The Comet Tank (A.34)

When the Comet arrived in September 1944 the British had at last a British tank with decent armour, speed and a good gun, many regard it was the best British tank of the war and they are probably right. The Comet was extremely fast, reliable, was easy to drive and had excellent off road performance. The 77mm gun was a slightly less powerful than the 17pdr but was still capable of penetrating thick armour especially when firing APDS ammunition. Armour was decent for a 33 ton tank but clearly inferior to the mammoth German tanks of the period but better than that of tanks such as the Sherman or Cromwell.

The Comet was essentially an enlarged version of the Cromwell, in 1943 attempts were made to mount Vickers' new high velocity 75mm gun in a Cromwell but despite many months and plans to have the tank in production shortly it was found that the gun would not fit into the Cromwell after all. This 75mm weapon was then modified to fire 17 Pounder ammunition and was known as 77mm so that there would not

be confusion over ammunition supplies. The High Velocity 77mm was extremely accurate, more so than the regular 17 Pounder and was mounted on the Comet tank.
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It had been planned to have the first crews equipped and trained with the Comet by December 1944 but due to the German offensive the crews did not have time to train until the new year, the Comet tank ultimately arrived too late but it's high speed was put to good use in Germany, this high speed also allowed to Comet to power its way through rough terrain that other tanks could not.

Interestingly the Comet tank was equipped with a relatively large amount of Amour Piercing Discarding Sabot (APDS) ammunition with around 20% of the armour piercing type of ammunition produced for the Comet being APDS. Both the 17 Pounder and 77mm fired exactly the same projectiles but due to the different cartridge the 77mm had a lower muzzle velocity and thus lower penetration. The turret could also be transverse 360 degrees within 24 seconds.

Name	**Comet**
Type	Cruiser
Production Date	September 1944
Crew	5
(In turret)	3
Length With Gun	25'-1.5”
Length Without Gun	21'
Width	9'-10.25”
Height	8'-6”
Weight	32.7
Ground pressure	13.85
Ground clearance	18”
Track type	Webbed & Spudded
No per track	114
Weight of one Track	3400
Track width	18”
Engine	Meteor
B.H.P/Ton	18.3
Max road speed	32.4
Average road speed	25.2
Cross Country Speed	14.8
Gear box type	Z5 Constant Mesh
Gears	5 Forward 1 Reverse

Fuel consumption (road) – MPG	1.06
Fuel consumption (cross country)	0.64
Petrol	116
Auxiliary capacity	-
Radius of action (road)	123
Radius of action (cross country)	74
Trench Crossing	8'
Vertical obstacle	3'
Fording height	3'-8”
Gradient	35
Main Armament	77mm
Ammunition	61
Secondary Armament	2xBesa 7.92
Ammunition	5175
Transverse type	Electric
Max elevation	20
Max depression	14
Turret Ring Size	64
Optics	No 57x3
Armour	
Lower Hull Nose	64(I.T.80)
Upper Hull Nose	32(I.T.80)
Hull Front	74(I.T.80)
Hull Sides Upper	32(I.T.80)+14(I.T.180)
Hull Sides Lower	29(I.T.80)+14(I.T.180)
Hull Rear Lower	32(I.T.80)
Hull Rear Upper	

	25(I.T.80)
Hull Roof (Front)	25(I.T.80)
Engine Deck	14(I.T.100)
Hull Floor	14(I.T.130)
Turret Front	102(I.T.90)
Turret Roof (Front)	25(I.T.80)
Turret Roof (Rear)	20(I.T.80)
Turret Sides	64(I.T.80)
Turret Rear	57(I.T.80)
Turret Floor	25(I.T.110)

Production of the Comet Tank by year (UK Only)

	1945 (End of May)
Comet	598