

# Technical Data

## "Interceptor" Series II Engine

Cubic Capacity ... ..	736 c.c.	Valve Spring Free Length—	
Stroke ... .. Nominal	93 mm.	Inner ... ..	1½ in.
Bore ... .. Nominal	71 mm.	Outer ... ..	1⅞ in.
	Actual 70.92 mm./2.792 in.	(Renew when reduced by ⅛ in.)	
Rebore to .020 in. oversize when wear exceeds .0065 in.		Valve Timing with .020 in. clearance. See Page 9.	
Compression Ratio ... ..	8.5 to 1	Camshaft Bearing Internal Diameters—	
Piston Diameter:—		Timing Side ... ..	.8135/.8125 in.
Bottom of Skirt—		Driving Side ... ..	.750 in.
Fore and Aft ... ..	2.788 in.	(after assembly)	
Top Lands ... ..	2.7675 in.	Camshaft Bearing Diameters—	
Skirt is tapered and oval turned.		Timing Side ... ..	.8115/.8110 in.
Piston Rings—		Driving Side ... ..	.7490/.7485 in.
Width—Plain Rings ... ..	.0625/.0635 in.	Cam Lift—	
Scraper Ring Assembly	.1510/.1560 in.	Exhaust ... ..	.360 in.
Radial Thickness ... ..	2.883/3.085 mm.	Inlet ... ..	.360 in.
Gap when in unworn Cylinder ...	.015/.020 in.	Valve Lift (approx.)—	
Clearance in grooves ... ..	.001/.003 in.	Exhaust ... ..	.350 in.
Renew Piston Rings when gap exceeds ⅛ in.		Inlet ... ..	.350 in.
Oversize Pistons and Rings available	+ .020 in.	Timing Sprocket ... ..	12 Teeth
Piston Boss Internal Diameter ...	.7498/.7500 in.	Camshaft Sprockets ... ..	24 Teeth
Gudgeon Pin Diameter ... ..	.7498/.7500 in.	Timing Chain—Type ... ..	Single No. 110038 endless
Con. Rod Small End Internal Diameter	.7507/.7505 in.	Length ... ..	66 Pitches
Big End Internal Diameter Con. Rod	2.0190/2.0185 in.	Width ... ..	.225 in.
Big End Internal Dia. Bearing Shells	1.8750/1.8755 in.*	Pitch ... ..	.375 in.
Crank Pin Diameter, Timing Side ...	1.8744/1.8740 in.	Roller ... ..	.250 in.
Crank Pin Diameter, Driving Side ...	1.8741/1.8737 in.	Contact Breaker ... ..	Half Engine Speed
Driving Side Main Ball Bearing—		Points ... ..	.015 in.
Type ... ..	Hoffman 145 or R and M—LJ45	Timing—Advanced ... ..	.355 in. before T.D.C. (32°)
Outside Diameter ... ..	85 mm.	Engine Sprocket ... ..	29 Teeth
Inside Diameter ... ..	45 mm.	Clutch Sprocket ... ..	56 Teeth
Width ... ..	19 mm.	Final Drive Sprocket ... ..	20 Teeth
Timing Side Main Roller Bearing—		Primary Chain—Type ... ..	Duplex No. 114038 endless
Type ... ..	Hoffman R145 or R and M—LR45	Length ... ..	92 Pitches
Outside Diameter ... ..	85 mm.	Width ... ..	.628 in.
Inside Diameter ... ..	45 mm.	Pitch ... ..	.375 in.
Width ... ..	19 mm.	Roller ... ..	.250 in.
Rocker Inside Diameter ... ..	.5627/.5622 in.	Feed Oil Pump—Speed ... ..	1/6 Engine Speed
Rocker Bearing Inside Diameter ...	.5622/.5617 in.	Piston Diameter ... ..	.37500/.37475 in.
Rocker Spindle Diameter ... ..	.5617/.5615 in.	Stroke length ... ..	.5 in.
Inlet Valve Stem Diameter ... ..	.3430/.3425 in.	Sparking Plug—Lodge 2HLN, Champion N4 KLG FE 80, or Autolite AG2. For high speed running over long distances, use Lodge 3HLN, Champion N3, KLG FE.100, or Autolite AG 901.	
Exhaust Valve Stem Diameter ... ..	.3410/.3405 in.	Diameter ... ..	14 mm.
Valve Guide Internal Diameter ... ..	.3437/.3447 in.	Reach ... ..	¾ in.
Valve Guide External Diameter ... ..	.6275/.6270 in.	Gap ... ..	.018/.022 in.
Valve Guide Hole in Cylinder Head Dia.	.625/.626 in.		
Tappet Stem Diameter ... ..	.3747/.3744 in.		
Tappet Guide Internal Diameter ... ..	.3758/.3753 in.		
Tappet Guide External Diameter ... ..	1.0125/1.0130 in.		
Tappet Guide Hole in Crankcase Dia.	1.011/1.010 in.		
Tappet Clearance with cold engine—			
Inlet ... ..	.006 in.		
Exhaust ... ..	.007 in.		

\*Assumes .0005 in. "stretch" of eye of rod and cap due to interference fit of bearing shells.

