TRIUMPH

THE BEST MOTORCYCLE IN THE WORLD



START RIGHT-WITH TRIUMPH

Every Triumph machine which leaves the modern factory at Meriden has behind it the unsurpassed wealth of more than sixty years experience. The 1964 range comprises eleven models, each of which has been designed and developed to suit the individual requirements of discerning riders. Whatever you seek in a motorcycle, whether it be for everyday economical travel, healthy sport, pleasure or the sheer satisfaction of supreme performance, there is a Triumph model designed to suit you perfectly. Specifications are comprehensive, but one factor is constant and that is the supreme standard of quality guaranteed by the insignia on every new Triumph machine "Holder of the World Motorcycle Speed Record". This con-stancy is further underlined by the long history of successes in the International Six Days' Trial culminating in the Triumph Team of 350 c.c., 500 c.c. and 650 c.c. machines winning a Manufacturers team award in the 1963 event—the only British team to do so.

200 c.c. Lightweight range

The 200 c.c. range appeals strongly to those who want their first machine to look and perform like a larger model, but essentially need a really safe, sensible, economical method of personal transport.

350 c.c. and 500 c.c. Medium-weight range

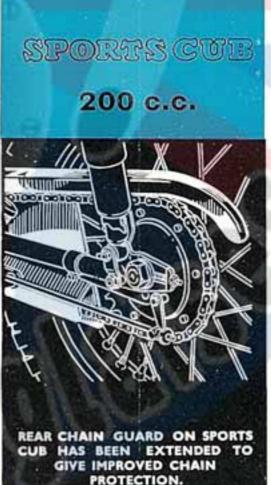
For the rider who combines everyday transport with substantial mileage for pleasure and objective journeys, the 350 c.c. and 500 c.c. twins are the perfect choice for all conditions.

650 c.c. Twin cylinder range

Power and tractability are blended in the three 650 c.c. twins so successfully that these models have no equal on the road for perfection of performance. Unobtrusive in the town, unsurpassable on the highway, these are machines designed to provide the most experienced rider with the last word in satisfaction.







For the truly sporting lightweight enthusiast this model offers crisp four-stroke acceleration and economy with first-class handling and suspension. In full road-going trim and readily adaptable to most forms of competition, this sparkling lightweight has immediate appeal to the younger rider.

Not illustrated
TS20 Cub Scrambler
TR20 Trials Cub
Special competition models built
to the identical specification of
the models used by Triumph
works riders. Full details on
request.



A consistent favourite during the past ten years with riders of all ages. Improved year by year through continuous development to its present standard of perfection.

Equipped with a lively fourstroke O.H.V. engine and fourspeed gearbox, this machine with its low cost and running expense is unsurpassed in the lightweight field.







The 350 c.c. Twenty-one maintains the immense popularity which marked its first introduction to the mediumweight range. Quiet and flexible with a sparkling performance this machine has created its own individual appeal. Light alloy cylinder head, unit construction fourspeed gearbox and semi rear enclosure make this model the automatic choice of the rider who demands the best in the 350 c.c. class.

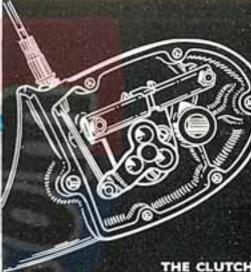
11.



Identical specification to the Twenty-one, but with the added power and liveliness of a 500 c.c. engine, the Speed Twin enjoys the virtues of lightweight ease of handling, ultra modern design and exciting performance. This famous sporting roadster, which set the pattern of twin cylinder design, offers that extra power for livelier performance and more effortless travel.



Zuentipene 350 c.c.



THE CLUTCH **OPERATING MECHANISM** ON ALL 350 c.c., 500 c.c. AND 650 c.c. MACHINES HAS BEEN REDESIGNED TO FACILITATE EASY REMOVAL, AND SERVICING.

SPEED TWIN

500 c.c.



A sporting 350 c.c. twin which has already established itself after only one season as a new favourite in the Triumph range. Based on the well-known 500 c.c. Tiger 100, the Tiger 90 embodies a sporting specification already well tried and proved in the 1963 International Six Days' Trial where it won a gold medal and was 350 c.c. Class Winner in the 1963 1000 Km production machine race at Oulton Park. A 350 with power 'plus' performance to match superb road holding.

TIGER 90

350 c.c.









500 c.c.



Winner of the 500 c.c. class in the 1963 Thruxton 500 mile Production machine race and gaining gold medal honours in the International Six Days' Trial for the past three years, the Tiger 100 has more than proved itself in these tough marathon endurance tests. Produced especially for the sporting rider who demands the ultimate in performance from a 500 c.c. machine.



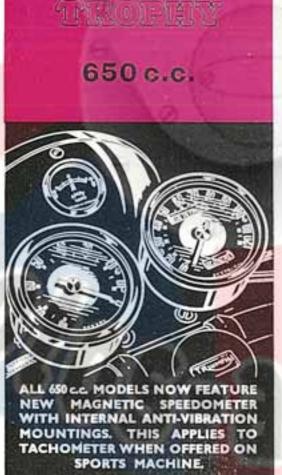




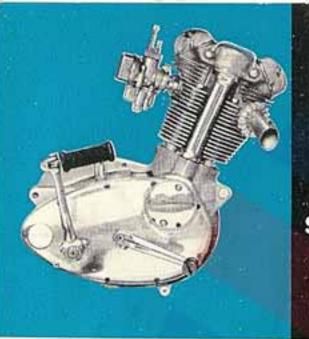


Double gold medal winner in the gruelling 1963 International Six Days' Trial, proving ground for the world's best sports machines, the Trophy has an unequalled reputation for speed and stamina under any conditions.

The powerful alloy head engine offers effortless and reliable high performance.
The Trophy is a consistent winner in the toughest American long distance enduros.







SPECIFICATION 200 c.c. RANGE ENGINE. High-performance single cylinder o.h.v. with diecast 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 step footchange. Duplex primary chain.

FORKS. Triumph 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. Triumph design with plated spokes and rims. Efficient mudguards front and rear. Stylish rear enclosure panels. (T20 only.) 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.

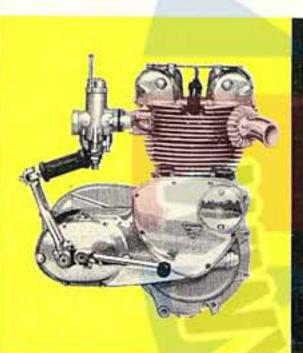
TOOLBOX. All steel with kit of good quality tools and inflator.

NACELLE, T20 only (Patent No. 647670). Neat streamlined shell encloses headlamp, instruments and socket connected switchness.

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

OTHER DETAILS. Finish T20, T20S/H Hi-Fi Scarlet/ Silver Grey. Smooth action twistgrip, rubber knee grips. "Vynide" covered cushioned twinseat.

EXTRAS. Pillion footrests. Prop stand. Steering lock. Tachometer (T20 S/H).



SPECIFICATION
350 c.c. 500 c.c.
RANGE

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. Oil pressure indicator. 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 petrol tank with parcel grid. Oil tank under twinseat. Provision for petrol reserve.

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

FORKS. New Triumph design telescopic pattern 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 AND MUDGUARDS. Triumph design wheels with plated rims and spokes. Stylish semi-rear enclosure on 3TA and 5TA.

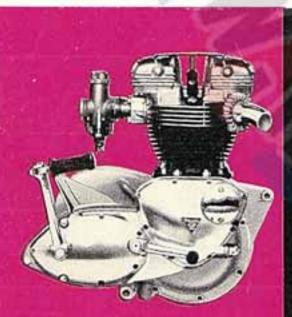
LIGHTING EQUIPMENT. Powerful 7 in, headlamp has a combined reflector/front lens assembly, "pre-focus" bulb and adjustable rim. Wide angle rear/stop lighting with integral reflex reflector.

TWINSEAT ASSEMBLY. Cushioned seat, covered in waterproof black grey "Vynide". Seat is hinged and covers the 12 a.h. battery, rectifier, oil tank and filler, and tools.

HANDLEBAR. Chrome-plated bar with smooth action twistgrip adjustable for friction. Integral dip switch/horn button. Adjustable levers with built-in cable adjusters.

FINISH, 3TA: Silver Beige. T90: Lacquered Gold and Alaskan White, 5TA: Black/Silver, T100S/S: Hi-Fi Scarlet and Silver.

EXTRAS. Pillion footrests. Prop stand. Quickly detachable rear wheel. Tachometer (T90—T100 S/S).



SPECIFICATION 650 c.c. RANGE 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 carburetter. Splayed port head with two carburetters on T120. Finned rocker boxes, One-piece forged crankshaft with bolt-on central flywheel. "H" section RR56 alloy connecting rods with plain bearing big-ends. Dry sump lubrication with plunger type pump and pressure indicator. Twin coil ignition. Oil bath primary chaincase. Air cleaner (not T120).

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. New Triumph design telescopic pattern with hydraulic two-way damping, ensuring highest standard of suspension and steering.

NACELLE. 6T only (Patent No. 647670) integral with top of forks enclosing headlamp, instruments and switchgear.

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: Full width finned hub, 8 in. diam. Rear: 7 in. diam, drum integral with sprocket. Fully floating shoes.

WHEELS AND MUDGUARDS. Triumph design wheels with plated spokes and rims. Semi-rear enclosure, 6T only.

LIGHTING EQUIPMENT. Lucas alternator crankshaft mounted. 12 a.h. battery, 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 on 6T only, with two 7 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 twistgrip (adjustable friction control). Integral horn push-dipper switch. Adjustable levers with built-in cable adjusters.

FINISH, 6T: Black/Silver, TR6: Hi-Fi Scarlet/Silver, T120: Lacquered Gold/Alaskan White.

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

TECHNICAL DATA

MODEL	Tiger Cub (T20)	Sports Gub (T20S H)	Twenty- one (3TA)	Tiger 90 (T90)	Speed Twin (5TA)	Tiger 100 (T1005 5)	Thunder- bird (61).	Trophy (TR6)	Banne villa (20 (61120)
Engine Type Number of Cylinders Bore/Stroke, m.m. Bore/Stroke, ins. Capacity, cu. cms. Capacity, cu. ins.	O.H.V. 1 63×64 2.48×2.52 199 12.2	O.H.V. 1 63×64 2.48×2.52 199 12.2	O.H.V. 2 58.25×65.5 2.29×2.58 349 21.2	O.H.V. 2 58.25×65.5 2.29×2.58 349 21.2	O,H.V. 2 69×65.5 2.72×2.58 490 10	O.H.V. 2 69×65.5 2.72×2.58 490 30	O.H.V. 2 71×82 2.79×3.23 649 40	O.H.V. 2 71×82 2.79×3.23 649 40	O.H.V. 2 71 × 82 2.79 × 3.23 649 40
Compression ratio B.H.P. and R.P.M. Engine Sprocket Teeth—	10 = 6,000	The second second	7.5:1 18.5 ± 6.500	9:1 27 × 7,500	27:1 27:16,500	9:1 34:07,000	7.5:1 34((6,300	8.5:1 40 ir 6,500	8.5:1 46:76,500
Solo Clutch Sprocket Teeth Gearbox Sprocket Teeth Sidecar (G/Box Sprocket) Rear Sprocket Teeth R.P.M. 10 M.P.H. Top Gear	19 43 17 	19 48 17 	26 58 19 46 749	58 17 46 808	26 58 20 	58 18 	29 58 20 18 46 616	29 58 19 17 46 634	29 58 19 17 46 649
Gear Ratios—Top Third Second First	6.84 9.04 14.05 20.40	7.13 8.56 13.37 19.8	5,40 6,59 8,69 13,40	6.04 7.36 9.71 14.96	5.13 6.26 8.26 12.71	5,70 6,95 9,18 14,14	5.47 6.08 7.77 8.64 11.43 12.48	Solo S/C 4.84 S.41 5.76 6.44 8.17 9.15 11.81 13.40	5olo 5 C 4.84 5.41 5.76 6.44 8.17 9.15 11.81 13.40
Carburetter—Make Carburetter—Type	Amal 32 1	Amal 376 272	Amal 375 62	Amal 376,300	Amai 375-35	Amal 376:273	Amal 376/303	Amal 389:97	Twin Amal 389 203
Front Chain Size	1"×.225"× .25" Duplex	1"×.225"× .25" Duplex	1" × .225" × .25" Duplex	1" x .225" x .25" Duplex	1"×.225"× .25" Duplex	25" Duplex	1" × .225" × .25" Duplex	1"×.225"× .25" Duplex	1"×.225"× .25" Duplex
Rear Chain Size	↓"×.205"× .335"	↓"×.205"× .335"	1"×1"×	1"×3"× .40"	1"×1"×	1"×1"×	1"×3"×.40"	1'×1'	1"×1"
Tyres—Front, ins. ,, —Rear, ins.	3.25 × 17 3.25 × 17	3.00 × 19 3.50 × 18	3.25×17 3.50×17	3.25 × 18 3.50 × 18	3.25 × 17 3.50 × 17	3.25×18 3.50×18	3.25×18 3.50×18	3.25 × 19 4.00 × 18	3.25×18 3.50×18
Brake Diameter-ins. (cms.)	5]* (13.97)	5;* (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	Hi-Fi Scarlet Silver	Hi-Fi Scarlet Silver	Silver Beige	Gold Alaskan White	Black/ Silver	Hi-Fi Scarlet Silver	Black Silver	Hi-Fi Scarlet Silver	Gold Alaskan White
Seat Height—ins.	29° (73.7)	30° (76.2)	291° (74.5)	30" (76.2)	291° (74.5)	30" (76.2)	30" (76.2)	30(° (77.5)	(77.5)
Wheelbaseins,cms.	49" (124.5)	50° (127)	52‡* (134)	· 53½* (136)	52‡" (134)	53±* (136)	(139.6)	55;"	55° (139.6)
Length—ins. —cms.	77° (195.5)	78)* (199.3)	81" (206)	831° (211.5)	81° (206)	831" (211.5)	84" (213.5)	84½° (214.5)	84" (213.5)
Width—ins. —cms.	25° (63.5)	26" (66)	(68.5)	26¦" (67.3)	27° -(68.5)	261" (67.3)	27)° (70)	27° (68.5)	27° (68.5)
Clearance—ins. — cms.	5° (12.7)	8)* (21)	5* (12.7)	7.5° (19)	5° (12.7)	7.5"	5° (12.7)	71° (18.1)	5° (12.7)
Weight—lbs. ——kilos	215 (94)	223 (101)	340 (154.6)	336 (152.8)	341 (155)	336 (152.8)	369 (167)	363 (165)	363 (165)
Petrol—Galls. — Litres	(13.5)	(13.5)	(13.5)	(13.5)	(13.5)	(13.5)	(18)	(18)	(18)
Oil—Pints "—Litres	(1.55)	(1.55)	5 (2.8)	\$ (2.8)	5 (2.8)	5 (2.8)	5 (2.8)	5 (2.8)	5 (2.8)

Details of high performance equipment for certain models published separately



TRIUMPIN THE GOLD MEDAL RANGE

In the 1963 International Six Days' Trial in Czechoslovakia the Triumph team won three gold medals and a manufacturers team award. All the Triumph works riders were chosen for the British teams and finished without loss of marks in this, the most arduous event in the competitions calendar. Another notable gold medal winner was the famous American rider, Bud Ekins, on his favourite mount-the Triumph Trophy.

RIDERS AND MACHINES

K. Heanes J. Giles R. Peplow

Triumph 650 c.c. Triumph 500 c.c. Triumph 350 c.c.

Trophy TR6 Tiger 100 Tiger 90

A SELECTION OF

TRIUMPH

SUCCESSES IN 1963

Of the many Triumph successes during 1963, the following results were achieved in events officially approved for factory entires.

St. Davids Trial

200 ele Cup John Giles Tilgian Cuib

Bemrose Trophy Trial

200 c.c. Cup Roy Poplew Tiger Cut

Manufacturers down Giles

Scott Ellis

Scottish Six Days' Trial

200 mie Cing Ray Saven Those Cun

Welsh Three Days' Trial

Roy Pepilow Tilder 90

International Six Days' Trial

Gold Medai Roy Penlow Tiger 90 Gold Mecal Ken-Heanes Thomas TR6 Gold Medal John Gilles Tiner 100 Gold Medal Buil Ekins Trophy TR6 Tiger 90

Rev Pepilow

Tream Award Ken Heanes Trophy TR6 John Gilles Tiger 100

West of England Trial

Premier Award Scott Ellis Tilger Cub

Scott Trial

Team Award

200 a.c. Cup Ray Saver Manusacturers

Ray Saver Tiger Cub.

Scott Ellis

B.M.C.R.C. 1000 Km. Production Race

350 p.c. Class M. Lowe Titeles 90 Winners D Peacook

Thruxton 500 Mile Production Race

500 c.c. Class B. Davis Winners W. Scott

Tiges 100

Titger Cub

GUARANTEE

We reserve the right to modify or deviate from the Published Specification without notice.

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

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 (three months overseas), 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. Any part considered to be defective must be sent to our Works, carriage paid, accompanied by the following informa-

- (a) Name of purchaser and his address:
- (b) Date of purchase of machine.
- (c) Name of dealer from whom the purchase was made.
- (d) Engine number and model.

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.
- 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 motorcycle.

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.

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 express 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.



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