



# Bulldozer Blade and Recovery Winch for Armored Vehicles



Albayda  
Establishment SL



Any Armored vehicle can be converted for engineering tasks by adding this set.

#### **Dozer Blade**

Total length: 2,500 mm

Total width: 605 mm

Weight: 300 Kg.

#### **Recovery Winch**

Max rolling speed: 14-11 m/min

Cable length: 20 m 4 layers

Weight: 120kg.

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*Thinking in the  
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## **TECHNICAL SPECIFICATIONS**

Any armored vehicle can be converted into an engineering vehicle by adapting this blade and the recovery winch in the front part of the hull.

Hydraulic power source at 120 bars is used to power the hydraulic winch and the bulldozer blade.

This equipment does not impair the normal capabilities of the vehicle, or its payload capacity. The vehicle remains amphibious and the dozer blade can act as a trim vane in the water once the standard trim has been removed.

The hydraulically operated winch has a direct pull of 8,000 Kg and is located at the front right hand side of the hull.

## **DESCRIPTION**

The dozer blade attachment is formed by three main assemblies. The first is a bulldozer blade modified to improve its performance when working in hard terrain and sandy soils. The second part is the electro-hydraulic unit which is completely sealed to enable operation under water. It is connected to the vehicle electrical system to supply hydraulic power to the cylinders. The unit can be easily and quickly replaced for maintenance. There is also an emergency electro-hydraulic power pack to operate the blade, recovery winch and the hydraulic steering of the vehicle in case of a main engine failure. The electro-hydraulic system, the movement of the blade and the winch are controlled from a control box using a joy lever inside the driver's compartment.

The third part of the dozer blade attachment is the main structure which includes the adaptor and the arms, it carries the dozer blade. The structure was designed to withstand vibrations caused by high vehicle speed when crossing difficult terrain. The blade can be cocked in its upper (travel) position manually in case hydraulic system is damaged. The high folding geometry of the attachment enables the carrier vehicle to negotiate steep banks, terraces and vertical obstacles.

## **OPERATION**

The dozer blade attachment operates in several modes. The first is the travel position with the blade in the uppermost position. In the blade down mode, the hydraulic cylinder pushes the blade down into the soil for heavy earth moving. The attachment has automatic hydrostatic locking at any specific position and a mechanical safety lock (using the travel lock) at the highest position.

The attachment can be installed and removed by the vehicle crew in about 20 minutes. The blade is made of steel and fitted with replaceable hardened steel cutting edges and corner tips. This assembly can be fitted to any light and medium armored vehicle, such as M-113, Piranha, VAB, PANDUR, BMR or any other 6x6 or 8x8 personnel carrier.