

# Modern Vehicle Data- United States

Direct Fire Mode

18a

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TYPE	Commando APC	Pershing M46	Patton M47	Patton M48A2	M60A1	M113 APC	M114 A1E1	M108/109	M110/107 T245	M53/55	Sheridan M551	Duster M42	Walker Bulldog M41
<b>Turret Armor mm*</b>													
Front	30	110	120(15)	200(30)	250(45)	14(45)	11	30(15)	None	40(30)	75(60)	14	80(30)
Flank	20(30)	100	100(15)	100(30)	100(30)	14	11	20(30)	None	14	75(45)	14	75(30)
Rear	20(30)	100	75	100(30)	80	14	11	20	None	14	50(45)	14	40
Top	12	35	25	25	25	10	11	15	None	15	25	None	25
<b>Hull Armor mm*</b>													
Glacis	14(60)	107(45)	107(45)	100(60)	100(60)	14(45)	25(60)	30	30(60)	30	25(60)	75(45)	75(45)
Flank	14(30)	50	50	80	80	14	15	30	30	30	15	40	40
Suspension	14	40	40	50(30)	50	14	15	30	20	30	15	40	40
Rear	14(45)	50	50	40	40	14	15	30	30	30	15	40	4-
Top	10	25	25	25	25	10	15	15	15	15	15	15	15
<b>Vulnerable Localities</b>													
Turret Hatches	T	T	T	T	T	No	T	T,L,R,B	None	T,L,R,B	T	No	T
Turret Coax MG	1 MMG	1 MMG	1 MMG	1 MMG	1 MMG	No	No	No	None	No	1 LMG	No	1 MMG
Turret Vision Ports	No	F	F	No	No	No	Yes	No	None	No	No	No	No
Turret Periscopes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	None	Yes	Yes	No	Yes
Turret Cupola	No	Yes	Yes	HMG	HMG	No	Yes-Gun	Yes	None	Yes	Yes	No	No
Hull Hatches	T,L,R	T	T	T	T	T,B	T,B	T	T	No	Driver	T	T
Hull Bow MG	No	1 LMG	1 LMG	No	No	No	No	No	No	No	No	No	No
Hull Vision Ports	F,L,R	No	No	No	No	No	No	No	No	No	No	No	No
Hull Periscopes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
<b>Special</b>	-	-	-	-	-	-	Carries 1 M79 Grenade Launcher 3 LAW, 1 M60 LMG on hull roof	-	-	-	8 Smoke Launchers on turret	-	-
*Armor millimeters & if sloped, degree in parenthesis													
<b>Main Armament</b>													
Class	120L60	1 90L50	190L50	190L50	105L60	1 HMG	120L60 or 1 HMG A1	1105L40 or 1150L40	1150L60 or 1203L40 or 175L60	1 8" or 1150L60	1 SS11-2/150L12 Launcher/Gun	2 37L50	1 75L60
Rate of Fire	4	1	1	1	1	MG	4/MG	1.5	.5	.5	1	6/6	1.5
Turret Rotation	360°	60°	90°	90°	90°	Casement	360°	90°/60°	60°		180°	360°	120°
Sight	Telescope	Telescope	Range Finder	Range Finder	Range Finder	-	Telescope	Telescope	Telescope	Telescope	Range Finder	Telescope	Telescope
Stabilization	No	No	No	No	No	-	No	No	No	No	No	No	No
<b>Other</b>													
Road Speed	Wheeled	25 mph	40 mph	30 mph	30 mph	40 mph	35 mph	40 mph	30 mph	30 mph	40 mph	40 mph	40 mph
Combat Weight	6.35 Ton	46 ton	48.5 ton	52 ton	51 ton	11 ton	8 ton	18.5 ton	25 ton	25 ton	16.5 ton	24 ton	26 ton
Crew	2+12	3+2	3+2	3+1	3+1	13	1+2/4	4+1	5+1	8+0	3+1	4+1	3+1
Introduced	1965	1949	1950	1955	1964	1960	1963	1959/60	1962	1955/56	1964	1953	1950
Amphibious	Yes	No	No	Special	Special	Yes	Yes	Yes	No	No	Yes	No	No

# Modern Vehicle Data- Britain

Direct Fire Mode

18b  
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TYPE	Ferret IV Scout Car	Saladin Armored Car	Centurian V/1	Centurian 10	Conqueror 3	Chieftain	Saracen 2 APC	Trojan APC	Abbot
<b>Turret Armor mm*</b>									
Front	20(15)	45	150	150	180(30)	250(45)	14(45)	14(45)	30(15)
Flank	14(15)	45(30)	95	95	100	100(30)	14	14	20
Rear	14(15)	45	100	100	100	80	14	14	20
Top	10	10	26	26	35	35	14	10	14
<b>Hull Armor mm*</b>									
Glacis	15(45)	30(45)	76(45)	120(45)	150(45)	150(45)	30(45)	14(45)	30
Flank	14(30)	20	50	50	60	60	20	14	30
Suspension	14	20	50+10	50+10	50+10	50+10	20	14	20
Rear	14(45)	20	50	50	50	40	20	14	20
Top	10	10	20	20	20	35	10	10	10
<b>Vulnerable Localities</b>									
Turret Hatches	T	T	T,L,R	T,L,R	T	T	T,L,R	T	T,B
Turret Coax MG	No	1 MMG	1 MMG	1 MMG	1 MMG	1 MMG	No	No	No
Turret Vision Ports	No	No	No	No	No	No	F,L,R	No	No
Turret Periscopes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
Turret Cupola	No	No	Yes	Yes	Yes	Yes	MMG	No	Yes
Hull Hatches	F,L,R	F	T	T	T	T	B	B	No
Hull Bow MG	No	No	No	No	No	No	No	No	No
Hull Vision Ports	F,L,R	F	No	No	No	No	No	No	No
Hull Periscopes	No	No	Yes	Yes	Yes	Yes	No	No	No
<b>Special</b>									
*Armor millimeters & if sloped, degree in parenthesis	-	-	-	-	-	-	-	-	-
<b>Main Armament</b>									
Class	1 MMG	175L40	1 90L70	1105L60	1120L60	1120L60	-	1 MMG	1105L40
Rate of Fire	MG	1.5	2	2	1	1	-	MG	1
Turret Rotation	360°	120°	60°	90°	30°	45°	-	Casement	90°
Sight	Periscope	RMG	RMG	RMG	Range Finder	RMG	-	-	Periscope
Stabilization	No	No	Gun & Turret	Gun & Turret	Gun	Gun & Turret	-	-	No
<b>Other</b>									
Road Speed	Wheeled	Wheeled	20 mph	20 mph	20 mph	25 mph	Wheeled	30 mph	30 mph
Combat Weight	5.35 ton	11.4 ton	50 ton	52 ton	62 ton	56 ton	10 ton	15 ton	26 ton
Crew	1+1	3+1	3+1	3+1	3+1	3+1	12	12	6+0
Introduced	1954	1955	Mk3 '48/50	1960	1954	1964	1953	1961	1960
Amphibious	No	Flotation	Special	Special	No	No	Flotation	Flotation	Flotation

# Modern Vehicle Data- West Germany

Direct Fire Mode

18c  
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TYPE	SPz11-2 APC	SPz22-2 APC	Leopard	HS 30 APC	Marder APC	JgPz 90mm	JgPz Rocket
<b>Turret Armor mm*</b>							
Front	25(60)	30(30)	210(60)	30(30)	60(30)	80(45)	15(60)
Flank	14(45)	30(15)	80(30)	30(15)	30(30)	40(45)	15(30)
Rear	14	30(15)	40(30)	30(15)	30(30)	40	15
Top	10	14	20	14	15	25	10
<b>Hull Armor mm*</b>							
Glacis	25(60)	25(60)	60(45)	30(60)	60(60)	80(45)	30(60)
Flank	14(30)	14(30)	45(45)	15(30)	40(45)	40(45)	15(30)
Suspension	14	14	40	15	30	30	15
Rear	14	14	40	15(60)	30	30(45)	15(60)
Top	10	10	15	10	15	25	10
<b>Vulnerable Localities</b>							
Turret Hatches	T	T	T	T	None	Top	T
Turret Coax MG	No	No	1 MMG	No	1 MMG	1 MMG	No
Turret Vision Ports	No	No	No	No	No	No	No
Turret Periscopes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Turret Cupola	Yes	No	Yes	No	Gun Top Turret	Yes	Yes
Hull Hatches	T,B	T,B	T	T,B	Glacis,T,B	No	B
Hull Bow MG	No	No	No	No	Rear MG	No	No
Hull Vision Ports	No	No	No	No	Sides	No	No
Hull Periscopes	Yes	Yes	Yes	Yes	Yes	No	No
<b>Special</b>							
*Armor millimeters & if sloped, degree in parenthesis	-	-	-	-	-	-	-
<b>Main Armament</b>							
Class	MMG	1 20L60	1 105L60	1 20L60	1 20L60	1 90L50	2 SS Launchers
Rate of Fire	MG	4	1	4	4	2	1
Turret Rotation	Casement	360°	120°	360°	360°	Casement	Casement
Sight	-	Telescope	Range Finder	Telescope	Periscope	Telescope	Periscope
Stabilization	-	No	Gun & Turret	No	Gun	No	No
<b>Other</b>							
Road Speed	40 mph	40 mph	45 mph	40 mph	45 mph	50 mph	40 mph
Combat Weight	8.2 ton	8.5 ton	39.3 ton	14.6 ton	29 ton	23 ton	14.6 ton
Crew	5	1+3	3+1	1+7	2+9	4	4
Introduced	1958	1958	1964	1958	1965	1963	1961
Amphibious	Yes	Yes	Schnork	Schnork	Schnork	Schnork	Schnork

# Modern Vehicle Data- France

Direct Fire Mode

18d  
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TYPE	Armored Car AML 245C	Armored Car EBR 90	Napoleon AMX 30	AMX 13	AMX APC	AMX 105B	AA Tank AMX DCA30
<b>Turret Armor mm*</b>							
Front	30	40(60)	210(60)	40(6)	14(30)	30(45)	30
Flank	20(15)	20	80(45)	20	14(45)	30	30
Rear	20	20	40(45)	20	14	30	30
Top	10	10	15	10	14	14	14
<b>Hull Armor mm*</b>							
Glacis	30(45)	30(45)	50(60)	40(60)	30(60)	40(60)	40(60)
Flank	14	20	30(45)	20	30	20	20
Suspension	14	20	30	20	30	20	20
Rear	14	30(45)	30	15	15	15	15
Top	10	14	15	10	10	10	10
<b>Vulnerable Localities</b>							
Turret Hatches	Top	Top	Top	Top	Top	Top & Rear	Top
Turret Coax MG	1 MMG	1 MMG	1 MMG	1 MMG	1 MMG	No	No
Turret Vision Ports	F&S	No	Side	No	No	No	No
Turret Periscopes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Turret Cupola	No	Yes	Yes	Yes	1 MMG	1 MMG	No
Hull Hatches	Glacis	Glacis	Glacis	Glacis	Glacis	Top	Top
Hull Bow MG	No	No	No	No	No	No	No
Hull Vision Ports	No	No	No	No	No	No	No
Hull Periscopes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Special</b>							
*Armor millimeters & if sloped, degree in parenthesis							
<b>Main Armament</b>							
Class	1 90L40	1 90L50	1 105L60	1 75L70	1 MMG	1 105L40	2 37L60
Rate of Fire	1	1	1	4	MG	1	4 per gun
Turret Rotation	90°	120°	90°	120°	Casemate	90°	360°
Sight	Telescope	Periscope	Range Finder	Periscope	-	Periscope	Periscope
Stabilization	No	No	Gun	No	-	No	No
<b>Other</b>							
Road Speed	Wheeled	Wheeled	40 mph	40 mph	40 mph	40 mph	40 mph
Combat Weight	5 Ton	13 Ton	33 ton	15 ton	14 ton	17 ton	16 ton
Crew	2+1	2+2	3+1	2+1	1+12	3+1	3+1
Introduced	1964	1957	1963	1950	1956	1962	1962
Amphibious	No	No	Schnork	No	No	No	No

# Modern Vehicle Data- Russia

Direct Fire Mode

18e

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TYPE	PT 76	T 44	T 54	T 55	T 62	T10/T10M	ASU85	BTR 40 APC	BTR 152 APC	BTR 50 APC	BTR 60 APC	BMP APC 1967	SU 57-2
<b>Turret Armor mm*</b>													
Front	45(30)	100	120(45)	120(45)	210(45)	230(45)	80(60)	14(45)	14(30)	20(30)	14(45)	20(30)	14
Flank	45(30)	95	100(45)	100(45)	100(45)	120(45)	40(30)	14(30)	7(30)	20	14(30)	20(30)	14
Rear	45(30)	95	90(45)	90(45)	80(45)	100(45)	40(30)	14	7(30)	20	14(30)	20(30)	14
Top	15	35	35	35	25	45	15	14	7 or none	14	7 or none	15	None
<b>Hull Armor mm*</b>													
Glacis	20(45)	45(60)	75(60)	100(60)	100(60)	200/273(45)	80(60)	14(45)	14(45)	20(45)	14(45)	30(60)	75(60)
Flank	20	60	60	60	80	75(30)	40(30)	14	7(30)	20	14(30)	20	60
Suspension	20	60	60	60	50	60	30	14	7	20	14	20	60
Rear	20	60	60	60	50	60	30(30)	14	7(30)	20	14(30)	20(30)	60
Top	14	25	25	25	25	60(45)	15	14 or none	7 or none	14	14	14	25
<b>Vulnerable Localities</b>													
Turret Hatches	Top	Top	Top	Top	Top	Top	Top & Side	Front	Front & Sides	Front & Top	Top	Top	No
Turret Coax MG	1 or 2 MMG	1 MMG	1 MMG	1 MMG	1 MMG	1 MMG	No	No	No	No	Yes	Yes	No
Turret Vision Ports	Front	No	No	No	No	No	Front & Sides	Front & Sides	Front & Sides	Front	Front & Sides	Side	No
Turret Periscopes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	Yes	No	Yes	Yes
Turret Cupola	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No
Hull Hatches	Glacis	Top	Top	Top	Top	Top	No	Top	Top	No	Top	Top & Rear	Top
Hull Bow MG	No	Fixed LMG	Fixed LMG	No	No	No	No	No	No	No	No	No	No
Hull Vision Ports	No	No	No	No	No	No	No	Sides & Rear	Sides & Rear	No	Front & Sides	Sides	No
Hull Periscopes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	Yes	No
<b>Special</b>												Carries 1 Missile	
*Armor millimeters & if sloped, degree in parenthesis													
<b>Main Armament</b>													
Class	1 75L30	1 90L50	1 100L60	1 100L60	1 120L40	1 120L40	1 90L50	-	1 HMG	1 HMG	1 HMG	1 75L30/ 1 SSII-2	2 50L60
Rate of Fire	1½	1	1	1	1	½	1	-	MG	MG	MG	1½/1	4 per gun
Turret Rotation	90°	60°	60°	60°	60°	30°	Casemate	Truck	Truck	-	Some Models	90°	180°
Sight	Telescope	Telescope	Telescope	Telescope	Telescope	Telescope	Telescope	-	-	-	Telescope	Telescope	Range Finder
Stabilization	No	No	Gun	Gun & Turret	Gun & Turret	Gun/G&T	No	-	-	-	No	Yes	Yes
<b>Other</b>													
Road Speed	40 mph	30 mph	30 mph	30 mph	30 mph	25 mph	40 mph	Wheeled	Wheeled	40 mph	Wheeled	40 mph	30 mph
Combat Weight	14 ton	32 ton	40 ton	40 ton	40 ton	51 ton	14 ton	6.5 ton	9.2 ton	14 ton	12 ton	12.1 ton	30 ton
Crew	3+1	3+1	3+1	3+1	3+1	3+1	4	2+4	3+12	3+12	2+14	2+8	3+1
Introduced	1955	1945	1955	1961	1967	1945/47	1962	1946	1946	1958	1961	1967	1957
Amphibious	Yes	No	Schnork	Schnork	Schnork	No	No	No	No	Yes	Yes	Yes	No

# Modern Vehicle Data- Russia (cont.) Sweden

Direct Fire Mode

18f  
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TYPE	SU 23(4)	BRDM APC
<b>Turret Armor mm*</b>		
Front	14	14(45)
Flank	14	14(30)
Rear	14	14(30)
Top	None	7
<b>Hull Armor mm*</b>		
Glacis	20(30)	14(45)
Flank	20	14
Suspension	20	14
Rear	20	14
Top	14	14
<b>Vulnerable Localities</b>		
Turret Hatches	None	Top
Turret Coax MG	No	No
Turret Vision Ports	No	F,S,R
Turret Periscopes	Yes	No
Turret Cupola	No	No
Hull Hatches	Glacis	No
Hull Bow MG	No	No
Hull Vision Ports	Front	No
Hull Periscopes	No	No
<b>Special</b>		
*Armor millimeters & if sloped, degree in parenthesis		
<b>Main Armament</b>		
Class	4 20L60	3 SS11-1
Rate of Fire	6 per gun	1
Turret Rotation	270°	-
Sight	Range Finder	Missiles Only
Stabilization	Yes	Some Models
<b>Other</b>		
Road Speed	30 mph	Wheeled
Combat Weight	15.4 ton	6.5 ton
Crew	3+1	2+4
Introduced	1965	1959
Amphibious	No	Yes

"S"
180(70)
40
40(60)
25
180(70)
40
40
40(30)
25
Top
1 MMG
No
Yes
Yes
No
No
No
No
1 105L60
4
-
Casemate
Periscope
30 mph
36.5 ton
3
1963
No