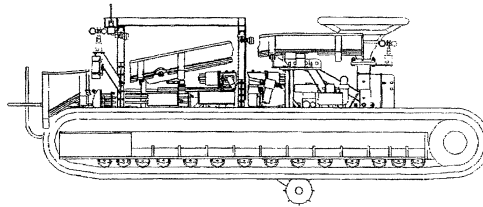


# GATOR Specifications



Gator is a trackable, self propelled, shallow water cable trenching device designed to provide a cost effective, comprehensive subsea cable trenching system that is modular, easily shipped and can be operated from vessels of convenience.

## General

Description : Underwater Cable Trenching System  
Owner : **Aqua Diving Services Ltd**

## Capabilities

Cable diameter : From 10mm to 200mm diameter  
Min. Bending radius : 1,5meter  
Operation Depth: : On shore line & in sea to 50msw(water cooled)  
Operating radius : 750 metres (approx)  
Trench Depth : From 0.8 to 2.0 metres  
Minimum turn radius : Vehicle can turn in place (back&forth)  
Uneven terrain : 0 – 20 degree slope  
Max speed : 500 metre/hour (soft seabed)  
Max Drawbar : 10,000kg (tractive torque)  
Min Ground Pressure : 7Kpa Bearing (can be winch assisted & added floatation)  
Tracks : Dual with changeable 'shoes'  
: 48inch synthetic  
: 12inch steel  
Water temperature : -5° C to 30° C  
Beach/deck temperature : -10° C to 50° C

## Suitable Seabed Conditions

: Stiff Clay  
: Compact Sand  
: Coral  
: Rock

## Tools

Jetting Device (soft) : Trench depth to 1.5m  
Chain Cutter (medium) : Trench depth to 2.2m  
Earth Saw (hard) : Trench depth to 0.8m

## Sensors on the Gator

- Pitch and roll
- Heading
- Water detection
- Depth transducer
- Track speed
- Speed over ground
- Cable angle, tension and emergency stop
- Cable line counter
- Auto tracking guide sensors
- Two Video Cameras
- Sonar
- Optional Cable tracker

## Power Canister

Instrumentation & light transformer  
(2) x 500watt dimmer circuits, ground fault detector circuitry, seawater & temperature detect instruments, 1500msw rated

## Dimensions

(base vehicle)  
Width : 4.87m  
Length : 548m  
Height : 2.43m  
Weight : 9.0 tonnes in air  
: 6.2 tonnes in water

## Shipping weight

18tonnes (6x20ft & 1x40ft containers)

## Input Power requirements

Prime Power : 440vac, 3 phase, 60 Hz,  
350kVA

## Hydraulic power system

: (2) x 75hp Electric motors  
: 230VAC, 3 phase, 60Hz, ,3500 rpm  
: 66GPM (US) at 3,000 psi

## Spare Hydraulic power

: 1 capped connection for 3,000psi filtered flow

## Propulsion system

2 hydraulic motors through 116:1 planetary gears

## Heading Control

Automatic  $\pm 1^\circ$  or manual

## Power source

: 460VAC, 3-phase, 60HZ 300A input  
: 120VAC single phase, 5KVA for instrumentation  
: 240VAC, 3-phase, 50HZ supply to vehicle from surface power transformer unit

## Universal tool attachment point

Pivots  $\pm 10$  degrees about vertical axis.

## Camera Interfaces

: Cables & connectors for 2 cameras on vehicle

## Lighting system

: 4 each 250 watt, on 2 dimming circuits

## Heading

: KVH 1000 Fluxgate compass

## Depth

: High sensor, 0-2 over full scale and auto depth control

## Pitch & roll

: Inclinometer 0.5° accuracy

## Scanning sonar Control Canister

UDI Sonavision 40000  
Contains subsea computer & control system on a slide in tray

## Pan & Tilt Subsea Computer

(2) X Trittech non feedback  
Pentium, STD 32 Bus

