1915

TRIUMPH MOTORS

Catalogue

1915

Telegraphic Addresses:	*Telephone Numbers:*
"Triumph, Coventry."	542 Coventry.
"Cyclothure, Cent., London."	P.O. Central, 1455 London.
"Triumph, Leeds."	4261 Leeds.
"Triumph, Manchester."	6212 Manchester.
"Cyclothure, Glasgow."	9091 Central, Glasgow.
"Cyclothure, Dublin."	1024 Dublin.

Codes used: ABC (5th Edition) and Lieber's. Private Code see page 40

AWARDED TWO GRAND PRIX, TURIN EXHIBITION, 1911.

TRIUMPH MOTORS

Manufactured by *Established 1885*

Triumph Cycle Co. Ltd.

COVENTRY. *England.*

DEPÔTS:

LONDON - - -	4-5, Holborn Viaduct, E.C.
LEEDS - - - -	53, Vicar Lane.
MANCHESTER - -	160, Deansgate.
GLASGOW - - -	14, Waterloo Street.
DUBLIN (Wholesale only)	26, Upper Abbey Street.

Contractors to the British, French, Belgian and Russian War Offices.

INTRODUCTION.—*continued.*

TRANSMISSION.	Chain from engine to gear box, thence by Triumph 1 in. belt over large pulleys; chain enclosed.
CARBURETTER.	Improved Triumph, specially designed for the new engine (Prov. Pat. 24213/'14.)
TYRES.	2⅜ in. Dunlop heavy front and extra heavy back; or 700 × 65 m/m Clincher de Luxe extra heavy, plantation rubber.
WHEELS.	Wider hub flanges and stronger spindles; dust and wet-proof.
BRAKES.	Registered design rear foot brake, acts on inside of belt pulley, facilitating wheel removal.
TANK.	Increased capacity.
MUDGUARDS.	Front mudguard fitted with side wings. Improved rear guard.
FOOTRESTS.	Adjustable, and providing a more comfortable position.
LUBRICATION.	Hand pump.
DECOMPRESSOR.	Greatly improved.

All other Triumph Special Features are retained.

"JUNIOR TRIUMPH" LIGHTWEIGHT 2¼ H.P.

The Junior Triumph 2¼ h.p. Two-stroke, Two-speed Motor Cycle, comparatively speaking, is a new introduction. After the most thorough experimenting, and prolonged testing, we had this ready in the middle of last season, and the reception it received at the hands of trade, public, and press alike, marked it an immediate success.

There are now a large number of these machines on the road, and the letters of appreciation we receive daily from all parts of the country, disclose the fact that they are giving the greatest satisfaction in every instance.

It is strictly a solo mount, light, handled as easily as a pedal cycle, and so easily controlled that it can be ridden in perfect safety through dense traffic by the novice, while its speed and power on hills are remarkable.

TRIUMPH CYCLE Co. Ltd.
(Established 1885).

Coventry, 1915.

INTRODUCTION

4 H.P. TRIUMPH. Each year has seen some striking development in Triumph Motor Cycles, and the improvements introduced in the 1915 Triumph "Four," surpass in magnitude and efficiency any efforts shown in previous years.

Never before in the history of motor cycling has the popularity of the single cylinder been so great as at the present time. The Triumph Motor was the pioneer of this particular type, and for more than a decade has proved its superiority over any other type.

In well nigh every instance, this type of machine has been chosen by the British, French, Belgian, and Russian War Offices for active service—a convincing argument as to its efficiency and reliability, and we are proud to say that we have supplied large quantities of Triumphs to each of these Governments for military purposes.

As a solo mount for serious touring, difficult country, and hard wear, it is remarkably efficient, possesses a rare turn of speed, and has always stood high in the affections of the private owner.

For sidecar work, the new 4 h.p. Triumph is eminently suitable, having ample reserve of power and speed. It is a more suitable machine for the average rider than a heavy, complex twin, it is easier to handle, and to keep in tune. It is also much more economical to run, and has better wearing qualities.

1915 REFINEMENTS.

ENGINE.	Re-designed throughout; roller bearings to big end of connecting rod; larger valves, with straight through air draught between valve pockets and cylinder; external valve mechanism; larger gudgeon pin; improved silencer (Prov. Pat. 24214/'14).
THREE-SPEED COUNTERSHAFT GEAR.	Sturmey-Archer three-speed countershaft gear and friction clutch, neatly placed in bottom bracket position; gear operated by convenient lever on right side of machine. Clutch controlled from handle-bar; enclosed kick starter.

Triumph Motor Guarantee.

WE give the following guarantee with our motor cycles, instead of the guarantee implied by statute, or otherwise, as to the quality or fitness of such machines for the purpose of motor cycling ; any such implied guarantee being in all cases excluded. In the case of machines which have been used for " hiring out " purposes, or from which our trade mark or manufacturing number has been removed no guarantee of any kind is given or is to be implied.

We guarantee, subject to the conditions mentioned below, that all precautions which are usual and reasonable have been taken by us to secure excellence of materials and workmanship, but this guarantee is to extend and be in force for three months only from the date of purchase, and damages for which we make ourselves responsible under this guarantee are limited to the free supply of a new part in exchange for the part of the motor cycle which may have proved defective. We do not undertake to replace or refix, or bear the cost of replacing or refixing such new part in the motor cycle. We undertake, subject to the conditions mentioned below, to make good at any time within three months any defects in these respects. As motor cycles are easily liable to derangement by neglect or misuse, this guarantee does not apply to defects caused by wear and tear, misuse, or neglect.

The term " misuse " shall include among others the following acts :

I. The attaching of a sidecar to the motor cycle in such a manner as to cause damage, or calculated to render the latter unsafe when ridden.

II. The use of a motor cycle, or of a motor cycle and sidecar combined, when carrying more persons, or a greater weight, than that for which the machine was designed by the manufacturers.

Any motor cycle sent to us to be plated, enamelled, or repaired, whether the repairs are required for the purpose of making good the defect before referred to, or otherwise will be repaired upon the following conditions, *i.e.*, we guarantee that all precautions which are usual and reasonable have been taken by us to secure excellence of material and workmanship, such guarantee to extend and be in force for three months only from the time such work shall have been executed, and this guarantee is in lieu and in exclusion of any common law or statute warranty, and the damages recoverable are limited to the cost of any further work which may be necessary to amend and make good the work found to be defective.

CONDITIONS OF GUARANTEE.

If a defective part should be found in our motor cycles or in any part supplied by way of exchange before referred to it must be sent to us, **carriage paid**, and accompanied by an intimation from the sender that he desires to have it repaired or exchanged free of charge under our guarantee, and he must also furnish us at the same time with the number of the machine, the name of the agent from whom he purchased, and the date of the purchase, or the date when the alleged defective part was exchanged, as the case may be.

Failing compliance with the above, no notice will be taken of anything which may arrive, but such articles will lie here at the risk of the senders, AND THIS GUARANTEE, AND ANY IMPLIED GUARANTEE, SHALL NOT BE ENFORCEABLE.

We guarantee only those machines which are bought either direct from us or from one of our duly authorised agents, and under no other conditions.

We do not guarantee the specialities of other firms, such as tyres, saddles, chains, lamps, etc., or any component part supplied to the order of the purchaser differing from our standard specification, supplied with our motor cycles, or otherwise.

" JUNIOR TRIUMPH " GUARANTEE.

The guarantee printed above covers the "Junior Triumph " motor, with the exception that the acts included in the term " misuse " shall read :

I. The attaching of a sidecar to the motor cycle.

II. The use of a motor cycle when carrying more persons, or a greater weight than that for which the machine was designed by the manufacturers.

THE TERM " AGENT "

is used in a complimentary sense only, and those firms whom we style our agents are not authorised to advertise, incur any debts, or transact any business whatsoever on our account other than the sale of goods which they may purchase from us ; nor are they authorised to give any warranty or make any representation on our behalf other than those contained in the above guarantee.

Terms of Business.

Payment.—In all cases where we have no ledger account, an invoice will be submitted to intending purchasers, on payment of which goods will be forwarded, or approved references must be given.

Repairs.—Repairs are charged at nett cash prices in all cases. Machines or parts for repair must be forwarded, carriage paid, to the works, with the sender's name attached.

Carriage.—Carriage in all cases must be paid by the customer. Machines are signed for by the railway companies as being received in good condition, and unless otherwise ordered are consigned at the lowest rates, *i.e.*, at consignee's risk. In case of damage all claims should be addressed to the carriers.

PACKING CRATES AND CASES, BEING CHARGED AT LESS THAN COST PRICE, ARE NOT RETURNABLE.

Crates for single Motor Bicycle ... ... 3/- each.
Cases for export, for single Motor Bicycle ... 15/- ,,

Spare Parts and Replacements.

WHEN ORDERING SPARE PARTS OR REPLACEMENTS, it is advisable, if possible, to send patterns, so as to ensure the order being executed correctly. If this cannot be done, let us have the number of the machine (which will be found stamped on the engine cradle) and also number of the engine (stamped on top left side of crank case).

The despatch should be promptly advised BY SEPARATE POST, and full instructions for repair enclosed, otherwise unnecessary delay and annoyance are often caused.

Customers having no account with us should not fail to send remittance with order, remittance must cover postage.

When making enquiries respecting any part or repair, PLEASE QUOTE OUR ORDER NUMBERS IN EVERY CASE, otherwise it is difficult to trace the matter.

When sending machine to our works for repairs, it is advisable to remove all spares and accessories, as we cannot be responsible if any of these are missing when the machine is returned.

Price Maintenance.

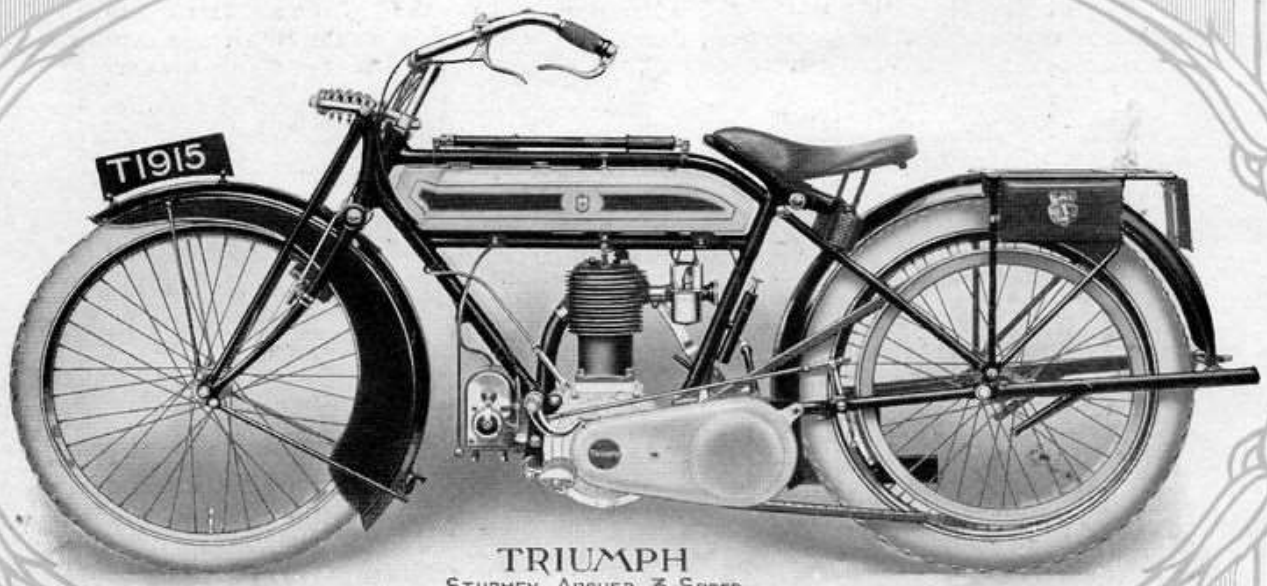
It is our great desire, while giving the best value for money, to prevent any undue cutting of prices, and our goods are only sold on the strict condition that they will not at any time be re-sold at less than the retail prices set out in our current catalogue.

"Triumph" Gradual Payment System for Motors.

DEPOSIT TO BE SENT WITH ORDER.

Model.	Instalment Price.	Twelve Payments.	
		Deposit.	Eleven Monthly Payments.
	£ s. d.	£ s. d.	£ s. d.
Type H. Roadster, 3-Speed Countershaft Gear ...	**68 0 0**	**22 7 0**	**4 3 0**
Type D. T.T. Roadster, Fixed Engine	**53 15 0**	**17 9 0**	**3 6 0**
Type F. T.T. Racer, Fixed Engine	**53 15 0**	**17 9 0**	**3 6 0**
Type K. T.T. Roadster, 3-Speed Countershaft Gear	**68 0 0**	**22 7 0**	**4 3 0**
Type L.W. Junior 2-Stroke, 2-Speed	**45 0 0**	**14 15 0**	**2 15 0**

If the purchaser wishes to pay in six monthly instalments, a discount of 2½% off instalment price is allowed. Application forms giving full particulars, post free.



TRIUMPH
STURMEY ARCHER 3 SPEED
COUNTERSHAFT GEAR.

4 H.P. TRIUMPH.

Sturmey-Archer Three-Speed Countershaft Gear Model.

Engine 85 × 97 m.m. = 550 c.c.

TYPE H.

This Motor Cycle has been entirely re-designed and is fitted with a 3-speed Countershaft Gear. The new engine gives greater power than those of previous years, while the easy starting is a special feature due to the improved decompressor.

The Carburetter is nearly automatic, both for starting and driving at all speeds the air lever should be three-quarters of the way open.

See separate Catalogue for spare parts and replacements.
"Hints and Tips" Booklet post free.

4 h.p. Triumph

With Sturmey-Archer Three-Speed Countershaft Gear.

TYPE H.

SPECIFICATION.

Engine.—Triumph, single-cylinder, 4 h.p., 85×97 m/m bore and stroke, volume 550 c.c., entirely re-designed; main shaft runs on ball bearings; roller bearings to big end of connecting rod; decompressor; large M.O. valves, interchangeable, with straight through air draught between valve pockets and cylinder; new design external valve gear; adjustable tappets with vertical lift; efficient silencer with extension pipe to rear of machine (Prov. Pat. 24214/'14).

Three-Speed Countershaft Gear and Free Engine Clutch.—Sturmey-Archer three-speed countershaft gear; friction clutch providing free engine on each gear. Handle-bar clutch control, kick starter, entirely enclosed. Standard Gears: 5, 8¼, 13½ to 1.

Carburetter.—Triumph new pattern semi-automatic carburetter, very economical (Prov. Pat. 24213/'14); registered design handle-bar control (Reg. No. 513548/'07).

Ignition.—High-tension magneto; handle-bar control; chain-driven (Renold), with oil and dust-proof aluminium case for chain.

Frame.—Exceptionally strong, made from very best quality weldless steel tubing, dropped at back to give low comfortable riding position; fitted with Triumph patent spring forks (Pat. Nos. 12165/'05 and 24648/'10).

Wheels.—26 in., extra strong rims; back wheel easily removed.

Tyres.—26 in.×2⅛ in. Dunlop heavy front, extra heavy back; or 700×65 m/m Clincher de Luxe extra heavy, plantation rubber.

Transmission.—Chain-cum-belt, ⅜in. Renold chain from engine to gear box, enclosed and adjustable, thence by Triumph 1 in. rubber V belt running over large pulleys.

Tank.—Extra strong, fitted to lower horizontal tube; hand lubricating pump; needle valves to main petrol supply and injector; large and quickly detachable filler caps; patent petrol gauge (Cox's Pat. No. 9679/'05) readable from saddle. Capacity: Petrol, 1½ gallons; Oil, 2½ pints.

Mudguards.—The front mudguard is fitted with side wings; the back guard is improved and carried low, and all fittings are very substantial.

Brakes.—Registered design foot brake, acts on the inside of belt pulley, and operates from left side foot lever. Front rim brake is operated by inverted lever on handle-bar. The shoe pads are of special composition, giving a powerful grip, and are non-glazing.

Handle-Bar.—This is made from high carbon steel, well swept back, and with dropped ends to give a comfortable riding position; provided with two independent fixings in frame head.

Carrier.—Light and strong tubular construction; all lugs and crosspieces are brazed. No clips.

Stands.—Back and front, mounted independently of hub spindles.

Footrests.—Carried well forward, and giving a very comfortable position. These are adjustable, and fitted with substantial rubbers.

Saddle.—Improved Brooks-Triumph, padded top, large size, well sprung, and very comfortable.

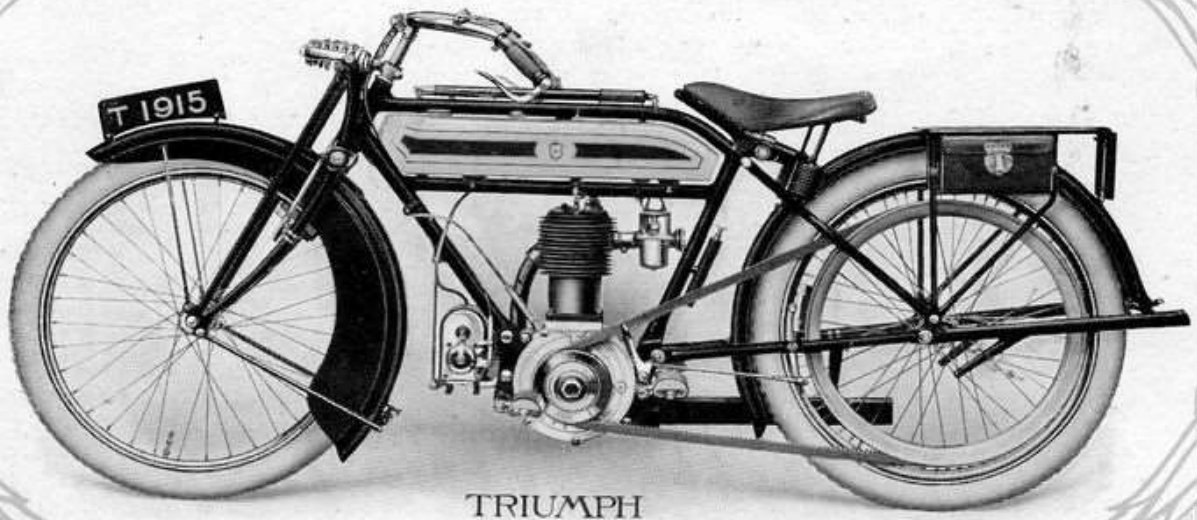
Toolbags.—Two leather pannier bags securely fitted to sides of carrier. Tool-roll with complete set of tools supplied with each machine.

Finish.—Enamelled in best black enamel on Coslettised frame; all bright parts heavily plated. The tank is enamelled grey, and artistically panelled and lined.

We reserve the right to modify or deviate from specification in minor details.

PRICE (for the United Kingdom only)—	Instalment or Exchange Price.	Cash Price.
Type H.—4 h.p. Roadster, Sturmey-Archer Three-speed Countershaft Gear Model	£68 0 0	**£63 0 0**

Prices include a leather bound Log Book, containing many riding hints and other useful information, and also includes insurance coupons against accidents, &c.



TRIUMPH
T.T. ROADSTER

4 H.P. TRIUMPH.

T.T. Roadster. Fixed Engine Model.

Engine 85 × 97 m.m. = 550 c.c.

TYPE D.

The Triumph Co. was one of the first if not the very first big English firm to embark in the Motor Cycle industry. When the slump came nearly ten years ago, and many motor cycle makers dropped the petrol-propelled machine as an unprofitable item, the Triumph Co. stuck to the motor cycle, continued to improve its design and manufacture and push its sale, and it was largely due to the persistance of the Triumph Directors, aided and abetted by their clever designers, that the slump gradually gave way to a boom in which so many manufacturers have participated.—*Athletic News.*

See separate Catalogue for spare parts and replacements.
"Hints and Tips" Booklet, post free.

4 h.p. Triumph

T.T. Roadster. Fixed Engine Model.

TYPE D.

SPECIFICATION.

Engine.—Triumph, single-cylinder, 4 h.p., 85×97 m/m bore and stroke, volume 550 c.c., entirely re-designed; main shaft runs on ball bearings; roller bearings to big end of connecting rod; decompressor; large M.O. valves, interchangeable, with straight through air draught between valve pockets and cylinder; new design external valve gear; adjustable tappets with vertical lift; efficient silencer with extension pipe to rear of machine (Prov. Pat. 24214/'14).

Carburetter.—Triumph new pattern, semi-automatic, very economical (Prov. Pat. 24213/'14); registered design handle-bar control (Reg. No. 513548/'07).

Ignition.—High-tension magneto; handle-bar control; chain-driven (Renold), with oil and dust-proof aluminium case for chain.

Frame.—Exceptionally strong, made from very best quality weldless steel tubing, dropped at back to give low comfortable riding position; fitted with patent spring forks (Pat. No. 12165/'05 and 24648/'10).

Wheels.—26 in. extra strong rims; back wheel easily removed.

Tyres.—26×2⅜ in. Dunlop heavy front, extra heavy back; or 700×65 m/m Clincher de Luxe extra heavy, plantation rubber.

Transmission.—Triumph 1 in. rubber V belt on deep section pulleys; variable pulley; highest gear 3¾ to 1, lowest gear 5 to 1.

Tank.—Extra strong, fitted to lower horizontal tube; hand lubricating pump; needle valves to main petrol supply and injector; large and quickly detachable filler caps; patent petrol gauge (Cox's Patent No. 9679/'05) readable from saddle. Capacity: Petrol, 1½ gallons; Oil, 2½ pints.

Mudguards.—The front mudguard is fitted with side wings; the back guard is improved and carried low, and all fittings are very substantial.

Brakes.—Registered design foot brake, acts on inside of belt pulley, and operates from left side foot lever. Front rim brake is operated by inverted lever on handlebar. The shoe pads are of special composition, giving very powerful grip, and are non-glazing.

Handle-Bar.—This is made from very high carbon steel, and provided with two independent fixings in frame head; ends are slightly dropped to give comfortable position.

Carrier.—Light and strong tubular construction; all lugs and crosspieces are brazed; no clips.

Stands.—Back and front, mounted independently of hub spindles.

Footrests.—Two sets, to give change of position. These are adjustable, and fitted with substantial rubbers.

Saddle.—Improved Brooks-Triumph, padded top, large size, well sprung, and very comfortable.

Toolbags.—Two leather pannier bags securely fitted to sides of carrier. Tool-roll with complete set of tools supplied with each machine.

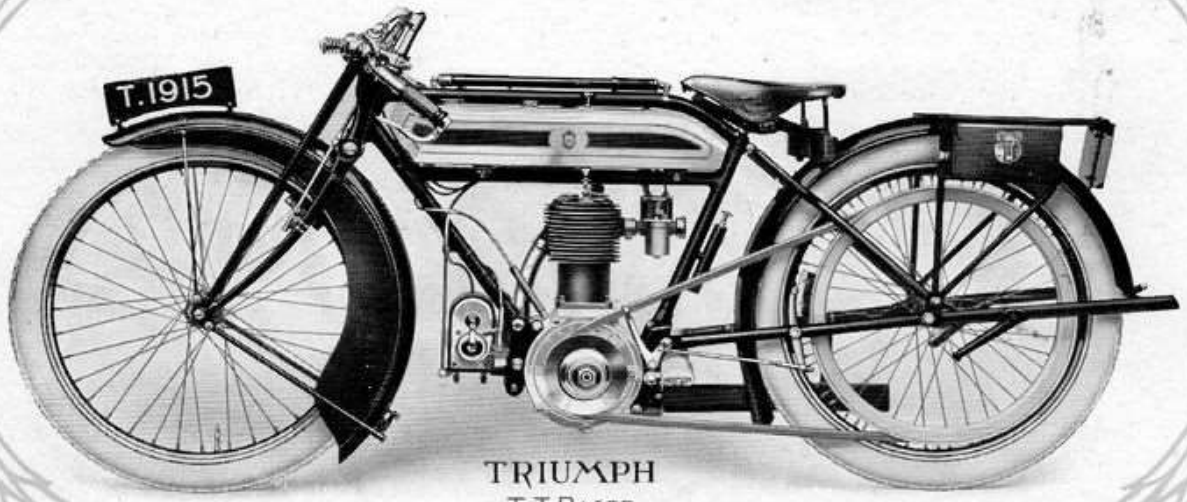
Finish.—Enamelled in best black enamel on Coslettised frame; all bright parts heavily plated. The tank is enamelled grey, and artistically panelled and lined.

We reserve the right to modify or deviate from specification in minor details.

PRICE (for the United Kingdom only)—	Instalment or Exchange Price.	Cash Price.
Type D.—4 h.p. T.T. Roadster, Fixed Engine Model	£53 15 0	**£50 0 0**
Type K.—4 h.p. T.T. Roadster, Three-Speed Countershaft Gear. High Gear 4¾ to 1	£68 0 0	**£63 0 0**

N.B.—Types D and K will be supplied with 4 h.p. engine, 85×97 m/m = 550 c.c., as standard, but can be supplied with 3½ h.p. engine, 81×97 m/m = 500 c.c., to order.

Prices include a leather bound Log Book, containing many riding hints and other useful information, and also includes insurance coupons against accidents, &c



3½ H.P. TRIUMPH.

T.T. Racer. Fixed Engine Model.

Engine 81 × 97 m.m. = 500 c.c.

TYPE F.

The Tourist Trophy Race is the most classic event of the year. In this Triumphs have always figured prominently and year after year demonstrated their great reliability.

In the "Senior" event of 1914, Mr. G. Boyton on a Triumph was the first Amateur to finish, with an average speed of 48 m.p.h. to his credit, while Mr. Quinten Smith on a similar machine won the second Amateur position.

The race was held over a difficult course in the Isle of Man, a distance of 225 miles, and out of 7 Triumphs to start 5 finished.

Some idea of the strenuousness of this race can be gathered from the fact that no less than 41 riders on various machines tailed to finish in the stipulated time.

See separate Catalogue for spare parts and replacements.
"Hints and Tips" Booklet, post free.

3½ h.p. Triumph

T.T. Racer. Fixed Engine Model.

TYPE F.

SPECIFICATION.

Engine.—Triumph, single-cylinder, 3½ h.p., 81 × 97 m/m bore and stroke, volume 500 c.c., entirely re-designed; main shaft runs on ball bearings; roller bearings to big end of connecting rod; decompressor; large M.O. valves, interchangeable, with straight through air draught between valve pockets and cylinder; new design external valve gear; adjustable tappets with vertical lift; efficient silencer with extension pipe to rear of machine (Prov. Pat. 24214/'14).

Carburetter.—Triumph new pattern, semi-automatic, very economical (Prov. Pat. 24213/'14); registered design handle-bar control (Reg. No. 513548/'07).

Ignition.—High-tension magneto; handle-bar control; chain-driven (Renold), with oil and dust-proof aluminium case for chain.

Frame.—Exceptionally strong, made from very best quality weldless steel tubing, dropped at back to give low comfortable riding position; fitted with patent spring forks (Pat. No. 12165/'05 and 24648/'10), felt buffer and spring.

Wheels.—26 in., extra strong rims; back wheel easily removed.

Tyres.—26 × 2⅜ in.

Transmission.—Triumph ⅝ in. rubber V belt on deep section pulleys; variable pulley; highest gear 3¼ to 1, lowest 4½ to 1.

Tank.—Extra strong, fitted to lower horizontal tube; hand lubricating pump; needle valves to main petrol supply and injector; large and quickly detachable filler caps; patent petrol gauge (Cox's Patent No. 9679/'05) readable from saddle. Capacity; Petrol, 1½ gallons; Oil, 2½ pints.

Mudguards.—The front mudguard is fitted with side wings; the back guard is improved and carried low, and all fittings are very substantial.

Brakes.—Registered design foot brake, acts on inside of belt pulley, and operates from left side foot lever. Front rim brake is operated by inverted lever on handle-bar. The shoe pads are of special composition, giving very powerful grip, and are non-glazing.

Handle-Bar.—Racing pattern, made from very high carbon steel, and provided with two independent fixings in frame head.

Carrier.—Light and strong tubular construction; all lugs and crosspieces are brazed; no clips.

Stands.—Back and front, mounted independently of hub spindles.

Footrests.—Two sets, to give change of position. These are adjustable, and fitted with substantial rubbers.

Saddle.—Semi-racing, very comfortable, low position.

Toolbags.—Two leather pannier bags securely fitted to sides of carrier. Tool-roll with complete set of tools supplied with each machine.

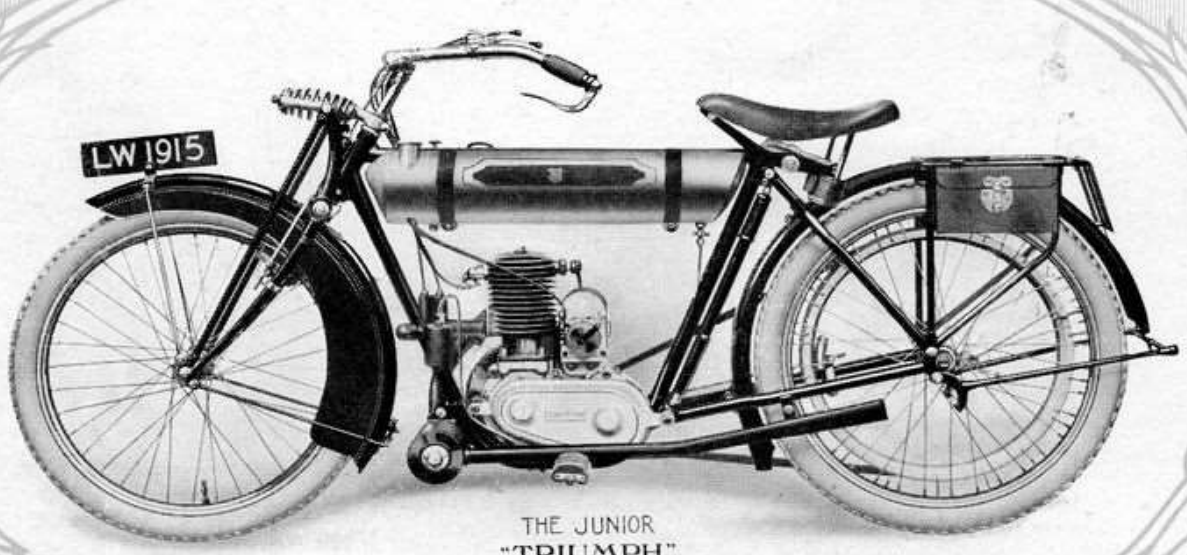
Finish.—Enamelled in best black enamel on Coslettised frame; all bright parts heavily plated. The tank is enamelled grey, and artistically panelled and lined.

We reserve the right to modify or deviate from specification in minor details.

PRICE (for the United Kingdom only)—	Instalment or Exchange Price.	Cash Price.
Type F.—3½ h.p. T.T. Racer, Fixed Engine Model	£53 15 0	**£50 0 0**

N.B.—Type F will be supplied with 3½ h.p. engine as standard, but can be supplied with 4 h.p. engine, 85 × 97m.m. = 550 c.c., to order.

Prices include a leather bound Log Book containing many riding hints and other useful information, and also includes insurance coupons against accidents, &c.



THE JUNIOR
"TRIUMPH"
2¼ HP TWO STROKE

"JUNIOR TRIUMPH"

2¼ H.P.

With Two-Speed Countershaft Gear.

TYPE L.W.

We have every confidence in recommending the "Junior Triumph" to all classes of riders, even novices. The easy starting and easy handling of this motor is quite remarkable, and with its low position gives the greatest confidence to riders even in dense traffic. It is capable of speeds up to 35 m.p.h. and will also fire regularly at slowest speeds, while its hill-climbing powers are a revelation.

Dr. A. M. Low, A.C.G.I., D. Sc., one of the greatest authorities of the day on motor-cycling matters, writes after testing the "Junior Triumph" 2¼ h.p. Two-Stroke, Two-Speed Motor Cycle:—

. . . I have ridden, almost without exception, every machine on the market. With the Triumph machine I was astonished at the general comfort it provides. I could start it quite easily just by paddling twice on the ground, and owing to its convenient method of control, I did not find the least trouble in operating it even in the worst of traffic. On country roads it seems to be not at all uncommon to pass other machines on hills, even though they may be of far greater h.p.

For a rider who requires a solo machine for ordinary work or for serious touring, I have never ridden a machine which gave me more pleasure.

See separate Catalogue for spare parts and replacements.

2¼ h.p. "Junior Triumph"

With Two-Speed Countershaft Gear.

TYPE L.W.

SPECIFICATION.

Engine.—2¼ h.p. two-stroke, 64×70 m/m bore and stroke, 225 c.c., Triumph manufacture throughout; patent compression release valve (Patent No. 24664/'13 and 24292/'13); effective silencer with extension pipe to rear wheel.

Two-Speed Gear.—Two-speed countershaft gear with handle-bar control, giving a reduction of 40% from high to low gear. Patent gear box fixing, and chain adjustment (Patent No. 24663/'13).

Ignition.—High tension ball bearing magneto; handle-bar control; chain driven, chain running in aluminium case.

Carburetter.—Handle-bar controlled.

Frame.—Registered design (Regd. No. 626553); Triumph patent spring forks (Patent No. 12165/'05 and No. 24648/'10). Front rim brake, rear foot brake; Saddle only 28½ in. from ground.

Wheels.—24×2¼ in. best quality, Dunlop or Clincher studded tyres.

Tank.—Round tank recessed on to top tube, neatly clipped to frame; all control wires are taken through fore part, dispensing with clips; combined petrol filler cap and oil measure (Patent No. 24661/'13). Capacity: Petrol and Oil mixture 9 pints, Oil 1 quart.

Transmission.—Chain from engine to gear box enclosed, thence by belt running over large pulleys.

Lubrication.—Automatic. Oil mixed with petrol, correct proportion 1 part of oil to 12 parts of petrol, *i.e.*, 4 measures of oil to a gallon of petrol.

Stands.—Back and front.

Mudguards.—Strong and wide, front guard fitted with side wings.

Handlebar.—Made from high carbon steel, provides very comfortable position.

Finish.—Black enamel on Coslettised frame, wheels plated, with enamelled black centres, edged with red lines. Tank enamelled, green panels, lined red.

Footrests, carrier, large padded top saddle, pannier tool-bags and complete kit of tools.

We reserve the right to modify or deviate from specification in minor details.

PRICE (for the United Kingdom only)—	Instalment or Exchange Price	Cash Price.
Type L.W.—Junior Triumph, 2¼ h.p., with Two-Speed Countershaft Gear	£45 0 0	**£42 0 0**

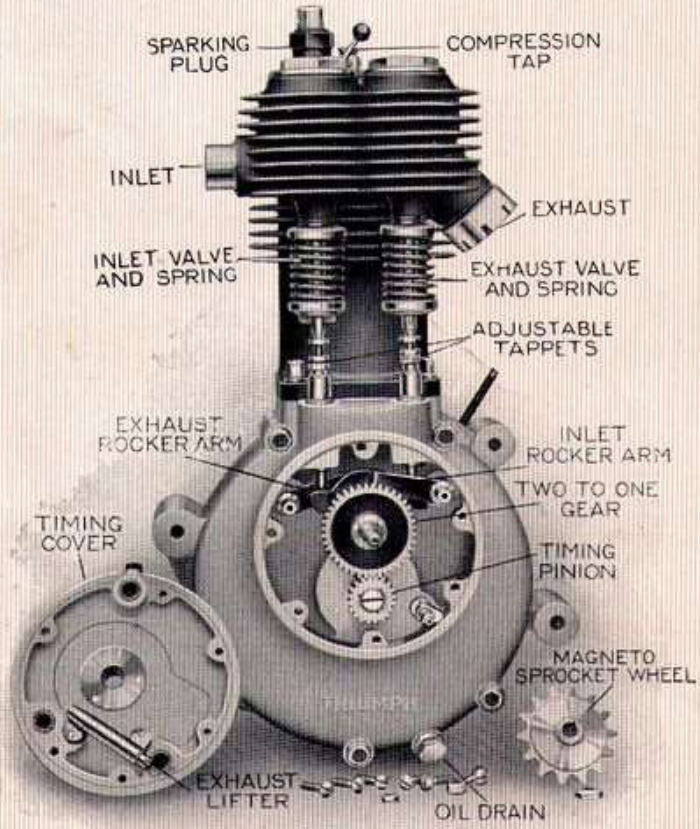
Prices include a leather bound Log Book containing many riding hints and other useful information, and also includes insurance coupons against accidents, &c.

Exclusive Constructional Details of the 4 h.p. Triumph Motor Cycle

Power Unit. We built the first Triumph Motor Cycle Engine eleven years ago. At the time this was a mechanical masterpiece, and the pioneer of medium weight single cylinder engines, and proved an immediate and immense success.

After satisfying ourselves that our original conception was correct, we have concentrated our energies and resources on this particular type, and from year to year have introduced many improvements which could only be gathered from long experience both on the road and in the workshop.

Our efforts have been crowned with success, for to-day it is recognised that the single cylinder has reached a point nearer perfection than any other type of motor cycle engine. During the last season more Triumphs were sold than at any other similar period in the history of the Company.



4 HP Triumph Engine

In view of the fact that so many sidecars are being fitted, we have considered it advisable to re-design the Triumph engine for 1915.

The bore and stroke are 85 × 97 m/m giving a piston displacement of 550 c.c., rated at 4 h.p., but developing considerably more when running under favourable conditions.

We were one of the first to introduce ball bearings to the main shaft, a practice now universally adopted. This factor has contributed in a marked degree to the flexibility of the Triumph engine, and we have now adopted roller bearings to the big end of the connecting rod.

Before introducing this we have given same most exhaustive tests, and are satisfied there is nothing superior for an engine of the capacity of the Triumph. It reduces friction considerably, thus adding to the flexibility and smooth running of the engine, it is easily and efficiently lubricated, and provides a wide bearing surface which will stand up to its work well nigh indefinitely.

The valves and ports are made considerably larger to allow rapid intake of the charge, and complete scavenging of the exhaust gases. These valves are placed side by side, a design which is far superior to placing the inlet valve directly over the exhaust, in which case, should the head of the valve snap, this will fall within the engine and possibly damage piston and cylinder. This contingency is not possible with the side by side arrangement, whilst being equally efficient and more accessible than the overhead type.

The exhaust valve is placed in the forward position, allowing the air currents to impinge directly on to it with the machine in motion, and the cylinder is cast with air spaces surrounding the valve, as a further aid to the cooling effect. Both valves are mechanically operated, thus providing a positive action, and the tappet rods are made adjustable.

Timing Gear. This has been entirely re-designed and simplified. Only one timing pinion is employed, placed immediately over that of the mainshaft. Both valves are actuated off the one timing wheel to which are attached the inlet, exhaust, and decompressor cams. These cams are machined out of the one piece and so formed to give ample lift and quick closing of the valves.

Long rockers are interposed between the cams and tappets, these working in hardened steel bushes, and the tappets are more substantial and provided with an easier setting

The valve lifter mechanism, including the return spring, is enclosed within the case, making the outside particularly neat and free from interstices to harbour oil, dirt, etc.

Cylinder. This is a beautiful piece of workmanship. The walls and combustion head are made in one piece, so that there is no chance of leakage, which is inseparable from the detachable combustion head type, and at the same time the possibility of distortion to which the latter type is also liable, is eliminated.

The radiating fins are cast deep and thin, thus providing ample and equal cooling surface. These are not carried right down the cylinder, as the heat generated in the lower part is negligible, and can be dealt with effectively by the plain cylinder walls. This means a cleaner and cooler engine, as there are no deep recesses to harbour dust and dirt which are both non-conductors of heat.

Constructional Details—*continued.*

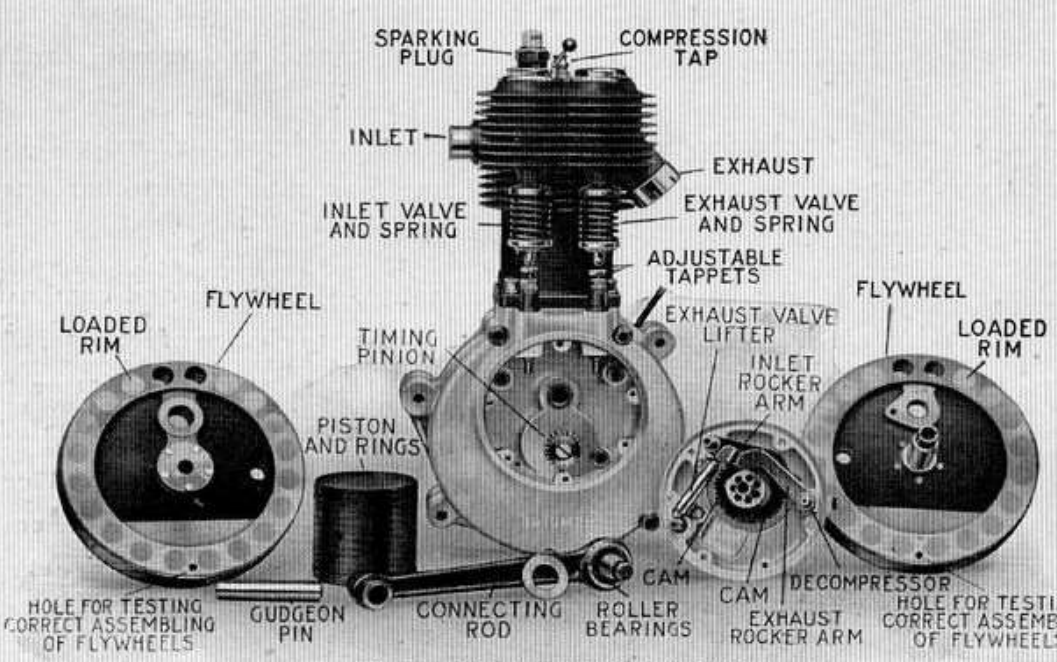
The interior is bored and afterwards ground to a surface like polished glass, the combustion head and valve ports are thoroughly cleaned up to remove any projecting particles in the casting likely to become incandescent under heat, and are designed free from all obstructions likely to impede the flow of gases.

Piston and Connecting Rod. A very light casting is used for the Triumph piston. This is cast with interior webs to give the necessary strength to withstand the heavy explosions and heat without distortion, and ncreased bearing surface is provided for the gudgeon pin.

The most careful workmanship is employed on this important reciprocating part.

The cylinder and piston are made perfect fits, and two rings are fitted to the top of the piston and one at the bottom. The lower ring ensures even wear of the cylinder walls and an adequate supply of lubrication reaching the cylinder walls.

The connecting rod is made from heat treated high quality steel, and is very light in weight. The hollow gudgeon pin carrying the connecting rod is hardened and ground to a driving fit in the piston; this eliminates any extraneous parts liable to come adrift and damage the engine.



4 HP TRIUMPH ENGINE

Constructional Details—*continued.*

This unusual method of fixing exclusively used in the Triumph engine is only made possible by the most accurate workmanship, otherwise some form of security device is required, and which all other makers adopt in some form or other. This detail alone goes to show the exact science brought to bear in the production of the Triumph motor.

Flywheels. The fly wheels play an important part in the design of an engine. Weight misplaced, or unevenly balanced, will set up vibration and probably destroy the flexibility of the engine.

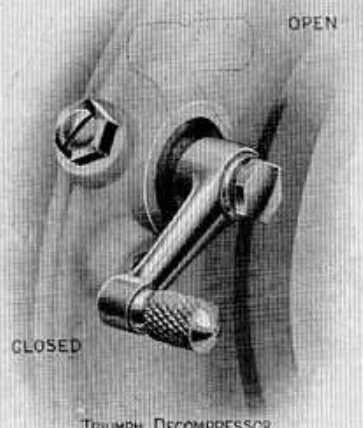
To obtain flexibility it is necessary that the majority of the weight be in the rims, but unless the fly wheels are made unduly large and bulky, this is impracticable from a steel forging without introducing some supplementary form of construction.

Steel forgings are used for the Triumph fly wheels, but to obtain the necessary weight at the periphery, the rims are drilled and loaded with a special heavy composition metal which is far heavier than the steel removed.

This method of construction allows a neat overall of fly wheel and crank case, all reciprocating parts are perfectly balanced, and an engine extremely flexible and one capable of quick acceleration is obtained.

Decompressor. The cam for this is cut out of the same one piece carrying the inlet and exhaust cams, and is operated by means of a small foot lever conveniently placed. The lever operating the decompressor is put into upright position for starting the engine and then pushed back for riding.

With the decompressor in action, the exhaust valve is slightly raised, thus reducing the compression and the principle adopted is so efficient that the engine can be started from cold with the first kick of the starter.



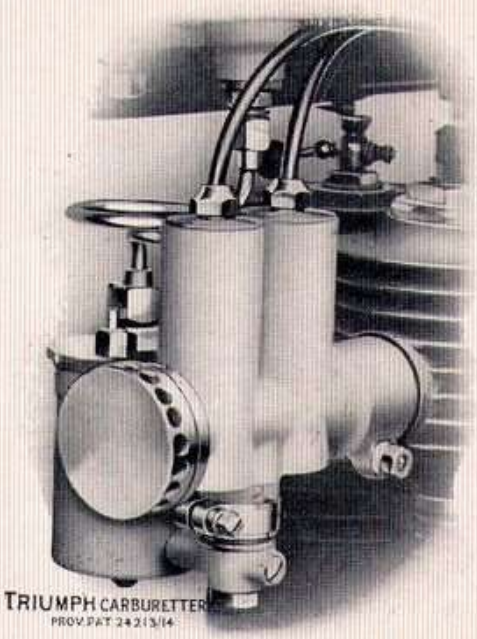
TRIUMPH DECOMPRESSOR

Constructional Details—*continued.*

Triumph Carburetter and Handlebar Control

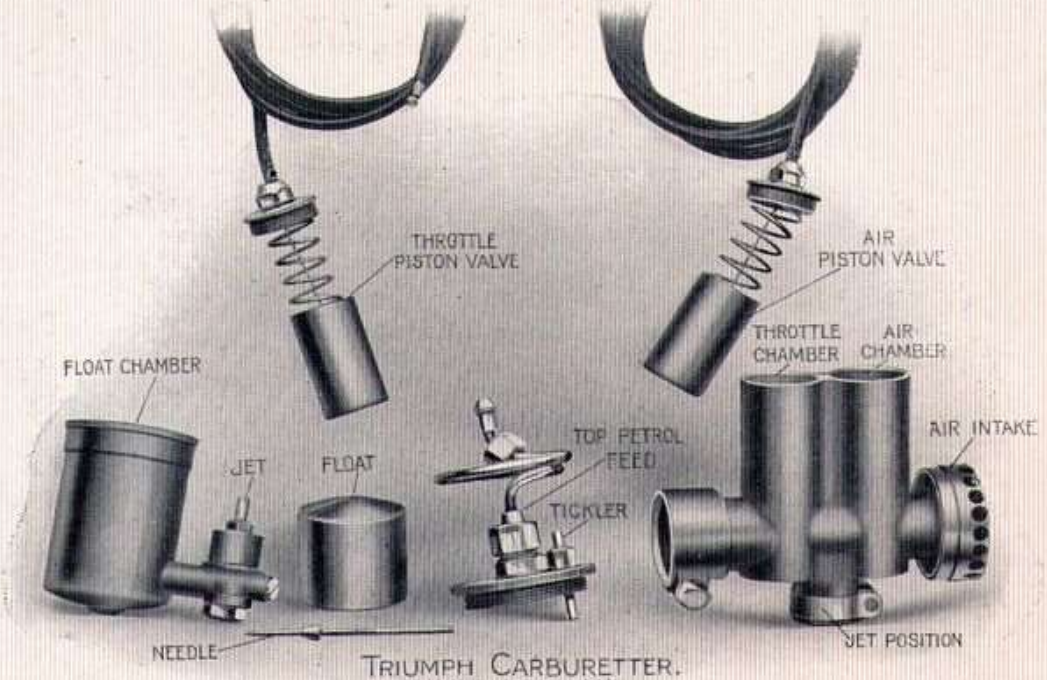
Prov. Pat. 24213/'14, Reg. No. 513548/'07

This carburetter has been specially designed for the new Triumph engine, and is provided with top feed to the float chamber and jet placed between the piston valves. Although provided with two piston valves controlling the gas and air, this carburetter is automatic, the air lever being three-quarters open for starting and running at all speeds, it being necessary only to slightly reduce the air for extra steep hills.



The jet being placed central the air is drawn directly over it, thus ensuring a correctly mixed charge.

A fixed size of jet is employed as standard, which can be varied by fitting a larger or smaller jet if desired. Both piston valves are handlebar controlled. The air intake is provided with a gauze cover, and perforated metal cap. The illustration shows this carburetter entirely dismantled, and from this it will be noticed how extremely simple is the construction.



TRIUMPH CARBURETTER.
(PROV. PAT. 24213/14)
DISMANTLED.

Constructional Details—*continued.*

Sturmey Archer Three-Speed Countershaft Gear.

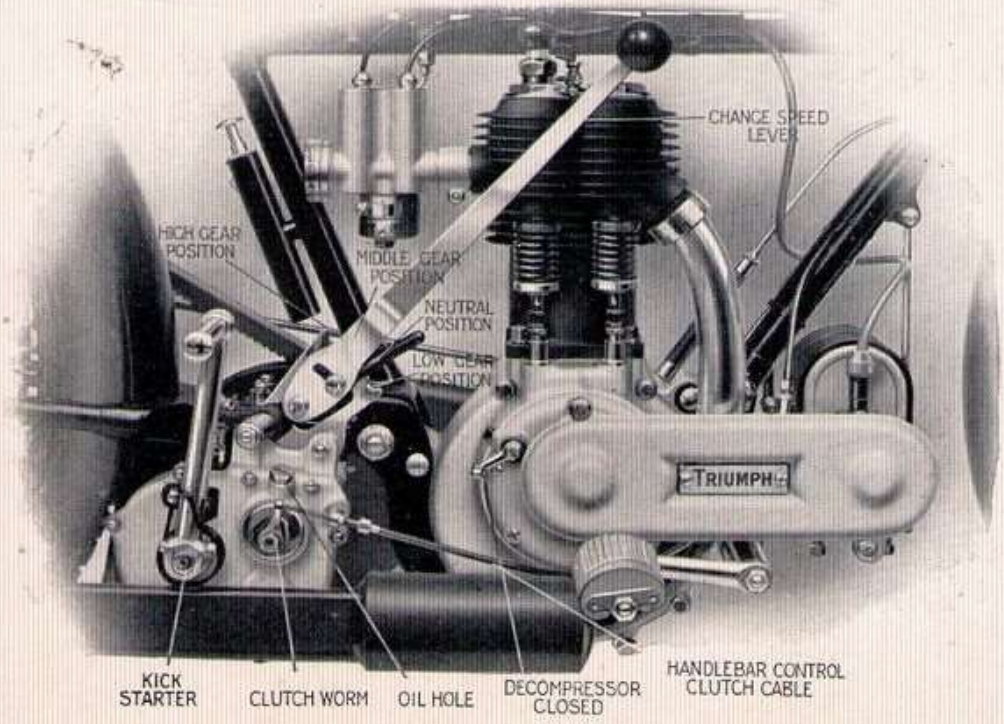
After subjecting the Sturmey-Archer Three-Speed Countershaft Gear to a searching test, we have adopted this as a satisfactory variable gear for the Triumph 4 h.p. Motor.

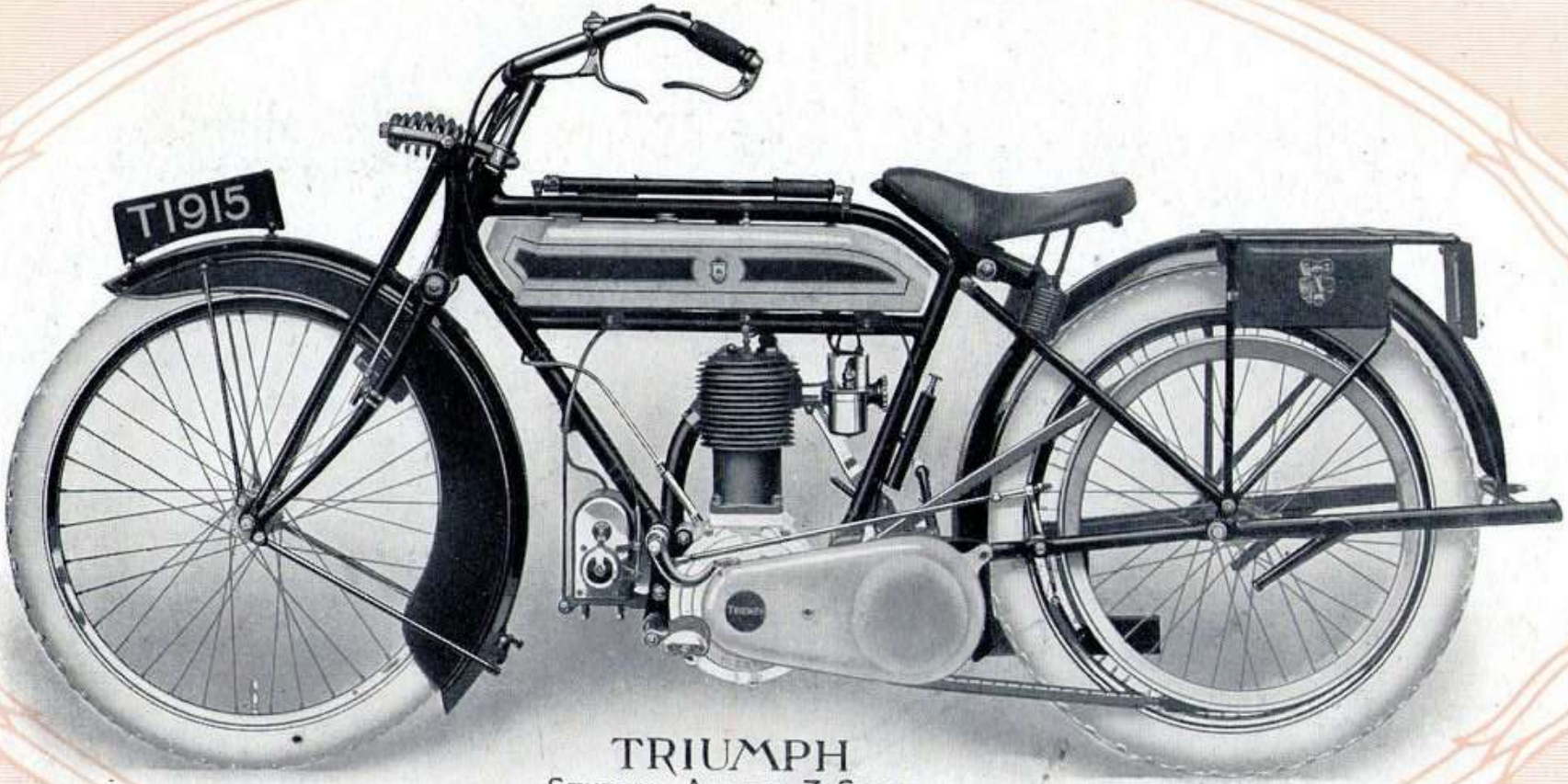
From the illustration it will be noticed that this is placed neatly in the bottom bracket position, evenly distributing the weight, and avoiding any complications in the removal of the back wheel.

Transmission from engine to gear box is by $\frac{3}{8}$ in. Renold chain, thence by 1 in. belt running over large pulleys, thus ensuring a smooth drive. The chain is enclosed by an aluminium cover.

The gear box throughout is of a most substantial character. The gears are constantly in mesh over the full width of the teeth at all times, and on all three gears, the changes being effected by sliding dogs, consequently there is no danger of stripping the gear teeth.

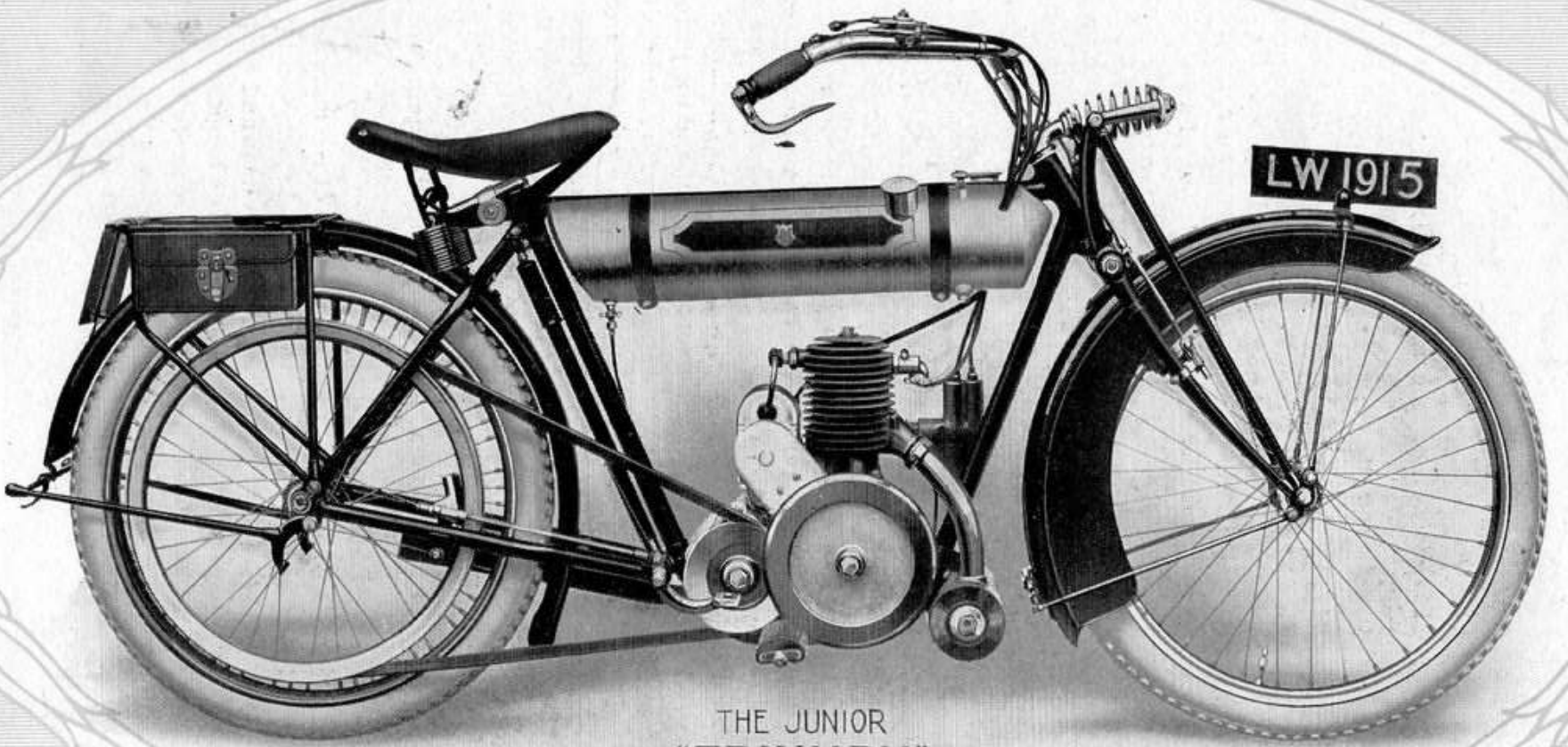
Other advantages are that the gears may be changed at any time, *i.e.*, whilst the machine is stationary or moving, with the clutch engaged or otherwise, and with the engine running or stopped. There is no need to declutch when changing gear, but it facilitates changing to lift the exhaust valve momentarily when operating the gear lever. If declutching is resorted to, it is advisable to completely declutch, instead of attempting to change with the clutch partly gripping.





TRIUMPH

STURMEY ARCHER 3 SPEED
COUNTERSHAFT GEAR.

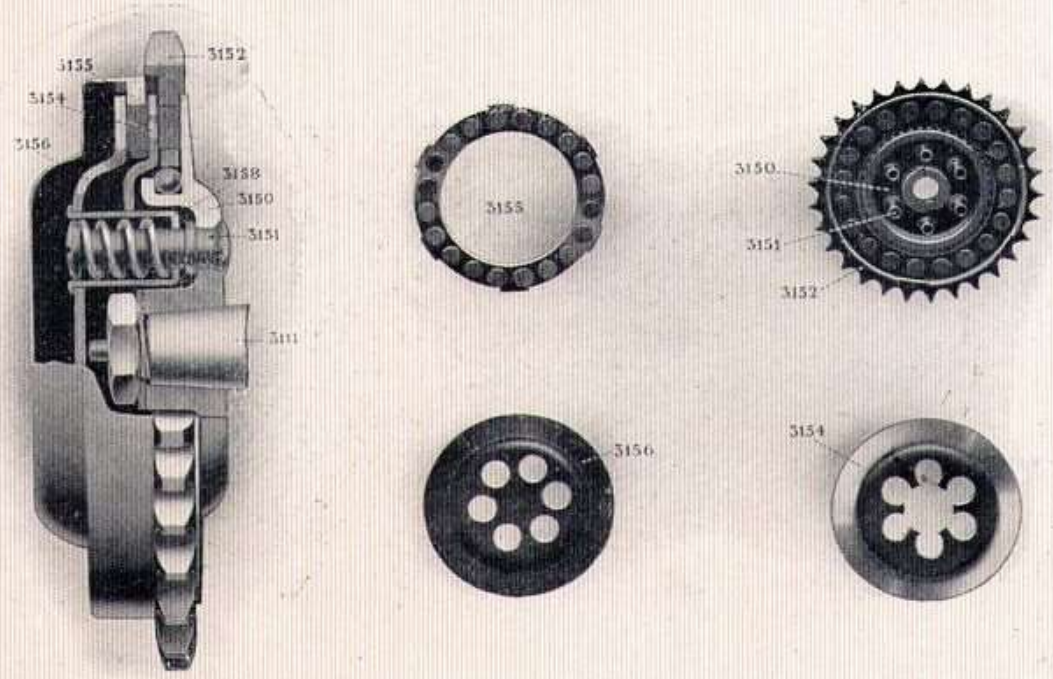


THE JUNIOR

"TRIUMPH"

2¼ HP TWO STROKE

Constructional Details—*continued.*



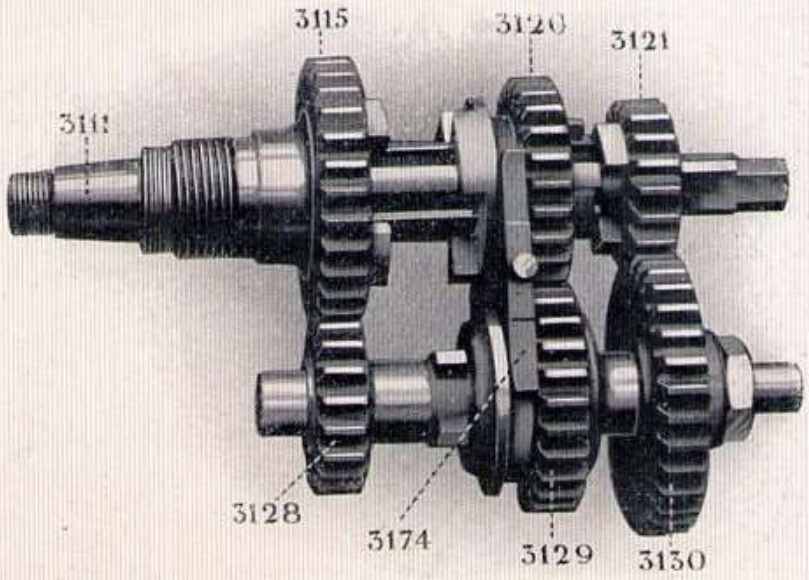
Clutch. The clutch consists of the main body (3150) keyed to the gear box axle and four other friction plates, two of which (3154 and 3156) are coupled up to the main body by the spring boxes (3158) and studs (3151) making a total of five friction plates. The other two plates are the sprocket (3152) and the plate (3155) which are coupled to one another by tongues, and corresponding grooves in their peripheries. The sprocket runs on ball bearings, and so gives a perfectly free clutch when desired. The sprocket and plate (3155) are drilled to receive a series of discs which project slightly above the metal surfaces of the plates, and when the whole is compressed by the six clutch springs within the spring boxes, it forms a solid coupling with a certain amount of elasticity in the drive.

The whole clutch may be readily dismantled by removing the spring box screws.

Gears. The clutch body (3150) is keyed on the taper end of the main axle (3111) the central portion of which is formed with six keyways cut from the solid metal. The central pinion (3120) has corresponding keyways and consequently is always rotated bodily with the axle, although free to slide longitudinally. The gear wheel (3115) to which the pulley is screwed, revolves freely on the axle, as does also the small pinion (3121).

The layshaft (3128) has keyed upon it at one end the gear wheel (3130) and is also formed with four clutch dogs in the centre, into which may be engaged at will a corresponding set of clutch dogs in the sliding pinion (3129).

Constructional Details—*continued.*



The two sliding pinions are connected by a forked plate (3174) and so are operated simultaneously ; the action is as follows :—

High Gear.—The sliding pinions are moved to the left, so that the clutch teeth on pinion (3120) engage with corresponding clutch teeth on gear wheel (3115) this locking the latter to the axle, and giving a solid top gear drive. A recess formed within the pinion (3129) ensures that the latter is free from driving engagement with the layshaft.

Middle Gear.—The sliding pinions are moved to the central position releasing the high gear dog clutch, and permitting the clutch dogs on the layshaft (3128) to engage with the internal clutch teeth in the layshaft sliding pinion (3129). The drive is then transmitted from the axle through the sliding pinions to the layshaft, thence by the left-hand layshaft pinion to the main gear wheel (3115).

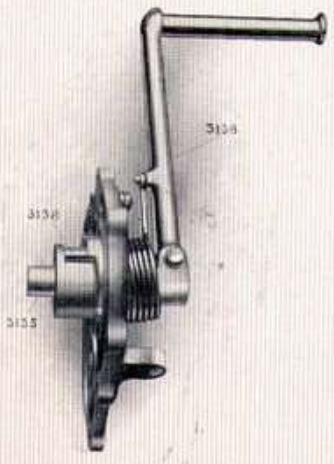
Low Gear.—The sliding pinions are moved to the right, engaging the right hand clutch on the axle sliding pinion with the clutch teeth on the low gear pinion (3121), and releasing the clutch dogs on the layshaft (3128) from the layshaft sliding pinion (3129). The drive is effected through the pinion (3121) to the layshaft gear wheel (3130) and thence to the main gear wheel (3115) by the left hand layshaft pinion.

In all three gears it will be noticed that each pair of pinions is continuously in mesh, so that there is no risk of chipping off portions of the gear teeth, which would eventually damage the whole gear box.

Both the layshaft and the main gear wheel (3115) revolve on ball bearings, reducing friction to a minimum.

Constructional Details—*continued.*

The Kick Starter consists of a substantial lever (3136) fastened by a taper cotter to a short shaft (3135) which is machined out to receive a free wheel pawl (3138).

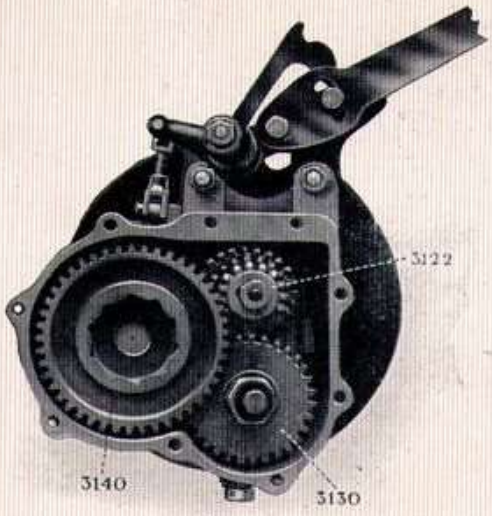


This communicates movement to a large gear wheel (3140) in mesh with a small pinion (3122) mounted on a squared portion of the main axle. When the pedal lever is returned to its normal vertical position, by the return spring provided for the purpose, a projection on the free wheel pawl comes into engagement with a fixed cam mounted in the gear box cover and positively depresses the pawl out of action. This ensures silent running of the free wheel mechanism, assuring its continued efficiency, and prevents damage when wheeling the machine backwards.

The gear changing mechanism consists of a long ever pivoted on a stud at the centre of a notched quadrant, and retained in its various positions by a spring plunger. The forward position is low gear, then neutral (for starting up), middle, and high gear positions.

Lubrication. Lubricate the gear with ordinary engine oil. After a first injection of about three oil gun charges, it should run one thousand miles before further attention, when another oil gun full can be injected (the gear is lubricated before leaving our works). If thin oil is used it will require replenishing more often. Do not use thick grease. The spring plunger and joints in the gear changing mechanism should be kept oiled regularly, and also the clutch worm. The latter should occasionally be cleaned with paraffin.

Do not lubricate the clutch as this is designed to run dry.



Starting. Place the gear lever in neutral position with the clutch in engagement. Start the engine by the kick starter, then declutch before engaging the low gear, after which the clutch may be re-engaged, and the other gears operated as desired. Do not forget to declutch before engaging gear, otherwise the machine will leap forward, and probably cause damage.

By placing decompressor in action, it will be found possible to make an easy start. It will facilitate starting by flooding carburetter, and injecting a small quantity of petrol through compression tap.

Constructional Details—*continued.*

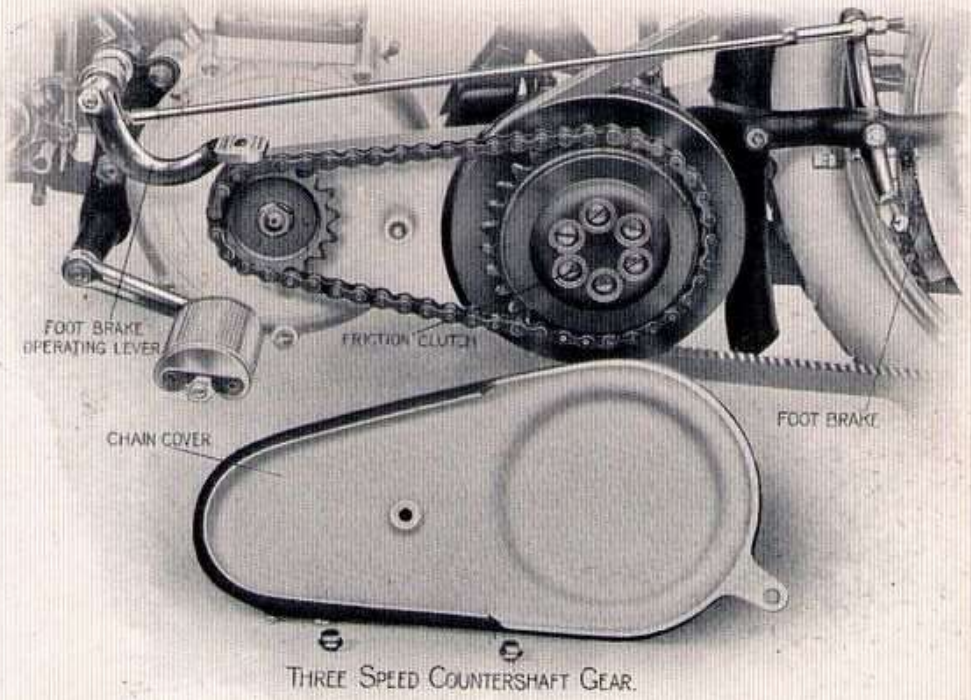
Adjustment. The gear is sent out correctly adjusted, and should not need any further attention, except periodical lubrication. A means of adjustment, however, is provided in the short vertical coupling from the control lever to the gear box lever.

To adjust the gear, remove the top connection pin, and screw the top connection pin up or down. When correctly adjusted the gear lever should move an equally small amount either side of the neutral gear notch without engaging gear. A second neutral position will be found, although not marked on the quadrant, between middle and high gears.

When adjusting gears, rock the driving sprocket or pulley both ways to ensure movement of the sliding pinions into their respective clutch dogs.

To adjust the clutch, the wire stop screw should be screwed up until there is about $\frac{3}{16}$ in. to $\frac{1}{4}$ in. of idle movement in the clutch worm lever. In extreme cases it may be necessary to loosen the clutch worm lever from the worm to find a more convenient operating position. The clutch should be adjusted immediately any sign of slipping is felt. Should oil get on clutch this will also cause slipping; to overcome, inject petrol. A sure sign of slipping is given by the clutch becoming warm whilst driving.

When fitting up the control wire for the clutch, ease off the bends as much as possible, to ensure long life and easy movement of the wire.



THREE SPEED COUNTERSHAFT GEAR.

Constructional Details—*continued.*

Triumph Motor Frame. Particular attention is paid to the construction of the Triumph frame. For a number of years we have used the double horizontal top tube construction, and are satisfied that this is the most suitable design for motor cycle frames.

The entire head is made in one piece, and it embraces the two horizontal and bottom tubes, and only the very best quality of steel tubing is used throughout. Although subjected to the severest usage on all manner of roads, this has failed to reveal a single weakness in the Triumph frame. The rear portion is gracefully curved so as to provide a low saddle position.

The frame equipment is very complete, wide mudguards are fitted, giving ample protection to the rider. The front guard is provided with side wings.

The footrests are made adjustable, so as to meet the needs of riders of different heights, and are fitted with substantial rubbers.

The luggage carrier is of a light but strong tubular construction mounted independently of the rear hub spindle. There are no unsightly clips, all joints and crosspieces being brazed, and provision is made for affixing pannier toolbags to the sides, so that they are well protected from mud, and the top of carrier is left free for luggage.

Front and rear stands are both mounted independently of wheel axles.

Triumph Patent Spring Forks. Pat. No. 12165/'05 and 24648/'10. One cannot help but admire the great neatness and strength which distinguishes Triumph Patent spring forks. To attain this, efficiency has in no manner been impaired. No shackles are employed, as in the majority of spring forks, which prove a common cause for side play, and the only moveable joint in the Triumph fork, situated at the crown, is mounted on ball bearings.

A large coil spring is mounted at the top of the fork, which allows the wheel a wide range of movement in a fore and aft direction, and thoroughly insulates the rider from road shocks and vibration.

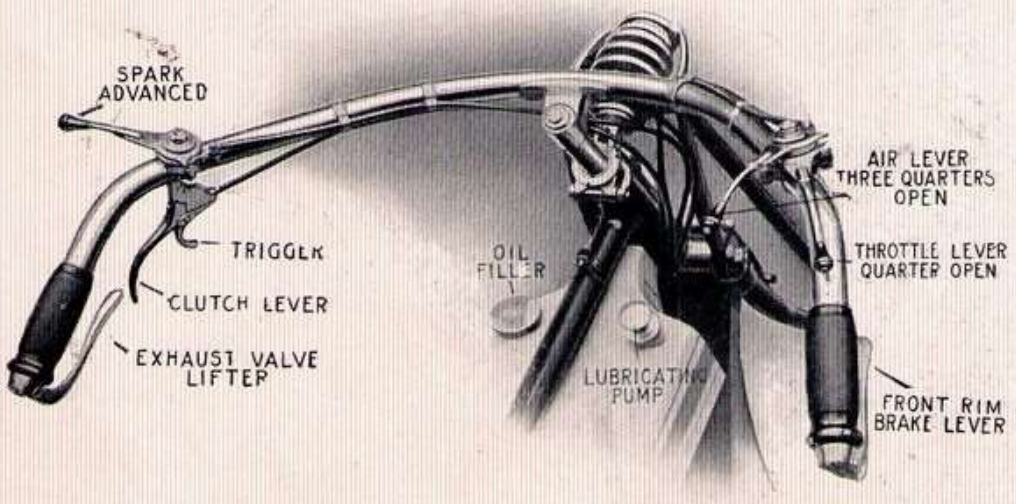
The substantial design of the crown, and the girder-construction adopted makes this fork tremendously strong.

Constructional Details—*continued.*

Handlebar and Controls. High carbon steel tubing is used for Triumph Handlebars. This is the most expensive steel tubing it is possible to procure but it possesses the virtue of being extremely strong.

We employ the usual head clip to clamp the steering column to the handlebar stem, but owing to the severe twisting strain to which the handlebar is subjected, this locking is supplemented by bringing the handlebar stem into close contact with the steering column at the lower end. To do this the stem is coned out and split, and into this a coned shaped wedge registers, controlled by a long bolt and nut terminating at the top of the handlebar lug.

With the indrawing of the wedge the stem is splayed and brought into close contact with the steering column so that these two—handlebar stem and steering column—form a homogeneous unit, and make it impossible to twist the handlebar on even the roughest roads.



The above setting of Levers shows the correct positions for starting the 4 h.p. Triumph.

Constructional Details—*continued.*

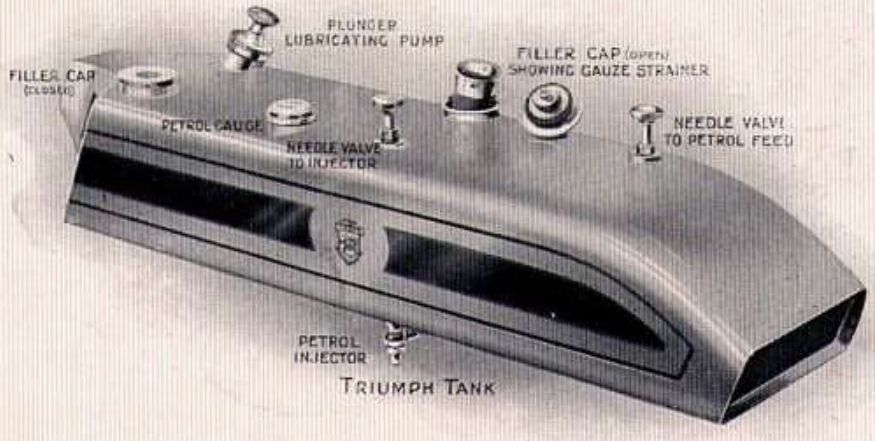
Petrol and Oil Tank. On many machines the tank is fastened to the top tube of the frame, by means of clips. In addition to these being unsightly, the liability is for the clips to come adrift. For some time we have considered this method obsolete.

The Triumph tank is supported on the lower horizontal tube. Two lugs with platforms are brazed to this tube, and on this the tank rests cushioned by substantial rubbers. It is held in position by locking washers which pass through the lugs into substantial fittings in the bottom of the tank. This is an extremely neat and substantial fixing, and entirely dispenses with unsightly clips on the top of the tank and tube.

The tank itself is of a very strong construction, with but one longitudinal seam, the end is riveted and the top edges gracefully rounded off.

The lubricating pump is concealed in the fore part, and all taps are dispensed with, needle valves being substituted.

Removable petrol and oil strainers are fitted so as to trap any foreign matter, the filler caps are large and quickly detachable, and a sump is provided to allow the last drop of petrol to be drained to carburetter



TRIUMPH TANK

An ingenious petrol gauge is part of the tank equipment. This is a patent device (Cox's Pat. No. 9679/'05), fitted inside the tank, which accurately registers the amount of fuel in the tank. The dial is placed on the top so that it can be read from the saddle. The registering finger is connected with a spirally shaped spindle

on which is threaded a cork running between suitable guides. With the rise and fall of the fuel the suspended cork brings the indicating finger on to the mark on the dial corresponding with the quantity of fuel in the tank.

Lubricating Plunger Pump. Engine lubrication is effectively dealt with by means of a hand pump, conveniently placed within the reach of the rider. A great advantage with the hand pump is that it does not depend on any intricate mechanism, it is extremely simple, and the rider has a certain knowledge as to the amount of oil delivered to the engine.

One great flaw in mechanical lubricating systems is that oil is delivered to the bearings, according to the speed of the engine. At an average speed this works efficiently, and also with a higher speed when more oil is called for. and more delivered. It is when steep gradients have to be surmounted that the mechanical lubricator is defective, the engine is then turning over slower, more heat is being generated owing to generous throttle opening, and less oil is being delivered when most is necessarily required.

The rise and fall in temperature also has an important bearing on the amount of lubrication required, which the mechanical lubricator is unable to look after.

With the Triumph hand pump, the charge is forced directly into the crank case where it is distributed to all bearings, cylinder walls, and piston by the movement of the fly wheels and crank pin, and the amount of oil delivered is regulated according to the judgment of the rider.

The mechanism of the pump eliminates all taps, the action is positive, and the rider has a sure indication of a full charge being drawn into the pump, as when depressing the plunger, a perceptible resistance is felt, whereas if only air is in the pump, only a certain resilience is experienced.

Constructional Details—*continued.*

Brakes. The foot brake has been entirely re-modelled. The shoe acts on the inside of the belt pulley, thus in no way interfering with the ready removal of the back wheel. The arm carrying the shoe pad is of ample length to provide a powerful leverage and is anchored to a special lug on the frame. The operating lever is conveniently placed over the left footrest.

The front brake is operated by an inverted lever on the right side of handlebar, and acts on the front rim. The brake pads are readily detached to facilitate wheel removal.

Tools. A complete kit of tools is supplied with each machine, which includes spanners for every nut, a large adjustable wrench, pliers, file, and screwdriver; also a magazine tyre repair outfit, and valve extractor.

SPARE PARTS

Spare Parts specially recommended to be carried.

Sparking Plug	**5**/- each	Belt Fastener with spare links	**1**/**6** each
Exhaust Valve (complete)	**8**/- each	Belt Punch	**2**/**3** each
1 ft. of Belt 1 in.	**2**/- per foot	Chain for Countershaft Model	**7**/**6** each

See separate Catalogue for Spare Parts and Replacements.

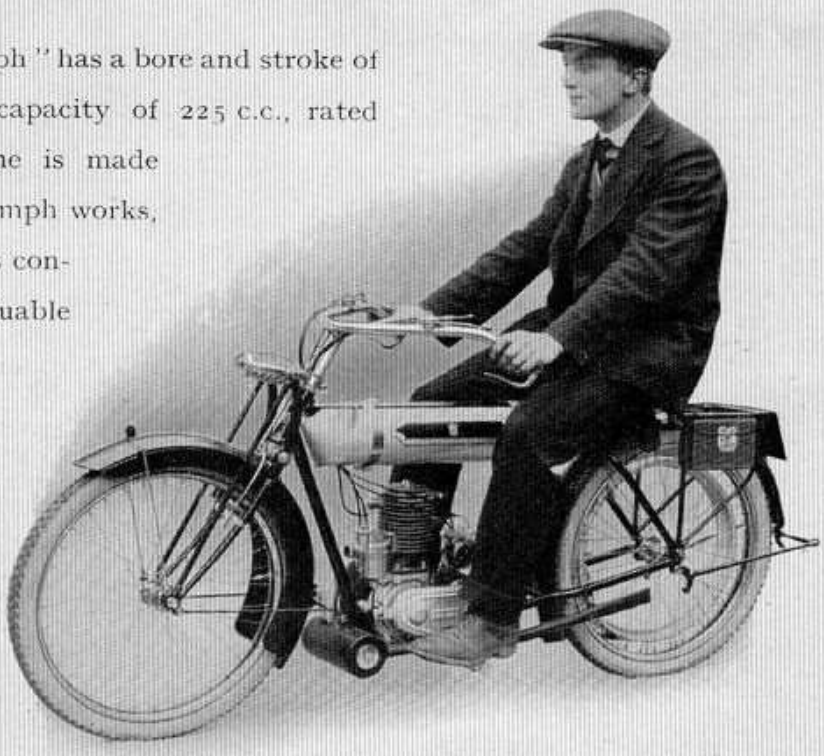
Constructional Details of the Junior Triumph 2¼ H.P. Lightweight Motor Cycle.

Two-Stroke Engine. The four-stroke principle of engine design, is ideally suitable for a Motor Cycle engine of the capacity of the 4 h.p. Triumph, but for an engine of small capacity, suitable for Lightweight purposes, we found in the early stages of our experiments that the same principles did not apply.

The number of working parts in the four-stroke necessitates these being built on the light side for an engine of small capacity, consequently if this method be adopted it is at the cost of efficiency.

In the "Junior Triumph" the two-stroke principle, with its few working parts, is adopted. These working parts—but three in number—are made robust and with large bearing surfaces, thus ensuring that reliability which has always distinguished Triumph Motor Cycles.

The "Junior Triumph" has a bore and stroke of 64 × 70 m/m, giving a capacity of 225 c.c., rated at 2¼ h.p. This engine is made throughout in the Triumph works, and has embodied in its construction several valuable patents. There are no tappets, valves, and timing gear used, the piston opening and closing ports in the cylinder walls, the charge being compressed in the crank case.

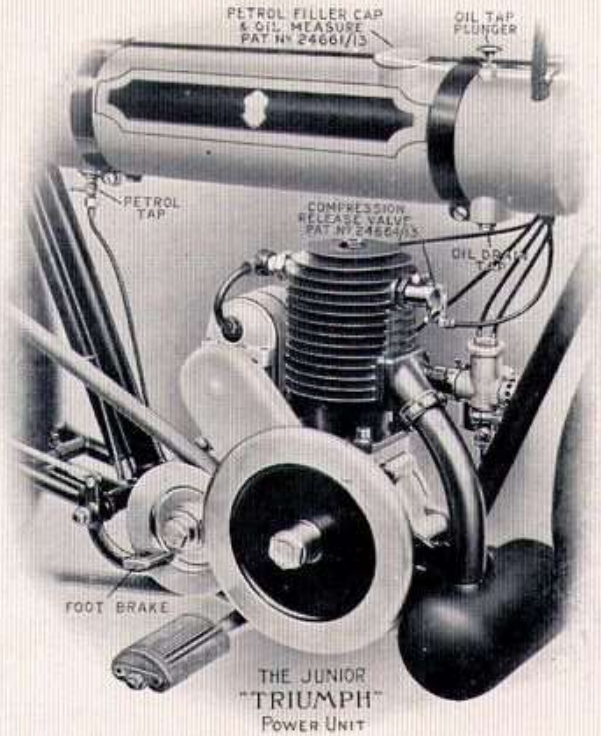


Constructional Details—*continued.*

On the upward stroke of the piston the charge is drawn into the crank case, this charge is compressed on the downward stroke, and at the same time the transfer port is opened, allowing the gases to pass at a high velocity into the combustion chamber. On the return of the piston this charge is compressed and fired, the exhaust escaping through port on the downward stroke of the piston.

At the same time the compressed gases from the crank case are coming through transfer port into the combustion chamber, these gases are directed by the deflector on the piston to the top of the combustion chamber, the inrush forcing the exhaust gases through port.

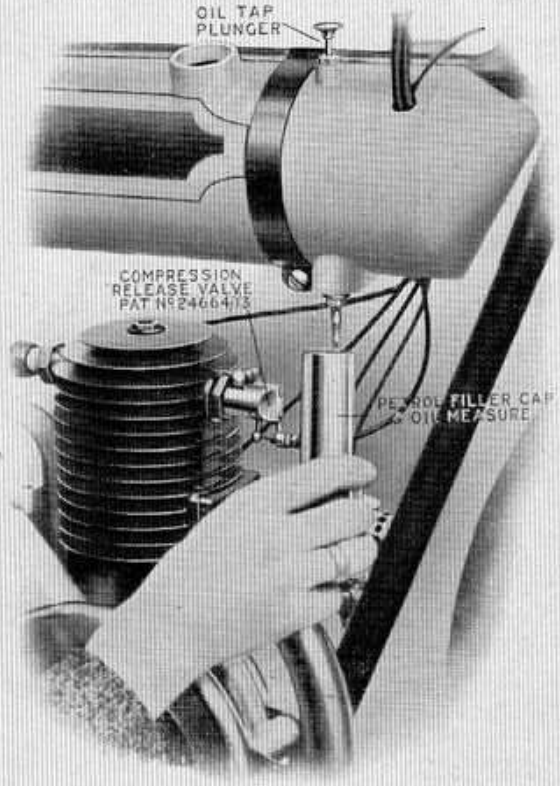
Two-Speed Countershaft Gear. A neat two-speed countershaft gear is fitted in the bottom bracket, and is controlled from the handlebar by the ordinary type of carburetter lever. This gear provides a 40% reduction from high to low, and is of the dog clutch type, no friction clutch being employed. A free engine position is given between gears, so that the machine can be wheeled without resistance, but this is not intended to be used for starting purposes. The engine drives by chain to the countershaft, this chain being thoroughly protected by an aluminium case, and thence by belt to the back wheel. The final transmission is over large pulleys, thus ensuring long life to the belt and freedom from slip.



THE JUNIOR "TRIUMPH" POWER UNIT

Compression Release Valve. A number of points in the Triumph two-stroke are protected by Letters Patent, one of these being the compression release valve (Pat. No. 24664/'13 and 24292/'13).

Constructional Details—*continued.*



It is common practice to allow the escaped gases of the released compression to pass directly into the atmosphere. This not only creates an objectionable noise, but bespatters the rider's clothing with oil. These objections have been overcome in the Triumph two-stroke engine, in that the released gases pass down a duct cast integral with the cylinder, into the exhaust pipe. This valve is operated by the inverted lever under the right grip.

Lubrication. Lubrication is automatic. The oil is mixed with the petrol and every charge drawn into the crank case through the carburetter, contains a proportion of oil. This oil separates under the compression and warmth of the crank case, the petrol vapourising and passing to the combustion head, via the transfer port, and the oil is precipitated on to the moving parts within the crank case, thus reaching the bearings.

This method has proved highly successful, and after the initial mixing, the rider need not trouble about lubrication until all the petrol and oil mixture is used up.

An oil measure is provided, this forms a filler cap to petrol tank, and the illustration shows it being filled from the oil compartment in the fore part of tank.

Tank. A neat rounded tank with capacity of 9 pints of "petroil" mixture and one quart of oil is suspended from the top tube by spring bands.

The top of the tank is recessed, thus covering the top tube, and giving a very clean cut appearance. An ingenious method of carrying all control cables through

Constructional Details—*continued.*

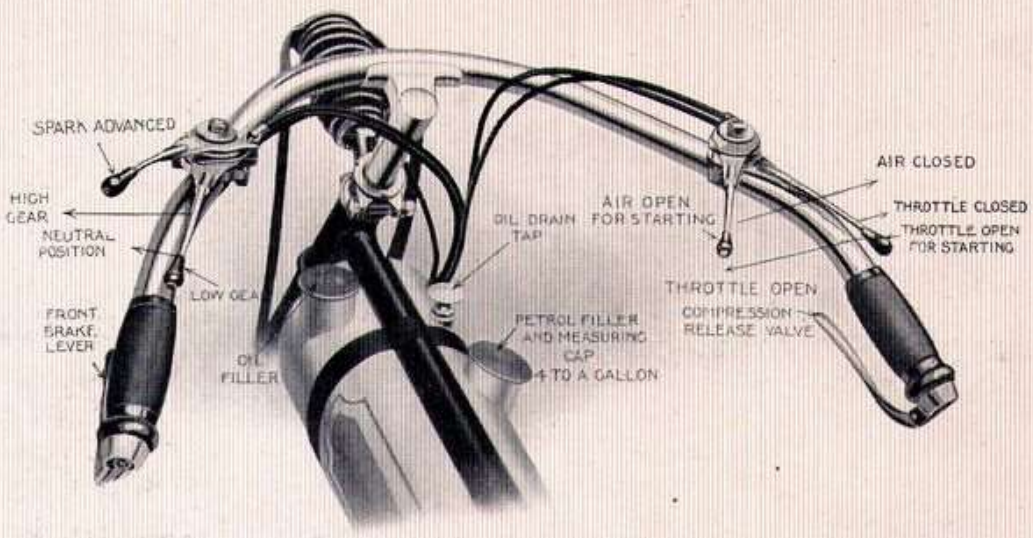
the forepart of tank is used which dispenses with all clips, and adds greatly to the neatness of the machine.

Frame. The frame is of registered design (Reg. No. 626553). The tube from the ball head to the saddle pillar is a single member forming a strong cradle to take the engine and gear box. The power unit comprising engine, gear box, magneto, and carburetter, can be easily removed from the frame *en bloc*.

The height from the top of the saddle to the ground is but 28½ in.; 24 × 2¼ in. wheels are fitted and the well tested Triumph Patent Spring Forks previously described are included in the very complete specification of the "Junior Triumph." All controls are mounted on the handlebar. This is a point of considerable importance when much traffic riding is done.

Equipment. The equipment is very complete. A powerful foot brake operated by heel from right side footrest acts on the belt drum, and the front rim brake is controlled from an inverted lever on the left side of handlebar.

Front and back stands are fitted, substantial 2¼ in. rubber studded tyres, pan seat saddle, luggage carrier with pannier toolbags, kit of tools, as complete an equipment as will satisfy the most exacting rider.



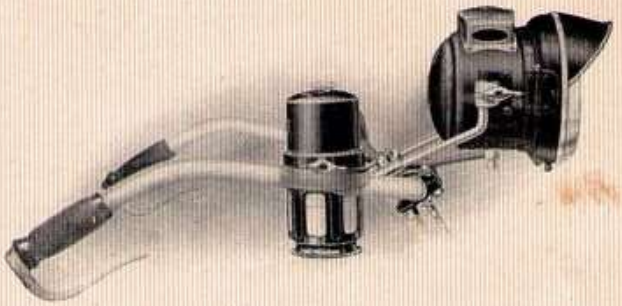
The above setting of levers shows the correct positions for starting the "Junior Triumph" Lightweight.

Speedometer. We can with every confidence recommend the Isochronous Speedometer (Bonniksen's Patent). We have since its introduction tested a number of these instruments, and they have given every satisfaction. They are made suitable for Triumph Motor Cycles. Price **£4 4 0**. Postage **6d.**

Triumph Acetylene Headlight and Generator. This is provided with a suitable bracket to clip on the handlebar stem. The headlight is made of rolled brass, and fitted with a genuine Mangin Lens Mirror, ensuring a penetrative light; it is equipped with a Roni burner, and bevelled plate glass convex lens.

The generator is of the drip feed type, the water being regulated by a rotating screw on the top of the water chamber. This can be conveniently manipulated by the rider from the saddle. Price **£2 4 0.**

The Lucas Motor Cycle Projector Set. This is fitted with a special Mangin Lens Mirror and Parabolic Reflector, a combination which suppnes a powerful penetrative light clearly throwing up objects a considerable distance, at the same time suffusing the light the width of the road near the rider.



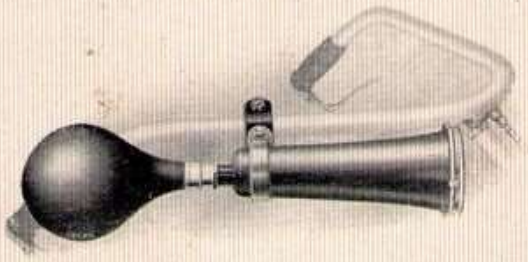
Patented side sockets are fitted which permit the lamp to be swung round for inspection purposes without removing from bracket.

The Generator is of the drip feed type, and the fixing of the carbide chamber is effected by a patented method, a slight turning movement serving to fix or unfix the container.

Price **£3 6 0.**

The Lucas Motor Cyclorn. This is a patented and registered pattern of an extremely neat design, and which it will be noticed from the illustration, lies snugly alongside the handlebar. This horn sounds a penetrating but at the same time melodious warning.

Price **20/-**



Belt Punch. This is a hollow steel drill in the form of a cutter, which when screwed down, will bore a clean hole through the belt for affixing a fastener screw. This is an extra, price **2/3**, postage **2d.**

A SMALL SELECTION OF AWARDS WON BY TRIUMPHS DURING 1914

EVENT.	RIDER.	RESULT.
Senior Tourist Trophy Race.	G. Boyton	1st Private Owner.
	Quentin Smith.	2nd
		5 Triumphs out of 7 finished, winning three Gold Medals.
B.M.C.R.C. Meeting, Brooklands	G. E. Stanley. J. Cocker.	Won 10 Firsts and broke 2 Sidecar Records.
A.C.U. Six Days' Trial.	W. Westwood.	Won Cup and Gold Medal for best Solo performance.
	A. Clayton.	Gold Medal.
	J. T. Ross.	Gold Medal.
	F. Turvey, junr.	Gold Medal.
		All gaining Bonus Marks.
Australian T.T. Race.	Triumphs.	1st, 2nd, 3rd, and 5th Single Cylinder.
West Australian Tourist Trophy Race.	H. V. Norton.	Winner, creating Record for the Course.
Grand Prix of Italy, 186 miles.	G. Ravelli	1st. Triumphs also won Team Prize. 4 Triumphs started, 4 finished.
Australian State Championship.	P. Weatherilt.	Won Championship.
	R. Ralston.	Second.
Circuit of Brescia (Italy).	Triumphs.	1st, 2nd, 3rd, and 5th.
M.C.C. London-Edinboro' Trial.	—	9 Triumphs started, 8 finished winning 8 Gold Medals. One rider was compelled to retire owing to a fall.
M.C.C. London-Exeter and Back Trial.	—	Triumphs won Five Gold Medals.
A.C.U. One-day Spring Trial.	—	8 out of 9 Triumphs secured awards.
Pioneer M.C. Beach Race, 16 miles, New Brighton, N.Z.	G. B. Brown.	1st and fastest Single Cylinder.
Paris-Rouen-Paris Trial.	—	4 Triumphs started, 4 finished, losing no marks.

Awards won by Triumphs.—*continued.*

EVENT.	RIDER.	RESULT.
Bristol M.C.C. Speed Trials, Weston-Super-Mare.		
Class 4 (600 c.c. Solo).	V. Harrison.	1st.
Class 5 (Unlimited, Solo).	V. Harrison.	1st, beating twins of 7 h.p.
Scottish Six Days' Trial.	W. Westwood.	Gold Medal.
	H. Green.	Gold Medal.
Coventry M.C.C. Reliability Trial, "Manville Trophy."	S Crawley.	Won Trophy.
		1st place in Solo Class, won Cup, and made best performance of the day.
North Canterbury M.C.C. Reliability Trial, 465 miles (New Zealand).	—	Triumphs won 4 firsts, 2 seconds, and 1 third. 6 out of 7 went through without a single mechanical fault.
Manchester M.C. Hill Climb. (Solo Class).	H. D. Ashworth.	First on formula.
	J. Smith.	Fastest Time of the day.
(Sidecar Class).	J. Smith.	Fastest time.
Coventry M.C. Open Trial, (Class 3).	H. Green.	Non-stop and Gold Medal, 1st in acceleration and slow-running tests.
Orange Free State A.C. Race Meeting, 52 miles, "Continental Trophy."	W. Campbell (Scratch).	1st, South African Record.
Consuma Hill Climb (Italy), rising 3160 feet in 10¼ miles.	Triumphs.	1st, 2nd, and 3rd, winning the famous Challenge Cup for the 3rd time.
Manawatu Championship, 3½ h.p. machines (New Zealand).	A. Anderson.	Won Championship.
Oldham and District M.C.C. Hill Climb, (Solo and Sidecar Classes).	J. Smith.	1st, from Scratch.
Surrey M.C.C. Trial, "Triumph Cup."	C. J. Feeney.	1st, Won Cup.
Otago M.C.C. Beach Races.	—	Triumphs won 3 firsts, 1 second and 1 third.
Cardiff M.C.C. Trial, "Greenwood Trophy."	E. J. Dart.	Won Trophy.
North Canterbury M.C.C. Beach Races, 100 miles (New Zealand).	—	Triumphs 1st, 2nd, and 3rd. Fastest times for Single Cylinders.
Exeter M.C.C. Open Reliability Trial.	J. E. D. Moysey.	Won Heavyweight Class Silver Cup.
Bolton M.C.C. Reliability Trial.	Triumphs.	1st, 2nd, and 3rd. The only three Triumphs competing.

Appreciations.

Hove, August 22nd, 1914.

Dear Sirs.—I have just completed 10,000 miles on my 1914 Triumph Motor Cycle and it gives me much pleasure to inform you that it is running splendidly, and I couldn't wish for anything better.

It has stood a fearful gruelling for the last 2,000 miles as, being engaged on the travelling staff of a well-known London Daily, I have been using the machine since the War commenced to convey heavy loads of papers to various resorts on the Sussex Coast and, travelling in the early hours of the morning, I have been able to ride to a schedule of 40 m.p.h. and have never had the slightest hitch, always arriving punctual as clock work. Its extraordinary how confident one is when on a Triumph. The idea of a breakdown is unthought of, and this adds immensely to the pleasure of riding.

By the bye, I am getting over 90 m.p.g. This is fine, seeing that I indulge in fast riding. I'm looking forward to furnishing you with a splendid record when I finish up on this mount. I have a new Triumph every year.

A. H. F.

The following is from a Despatch Rider who does not wish to have his name disclosed :—

" You may be interested to know my experience with the 1914 Triumph, which I have been using as a Despatch Rider for the last three months, during which time I have been attached to the Indian Expeditionary Forces over seas. I have now ridden the machine about 2,500 miles over paved roads and others deep in mud and slush. The machine and I have been into ditches, gates, over raised railway lines, and over indescribable roads.

I can hardly imagine a more severe test for any Motor Cycle. It has stood out night by night in pouring rain without any form of covering.

With the exception of tyre trouble, not one part of the machine has failed or given out yet, and the three other men in my Company who have been riding Triumphs have had just the same experience.

George Street, Hull,
8th July, 1914.

Dear Sirs,—Whilst we are writing you we should like to express our entire satisfaction with the machine. We bought it on the 31st May, 1913, from your local Agent, and up to the day on which it last ran—last Saturday ,the 4th inst.—its total mileage was 24,270. Our business takes us into the very heart of the country, and amongst all sorts and conditions of roads, so that you will see for yourselves this has been a very good performance. Our Traveller who had never previously ridden a Motor Cycle, has never had the slightest hitch or sign of trouble with it. It has been ridden all through the winter, wet or fine, climbed Staxton Hill regularly week by week, and has in fact left nothing to be desired. We have nothing but praise for your deservedly popular mount and consider it our duty to congratulate you on the excellent way in which you turn them out.

H. W. MATTHEWS & CO. Ltd.

Christchurch, N.Z.,
April 16th, 1914.

Dear Sirs,—I have just completed a sidecar trip over the roughest course in New Zealand, viz :—the noted Christchurch-Kaikouri and back, with a 4 h.p. Triumph and sidecar, and the machine behaved magnificently throughout, the extra power of the 4 h.p. engine over the 3½ h.p. being most marked.

Miles of rough river beds and unbridged rivers had to be traversed, but the Trusty Triumph never once faltered. Allow me to congratulate you on this year's model which I consider the finest motor ever put on the market.

G. B. BROWN.

" Kuklos " the well-known writer, after visiting the war zone in the North of France, says :—

"At Coulommiers in France (Sir John French's Headquarters at the Battle of the Marne) I met 24 khaki boys of the Royal Engineers mounted on ———— and Triumph Motor Cycles in equal numbers. They told me that the former had all " crocked up " while the Triumphs were standing up to the severely unfair work in capital fashion."

Appreciations.—*continued.*

Melrose Avenue, Wimbledon Park, S.W.
2nd February, 1915.

Dear Sirs,—I thought you would be interested to hear my experiences with the Two-Stroke Triumph.

I took the machine round some of the Surrey Hills beloved by the A.C.U. Route finders, and the way it performed on such hills as Ranmore, Coombe Bottom, Whitedown, and Pebblecombe was a revelation to me. I certainly did not succeed in finding a hill that the machine would not take on the low gear of 8¾ to 1 whilst all but freak hills could be taken on top.

Yesterday I took the machine out again, over a part of the same course, this time in company with some friends and was very much amused to see the rider of a ———— konk out on Coombe Bottom whilst I was able to exhibit to the crowd how easily the "Junior Triumph" would start on any part of the hill. Certainly it was an eye-opener to those who were at first inclined to scoff at the idea of a 2¼ h.p. machine going anywhere.

On the road home I had an excellent chance of judging its capabilities in grease, as the roads were very bad all the way from Shere to Wimbledon, but the little machine floated over the grease at a pace that I would not dare to go on my ————. The feeling of security is marvellous.

I am certain that there is a big future for this machine in Reliability Trials. I have not spared the machine since I had it, and cannot speak too well of the splendid way it behaves in any kind of bad weather and rough stuff.

F. W. CHAPMAN.

Corporal G. Boyton, who put up such a splendid performance in the last T.T. Race as an Amateur rider, now serving as a Motor Cyclist with distinction in the Royal Engineers, and stationed at advanced General Headquarters.

Well, to begin with, I came out here with a 3½ h.p. ———— as I could not get a Triumph at ————. It gave me a lot of trouble before I left England, and a month out here did it in. Then a new batch of machines arrived, being Triumphs and ———— and I had to toss with another rider for who was to have the Triumph. I won, and have had the Triumph ever since, and would not part with it for anything. It has had the vilest of treatment. I have ridden it up to the two axles in mud over fields, and worst of all over the vile pave we have all round here, and the only roadside stop I have had was when the mud forced the belt off the rim.

All the Triumphs I have seen here are running like clock work, which is more than can be said for any other make. One firm is very angry, or should be, because an artificer here is fitting Triumph front guards instead of those that do not provide enough clearance to cope with the fearfully muddy condition of the roads.

As for the heavyweights, their chief troubles are front forks wearing, and cylinders cracking. It is extraordinary the number of these I have seen with seized gears, and clutches which do not make any difference whether they are in or out. Thank goodness I have had none of these troubles since I got my Triumph, nor in fact have any other Triumph riders that I know of.

Regent Parade, Birmingham.

Dear Sirs,—Perhaps it will interest you to hear of the wonderful reliability and service I have received from my 1912 Triumph.

On October 1st, 1913, the engine was cleaned, etc., and from that date she has been used every week-day to business and back, a distance of 7 miles each way, and nearly every Sunday for pleasure, covering up-to-date a distance by speedometer of 7,311 miles.

During this time the engine and mechanical parts of the machine have not been touched in any shape or form, even the plug has not been taken out. Of course I have had tyre troubles but absolutely no trouble with the machine.

This I think is a wonderful record of reliability, especially considering that it is an old machine, having covered a total distance of over 28,000 miles, including many strenuous Reliability Trials.

H. BALL.

CABLE CODE.

This Private Code can be used in conjunction with ABC and Lieber's.

ROADSTER THREE SPEED COUNTERSHAFT GEAR MODEL, TYPE H.

Quantity.		
1	...	Cran
2	...	Cranduo
3	...	Crantres
6	...	Cransei
9	...	Cranove
12	...	Crandoce
15	...	Crankince
20	...	Cranventi

T.T. ROADSTER WITH THREE SPEED COUNTERSHAFT GEAR, TYPE K.

Quantity.		
1	...	Cor
2	...	Corduo
3	...	Cortres
6	...	Corsei
9	...	Cornove
12	...	Cordoce
15	...	Corkince
20	...	Corventi

TOURIST TROPHY ROADSTER, WITH FIXED ENGINE. TYPE D.

Quantity.		
1	...	Tour
2	...	Tourduo
3	...	Tourtres
6	...	Toursei
9	...	Tournove
12	...	Tourdoce
15	...	Tourkince
20	...	Tourventi

TOURIST TROPHY RACER, WITH FIXED ENGINE. TYPE F.

Quantity.		
1	...	Tofy
2	...	Tofyduo
3	...	Tofytres
6	...	Tofysei
9	...	Tofynove
12	...	Tofydoce
15	...	Tofykince
20	...	Tofyventi

"JUNIOR TRIUMPH" MOTOR CYCLE, TYPE L.W.

Quantity.		
1	...	Baby
2	...	Babyduo
3	...	Babytres
6	...	Babysei
9	...	Babynove
12	...	Babydoce
15	...	Babykince
20	...	Babyventi

N.B.—In types D and K code words represent Motor Cycle with 4 h.p. engine; when 3½ h.p. engine is required the word "ad" should be added to code word, *i.e.*, "Tourad," meaning one T.T. Roadster, 3½ h.p. with fixed engine. In type F, code word represents Motor Cycle with 3½ h.p. engine; when 4 h.p. engine is required the word "fo" should be added to codeword, *i.e.*, "Tofyfo" meaning one T.T. Racer, 4 h.p., with fixed engine.

TRIUMPH MOTORS

1915