

The Sherman Medium Tank



The Sherman could be considered the main British tank from the end of 1942 until the end of the war, the Sherman was first used by the British in North Africa, several hundred of these vehicles arrived in North Africa and the Middle East in 1942

and played a major role in the battles fought at the end of the year. In total the British received around 17,500 Shermans during WWII, more than any single British tank that was produced during the war. Initially the Sherman was well protected against the majority of the German weapons it faced and it also was able to deal with virtually any German armour but as the war progressed the Sherman's armour offered little protection against the larger German weapons and its gun began the struggle against the thicker German armour.

Due to the number of lend lease Shermans being available British tank production was scaled down significantly in 1943 and 1944 (down for 7,300 and 4,000) but it also allowed the British to concentrate on more useful vehicles than just large numbers.

It's probably unfair to compare the Sherman to Panthers and Tigers as the Sherman is a significantly lighter vehicle than these, a better comparison would be against the Panzer IV which made up the bulk of the German tank force, against this it is well matched. The Sherman's biggest advantages were that it was easy to mass produce and it fired an excellent high explosive shell. By the Summer of 1943 the British wanted as many tanks as possible to be mounting a 17pdr gun, the A.30 (Challenger) seemed like the only British vehicle that would be able to mount a 17pdr within a reasonable amount of time and

so it was decided to attempt to mount the gun in the Sherman which had a bigger turret ring than British vehicles.

Getting the 17pdr to fit into the Shermans turret was difficult due to the size of the gun but eventually they were able to by adding a welded box at the back of the turret. Firing trails were completed in December 1943 and the first vehicles were converted to carry 17pdrs in January, these would become known as the Sherman Firefly. By the start of June 342 vehicles had been converted, the conversion rate increased rapidly and peaked in September with 268 being converted in that month. At this stage the Americans had grossly underestimated the loss rate of Shermans (as well as other equipment) and had anticipated the war ending by December and had cut down production so at the end of the year arrivals to the UK were stopped in November/December. The War Office had set much higher rates of loss compared with the Americans and thus still had a full reserve available. But this caused concerns with the War Office as it meant less vehicles being available for conversion to 17pdr and if the war continued until mid 1945 and no more Shermans arrived there may be a shortage of Shermans, luckily British tank production was still running and plans to cut production in 1945 were cancelled. This is why you see an increase in British tank production at the start of 1945.

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The total number of Sherman Firefly tanks was 2,246

"B" vehicles are armed with a 105mm Howitzer and "C" vehicles a 17 Pounder

Name	I	IB	IC	II
USA Name	M4	M4	M4	M4
Production Date				
Total Production				
Crew	5	5	4	5
(In turret)	3	3	3	3
Length	19'-9"	20'-1"	24'-4"	19'-9"
Width	8'-7"	8'-7"	8'-7"	8'-7"
Height	8'-11.75"	9'-5.5"	8'-11.75"	8'-11.75"
Weight	30.8	31	32.75	30.8
Ground pressure				
Ground clearance	17.125"	17.125"	17.125"	17.125"
Engine	Wright Petrol	Wright Petrol	Wright Petrol	Wright Petrol
B.H.P per ton	11.9		11.9	11.9
Max road speed	22.1		22.1	22.1
Average road speed	19.25		19.25	19.25
Cross Country Speed	12.85		12.85	12.85
Gear box type	Synchromesh	Synchromesh	Synchromesh	Synchromesh

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Gears	5 Forward 1 Reverse	5 Forward 1 Reverse	5 Forward 1 Reverse	5 Forward 1 Reverse
Fuel consumption (road) – MPG	1.175		1.175	1.175
Fuel consumption (cross country)	0.498		0.498	0.498
Petrol	180	154	180	180
Auxiliary capacity				
Radius of action (road)	180		154	180
Radius of action (cross country)	75		75	80
Trench Crossing				
Vertical obstacle				
Fording height				
Gradient				
Main Armament	75mm M3	105mm How M4	17 Pounder Mk I	17 Pounder Mk I
Ammunition				
Secondary Armament	.3" Browning	.3" Browning	.3" Browning	.3" Browning
Ammunition				
Transverse type	Hand & Electric	Hand & Electric	Hand & Electric	Hand & Electric
Max elevation	25	35	20	25
Max depression	10	10	5	10
Turret Ring Size	69"	69"	69"	69"
Optics			Pict	

No.43 x 3 L Mk I

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Armour				
Hull Nose	50.8(Cast)	50.8(Cast)	50.8(Cast)	50.8(Cast)
Hull Front	50.8	63.5	50.8	50.8
Hull Sides Upper	38.1	38.1	38.1	38.1
Hull Sides Lower	38.1	38.1	38.1	38.1
Hull Rear Lower	38.1	38.1	38.1	38.1
Hull Rear Upper	38.1	38.1	38.1	38.1
Hull Roof (Front)	19.05	19.05	19.05	19.05
Engine Deck	12.7	12.7	12.7	12.7
Hull Floor	12.7	12.7	12.7	12.7
Hull Floor (Front)	25.4	25.4	25.4	25.4
Turret Mantlet	76.2(Cast)	76.2(Cast)	76.2(Cast)	76.2(Cast)
Turret Front	76.2(Cast)	76.2(Cast)	76.2(Cast)	76.2(Cast)
Turret Roof	25.4(Cast)	25.4(Cast)	25.4(Cast)	25.4(Cast)
Turret Sides	50.8(Cast)	50.8(Cast)	50.8(Cast)	50.8(Cast)
Turret Rear	50.8(Cast)	50.8(Cast)	50.8(Cast)	50.8(Cast)
Rear Box Rear			63.4	63.4
Rear Sides			50.4	50.4
Rear Box Roof/Floor			25.4	25.4

Name	III	IV	IVB	V
USA Name	M4A2	M4A3	M4A3	M4A3
Production Date				
Total Production				
Crew	5	5	5	5
(In turret)	3	3	3	3

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Length	20'-1"	20'-1"	20'-6.5"	20
Width	8'-7"	8'-7"	8'-7"	8
Height	8'-11.93"	8'-11.93"	9'-5.5"	8
Weight	31.25	31.5	31.25	3
Ground pressure				
Ground clearance	17.125"	17.125"	17.125"	1
Engine	G.M Duel Diesel	Ford G.A.A. III	Ford G.A.A. III	C
B.H.P per ton	12	15.9		1
Max road speed	30.5	23.1		2
Average road speed	20.2	20.5		2
Cross Country Speed	11.9			1
Gear box type	Synchromesh	Synchromesh	Synchromesh	S
Gears	5 Forward 1 Reverse	5 Forward 1 Reverse	5 Forward 1 Reverse	5
Fuel consumption (road) – MPG	1.72	1.29		0
Fuel consumption (cross country)	0.9	0.5		0
Petrol	123	144	144	1
Auxiliary capacity				
Radius of action (road)	185	187		1
Radius of action (cross country)	135	87		6
Trench Crossing				
Vertical obstacle				
Fording height				
Gradient				
Main Armament	75mm M3	75mm M3	105mm How M4	7
Ammunition				
Secondary Armament	.3" Browning	.3" Browning	.3" Browning	.3

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Ammunition				
Transverse type	Hand & Electric	Hand & Electric	Hand & Electric	H
Max elevation	25	25	35	2
Max depression	10	10	10	1
Turret Ring Size	69"	69"	69"	6
Optics				
Armour				
Hull Nose	50.8	50.8	50.8(Cast)	5
Hull Front	50.8	50.8	63.5	5
Hull Sides Upper	38.1	38.1	38.1	3
Hull Sides Lower	38.1	38.1	38.1	3
Hull Rear Lower	38.1	38.1	38.1	3
Hull Rear Upper	38.1	38.1	38.1	3
Hull Roof (Front)	19.05	19.05		1
Engine Deck	12.7	12.7	12.7	1
Hull Floor	12.7	12.7	12.7	1
Hull Floor (Front)	25.4	25.4	25.4	2
Turret Mantlet	76.2(Cast)	76.2(Cast)	76.2(Cast)	7
Turret Front	76.2(Cast)	76.2(Cast)	76.2(Cast)	7
Turret Roof	25.4(Cast)	25.4(Cast)	25.4(Cast)	2
Turret Sides	50.8(Cast)	50.8(Cast)	50.8(Cast)	5
Turret Rear	50.8(Cast)	50.8(Cast)	50.8(Cast)	5
Rear Box Rear				
Rear Sides				
Rear Box Roof/Floor				

Sherman Tank Track types

Track Model	Type	Vehicles	No Per Tank	Weight of	T
T.56	Steel, cast, bolted	I-V	79		3
T.56	Steel, cast, bolted	V & VC	83		4
T.62	Steel, rolled sections	I-V	79		3
T.62	Steel, rolled sections	V & VC	83		4
T.74	Rubber backed	I-IV	79		3
T.74	Rubber backed	V & VC	83		3
WE, 210	British Rubber double	I	79		2
WE, 210	British Rubber double	V & VC	83		2
T.54.E.1	Steel, Fabricated	I-IV	79		3
T.54.E.1	Steel, Fabricated	V & VC	83		3
T.54.E.2	Steel, Fabricated	I-IV	79		3
T.54.E.2	Steel, Fabricated	V & VC	83		3
T.48	Rubber	I-IV	79		3
T.48	Rubber	V & VC	83		3
T.41	Rubber	I-IV	79		2
T.41	Rubber	V & VC	83		2
T.51	Rubber	I-IV	79		3
T.51	Rubber	V & VC	83		3

Sources - WO 194