



Combat Vehicles Research & Development Establishment

CVRDE



About the Lab

Combat Vehicles Research & Development Establishment (CVRDE)

has its origin as the Chief Inspectorate of Mechanical Transport Establishment, set up at Chaklala (now situated in Pakistan) in 1929. After the Independence of India, this establishment was moved to Ahmednagar to form Technical Development Establishment (TDE Vehicles). It was later transformed into Vehicle Research & Development Establishment (VRDE), Ahmednagar. In 1965, when a decision was taken for manufacturing Vijayanta Tank, the Heavy Vehicles Factory was set up at Avadi. To render R&D support to HVF, a detachment of VRDE was established as a nucleus at Avadi. In 1969, a need was felt to set up an independent DRDO laboratory for handling tasks relating to Armoured Fighting Vehicles. Accordingly, in March 1975 the detachment of VRDE Avadi was re-designated as Combat Vehicles Research & Development Establishment (CVRDE).



ARJUN Mk 1

CVRDE has developed indigenous combat vehicle, **ARJUN Mk 1 & Mk 1A** for armed service. Based on CVRDE's expertise in transmission system, CVRDE has ventured into the system development for aircraft programme. Thus expertise in high speed Gear box has contributed the realization of maiden project on Design & Development of Aircraft Mounted Accessory Gear Box (AMAGB) for the Light Combat Aircraft (LCA). Subsequently other critical LRUs viz., Aircraft filters, Power Take-Off (PTO) Shaft and Aircraft Bearings were developed. Presently all LCA-Tejas are flying with indigenous AMAGB, Hydraulic filters. Indigenous PTO shaft is under flight trials. Based on the successful development of these products, CVRDE has taken indigenous development of 5 kW BLDC Generator for LCA. CVRDE has also developed Landing Gear for TAPAS UAV and currently working on Landing Gear system for Swift.

List of Products

Army

- ARJUN Main Battle Tank Mk 1 ARJUN Main Battle Tank Mk 1A
- Armoured Recovery & Repair Vehicle (ARJUN ARR)
- 130 mm SP Gun (VIJAYANTA CATAPULT)
- Carrier Mortar Tracked on BMP-2 (CMT)
- Bridge Layer Tank (BLT-T72)
- Combat Improved AJEYA
- Carrier Command Post Tracked (CCPT)
- Armoured Ambulance Tracked (AAT)
- 155 mm 52 Calibre Self Propelled Tracked (BHIM)
- Armoured Patrol car (SCOUT CAR)
- 130 mm CATAPULT Gun system on ARJUN Chasis



Navy

Aircraft Mounted Accessory Gear Box (AMAGB) for LCA-Navy

Hydraulic filters for Submarine Sea water separator, Diesel water separator for Submarine



AMAGB



Aircraft Bearings



PTO Shaft



5kW BLDC Generator



Airforce

- ▶ Aircraft Mounted Accessory Gear Box (AMAGB) for LCA-Tejas
- ▶ Hydraulic Filters for LCA-Tejas
- ▶ Power Take-Off Shaft for LCA-Tejas
- ▶ Aircraft Bearings
- ▶ 5 kW BLDC Generator
- ▶ Retractable Landing Gear System for TAPAS UAV
- ▶ Retractable Landing Gear System for SWIFT



1T LGS



3T LGS



TAPAS UAV



**COMBAT VEHICLES RESEARCH &
DEVELOPMENT ESTT. (CVRDE)**
AVADI, CHENNAI - 600054