

LEOPARD C1 — MAIN BATTLE TANK



The C1 is the Canadian Forces' version of the German designed and manufactured Leopard 1 main battle tank. Following a nine year development cycle, the first Leopard 1 production unit was delivered to the German Army in 1965. Leopard 1 was also supplied to a number of allied countries with production at both Krauss-Maffei and Krupp-Mak running until the early 1980s. In all 6,526 vehicles were produced including recovery, armoured engineer, bridgelayers, driver training and anti-aircraft variants.

Included in this figure are more than 900 vehicles made under licence by Oto Melara in Italy for the Italian Army. The Leopard C1 is a modified version of the 1A3 model fitted with the Belgian SABCA computerised fire-control system. The Canadian order comprised 114 MBTs (gun tanks), six bridgelayers and eight armoured recovery vehicles. The first of these vehicles was delivered in June 1978. Subsequently the Canadian Army ordered nine engineer vehicles and three additional bridgelayers. All of these vehicles are currently in service.

The Leopard C1 hull and turret are of welded steel construction. The turret armour is spaced for increased protection. The internal layout is conventional with the driver seated in front on the right. In the turret the commander and the gunner are seated on the right with the loader on the left. The main armament is the British 105-mm L7A3 rifled tank gun. This gun can fire all the standard 105-mm tank ammunition manufactured in Canada, France, Germany, Israel, the UK and the USA. A 7.62-mm machine gun is mounted coaxially with the main armament and a second 7.62 machine gun is mounted at either the commander's or the loader's hatch for anti-aircraft defence.

The Nuclear, Biological, Chemical (NBC) protective system is installed in the front of the hull and produces an air over-pressure in the crew compartment. In normal use this provides the crew with fresh air and in the NBC mode filters chemical and biological agents as well as radioactive particles from the air supply. Standard equipment includes an automatic fire extinguishing system, heater, hull escape hatch and infra-red reflection suppressing decontamination paint.

The engine compartment at the rear is separated from the crew by a fire-proof bulkhead. The complete power pack of engine, transmission and cooling system is provided with quick disconnect couplings to allow field replacement within 20 minutes. The transmission has four forward and two reverse gears as well as a torque converter and a lock-up clutch.

The running gear consists of a rear drive sprocket, a front idler, seven dual road wheels and four track return wheels for each track. Hydraulic shock absorbers are provided at five of the seven road wheel stations. The Diehl track are supplied with rubber-bushed track pins and rubberized track pads.

TECHNICAL DATA

Crew:	Commander, Gunner, Loader, Driver	
Weights:	Combat loaded	42400 KG (47 tons)
	Unloaded	40400 KG (44 tons)
Length:	Gun forward (12 o'clock)	9.54 M
	Gun over rear (6 o'clock)	8.17 M
Width:	3.37 M	
Height:	Turret Top (less antenna) 2.62 M	
Range:	approx: 600 KM	
Max. Road Speed:	62 KPH	
Max. Reverse Speed:	24 KPH	
Ground Clearance:	44 CM	
Engine:	MTU V 10 Multi fuel engine producing 830 BHP	
Max. Trench Crossing:	3 M	
Climbing Ability:	(vertical step) 1.15 M	
Max. Gradient:	60%	
Main Armament:	British L7A3 105-mm (stabilized with thermal jacket) Number of rounds for main armament: 55	
Other Armament:	2x7.62 machine guns (One coaxial with main gun, the other on hatch for anti-aircraft use) 8x76-mm grenade launcher barrels mounted 4 on each side of turret, personal weapons and various smoke and HE grenades in turret storage.	



Leopard Armoured Recovery Vehicle