

Engine Clearances and Dimensions

ENGINE CLEARANCES AND DIMENSIONS					
	New	Wear Limit		New	Wear Limit
CYLINDER			PUSH RODS		
Diameter.....	3.1875-3.1885		Diameter.....	.9994-.9996	.001
Out of Round.....		.003	Bore Diameter.....	1.000-1.0005	.002
Taper or Max. Wear.....		.004	Clearance in Bore.....	.004-.0011	.003
PISTON, STEEL			Push Rod Length.....	1.722-1.723	*1.710
* Skirt Clearance.....	.0025-.004	.005	Valve Lash		
PISTON, ALUMINUM			Intake.....	.010-.012	.013
* Skirt Clearance.....	.0015-.0026	.0045	Exhaust.....	.014-.016	.017
PISTON RINGS			CRANKSHAFT		
Side Clearance.....			Journal Diameter		
Compression Rings.....	.0015-.0035	.004	Main.....	2.248-2.249	
Oil Control Rings.....	.0010-.0025	.004	Crankpin.....	2.0935-2.0945	
End Gap.....	.012-.017	.035	Out of Round		
PISTON PIN			Main Crankpin.....		.0015
Pin Diameter.....	.7501-.7504		Taper		
** Clearance in Piston.....	.0001-.0005		Main Crankpin.....		.001
*** Clearance in Rod.....	.0002-.0005		Bearing Clearance		
VALVES (in tractors 8N-to 42160)			Main.....	.001-.003	.005
Stem Diameter			Crankpin.....	.0013-.0035	.005
Intake and Exhaust.....	.3105-.3115	.004	End Play.....	.002-.006	.008
Clearance in Guide			CAMSHAFT		
Intake.....	.0025-.0045	.004	Bore Diameter.....	1.7985-.1.7990	
Exhaust.....	.0015-.0035	.006	Journal Diameter.....	1.7965-1.17970	.0015
Seat Angle.....	45°		Bearing Clearance.....	.001-.002	.004
Spring Test.....	37-40 lbs. @ 2½"	36 lbs.	End Play.....	.0015-.004	.005
VALVES (in tractor 8N-42 161 and up)			TIMING GEAR BACKLASH.....	.003-.004	.006
Stem Diameter			OIL PUMP GEAR BACKLASH.....	.003-.004	.006
Intake.....	.3410-.3420	.004			
Exhaust.....	.3405-.3415	.004			
Clearance in Guide					
Intake.....	.0020-.0040	.004			
Exhaust.....	.0025-.0045	.006			
Seat Angle.....	45				
Spring Test.....	41-44 lbs. @ 1.80"	36 lbs.			

* 6-10 lbs. pull on ½ inch wide .003 feeler gauge.
 ** Thumb push fit.

*** Slip fit.

* Regrind limit.



Best internet source
 of information and help
 for old Ford tractors.

www.ntractorclub.com