\ -	TEAD Dura #1 Data Duraum Title/Uland on JEEATUDES/GUANGES											
YEAR												
1924				Crankcase	Head	Valve gear		Clew v1 pp202-8	Stan Greening and ES Prestwich take 350cc sidecar world records in 1924; but Clew later says that Greening and Vivian (i.e. not ES) Prestwich had taken World records. He doesn't say when but says that their engine was used as the bottom end of the prototype speedway engine.			
1930	????		1930 Prototype	record breaking 350cc bottom end. JAP in small letters	Modified roadster 350cc combustion chamber, twin exhaust ports. Left side inlet, .	Dog-ear rocker standards, exposed rockers and push-rods.	Short 4 stud	Clew pp83-87	Bill Bragg talked to Vivian Prestwich Nov 1929 and suggested a lighter version of the 500cc racing engine for speedway based on the 250cc bottom end [Clew but probably should be 350]. Prototype first raced 1.8.30 after much development. Small batch of replicas made that yea leading to 1931 production.			

YEAR	Dwg # Date Dra	wn Title/Used on	FEATURES/CHANGES							
			Crankcase	Head	Valve gear	Cylinder	Source	Notes		
1931		1931 500cc Dirt Track	JAP at some time in large script on magneto chain cover. No finning.	Possibly alternative type with slimmer dog-ears and single exhaust port.	Dog-ear rocker standards, exposed rockers and push-rods.	Short 4 barrel	Clew p89	In limited production		
	VA G		J.A.P	J-A-P	Left: note smooth crankcases with offset head studs and slender rocker standards with left hand horizontal inlet.	Louis	Paul Stanley measurements and photo below	No drawings apparent. What bearings did rockers have? Most contemporary JAPs had larger dog-ears and rocker bearings. Note front head studs spaced further apart (2.875") than rear (2.500").		

Dwa #	Date Drawn	Title/Used on	FEATURES/CHANGES					
J., g //	Date Brawn	110,000 011		Head	Valve gear	Cylinder	Source	Notes
		1932 500cc Dirt Track	to crankcase both sides. Steel flywheels instead of cast iron, increased diameter of crankpin and little end pin.	left hand side inlet port, bronze guides, 12.5:1 CR, rockers moved from standards to rocker box,	Early type rocker <u>box</u> with double row needle bearings, manually lubed valve guides, enclosed pushrods and single Pilgrim pump.	More finning [maybe part 11238?]	Clew p92-3	Every engine was brake tested at 3,800 rpm for 4 hours then 10 minutes full throttle, 37.8hp @5,750rpm [Clew].
10993	1.1.32	Drivingside Crankcase/ 500cc Racing	Finning to crankcase both sides	,			Factory drawing	Similar, but maybe not identical to dirt track engine; no crankcase drawing known as specifically for dirt track engine.
109??	25.10.31	Timingside Crankcase/ 500cc Racing	Finning to crankcase both sides.					Similar, but maybe not identical to dirt track engine; no crankcase drawing known as specifically for dirt track engine.
11188		no drawing				Long 4 barrel		6.750"/172.5mm long between faces. Later 8/80 also had this part number but with shorter barrel at 6.375/163mm
11237	22.11.31	Cylinder Head/500cc Dirt Track					Factory drawing	
11238		no drawing				Short 4 barrel		6"/152.5 mm long. This part was drawn and maybe available before 5 stud introduced. Supposedly the original short 4 became the long 4 and then the long 5. Is this short 4 a new part for earlier shorter engines. Were they running the short 4 and long 5 at the same time?
		GO				the same to a sa		This early 4 stud head drawing 11237 traced on 20.5.34, maybe for 8/80 development? The 8/80 front (#2) cylinder used this head with 'flat' inlet port.
					The state of the s	Con constitution of the co	SECTION BB	Left photo: finning to crankcase, left-hand horizontal inlet with oil-pot between valve springs and in-line head studs in crankcase
10			A Message Assessed As	Crinder Head	SHORT HICH & GO 2 D TON TORRISON BLYS	200 Maria (Maria	CASE STATE S	
	10993 109?? 11188 11237 11238	10993 1.1.32 109?? 25.10.31 11188 11237 22.11.31 11238	10993	1932 500cc Dirt Track Stiffened up case lugs, finning to crankcase both sides. Steel flywheels instead of cast iron, increased diameter of crankpin and little end pin.	1932 500cc Dirt Track Stiffend up case lugs, finning to crankcase both sides. Steel left hand side inlet port, increased diameter of crankpin and little end pin. 10993 1.1.32 Drivingside Crankcase/ Finning to crankcase both sides standards to rocker box, flatter head shape 10997 25.10.31 Timingside Crankcase/ Finning to crankcase both sides. 11188 no drawing 11237 22.11.31 Cylinder Head/500cc Dirt Track 11238 no drawing	1932 500cc Dirt Track Single exhaust, horizontal to crankcase both sides. Slee flywheels instead of cast from, increased diameter of crankpin and little end pin. Single exhaust, horizontal to crankcase of crankpin and little end pin. Single exhaust, horizontal to crankcase of crankpin and little end pin. Single exhaust, horizontal to crankcase of crankpin and little end pin. Single exhaust, horizontal to crankcase of crankpin and little end pin. Single exhaust, horizontal to crankcase of crankpin and little end pin. Single exhaust, horizontal to crank exhaust of cast from the crankpin and little end pin. Single exhaust, horizontal to crankcase of crankpin and little end pin. Single exhaust, horizontal to crank exhaust end side in crankcase both sides. Single exhaust, horizontal to characteristic exhaust end sides in crankcase both sides. Single exhaust, horizontal to characteristic exhaust end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust, horizontal to characteristic end sides in crankcase both sides. Single exhaust,	1932 500cc Dirt Track Siffered up case lugs, finning to cranicase both sides. Steel flywheels instead of cast front, increased direnter of cranicase hoth sides in the port of cranicase both sides. Steel flywheels instead of cast front, increased direnter of cranicase both sides in the port of cranicase both sides in the port of cranicase both sides. Steel flywheels instead of cast front process moved from shandards to rocker box. Alter head shape in the process moved from shandards to rocker box. Steel purplem. In the process moved from shandards to rocker box. Steel purplem. In the process moved from shandards to rocker box. Steel purplem. In the process moved from shandards to rocker box. Steel purplem. In the process moved from shandards to rocker box. Steel purplem. In the process moved from pump. In the process moved from pump. 10997	Head Valve gear Cylinder Source Source Source Source Cylinder Source Source Cylinder Source Source Cylinder Source Source Cylinder Source Source

	 Title/Used on	FEATURES/CHANGES			T =	I _	
		Crankcase	Head	Valve gear		Source	Notes
33	1933 500cc Dirt Track		New head with 12.5deg downdraught and rhs inlet port.	Modified rocker box with oil feed oil to rocker bearings and valve guides. Double pilgrim pump instead of single.	Long 4', 3/4" longer	Clew p95	Clew says 40bhp @ 6,000rpm, but this seems optimistic. There w also a rhs flat inlet (see photo)
11827 11887	Cylinder Head/500cc Dirt Track 1933		Below left: shallow rocker box, enclosed pushrods, oil feed to rocker box, downdraft inlet port Below: right-hand horizontal inlet Below right: 5 stud head followed similar 4 stud head			Factory drawing	4 stud head below was drawn 30.12.32 but not traced and apprountil early 1934
						Similar and the state of the st	

YEAR	Dwa #	Date Drawn	Title/Used on	FEATURES/CHANGES						
12/41	Dug "	Date Brawn	1111070000	Crankcase	Head	Valve gear	Cylinder	Source	Notes	
1934			1934 500cc Dirt Track	Rotary valve deleted and flapper valve substituted			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Clew, p96	Confusion as to whether 5 stud was introduced for 1934 or 1935. Certainly drawn for 1934 but maybe not in production engine until tested?	
	122??	15.12.33	T/S Crankcase/500cc Dirt Track 1934					Factory drawing	See next page	
	12286F	?.?.33	Cylinder Head Casting		5 stud			Factory drawing	F for foundry probably?	
	12286	1.12.33	Cylinder Head/500cc Dirt Track 1934		5 stud			Factory drawing	New pattern	
			Below: probably 1934 with shallow rocker boxes and unusual valve spring covers			Below: Drawing 122??		V-	New 4 stud head below was drawn 30.12.32 but not traced and approved until early 1934. The 5 stud equivalent followed (inset) but it is not clear when the changeover was made	
	land to							Account of the second of the s		

YEAR	Dwa #	Date Drawn	Title/Used on	FEATURES/CHANGES						
				Crankcase	Head	Valve gear	Cylinder	Source	Notes	
1935			1935 500cc Dirt Track	Heads were leaking prior to this so 5 studs introduced with more metal under ex port added as well.		Revised, deeper rocker box with valve spring covers.		Clew, p96	You can see in the 4 stud above head how the side with the ports looks a lot stiffer which is why,maybe, the 5th stud was needed to even things up	
	12297/ 18249		no drawing					Sample	6"/152mm, short 5. Obviously drawn 1933, maybe not used until following year	
	12298	19.12.33 Tcd 17.12.34	Drivingside Crankcase/500cc Dirt Track 1935	5 stud				Factory drawing	See below for T/S Crankcase/500cc Dirt Track 1934	
	12539	22.8.34	Rocker box (Top Half)/500cc Dirt track 193?					Factory drawing	Drawing of bottom half also extant	
							Same Land Land	English Market M	CONST. Services A Service State Stat	

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YEAR	שעם #	Date Drawn			Head	Valve gear	Cylinder	Source	Notes
					Head	valve gear	Cylinder		
1936			1936 500cc Dirt Track	Main bearings altered and crankcase changed to				Clew, p96	Clew says aluminium rods used 1935/6 then dropped.
				Electron					
	13678	?	Drivingside Crankcase	Aluminium - perhaps error or				Factory drawing	
				prior to Electron option?					
	13679	20.5.36 or	Timing-side	Electron				Factory drawing	Main bearing housing modified for Electron?
		20.8.36	Crankcase/500cc Dirt						
			Track 1936						
	14132F	?.?.?.	Timina side Oscalesce					Factor describes	For a standard and a
	141325	۲.۲.۲.	Timing-side Crankcase Casting					Factory drawing	For pattern only, not machining
			Casting						
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YEAR	Dwg #	Date Drawn	Title/Used on	FEATURES/CHANGES							
	ŭ			Crankcase	Head	Valve gear	Cylinder	Source	Notes		
1949 on			1949 500cc Dirt Track	Reversion to 4 stud, allegedly with revision to head casting.	Enlarged Inlet valve, Dural conrod		Short 4, 1/4" shorter		Clew says some earlier short 4 stud engines were made, presumably as prototypes. Revised head drawing not extant.		
	17857	?.1.50	Timing Side Crankcase/500cc Mk1	Dry sump sloper	Mk1 type		Mk1 Alfin type	factory drawing			
	19740	25.3.52	Timing Side Crankcase/500cc speedway dry sump	Dry Sump				Factory drawing			
			A A A A A A A A A A A A A A A A A A A	The state of the s	Annua AA				Types in early early 1950s brochure were Type 4 standard speedway): Type 6 aluminium crankcase wet sump engine with iron head and Alfin barrels for car use; Type7 was wet sump and 2lb heavier than the Type 4 but why? Type 8 was dry sump with alloy barrels and iron head on crankcase as Dwg 19740 (left). There were also various capacities of a dry-sump 'sloper' engine.		
			7 9 7 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9		SIDE CRAMICASE .A. PRESTWICH INDUSTRIES LTD.	The CC. Section CC. Section S	MM 8001				
	20374	Tcd ?.?.5?	Timing Side Crankcase/500cc type 7 & 4					Factory drawing	Not clear why new part number.		

YEAR	Dwg # Date Drawn Title/Used on	e Drawn Title/Used on FEATURES/CHANGES										
		Crankcase	Head	Valve gear	Cylinder	Source	Notes					
				35 28 28 28 35 35 35 35 35 35 35 35 35 35 35 35 35	- 3f							
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1967	1967 500cc Speedway Type 4B		Larger inlet port to suit Ar Concentric 932 carburett	mal or								