



MECHANICAL

Armtrac 20T Mk2 C-IED Demining Robot

Applications

Handheld
Ground preparation

Types

Metal detectors (MD)

Last update

01/01/1970

General description

The Armtrac 20T C-IED Demining Robot is a flexible, cost effective, remote controlled Small (Heavy) Unmanned Ground Vehicle (UGV). It can be fitted with a variety of toolkits including a demining flail or tiller and at the same time a rear robotic arm equipped with different attachments. In C-IED operations, a detector system can be mounted on the front and an IED disruptor can be fitted on the rear robotic arm. It has a 74 HP diesel water cooled Kohler engine which can operate for several hours continuously without refuelling. All hydraulic hoses and couplings are internationally common.

Working characteristics

The Armtrac 20T is operated using a control station. The control station transmits operator demands to the UGV and facilitates operation of the UGV by displaying key vehicle data such as RPM, vehicle speed, temperature and fuel level. The Robot can be fitted with digital video feedback from up to four on board HD cameras; one forward, one at the rear and the other two on the Robotic Arm and Manipulator system to aid detailed remote investigation. The video system utilises the latest technologies to create a very high speed, closed & restricted long range WiFi network, through which the cameras communicate streamed video to the Operator displayed on a ruggedized notebook. The Tiller tool spins at 310 - 400 RPM and has a clearance width of 1515mm (Flail 1476mm). It is attached using a quick hitch coupling. It clears Explosive Ordnance (EO), including anti-personnel mines and Improvised Explosive Devices (IED) by detonation or by shattering the EO so it cannot function. The tiller can achieve clearance depths down to 150 mm depth or 250 mm in softer soil & has been tested against 3 Kg of explosives. This demining tool is also an efficient vegetation cutter up to 35 mm diameter when used in conjunction with manual or canine search and clearance techniques. The hydraulic Robotic Arm can be fitted onto the rear of the Armtrac 20T using a quick hitch system simultaneously with a tiller/flail on the front. The arm can attach a Grapple or a Manipulator Grab for investigating suspect EO or moving EO to a safer location for further investigation or render safe procedures. Alternatively, the arm can operate a vegetation cutting strimmer or a standard Scrape Bucket for exposing buried EO/IEDs or constructing trenches to mitigate the effects of EO. The Manipulator Gripper, Grapple, Scrape Bucket and the Strimmer can all be exchanged rapidly using standard tools. A Disruptor or Exploder for disposing of surface IEDs can be fitted to the Excavator to give additional capability. To complement this and other requirements, the close up camera system fitted on the Robotic Arm provides a live video link to the operator. The Armtrac 20T is inherently flexible and can clear UXO from hard surfaces, inside buildings and on roads and runways. However it is also a powerful workhorse for light engineering tasks in hazardous areas and when a forward mounted bucket, forklift or dozer blade are attached, it can undertake small engineering tasks and/or remove suspect devices

Dimensional data

| | |
|------------------------|------------|
| Overall length | 3250.00 mm |
| Length with attachment | 3870.00 mm |
| Overall Width | 1900.00 mm |
| Overall Hight | 1600.00 mm |
| Fits in container | 2 |

Factory support data

| | |
|-----------------|---|
| Factory support | Armtrac will 1. Provide training for operation and maintenance 2. Provide an engineer to maintain larger Armtrac fleets 3. Provide an operator/service engineer for rental machines 4. Supply follow up spares quickly and efficiently. |
| Warranty | 12 months standard |

Price

| | |
|--------------------|---|
| Possible to rent | 1 |
| Price for training | Depends on previous experience and length of training package |

Other

| | |
|-----------------------------------|----------|
| Other models | A20T Mk1 |
| Estimated quantity in use to date | 16 |

Operational data

| | |
|--|---|
| Tracks | 1 |
| Ground bearing pressure tracks | 0.27 Kg/cm2 |
| Hill climbing ability (max gradient degrees) | 30.00 ° |
| Rotation speed from | 310.00 rpm |
| Rotation speed to | 400.00 rpm |
| Clearance depth in varying terrain from | 15.00 cm |
| Clearance depth in varying terrain to | 25.00 cm |
| Working speed for light soil with medium vegetation | 0.00 m2/h |
| Working speed for medium soil with medium vegetation | 0.00 m2/h |
| Working speed for heavy soil with dense vegetation | 0.00 m2/h |
| Control of clearance depth | Depth Control fitted |
| Armor | Armox 440T |
| Greatest remote controlled distance | 1000.00 m |
| Mechanical tools / attachments | <p>Tiller, Flail, Rotary Mine Comb, Robotic Arm with bucket, manipulator, grapple and strimmer, Detector (Metal and GPR), Front Loading Bucket, Dozer Blade</p> |

Engine specifications

| | |
|---------------------------|--------------|
| Engine type / description | Kholer |
| Engine max power | 58.00 hp |
| Fuel capacity | 78.00 l |
| Fuel consumption | 16.00 l/h |
| Cooling system | Water Cooled |
| Oil capacity | 75.00 l |
| Connectivity | Hydraulic |

Vehicle electrical system

| | |
|------------------|-----------|
| Battery voltage | 7.20 Volt |
| Battery capacity | 0.75 Ah |

Other information

You can hire/lease a remote controlled A20T on a calendar day rate for a minimum period rather than purchasing it. Equipment will require a refundable deposit reimbursed on return to Armtrac, will supply the following as part of the day rate:

- 1. One toolkit (tiller/ flail/mine comb)
- 2. An operator/service engineer
- 3. Routine servicing spares except consumable items/POL

Images







