

SECTION
FLYWHEEL, CLUTCH, GEARBOX

SUB SECTIONS.
FLYWHEEL, CLUTCH, GEARBOX.

SECTION SHEET No.	SUB-SECTION	INFORMATION SUPPLIED BY
1 _a	FLYWHEEL	
2 _a	CLUTCH	MR. J. R. THOMPSON
3 _a	CLUTCH	
4 _a	GEARBOX	
5 _a	GEARBOX	MR. W. V. APELLSKY

ENGINEERING TECHNICAL DATA

Model	M.G. 2 Seater Series M.G.A. Twin Cam (EX187)	Book No. TD/G.1.
Section	FLYWHEEL, CLUTCH & GEARBOX.	Sheet No. 1 of 5
Sub-Section	FLYWHEEL	Date

WEIGHT: 21.1/4 lbs Complete with Starter Ring.		
MAXIMUM RUN OUT:		
RING GEAR	120 Teeth 12.041/12.046" o/dia 11.9 P.C.D.	
METHOD OF LOCATING FLYWHEEL:	3.8745/3.8755" Crankshaft Spigot Setscrews secured with Bend over Washers.	
FLYWHEEL DIAMETER:	11.625 ins dia.	
TYPE OF PILOT BEARING:	Porous Bronze (Fitted In Crankshaft). (Oil Impregnated)	
DIMENSIONS, PILOT BEARING:	.6277/.6282" dia (Bore) .6825/.6925" Long.	
FLYWHEEL SECURING BOLTS.	TORQUE POUNDAGE: TYPE OF LOCKING:	420/480 lbs/ins.
NUMBER, DIMENSIONS AND P.C.D. OF FIXING BOLTS:	6 - 3/8" UNF Bolts on 3.125" P.C.D.	
NUMBER, DIMENSIONS AND P.C.D. OF DOWELS:	2 .281" x 9/16" on 9.875" P.C.D.	

Details of Modifications	Change Point	Note Reference
Issue 1.		Section F. 1

ENGINEERING TECHNICAL DATA

Model	M.G. 2 Seater Series M.G. Twin Cam (EX187)	Book No.	TD/C.1.
Section	FLYWHEEL, CLUTCH & GEARBOX	Sheet No.	2 of 5
Sub-Section	CLUTCH	Date	

MAKE: Borg & Beck (Schedule No. HB8/98)
TYPE: 8" Single Dry Plate.
MODEL: 8 ABC.
TYPE OF HUB: 1x 10 Spline
FRICITION PLATE SIZE: 8 ins.

LINING:	TYPE, MATERIAL: Wound Yarn (Reinforced). OUTSIDE DIAMETER: 8.00 ins. 203.2 mms. INSIDE DIAMETER: 5.75 ^{1/2} ins. 146.05 mms. LINING SURFACE AREA (ONE SIDE): 22.5 sq. ins. THICKNESS: Including Steel Ring ins. 3.175 mms. EFFECTIVE RADIUS: 3.50 ¹²⁵ ins. 88.9 mms.
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CALCULATED FRICTION LIMIT TORQUE: 100 lb.ft. | **Coefft. Friction** .27

FRICITION PLATE DAMPER SPRINGS:	QUANTITY: 6. COLOUR IDENTIFICATIONS: Maroon/Lt Green.
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NUMBER OF, TYPE SIZE OF RIVETS: 20 off. Semi Tubular .146" dia x .211" o/all G/S Head .31" dia.
 .140" dia x .195"

PRESSURE PLATE:	MATERIAL: Malleable Iron SIZE: 8.28 ins. dia. (Outside)
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PRESSURE SPRINGS:	NUMBER: 6 COLOUR IDENTIFICATION: Light Grey. RATE: 282 lbs/ins. FREE LENGTH: Min 2.27 ins. 57.658 mms. NUMBER OF ACTIVE COILS: 6 OUTSIDE DIAMETER: 1.13 ins. 28.702 mms. INSIDE DIAMETER: .778 ins. 19.761 mms.
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Details of Modifications	Change Point	Note Reference

Issue 1. **Section** F. 2

ENGINEERING TECHNICAL DATA

Model	M.G. 2 Seater Series M.G.A. 4win Cam (EX187)	Book No. TD/C.1.
Section	FLYWHEEL, CLUTCH & GEARBOX	Sheet No. 3 of 5
Sub-Section	CLUTCH	Date

	S.W.G. 7.	S.W.G.
PRESSURE SPRINGS	TEST LENGTH:	1.56 ₇ ins. 39.62₇ mm.
	TEST PRESSURE:	195 - 205 lbs.
	TOTAL SPRING LOAD:	(Mean) 1200lbs

SURFACE PRESSURE:

CLUTCH CLAMPING LOAD:

THRUST BLOCK BEARING: SIZE: 2.25" o/dia x 1.25" in/dia x .57 Thick

MATERIAL: Metallic Graphite

ACTUATING MECHANISM: Hydraulic

CLAMPING BOLT AND DOWEL SIZES: 5/16" dia
.2485"/.2480"

DISTANCE OF BEARING PLATE FROM: FLYWHEEL FACE: 2.43" (Mean)
PRESSURE PLATE FACE: 2.145" (Mean)

MAX VARIATION IN FINGER HEIGHT:

CLUTCH PEDAL FREE TRAVEL: Nil

RELEASE LEVER RATIO (PEDAL TO THRUST PAD): 11.7: 1 Overall

Details of Modifications	Change Point	Note Reference
Issue 1.		Section F.3

ENGINEERING TECHNICAL DATA

Model	M.G. 2 Seater Series M.G.A. Twin Cam (KX187)	Book No. TD/3.1.
Section	FLYWHEEL CLUTCH & GEARBOX	Sheet No. 4 of 5
Sub-Section	GEARBOX	Date

TYPE: 4 - Speed Synchronesh
MATERIAL OF BOX: BS 1490 IM1. - M or IM4. M or IM21. M.
CHANGE SPEED LEVER MOUNTING AND METHOD OF CONTROL: Mounted on Tower on Rear Extension. By Shaft Running Forward to Selectors.

	CLOSE (COMPETITIONS)			SYNCHROMESH
	- GEAR -	- STANDARD RATIO -	- STANDARD RATIO -	
GEARBOX RATIOS.	1st	3.6363 : 1	2.444 : 1	No
	2nd	2.2443 : 1	1.618 : 1	Yes
	3rd	1.3736 : 1	1.266 : 1	Yes
	Top	1.000 : 1	1.000 : 1	Yes
	Reverse	4.7522 : 1	3.199 : 1	No

GEARBOX MOUNTING: On Rear Extension.

- BEARINGS -	- TYPE -	- IDENTIFICATION -
CLUTCH SHAFT:	Ball Journal	R & M LJ-1.3/8" G111.
MAINSHAFT SPIGOT:	Needle Rollers	28m/m x 3m/m (18 off)
SPEED ON:		
LAYSHAFT:	Needle Rollers	R & M 16.4 m/m
TAIL BEARING:	Ball Journal	R & M MJ-1".

END FLOAT (Nominal Fitted):
 MAINSHAFT:
 LAYSHAFT CLUSTER: .002" / .003"
 SYNCHRO HUB 2nd:
 SYNCHRO HUB 3rd & Top:

REVERSE IDLER GEAR:
 CONE ANGLE: Synchro Cone 2nd Speed 7°20'
 3rd Speed 10°10'

Details of Modifications	Change Point	Note Reference
Close ratio (Competitions) added Std. Ratios Corrected	-	TD.MGR.22 TD.MGR.35
Issue 1, 2, 3.		Section F. 4

ENGINEERING TECHNICAL DATA

Model	M.G. 2 Seater Series M.G.A. Twin Cam (EX187)	Book No.	TD/G.1.
Section	FLYWHEEL CLUTCH & GEARBOX	Sheet No.	5 of 5
Sub-Section	GEARBOX	Date	

TORQUE CAPACITY 1st. GEAR:

WEIGHT DRY: 69 lbs

TORQUE TIGHTNESS BELL HOUSING SECURING STUDS: lbs/ins.

LUBRICANT SAE 30

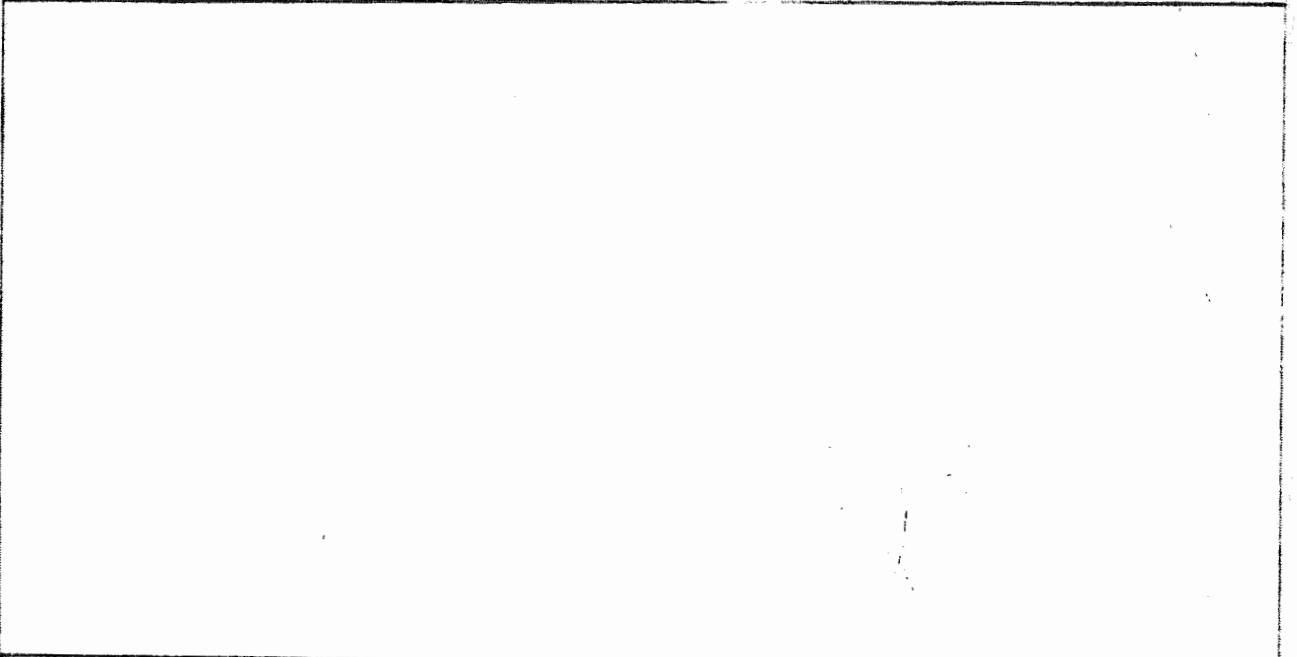
CAPACITIES (POWER UNIT AT INSTALLED ANGLE).	POSITION	FROM DRY STATE.	REFILL AFTER DRAINING.
	NOBLEX		
	DOX	FULL 5 pints	4 pints 9 oz.
	HIGH		

SPEEDOMETER DRIVE GEAR RATIO: 5: 12

SPEEDOMETER CABLE REVS. PER MILE: 1450

SPEEDOMETER CABLE LENGTH.	INNER: . 64.275"/64.103"
	OUTER: 5' 3"

DIRECTION OF ROTATION (viewed from Instrument): Clockwise



Details of Modifications	Change Point	Note Reference
Revised DRY and REWILL		TD/MGR.12
Issue 2		Section F. 5