



# "MAD METRICS"

New Parts for T-Type M.G.s

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The "Mad Metrics" in question were used by Morris Motors for many years, as a result of buying up the Hotchkiss works (they were French manufacturers of machine guns who "relocated" away from the advancing Germans during WWI). They are a fine metric thread of 8mm x 1.0mm pitch, and are used in all places on the XPAG engine and gearbox instead of 5/16" BSF. Where marked "13mm head" they are H.T. mass-produced bolts, and therefore very cheap. They can be tightened quite satisfactorily using a 5/16" BSF socket. Main bearing studs are also fine thread, but all others are standard metric with metric heads where indicated (unless they are BSP, used for oil pipe bolts, which have BSF/BSW sized heads).

Most engine parts are common to XPAG engines as fitted to TB, TC, TD and TF. Some will even fit the TA & S, V, W engines - although most are different. The majority of TA engine bolts are available to order.

Front and rear axle parts will fit TA, TB & TC, and many are common to MMM cars. If you don't see it listed, just ask!

Pt. No.	Description	No. Req.	Price ea.
XA001	Cylinder head stud, EN24T, rolled threads	10	£1.75
XA002	Cylinder head nut, EN16T	10	£0.75
XA003	Main bearing stud, EN24T, rolled threads	6	£2.25
XA004	Main bearing stud nut, slotted as original	6	£2.25
XA005	Sump bolt, side, 20mm long, H.T. (13mm head)	10	£0.25
XA005a	Sump bolt, side, 20mm long, EN16T (5/16" BSF head)	10	£1.00
XA006	Sump bolt, rear (1/4" BSF deep slotted head)	2	£1.50
XA007	Sump bolt, front (1/4" BSF deep slotted head)	2	£1.50
XA008	Bellhousing bolt, 25mm long, H.T. (13mm head)	10	£0.25
XA008a	Bellhousing bolt, 25mm long, EN16T (5/16" BSF head)	10	£1.00
XA009	Timing cover bolt, rear (13mm head) - use XA005	2	£0.25
XA010	Timing cover bolt, short, H.T. (13mm head)	3	£0.80
XA010a	Timing cover bolt, long, H.T. (13mm head)	2	£1.20
XA011	Rocker pedestal bolt, large, H.T. (17mm head)	4	£1.00
XA012	Rocker pedestal bolt, small, H.T. (13mm head)	4	£1.20
XA013	Lock tab washer for XA011/012	4	£0.50
XA014	Water pump stud, long	1	£1.00
XA015	Water pump stud, short	1	£1.00
XA016	Mad metric 8mm nut, for above (13mm AF)	2	£0.10
XA016a	Mad metric 8mm nut, correct spanner size (5/16" BSF)	2	£0.25
XA017	Water pump bolt, long, use XA008	1	£0.25
XA018	Water pump bolt, short, use XA005	1	£0.25
XA019	Water elbow bolt, use XA008	4	£0.25
XA019a	Water elbow stud (use XA016 or 016a nuts)	2	£1.00
XA020	Head rear cover bolt, use XA005	4	£0.25
XA021	Rocker cover stud	2	£1.25
XA022	Tappet cover stud	3	£1.00
XA022a	Tappet cover tube nut, brass	3	£2.00
XA023	Exhaust manifold stud	4	£1.25
XA024	Exhaust manifold nut - use XA016	4	£0.10

Pt. No.	Description	No. Req.	Price ea.
XA025	Exhaust down-pipe stud, 10mm as original	3	£1.00
XA026	Exhaust down-pipe nut, brass to suit above	3	£0.50
XA027	Clutch cover bolt - use XA005	6	£0.25
XA028	Starter motor bolt (Allen skt. head)	3	£0.50
XA028a	Starter motor bolt (orig. 3/8" BSF head)	3	£1.50
XA029	Flywheel fixing bolt, HT (Allen skt. head)	4	£1.50
XA030	Sump baffle bolt	4	£0.25
XA031	Oil pump bolt, long (88mm), 1/4" BSF head	2	£1.00
XA032	Oil pump bolt, medium (83mm) , 1/4" BSF head (TC & early TD use 4 short & 2 medium)	2/4	£1.00
XA033	Oil pump bolt, short (65mm), 1/4" BSF head (TD>14223 use 2 short, 4 medium)	2/4	£1.00
XA034	Block side oil gallery plug	5	£0.80
XA034a	Block, internal oil gallery plug	2	£0.50
XA035	Camshaft bearing locking bolt	2	£2.20
XA036	Timing chain tensioner bolt, Metric head	2	£0.60
XA036a	Timing tensioner spring	1	£1.50
XA037	Fan blade bolt, TB/TC (8mm head)	4	£0.25
XA038	Fan blade bolt, TD/TF (8mm head)	4	£0.25
XA039	Sump plug, solid brass, correct head, TB/C/D/F	1	£5.00
XA039a	Sump plug, solid brass, correct head, TA, use GB001	1	£5.00
XA040	Sump plug, as XA039, with magnet	1	£5.50
XA040a	Sump plug, as XA039a, with magnet	1	£5.50
XA041	Oil pump relief valve cap, brass, 25mm x 1.0mm thread	1	£4.50
XA042	Core plug set, 6 small + 2 large	1	£5.00
XA042a	Core plug for block, large (48mm.)	2	£0.75
XA042b	Core plug for block, small (35mm.)	6	£0.75
XA042c	Core plug for block, camshaft (45mm)	1	£0.75
XA043	Distributor Clamp Bolt	1	£2.50
XA044	Lip-seal for front of crankshaft, Viton rubber	1	£4.00
XA045	'Dowty' washer, external oil pipe to head	4	£0.40
XA046	'Dowty' washer, pump/filter banjo, large (use with XA048)	3	£0.40
XA047	'Dowty' washer, pump/filter banjo, small	3	£0.40
XA048	Banjo bolt for external oil filter (to suit XA046/47)	3	£5.00
XA049	Head gasket, 'Banana' water holes	1	£25.00
XA049a	Head gasket, Round holes	1	£30.00
XA050	Sump gasket	1	£7.50
XA051	Exhaust Manifold gasket, TC/TD	1	£2.50
XA051a	Exhaust Manifold gasket, TD Mk. II/TF	1	£2.50
XA052	Down Pipe gasket	1	£4.00
XA053	Rocker Cover gasket	1	£4.00
XA054	Side Cover gasket	1	£2.50
XA055	Water Pump gasket	1	£0.40
XA056	Thermostat gasket	1	£0.40
XA057	Water Elbow (bypass) gasket	1	£0.40
XA058	Water Outlet gasket	1	£0.40
XA059	Rear Head Water Cover gasket	1	£0.70
XA060	Timing Cover gasket	1	£1.00
XA061	Engine Bearer Plate gasket	1	£0.50
XA062	Oil Pump gasket, TC	1	£0.70
XA062a	Oil Pump gasket, TD/TF	1	£0.70
XA063	Oil Pickup gasket, TC	1	£0.40
XA063a	Oil Pickup gasket, TD/TF	1	£0.40

Pt. No.	Description	No. Req.	Price ea.
XA064	Rear Main gasket	1	£2.00
XA065	Oil Thrower gasket	1	£0.40
XA066	Timing Chain	1	£10.00
RA001	Halfshaft, EN24T, 50 tons tensile, N/TA/TB/TC	2	£35.00
RA001a	Halfshaft, EN24T, 50 tons tensile, F/J/L/P	2	£35.00
RA002	Rear hub, N/S, TA/TB/TC	1	£60.00
RA002a	Rear hub, N/S F/J/L/P	1	£60.00
RA003	Rear hub, O/S, TA/TB/TC	1	£60.00
RA003a	Rear hub, O/S, F/J/L/P	1	£60.00
	Pressing shaft into hub	A/R	£5.00
RA004	Rear hub bearing carrier, TA/TB/TC, EN24T steel, studded	2	£85.00
RA004a	Rear hub bearing carrier, F/J/L/N/P, EN24T steel, studded	2	£85.00
RA005	Studs for RA004/004a	12	£2.50
RA006	Set of 12 3/8" BSF thin nuts & washers for above	1	£2.00
RA006a	Set of 8 5/16" BSF C/S brake drum screws	1	£2.00
RA007	6208ZZ rear hub bearing, with or without 2 dust shields	2	£13.00
RA008	M208 heavy-duty bearing	2	£33.00
RA009	Rear hub oil seal, double lip, TA/B/C (fits in RA004)	2	£2.50
RA009a	Rear hub oil seal, double lip, MMM (fits in RA004a)	2	£2.50
RA014	SPECIAL! Rear hub bearing nut kit (50mm AF hexagon nuts with lip-seal, plus tab washers)	1	£30.00
RA015	Spare lip -seals (change every 5000 miles)	2	£2.50
RA016	Locking tab washers for RA14 or std. Hub nuts	2	£0.50
RA017	SPECIAL! Crown Wheel & Pinion, High Ratio 37/8 (4.625:1)	1	£330.00
RA017a	TA original ratio 39/8 (4.875:1) Crown Wheel & Pinion	1	£330.00
RA017b	TC original ratio 41/8 (5.125:1) Crown wheel & Pinion	1	£330.00
RA017c	NEW! for MMM, 39/8 (4.875:1) CW & P for F/J/L/P	1	£325.00
RA018	MRJ25 (=N305) rear pinion roller thrust bearing	1	£25.00
RA019	3MDJT25 original brass cage front pinion thrust ball brg.	1	£40.00
RA020	3305 replacement front pinion thrust ball bearing	1	£25.00
RA021	Pinion Taper Roller bearings, set of 2 (replaces RA18/19)	1	£32.00
RA021a	Set of Shims for RA021, with full machining instructions	1	£2.50
RA022	Machining of pinion housing for RA021 conversion	1	£25.00
RA023	LJT35 (=7207) diff. carrier thrust ball bearing	2	£16.00
RA024	30207 diff. carrier taper roller (replaces above)	2	£13.00
RA025	Diff. Housing cap oil-seal modern. Inc. machining	1	£25.00
RA026	Setting-up C.W.& P. inc. new H.T. bolts	A/R	£150.00
RA027	Complete diff. overhaul (includes. RA017,21,22,24,25,26)	A/R	£550.00
RA028	NEW DESIGN! Half-shafts in EN24T, TAPER fit in hub	2	£85.00
RA029	Machining of old (or new) hub to suit above (RA028/29 eliminates the hub splines & allows re-use of some old hubs)	A/R	£25.00
RA030	Crown wheel adjuster nut locking washer (laser cut), TA/B/C	2	£7.50
RA030a	Crown wheel adjuster nut tab washer (MMM, early TA type)	2	£0.50
RA031	Crown wheel adjuster nut, TA/B/C (also fits MMM with RA030)	2	£10.00
RA032	Lock bolt for RA031	2	£1.50
RA033	Pinion Drive Flange, TA/B/C	1	£55.00
RA034	Nut for RA033 (thread suits RA017a/b/c)	1	£5.00
RA035	NEW! Differential housing, re-manufactured, four star, for use with your original spider and gears (T-type and MMM)	1	£250.00
RA036	Drain plug, rear axle, improved design	1	£5.00
RA036a	Drain plug, rear axle, with Magnet	1	£5.50
FA001	Front axle to spring holding bolts	8	£5.50

Pt. No.	Description	No. Req.	Price ea.
FA002	Front hub, N/S, studs fitted, MMM & TA/B/C	1	£60.00
FA003	Front hub, O/S, studs fitted, MMM & TA/B/C	1	£60.00
FA004	Replacement studs for above	A/R	£2.50
FA005	Set of nuts & washers for above - use RA006	1	£2.00
FA006	LJ25 (=6205) inner hub ball bearing	2	£6.50
FA007	MJ20 (=6304) outer hub ball bearing	2	£6.50
FA008	Front hub bearing spacer	2	£5.50
FA009	Front hub taper rollers, set of 4 with shims, full instructions inc.	1	£40.00
FA010	Set of shims for two hubs, with instructions	1	£5.00
FA011	Hub oil seal, double lip	2	£2.50
FA012	King pin cotter bolt, correct pattern, large head	2	£4.00
FA013	Stub axle nut, LHS (LH thread)	1	£2.50
FA014	Stub axle nut, RHS (RH thread)	1	£1.00
FA015	Stub axle special dished washer	2	£2.00
FA016	Stub axle, inner seal spacer ring	2	£5.50
FA017	Wheel spinner, MG logo	4	£17.50
FA018	Kingpin, complete set includes. FA012	1	£68.00
GB001	Gearbox drain plug, standard = TA engine sump plug	1	£5.00
GB001a	Gearbox drain plug, with magnet = - do -	1	£5.50
GB002	Gearbox top cover stud	6	£1.00
GB003	Gearbox top cover nut - use XA016	6	£0.10
GB004	Gearbox top cover gasket	1	£1.50
GB005	Gearbox rear cover gasket	1	£1.00
GB006	Gearbox rear mounting bolts	4	£0.50
GB007	First motion shaft bearing, MJ35G (6307N)	1	£15.00
GB008	Mainshaft bearing, 3/MJ25G (6305N)	1	£12.00
TA001	Helicoil, 8 x 1.0mm, stainless steel	A/R	£0.35
TA001a	Helicoil, 10 x 1.5mm, stainless steel	A/R	£0.35
TA002	Helicoil insertion kit, 8 x 1.0mm, with 10 inserts	1	£30.00
TA002a	Helicoil insertion kit, 10 x 1.5mm, with 10 inserts	1	£32.00
TA003	Hire of above kits (deposit of £33 required)		£3.00
TA004	6 x 1.0mm taper tap, carbon steel 6 x 1.0mm taper tap, H.S.S.	A/R	£2.00 £6.00
TA005	6 x 1.0mm plug tap, carbon steel 6 x 1.0mm plug tap, H.S.S.	A/R	£2.00 £6.00
TA006	6 x 1.0mm thread die, carbon steel 6 x 1.0mm thread die, H.S.S.	A/R	£4.00 £12.00
TA007	8 x 1.0mm taper tap, carbon steel 8 x 1.0mm taper tap, H.S.S.	A/R	£7.00 £21.00
TA008	8 x 1.0mm plug tap, carbon steel 8 x 1.0mm plug tap, H.S.S.	A/R	£7.00 £21.00
TA009	8 x 1.0mm thread die, carbon steel 8 x 1.0mm thread die, H.S.S.	A/R	£8.00 £24.00
TA010	10 x 1.5mm taper tap, carbon steel 10 x 1.5mm taper tap, H.S.S.	A/R	£2.00 £6.00
TA011	10 x 1.5mm plug tap, carbon steel 10 x 1.5mm plug tap, H.S.S.	A/R	£2.00 £6.00
TA012	10 x 1.5mm thread die, carbon steel 10 x 1.5mm thread die, H.S.S.	A/R	£4.00 £12.00
LE001	Contact set, #407050, genuine Lucas in box	1	£9.00
LE001a	Contact set replacement, CI type	1	£3.50
LE002	Rotor arm, #400051, orig. Lucas, very rare!	1	£25.00

Pt. No.	Description	No. Req.	Price ea.
LE002a	Rotor arm, original pattern, CI type	1	£5.00
LE003	Distributor base-plate, soldered condenser, #409613, original Lucas	1	£25.00
LE003a	Distributor base plate, removable condenser	1	£12.50
LE003b	Replacement condenser for LE003a	1	£3.50
LE004	TC Starter motor switch, #ST10, Lucas	1	£15.00
LE005	TC Starter motor brush set, #255659	1	£6.00
LE006	TC Dynamo brush set, #203148	1	£6.00
LE007	TC Starter Bendix anti-rattle spring	1	£4.00
BR001	Brake master cylinder repair kit	1	£12.00
BR002	Brake master cylinder return spring	1	£1.00
BR003	Slave cylinder rubbers, set, front	2	£5.00
BR004	Slave cylinder rubbers, set, rear	2	£5.00
BR005	Brake linings with rivets, set of 4	2	£22.50
BR006	Brake pipe protection coil, stainless steel, enough for 1 car	1	£15.00

MANY OTHER ITEMS NOT LISTED - JUST ASK!

All commonly used Stainless Steel wood-screws in stock e.g. 1 1/2" x no.10, pack of 12 2.00

Bulkhead bolts, plated, with 2 large washers, spring washer & nut 1.00

ALL nuts & bolts for T-types, BSF HT (plated or stainless) either in stock or any size to order.

ANY tap or die either in stock or available, BSF, BSW, BSP, UNF, metric etc. etc.

N.B. "Mad Metrics" is independent of the T-Register: please make cheques payable to R.A. Furneaux.

Postage is extra to above prices. Thus considerable savings may be made, especially on heavier items, by collecting from Stoneleigh M.G. Spares day (Feb.), M.G.C.C. Silverstone (July,) or Beaulieu Autojumble (September ).

Whilst all parts supplied (except original Lucas) are newly manufactured to the highest possible specifications, no liability can be accepted in respect of loss or damage arising from their use. It is the purchaser's responsibility to ensure that they are suitable for the purpose intended.

April 2009