

TOBRUK

Tank actions in North Africa, June 1942

Player's manual · version 1.3.0

One hex is a hundred metres. One turn is one minute. Every round you fire
teaches your gunner where the last one fell.

TRONSOFT GAMES

The game

Tobruk is a tactical armoured wargame set around the Gazala battles and the fall of Tobruk in June 1942. One hex is a hundred metres; one turn is one minute; one counter is a single vehicle, a gun and its detachment, or a section of infantry. You give orders to everything you have, end the phase, and watch the other side do the same.

The lay

The game turns on one rule. A shot at a mark you have already fired at, from a position you have not left, is a wholly different proposition from the first round out of the barrel — and a *miss* still teaches the gunner where the fall of shot went. Firing is therefore an investment, and moving spends it.

Rounds laid on this mark	Effect on the chance of a hit
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none (ranging shot)	x0.55
one (bracketed)	x1.00
2 (ranged in)	x1.28
3 (ranged in)	x1.42

The lay is lost the moment you move, and drops back a step when the mark moves. A body that drives hard gets one snap shot instead of its rate of fire and shoots it badly; a short bound — half the allowance or less — keeps a second round, so bounding forward under fire is a real option and not merely a slower way of not shooting.

That is the whole tension of the game. A body that stands still gets better at killing and easier to kill. Sitting in the open at fifteen hundred metres trading ranging shots is how an armoured regiment runs out of ready ammunition without achieving anything; getting inside eight hundred metres, stopping, and ranging in is how it kills something.

Reading the range card

The card names every term in the shot rather than handing you a single number to trust: the range in metres, the rounds already laid on that mark, whether either of you moved, whether the mark is hull down, the heat haze beyond fourteen hundred metres, the state of your crew, the plate the round must beat at the face it strikes, and whether this gun at this range will go through it. If it will not go through, working round to a flank is worth more than another round.

The card under the pointer

Rest the pointer on anything on the board and a card opens beside it. For one of your own it gives the gun, the plate at the hull front, flank and rear, what movement and how many rounds are left this turn, the ammunition still aboard, whether it has a lay on anybody, and its standing order. For an enemy you can see it gives what you can see — the gun, the plate, what the body is worth, and whether it was caught moving or firing — and with one of your own selected it adds the range between them and says whether the mark is hull down to your selection.

Rest it on a stale report and all you get is how old the report is and what the body was believed to be. That is not an oversight: it is all a report can tell you, and the card is not permitted to know more than you do.

Seeing and being seen

You do not see the enemy; you receive reports. A dashed ring with a number in it is a report, and the number is how many minutes old it is — the ring widens as it goes stale. Anything that fires is seen at once. Guns are small, low and hard to make out until they do. A vehicle moving in the open throws up dust, which gives it away at long range and then screens it: a column crossing open going is partly hidden by its own passage, which is the one thing that makes the crossing survivable.

The guns

Penetration is in millimetres of plate defeated at thirty degrees, by range. **HE** is the high-explosive effect of the piece; a nought means the gun has no high-explosive round at all, which is the whole British problem in front of a gun line. **Ready** is the armour-piercing rounds to hand for a sixteen-minute action, not the vehicle's total stowage.

Gun	250 m	500 m	1000 m	1500 m	HE	ROF	Ready
5 cm KwK 38 L/42	52	47	38	30	3	2	18
5 cm KwK 39 L/60	67	61	50	41	3	2	16
7.5 cm KwK 37 L/24	43	39	33	27	6	2	8
7.5 cm KwK 40 L/43	98	91	82	72	6	2	18
2 cm KwK 30	23	20	14	9	1	4	70
8.8 cm Flak 18	124	116	106	97	8	2	24
5 cm PaK 38 L/60	67	61	50	41	3	3	24
10.5 cm leFH 18	52	45	0	0	9	1	6
Ordnance QF 2-pdr	50	45	37	30	-	3	40
Ordnance QF 6-pdr	81	74	63	53	-	3	30
37 mm Gun M6	51	46	38	31	2	3	36
75 mm Gun M2 (sponson)	64	60	55	48	5	2	14
Ordnance QF 25-pdr	66	62	0	0	7	2	8

The counters

Armour is in millimetres at the hull front, flank and rear. Turret figures and target size are in the game data and shown on the range card as they apply.

Deutsches Afrikakorps

Counter	Gun	Hull	Side	Rear	MP	Pts
Panzer II F	2 cm KwK 30	35	20	20	7	9
Panzer III J	5 cm KwK 38 L/42	50	30	30	6	20
Panzer III L	5 cm KwK 39 L/60	70	30	30	6	27
Panzer IV F1	7.5 cm KwK 37 L/24	50	30	20	6	22
Panzer IV F2	7.5 cm KwK 40 L/43	50	30	20	6	38
SdKfz 251	Machine gun	15	8	8	7	7
8.8 cm Flak 18	8.8 cm Flak 18	10	10	10	0	34
5 cm PaK 38	5 cm PaK 38 L/60	8	8	8	0	18
10.5 cm leFH 18	10.5 cm leFH 18	6	6	6	0	20
Panzergradiere	Machine gun	-	-	-	2	8
Pioniere	Machine gun	-	-	-	2	12

Eighth Army

Counter	Gun	Hull	Side	Rear	MP	Pts
Grant I	75 mm Gun M2 (sponson)	51	38	38	5	36
Crusader II	Ordnance QF 2-pdr	49	28	28	8	19
Stuart III	37 mm Gun M6	44	25	25	8	16
Matilda II	Ordnance QF 2-pdr	78	70	55	3	26
Valentine II	Ordnance QF 2-pdr	65	60	60	4	22
2-pdr portee	Ordnance QF 2-pdr	8	6	6	7	11
6-pdr anti-tank gun	Ordnance QF 6-pdr	8	8	8	0	22
2-pdr anti-tank gun	Ordnance QF 2-pdr	6	6	6	0	12
25-pdr field gun	Ordnance QF 25-pdr	6	6	6	0	21
Rifle section	Machine gun	-	-	-	2	8
Bren carrier	Machine gun	12	10	10	8	7

A Grant carries its seventy-five in a sponson. It fires only into the front arc, and it cannot be fired at all when the tank is hull down, because the gun cannot be brought to bear without showing the hull. Getting a Grant behind the ground costs it its main armament.

The boards

The ground is printed, not generated. Three boards, each about three kilometres by two — the immediate ground of one action rather than the whole battlefield — with their features placed at the real bearings and relative distances of the fighting. The same board comes up every time, so the ground is worth learning: where the dead ground lies, which crest is worth holding, and where the lane through the mine belt runs.

Board	Size	Named places
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The Cauldron	31x21	Aslagh Ridge (26), Bir el Harmat (20), The Trigh el Abd (16)
Knightsbridge	31x21	The Knightsbridge Box (28), Rigel Ridge (22), The Crossroads (14)
El Adem Ridge	29x21	Strongpoint R7 (24), The Ditch Gap (22), The Escarpment Road (18)

The Cauldron. The floor of the Cauldron, with Sidra Ridge closing the north and Aslagh Ridge barring the way east. The Trigh el Abd runs across it.

Knightsbridge. The crossroads box and Rigel Ridge above it, with the Trigh Capuzzo running in from the west across open going.

El Adem Ridge. The south-eastern face of the Tobruk perimeter: the escarpment, the anti-tank ditch with its wire and mine belt, and the sangars of the strongpoints behind it.

A printed board cannot be symmetric the way generated ground was, and is not meant to be: real ground is not symmetric and the Tobruk perimeter certainly is not. Fairness is carried entirely by par, measured on each board for each seat. One happy consequence is that the difference between grades of commander is markedly clearer than it was, because a good officer is no longer competing with the luck of the sheet.

The ground

Ground	MP	Cover	Conceal	Dust	Height	Notes
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Open desert	1	0	0	1.00	0	
Desert track	0.75	0	0	1.20	0	
Stony going	1.5	1	1	0.40	0	
Camel scrub	1.5	1	2	0.50	0	
Soft sand	3	0	0	1.40	0	no wheels
Ridge crest	2	1	1	0.50	1	hull down
Wadi	2	2	2	0.25	-1	hull down, blocks sight
Sangars	2	3	2	0.30	0	hull down
Ditch crossing	2.5	1	0	0.60	0	
Anti-tank ditch	-	2	1	0.00	-1	hull down, no wheels, no vehicles
Broken rock	-	2	2	0.00	1	blocks sight, no wheels, no vehicles

Crests and wadis let a hull get behind the ground. A hull-down body shows only its turret and is markedly harder to hit. Broken rock stops vehicles and blocks sight; soft sand bogs wheels; an anti-tank ditch stops vehicles altogether except at a crossing, and pioneers can cut one.

Gun lines

Dug-in anti-tank guns are hard to see, hard to hit and cheap, and they are what an armoured attack breaks itself on. The quick answer is to drive onto them: a vehicle may enter a hex held by a gun or by infantry, the detachment fires at point-blank range as it comes on, and then one of the two is finished. High explosive first, to put their heads down, makes it a great deal more likely to be the gun.

The actions

Action	When	Sheet	Turns	Attacking
The Cauldron	1 June 1942, 06:40	31x21	16	Deutsches Afrikakorps
Knightsbridge	12 June 1942, 11:15	31x21	15	Eighth Army
El Adem Ridge	20 June 1942, 05:20	29x21	18	Deutsches Afrikakorps

The Cauldron — 1 June 1942, 06:40

Panzer regiment breaking east out of the Cauldron. The going is open, the ridges beyond are held, and every minute standing still is a minute an anti-tank gun spends ranging in.

Deutsches Afrikakorps attacking · 16 turns · 31x21 hexes · objectives: Aslagh Ridge (26), Bir el Harmat (20), The Trigh el Abd (16)

Knightsbridge — 12 June 1942, 11:15

The armoured brigade goes forward against a gun screen. The 88s are dug in and low, and they will not be seen until they fire — by which time they are ranged in on somebody.

Eighth Army attacking · 15 turns · 31x21 hexes · objectives: The Knightsbridge Box (28), Rigel Ridge (22), The Crossroads (14)

El Adem Ridge — 20 June 1942, 05:20

The assault on the perimeter. An anti-tank ditch, wire and sangars in front, and only the pioneers can open a lane through them.

Deutsches Afrikakorps attacking · 18 turns · 29x21 hexes · objectives: Strongpoint R7 (24), The Ditch Gap (22), The Escarpment Road (18)

Winning

A thousand points a side. Five hundred are paid for ground, *every half turn*, so holding an objective is worth something from the first minute rather than only at the end — and recapturing something late does not hand you what you never held. Five hundred are paid for the share of the enemy’s starting value you destroy: a share, not a total, so an even trade does not lose you the action merely because your tanks cost more than his.

Your result is read against **par** — what the ground and the odds ought to yield a competent officer on that seat. In an assault the defender out-scores the attacker by design, because ground pays from the first half turn and the defender begins on it. Par is what makes the two seats comparable, and it was measured by playing the shipped engine against itself.

Action	Par (DAK)	Par (8th Army)
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The Cauldron	178	690
Knightsbridge	427	494
El Adem Ridge	227	599

The officer opposite

Three grades. What separates them is measured, not asserted: how well they judge which mark is worth a round, whether they keep the lay they have built instead of chasing a better-looking target, and how often an order simply fails to arrive. Their appetite for ground and their eye for a position are the same at every grade — aggression is not skill, and a version of this game in which it was made a recruit beat a veteran.

One honest caveat: the reconnaissance dial is weak. A poor officer sees almost as well as a good one, so the difference between grades shows up mostly in gunnery and in the marks he chooses.

Sound

All 15 sounds are synthesised from first principles by the game’s own code and shipped as WAV files. No recorded or third-party audio is used and nothing is downloaded. Gun reports are graded by calibre, a round that bounces off a glacis sounds nothing like one that goes through, and rounds are placed left and right of centre according to where on the sheet they are fired. If the files cannot be reached the game renders the identical buffers from the same code.