

Panzerschlacht

Micro-armour rules for World War 2

by

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Scales

Ground Scale is 1mm = 2 metres.

Time scale is not specified but can be assumed to be between five and fifteen minutes per bound.

Figure scale can be whatever the user wishes – either one-to-one or 1 model equals the number of vehicles specified on the model base.

Order of Play (All movement is alternate)

1. Carry out all inter-unit communication.
2. Place all artillery pre-ranged markers
3. Make all mandatory movement.
4. Make any requests for air support or off-table artillery support
5. Moving side makes all voluntary movement.
6. Resolve all indirect artillery fire (on and off-table).
7. Resolve all air attacks
8. Resolve all direct fire.
9. Check morale where necessary.

Movement (In Centimetres)

Motor cycle combo	50
Soft-skins, towed artillery etc	20
Cavalry on horseback	15
Infantry on foot, horse-drawn vehicles/guns	10
(for individual AFVs see appendices)	

Variation for terrain etc

Moving on steep hills, bad going, in woods, through BUA except on roads	½ speed
Crossing fordable rivers or streams	½ speed
Embussing or debussing infantry from vehicles	¼ move
Limbering or unlimbering field guns < 125mm calibre	½ move
Limbering or unlimbering guns of >125 mm calibre, or those weapons on cruciform mountings	1 move
Softskins moving the whole move on a road	plus 50%

Command & Control

Communications normally **follow the chain of command** i.e. each unit communicates with its immediate superior and its immediate subordinate units. In some special cases communications links may be set up between units that are not part of the same command structure (e.g. artillery airborne spotters, or units that have been temporarily assigned to a different HQ). These must be declared at the start of the game.

In order to pass a message from, say, 1st Battalion to 3rd Battalion, the message must first go to Regimental HQ who will then pass it on to HQ 3rd Battalion. This involves two steps. There is no direct link between the two battalions. **Count up the number of steps the message must travel and roll a D6.** The score indicates the number of steps the message will travel in the current bound. If the number rolled is insufficient for the number steps to be travelled then the message will continue on the following bound(s) until it arrives. Any reply will need to come back by the same route.

No unit may commence any movement without first having received an order to do so from its immediate superior. Any attacked unit whose orders have not yet reached it will go over to the defensive until the attack has been beaten off.

Note that artillery observers are deemed to have a direct link with their parent batteries and requests for air support are handled as per the air support rules.

Variation for Nationalities

The following additions/subtractions must be made to the die roll, depending on the nationality of the troops involved.

Early French or Italian	-1
Early British or German	0
Early Soviet	-3
Late German, British or US	+1
Late Soviet	-2
Any units not of the same nationality	-3

Target Location

In order to **acquire targets** a unit must first locate the position of the enemy. No unit may fire upon any enemy unit that it has not identified visually. Individual units may check one possible area of enemy activity once in every bound, and may check at any time during the bound. Bear in mind, however, that *locations made at the end of the bound will not take effect until the following bound*. Units may warn friends of the existence of enemy forces by means of the communications net, but the warned unit must still locate the enemy itself.

Method

Determine the area to be checked (usually a feature – a village, a wood, a hill etc.). The locating unit must have a clear line of sight to the feature. Roll two D6. To the total obtained add or subtract (factors are cumulative):

Range to target less than 200m	+ 3
Range to target over 500m	+ 1
Range to target over 1000m	+ 3
Checking woods	- 4
Checking BUA or walled enclosures	- 4
Enemy is dug-in infantry	- 4
Enemy vehicles are over 2 metres tall	+ 3
Enemy fired gun (> 30mm) or salvo rockets within area	+ 5
Enemy fired autocannon within area	+ 3
Enemy fired small arms within area	+ 1
Enemy vehicles moved within area	+ 3
Enemy on foot moved within area	+ 1
Area obscured by smoke	- 6
Observers are reconnaissance troops	+ 2
Observing from the air	+ 2
Unit warned by friends	+ 2

Results: Score of 9 or over – enemy located. Otherwise there is no sighting.

Direct Fire

All tanks/assault guns/armoured cars etc may **fire twice** in a bound provided that they remain stationary. Tanks/assault guns/armoured cars etc may move up to half a bound and fire once, or move a full bound and fire once with a deduction from the die roll. Vehicles equipped with **rapid-fire cannon or machine guns may fire three times**, but take the deduction if they move at all.

Artillery pieces may carry out direct (line-of-sight) fire provided they are stationary and deployed for the entire bound. Maximum range for direct artillery fire is 3,000 metres. See Artillery Fire for rates of fire for field guns and self propelled guns.

Method

Roll a D6 for each shot from each vehicle, e.g. 6 tanks firing, stationary the whole bound, count 12 shots - thus 12 dice. Any die that equals or betters the required roll scores a hit. Roll all hits for kill chances as below. One kill destroys one vehicle. Select the relevant gun from the groups below.

Gun Groups

<u>Group 1:</u>	122mm L/43 (S); 128mm L/55 (G)
<u>Group 2</u>	100mm L/54 (S); 88mm L/71 (G)
<u>Group 3:</u>	88mm L/56 (G); 85mm L/51 (S); 75mm L/70 (G); 17 pdr OQF (B); 77mm MkII (B); 90mm L/53 (US)
<u>Group 4</u>	76.2mm L/54 (S); 75mm L/48 (G); 76mm L/55 (US); 90mm L/53 (I)
<u>Group 5</u>	76.2mm L/41 (S); 75mm L/43 (G); 57mm L/71 (S); 75mm MkV (B); 6pdr Mk 5 (B); 25pdr MkV (B); 75mm M3 (US); 75mm L/46 (I)
<u>Group 6</u>	50mm L/60 (G); 75mm L/24 (G); 47mm L/53 (F); 75mm L/34 (I);
<u>Group 7</u>	50mm L/42 (G); 47mm L/43 (G); 45mm L/46 (S); 2pdr Mk 5 (B); 75mm M2 (US); 37mm L/57 (US)
<u>Group 8</u>	37mm L/45 (G); 37mm L/43 (G); 47mm L/43 (F); 47mm L/40 (I)
<u>Group 9</u>	20mm L/55 (G); 20mm L/61 (G); 75mm L/17 (F); 75mm L/18 (I)

(B) = British; (F) = French; (G) = German; (I) = Italian; (S) = Soviet; (US) = United States.

Hit Chances

Group	500m	1000m	1500m	2000m	3000m
1	3+	4+	5+	5+	6
2	3+	4+	5+	5+	-
3	3+	4+	5+	6	-
4	3+	4+	6	6	-
5	3+	5+	6	-	-
6	4+	5+	6	-	-
7	4+	5+	-	-	-
8	4+	6	-	-	-
9	5+	6	-	-	-

Tactical Factors

Target in cover or hull-down
Target moved over ½ bound

-1 to die roll
-1 “ “

Kill Conversions (see A.F.V. charts for Target Groups A to J)

Group 1 v	500m	1000m	1500m	2000m	3000m	Group 2 v	500m	1000m	1500m	2000m	3000m
A	3+	4+	5+	6	-	A	3+	5+	6	-	-
B	3+	4+	4+	5+	6	B	3+	4+	5+	6	-
C	3+	3+	4+	5+	6	C	3+	4+	4+	6	-
D	3+	3+	3+	4+	5+	D	3+	4+	4+	5+	6
E	2+	3+	3+	4+	5+	E	3+	3+	4+	5+	6
F	2+	3+	3+	3+	4+	F	2+	3+	4+	5+	5+
G	2+	2+	3+	3+	4+	G	2+	2+	3+	4+	5+
H	2+	2+	2+	2+	3+	H	2+	2+	2+	3+	4+
I	2+	2+	2+	2+	3+	I	2+	2+	2+	3+	3+
J	2+	2+	2+	2+	2+	J	2+	2+	2+	2+	2+

Group 3 v	500m	1000m	1500m	2000m	3000m	Group 4 v	500m	1000m	1500m	2000m	3000m
A	4+	6	-	-	-	A	5+	-	-	-	-
B	4+	5+	6	-	-	B	5+	6	-	-	-
C	4+	4+	5+	6	-	C	5+	5+	6	-	-
D	3+	4+	5+	5+	6	D	4+	5+	6	-	-
E	3+	3+	4+	5+	6	E	4+	4+	5+	6	-
F	3+	3+	3+	4+	5+	F	4+	4+	4+	5+	6
G	3+	3+	3+	3+	4+	G	3+	4+	4+	4+	5+
H	2+	3+	3+	3+	4+	H	3+	3+	4+	4+	5+
I	2+	2+	3+	3+	3+	I	2+	3+	3+	4+	4+
J	2+	2+	2+	2+	3+	J	2+	2+	2+	3+	3+

Group 5 v	500m	1000m	1500m	2000m	3000m	Group 6 v	500m	1000m	1500m	2000m	3000m
A	6	-	-	-	-	A	-	-	-	-	-
B	6	-	-	-	-	B	6	-	-	-	-
C	5+	6	-	-	-	C	6	-	-	-	-
D	5+	6	6	-	-	D	5+	6	-	-	-
E	5+	5+	6	6	-	E	5+	5+	6	-	-
F	4+	5+	5+	6	-	F	5+	5+	5+	6	-
G	4+	4+	5+	6	-	G	4+	5+	5+	6	-
H	3+	4+	4+	5+	-	H	3+	4+	5+	6	-
I	3+	3+	4+	5+	6	I	3+	3+	4+	5+	-
J	2+	3+	3+	4+	5+	J	3+	3+	3+	4+	-

Group 7 v	500m	1000m	1500m	2000m	3000m	Group 8 v	500m	1000m	1500m	2000m	3000m
A	-	-	-	-	-	A	-	-	-	-	-
B	-	-	-	-	-	B	-	-	-	-	-
C	6	-	-	-	-	C	-	-	-	-	-
D	6	-	-	-	-	D	6	-	-	-	-
E	5+	6	-	-	-	E	6	-	-	-	-
F	5+	5+	6	-	-	F	6	-	-	-	-
G	4+	5+	5+	6	-	G	5+	6	-	-	-
H	3+	4+	5+	6	-	H	4+	5+	6	-	-
I	3+	3+	4+	6	-	I	3+	4+	5+	-	-
J	2+	3+	3+	5+	-	J	2+	3+	5+	-	-

Group 9 v	500m	1000m	1500m	2000m	3000m
A	-	-	-	-	-
B	-	-	-	-	-
C	-	-	-	-	-
D	-	-	-	-	-
E	-	-	-	-	-
F	6	-	-	-	-
G	5+	6	-	-	-
H	5+	5+	6	-	-
I	4+	5+	5+	-	-
J	3+	4+	5+	-	-

Artillery Fire

Indirect Ranging

All indirect fire must be directed by an observer, who must have a clear line-of-sight to the target area. The observer must be stationary throughout the bound. Such observers may be provided by:-

- A reconnaissance unit.
- A battalion or higher formation HQ
- Any unit HQ that has been so designated and declared at the start of the game.
(Only 1 per battery)

Place the centre of the blast area template over the designated target. **Roll a single D6 for ranging. Roll 5 or 6 to range.** If the ranging fails on the first roll, and the weapon fires more than once per bound, keep rolling until all available rounds are expended. On the second roll, throw 4,5 or 6, on the third 3,4,5, or 6 and so on. A roll of 1 is always a failure.

The battery may fire however many rounds of firing are left once ranging has succeeded. Provided that the point of aim does not move, the battery may continue to fire on that point without further re-ranging.

Gun Calibre	Blast Area (per gun)	Rounds per Bound
200mm +	120mm x 120mm	1
170mm +	110mm x 110mm	2
150mm +	100mm x 100mm	3
130mm +	90mm x 90mm	3
100mm+	80mm x 80mm	3
80mm+	75mm x 75mm	4
Up to 79mm	60mm x 60mm	4

Roll 1 D6 for each target vehicle in the blast area. **Equal or beat the modified score indicated** by the table below to achieve 1 kill.

	Group X	Group Y	Group Z
200mm +	5+	4+	2+
170mm +	5+	4+	2+
150mm +	6	5+	2+
130mm +	6	5+	3+
100mm +	6	6	4+
80mm +	N/A	6	4+
Up to 79mm	N/A	N/A	5+

Tactical factors: (deduct from die roll)

Target is infantry dug-in.....	- 2
Target is towed artillery dug-in or emplaced	- 1
Target was in the beaten zone for less than ½ move	- 1
Firers are under counter-battery fire	- 1

Group X:

Tanks, Assault Guns, Recovery Vehicles with tank chassis and any A.F.V. with roof armour of 15mm or more.

Group Y:

Light tanks, armoured cars, self-propelled guns and any armoured vehicle with less than 15mm of roof armour.

Group Z:

Infantry, cavalry, softskins, towed artillery, men on foot.

Pre-ranged Indirect Fire

Troops in defensive positions may pre-range their artillery on any given spot. The player simply lays a marker at the beginning of the game. Thereafter he may bring down fire from the designated battery on that spot at any time without the need to range again, provided the battery has not moved in the meantime. Any player using such markers may lay false markers in addition to disguise the true marker's position, provided that the real marker is clearly noted on the underside.

Smoke

Smoke may be laid by **artillery or mortars**. Use the relevant artillery template to determine the frontage laid.

Infantry Action

Infantry are organised into “elements”, each representing a section or squad of 10 – 12 men. Elements should be combined into platoons, companies and battalions, each with a defined HQ, according to the prototype army organisation.

Capacities of vehicles

See the AFV tables at the end of the rules.

In addition to personal and squad weapons, infantry are assumed to be armed with short-range anti-tank weapons (PIAT, Panzerfaust, Bazooka, Panzerschreck etc)

These weapons are assumed to be issued on a scale of 1 per platoon HQ. (see Direct Fire).

Short-range anti-tank weapons range - 100 metres.

Infantry v. Infantry

Any infantry within 500 metres of enemy infantry may initiate combat. Roll 1 die for each element involved on each side. Add or subtract from each die roll as appropriate:

Own troops defending cover or dug-in	-	+1
Own troops supported by armour	-	+1
Own troops under mortar or artillery fire	-	-1

Each side suffers the loss of one element for each modified 5 or 6 rolled by their opponents. The winner is the side that inflicts most losses. The losers’ survivors fall back one move and check morale.

Infantry v Armour

Any infantry not in cover or dug-in must check morale if enemy armour advances to within 500 metres of their position.

Where armour contacts infantry in the open the foot soldiers may use their short-range AT weapons first, before any action by the enemy armour (even in the enemy’s bound). The armour must then check morale. If the armour’s morale holds the infantry will break and retire a full move or to cover. If the infantry is contacted for a second move it will break and disperse. Infantry in cover may hold and allow the armour to move through them provided their morale is sufficient.

Ambushes

When troops or vehicles come within range of unlocated enemy the unlocated force may ambush the moving force. The ambushers may fire for a complete bound, without reply. The ambushed unit must then check morale.

Definitions

Cover.

Cover is defined as a coherent obstacle, proof against small-arms fire, e.g. walls, buildings, sandbags, trenches, foxholes etc.

Supported

A unit offers support to a friendly unit if it is within 20cm of that unit, within sight and able to bring fire to bear on enemy attacking the supported unit.

Morale

Morale must be checked under the following circumstances:

1. When any unit falls below 50% of its original strength.
2. When any unit loses 20% of its strength in any bound.
3. When a unit of the same brigade/regiment fails a morale test.
4. When any unit is ambushed.

Roll 1 die. Read off result below:

0	Disperse. Take no further part in the action.
1	Fall back to the nearest defensive position or cover. Infantry on foot go to ground if no cover available.
2	Halt and attempt to reply to enemy fire. Infantry on foot take cover or go to ground.
3	As for 2.
4	Carry on.
5	Carry on.
6	Carry on.

Add or subtract:

Unit at half strength or less	- 1
For each previous morale check	- 1
Unit dug-in	+1
Inferior unit	- 1
Superior unit	+1

Inferior Unit

Conscripts, disaffected troops, second or third echelon troops.

Ordinary Unit

The vast bulk of soldiery.

Superior Unit

Elite, veteran or picked soldiers.

Air Support

Each side may roll once for an air strike in its own bound. Consult the table below for examples of missions available. Roll 5 or 6 to successfully call in an air strike. Roll a second time to determine what turns up.

All aircraft will enter from the table edge to the rear of their own ground forces. An air strike consists of a single pass across the table, in a straight line, exiting at any of the other three table edges. Lay a tape measure across the table and place the aircraft model(s) at the aim-point of its run. Carry out all firing of anti-aircraft weapons against the aircraft by launchers/guns within 1,000m of the flight path.

If the aircraft survives, place the relevant blast area template ahead of the aim point and roll for hits on any targets wholly or partially within the blast area, thus:-

Medium bomber	-	6
Dive bomber	-	4/5/6
Fighter-bomber	-	5/6
Rocket firer	-	5/6

Medium Bomb blast area = 140 x 280
Dive/Fighter Bomb blast area = 70 x 140 mm
Strafing/rocket-fire area = 50 x 200 mm

Convert hits to kills by rolling again, thus:

Tanks	-	5/6
Light armour	-	4/5/6
Soft skins, infantry, towed artillery	-	All but 1

Tactical factors (add to or deduct from die roll)

Strafing with 20mm or less cannon v. tanks	-	-1
Infantry dug-in	-	-3

Anti-aircraft

Any vehicle within 1,000m of an enemy aircraft's flight path may engage (even on an enemy bound) provided they have an appropriate weapon (i.e. a rapid-fire weapon with a 360 degree traverse and with up to 80 degrees elevation). Any surface to air vehicle must be stationary in order to engage aircraft. Roll for each vehicle as follows:

Quad barrel mounting	-	5/6
Single or twin barrel mounting	-	6

Convert as follows:

Roll 1 die and add the score to these standard damage values,

35mm + AA	-	15
Quad 20mm Flak	-	10
Single 20mm Flak or Quad .50 calibre	-	7
Heavy machine-gun	-	5

Deduct the total damage values from all sources from the aircraft's defence value.

Fighter-bomber	-	20
Rocket-firer	-	20
Dive bomber	-	25
Medium bomber	-	35

Any aircraft suffering more damage points than its defence value will be shot down before making its attack. Any aircraft suffering over half damage points will break off and go around again.

Sample Air Missions

All missions consist of 2 aircraft models.

1942 Western Desert

German

1. Messerschmitt 109E + 250Kg bomb
2. No show
3. Junkers 87D Stuka + 500 Kg bomb
4. No show
5. No show
6. Junkers 88A medium bomber

Allied

1. Hurricane II + 20mm Cannon
2. No show
3. Martin Baltimore Mk II Medium Bomber
4. Douglas A20 Havoc Medium bomber
5. No show
6. North American B25 Mitchell Medium bomber

Notes: By late 1942 the Luftwaffe in north Africa were very thin on the ground due to aircraft losses and replacement failure.

1943 Eastern Front

German

1. Focke Wulf 190A + 250 Kg bomb
2. No show
3. Ju87G-1 Stuka + twin 30mm cannon
4. Henschel Hs129B + 30mm cannon
5. No show
6. Junkers 88D medium bomber

Soviet

1. Il-2 Shturmovik + 500 Kg bomb.
2. No show
3. Petlyakov Pe-2 medium bomber
4. Lavochkin La-5 + 250 Kg bomb
5. No show
6. Il-4 Medium bomber.

1944 Western Front

German

1. Messerschmitt 109G + rockets
2. No show
3. Focke Wulf 190D + 500 Kg bomb
4. Messerschmitt 262 + 4 x 20mm cannon
5. No show
6. Junkers 88K medium bomber

US

1. P47D Thunderbolt + 2 x 500 Kg bombs
2. No show
3. P51D Mustang + 250 Kg bomb
4. B26G Marauder Medium bomber
5. No show
6. B25J Mitchell medium bomber

N.B. these lists are not exhaustive and are intended as examples only.

A.F.V. Data Sheet – British

<u>Vehicle</u>	<u>Rd</u>	<u>CC</u>	<u>Gun Group</u>	<u>Target Group</u>	
Valentine II, III	15	8	7	F	
Valentine VIII	15	8	5	F	
Crusader II	27	15	7	G	
Crusader III	27	15	5	G	
Churchill I	15	8	7	D	
Churchill III	15	8	5	D	
Churchill IV	15	8	5	D	
Churchill V	15	8	(*)	D	(*) 95mm howitzer.
Churchill VII	13	8	5	C	
Sherman Firefly	25	15	3	F	
Matilda I	12	9	MG	F	
Matilda III	15	8	7	F	
Covananter	31	25	7	G	
Cromwell IV	32	24	5	F	
Comet	29	16	3	F	
Challenger	32	15	3	D	
Cruiser Tank Mk III (A10)	16	8	7	H	
Cruiser Tank Mk IV (A13)	30	14	7	H	
Bishop S.P.G.	15	11	25pr	F	
Sexton S.P.G.	25	15	25pr	F	
Priest M7 S.P.G.	25	15	(+)	F	(+) 105mm howitzer.
Achilles S.P.A.T.	32	20	3	H	
Wolverine S.P.A.T.	32	20	4	H	
Kangaroo	25	15	-	I	capacity 1 element
Marmon-Herrington III, IV	45	20	7	I	
Humber II, III	45	20	MG	H	
AEC I, II, III	35	16	7	H	
Staghound	55	25	7	H	
Greyhound	55	25	7	H	
M5 half-track	45	19	-	I	capacity 2 elements
Universal Carrier	48	20	-	I	capacity 1 element.

French

Panhard P178	45	20	9	H	
Renault R35	12	6	9	G	
Renault FT17	5	2	9	H	
Hotchkiss H39	22	17	9	G	
SOMUA S35	25	11	8	G	
Char B1 bis	18	8	8*	F	* both guns.

Italian

Carro-Armato M13/40	20	9	8	H	
Carro-Armato M14/41	21	10	8	G	
Carro-Armato M15/42	25	13	8	G	
Semovente 47/32	26	12	8	G	
Carro Semovente M13/40	20	10	6	G	
Carro-Commando M41	21	10	6	H	
Semovente 75/34 M42	24	9	6	H	
Semovente 75/46 M42T	22	9	6	G	
Semovente 105/25 M43	22	9	(\$)	G	(\$ 105mm howitzer
Semovente 90/53 M41	22	15	4	G	
Autoblinda AB/40, 41	48	19	9	I	

German

Vehicle	Road	C C	Gun		
			Group	Group	
Tiger II	26	12	1	A	
Tiger I	26	14	3	C	
Panther A/D/G	32	17	3	B	
Panzer IV H/J	26	11	4	D	
Panzer IV G	28	11	4	G	
Panzer IV F2	28	11	5	G	
Panzer IV F1	29	14	6	G	
Panzer IV E	29	14	6	F	
Panzer IV B/C/D	28	14	6	H	
Panzer IV A	28	14	6	I	
Panzer III J/M/N	28	13	6	F	
Panzer III L	28	13	6	G	
Panzer III H	28	13	7	F	
Panzer III D/E/F/G	28	13	7	H	
Panzer III A/B/C	22	12	8	I	
Panzer II L	42	19	9	H	
Panzer II F-J	28	13	9	H	
Panzer II D/E	38	13	9	H	
Panzer I A/B	26	10	-	I	
Stug IV	28	14	4	E	
Stug III G	28	17	4	G	(or 10.5cm Howitzer)
Stug III F	28	17	4	G	
Stug III B-E	28	17	6	G	(or 10.5cm Howitzer)
Sturmpanzer IV	28	11	*	B	*10cm Howitzer
Sturmtiger	22	10	+	A	+38cm RW61
Panzerjäger I B	28	11	7	I	
Marder III D	28	12	4	H	
Nashorn	28	17	2	H	
Hetzer	28	10	4	D	
Jagdpanzer IV	28	11	4	D	
Jagdpanther	32	17	2	C	
Jagdtiger	26	12	1	A	
Elefant/Ferdinand	22	14	2	A	
Wespe 10.5cm S.P.G	28	14	10.5 cm	H	
Hummel 15cm S.P.G	28	17	15 cm	H	
SiG 33 S.P.G.	24	11	15 cm	I	
Sdkfz 222 a/c	56	21	9	I	
Sdkfz 231 (6 wheel)	42	17	9	I	
Sdkfz 231 (8 wheel)	59	22	9	I	
Sdkfz 234/1	59	22	9	G	
Sdkfz 234/2	59	22	6	G	
Sdkfz 234/3	59	22	6	G	
Sdkfz 234/4	59	22	4	G	
Sdkfz 251	46	20	-	H	capacity 2 elements.
Sdkfz 250	36	17	-	H	capacity 1 element

Soviet

Vehicle	Road	CC	Gun Group	Target Group
IS 3	25	13	1	A
IS 2	25	13	1	C
IS 1 (122)	25	13	1	C
IS 1 (85)	25	13	3	C
KV 2A/B	21	9	152mm Howitzer	D
KV 85	22	9	3	E
KV 1S	28	12	5	E
KV 1C	20	8	5	D
KV 1B	22	9	5	D
KV 1A	22	9	5	D
T35 2/1	20	8	6	H
T32	20	8	9	H
T34/85	35	28	3	D
T34/76 D/F	35	28	5	E
T34/76 C	35	28	5	D
T34/76 B	35	28	5	E
T34/76 A	35	28	5	E
T28 M2	16	8	5	E
T28 M1	16	8	5	H
T28 V	25	13	9	H
BT7 M	60	43	5	G
BT7 A	47	36	9	G
BT7 1/2	50	36	7	G
BT5 A	50	43	9	I
BT3	50	43	7	I
T80	28	15	7	D
T70 A	31	15	7	E
T60A	30	15	9	F
T50	36	15	7	G
T40 S	30	15	9	H
T40 A	30	15	MG	H
SU76	28	22	4	E
SU85	39	29	3	E
SU100	39	29	2	D
SU122	39	29	1	D
SU152	39	29	152mm How	D
ISU 122	26	11	1	C
ISU 152	26	11	152mm How	C
BA10 & 10M	60	22	7	H
BA20	52	19	7	I
BA 3 or 6	39	17	7	I

United States

Light Tank M2A4	30	18	8	H
Light Tank M3	36	20	8	H
M5 Stuart	36	24	8	G
M22 Locust	40	30	8	H
M24 Chaffee	35	25	5	H
M3 Lee/Grant	26	21	7/8	G
M4 Sherman	29	20	5	F
M4A1 76mm Sherman	29	20	4	F
M26 Pershing	30	5	3	D
M7 S.P.G.	25	15	*	F
M12 S.P.G.	25	15	**	F
M18 Hellcat	45	20	4	I

M3 75mm/37mm

* 105mm howitzer

** 155mm Gun

M3 half-track	45	19	I	
M10 Wolverine	32	20	4	H

could mount 75mm gun
Capacity; 2 infantry elements