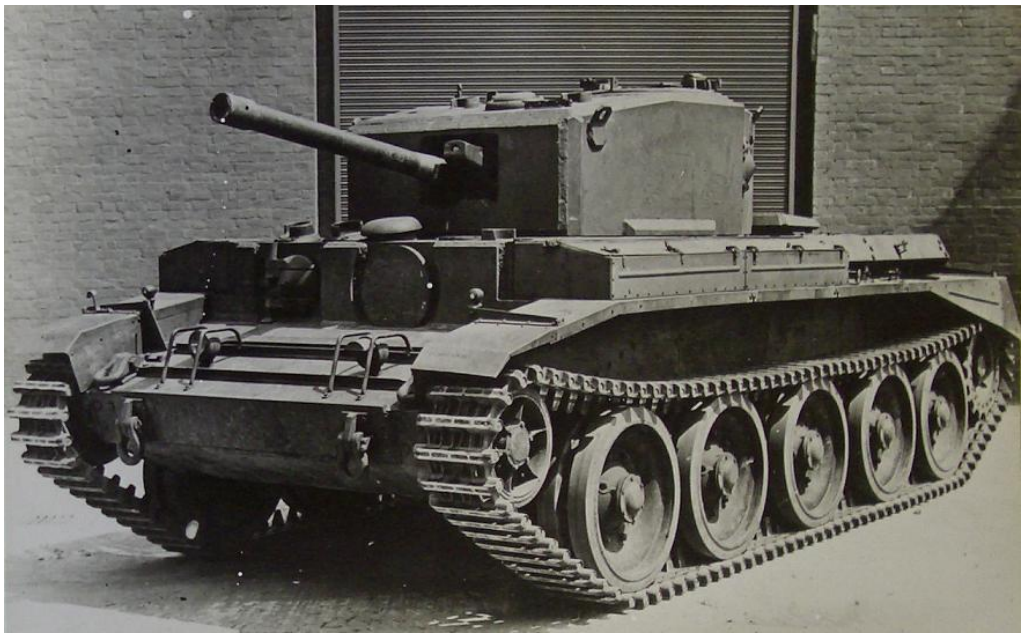
The Cromwell Cruiser Tank (A.27(M))



Even in 1940, before the Crusader and Covenanter tanks had entered production a replacement for them was sought and the War Office issued specifications for a Cruiser tank with 75mm of frontal armour and a 6' turret ring and by January 1941. It was clear that the production of these new tanks hinged on the production of new engines and in June 1941 it was arranged to have 500 Liberty and 500 Meteor engines ready by the Autumn of 1942.

The first Cromwell was running in January 1942 were it proved to be very good after trails and a few months later it was

agreed to increase production. Delays in the provision of the engines and problems with armour plate production meant that it was not until December 1942 that the first Cromwell was completed.

In trails the Cromwell proved to be exceedingly reliable, something that certainly could not be said for the Crusader series. The Cromwell's armour was generally rolled homogenous plate, initially the hull front was 64mm thick, the turret 76mm thick and the turret sides 64mm, some sources list the turret front as only being 64mm this is most likely due to them forgetting to include the 12.7mm carbon manganese backing plate attached to the front 64mm of rolled plate, in later versions this was a single plate of 76mm thickness.

The 6 Pounder was the gun of choice, later these were modified to be 75mm to allow them to fire an effective high explosive shell.

So how does the Cromwell compare to German tanks of the period? Armour wise it was similar to that of the Panzer 4, the armament was inferior but both vehicles were capable of defeating each other at range, the Cromwell had a massive advantage in speed, being 50% faster than the German

machine. The Panther which entered production in January of 1943 was in a different league than the Cromwell, being around 15 tons heavier and having significantly superior frontal armour and a much more powerful gun. Surprisingly the Cromwell's side armour was equal or better to that of the Panther and also the Cromwell had a large advantage in both speed and reliability but the Panther is clearly the more powerful vehicle.

In 1943 attempts were made to improve the armament of the Cromwell by mounting a new high velocity 75mm gun made by Vickers, performance wise it would have probably been superior to the 75mm gun mounted on the Panzer 4 or Stug, unfortunately the gun proved to large to be mounted inside the Cromwell's turret, the gun was later modified and became the high velocity 77mm gun mounted in the Comet. Armour was also increased by the welding of armour plates to the front and sides of the Cromwell, this increased frontal armour to 101-102mm (similar to that of the Tiger tank). Some crews also welded tracks to the tank for extra protection and although officially it was suggested that this would not add any benefit there are instances of these tracks stopping German anti tank shells.

A 95mm Howitzer was also mounted on the Cromwell, this could fire a large high explosive shell as well as a HEAT round

capable of penetrating 110mm at 30 degrees at any range it could hit - due to accuracy issues this was generally limited to 700 yards.

Name	Cromwell I	Cromwell II	Cromwell
Type	Cruiser	Cruiser	Cruiser	C
Production Date	December 1942		January 1943	
Crew	5	5	5	5
(In turret)	3	3	3	3
Length	20'-9”	20'-9”	20'-9”	2
Width	10'	10'	10'	1
Height	7'-8”	7'-8”	7'-8”	7
Weight	28	28	28	2
Ground pressure	15.24	13.76	15.24	1
Ground clearance	16.8	16.8	16.8	1
Track type	Webbed & Spudded	Webbed & Spudded	Webbed & Spudded	W
No per track	126	114	126	1
Weight of one Track	2285	2600	2285	2
Track width	14”	15.5”	14”	1
Engine	Rolls Royce Meteor	Rolls Royce Meteor	Rolls Royce Meteor	Ro
B.H.P/Ton	21.43	21.43	21.43	2
Max road speed	38.75	38.75	38.75	3
Average road speed	25.6	25.6	25.6	2
Cross Country Speed	16.6	16.6	16.6	1
Gear box type	Z5 Constant Mesh	Z5 Constant Mesh	Z5 Constant Mesh	Z
Gears	5 Forward 1 Reverse	5 Forward 1 Reverse	5 Forward 1 Reverse	5

Fuel consumption (road) – MPG	1.43	1.43	1.43	1
Fuel consumption (cross country)	0.76	0.76	0.76	0
Petrol	116	116	116	1
Auxiliary capacity		-	-	-
Radius of action (road)	165	165	165	1
Radius of action (cross country)	88	88	88	8
Trench Crossing	7'-9”	7'-9”	7'-9”	7
Vertical obstacle	3'	3'	3'	3
Fording height	4'-6”	4'-6”	4'-6”	4
Gradient	24	24	24	2
Main Armament	6 Pounder	6 Pounder	6 Pounder	6 Pounder/75mm
Ammunition	74	74	64	6
Secondary Armament	2x Besa 7.92	Besa 7.92	2x Besa 7.92	2
Ammunition	4950	4950	4950	4
Transverse type	Hand & Hydraulic	Hand & Hydraulic	Hand & Hydraulic	H
Max elevation	20	20	20	2
Max depression	12.5	12.5	12.5	1
Turret Ring Size	57.2	57.2	57.2	5
Optics	No.54x3	No.54x3	No.54x3	No.50x3

Name	Cromwell	Cromwell	Cromwell	Cromwe
Type	Cruiser	Cruiser	Cruiser	C
Production Date				
Crew	5	5	5	5
(In turret)	3	3	3	3
Length	21'-4”	20'-9”	21'-4”	2
Width	10'	10'	10'	1

Height	7'-8”	7'-8”	7'-8”	7
Weight	27.5	27.5	27.5	2
Ground pressure	14.78	14.78	13.76	1
Ground clearance	16.8	16.8	16.8	1
Track type	Webbed & Spudded	Webbed & Spudded	Webbed & Spudded	W
No per track	126	126	114	1
Weight of one Track	2285	2285	2600	2
Track width	14”	14”	15.5”	1
Engine	Rolls Royce Meteor	Rolls Royce Meteor	Rolls Royce Meteor Rolls Royce Meteor	Ro
B.H.P	21.8	21.8	21.8	2
Max road speed	38.75	38.75	38.75	3
Average road speed	25.6	25.6	25.6	2
Cross Country Speed	16.6	16.6	16.6	1
Gear box type	Z5 Constant Mesh	Z5 Constant Mesh	Z5 Constant Mesh	Z
Gears	5 Forward 1 Reverse	5 Forward 1 Reverse	5 Forward 1 Reverse	5
Fuel consumption (road) – MPG	1.43	1.43	1.43	1
Fuel consumption (cross country)	0.76	0.76	0.76	0
Petrol	116	116	116	1
Auxiliary capacity		-	-	-
Radius of action (road)	165	165	165	1
Radius of action (cross country)	88	88	88	8
Trench Crossing	7'-9”	7'-9”	7'-9”	7
Vertical obstacle	3'	3'	3'	3
Fording height	4'-6”	4'-6”	4'-6”	4
Gradient	24	24	24	2
Main Armament	6 Pounder/75mm	95mm How	6 Pounder/75mm	
Ammunition	64	51	64	5

Secondary Armament	2x Besa 7.92	2x Besa 7.92	2x Besa 7.92	2
Ammunition	4950	4950	4950	4
Transverse type	Hand & Hydraulic	Hand & Hydraulic	Hand & Hydraulic	H
Max elevation	20	20	20	2
Max depression	12.5	12.5	12.5	1
Turret Ring Size	57.2	57.2	64	5
Optics	No.50x3 No.48	No.50x3 No.48		

Armour Configurati		
Lower Hull Nose	57(I.T.80)	57(I.T.80)
Upper Hull Nose	25(I.T.80)	30(I.T.80)
Hull Front	64(I.T.80)	64(I.T.80)
Hull Sides Upper	32(I.T.80) +14(I.T.120)	44(I.T.80)
Hull Sides Lower	29(I.T.80) +14(I.T.120)	32(I.T.80) +14(I.T.120)
Hull Rear Lower	32(I.T.80)	38(I.T.80)
Hull Rear Upper	25(I.T.80)	38(I.T.80)
Hull Roof (Front)	20(I.T.80)	20(I.T.80)
Engine Deck	14(I.T.100)	14(I.T.100)
Hull Floor Front	6.35(I.T.120)	10(I.T.120)
Hull Floor Rear	6.35(I.T.120)	10(I.T.120)
Turret Front	64(I.T.80)+12.7(I.T.110)	76.1(I.T.80)
Turret Roof (Front)	20(I.T.80)	20(I.T.80)
Turret Roof (Rear)	20(I.T.80)	20(I.T.80)
Turret Sides	51(I.T.80)+12.7(I.T.110)	64(I.T.80)
Turret Rear	44(I.T.80)+12.7(I.T.110)	57(I.T.80)
Turret Floor	19(I.T.110)	19(I.T.110)
Appliqué Armour		25.4(I.T.80)
		Turret Front, Lower Hull Nose
		38.1(I.T.80)
		Hull Front

Production of Cromwell Tanks by year (UK Only)

	1943	1944	1945 (End of May)
Cromwell	1566	3379	
Cromwell	-	39	-
(Of which	1327		
Of which	-	299	