

## GERMAN AIRCRAFT OPERATION TABLE (Battle of Moscow)

		(Unit)	Bf 109 E-7	Bf 109 F-2	Bf 110 E-2	Ju 88 A-4	MC.202 Series VIII	Ju 52/3m g4e
<b>TEMPERATURES(max)</b>								
Water or cylinder	deg C		100°	110°	100°	110°	100° (output)	
Oil (INTAKE)	deg C		80°	85°	80°	-	85°	80°
Oil (OUTPUT)	deg C		105°	-	105°	130°	110°	100°
<b>ENGINE SETTINGS</b>	<b>model</b>		<b>DB-601A (p)</b>	<b>DB-601N (p)</b>	<b>DB-601A(p)</b>	<b>Jumo-211J (n)</b>	<b>RA. 1000 (p)</b>	<b>BMW-132a</b>
<b>Normal Operation</b>	RU: Hg							
	RPM		1.15	1.15	1.15	1.15	1.23	1925
	GER: ATA		2200	2300	2200	2250	2200	
<b>Combat / Climb</b>	RU: Hg							
	RPM		1.23	1.25	1.23	1.25	1.35	1975
	GER: ATA		2300	2400	2300	2400	2400	30 min
<b>Emerg Power/ Boost</b>	RPM		1.3 / 1.4	1.35 / 1.42	1.3 / 1.4	1.42	1.45	2050
	GER: ATA		2400	2600 / 2800	2400	2600	2500	5 min
	RPM		5min / 1min	3 min / 1 min	5 min / 1 min	1 min	1 min	
<b>Supercharger Stage 1</b>	meters		-	-	-	-	-	-
<b>Supercharger Stage 2</b>	meters		-	-	-	-	-	-
<b>Notes</b>			Use manual prop pitch at min for taxi	Use manual prop pitch at min for taxi	Use manual prop pitch at min for taxi	Flaps: Retr Take off: 25 degr L andon: 50	Boost effective Above 3000 (boost = RPM	Lean mix above 1 km
<b>AIRSPEEDS</b>								
<b>Takeoff – Rotation</b>	km/h		140...170	145...175	180...220	170...210	160...190	100...120
<b>Optimal Climb speed</b>	km/h							
<b>Landing – Final</b>	km/h		190	190	180	220	200	140...155
<b>Landing – Touchdown</b>	km/h		135	140	150	155	145	95...110
<b>Glideslope</b>	km/h							
<b>Stall speed (in flight conf.)</b>	km/h		152...159	151...168	148...182	188...205	151...166	105...117
<b>Max dive speed</b>	km/h		850	850	740	670	850	330
<b>Levers</b>	Throttle		Throttle	Throttle	Throttle	Throttle	Throttle	Throttle
	Water rad		Water rad		Water rad Qbtn1		Water rad	
	Oil rad		Oil rad		Oil rad Qbtn2	Outlet cowl sh.	Oil rad	Oil rad
	Mixture							Mixture
	RPM					RPM		
<b>TRIM</b>			STAB	STAB	ELV/RUD	RUD	STAB	
<b>TailWheel</b>			Tailwheel lock	Tailwheel lock	Left eng 20% more for taxi & initial take off		Tailwheel lock	
<b>Other (Dive break, Sirene)</b>			Stab +1 for TO	Stab +1 for TO		Air break	Stab neutral for TO & LO	Stab 0 for T/O, +2 in flight, -1.5 for L/O

JU 52 Before taking off, set the stabilizer to flight position +2°, engage the link and then move the stabilizer to take-off position 0° - flaps will be extended to 25°.  
 - When airborne, move the stabilizer back to flight position (flaps should also fully retract) and unlink these controls.  
 - Before landing, set the stabilizer to flight position +2°, engage the link and then move the stabilizer to landing position -1.5° - flaps will be fully extended to 40°