrol tank concentric on saddle tube and cut away to clear magneto. Horseshoe, cycle type rear brake on tyre rim. Oil filler cap central on down tube behind steering head. Light type gears. Separate bolt-on exhaust manifold.

1910 As above, but considerably cleaned up. Tank mounted forward-of-centre on saddle tube and not cut away. Rear brake inside chain sprocket.

1911 Waisted water-cooled cylinder barrels and water-cooled heads. Normal type of radiator with square section holes and 4-bolt fixing. Oil filler cap offset to left of steering head on down tube.

1912 Again considerably cleaned up. Less pronounced waists to cylinder barrels. Crankcase door straps in line with cylinders and not vertical as formerly. Legshields supplied as standard equipment. Larger tank of familiar oval shape used. A conventional guard was fitted over the rear chain in place of the peculiar and quite indescribable fitting previously used.

All the above had petrol tanks embellished by two wide horizontal silver bars. They used the light type gear with two-piece hub and light chains. No part of this gear is interchangeable with later types. Engine had separate bolt-on exhaust manifold and all had water-cooled heads.

1913 A completely new design, using an engine with water-cooled cylinder barrels and air-cooled heads. Larger engine bearings were incorporated. Covers over exhaust ports and single exhaust outlet integral with cylinder casting. Heavier type 2/speed gear with single piece hub. Heavier chains throughout. Guards fitted over gear unit. Heavier frame. Oil filler on extension of the pillar carrying the "XL-all" saddle. A small additional silencer was fitted to the end of the exhaust pipe.

This machine was the type which was basically unchanged for the next ten years.

All Scotts up to and including 1914 had Scott carburettors ; all had roller-type forks, the rollers acting as bearings for the sliding unit of the spring forks, where this passed through the fork ends.

Early post-war Scotts were very little different from the pre-war types ; major points of recognition are : forks with telescopic guides instead of rollers, British (or American) magnetos in place of Bosch instruments, use of a proprietory carburettor, fitted to an induction stub held in place by a bracket on the down tube, and honeycomb radiators. Twin horizontal drip feeds were fitted in place of the single type previously used. 1921 series machines had twin Best & Lloyd drip feeds, but these could be fitted to earlier machines and many sets were supplied for this purpose.

1922 This season saw the first important introductions since 1913. The famous Squirrel was a sports machine of 486 c.c. A redesigned frame was used and footrests replaced the footboards, whilst an undershield was used and legshields omitted. Mudguarding was of the sports type and there was no carrier. The characteristic straight sports Squirrel bars were first used on this machine. The engine had a redesigned crankcase and cylinder fixing. Cylinders had water-cooled barrels with uncooled heads. Plugs, which had hitherto been in the rear wall of the cylinder on production types, were in the cylinder heads on the induction side. Oil was still carried in the frame and lubrication was by suction, the drip feed being mounted half-way up the down tube from the steering head. Modified forks were used. Rear wheel was as fitted to earlier machines.

1923 5 in. Webb front brake used in place of cycle pattern. The first 3/speed machine was listed for 1923, this being a standard type with 532 c.c. engine. Engine and gearbox were mounted on a substantial aluminium tray bolted into the frame. This gearbox was not a very satisfactory unit. Specification was otherwise similar to standard 2 speed machine : oil carried in frame, drip feeds as on Squirrel, legshields, footboards, "A"-shaped handlebars. Both brakes, however, were of the internal expanding type, that on the rear wheel in the chain sprocket.

1924 All machines of this date had internal expanding brakes on both wheels, which were carried on knock-out spindles. Bearings of the rear wheel were of the journal type. A separate oil tank was provided with two independent drip feeds, with a separate oil line to the gear, controlled by a tap. This type of oil supply was continued on the 486 c.c. Squirrel until it went out of production in 1927.

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1925 The Super Squirrel was first listed for this year, being similar to the 1924 Squirrel, except for the engine. This had water-cooled cylinder heads with centrally placed plugs. A new design of bolt-on induction stub was used, carrying a 1 in. choke Amac carburetter. 1925 Super Squirrels had smaller exhaust outlet pipes than later machines. Bore and stroke were : 68.5 x 68.5 m.m. (498 c.c.) or 73.5 x 68.5 m.m. (596 c.c.) Drawbolt adjusters were fitted on the frame behind the 2/speed gear mounting. A 3/speed Super Squirrel was also marketed. Tyre sizes were increased to 700 x 80.

1926 Super Squirrels had larger exhaust outlet pipes. All machines except Squirrel had Best & Lloyd mechanical pumps on off-side crankcase door, feeding to a Y-shaped distributor on the down tube. These engines cannot be converted to suction oiling unless the glands are changed. Both 2/speed and 3/speed standard touring machines were also built during this period, these being externally similar to the Super Squirrels except for touring type legshields, optional footboards and handlebars, larger rear sprockets and, in some cases, luggage carriers. Mudguarding, also, was more complete.

The first Flying Squirrels appeared in the 1926 catalogue, although they were a mid-season production of the previous year. Both 2/speed and 3/speed versions were made and were highly-tuned examples of the Super Squirrel, as far as the engine was concerned. B. & D. stabilisers and André steering-dampers were fitted. Petrol tanks were optional. Where the oval tank was used, this carried a large silver diamond transfer with red centre, over which a flying squirrel was superimposed. The alternative tank was of the combined petrol and oil type, similar in outline to the later Flyers. Earlier tanks were short and deep with concave sides ; later products had a long tank of very ugly shape, extending far back over the magneto and contained a hand pump for gear oiling. Filler caps were one behind the other. Early Flyer tanks had smaller oil filler in front ; later types had equal size fillers, oil at rear. Where separate oil tanks were fitted to 2/speed standards, Supers and Flyers, these had. modified outlets and had a hand pump for gear oiling.

Late 1926 Flyers had wide big-end bearing engines with modified crankcases

1927 Wider big-end bearings (3/8 in. x 3/8 in.) replaced the 3/8 in. x 1/4 in. rollers previously fitted to Super Squirrels.

Hooks 1-1/8 in. choke carburettor fitted on larger induction pipe. Oil pump was mounted on magneto platform. Earlier 1927 machines had Best & Lloyd pumps. Later types had Pilgrim pumps and suction glands. Wider forks (7 in.) in place of 5in. type ; deeply valanced front guard. Similar modifications on 3/speed Super Squirrel and Standard touring types. Last year of Squirrel 486 c.c., which was unchanged.

1928 Last year of the 3/speed Super Squirrel, which is distinguishable by gate change for gears in place of long lever on gearbox.

1929 Wired-on tyres fitted to Supers. Modified undershield fixing by one central bolt. Sports Squirrel introduced ; this was merely a Super Squirrel with a tank reminiscent early Flyers, with two filler caps of equal size instead of the smaller oil tank cap on the Flyers. A bead round the edge of the top surface of the tank also distinguishing this type from the 2/speed Flyer. Brakes were 7 in. diameter front and rear on Sports Squirrel (5 in. on Super), but this was too powerful for the fork design.

1930 Cut-down frame on both Super and Sports Squirrels. This necessitated shorter petrol tank of 2-gallon capacity on Super. Adjustable handlebars fitted. Shorter forks to suit frame. Fourth point fixing on front of crankcase. Sidecar lug omitted from steering head. Armoured leather toolbag on offside chain stay in place of triangular toolbox used 1923-29. Front brake of 6 in. diameter.

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