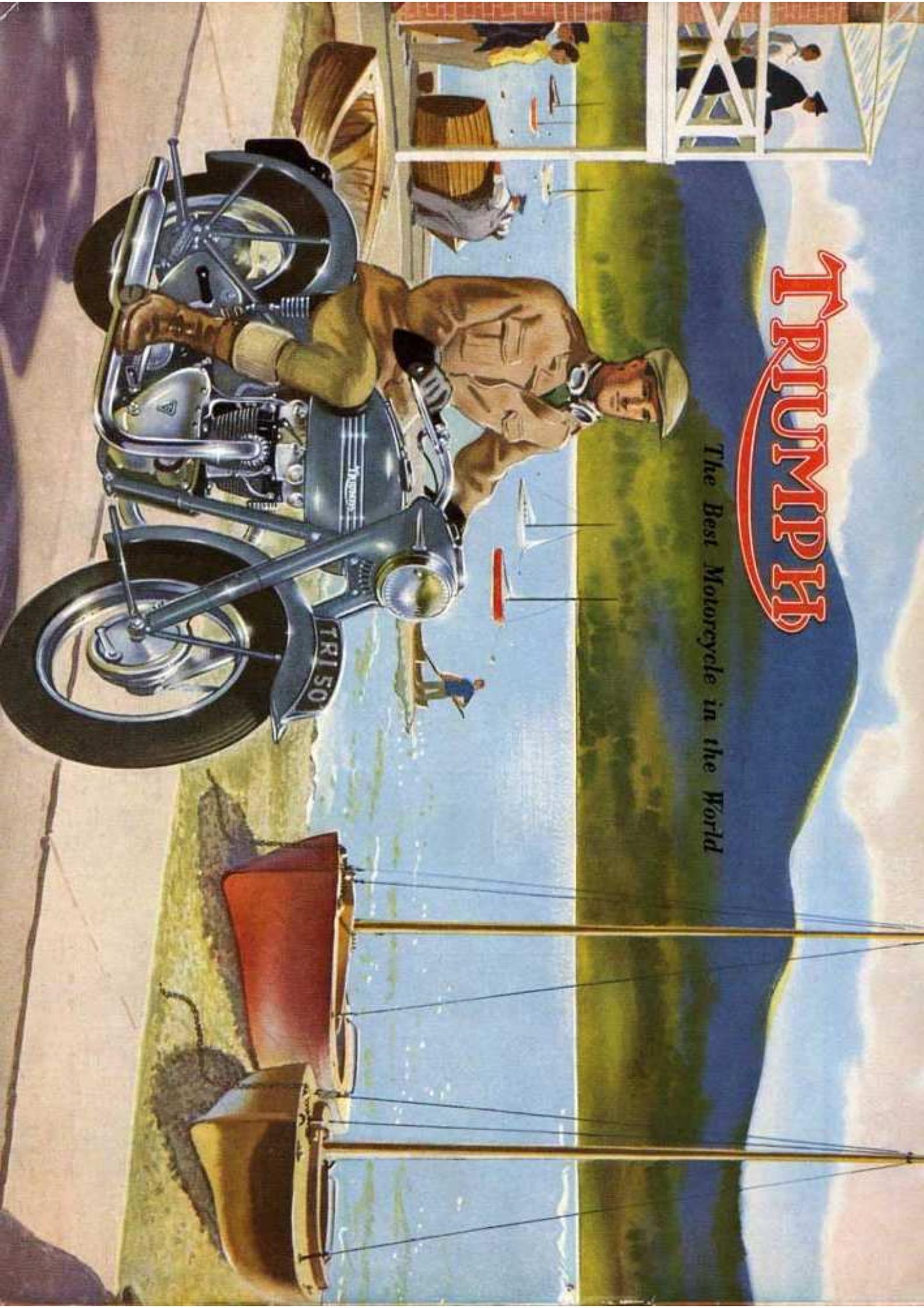


# TRIUMPH

*The Best Motorcycle in the World*



1950

# TRIUMPH

*The Best Motorcycle in the World*



The half-way mark of the 20th century finds the Triumph motorcycle, famous for fifty

years, in even greater demand than ever throughout the world. We consider that this success is due to our ceaseless efforts to improve the breed of our motorcycles, to the maintenance of our traditionally high standard of workmanship, and to our leading position as designers.

# TRIUMPH

1950 will be notable as the year of the production of a new model to be known as the "THUNDERBIRD," a 650 c.c. (40 cu. in.) high-performance motorcycle suitable for solo or sidecar, which we are confident will be as popular as the now classic

"SPEED TWIN." The new highways being engineered all over the world demand even greater performance and reliability, and the "THUNDERBIRD" has been evolved to meet these modern requirements.

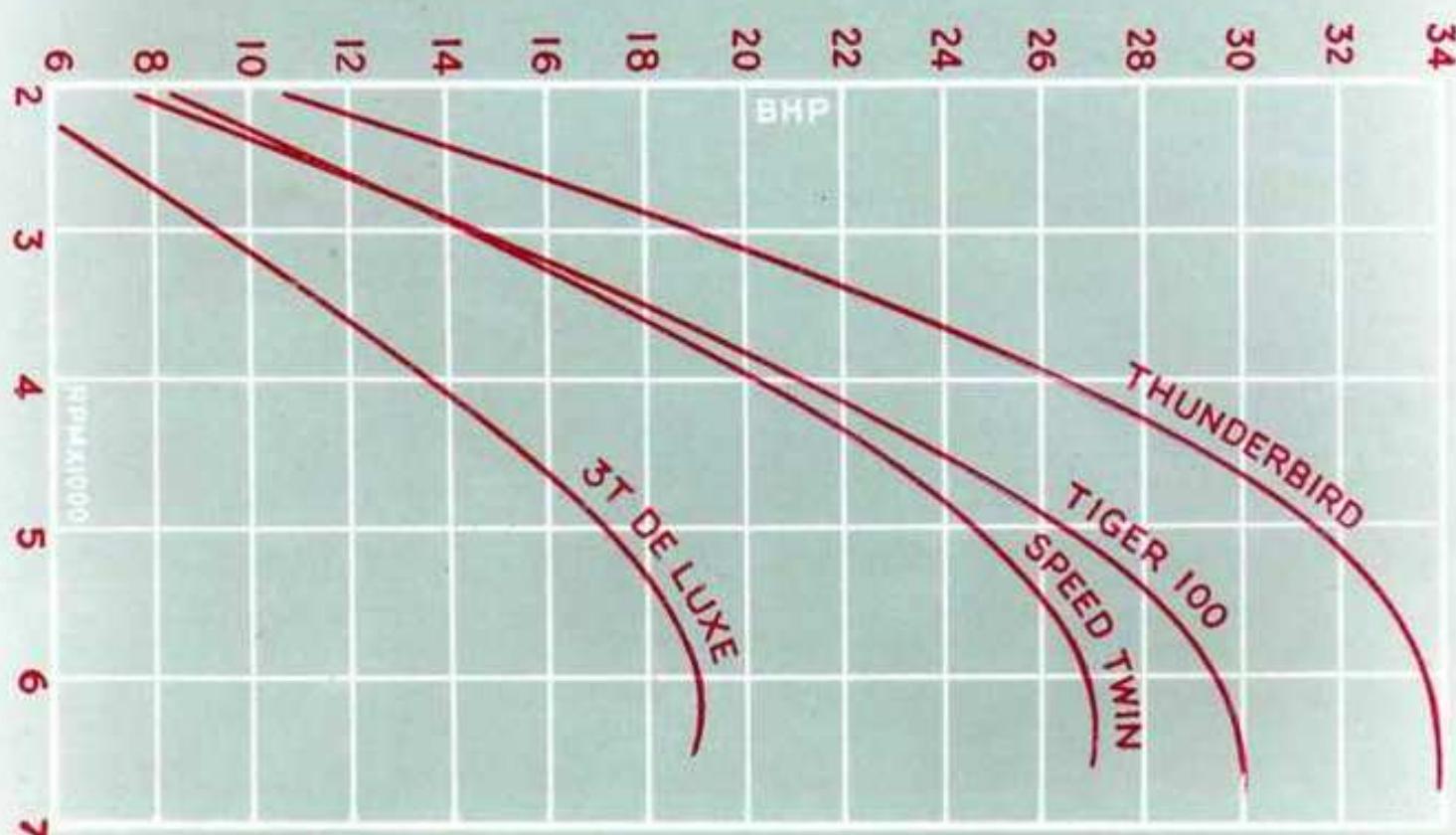
Thus, by our continued efforts, our integrity and devotion to an ideal, we hope to maintain the Triumph position as a credit to Great Britain and the Motorcycle Industry, encouraged as we are by the enthusiastic support of a vast number of discriminating motorcyclists.

The standard range comprises four models:

350 c.c.	500 c.c.	500 c.c.	650 c.c.
3T de LUXE	SPEED TWIN (ST)	TIGER 100 (T100)	THUNDERBIRD (6T)

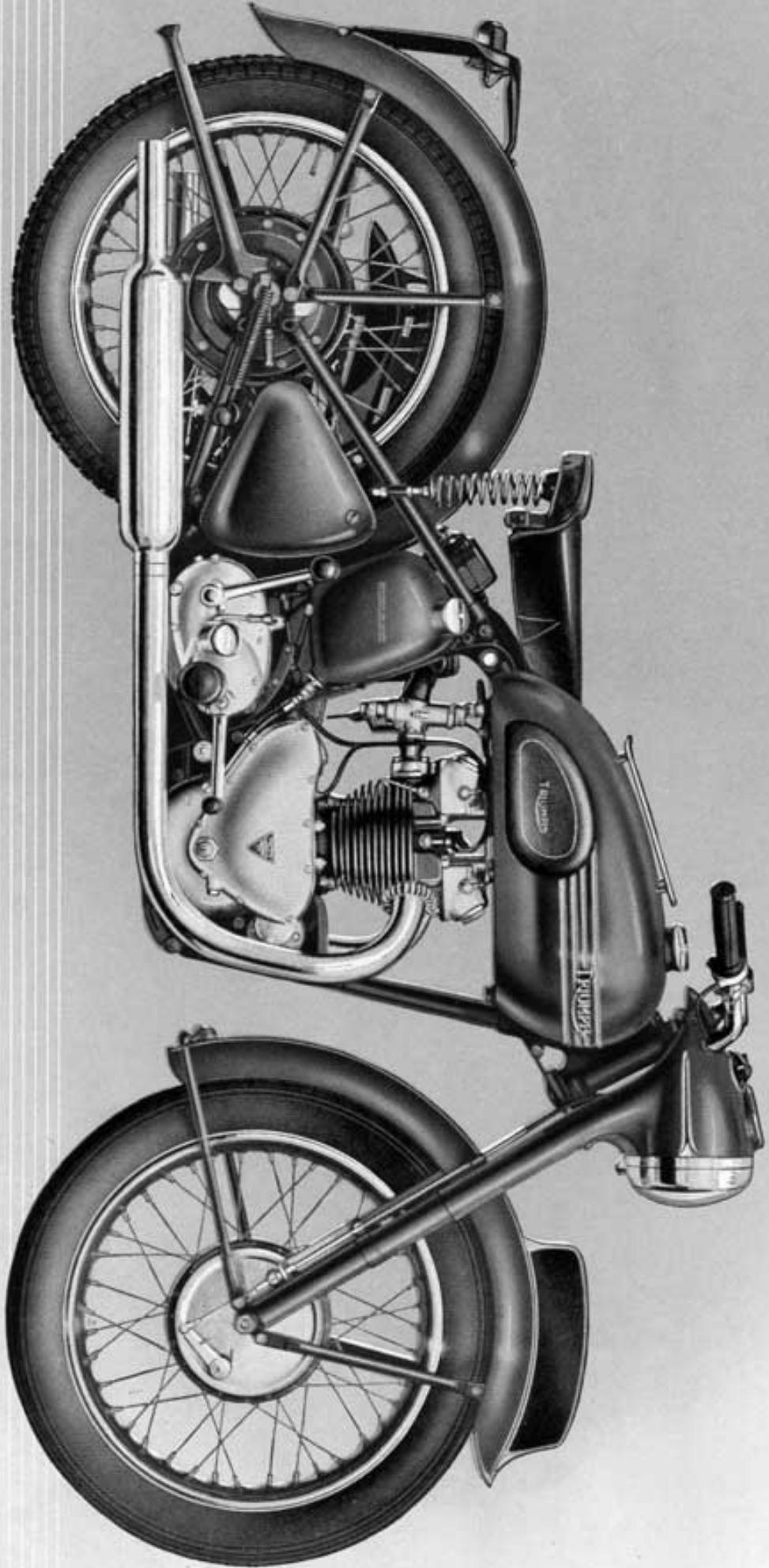
*Details of Road Racing and Trials Machines may be obtained on application*

● This interesting graph shows the comparative Brake Horse Power developed by the four Triumph engines. High output at reasonable R.P.M. is a feature of the new 650 c.c. "THUNDERBIRD."



*Thunderbird*

PATENT Nos. 476860, 474963, 482024, 469635

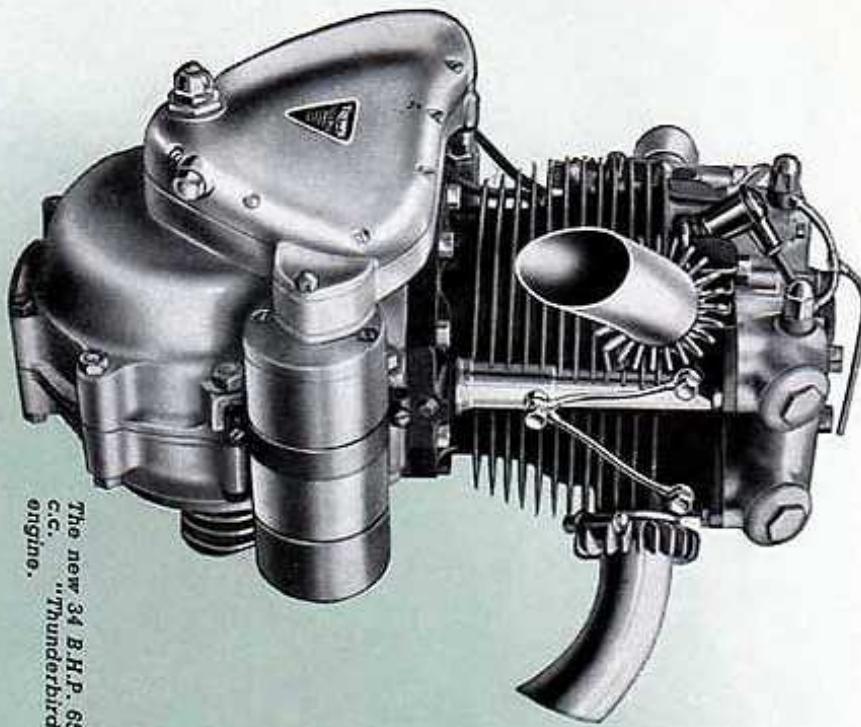


Specification overleaf

## SPECIFICATION

# 650 c.c. OHV "THUNDERBIRD"

A fast, powerful and luxurious machine built for high-speed travel on the motorways of the world



The new 34 B.H.P. 650 c.c. "Thunderbird" engine.

### ENGINE:

Vertical twin cylinder with two gear driven camshafts. Bore 71 mm. Stroke 82 mm. Capacity 649 c.c. Overhead valves. Totally enclosed and positively lubricated valve gear. High tensile aluminium crankcase of immense rigidity. "H" section highly finished connecting rods in RR66 Hiduminium alloy with patented plain big-ends. Crankshaft mounted on massive ball and roller bearings with central flywheel. Dry sump lubrication with extra capacity plunger-type pump giving positive feeds to big-ends and valve gear. Pressure indicator on timing cover. Auto-advance magneto and separate dynamo, gear driven. Amal carburettor with patented air-cleaner and Triumph quick action twist grip.

### TRANSMISSION:

Primary chain in polished cast aluminium oil-bath case. Rear chain positively lubricated and protected on both runs.

### FOUR-SPEED GEARBOX:

Entirely new Triumph design of greatly increased strength. Four speeds with large diameter shafts and gears of hardened nickel and nickel-chrome steel. Special dogs for easy changing. Positive stop footchange fully enclosed. Integral speedometer drive. Large diameter five-plate clutch.

**PETROL TANK:** All-steel welded streamline design. Quick opening plated filler cap. Two-way tap with reserve. Exclusive plated parcel grid on tank top.

**OIL TANK:** All-steel welded design with accessible filters, drain plug and separate vent. Screw-down leak-proof alloy filter cap.

**FRAME:** Brazed full cradle type with large diameter tapered front down tube and incorporating lugs for sidecar either side.

**FRONT FORKS:** Famous Triumph telescopic pattern with six inches of hydraulically-damped movement. Fuller details, page three.

**BRAKES:** Triumph design of exceptional power. Finest quality linings, finger adjustment back and front. Polished front brake anchor plate.

**HANDLEBAR:** Triumph design. Quick-action twist grip with finger adjustment friction control. Integral horn push. Adjustable plated clutch and brake levers.

**MUDGUARDS:** Wide "D" section with streamline stays. Completely detachable rear guard for rear wheel accessibility. Patented front number plate. Rear number plate with centrally mounted lamp and lifting handle.

**WHEELS AND TYRES:** Triumph design wheels with heavy-duty dull plated spokes. Dunlop tyres, ribbed front, studded rear.

**TOOLBOX:** All-steel large capacity with quick release fastener. Complete set good quality tools and greasegun.

**NACELLE:** Unique Triumph design instrument panel. All instruments rubber mounted, illuminated and readily accessible. Fuller details, page three.

**EQUIPMENT:** Lucas 6 volt 60 watt dynamo with full ball-bearing armature. Powerful built-in headlamp with adjustable chromium rim. Electric horn. Triumph design rubber kneegrips. Adjustable de Luxe saddle. Smiths 120 m.p.h. chronometric speedometer with r.p.m. scale and internal illumination. Tyre inflator.

**AIR CLEANER:** Triumph design patented Vokes air cleaner mounted behind the battery, neat, and efficient. See page three for fuller details.

**FINISH:** Frame, forks, etc., in the new "THUNDER-BLUE", a shade specially developed by colour experts for this model. Entirely new chromium motif on tank. Wheels chromium-plated with "Thunder-blue" centres. Gold lining. All bolts and nuts cadmium plated. Highest quality materials and finish throughout.

For Technical Details, Measurements, etc., see Back Cover

Photograph of "Thunderbird" on previous page

### 1. THE TRIUMPH TELESCOPIC FORK:

With six inches of hydraulically damped movement these forks set a high standard of controllability and comfort. The sectioned drawing shows how long supple fork springs are enclosed inside the stanchions which enables these vital components to be of maximum diameter and strength. No adjustments of any kind have to be made by the rider.

### 2. PARCEL GRID:

A useful chromium-plated tank-top fitting standard on all models. Particularly valuable to the long distance solo rider.

### 3. THE TRIUMPH

#### INSTRUMENT

"NACELLE": Groups all instruments and switchgear where they can most easily be seen and used. Integral with the top of the forks and therefore fully sprung the nacelle incorporates the headlamp (rim adjustable), speedometer, ammeter, lighting switch, cut-out button, horn. All instruments rubber mounted, internally illuminated and readily accessible.

### 4. AIR CLEANER:

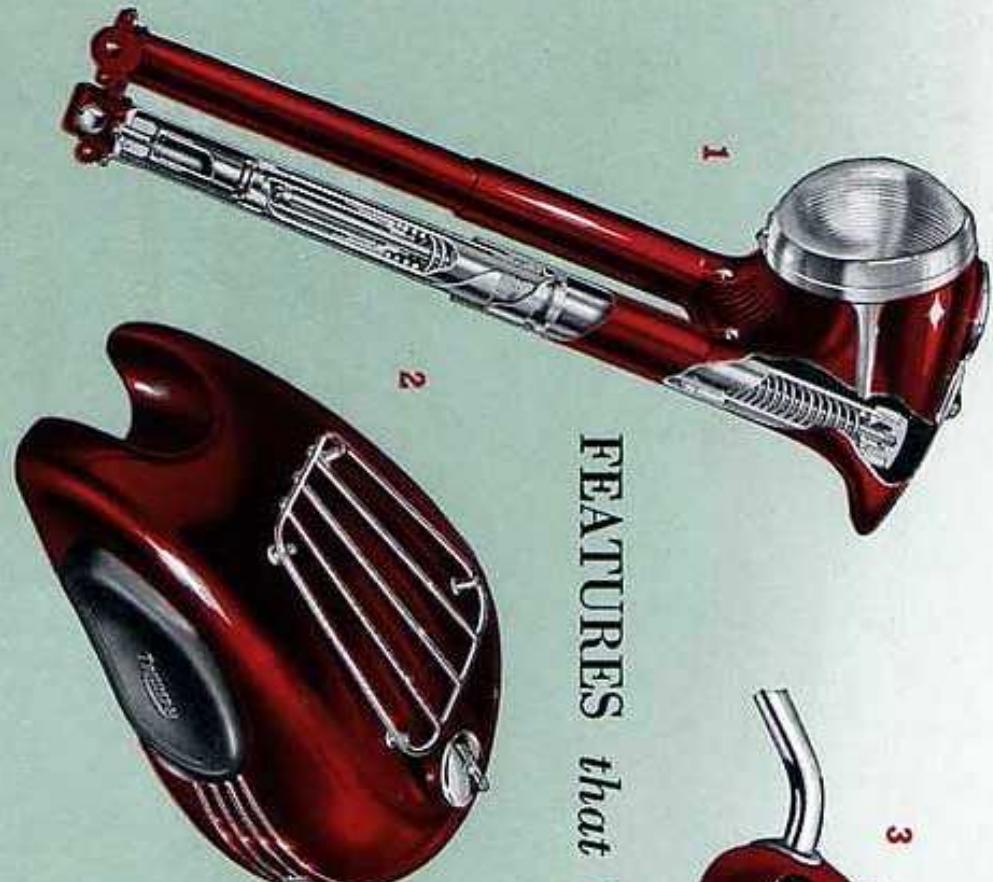
Triumph design patented Vokes air cleaner. A "trans-parent" oil tank shows how neatly this piece of equipment fits between the oil tank and battery. Very efficient oil-wetted muslin filament readily detachable for cleaning.

### EXTRAS :

### 5. PROPS STAND:

Extra on all models. A spring retains the stand out as a prop or in folded back position. Can be fitted to all Triumph models from 1937. State whether over or under 350 c.c. when ordering.

4



FEATURES *that COUNT*



5



6



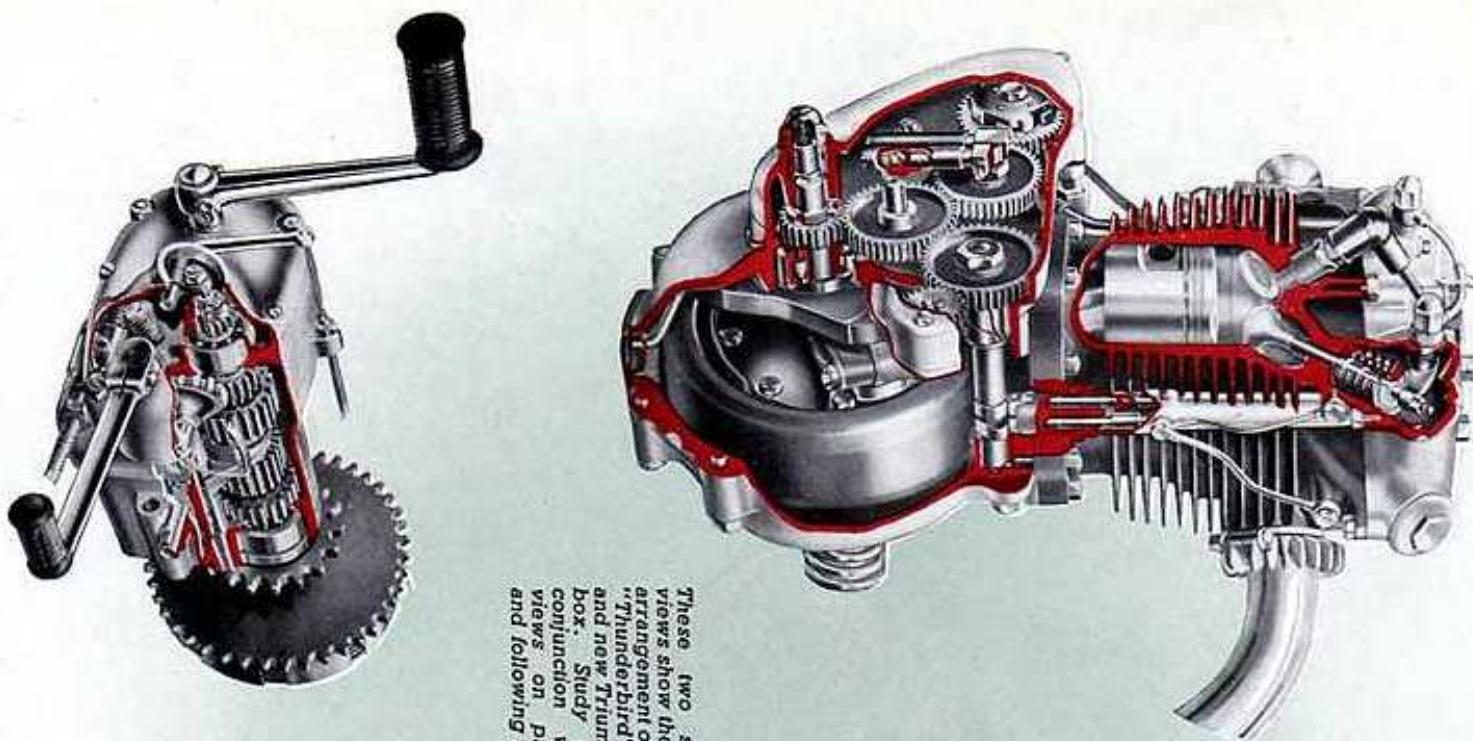
**6. THE FAMOUS TRIUMPH SPRING WHEEL** (Patent No. 824885): Available as an extra on all models. This remarkable springing system has achieved great popularity in all parts of the world. The massive aluminium alloy hub shell totally encloses all moving parts and has a powerful eight-inch brake attached. Mounted in the frame exactly like a normal wheel.

**HOW IT OPERATES:** The spindle remains stationary, bolted into the frame as usual, while the wheel and hub move on a curved path taken from the centre of the gearbox sprocket. Chain tension remains constant. Movement controlled by springs, two below the spindle and one above.

## SPECIFICATION

# 500 c.c. OHV "TIGER 100"

"As a machine for high-speed cruising, the Tiger 100 has few equals, either on two wheels or four." — The Motor Cycle, 14/4/49.



These two sectioned views show the general arrangement of the new "Thunderbird" engine and new Triumph gearbox. Study these in conjunction with the views on preceding and following pages.

**ENGINE:** Vertical twin cylinder with two gear driven camshafts. Overhead valves. Bore 63 mm. Stroke 80 mm. Capacity 498 c.c. Cylinder heads, ports and all moving parts highly polished. Special high compression pistons of silicon low expansion alloy. Totally enclosed and positively lubricated valve gear, highly polished rocker boxes and push-rod tubes. High tensile aluminum alloy crankcase, "H" section connecting rods in R66 hiduminium alloy with patented plain big-ends. Patented crankshaft mounted on heavy duty ball and roller bearings with central flywheel. Full dry sump lubrication, plunger type pumps with Positive feeds to big-ends and valve gear. Pressure indicator on timing cover. Auto-advance magneto and separate dynamo, gear-driven. Amal carburetter, Triumph quick-action twist grip.

**TRANSMISSION:** Primary chain in polished cast aluminium oil-bath case. Rear chain positively lubricated and protected on both runs.

**FOUR-SPEED GEARBOX:** Entirely new Triumph design greatly increased strength. Four speeds with large diameter shafts and gears of hardened nickel and nickel-chrome steel. Special dogs for easy changing. Positive stop footchange fully enclosed. Integral speedometer drive. Large diameter multiple clutch.

**PETROL TANK:** All-steel welded streamline design. Quick opening plated filler cap. Twin two-way taps, ample reserve. Plated parcel grid on tank top.

**OL TANK:** All-steel welded design with accessible filters, drain plug and separate vent. Screw-down leak-proof alloy filler cap.

**FRAME:** Brazed full cradle type with large diameter tapered front down tube and incorporating lugs for sidecar attachment either side.

**FRONT FORKS:** Famous Triumph telescopic pattern with six inches of hydraulically-damped movement. Fuller details page three.

**BRAKES:** Triumph design, exceptionally powerful. Finest quality linings. Finger adjustment. Polished iron anchor plate.

**HANDLEBAR:** Quick-action twist grip with finger adjustment friction control. Integral horn push. Adjustable plated clutch and brake levers.

**MUD GUARDS:** Wide "D" section with streamline stays. Completely detachable rear guard. Rear number plate with centrally mounted lamp and lighting handle.

**WHEELS AND TYRES:** Triumph design wheels with heavy-duty dull plated spokes. Dunlop tyres, ribbed front, studded rear.

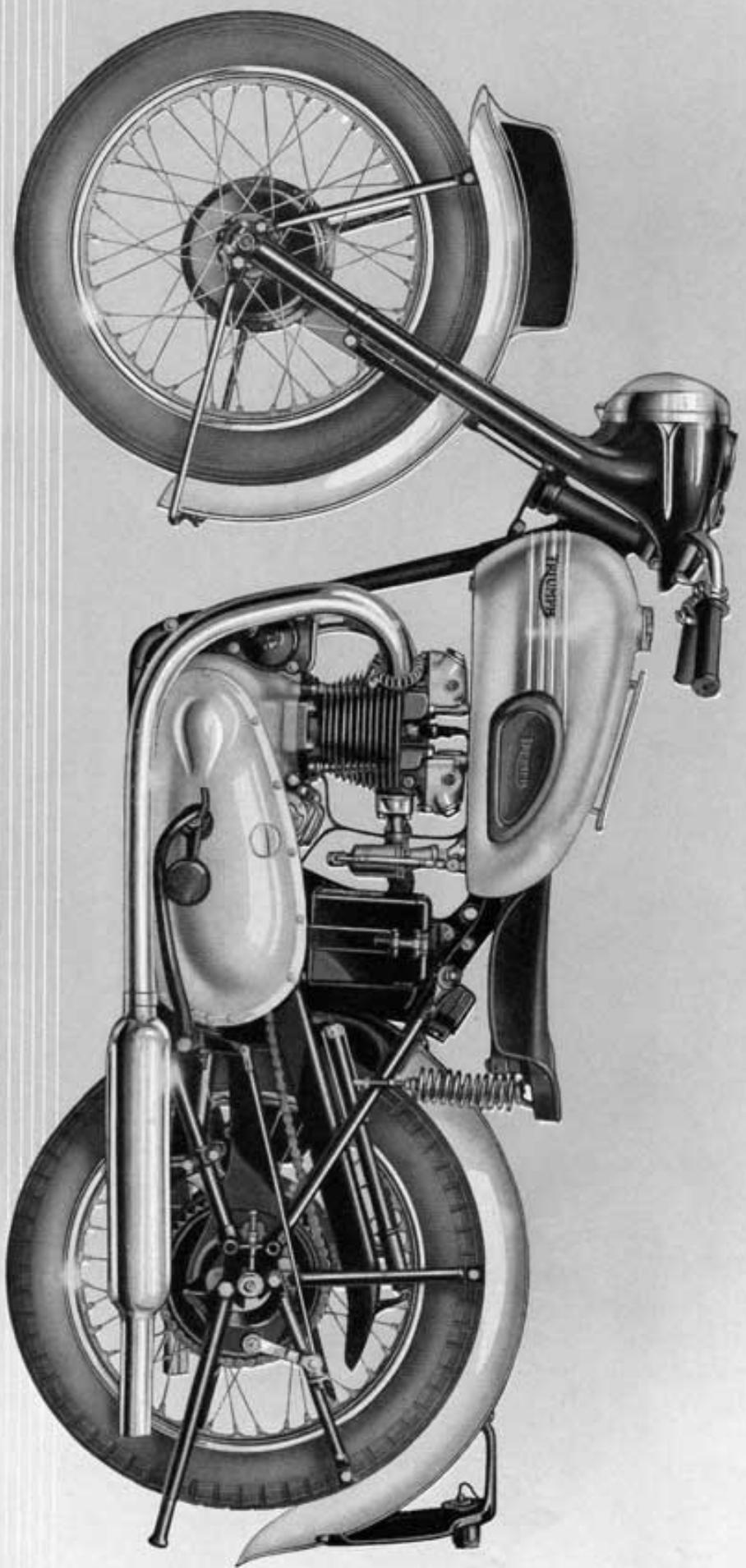
**TOOLBOX:** All-steel, with quick release fastener. Complete set good quality tools and grease gun.

**NACELLE:** Unique Triumph design instrument panel. All instruments rubber mounted, illuminated and readily accessible. Fuller details, page three.

**EQUIPMENT:** Lucas 6 volt 60 watt powerful built-in headlamp with adjustable chromium rim. Adjustable de Luxo saddle. Smiths 120 m.p.h. chronometric speedometer with i.p.m. scale and internal illumination. Electric horn. Tyre inflator.

**AIR CLEANER:** Triumph design patented.取子 air cleaner. Mounted behind the battery. See page three for fuller details.

**FINISH:** Petrol tank in silver shoen with new chromium mount. Mudguards in silver shoen with black centre strip. Wheel rims chromium plated with rim centres in silver shoen lined blue.



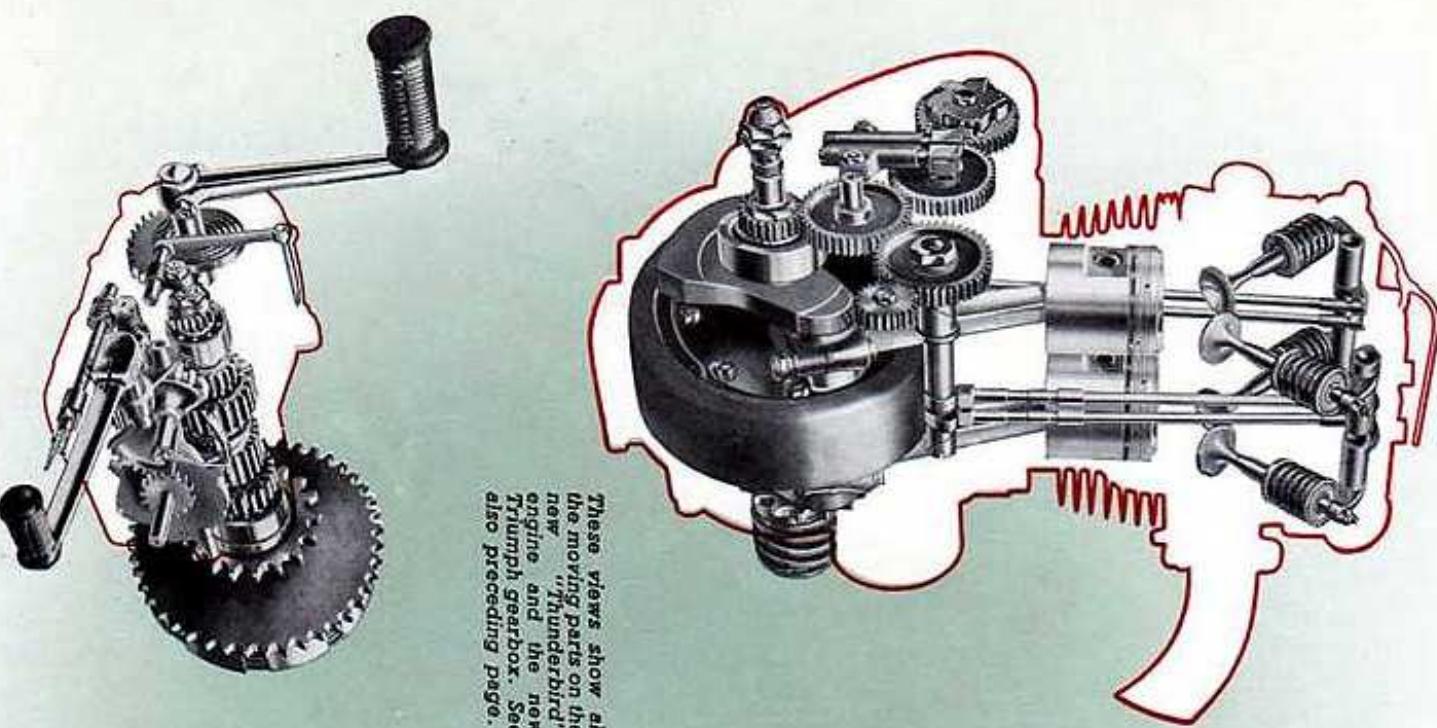
TRIUMPH  
TIGER 100

PATENT Nos. 475860, 474963, 482024, 469635

## SPECIFICATION

# 500 c.c. OHV "SPEED TWIN"

"The Speed Twin—forerunner of every other vertical twin in production to-day."  
—*The Motor Cycle*, 29/9/49.



These views show all the moving parts on the new "Thunderbird" engine and the new Triumph gearbox. See also preceding page.

### ENGINE:

Vortical twin cylinder with two gear driven camshafts. Bore 63 mm. Stroke 80 mm. Capacity 488 c.c. Overhead valves. Totally enclosed and positively lubricated valve gear. High tensile aluminium alloy crankcase of great rigidity. "H" section connecting rods in R886 high-tension alloy with patented plain big-ends. Patented crankshaft mounted on massive ball and roller bearings with central flywheel. Full dry-sump lubrication, plunger-type pumps with positive feeds to big-ends and valve gear. Pressure indicator on timing cover. Auto-advance magneto and separate dynamo, all gear-driven. Amal carburettor. Triumph quick-action twist grip.

### TRANSMISSION:

Polished cast aluminium oil-bath case. Rear chain positively lubricated and protected on both runs.

### FOUR-SPEED GEARBOX:

Entirely new Triumph design. Four speeds with large diameter shafts and gears of hardened nickel and nickel-chrome steel. Special dogs for easy changing. Positive stop footchange fully enclosed. Integral speedometer drive. Large diameter multiplate clutch.

### PETROL TANK:

All-steel welded streamline design. Quick opening plated filler cap. Two-way tap with reserve. Plated parcel grid on tank top.

### OIL TANK:

All-steel welded design with accessible filters, drain plug and separate cap.

### FRAME:

Brazed full cradle type with large diameter tapered front down tube and incorporating lugs for sidecar either side.

**FRONT FORKS:** Famous Triumph telescopic pattern with six inches of hydraulically-damped movement. Fuller details, page three.

### BRAKES:

Triumph design of exceptional power. Polished front brake anchor plate. Fine quality linings, finger adjustment back and front.

### HANDLEBAR:

Triumph design. Quick-action twist grip with finger adjustment friction control. Integral horn push. Adjustable plated clutch and brake levers. Rear guard for rear wheel accessibility. Rear number plate with centrally mounted lamp and lifting handle.

### WHEELS AND TYRES:

Triumph design wheels with heavy-duty dull chromium plated spokes. Dunlop tyres.

### TOOLBOX:

All-steel large capacity with quick release latches. Complete set good quality tools and greasegun.

### NUCLELE:

Unique Triumph design instrument panel. All instruments rubber mounted, illuminated and readily accessible. Fuller details, page three.

### EQUIPMENT:

Lucas 8 volt 60 watt dynamo with full ball-bearing armature. Powerful built-in headlamp with adjustable rim. Triumph design rubber knegrips. Adjustable de luxe saddle. Smiths 120 m.p.h. chronometric speedometer with r.p.m. scale and internal illumination. Electric horn. Tyre inflator.

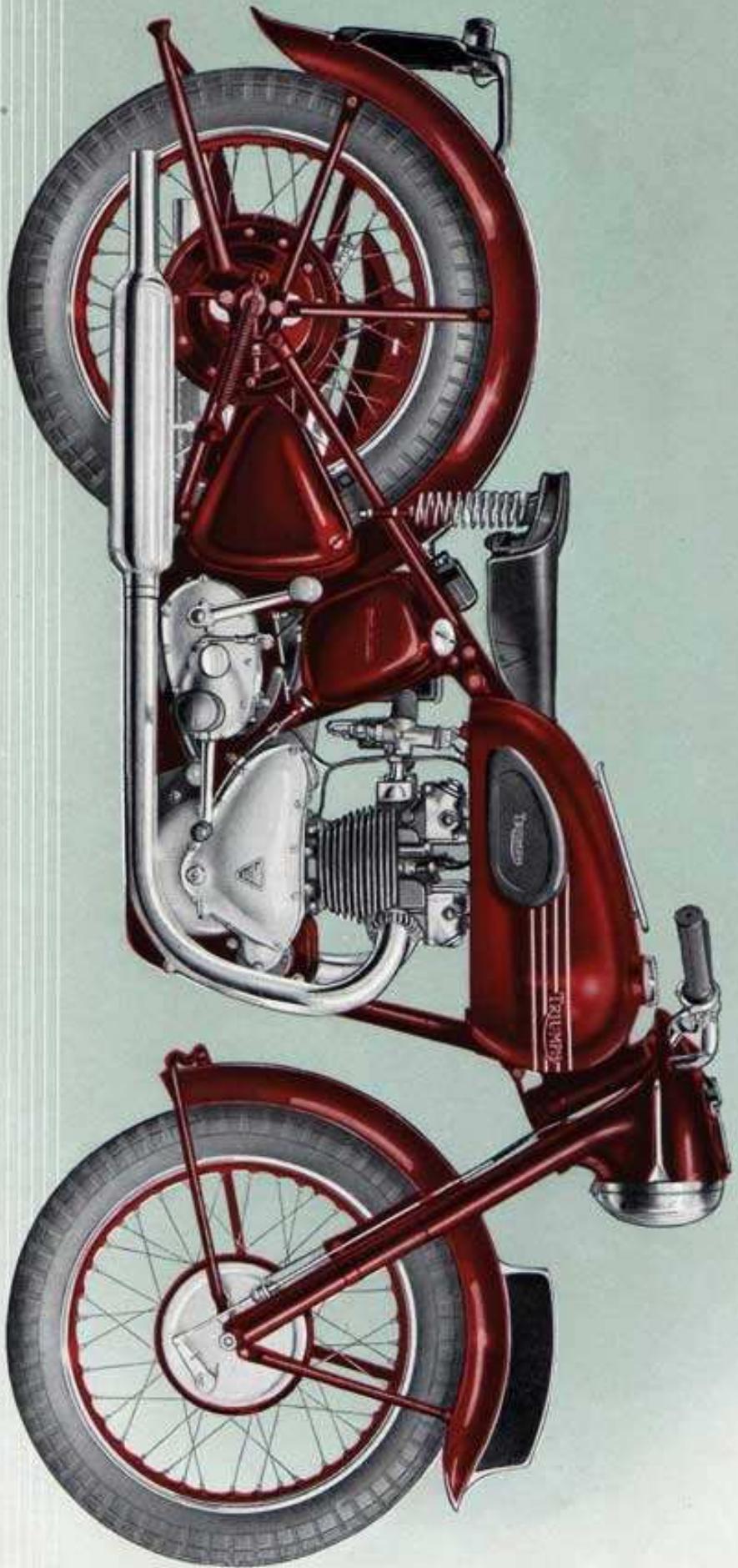
### AIR CLEANER:

Triumph design Patented Vokes air cleaner, mounted behind the battery, neat and efficient. See page three for fuller details.

**FINISH:** Frame, forks, etc., in amaranth (dark red) lacquer. Petrol tank with new chromium mould. Wheels, chromium plated with red hubs and rim centres (tuned gold). All bolts and nuts cadmium plated. Highest quality materials throughout.

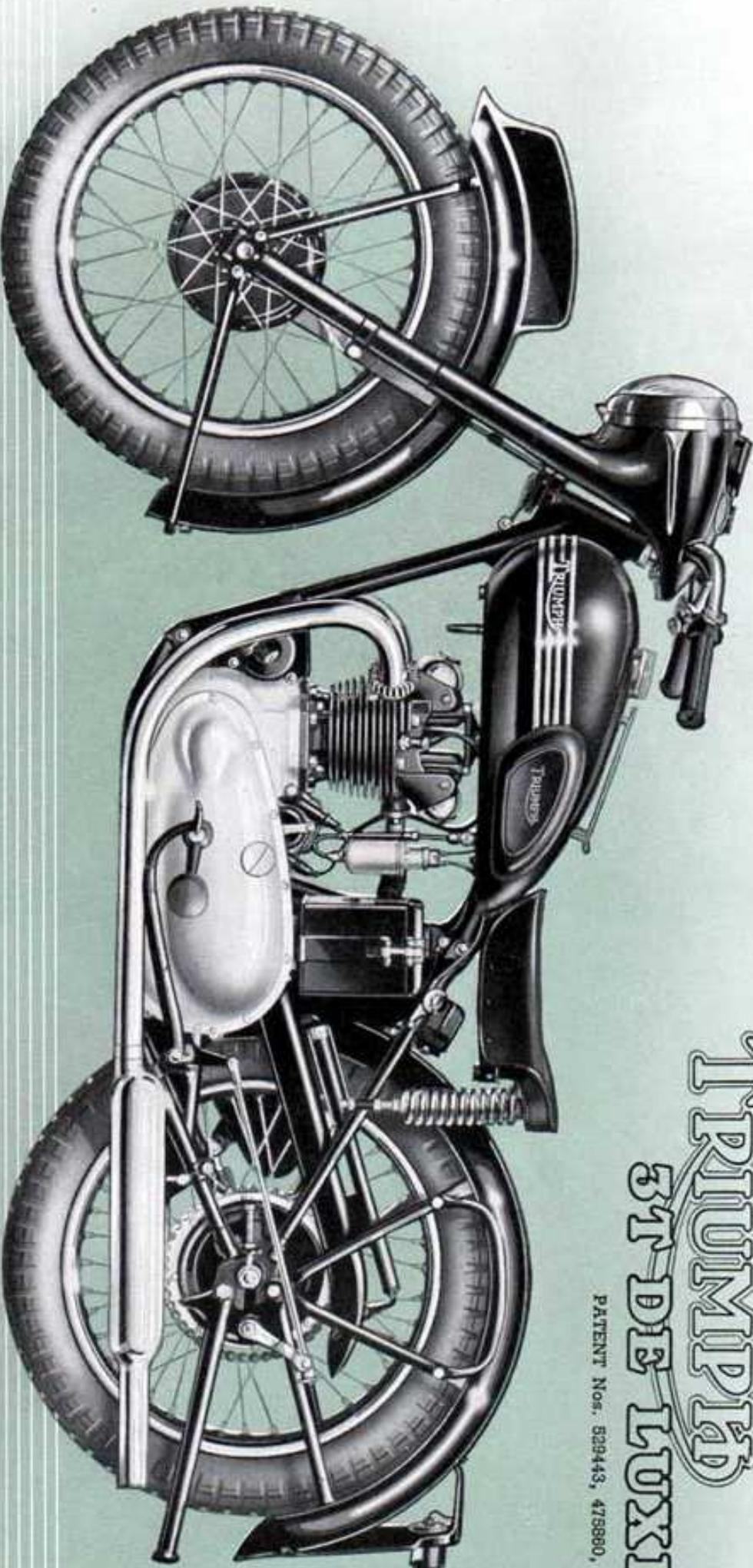
# TRIUMPH SPEED TWIN

PATENT Nos. 475860, 474963, 462024, 469635



# TRIUMPH TRIPLE LUXE

PATENT Nos. 529443, 475880, 469626



## S P E C I F I C A T I O N

### **ENGINE:**

Vertical twin cylinder. Bore 55 mm. Stroke 73.4 mm. Capacity 349 c.c. Over-head valves. Rocker box integral with cylinder head. Plain big-end ends. Patented crank-shaft, with central flywheel. Full dry sump lubrication with positive feeds to big-ends and valve gear. Auto-advance magneto and separate dynamo. Amal carburettor.

### **TRANSMISSION:**

Primary chain in polished cast aluminium oil-bath case. Rear chain positively lubricated and protected on both runs.

### **FOUR-SPEED GEAR-BOX:**

Entirely new design. Four speeds with special dogs for easy changing. Positive stop footchange.

### **PETROL TANK:**

All-steel welded. Quick opening cap. Two-way tap. Plated parcel grid.

### **OIL TANK:**

All-steel welded with accessible filters, drain plug and separate vent.

### **FRONT FORKS:**

Famous Triumph telescopic pattern. Fuller details, page three.

### **BRAKES:**

Triumph design of exceptional power. Finger adjustment front and rear.

### **NACELLE:**

Unique Triumph design instrument panel. Fuller panel. See page three for fuller details.

### **EQUIPMENT:**

6 volt 60 watt dynamo with full ball-bearing armature. Powerful built-in headlamp. Adjustable de Luxe saddle. Smiths 85 m.p.h. chronometric speedometer. Tyre inflator. Electric horn.

### **AIR CLEANER:**

Triumph design patented Vokes air cleaner. See page three for fuller details.

### **FINISH:**

Hard black enamel with new chromium tank motif. Black wheel centres lined ivory, chromium plated rims.

For Technical Details, Measurements, etc., see Back Cover

# TECHNICAL DATA

MODEL	3T	5T	T100	6T
Engine: Type	O.H.V.	O.H.V.	O.H.V.	O.H.V.
No. of cylinders	2	2	2	2
Bore and stroke, mm.	55 × 73.4	63 × 80	63 × 80	71 × 82
Cylinder capacity, c.cm.	349	498	498	649
Compression ratio	6.3 : 1	7 : 1	7.8 : 1	7 : 1
Engine sprocket, teeth solo	19	22	22	24
R.P.M. 10 m.p.h., top gear	750	646	646	580
Gear ratios:				
Top solo	5.8	5.0	5.0	4.57
Third solo	6.90	5.95	5.95	5.45
Second solo	8.8	8.45	8.45	7.75
First solo	14.13	12.2	12.2	11.2
Top, sidecar	—	—	5.8	5.24
Third, sidecar	—	—	6.90	6.24
Second, sidecar	—	—	9.8	8.85
First, sidecar	—	14.13	14.13	12.8
Carburettor, main jet	120	140	150*	170
" slide	5/4	6/34	6/34	6/34
" needle jet	107	107	107	107
Ignition, fully advanced ins. (mm.)	—	—	—	—
Front chain size	—	—	—	—
Rear chain size	—	—	—	—
Tyres—Dunlop, front, ins. rear, ins.	3.25—19	3.25—19	3.25—19	3.25—19
Saddle Height, ins. (cm.)	28½ (72)	29½ (75)	29½ (75)	29½ (75)
Wheelbase, ins. (cm.)	53½ (135)	55½ (140)	55½ (140)	55½ (140)
Overall Length, ins. (cm.)	82½ (209)	84½ (214)	84½ (214)	84½ (214)
Overall Width, ins. (cm.)	28½ (72)	28½ (72)	28½ (72)	28½ (72)
Ground Clearance, ins. (cm.)	6 (15.2)	6 (15.2)	6 (15.2)	6 (15.2)
Dry Weight, lbs. (kilos)	325 (147)	365 (165.5)	370 (168)	370 (168)
Petrol Tanks, gallons (litres)	3½ (16)	4 (18)	4 (18)	4 (18)
Oil Tank, pints (litres)	6 (3.4)	6 (3.4)	6 (3.4)	6 (3.4)

+9/32" (7.2 mm.) with low octane fuel, \*160 without air cleaner.

#190 without air cleaner.

**DESCRIPTION**

**MOTEUR :** bicylindre vertical avec distribution par double arbre à cam. Mécanisme des soupapes complètement enfermés et lubrifiés. Têtes de bielles simples. Graissage semi-sec assurant une lubrification positive des têtes de bielles et du mécanisme des soupapes. Arbre de vibrequin breveté monté sur gros roulements à billes avec volant central. Magnéto avance automatique. Dynamo séparée. Carburateur AMAL avec filtre à air.

**TRANSMISSION :** chaîne primaire sous carter bain d'huile en aluminium poli. Dessin nouveau boîte de vitesses TRIUMPH quatre vitesses avec changements au pied. Disques d'embrayage multiples de grand diamètre.

**CADRE :** Brasé, type en berceau, avec tubes de grand diamètre en alliage spécial. Fourche télescopique TRIUMPH avec amortisseur hydraulique.

**RESERVOIRS :** essence, en filet d'acier avec bouchon fermature rapide. Huile, muni de filtres efficaces, vidange et tuyau séparés, bouchon vissé en alliage spécial.

**ROUES ET FREINS :** Roues TRIUMPH avec rayons chromés. Freins puissants réglables avec garnitures de la meilleure qualité.

**NACELLE :** donnant une position très confortable. Freinage de direction réglable. Tous leviers comprennent : le phare, le compresseur, l'amplificateur, le commutateur, le bouton de klaxon.

**GUIDON :** Chromé, avec garniture chromée. Guidon monté au sommet des haubans et comprenant : le phare, le compresseur, l'amplificateur, le commutateur, le bouton de klaxon.

**EQUIPEMENT :** Dynamo LUCAS 6 volts, avec dynamo 60 watts, puissant avertisseur Klaxon électrique, selle ajustable, modèle luxe. Compteur Smith 180 Km.H. (3T 140 Km.H.). Boîtes ouillage acier avec jeu complet d'outils de bonne qualité. Pneus DUNLOP. Pompe à pneus. Porte paquets.

**EXTRAS :** Suspension arrière. Béquille de côté. Voir autres détails dans catalogue.

## ESPECIFICACION

**MOTOR** De dos cilindros verticales con válvulas en cabeza y con doble eje de levas. Cojinetes de cigüeñal lisos. Carter de aceite con conductos de alimentación a los cojinetes de cigüeñal y balancines. Cigüeñal patentado montado en cojinetes sólidos con volantes contrarrotacionales. Magneto y dinamo montadas. Carburador del tipo "AMAL", con purificador de aire.

**TRANSMISION :** Cadena primaria montada en carter de aluminio lubricado con aceite. Caja de cambios de 4 velocidades con cambio de pie positivo. Embrague de gran diámetro de disco, telescópicas con amortiguación hidráulica.

**DEPOSITO DE GASOLINA :** De chapa de acero soldada con filtro manejable al depósito. Depósito de aceite montado con filtros eficientes, tapón de vaciado y tubería separada. Tornillo de aleación como tapón.

**RUEDAS Y FRENIOS :** Ruedas del diseño Triumph 4 base de radios. Frenos poderosos con perodos de superior calidad para su regulación rápida.

**TABLERO INSTRUMENTOS :** Panel de instrumentos construido en la parte superior de las horquillas que incluye faro, cuenta-kilómetros, amperímetro, interruptor de luces, bocina y disyuntor.

**MANILLAR :** Muy confortable para conducir, puño de rosca regulable y de acción ligera. Palancas de frenos y embrague de plato cromado.

**EQUIPO :** Dinamo de 6 voltios 60 watts tipo Lucas. Bocina eléctrica poderosa. Silín regulable de Luxo. Cuenta-kilómetros tipo Smiths de 180 k.p.h. (Cuenta-kilómetros de 140 k.p.h. solo en el modelo 3T). Caja de herramientas toda ella de acero con juego completo de herramientas de muy buena calidad. Neumáticos Dunlop. Bomba de inflar neumáticos. Porta-equipajes.

**EXTRAS :** Suspensión trasera. Soporte de apoyo. Para más información véase catálogo.

## BESCHREIBUNG

**MOTOR :** OHV vertikaler 2-Zylindermotor. Vollständig eingehäusste Ventile mit Spezialfedern. Leichtmetall Kurbelgehäuse mit großer Stabilität. Pleinellager und Kurbelwelle auf extra starken Kugellagern montiert. Trocken-Sumpf-Schmiierung. Automatische Zündverstellung. Separatoren durch Zahnradler angetriebener Dynamo. Amal-Vergaser mit Luftfilter.

**KRAFTUEBERTRAGUNG :** Primär-Kette in poliertem Spritzguss-Oelbehälter. 4-Gang-Getriebe von Triumph patentiert und gebaut. Platten-Kupplung von grossem Durchmesser. **RAHMEN :** Wiegengitter aus den besten Stahllegierungsröhren gelötet. Triumph-Telerröhrchen mit hydraulischer Dämpfung.

**TANKS :** Ganz aus Stahlblech geschweißt. Benzindeckel mit Schnellverschluss. Octank mit wirksamen Filtern. Ablassrohren und separatem Absaugkanal mit separater Öffnung. **RAEDER UND BREMSEN :** Von Triumph entwickelte Räder mit starken, eindringenden Spangen. Bremsen mit grossen Bremssätteln und den besten Bremsmänteln. Vorn und hinten von Hand dinstellbar.

**SCHEINWERFER- UND INSTRUMENTENGEHÄUSE :** Der Scheinwerfer ist im oberen Teil der Teleskopgabel in einer sternförmigen Verschaltung eingebaut. Ebenfalls im Gehäuse befinden sich der Tachometer, der Ampèremeter, der Lichtschalter, der Kursabschaltung, der Stoßdämpfer und das elektrische Horn. Neuartiger, verstellbarer Gasdruckgriff. Verchromter Bremse- und Kupplungshebel.

**AUSSTATTUNG :** Lucas 6-Volt 60 Watt Dynamo. Starkes Horn. Verstellbarer Luxus-Sattel. Smith Kilometer-Zähler 180 km. (beim Modell 3T 140 km.). Werkzeugkasten ganz aus Stahlblech. Kompletter Satz Qualitätswerkzeug. Dunlop Pneus. Pumpe. Gepäckträger auf Benzintank montierbar.

**EXTRA - ZUBEHOER :** Hinterradabdeckung—Seitenständer.

**TRIUMPH ENGINEERING COMPANY LIMITED**  
**Meriden Works, Allesley, COVENTRY, ENGLAND**  
 Telegrams "TRUSTY, COVENTRY"  
 Telephone COVENTRY 60221