

90
modern
90
TRIUMPH

WITH UP TO THE MINUTE PERFORMANCE

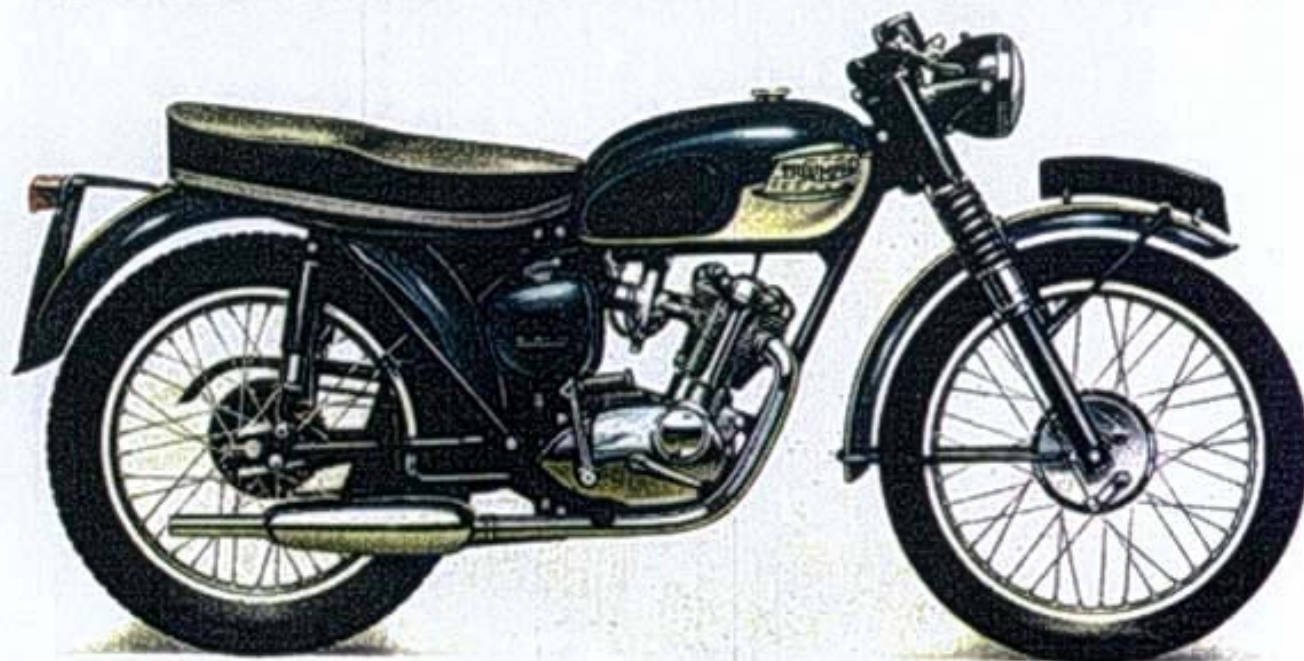
90 modern 90 TRIUMPH

Modern designs and modern methods backed by over sixty years of motorcycle manufacturing experience and a long history of consistent competition successes make Triumph the get-up-and-go machine for modern living in a highly mobile world.

Geared to the pace of space age life, the 1966 range of quality motorcycles—lightweights, medium-weights and powerful six-fifty twins—now emerging from the modern Triumph factory at Meriden, mean real, live, go-anywhere mobility for modern minded novices and experienced riders alike the world over.

Whatever you seek in a motorcycle, whether it be everyday economical travel, healthy sport, pleasure, or the sheer satisfaction of top-gear performance, there is a Triumph model designed to suit you perfectly. This publication covers the ten exciting models available from Triumph for the 1966 season.

Sports Cub 200 c.c.



A long list of competition successes prove that the crisp acceleration and impeccable handling of this versatile lightweight really do match up to the promise of its sporting appearance. Yes, the Sports Cub is every bit as good as it looks!

In full road-going trim for exciting everyday riding, and easily adaptable for almost any competitive event.

Trials Cub

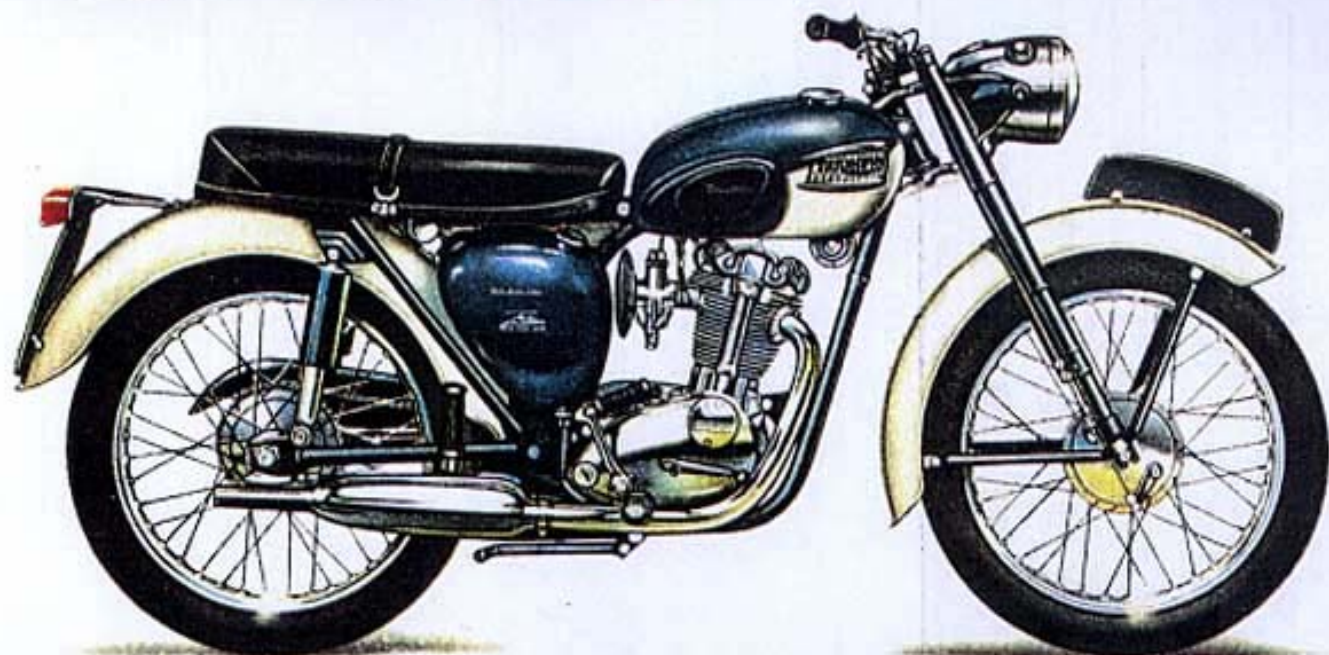
(not illustrated)

Specially built to exactly the same specification as the models used by the successful Triumph works riders, the Trials Cub is a professional competitor's machine for those who take their trials riding seriously.



This Tiger Sports Cub engine which has brought so many successes to the Triumph Competition Team.

Tiger Cub 200 c.c.

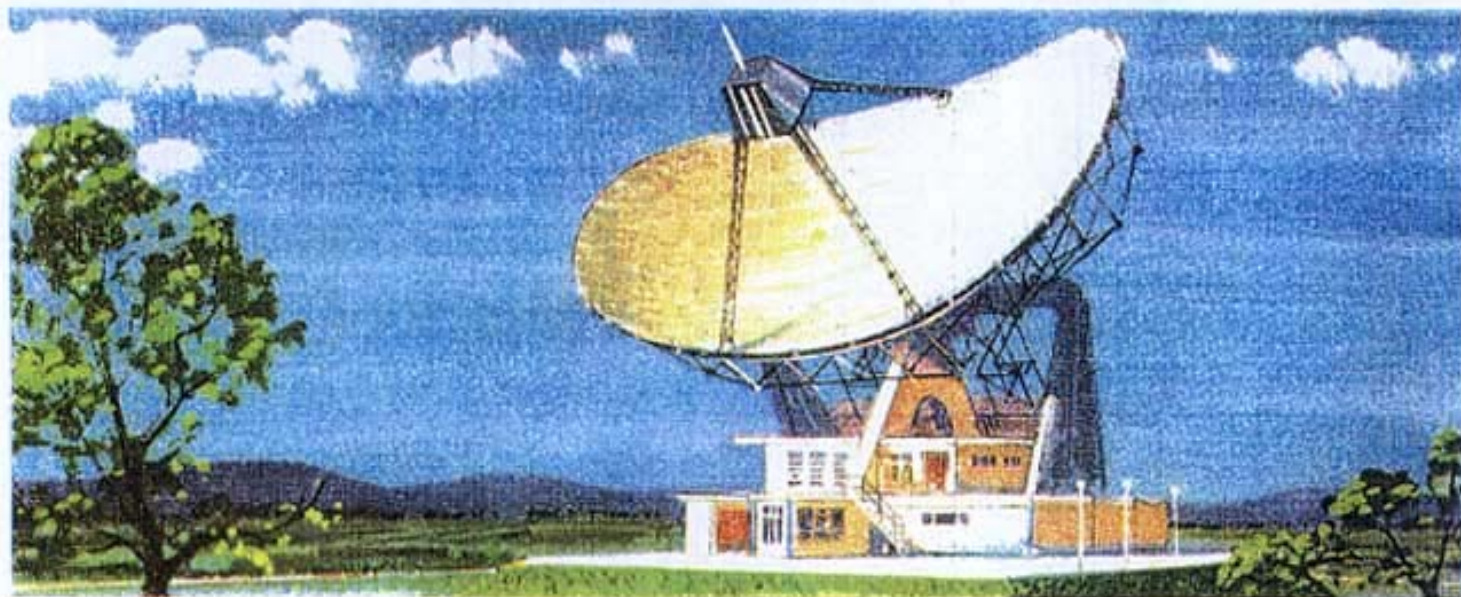


Twelve years of continuous production, twelve years of constant design improvement and twelve years of technical development have all gone into the new restyled 1966 Tiger Cub's rare combination of sprightly performance, safety, running economy and absolute reliability.

Already a firm favourite with many experienced riders of all ages, this lively, low cost lightweight is an ideal machine for the novice who wants real motorcycling – all the vivacity of a high performance four stroke O.H.V. engine with the flexibility provided by a four speed gearbox – at a realistic price.



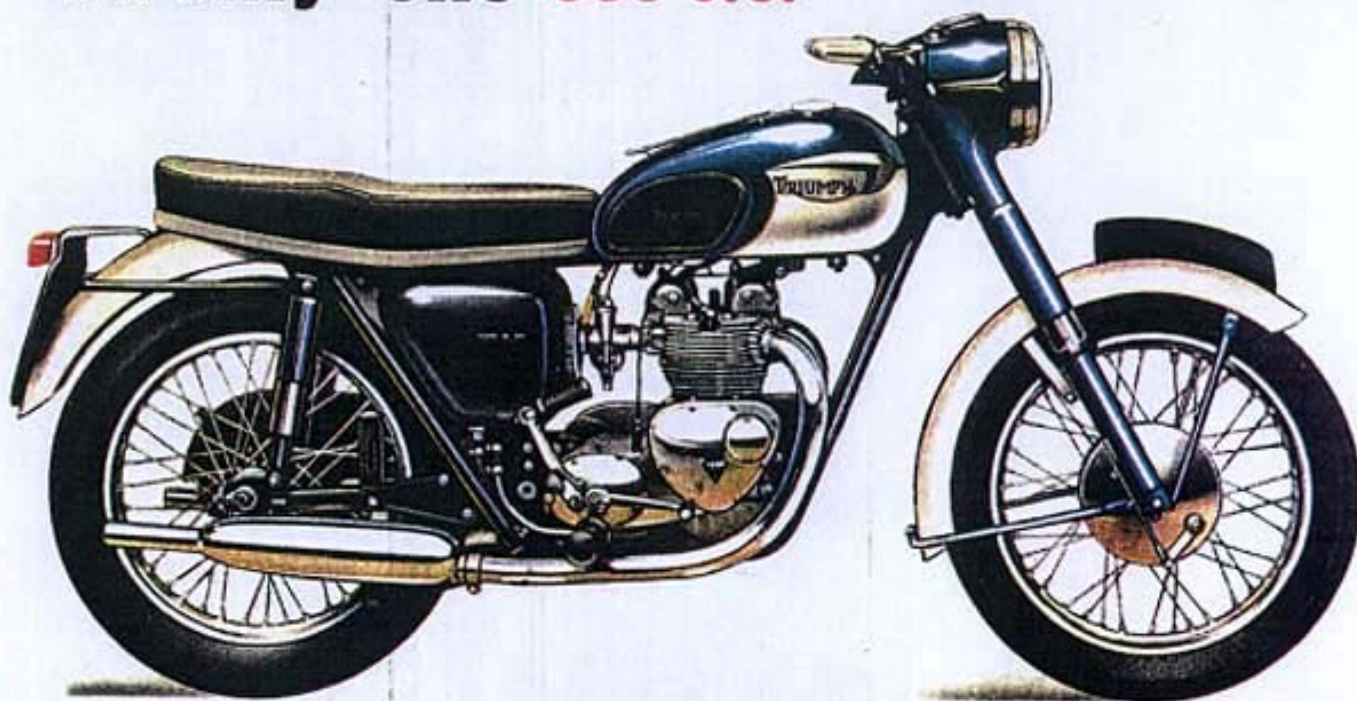
New Oil Pump of increased capacity on both feed and scavenge, with improved drive to plungers.



An easy to handle, mile-eating, mediumweight roadster that owes much of its wide appeal to the deceptive quietness, silky smoothness and brisk performance of its twin cylinder, O.H.V./four speed power unit.

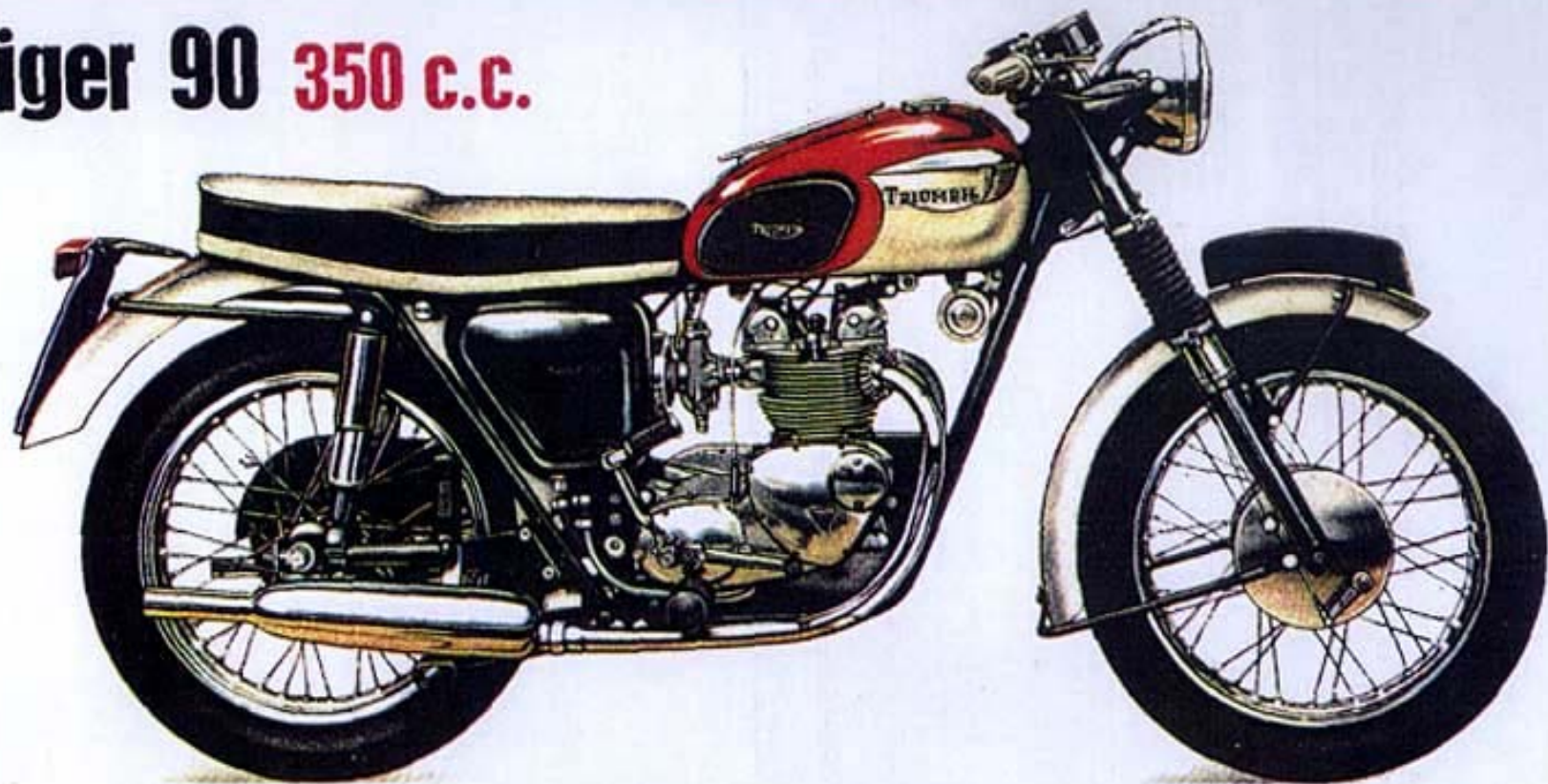
Over the years since its introduction, the Twenty-one has earned and maintained an enviable reputation for going anywhere, doing anything – solo or two-up – and for being completely reliable. Today's Twenty-one, a brilliant example of modern engineering perfection, comfortably upholds this reputation and in common with all other Triumph 'twins', is equipped with a 12 volt lighting system which guarantees maximum road illumination.

Twenty-one 350 c.c.



Bigger Oil Tank – capacity increased to 6 pints; adjustable chain drive is incorporated.

Tiger 90 350 c.c.



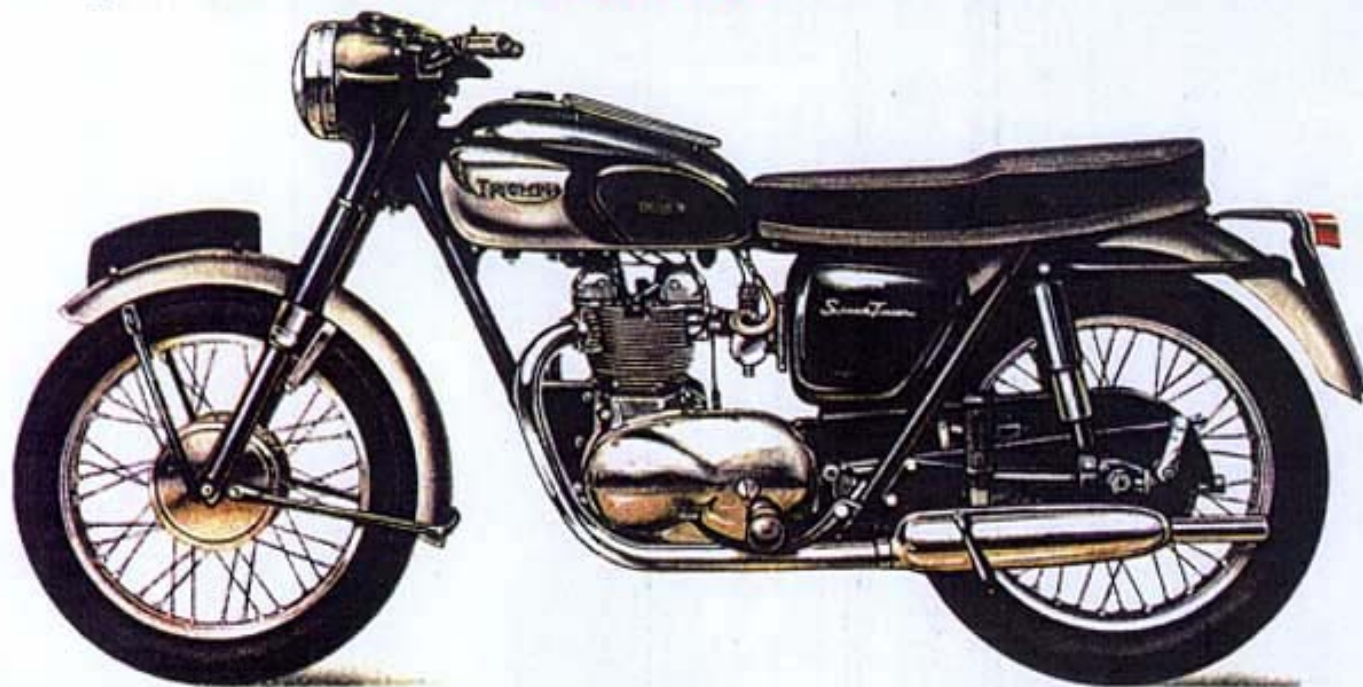
12-volt equipment on all twin cylinder models. Raising hinged twin seat gives easy access to the two 6-volt batteries, and to the neat tool tray.

A fast and easily controlled sporting mediumweight that will take the rough – really rough – with the smooth and still finish a hard day's riding purring as contentedly as it began.

The Tiger 90 is powered by the well tried 350 c.c. twin cylinder engine driven through a unit-construction four-speed gearbox. 'Power-plus' performance and superb roadholding are proven by an impressive record of production machine racing successes and by consistent gold medal performances in the International Six Days' Trial.



Speed Twin 500 c.c.



Provision is now made in the frame for the fitting of a "Heisman" anti-theft lock.

The lively response and added power of a 500 c.c. engine make the Speed Twin – otherwise identical in specification to the Twenty-one – an ideal choice of machine for the experienced rider who has fast touring in mind.

Colourful in performance and docile in behaviour, this highly developed sports roadster adds 'spice' to everyday riding and makes long distance travel an effortless pleasure.

This machine is a prestige model – which sets the pattern of modern twin cylinder design, and carries a name which has become almost synonymous with Triumph engineering excellence.



Tiger 100 500 c.c.



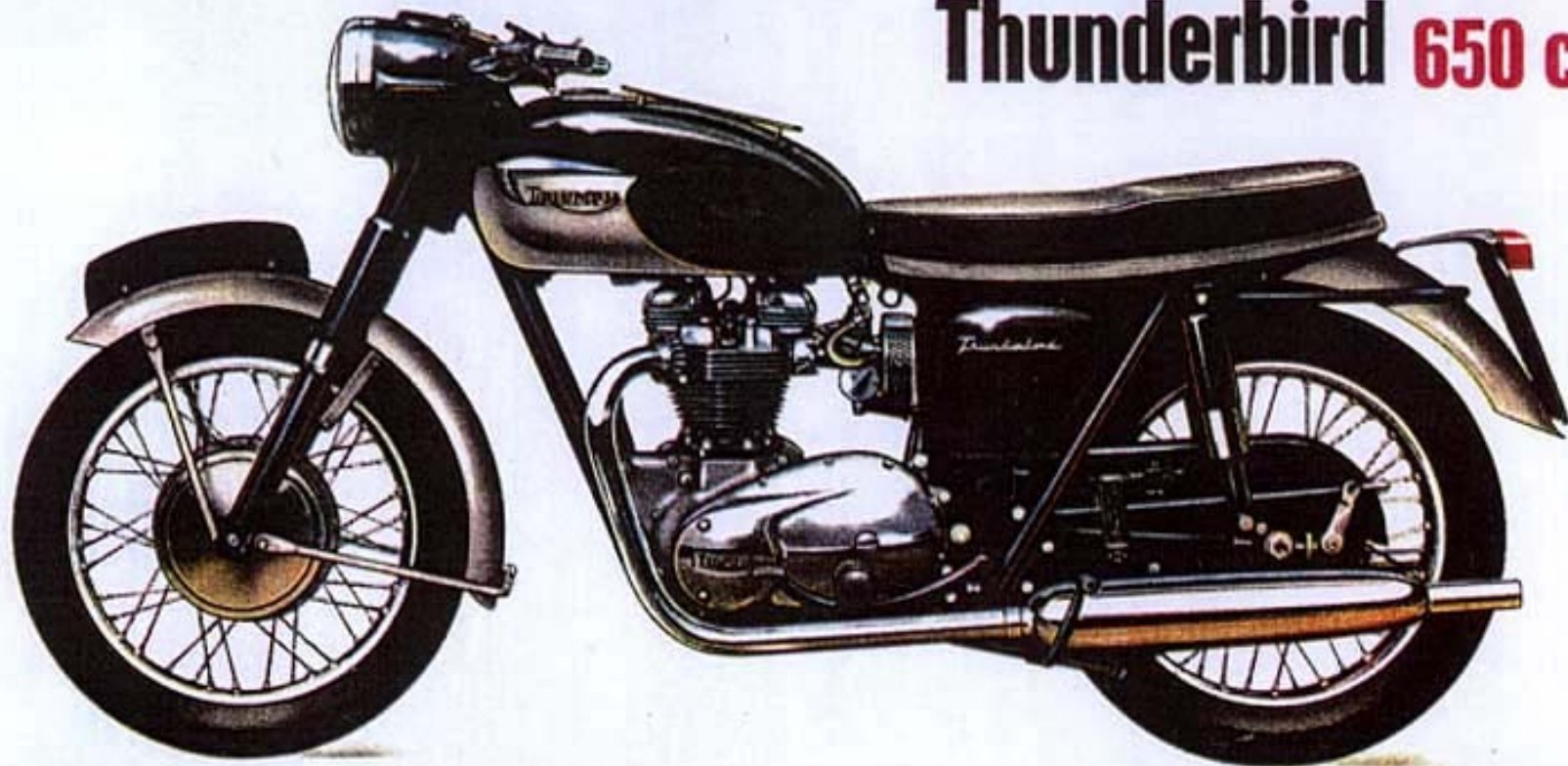
A truly great '500' - light in weight and easily handled by the experienced rider - the Tiger 100 is produced especially for the sports motorcyclist.

Progressively improved year by year to meet all the demands for higher performances from sports enthusiasts in the mediumweight range, this machine has gone from success to success in production motorcycle racing and has consistently proven its worth by annual gold medal honours in the International Six Days' Trial.



The new cylinder type Ignition Switch. Warning light fitted in headlamp.

Thunderbird 650 c.c.



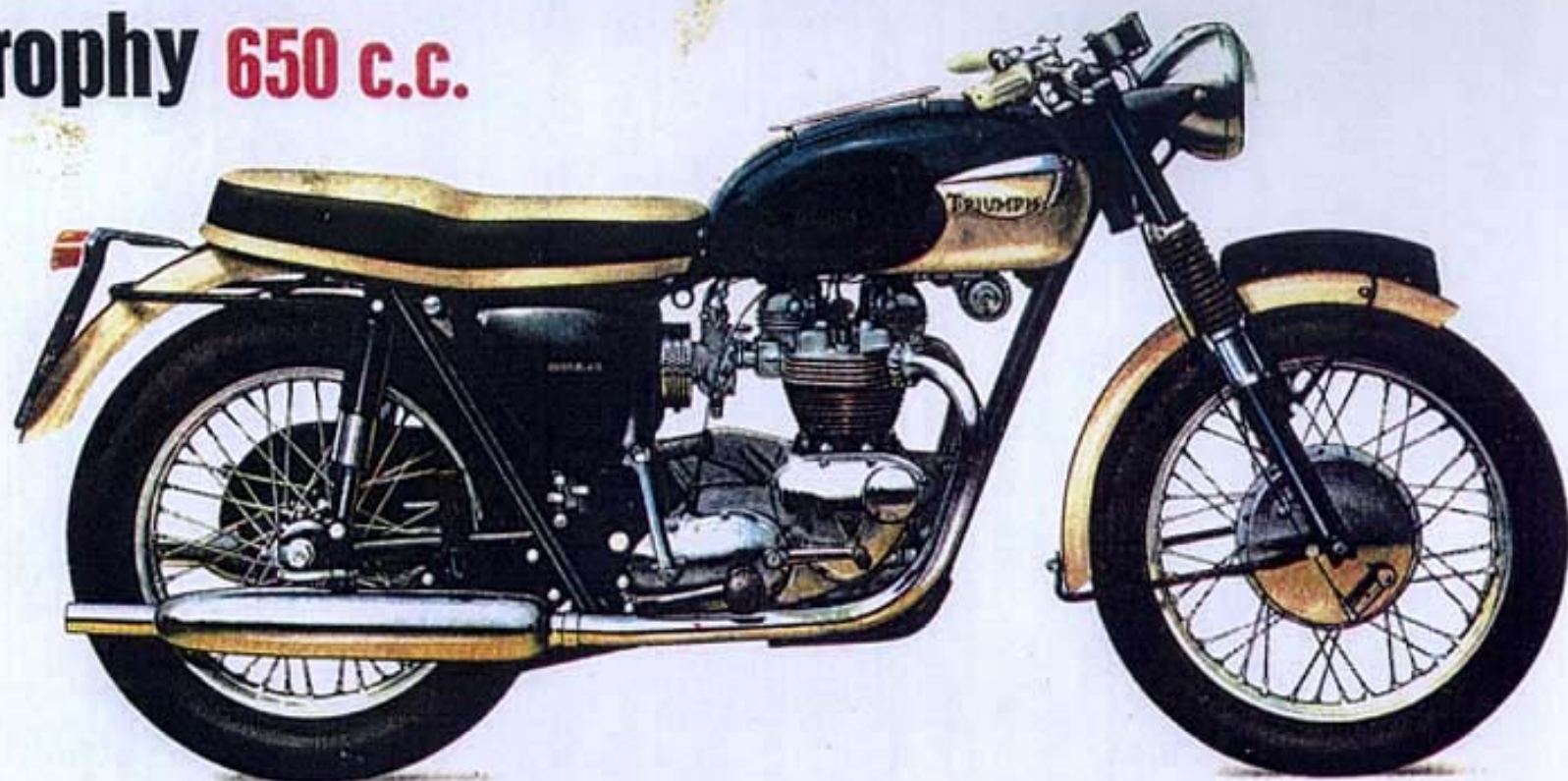
Triumph's modern approach to motorcycle design and production is clearly reflected in the handsome appearance and mechanical perfection of this famous model which is renowned for its smooth, effortless performance - with or without a sidecar.

The Thunderbird's consistent, day-in, day-out reliability makes it the automatic first choice of the fully competent rider who drives his machine hard and expects it to earn its keep. A choice which is endorsed by a long tradition of exemplary service with police forces, military units and other government departments all over the world.



New Front Brake with 44% increase in area and more rigid drum.

Trophy 650 c.c.



The ultimate in rugged, sporting motorcycles, with all the power and stamina needed to win major events, regardless of conditions, the Trophy has earned an unrivalled, world-wide reputation for sheer performance and staying power. Consistent winner of gold medals in the International Six Days' Trial and successes in the toughest of American enduros, this machine's breathtaking acceleration and superb roadholding characteristics provide even the most experienced sportsman with the supreme satisfaction of an exhilarating ride.

A SELECTION OF TRIUMPH

Of the many Triumph successes during 1985, the following results were achieved in events officially approved for factory entries.

| | | |
|---------------------------------|--|-------------------------------------|
| Victory Cup Trial | | |
| Best 500 c.c. | John Giles | Tiger 100 |
| Bemrose Trophy Trial | | |
| 200 c.c. Award | Ray Sayer | Tiger Cub |
| Scottish Six Days' Trial | | |
| 200 c.c. Award | Ray Sayer | Tiger Cub |
| Manufacturers' Team Award | Roy Pealow Ray Sayer Gordon Farley | Tiger Cub Tiger Cub Tiger Cub |
| Lamborella Trial | | |
| 200 c.c. Award | Roy Pealow | Tiger Cub |
| Manx Three Days' Trial | | |
| Unlimited Award | John Giles | Trophy |
| Gold Medal | John Giles | Trophy |
| Gold Medal | Roy Pealow | Tiger 100 |
| Gold Medal | Ray Sayer | Tiger 20 |



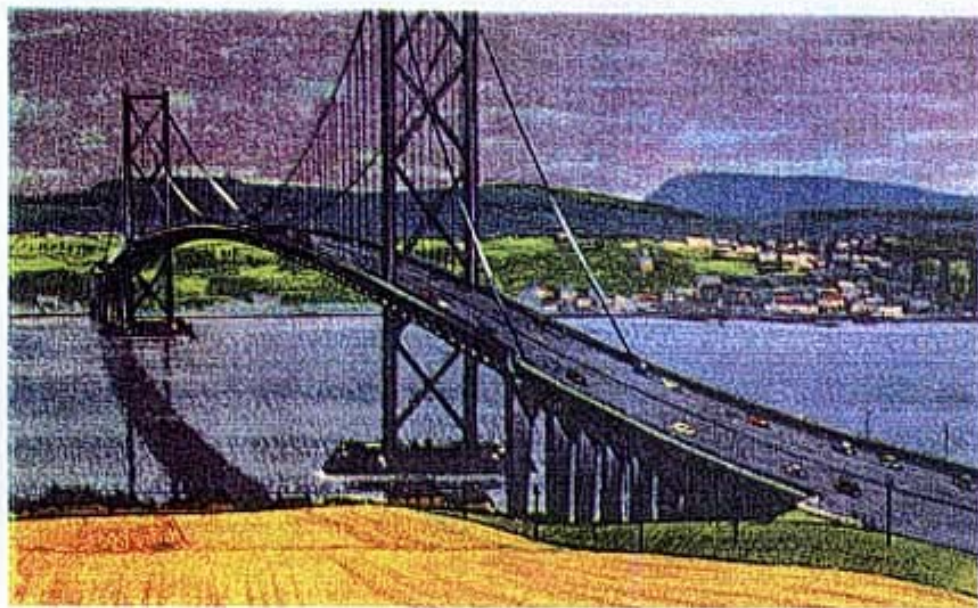
SUCCESSES IN 1985

| | | |
|--|------------------------|----------------|
| Army Three Days' Trial | | |
| Premier Award | Ken Heanes | Trophy |
| Manufacturers' Association Award | Gordon Farley | Tiger Cub |
| Gold Medal | Ken Heanes | Trophy |
| Gold Medal | Roy Pealow | Tiger 100 |
| Gold Medal | Gordon Farley | Tiger Cub |
| International 500 Mile Road Race | | |
| Castle Combe | | |
| 1st Overall | O. Degens S. Lawton | Bonneville 120 |
| International Six Days' Trial | | |
| Gold Medal | Roy Pealow | Tiger 100 |
| Gold Medal | Ray Sayer | Tiger 95 |
| Silver Medal | Ken Heanes | Trophy |
| Bronze Medal | Gordon Farley | Tiger Cub |
| This was the best performance by a British Manufacturer | | |
| West of England Trial | | |
| 200 c.c. Award | Roy Pealow | Tiger Cub |
| World Speed Record quoted in this catalogue was attained at Bonneville Salt Flats, Utah, in September 1982 | | |

Bonneville 120

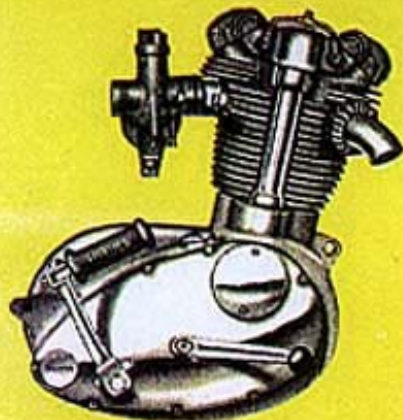
650 c.c.

Designed to offer the really expert and skilful rider all the power and performance which he can possibly need, the Bonneville 120 is, surely, the most potent, fully equipped, road machine in standard production today. It is powered by the celebrated Triumph 650 c.c. twin cylinder engine with twin carburettors, which at the time of going to press holds the World Speed Record for two wheeled machines of 224.57 m.p.h. Outstanding among 1965 competition successes was the Bonneville's outright win in the gruelling International 500 Miles Production Race at Castle Combe.



The 500 mile Production Machine Race at Castle Combe in Wiltshire is the most gruelling International event of this type in the racing calendar. In July 1965, a Bonneville 120, ridden by Dave Degens (in picture) and Barry Lawton, was the outright winner from an original entry of over 40 starters.





200 c.c. specifications

ENGINE. High-performance single cylinder o.h.v. with die-cast alloy cylinder head and finned rocker box caps. Inclined valves. "H" section connecting rod with plain big-end. Dry sump lubrication. Efficient barrel type silencer. Air cleaner.

FOUR SPEED GEARBOX. In unit with engine. Multiplate clutch with cork sheet linings and rubber torsion shock absorber. Positive stop footchange. Duplex primary chain.

FORKS. Telescopic type giving comfortable ride and accurate steering. Heavy duty competition type on T20S/H.

FRAME. Strong loop type frame. Swinging fork rear suspension with hydraulic damping. Provision for anti-theft lock.

BRAKES. Very efficient smooth-acting brakes with large diameter drums and finger adjustment.

WHEELS. Plated spokes and rims. Efficient mudguards front and rear.

FUEL TANKS. All-steel welded petrol tank, chrome motif. Ample capacity oil tank. Quick release caps and accessible filters.

ELECTRICAL EQUIPMENT. A.C./D.C. lighting-ignition system with crankshaft-mounted alternator and emergency start circuit. Contact breaker mounted in timing cover. Powerful head and rear lamps.

TOOLBOX. All steel with kit of good quality tools and inflator.

SPEEDOMETER. Smiths 80 m.p.h. (140 Km.p.h.) speedometer with anti-vibration mountings.

OTHER DETAILS. Finish—T20: Pacific Blue/White; T20S/H: Metallic Blue/White. Smooth action twistgrip, rubber knee grips. "Vynide" covered cushioned twinseat.

EXTRAS. Pillion footrests. Prop stand. Steering lock. Tachometer (T20S/H).



350 & 500 c.c. specifications

ENGINE. Advanced design vertical twin cylinder o.h.v. with two camshafts driven by gears. Pushrod operated overhead valves in a light alloy cylinder head. High duty iron cylinder block. Dry sump lubrication with plunger type pump. A.C./D.C. lighting-ignition system with crankshaft mounted alternator and emergency start circuit. Twin contact breaker unit mounted in timing cover. Silent Duplex primary chain in polished aluminium oil-bath with tensioner. Air cleaner.

GEARBOX. Four speed with positive stop foot operation built-in unit with engine. Heavy duty shafts and gears of hardened nickel-chrome steel, multiplate clutch with cork sheet linings and rubber torsion shock absorber.

FUEL TANKS. All steel welded 3 gallon petrol tank mounted on rubber and easily detached. Oil tank (6 pint capacity) under twinseat. Provision for petrol reserve. Plated parcel grid. New style motif.

FRAME. Heavy duty brazed cradle type frame with swinging fork rear suspension, hydraulically damped. "Easylift" centre stand. Provision made for "Neiman" lock.

FORKS. Triumph telescopic design with hydraulic two-way damping.

NACELLE. (3TA 5TA only) integral with top of forks enclosing headlamp unit, 120 m.p.h. (180 Km.p.h.) speedometer, ammeter and switchgear.

BRAKES. Full width front hub heavily finned, incorporating powerful 7 in. brake. Fully floating shoes, finger adjustment.

WHEELS. Triumph design wheels with plated rims and spokes.

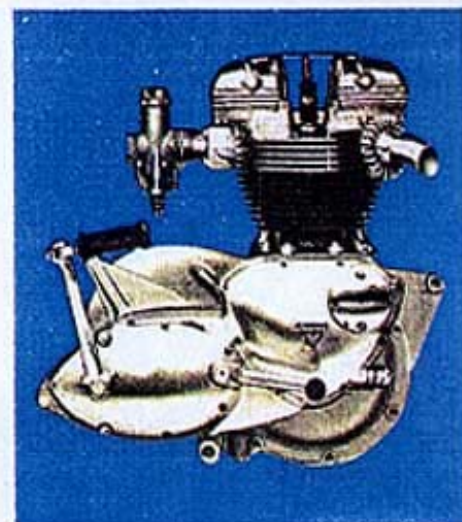
LIGHTING EQUIPMENT. Powerful 7 in. headlamp has a combined reflector/front lens assembly, "pre-focus" bulb and adjustable rim. Wide angle rear/stop lighting with integral reflex reflector. 12 volt system with two 8 a.h. batteries and Zener Diode for voltage control.

TWINSEAT ASSEMBLY. Cushioned seat, covered in waterproof black/grey "Vynide". Seat is hinged and covers the batteries, rectifier, oil tank and filler, and tools.

HANDLEBAR. Chrome-plated bar with smooth action twistgrip adjustable for friction. Integral dip switch/horn button. Cut-out button fitted on handlebar (T90 and T100). Adjustable levers with built-in cable adjusters.

FINISH. 3TA: Pacific Blue/White. T90: Grenadier Red/White. 5TA: Black/Silver. T100S/S: Sherbourne Green/White.

EXTRAS. Pillion footrests. Prop stand. Quickly detachable rear wheel. Tachometer (T90—T100S/S).



650 c.c. specifications

ENGINE. 650 c.c. o.h.v. vertical twin with two gear driven camshafts. Light alloy cylinder head, cast-iron barrel, high compression pistons (TR6 and T120) large bore carburettor. Splayed port head with two carburettors on T120. Finned rocker boxes. One-piece forged crankshaft with bolt-on central flywheel. "H" section RR55 alloy connecting rods with plain bearing big-ends. Dry sump lubrication with plunger type pump. Twin coil ignition. Oil bath primary chaincase. Air cleaner (not T120). Adjustable rear chain oiler.

GEARBOX. Built-in unit with engine. Shafts and gears of hardened nickel and nickel-chrome steel. Needle roller layshaft bearings. Positive stop footchange. Multiplate clutch with indestructible cork sheet linings and rubber torsion shock absorber. Accessible filler and level plugs.

FRAME. Brazed cradle type frame with large diameter front down tube and swinging fork suspension, hydraulically damped and adjustable for varying loads. "Easylift" centre stand. Provision for anti-theft lock. Front wheel stand.

FORKS. Triumph telescopic design with hydraulic two-way damping.

NACELLE. 6T only (Patent No. 647670) integral with top of forks enclosing headlamp, instruments and switchgear. Sports headlamp on TR6 and T120 incorporating ignition warning light.

FUEL TANK. Large capacity all-steel welded petrol tank mounted on rubber and easily detached. Quick release fillers. Provision for reserve. Plated parcel grid.

BRAKES. Front: new design, full width finned hub, 8 in. diam. Rear: 7 in. diam. drum integral with sprocket. Fully floating shoes.

WHEELS. Triumph design wheels with plated spokes and rims. Speedometer drive from rear wheel.

LIGHTING EQUIPMENT. Lucas alternator crankshaft mounted. Powerful headlamp with combined reflector/front lens assembly, "pre-focus" bulb and adjustable beam level. Wide angle rear/stop light with combined reflector. 12 volt system with two 8 a.h. batteries, using Zener Diode for voltage control.

SPEEDOMETER. Smiths 120 m.p.h. (180 Km.p.h.). Magnetic type with trip recorder.

HANDLEBAR. Chromium-plated with smooth action twist-grip (adjustable friction control). Integral horn push-dipper switch. Adjustable levers with built-in cable adjusters.

FINISH. 6T: Black/Silver. TR6: Pacific Blue/White. T120: Grenadier Red/White.

EXTRAS. Prop stand. Pillion footrests. Quickly detachable rear wheel. Steering lock.

Guarantee

1. In this Guarantee the word "machine" refers to the motor cycle, scooter, motor-cycle combination or sidecar as the case may be purchased by the Purchaser.

2. In order to obtain the benefit of this Guarantee, the Purchaser must correctly complete the registration form issued with machine and return it to us within fourteen days of the purchase.

3. We will supply, free of charge, a new part in exchange for, or, if we consider repair sufficient, will repair free of charge any part proved within six months of the date of purchase of any new machine, or within three months of its renewal or repair in the case of a part already renewed or repaired, to be defective by reason of our faulty workmanship or materials. We do not undertake to bear the cost of fitting such new or repaired part or accessory.

4. Claims under the Guarantee should be made through your Triumph Dealer.

5. This Guarantee shall not extend to defects or damage appearing after misuse, neglect, abnormal stress or strain, or the incorporation or affixing of unsuitable attachments or parts and in particular—

- (a) Hiring out
- (b) Racing and Competitions
- (c) Adaptation or alteration of any part or parts after leaving our Works
- (d) The attaching of a sidecar in a manner not approved by us or to an unsuitable motor-cycle

This Guarantee shall not extend to machines whose trade mark, name or manufacturing number has been altered or removed, or in which has been used any part not supplied or approved by us, or to tyres, saddles, chains, speedometers, revolution counters and electrical equipment or to parts supplied to the order of the Purchaser and different from our standard specification.

6. Our liability and that of our dealer who sells the machine, shall be limited to that set out in this guarantee, and no other claims including claims for consequential damage or injury to person or property, shall be admissible.

All other conditions and warranties statutory or otherwise and whether expressed or implied are hereby excluded and no guarantee other than that expressly herein contained applies to the machine to which this Guarantee relates or any accessory or part thereof.

TRIUMPH

**TRIUMPH ENGINEERING
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Meriden Works
Allesley, Coventry, England

Telephone: Coventry 20221
Telegrams: "Trusty, Coventry"

Technical Data

| MODEL | Tiger Cub (T20) | Sports Cub (T20S/H) | Twenty-one (3TA) | Tiger 90 (T90) | Speed Twin (5TA) | Tiger 100 (T100S/S) | Thunderbird Trophy (4T) | Thunderbird Trophy (TR4) | Bonneville 120 (T120) |
|----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------|------------------------------|------------------------------|
| Engine Type | O.H.V. | O.H.V. | O.H.V. | O.H.V. | O.H.V. | O.H.V. | O.H.V. | O.H.V. | O.H.V. |
| Number of Cylinders | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Bore/Stroke, mm. | 63 x 64 | 63 x 64 | 58.25 x 65.3 | 54.25 x 65.5 | 69 x 65.5 | 69 x 65.5 | 71 x 82 | 71 x 82 | 71 x 82 |
| Bore/Stroke, ins. | 2.48 x 2.52 | 2.48 x 2.52 | 2.29 x 2.58 | 2.19 x 2.58 | 2.72 x 2.58 | 2.72 x 2.58 | 2.79 x 3.23 | 2.79 x 3.23 | 2.79 x 3.23 |
| Capacity, cu. cms. | 199 | 199 | 349 | 349 | 490 | 490 | 649 | 649 | 649 |
| Capacity, cu. ins. | 12.2 | 12.2 | 21.2 | 21.2 | 30 | 30 | 40 | 40 | 40 |
| Compression ratio | 7:1 | 9:1 | 7.5:1 | 9:1 | 7:1 | 9:1 | 7.5:1 | 8.5:1 | 9:1 |
| B.H.P. and R.P.M. | 10@6,000 | 14.5@6,500 | 18.5@6,500 | 27@7,500 | 27@6,500 | 34@7,000 | 37@6,700 | 40@6,500 | 47@6,700 |
| Engine Sprocket Teeth—Solo | 19 | 19 | 24 | 26 | 26 | 26 | 29 | 29 | 29 |
| Clutch Sprocket Teeth | 48 | 48 | 58 | 58 | 58 | 58 | 58 | 58 | 58 |
| Gearbox Sprocket Teeth | 17 | 17 | 17 | 17 | 19 | 18 | 20 | 19 | 19 |
| Sidecar (G/box Sprocket) | — | — | — | — | — | — | 18 | 17 | 17 |
| Rear Sprocket Teeth | 47 | 48 | 46 | 44 | 46 | 46 | 46 | 46 | 46 |
| R.P.M. 10 M.P.H. Top Gear | 1004 | 955 | 808 | 808 | 723 | 743 | 616 | 634 | 649 |
| Gear Ratios—Top | 6.98 | 7.13 | 6.04 | 6.04 | 5.4 | 5.70 | Solo 5/11 | Solo 5/11 | Solo 5/11 |
| " " —Third | 9.23 | 8.54 | 7.34 | 7.36 | 6.6 | 6.95 | 4.60 | 4.84 | 4.84 |
| " " —Second | 14.34 | 13.37 | 9.71 | 9.71 | 8.7 | 9.18 | 5.47 | 5.76 | 5.76 |
| " " —First | 20.82 | 19.8 | 14.96 | 14.96 | 13.4 | 14.09 | 7.77 | 8.17 | 8.17 |
| Carburettor—Make | Amal | Amal | Amal | Amal | Amal | Amal | Amal | Amal | Twin Amal |
| Carburettor—Type | 376/272 | 376/272 | 375/62 | 376/300 | 375/35 | 376/273 | 376/303 | 389/97 | 389/203 |
| Front Chain Size | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex | 1" x .225" x .25" Duplex |
| Rear Chain Size | 1" x .205" x .335" | 1" x .205" x .335" | 1" x 1" x .40" | 1" x 1" x .40" | 1" x 1" x .40" | 1" x 1" x .40" | 1" x 1" x .40" | 1" x 1" x .40" | 1" x 1" x .40" |
| Tyres—Front, ins. | 3.25 x 18 | 3.00 x 19 | 3.25 x 18 | 3.25 x 18 | 3.25 x 18 | 3.25 x 18 | 3.25 x 18 | 3.25 x 19 | 3.25 x 18 |
| " —Rear, ins. | 3.25 x 18 | 3.50 x 18 | 3.50 x 18 | 3.50 x 18 | 3.50 x 18 | 3.50 x 18 | 3.50 x 18 | 4.00 x 18 | 3.50 x 18 |
| Brake Diameter—ins. (cms.) | 5 1/2" (13.97) | 5 1/2" (13.97) | 7" (17.78) | 7" (17.78) | 7" (17.78) | 7" (17.78) | 8" F.(20.32) 7" R.(17.78) | 8" F.(20.32) 7" R.(17.78) | 8" F.(20.32) 7" R.(17.78) |
| Finish | Pacific Blue/White | Metallic Blue/White | Pacific Blue/White | Grenadier Red/White | Black/Silver | Sherbourne Green/White | Black/Silver | Pacific Blue/White | Grenadier Red/White |
| Seat Height—ins. | 31" (78.7) | 30" (76.2) | 30" (76.2) | 30" (76.2) | 30" (76.2) | 30" (76.2) | 30" (76.2) | 30 1/2" (77.5) | 30 1/2" (77.5) |
| Wheelbase—ins. | 51 1/2" (130) | 50" (127) | 53 1/2" (136) | 53 1/2" (136) | 53 1/2" (136) | 53 1/2" (136) | 55" (139.6) | 55 1/2" (141) | 55" (139.6) |
| Length—ins. | 79 1/2" (201.5) | 78 1/2" (199.3) | 83 1/2" (211.5) | 83 1/2" (211.5) | 83 1/2" (211.5) | 83 1/2" (211.5) | 84" (213.5) | 84 1/2" (214.5) | 84" (213.5) |
| Width—ins. | 27 1/2" (70.5) | 26" (66) | 27" (68.5) | 26 1/2" (67.3) | 27" (68.5) | 26 1/2" (67.3) | 27" (68.5) | 27" (68.5) | 27" (68.5) |
| Clearance—ins. | 5 1/2" (14) | 8 1/2" (21) | 6" (15.2) | 6" (15.2) | 6" (15.2) | 6" (15.2) | 5" (12.7) | 7 1/2" (18.1) | 5" (12.7) |
| Weight—lbs. | 220 (99.8) | 223 (101) | 341 (154.7) | 337 (152.8) | 341 (154.7) | 337 (152.8) | 349 (167) | 365 (165.5) | 345 (165.5) |
| Petrol—Galls. | 2 (9) | 3 (13.5) | 3 (13.5) | 3 (13.5) | 3 (13.5) | 3 (13.5) | 4 (18) | 4 (18) | 4 (18) |
| Oil—Pins | 4 (2.27) | 2 1/2 (1.55) | 6 (3.35) | 6 (3.35) | 6 (3.35) | 6 (3.35) | 6 (3.35) | 6 (3.35) | 6 (3.35) |

Details of high performance equipment for certain models published separately