

Engine Specs

Plane Type	Flight Regime	Time (mins)	RPM	Pres	Temps Optimal (Max)	Remarks
	X=Cruise N=Nominal CL=Climb I=International C=Combat E=Emergency 150=High Octane B=Boosted T=Takeoff MW=MW-50				O=Oil W=Water CH=Cylinder Head	Mx=Mixture AT=Altitude Throttle S=Supercharger I=Ignition BI=Blip B=Boost R=RPM P=Prop Pitch F=Feather O=Oil Radiator W=Water Radiator IC=Inlet Cowl Shutters OC= Outlet Cowl Shutters T=Turbosupercharger TP=Throttle/Prop Link TT=Throttle/Turbo Link A=Auto Control M=Manual Control AM=Auto or Manual Control



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I-16 type 24	N B	∞ 5	2200 2300	915 1065	O 55-90 (125) CH 120-200 (205)	Mx(AM), S(M), B, R(M), O(M), IC(M) S@3000m Auto Mx@100%
LaGG-3 series 29	N	∞	2700	1050	O 90-100 (115) W 90-100 (105)	Mx(M), S(M), R(M), O(M), W(M) S@2500m Lean Mx@3000-4000m
La-5 series 8	N B	∞ 5	2400 2400	950 1140	O 55-90 (125) CH 140-210 (215)	Mx(AM), S(M), B, R(M), O(M), IC(M), OC(M) S@3000m
La-5FN series 2	N B	∞ 5	2400 2500	1000 1180	O 65-75 (85) CH 180-215 (250)	S(M), R(M), O(M), IC(M), OC(M) S@3500m
MiG-3 series 24	N B	∞ 10	2050 2050	1040 1240	O In 40-80 (85) O Out 115 (120) W 80-110 (120)	Mx(AM), R(M), O(M), W(M) Auto Mx@50% Boost Mx@100%
Yak-1 series 69	N	∞	2550	1050	O 90-100 (115) 70-85 (100)	Mx(M), S(M), R(M), O(M), W(M) S@2500m Lean Mx@3000-4000m
Yak-1b series 127	N	∞	2550 2700	1050	O 90-100 (115) 70-85 (100)	Mx(M), S(M), R(M), O(M), W(M) S@2300m
Yak-7b series 36	N	∞	2600 2700	1050	O 90-100 (115) 70-85 (100)	Mx(M), S(M), R(M), O(M), W(M) S@2000m
Yak-9 series 1	N	∞	2550 2700	1050	O 90-100 (115) 70-85 (100)	Mx(M), S(M), R(M), O(M), W(M) S@2000-2400m Lean Mx@3000-4000m
Yak-9(T) series 1	N	∞	2550 2700	1050	O 90-100 (115) 70-85 (100)	Mx(M), S(M), R(M), O(M), W(M) S@2000-2400m Lean Mx@2000-2400m

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U2VS	N T/E	∞ 5	1640/1700 1750/1840		O 70-80 (115)	Mx(M)
IL2 Mod 1941	N B	∞ 10	2050 2150	1180 1280	O In 40-80 (85) O Out 115 (120) W 80-110 (120)	Mx(AM), R(M), O(M), W(M) Auto Mx@50%
IL2 Mod 1942	N B	∞ 10	2050 2150	1180 1280	O In 40-80 (85) O Out 115 (120) W 80-110 (120)	Mx(AM), R(M), O(M), W(M) Auto Mx@50%
IL2 Mod 1943	N B	∞ 5	2050 2350	1200 1360	O In 40-80 (85) O Out 115 (120) W 80-110 (120)	Mx(AM), R(M), O(M), W(M) Auto Mx@50%



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		Time (min s)	RPM	Pres	Temps Optimal (Max)	Remarks
P-38J-25	X	∞	2600	44.0	O 105 (115) W 85 (105)	Mx(AM), R(AM), P(AM), F, O(AM), W(AM) Mx Auto Lean@30% or Auto Rich@70%
	C	15	3000	54.0		
	E	5	3000	60.0		
P-39L-1	N	∞	2600	37.2	O 60-80 (105) W 105-115 (125)	Mx(AM), R(AM), P(AM), O(M), W(M) WEP Thr@100% Mx Full Rich@100% Mx Auto Lean@33% or Auto Rich@66%
	C	15	3000	42.0		
	T	5	3000	51.0		
	B	2	3000	60.0		
P-40E-1	N	∞	2600	37.2	O 70-85 (90) W 105-115 (125)	Mx(AM), R(AM), P(AM), OC(M) Mx Auto Lean@33% or Auto Rich@66%
	C	5	3000	42.0		
	T	2	3000	45.5		
P-47D-22/28	X	∞	2550	42.0	O 60-95 (100)	Mx(AM), T(AM), B, R(AM), P(AM), O(M), IC(AM), OC(AM), TP(M), TT(M) Mx Auto Lean@60% or Auto Rich@85%
	X150	∞	2550	42.0		
	C	15	2700	52.0		
	C150	15	2700	52.0		
	E	5	2700	64.0		
	E150	5	2700	70.0		
P-51D-15	X	∞	2700	46.0	O 80 (90) W 100-110 (121)	Mx(AM), S(AM), R(M), O(AM), W(AM) Mx Run@70% or Full Rich@100% S(M) to low gear only
	X150	∞	2700	54.0		
	C	15	3000	61.0		
	C150	15	3000	63.0		
	E	5	3000	67.0		
	E150	5	3000	75.0		

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		Time (mins)	RPM	Pres	Temps Optimal (Max)	Remarks
Spad 13.C1			2200		W 80	Mx(M), W(M) Spin L: Automatic Spin R: Common, throttle down
S.E.5a			2300		W 93	Mx(M), W(M) Spin: Stick Back, into spin, hold opposite rudder
Sopwith Camel			1550			Bl, Mx(M) Spin L: Stick Back, into spin, hold opposite rudder Spin R: Common, throttle down
Sopwith Dolphin			2200		W 93	Mx(M), W(M) Spin: Stick Back, into spin, hold opposite rudder
Bristol F2B FII/FIII			2500		W 93	Mx(M), W(M) Spin L: Common Spin R: Automatic
Nieuport 28			1550			Bl, Mx(M) Spin L: Stick Fwd, into spin, hold opposite rudder Spin R: Automatic
Spad 7.C1 150hp			2000		80	Mx(M) Spin: Stick Fwd, into spin, hold opposite rudder, engine off
Airco D.H.4.			2100		90	Mx(M), W(M) Spin L: Common Spin R: Automatic

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Albatros D.Va			1700		W 88	W(M) Spin: Common
Fokker Dr.1			1500			Bl, Mx(M) Spin: Automatic
Fokker D.VII Fokker D.VII(F)			1700		W 90 W 88	W(M) W(M), AT Spin: Automatic
Pfalz D.IIIa			1700		W 90	W(M) Spin: Common
Halberstadt CL.II (200hp)			1700		W 85	W(M) Spin L: Common Spin R: Automatic
Fokker D.VIII			1500			Bl, Mx(M) Spin: Automatic
Pfalz D.XII			1700		W 88	W(M), AT Spin: Stick Fwd, into spin, hold opposite rudder, engine off

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Spitfire Mk Vb	N	∞	2650	+7	O 70-85 (105) W 105-115 (125)	Mx(AM), B, R(M), W(M) Auto Mx@100%
	C	30	2850	+9		
	E	5	3000	+16		
Spitfire Mk IXe	N	∞	2650	+7	O 90 (105) W 105-115 (135)	S(AM), R(M), W(AM) S(M) to low gear only W(M) to full open only S(150)@9,000'
	N150	∞	2650	+7		
	I	60	2850	+12		
	I150	60	2850	+12		
	E	5	3000	+18		
	E150	5	3000	+21		
Spitfire Mk XIV	N	∞	2400	+7	O 90 (105) W 105-115 (135)	S(AM), R(M), W(AM) S(M) to low gear only W(M) to full open only S(M w150)@14,500 or B<+5
	N150	∞	2400	+7		
	I	60	2600	+9		
	I150	60	2600	+9		
	E	5	2750	+18		
	E150	5	2750	+21		
Tempest Mk V series 2	X	∞	3150	+4.5	O 60-90 (95) W 65-125 (130)	Mx(AM), S(M), R(M), W(M) S@9500' Auto Mx@50%
	CL	60	3700	+7		
	C	5	3700	+9		
	C (11)	5	3700	+12		
Hurricane Mk II	N	∞	2650	+7	O 50 (105) W 90 (135)	S(M), B, R(M), W(M) S@13,000' *= Supercharger Low/High Gear
	CL	60	2850	+9		
	C (+11)	5	3000	+12/+14*		
	C (+14)	5	3000	+14/+16*		
Typhoon Mk Ib	X	∞	3150	+4.5	O 60-90 (95) W 65-125 (130)	Mx(AM), S(M), R(M), W(M) S@9500' Auto Mx@50%
	CL	60	3700	+7		
	C	5	3700	+9		
	C(11)	5	3700	+12		

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FW-190 A-3	N	∞	2300	1.20	O In 60-70 (85)	P(AM)
	C	30	2400	1.32	O Out 105 (120)	
	E	3	2700	1.42	CH 180 (220)	
FW-190 A-5	N	∞	2300	1.20	O In 60-70 (85)	B(With U17 Strike Mod Only, below 1000m, 100% Thr), P(AM), OC(M)
	C	30	2400	1.32	O Out 105 (120)	
	E	3	2700	1.42	CH 180 (220)	
	U17	10	2700	1.65		
FW-190 A-6	N	∞	2300	1.20	O In 60-70 (85)	B(With G3 Strike Mod Only, below 1000m, 100% Thr), P(AM), OC(M)
	C	30	2400	1.32	O Out 105 (120)	
	E	3	2700	1.42	CH 180 (220)	
	G3	10	2700	1.65		
FW-190 A-8	N	∞	2300	1.20	O In 60-70 (85)	B(Below crit alt for S 1 st or 2 nd gear), P(AM), OC(M)
	C	30	2400	1.32	O Out 105 (120)	
	E	3	2700	1.42	CH 180 (220)	
	E2	10	2700	1.58/1.65		
FW-190 D-9	N	∞	3000	1.42		B, W(AM)
	C	30	3250	1.51	O 40-100 (120)	
	E	3	3250	1.7	W 55-100 (110)	
	MW	10	3250	1.8		
MC-202 series VIII	N	∞	2200	1.23	O In 60-75 (85)	B, P(AM), O(M), W(M)
	C	5	2400	1.35	O Out 90-100 (110)	
	B	1	2500	1.45	W In 70-80 (90)	
					W Out 94 (100)	

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BF-109 E-7	N	∞	2200	1.15	O In 30-75 (80) O Out 95 (105) W 94 (100)	P(AM), O(M), W(M)
	C	30	2300	1.23		
	E	5	2400	1.30		
	B	1	2400	1.40		
BF-109 F-2	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2400	1.25		
	E	3	2600	1.35		
	B	1	2800	1.42		
BF-109 F-4	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2500	1.30		
	E	1	2700	1.42		
BF-109 G-2	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2600	1.30		
BF-109 G-4	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2600	1.30		
	E	1	2800	1.42		
BF-109 G-6 (BF-109 G-6 Late)	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2600	1.30		
	E	1	2800	1.42		
	(MW)	(10)	(2800)	(1.70)		
BF-109 G-14	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2600	1.30		
	E	10	2800	1.70		
BF-109 K-4	N	∞	2400	1.35	O 70-80 (85) W 100-102 (110)	P(AM), W(AM)
	C	30	2600	1.45		
	E (DB)	10	2800	1.80		
	E (DC)	10	2800	1.98		
BF-110 E-2	N	∞	2200	1.15	O In 30-75 (80) O Out 95 (105) W 94 (100)	P(AM), F, O(M), W(M)
	C	30	2300	1.23		
	E	5	2400	1.30		
	B	1	2400	1.40		
BF-110 G-2	N	∞	2300	1.15	O 70-80 (85) W 100-102 (110)	P(AM), F, O(M), W(M)
	C	30	2600	1.30		
	E	1	2800	1.42		
ME-262 A	N	∞	8400			I
	M	15	8700			

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A-20B	X	∞	1705	27.5/30	O 80-95 (105) CH 140-240 (260)	Mx(A), S(M), R(A), F, IC(M), OC(M) S@9500' Mx Auto Lean@33% Mx Auto Rich@66%
	N	∞	2300	36/40		
	C	5	2400	43/41		
PE-2 series 35	N	∞	2700	910	O 90-100 (110) W 70-85 (100)	Mx(M), S(M), P(M), O(M), W(M) S@2700m Lean Mx@3000-4000m
PE-2 series 87	N	∞	2700	1050	O 90-100 (115) W 70-85 (100)	Mx(M), S(M), R(M), W(M) S@2300m Lean Mx@3000-4000m



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		Time (mins)	RPM	Pres	Temps Optimal (Max)	Remarks
JU-87 D-3	N	∞	2250	1.15	O 90 (105) W 80 (110)	S(AM), R(M), O(M), W(M)
	C	30	2400	1.25		
	T	1	2600	1.42		
JU-88 A-4	N	∞	2250	1.15	O 100 (130) W 80 (110)	S (AM), R(M), F, OC(M)
	C	30	2400	1.25		
	T	1	2600	1.42		
HE-111 H-6	N	∞	2250	1.15	O 90 (105) W 80 (110)	S(AM), R(M), F, O(M), W(M)
	C	30	2400	1.25		
	T	1	2600	1.42		
HE-111 H-16	N	∞	2250	1.15	O 90 (105) W 80 (110)	S(AM), R(M), F, O(M), W(M)
	C	30	2400	1.25		
	T	1	2600	1.40		
HS-129 B-2	N	∞	2350	1.10	O 60-75 (125)	Mx(AM), P(AM), F
	C	30	2750	1.25		
	T	1	3030	1.50		
JU-52/3M g4e	N	∞	1925		O In 60 (80) O Out 80 (100)	Mx(M), O(M), IC(M) Lean Mx@1000m
	C	30	1975			
	T	5	2050			