



REPLACEMENT PARTS CATALOGUE

FOR 1971

BONNEVILLE T120R
TIGER 650 TR6R
TROPHY 650 TR6C

TRIUMPH ENGINEERING COMPANY LIMITED
MERIDEN WORKS · ALLESLEY · COVENTRY CV5 9AU · ENGLAND
TELEPHONE COVENTRY 28221
MERIDEN 331

TELEGRAMS "TRUSTY" COVENTRY
TELEX "TRUSTY" 31305

DE PORRE 3 me L. STAILLE
780 10/71
1971

INTRODUCTION

The Triumph Engineering Co. Ltd. point out that the information in this catalog was complete and correct at the time of printing. Distributors will be informed of any subsequent alterations.

A plastic binder, of the type used for Workshop Manuals, is available to enable this catalog and all other 1971 season catalogs to be bound into one unit.

GUARANTEE

Please refer to your dealer or distributor for the latest terms of guarantee.

Eastern U.S.A. Distributor:

Triumph Motorcycle Corporation,
P.O. Box 6790,
Towson,
Baltimore 4,
Maryland 21204.

Telex—Tricor Balt. 87728
Telephone—301-252-1700

Western U.S.A. Distributor:

Triumph Motorcycle Corporation,
P.O. Box 2765,
East Huntington Drive,
Duarte,
California 91010.

Telex—Tricor Duarte 675469
Telephone—213-359-3221
213-681-0255

ENGINE AND FRAME NUMBERS

The engine number is located on the left side of the engine, immediately below the cylinder barrel to crankcase flange.

The frame number is located on the left side of the frame headlug, beneath the fork top lug and forward of the gasoline tank.

Both the engine and frame number should be quoted in full in any correspondence relating to the machine.

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TIGER 650 (TR6R) TECHNICAL DATA

Bore and stroke...	71 x 82 mm. 2.79 x 3.23 ins.
Capacity	649 c.c. (40 cu. ins.)
Compression ratio	...	...	...	...	...	...	...	9 : 1
Spark plugs	...	...	...	...	...	...	...	Champion N3
Carburetor	...	...	...	...	...	...	...	Amal Concentric 930
								Main jet
								Needle jet
								Throttle valve
Gearbox sprocket	...	...	...	...	...	...	...	19 teeth
Chains	...	...	...	...	...	...	...	Front
								Rear
Capacities	...	...	...	...	...	...	...	Gas Tank
								Oil Tank
								Gearbox
								Primary Chaincase
								Front Forks (each leg)
Brakes	...	...	...	...	...	...	...	Front, diameter...
								Rear, diameter
Tire size	...	...	...	...	...	...	...	Front
								Rear

HOW TO USE THIS SPARE PARTS CATALOG

First consult the index on Page 3 for the parts or group of parts which you wish to locate. When you have located the parts make sure from the end columns that the part you have located does apply to your machine.

List the quantities required as single units; do not ask for "2 pairs" or "3 dozen".

In case of painted items always state the color required. Painted parts are available only in the colors or alternatives specified for that model of that particular year.

CARTON PACK LIST

The following sub-assemblies are supplied in carton packs under the C.P. part number stated. The contents of these carton packs are preserved and will not deteriorate under adverse conditions.

Part No.	Contents
Brake Lining	
C.P.38/A.M.2 2	NW243 Brake lining
... .. 16	W129 Rivet
C.P.205 2	W1734 Brake lining
... .. 16	W129 Rivet
Pistons (complete with rings, gudgeon pins and circlips)	
E6895	7.5 : 1 C.R. For use with low grade fuel
E9488	9 : 1 C.R. Standard
E6867	11 : 1 C.R. Competition use only
All the above pistons are available in oversizes of 0.010 ins., 0.020 ins., 0.040 ins., (0.25 mm., 0.5 mm., 1mm.)	
Valve Guides	
C.P.97 2	E2899 Inlet guide
(TR6) 2	E2900 Exhaust guide

PLEASE NOTE

THROUGHOUT THIS LIST, ASSEMBLIES ARE PRINTED IN CAPITALS AND THE COMPONENTS INCLUDED IN THAT ASSEMBLY ARE INDENTED IN THE DESCRIPTION COLUMN, REVERTING TO THE ORIGINAL ALIGNMENT WHEN THE ASSEMBLY IS COMPLETE. TO ORDER THE COMPLETE ASSEMBLY IT IS NECESSARY ONLY TO QUOTE THE ASSEMBLY NUMBER. ANY COMPONENT PARTS LISTED MAY ALSO BE OBTAINED SEPARATELY IF REQUIRED.

SPECIAL WORKSHOP TOOLS

A COMPLETE LIST OF WORKSHOP TOOLS CAN BE MADE AVAILABLE BY EITHER CONTACTING YOUR DEALER OR APPLYING DIRECT TO THE TRIUMPH SERVICE DEPARTMENT. IN MOST CASES THESE TOOLS ARE VERY COSTLY AS THEY ARE MADE ENTIRELY FOR WORKSHOP USE, AND THEREFORE, IT IS NOT RECOMMENDED THAT THE PRIVATE OWNER PURCHASES THE TOOLS IN ORDER TO AID SERVICING THE MACHINE ONCE OR TWICE ONLY. IN THESE CIRCUMSTANCES IT IS FAR MORE ECONOMICAL TO GET IN TOUCH WITH A RECOGNISED DEALER.

UNIFIED THREAD FORM

NEW PARTS HAVING THREADED FIXINGS INTRODUCED IN THIS CATALOG HAVE THE UNIFIED FORM OF SCREW THREADS. THIS CHANGEOVER WILL BE CONTINUED AS AND WHEN NEW PARTS ARE INTRODUCED. EVEN WHERE PARTS ARE SIMILAR IN APPEARANCE NEW PART NUMBERS WILL BE ALLOCATED TO IDENTIFY THE UNIFIED THREADS. ALL NUTS, BOLTS AND STUDS HAVING THIS THREAD ARE IDENTIFIED BY MARKINGS. BOLTS HAVE A CIRCULAR RECESS IN THEIR HEADS, STUDS A CIRCULAR GROOVE ON THE END, AND NUTS HAVE INTERLOCKING CIRCLES ON THE SIDE.

COLOR

TIGER 650 (TR6R)—	} Pacific Blue
TROPHY 650 (TR6C)—	
BONNEVILLE (T120R)—	Tiger Gold

Paint is available in aerosol containers only.

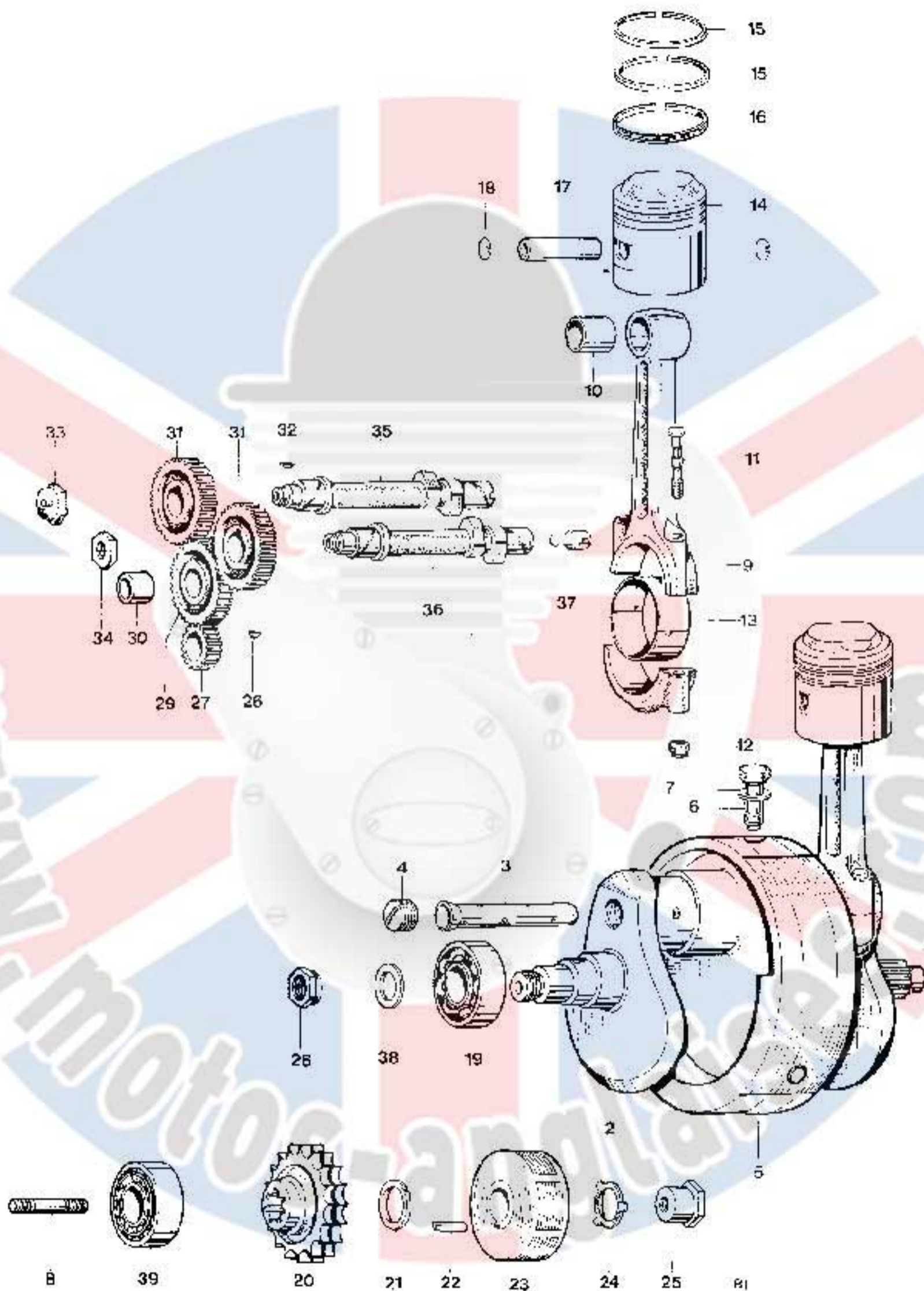


FIG. 1. CRANKSHAFT AND CONNECTING RODS

CRANKSHAFT AND CONNECTING RODS

1	E12600	CRANKSHAFT AND FLYWHEEL ASSEMBLY	1	
2	E4643	CRANKSHAFT C/W. OIL TUBE	1	
3	E3903	Oil tube	1	
4	E3905	Screwed plug	1	
5	E12425	Flywheel	1	
6	*E12601	Flywheel bolt	3	
7	E11003	Washer	3	
8	E3114	Crankshaft stud (1 3/8 in. O.A.)	1	
9	E9525	CONNECTING ROD	2	
10	E1511	Small end bush	2	
11	E6576	Connecting rod bolt	1	
12	S2016	Self locking nut	4	
13	E3586	Big end bearing (Available in .010 in. and .020 in. undersizes)	4	
14	E9488	PISTON COMPLETE 9 : 1 C.R.	2	
15	E6864	Taper compression ring	4	
16	E6865	Oil control ring	2	
17	E6861	Gudgeon pin (short)	2	
18	E6869	Circlip	4	
19	E1591	Main bearing, right	1	
20	E12662	Motor sprocket, 29 teeth Duplex	1	
21	E4573	Distance piece	1	
22	E100082	Rotor key	1	
23	S4213901	Rotor (99-0739)	1	
24	E3975	Tab washer	1	
25	E3977	Nut	1	
26	E1580	Key	1	
27	E4564	Timing pinion	1	
28	E4565	Nut	1	
29	E6159	INTERMEDIATE WHEEL	1	
30	E400	Intermediate wheel bush	1	
31	E12719	Camshaft wheel	2	
32	E1558	Camshaft key	2	
33	E11007	Inlet camshaft nut	1	
34	E6523	Exhaust camshaft nut	1	
35	E11063	Inlet camshaft	1	
36	E9989	EXHAUST CAMSHAFT	1	
37	E9988	Tachometer drive plug	1	
38	E3300	Clamping washer	1	
39	E2879	Main bearing, left	1	
Not illus.	E12663	Spacer	1	
Not illus.	E8038	Shim (0.010 in.)	Engine sprocket	As required (up to 4)
Not illus.	E12660	Shim (0.030 in.)		As required (up to 4)

* Use D524 Loctite Sealant.

1 REAR WHEEL COMPLETE

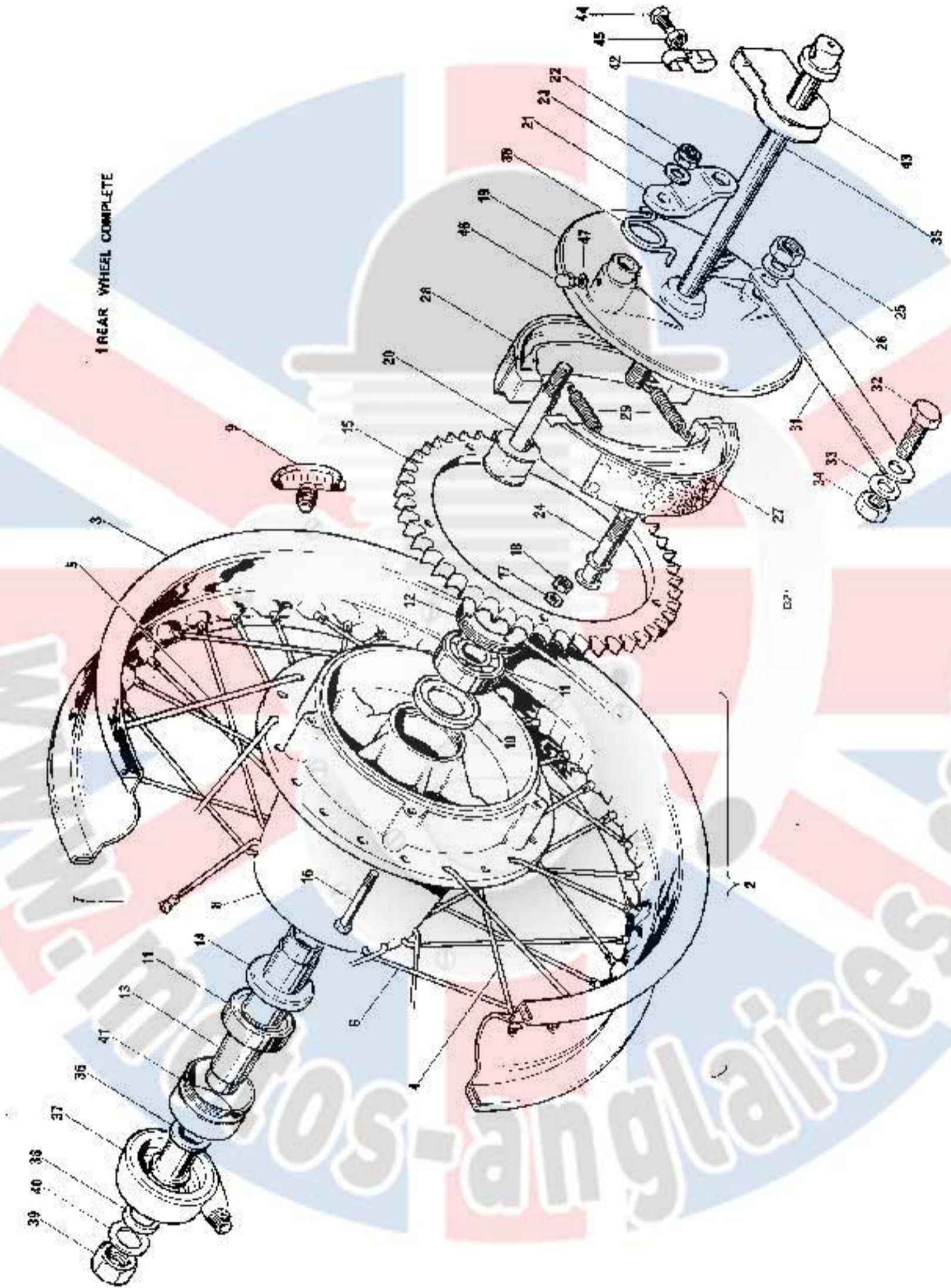


FIG. 22. REAR WHEEL

REAR WHEEL

1	W3968	REAR WHEEL COMPLETE	1	
2	W3782	RIM SPOKES AND HUB ASSEMBLY	1	
3	W3784	RIM (Wm 3 x 18)	1	
4	W3724	Spoke (Inner L.H.)	10	
5	W3725	Spoke (outer—L.H.)	10	
6	W3726	Spoke—R.H.	20	
7	W2294	Nipple... ..	40	
8	W3773	Hub and brake drum	1	
9	W3468	Tyre security bolt... ..	2	
10	W3749	Support ring—L.H.	1	
11	W653	Bearing	2	
12	W3752	Locking ring—L.H.	1	
13	W3753	Spacer	1	
14	W1654	Grease retainer—R.H.	1	
15	W3747	Sprocket 47 teeth	1	
16	14-0207	Bolt	5	} Sprocket to hub
17	D2320	Washer	5	
18	14-1301	Nut	5	
19	W3856	Brake anchor plate	1	
20	W3872	Brake cam	1	
21	W3877	Brake lever	1	
22	14-1303	Nut	1	
23	D2331	Washer	1	
24	W3870	Brake pivot	1	
25	14-0305	Nut	1	} Brake pivot to torque arm
26	D2431	Washer	1	
27	W3925	Brake shoe complete (leading)	1	
28	W3926	Brake shoe complete (trailing)	1	
29	W2328	Return spring (brake shoe)	2	
30	W3880	Return spring (brake lever)	1	
31	F12656	Brake torque arm	1	
32	14-0133	Bolt	1	} Torque arm to frame
33	W2330	Washer	2	
34	14-1304	Nut	1	
35	W3965	Wheel spindle	1	
36	W3750	Distance piece inner	1	
37	D3213	Speedometer drive gearbox	1	
38	W3746	Distance piece outer	1	
39	14-1307	Nut	1	} Wheel spindle
40	F12266	Washer	1	
41	W3751	Speedometer drive ring	1	
42	F13082	Cover plate—swinging arm fork end	2	
43	W3742	Chain adjuster	2	
44	14-0107	Screw	2	} Chain adjuster
45	14-0301	Nut	2	
46	D1841	Grease nipple	1	
47	WE170	Fibre washer	1	

STANDARD HARDWARE SPECIFICATION BOLTS

Part No.	Material	Thd. dia.	Length under head	Min. length of thread	Hexagon A.F.
S1822	Steel	$\frac{5}{16}$ " UNF	$\frac{1}{2}$ "	$\frac{3}{4}$ "	0.500"
S1910	"	$\frac{3}{8}$ " UNF	$\frac{1}{2}$ "	$\frac{1}{2}$ "	0.565"
S1919	"	$\frac{1}{2}$ " UNC	$\frac{1}{2}$ "	$\frac{7}{8}$ "	0.500"
S2010	"	$\frac{1}{4}$ " UNF	$\frac{1}{8}$ "	$\frac{3}{8}$ "	0.375"
14-0101	"	$\frac{1}{4}$ " UNF	$\frac{1}{2}$ "		0.438"
14-0102	"	$\frac{1}{4}$ " UNF	$\frac{3}{8}$ "		0.438"
14-0103	"	$\frac{1}{4}$ " UNF	$\frac{1}{2}$ "		0.438"
14-0113	"	$\frac{3}{8}$ " UNF	$\frac{3}{8}$ "		0.500"
14-0114	"	$\frac{5}{16}$ " UNF	$\frac{3}{8}$ "		0.500"
14-0115	"	$\frac{1}{2}$ " UNF	$\frac{3}{8}$ "		0.500"
14-0128	"	$\frac{3}{8}$ " UNF	1"		0.563"
14-0208	"	$\frac{1}{4}$ " UNF	$\frac{3}{4}$ "		0.438"
14-0216	"	$\frac{3}{8}$ " UNF	$\frac{1}{2}$ "	$\frac{3}{4}$ "	0.500"
14-0217	"	$\frac{1}{2}$ " UNF	$\frac{1}{2}$ "	$\frac{3}{4}$ "	0.500"
14-0219	"	$\frac{5}{16}$ " UNF	$\frac{1}{2}$ "	$\frac{3}{4}$ "	0.500"
14-0220	"	$\frac{5}{16}$ " UNF	$\frac{1}{2}$ "	$\frac{3}{4}$ "	0.500"
14-0225	"	$\frac{1}{2}$ " UNF	3"	$\frac{3}{8}$ "	0.500"
14-0228	"	$\frac{1}{2}$ " UNF	4"	$\frac{3}{8}$ "	0.500"
14-0234	"	$\frac{3}{8}$ " UNF	$\frac{1}{2}$ "	1"	0.563"
14-0236	"	$\frac{3}{8}$ " UNF	$\frac{3}{4}$ "	1"	0.563"
14-0239	"	$\frac{3}{8}$ " UNF	3"	1"	0.563"
14-0240	"	$\frac{3}{8}$ " UNF	$3\frac{1}{4}$ "	1"	0.563"
14-0242	"	$\frac{3}{8}$ " UNF	4"	1"	0.563"
14-0251	"	$\frac{1}{2}$ " UNF	$2\frac{3}{4}$ "	$1\frac{1}{2}$ "	0.625"
14-6102	"	$\frac{1}{4}$ " UNC	$\frac{5}{8}$ "		0.438"
14-6115	"	$\frac{5}{16}$ " UNC	$\frac{7}{8}$ "		0.500"

NUTS

Part No.	Material	Thd. dia.	Hexagon A.F.	Thickness	Remarks
S778	Steel	No. 10 UNF	0.375"	0.225"	Cleaveloc
S1852	"	$\frac{7}{16}$ " UNF	0.437"	0.330"	Philidas
S1906	"	$\frac{1}{4}$ " UNF	0.438"	0.188"	Plain
S1908	"	$\frac{1}{2}$ " UNF	0.438"	0.313"	Plain
S1914	"	$\frac{3}{8}$ " UNF	1.125"	0.250"	Plain
S2012	"	$\frac{3}{8}$ " UNF	1.313"	0.438"	Plain
S2013	"	$\frac{3}{8}$ " UNF	1.313"	0.313"	Plain
S2014	"	$\frac{3}{8}$ " UNF	1.313"	0.438"	Plain
14-0301	"	$\frac{1}{4}$ " UNF	0.438"	0.224"	Plain
14-0302	"	$\frac{5}{16}$ " UNF	0.500"	0.271"	Plain
14-0401	"	$\frac{1}{4}$ " UNF	0.438"	0.161"	Lock
14-0402	"	$\frac{5}{16}$ " UNF	0.500"	0.192"	Lock
14-0403	"	$\frac{3}{8}$ " UNF	0.563"	0.224"	Lock
14-0701	"	$\frac{1}{4}$ " UNF	0.438"	0.203"	Philidas
14-0702	"	$\frac{5}{16}$ " UNF	0.500"	0.246"	Philidas
14-0703	"	$\frac{3}{8}$ " UNF	0.563"	0.296"	Philidas
14-1201	"	$\frac{1}{4}$ " UNF	0.438"	0.285"	Stiffnut
14-1202	"	$\frac{5}{16}$ " UNF	0.500"	0.335"	Stiffnut
14-1301	"	$\frac{1}{4}$ " UNF	0.438"	0.245"	Stiffnut
14-1302	"	$\frac{5}{16}$ " UNF	0.500"	0.290"	Stiffnut
14-1303	"	$\frac{3}{8}$ " UNF	0.563"	0.320"	Stiffnut
14-1304	"	$\frac{7}{16}$ " UNF	0.688"	0.375"	Stiffnut
14-1305	"	$\frac{1}{2}$ " UNF	0.750"	0.435"	Stiffnut
14-1902	"	$\frac{5}{16}$ " UNF	0.500"	0.361"	Nyloc
14-1903	"	$\frac{3}{8}$ " UNF	0.563"	0.375"	Nyloc

SCREWS

Part No.	Type of head	Material	Thd. dia.	Length under head	Type of drive
S1916	Cheese head	Steel	$\frac{1}{4}$ " UNC	$1\frac{1}{8}$ "	Cross recess
S1917	Cheese head	"	$\frac{1}{8}$ " UNC	$2\frac{5}{8}$ "	Cross recess
S1918	Cheese head	"	$\frac{1}{8}$ " UNC	$2\frac{3}{8}$ "	Cross recess
S1920	Hex. head	"	$\frac{3}{4}$ " UNC	2 1/4"	
S1929	Countersunk (82°)	"	$\frac{1}{4}$ " UNC	$1\frac{17}{32}$ "	Slot
S2079	Cheese head	"	No. 10 UNF	$\frac{1}{2}$ "	Pozidrive
14-0604	Cheese head	"	$\frac{1}{4}$ " UNF	$1\frac{1}{2}$ "	Cross recess
14-6505	Countersunk (82°)	"	$\frac{1}{4}$ " UNC	$2\frac{7}{8}$ "	Cross recess
14-6607	Cheese head	"	$\frac{1}{4}$ " UNC	$1\frac{1}{8}$ "	Cross recess
14-6608	Cheese head	"	$\frac{1}{4}$ " UNC	1"	Cross recess
14-6609	Cheese head	"	$\frac{1}{2}$ " UNC	$1\frac{1}{2}$ "	Cross recess
14-7019	Socket head	"	$\frac{5}{16}$ " UNC	$2\frac{7}{8}$ "	Hex. socket
14-7024	Socket head	"	$\frac{7}{8}$ " UNC	2"	Hex. socket

WASHERS—PLAIN

Part No.	Material	i/dia.	o/dia.	Thickness
S25-1	Steel	0.273"	0.563"	0.048"
S25-2	Steel	0.398"	0.750"	0.063"
S25-3	Steel	0.336"	0.625"	0.063"
S25-6	Steel	0.531"	1.031"	0.092"
S25-13	Steel	0.266"	0.469"	0.064"

WASHERS—SPRING

Part No.	Material	i/dia.	o/dia.	o/c height	Thickness
S26-1	Spring Steel	$\frac{2}{8}$ " clearance	$\frac{13}{32}$ "	$\frac{7}{16}$ "	0.104"
S26-2	" "	$\frac{1}{4}$ " clearance	$\frac{13}{32}$ "	$\frac{7}{16}$ "	0.064"
S26-16	" "	$\frac{17}{32}$ "	$\frac{1}{4}$ "	$\frac{7}{32}$ "	0.040**
S648	" "	$\frac{5}{14}$ " clearance	$\frac{1}{2}$ "	$\frac{8}{32}$ "	0.080"

** Double coil.

PARTS REQUIRED FOR 5 SPEED GEARBOX—OPTIONAL

1	E12791	Crankcase—climng side	...	...	...	...	...	...	1
2	D3500	Oil seal	...	...	...	...	...	...	1
3	E3789	Cover plate	...	...	...	...	...	...	1
4	D3493	High gear bearing	...	...	...	...	...	...	1
5	D3512	Oil seal	...	...	...	...	...	...	1
6	T4360	Gearbox camplate	...	...	...	...	...	...	1
7	T4364	Selector fork—M/S 4th gear	...	...	...	...	...	...	1
8	T4366	Selector fork—L/S 3rd gear	...	...	...	...	...	...	1
9	T4368	Selector fork—L/S 1st gear	...	...	...	...	...	...	1
10	T4372	M/S High gear	...	...	...	...	...	...	1
11	D3511	Needle roller bearing	...	...	...	...	...	...	2
12	D3500	Oil seal	...	...	...	...	...	...	1
13	T4432	Main shaft	...	...	...	...	...	...	1
14	T4376	M/S 4th gear	...	...	...	...	...	...	1
15	T4377	M/S 3rd gear	...	...	...	...	...	...	1
16	T4380	M/S 1st and 2nd gear	...	...	...	...	...	...	1
17	T4371	Layshaft	...	...	...	...	...	...	1
18	T4384	L/S 4th gear	...	...	...	...	...	...	1
19	D3494	Circlip	...	...	...	...	...	...	1
20	T4383	L/S high gear	...	...	...	...	...	...	1
21	T4387	L/S 3rd gear	...	...	...	...	...	...	1
22	T4388	L/S 2nd gear	...	...	...	...	...	...	1
23	T4391	L/S 1st gear	...	...	...	...	...	...	1
24	D3494	Circlip	...	...	...	...	...	...	1
25	T4381	Driving dog	...	...	...	...	...	...	1
26	T4407	Gearbox inner cover	...	...	...	...	...	...	1
27	T4402	Leaf spring	...	...	...	...	...	...	1
28	T4363	Quadrant	...	...	...	...	...	...	1
29	T4374	Plunger quadrant	...	...	...	...	...	...	1
30	T4403	Plunger	...	...	...	...	...	...	2
31	T4397	Gearbox sprocket—19T	...	...	...	...	...	...	1
32	T4398	Gearbox sprocket—18T	...	...	...	...	...	...	1
33	T4396	Locknut	...	...	...	...	...	...	1
34	T4395	Locking washer	...	...	...	...	...	...	1