

GENERAL DATA (SERIES "TD")

ENGINE TYPE	XPAG/TD up to Engine No. 9407. XPAG/TD/2 from Engine No. 9408.
Number of cylinders	Four.
Capacity	1250 c.c. (76½ cu. in.).
B.H.P.	54.4 at 5,200 r.p.m.
Bore	66.5 mm. (2.618 in.).
Stroke	90 mm. (3.543 in.).
R.A.C. rating	10.97 h.p.
Compression ratio	7.25 to 1.
System of cooling	Thermo-siphon—pump and fan assisted.
Radiator hose top	Length 4 in. (10.16 cm.). Diameter 2⅝ in. (5.56 cm.).
Radiator hose bottom	Length 2½ in. (5.71 cm.). Diameter 1½ in. (2.86 cm.).
First oversize bore	+·020 in. (.50 mm.). Actual bore 2.6381 in. (67 mm.).
Second oversize bore	+·040 in. (1.00 mm.). Actual bore 2.6581 in. (67.5 mm.).
Firing order	1-3-4-2.
Piston clearance at pressure face below oil ring	·0021 in. to ·0029 in. (.056 mm. to .071 mm.).
Ring gap	·006 in. to ·010 in. (.152 mm. to .254 mm.).
Number of compression rings	Two.
Width of compression rings	2.25 mm. (.0885 in.).
Number of oil rings	One.
Width of oil ring	4.0 mm. (.1575 in.).
Oil pressure relief valve operates	50 to 70 lb. per sq. in. (3.5 to 5.0 kg./cm.²).
Oil pressure (normal)	40 to 45 lb. per sq. in. (2.8 to 3.2 kg./cm.²).
Gudgeon pin type	Clamped.
Gudgeon pin diameter	<div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;"> ·7087 in. { +·0004 in. +·0006 in. 18 mm. { +·010 mm. +·015 mm. </div> </div>
Fit in piston	Double thumb press.
Fit in connecting rod	Clamped.
Crankpin diameter (standard)	1.772 in. (45 mm.).
Crankpin minimum diameter for regrind	1.722 in. (43.75 mm.).
Connecting rod—length between centres	7.008 in. (178 mm.).
Connecting rod—type of bearing	Shimless, steel-backed, white-metal-lined.
Connecting rod—side clearance	·004 in. to ·006 in. (.10 mm. to .15 mm.).
Connecting rod—diametrical clearance	·0005 in. to ·002 in. (.011 mm. to .056 mm.).
Number of crankshaft bearings	Three.
Type of main bearings	Shimless, steel-backed, white-metal-lined.
Standard main journal diameter	2.047 in. (52 mm.).
Main journals first regrind diameter	2.027 in. (51.49 mm.).
Main journals second regrind diameter (minimum)	2.007 in. (50.98 mm.).
Main bearings—length	Front 1.496 in. (38 mm.). Centre 1.496 in. (38 mm.). Rear 1.575 in. (40 mm.).
Centre main bearing—end clearance	·0014 in. to ·0037 in. (.035 mm. to .095 mm.).
Main bearings—diametrical clearance	·0008 in. to ·003 in. (.020 mm. to .075 mm.).
Crankshaft—end thrust taken on	Centre bearing.
Number of camshaft bearings	Three.
Type of camshaft bearings	White metal (front). Zinc alloy (rear and centre).

GENERAL DATA—continued

Camshaft—bearing clearance	...	...	...	Front .0016 in. to .004 in. (.04 mm. to .10 mm.). Rear and centre .0018 in. to .0037 in. (.045 mm. to .095 mm.).
Camshaft—end thrust taken on	...	...	...	Front end.
Camshaft—end float	...	...	...	.005 in. to .013 in. (.125 mm. to .325 mm.).
Camshaft—drive (type)	...	...	...	Duplex chain, $\frac{1}{2}$ in. pitch, 60 pitches, endless.
Valve timing markings	...	...	...	White chain links and "T" marks on wheels.
Exhaust valve throat diameter	...	...	...	1.024 in. (26 mm.).
Exhaust valve diameter	...	...	...	Head 1.221 in. (31 mm.) ; Stem .315 in. (8 mm.).
Inlet valve throat diameter	...	...	...	1.181 in. (30 mm.).
Inlet valve diameter	...	...	...	Head 1.299 in. (33 mm.) ; Stem .315 in. (8 mm.).
Valve seat angle	...	...	...	30°.
Tappet type	...	...	...	Hollow.
Valve lift—inlet	...	...	...	.315 in. (8 mm.).
Valve lift—exhaust	...	...	...	.315 in. (8 mm.).
Inlet valve opens	...	...	...	11° before T.D.C.
Inlet valve closes	...	...	...	57° after B.D.C.
Exhaust valve opens	...	...	...	52° before B.D.C.
Exhaust valve closes	...	...	...	24° after T.D.C.
Valve spring pressure—shut	...	Inner 31 lb. at 1.753 in. (14.06 kg. at 4.453 cm.). Outer 62 lb. at 1.847 in. (28.12 kg. at 4.692 cm.).	From Engine XPAG/TD/2 No. 24116	5° before T.D.C. 45° after B.D.C. 45° before B.D.C. 5° after T.D.C.
Valve spring pressure—open	...	Inner 43 lb. at 1.438 in. (19.5 kg. at 3.678 cm.). Outer 80 lb. at 1.532 in. (36.29 kg. at 3.89 cm.).		Total 93 lb. (42.18 kg.). Total 123 lb. (55.79 kg.).
Engines up to No. XPAG/TD2/24115 :				
Inlet and exhaust valve working clearance (hot)				.019 in. (.48 mm.).
Engines from No. XPAG/TD2/24116 :				
Inlet and exhaust valve working clearance (hot)				.012 in. (.30 mm.).
Valve guides	...	...	...	Removable.

FUEL SYSTEM

Fuel tank reserve level	...	...	...	Warning light on panel.
Fuel delivery	...	...	...	S.U. electric pump.
Carburettors	...	...	...	S.U. semi-downdraught.
Carburettor needles	...	...	...	Standard—ES. Weak—AP. Rich—EM.

CLUTCH

Type (up to Engine No. 9407)	...	...	...	Borg & Beck 7 $\frac{1}{4}$ in. (18.4 cm.) diameter. Dry plate.
Type (from Engine No. 9408)	...	...	...	Borg & Beck 8 in. (20.3 cm.) diameter. Dry plate.
Facing	...	...	...	Type RYZ on 7 in. diameter clutch. Moulded type on 8 in. diameter clutch.

GEARBOX

GEARBOX					Second, third and top.			
Synchromesh	...	...	...	...	Gearbox	Overall 8/41	Overall 8/39	Overall 9/41
Ratios	...	...	...	Top	1.00	5.125	4.875	4.555
				Third	1.385	7.098	6.752	6.309
				Second	2.07	10.609	10.09	9.429
				Bottom	3.5	17.938	17.06	15.942
				Reverse	3.5	17.938	17.06	15.942

GENERAL DATA—continued

FRONT SUSPENSION AND STEERING

Camber (static position)	Nil (tolerance $\pm 1^\circ$).
Castor angle	$2^\circ \pm \frac{1}{2}^\circ$ with side-members parallel to road.
Toe-in	Nil.
King-pin inclination	9° to $10\frac{1}{2}^\circ$ full bump.
Track	Front $47\frac{1}{2}$ in. (1·203 m.). Rear 50 in. (1·27 m.).
Turning circle	31 ft. 3 in. (9·525 m.).
Wheelbase	7 ft. 10 in. (2·388 m.).
Tyre size	5·50—15.
Tyre pressures	18 lb. per sq. in. (1·27 kg./cm. ²).

REAR AXLE

Type of axle	Semi-floating.
Type of drive	Hypoid.
Ratio	8/41, 8/39 or 9/41.
Adjustment	By spacers and special fixtures.

BRAKES

Type	Lockheed hydraulic two leading shoe (front) (9 in. dia.).
Type of linings	Ferodo MR.19.
Lining size—front	8·75 in. \times 1·5 in. \times 1·87 in. (22·22 cm. \times 3·81 cm. \times 4·7 cm.).
Lining size—rear	8·75 in. \times 1·5 in. \times 1·87 in. (22·22 cm. \times 3·81 cm. \times 4·7 cm.).
Number of rivets	Twelve per lining.

SPRINGS (front)

Type	Coil.
Free length	9·59 in. $\pm \frac{1}{16}$ in. (24·36 cm. \pm 1·58 mm.).
Mean coil diameter	3·238 in. (8·24 cm.).
Number of effective coils	$7\frac{1}{2}$.
Diameter of wire (ground)	·498 in. (1·27 cm.).
Maximum deflection	4·24 in. (10·78 cm.).

SPRINGS (rear)

Type	Half-elliptic.
Length	42 in. (106·7 cm.).
Width	$1\frac{1}{2}$ in. (3·81 cm.).
Number of leaves	Seven.
Thickness of leaves	$\frac{7}{32}$ in. (5·56 mm.).
Camber (free)	4·1 in. (10·4 cm.).
Working load	500 lb. at $\frac{1}{2}$ in. positive camber. (226·8 kg. at 12·7 mm. positive camber.)

HYDRAULIC DAMPERS

Type	Girling or Armstrong.
-------------	-----------------------

ELECTRICAL

Distributor rotation	Counter-clockwise.
Automatic advance	32° on crankshaft.
Contact breaker gap (first type)	·010 in. to ·012 in. (.25 mm. to .30 mm.).
Contact breaker gap (second type)	·014 in. to ·016 in. (.36 mm. to .41 mm.).
Spark plug (engines prior to No. XPAG/TD2/22735)	Champion L.10S (standard equipment) (14 mm.). K.L.G. E.80. Lodge HN or HNP.

GENERAL DATA—continued

Spark plug (engines from No. XPAG/TD2/

22735)	...	...	...	...	...	Champion NA.8.
Spark plug gap	...	...	...	...	...	.020 in. to .022 in. (.50 mm. to .56 mm.).
Ignition timing	...	...	...	...	...	T.D.C. (full retard).
Charging system	...	...	...	...	...	C.V.C.
Battery	...	...	...	...	...	Lucas GTW9A, 51-amp. at 10 hours. 12-volt. Positive earth return.

CAPACITIES

Sump	...	...	...	...	...	9 pints (10.8 U.S. pints ; 5.1 litres) ; from Engine No. 14948, 10½ pints (12.6 U.S. pints ; 5.96 litres).
Gearbox	...	...	...	...	...	1½ pints (1.5 U.S. pints ; .71 litre).
Rear axle	...	...	...	...	...	2½ pints (2.7 U.S. pints ; 1.3 litres).
Cooling system	...	...	...	...	...	12 pints (14.4 U.S. pints ; 6.8 litres).
Brake fluid	...	...	...	...	...	1 pint (1.2 U.S. pints ; .57 litre).
Fuel tank	...	...	...	...	...	12½ gallons (15 U.S. gallons ; 57 litres).

GENERAL DIMENSIONS

Length	...	...	...	...	...	145 in. (3.683 m.).
Width	...	...	...	...	...	58½ in. (1.489 m.).
Height	...	...	...	...	...	53 in. (1.346 m.).
Ground clearance	...	...	...	...	...	6 in. (15.24 cm.).
Weight (unladen)	...	...	...	...	...	18½ cwt. (2,072 lb.) (941 kg.).
Weight (laden and with two passengers)	...	...	...	...	...	22 cwt. (2,464 lb.) (1120 kg.).

TORQUE SPANNER DATA

Cylinder head stud nuts	...	...	...	...	600 lb. ins. (6.9 m./kg.).	50 lb ft
Connecting rod big-end bolts (to next split pin hole)	...	...	...	...	320 lb. ins. (3.7 m./kg.).	26 2/3 lb ft.
Main bearing cap nuts (to next split pin hole)	...	...	...	...	750 lb. ins. (8.6 m./kg.).	62 1/2 lb ft
Steering wheel attachment nut	...	...	...	...	500 lb. ins. (5.75 m./kg.).	41 2/3
Gudgeon pin clamp screw	...	...	...	...	400 lb. ins. (4.6 m./kg.).	33 1/3