

Appendix 1.17 Model profile

T20SC & T20SR Scrambler Comp. & Road - 1962 to 1965

Machines T20SC 84912 - T20SC 2034 & T20SR 84967 - T20SR 2029 (March 1962 - July 1965).

Bore & Stroke: 63mm (2.480in) x 64mm (2.520in).
 Compression ratio: 9:1 (but the USA west coast models had a 7:1 piston for 1965).
 Camshaft: Sports 'R' type. Valve clearances - Inlet 0.002in. Exhaust 0.004in, (cold).
 Ignition type: Lucas Energy Transfer. RM 19 alternator. (The 1965 west coast T20SR - RM18 AC/DC alternator and battery).
 Ignition timing: 20° BTDC, (= 40° fully advanced). Rotor on keyway no. 1 (3 o'clock).
 Points gap: 0.014in - 0.016in.
 Spark plug: Champion L7. Gap 0.020in for ET models, 0.025in for battery models.
 Carburettor: Monobloc 376/272. (Or 376/314 for T20SR USA west coast 1965). Both are 1/16in choke size.
 Gearbox ratios: T20SR = Close or Extra Close ratios. T20SC = Standard ratios 1962, and Wide ratios 1963/5.

	1st - All	3rd - S C W ECR	2nd - All	4th - S C W ECR
Mainshaft	16T	25T 25T 25T 23T	20T	28T 27T 29T 25T
Layshaft -	29T	20T 20T 20T 22T	25T	17T 18T 16T 20T

Wheel & Tyre sizes:
 Front. 3.00 x 19 on WM1 rim.
 Rear. 3.50 x 18 on WM2 rim, except - T20SC - 4.00 x 18 on WM3 rim, 1964/5.
 Tyres. Dunlop. T20SC used Trials Universal. T20SR used K70 Gold Seal.
 Sprockets & Chains:
 Engine 19T. Clutch 48T. Primary chain 3/8in x 7/32in x 62 links, duplex.
 T20SC Gearbox 17T. Rear wheel 54T. Rear chain 1/2in x 3/16in x 116 links.
 T20SR Gearbox 17T. Rear wheel 48T. Rear chain 1/2in x 3/16in x 113 links.
 Capacities:
 Petrol. 2 7/8 gallons (= 11.92 litres). T15 'Teardrop' shape tank.
 Oil. 2 3/4 pints (= 1.56 litres). Froth tower on tank.
 Gearbox. 1/3 pint (= 200cc).
 Primary Chain. 1/3 pint (= 200cc).
 Front fork. 1/4 pint (= 150cc) 1962/4.
 1/3 pint (= 200cc) 1965.

Exhaust system: T20SC - High level with silencer or extension pipe. T20SR - Low level with silencer.

Colours:
 1962 - Both models - First colour - Burgundy.
 1963 - Both models - First colour - Flamboyant Flame.
 1964 - Both models - First colour - Kingfisher Blue or Hi Fi Scarlet.
 1965 - T20SR - First colour - Pacific Blue.
 1965 - T20SC - Hunting Yellow and black.
 All (Nor 1965 T20SC) - Second colour - Silver Sheen.
 Petrol Tank - top half - First colour or Hunting Yellow in 1965.
 lower half - Second colour or Hunting Yellow in 1965.
 Mudguards - Second colour, with first colour centre stripe lined in gold.
 Front - painted alloy. Rear - steel, ribbed in the centre for 1962/3.
 Polished alloy, T20SC for 1964/5.
 Oil Tank & Toolbox - Black.
 Front Brakeplate:
 1962/4 - T20SC - Black. T20SR - Silver Sheen.
 1965 - Silver Sheen on both models.
 Tank Badges - Black lettering on gold & chrome backing.
 Other painted parts - Black.

Twins seat: Two level. T20SR - grey top cover with black sides and grey lower styling band. T20SC - all black.

Notes:

These two models were for the sporting rider. The T20SR was a 'hot' roadster with all the high performance parts - high compression piston, sports cam, CR or ECR gears, sports valve springs, large inlet valve, a large bore Monobloc carburettor, low level exhaust and road tyres. The T20SC was much the same but more suited for cross-country, on/off road use. The T20SC had a high level exhaust, SR or WR gears and trials tyres.
 Both models had a crankcase undershield, heavyweight front forks (externally sprung for 1965), high rise handlebars with bolt-on levers, Energy Transfer ignition with detachable lights and a speedometer. For 1965 only there was a heavily cranked, pivoting kickstart lever. The T20SR also had the option of a tachometer and neither model had a centre stand.
 For 1962 both models came with a distributor motor, but from 1963 the side points engine was used. All were fitted with the 'Oval' head and barrel. The rear light unit was a Lucas L564 except for the east coast USA models in 1965, which used the L679 type. Adjustable rear suspension units were listed for 1965.
 These machines were sold in export markets only and almost entirely to the east coast of the USA, except for 1965 when about two-thirds of the production went to west coast dealers. A few were sold to other countries (but not the UK). The T20SC was the east coast equivalent of the west coast T20SS and it later became the basis for the T20SM Mountain Cub.

Number of machines built -	1962 - no. 81890 to no. 88346	T20SC = 60	T20SR = 36
	1963 - no. 88347 to no. 94599	= 137	= 74
	1964 - no. 94600 to no. 99732	= 153	= 133
	1965 - no. 99733 to no. 100013 & no. 101 on	= 261	= 571
	Totals -	= 611	= 814

Parts List No.8 and Supplement cover 1962/3 models, No.9 deals with 1964 models, No.10 is for 1965. However, the T20SR and SC have only a passing mention in any of these publications.

Analysis of sales:	1962	T20SC	USA = 100%	Others = None	T20SR	USA = 100%	Others = None
	1963	T20SC	USA = 100%	Others = None	T20SR	USA = 100%	Others = None
	1964	T20SC	USA = 96.1%	Others = 3.9%	T20SR	USA = 94.7%	Others = 5.3%
	1965	T20SC	USA = 100%	Others = None	T20SR	USA = 99.3%	Others = 0.7%