GERMAN INFANTRY

Type: unencumbered foot
Weapons: small arms, LMG, panzerfaust. Full sized regular or better can AT close assault.
Elements: coherent - full sized element with 6 figures; LMG or panzerfaust light support - reduced sized element with 2 figures, command element - reduced or full sized element with officer (no weapons).

Movement

Roads	Clear	Rough	Difficult	Obstacle
5cm	5cm	5cm	2cm	- 2cm

Spotting - visible at...

	Halted	Moving Slow	Moving Fast
Open terrain	15cm	20cm	25cm
Open terrain - firing	25cm	25cm	N/A
Partially obscuring terrain	2cm	8cm	15cm
Partially obscuring terrain - firing	15cm	25cm	N/A
Obscuring terrain	0cm	2cm	2cm
Obscuring terrain - firing	10cm	15cm	N/A
Concealed	0cm	N/A	N/A

GERMAN INFANTRY HEAVY SUPPORT

Type: encumbered foot
Weapons: 8cm GrW Mortar, HMG
Element: reduced sized element with 2 or 3 figures

Movement

Roads	Clear	Rough	Difficult	Obstacle
5cm	5cm	2cm	Min	- 2cm

Spotting - visible at...

	Halted	Moving Slow	Moving Fast
Open terrain	25cm	25cm	25cm
Open terrain - firing	25cm	25cm	N/A
Partially obscuring terrain	5cm	10cm	15cm
Partially obscuring terrain - firing	15cm	25cm	N/A
Obscuring terrain	0cm	2cm	2cm
Obscuring terrain - firing	10cm	15cm	N/A
Concealed	0cm	N/A	N/A

HUMMEL

Type: armoured, open-topped, self-propelled howitzer
Speed: 42 kph approx (road)
Armour class: 2 / 1 (open)
Weapons: 15cm sFH 18/1 L/30 - AT, HE, smoke; LMG
Radio: medium range (150cm) to other vehicles in group; command - long range (500cm)

Movement

Roads	Clear	Rough	Difficult	Obstacle
20cm	15cm	10cm	Impassable	- 2cm

Reversing: half movement

Spotting - visible at...

	Halted	Moving Slow	Moving Fast
Open terrain	150cm	250cm	250cm
Open terrain - firing	150cm	250cm	N/A
Partially obscuring terrain	15cm *	25cm	25cm
Partially obscuring terrain - firing	75cm *	100cm	N/A
Obscuring terrain †	5cm †	5cm †	N/A
Obscuring terrain - firing †	25cm †	50cm †	N/A
Concealed	2cm	N/A	N/A

* Including hull-down.
† Normally N/A as cannot enter except through Vehicles in buildings action, but this applies to dug in elements and elements behind dense hedges.

Range for Area Fire

15cm sFH18/1 L30: Minimum range for indirect fire 50cm; Max 650cm (13,000m)

PANZER IV H

Type: tank
Speed: 38 kph (road)
Armour Class: 5 / 3
Weapons: 7.5cm KwK 40 L/48 - AT, HE, smoke (1 round only); co-axial turret MG + hull MG
Radio: short range (15cm) to other vehicles in group; command - long range (500cm)

Movement

Roads	Clear	Rough	Difficult	Obstacle
20cm	15cm	10cm	Impassable	- 2cm

Reversing: half movement

Spotting - visible at...

	Halted	Moving Slow	Moving Fast
Open terrain	150cm	250cm	250cm
Open terrain - firing	150cm	250cm	N/A
Partially obscuring terrain	15cm *	25cm	25cm
Partially obscuring terrain - firing	75cm *	100cm	N/A
Obscuring terrain †	5cm †	5cm †	N/A
Obscuring terrain - firing †	25cm †	50cm †	N/A
Concealed	2cm	N/A	N/A

* Including hull-down.
† Normally N/A as cannot enter except through Vehicles in Buildings action, but this applies to dug-in elements and elements behind dense hedges.

GERMAN INFANTRY HEAVY SUPPORT

Weapons: 8cm GrW Mortar, HMG

Shooting

Point-to-point fire to hit

Ranges (cm), up to >>>	5	15	25	35	50	60	75	100	150
HMG	4	6	9	11	15	-	-	-	-
Flamethrower	4	-	-	-	-	-	-	-	-

Point-to-point fire to KO

Armour Class	1	2	3	4	5	6	7	8	9	10
HMG	11 at 0-250m	-	-	-	-	-	-	-	-	-
Flamethrower	4	6	8	10	12	14	17	18	19	20

Foot: convert hit to casualty

Firer \ Target	Fortified	Good cover	No / light cover	Moving: Opp fire	Hvy wpns - no/light cover	Soft vehicles, flak or animals
HMG > 5cm	No casualty	19	16	11	14	9
HMG <= 5cm	19	15	9	4	6	4
Flamethrower	4	12	6	17	12	9
8cm Mortar	Area Fire	17	11	N/A	6	7

Ranges for Area Fire and AA

8cm GrW 34 Mortar: Min 15cm; Max 120cm
HMG: Prepared Area Fire 100cm; AA: Horizontal range to dive bombers or low altitude aircraft 15cm

GERMAN INFANTRY

Weapons: small arms, LMG, panzerfaust. Full sized regular or better can AT close assault. Command elements have no weapons.

Shooting

Point-to-point fire to hit

Ranges (cm), up to >>>	5	15	25	35	50	60	75	100	150
Small arms	4	10	18	-	-	-	-	-	-
LMG	5	9	15	-	-	-	-	-	-
Panzerfaust	5	-	-	-	-	-	-	-	-
AT close assault (<= 2cm)	11	-	-	-	-	-	-	-	-

Point-to-point fire to KO

Armour Class	1	2	3	4	5	6	7-10
Panzerfaust	6	6	6	8	11	19	-
AT close assault (<= 2cm)	10	12	14	14	14	16	-

Foot: convert hit to casualty

Firer \ Target	Fortified	Good cover	No / light cover	Moving: Opp fire	Hvy wpns - no/light cover	Soft vehicles, flak or animals
Small arms / LMG > 5cm	No casualty	19	16	11	14	9
Small arms <= 5cm	17	9	4	2	3	5
LMG <= 5cm	19	15	9	4	6	4
Panzerfaust	15	17	15	17	17	4

PANZER IV H

Weapons: 7.5cm KwK 40 L/48 - AT, HE, smoke (1 round only); co-axial turret MG + hull MG
Notes: Either main gun or turret MG fires in one turn. Hull MG only when stationary.

Shooting

Point-to-point fire to hit

Ranges (cm), up to >>>	5	15	25	35	50	60	75	100	150
7.5cm/L48	3	4	5	6	7	9	10	12	15
Hull MG	5	9	15	-	-	-	-	-	-
Turret MG	4	6	9	11	15	-	-	-	-

Point-to-point fire to KO

Armour Class	1-4	5	6	7	8	9-10
7.5cm/L48	KO	7 at 75cm	11 at 25-50cm	7 at 0-25cm 15 at 25-50cm	15 at 0-25cm	-

Foot: convert hit to casualty

Firer \ Target	Fortified	Good cover	No / light cover	Moving: Opp fire	Hvy wpns - no/light cover	Soft vehicles, flak or animals
7.5cm < 15cm	Area Fire	15	12	5	5	3
7.5cm > 15cm	Area Fire	17	15	12	12	5
MG <= 100m	19	15	9	4	6	4
MG > 100m	No casualty	19	16	11	14	9

Area Fire

See Reference Manual.

HUMMEL

Weapons: 15cm sFH 18/1 L/30 - AT, HE, smoke; LMG

Shooting

Point-to-point fire to hit

Ranges (cm), up to >>>	5	15	25	35	50	60	75	100	150	250
15cm sFH18/1 L30	3	3	4	5	6	7	8	9	12	19

Point-to-point fire to KO

Armour Class	1-5	6	7	8	9	10
15cm sFH18/1 L30	KO	11 at 50cm+	11 at 25cm+	11	15	19

Foot: convert hit to casualty

Firer \ Target	Fortified	Good cover	No / light cover	Moving: Opp fire	Hvy wpns - no/light cover	Soft vehicles, flak or animals
15cm < 15cm	Area Fire	15	12	5	5	3
15cm > 15cm	Area Fire	12	9	4	4	3

Area fire: structures

Structure	Standard	Bmbt / < 15cm
Light	D auto	D auto
Medium	S12/C15/D18	S6/C10/D12
Strong	S15/C18/D20	S12/C15/D18
V strong	no effect	S18/C20

S = 1 suppression each vulnerable element
C = As S, + 1 casualty to 1 vulnerable element
D = level destroyed; & 1 hvy wpn/AFV KO; & 2 suppressions each vulnerable element, 1 each non-vulnerable; & 1 casualty vulnerable, 1 casualty non-vulnerable; & displaced.

Area fire: AFVs

AC	Standard	Bmbt / < 15cm
1-4	12	9
5-7	15	12
8+	20	15

1 KO/template. Harrassing fire no effect.
+2 vs open topped.

SD KFZ 231 ARMOURED CAR

Type: wheeled armoured car
Speed: 85 kph (road)
Armour Class: 2 / 1
Weapons: 2cm KwK 30 L/55; co-axial turret MG
Radio: short range (15cm) to other vehicles in group; command - long range (500cm)

Movement

Roads	Clear	Rough	Difficult	Obstacle
30cm	25cm	10cm	Impassable	- 5cm

Reversing and turning: no penalties

Spotting - visible at...

	Halted	Moving Slow	Moving Fast
Open terrain	150cm	250cm	250cm
Open terrain - firing	150cm	250cm	N/A
Partially obscuring terrain	15cm *	25cm	25cm
Partially obscuring terrain - firing	75cm *	100cm	N/A
Obscuring terrain †	5cm †	5cm †	N/A
Obscuring terrain - firing †	25cm †	50cm †	N/A
Concealed	2cm	N/A	N/A

* Including hull-down.
† Normally N/A as cannot enter except through Vehicles in Buildings action, but this applies to dug-in elements and elements behind dense hedges.

TIGER I

Type: tank
Speed: 38 kph (road)
Armour Class: 7 / 5
Weapons: 8.8cm KwK 36 L/56 - AT, HE, smoke (1 round only); co-axial turret MG + hull MG
Radio: short range (15cm) to other vehicles in group; command - long range (500cm)

Movement

Roads	Clear	Rough	Difficult	Obstacle
20cm	15cm	10cm	Impassable	- 2cm

Reversing: half movement

Spotting - visible at...

	Halted	Moving Slow	Moving Fast
Open terrain	150cm	250cm	250cm
Open terrain - firing	150cm	250cm	N/A
Partially obscuring terrain	15cm *	25cm	25cm
Partially obscuring terrain - firing	75cm *	100cm	N/A
Obscuring terrain †	5cm †	5cm †	N/A
Obscuring terrain - firing †	25cm †	50cm †	N/A
Concealed	2cm	N/A	N/A

* Including hull-down.
† Normally N/A as cannot enter except through Vehicles in Buildings action, but this applies to dug-in elements and elements behind dense hedges.

TIGER I

Weapons: 8.8cm KwK 36 L/56 - AT, HE, smoke (1 round only); co-axial turret MG + hull MG
Notes: Either main gun or turret MG fires in one turn. Hull MG only when stationary.

Shooting

Point-to-point fire to hit

Ranges (cm), up to >>>	5	15	25	35	50	60	75	100	150	250
8.8cm/L56	3	3	4	5	6	7	8	9	12	19
Hull MG	5	9	15	-	-	-	-	-	-	-
Turret MG	4	6	9	11	15	-	-	-	-	

Point-to-point fire to KO

Armour Class	1-5	6	7	8	9	10
8.8cm/L56	KO	7 at 75cm+	11 at 25-75cm 15 at 75cm+	7 at 0-25cm 15 at 25-50cm	15 at 0-25cm	-

Foot: convert hit to casualty

Firer \ Target	Fortified	Good cover	No / light cover	Moving: Opp fire	Hvy wpns - no/light cover	Soft vehicles, flak or animals
8.8cm < 15cm	Area Fire	15	12	5	5	3
8.8cm > 15cm	Area Fire	17	15	12	12	5
MG <= 100m	19	15	9	4	6	4
MG > 100m	No casualty	19	16	11	14	9

Area Fire

See Reference Manual.

SD KFZ 231 ARMOURED CAR

Weapons: 2cm KwK 30 L/55; co-axial turret MG
Notes: Either main gun or turret MG fires in one turn

Shooting

Point-to-point fire to hit

Ranges (cm), up to >>>	5	15	25	35	50	60	75	100	150
2cm KwK 30 L55	5	7	10	12	15	17	19	-	-
Turret MG	4	6	9	11	15	-	-	-	-

Point-to-point fire to KO

Armour Class	1	2	3	4-10
2cm KwK 30 L55	11 at 15-25cm	15 at 0-15cm	19 at 0-5cm	-

Foot: convert hit to casualty

Firer \ Target	Fortified	Good cover	No / light cover	Moving: Opp fire	Hvy wpns - no/light cover	Soft vehicles, flak or animals
2cm/L55	No casualty	16	14	9	12	3
MG <= 100m	19	15	9	4	6	4
MG > 100m	No casualty	19	16	11	14	9