

aftrak
AFRICA TRACTOR



Aftrak e1 – MicroElectric Tractor
Where green energy meets agriculture





Our Story

The story begins in Africa, where one of the co-founders, Jonathan Wilson, was on a mission to end multidimensional poverty. The solution, small-scale climate-smart agricultural mechanisation combined with modular solar energy.

The product is revolutionising farming in Africa, empowering young and female farmers, changing livelihoods, and winning many awards along the way.

Whilst developing the product for Africa, the Aftrak team realised that micro-electric tractors are also ideally suited for supporting EU and UK farms in their endeavours to reach net zero, through cleaner, quieter mechanisation.

Aftrak e1 has been designed to deliver impact in both African and European markets



Who we are

Aftrak is a UK based social venture meaning our focus on impact, not profits. We make products with people for people, and at prices they can afford.



Where we are going

Our missions is to grow Aftrak's impact, bringing affordable, clean and practical solutions to more farmers and communities in Africa, the UK, and beyond.





Our Impact

This is more than words on a page, and corporate green washing. Our product has been strategically designed to deliver on the UN's Sustainable Development Goals.

7 AFFORDABLE AND
CLEAN ENERGY



The solar modular microgrids enable affordable energy access for rural and off-grid communities.

Our accessible technology supports gender equality by reducing barriers and creating more opportunities for women farmers.

5 GENDER
EQUALITY



13 CLIMATE
ACTION



The electrification of mechanisation delivers climate action by replacing fossil-fuel-based systems with cleaner, more sustainable alternatives.

2 ZERO
HUNGER



Improved farming techniques help tackle hunger and poverty by increasing productivity, strengthening food security, and moving farmers beyond subsistence farming.

1 NO
POVERTY



Handel Bar Rotation

Handle bars rotate for transition between front and rear loaded tooling.

Display

Shows key operating information including throttle percentage, battery level, and error codes.

Direction Control

Three forward gears two reverse gears. Easy transition from one to the other.

Differential Locking

Three easy transitions in varying ground conditions. Differential locking prevents slipping in the muddiest of fields.

Throttle Control

Settable throttle allows the operator to adjust travel speed smoothly to suit different working conditions.

Accessible Controls

Gear stick, PTO engagement, and handlebar adjust all conveniently accessible

Electric PTO

Anderson connector used for charging and to power electrical machinery such as pumps and threshers

Battery Unit

The 52 V, 105 Ah battery unit supplies clean, dependable power for daily operation and is designed for quick handling, charging and replacement.

Head Light

Night working enabled by high illumination LED head light. This 48 V head light ensure safe evening working

Bull Gard

A robust front protection bar designed to shield the machine from impact and improve durability in demanding field conditions.

Motor Unit

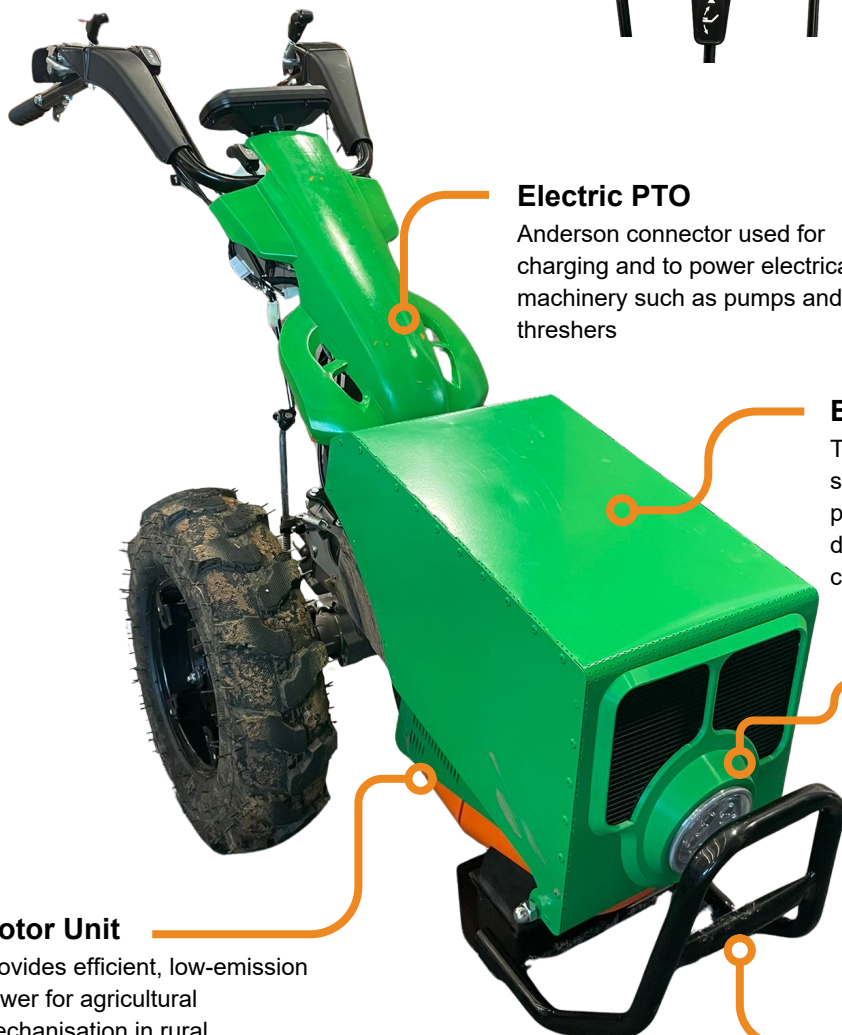
Provides efficient, low-emission power for agricultural mechanisation in rural environments.

Power Control

Simple variable power control enables smooth and safe running across all ground conditions.

PTO

Delivers power to compatible attachments, helping the machine perform a wide range of agricultural tasks.



8 kW

Peak Power

5.2 kWh

Battery Storage

~ 5 h

Run Time

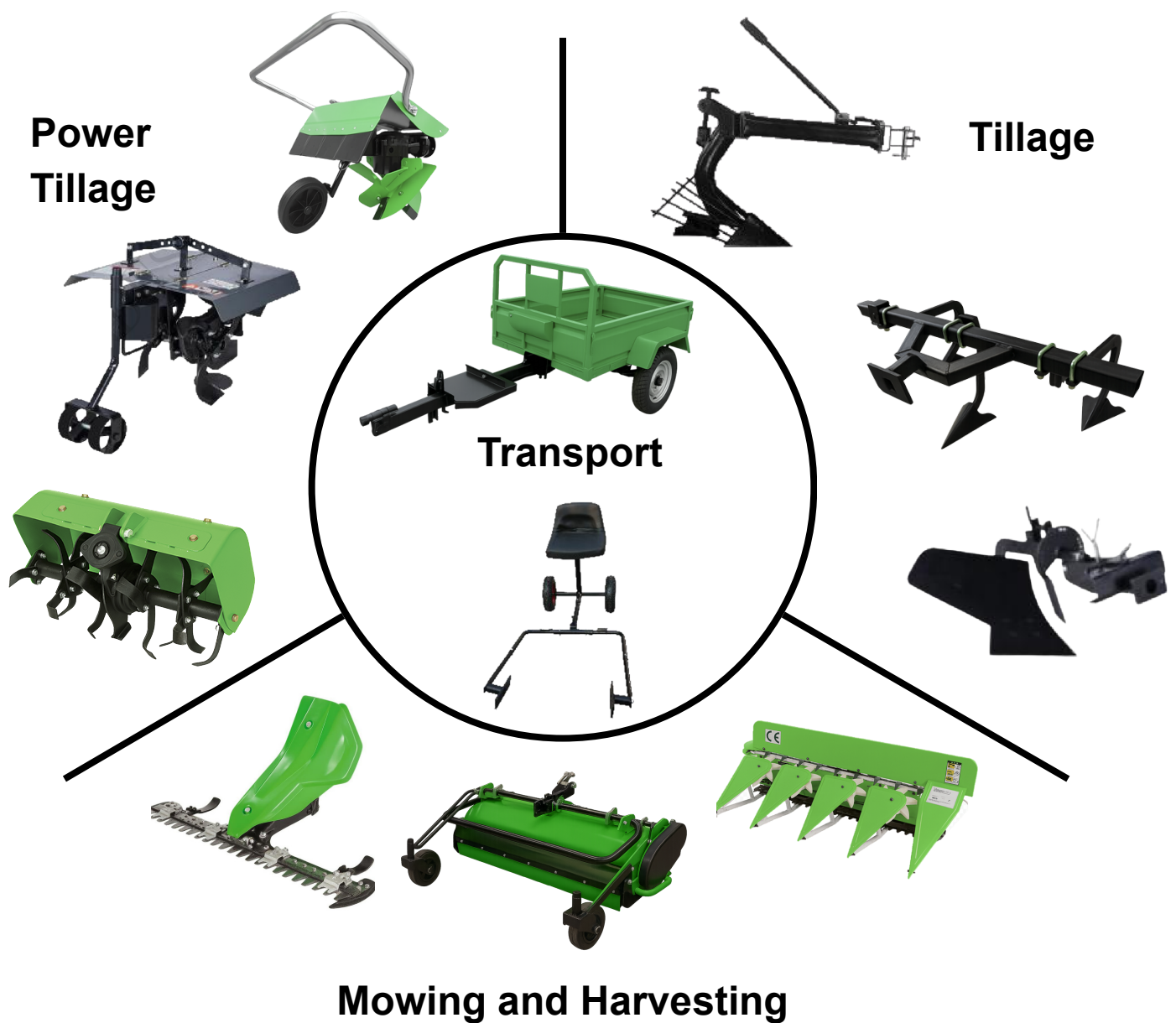
The Technical Bits



Weight	Kg	150	Unloaded weigh
Width	m	0.75	Handel bar width
Height	m	1.2	At its maximum
Length	m	2	Noise to handlebars
Track Width	m	0.68	Including spacers
Wheel Size		5.00 x 10"	Pneumatic Chevron
Gears		3 / 3	3 forward and 3 reverse gears
Top Speed	kph	20	Only on forward; 3rd gear
Battery Storage	kWh	5.2	105 Ah
Power	kW	5.0 / 8.0	Continuous / peak : 6.7 / 10.7 hp
PTO	Standard PTO for a range of implements		
Operating (Transport)	h	5	5 hours of transport pulling trailer
Operating (Digging)	h	1.5	Deep earth working to 300 mm
Turning Circle	On the Spot		
Maximum Gradient	deg	45	Incline and decline
Operating Temperature	degC	-12 - 55	No charging below 0 deg
Max Operating Altitude	m	2000	



One machine does it all



Tillage



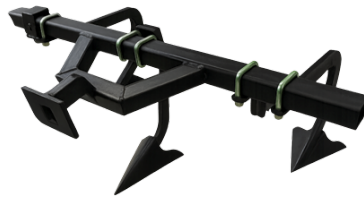
Ridger

Overview:

The Ridger is a simple attachment for shaping crop rows and forming beds in prepared ground.

Features:

Designed for ditching and bed forming; useful for row-crop layout; practical tool for structured planting preparation.



Rear Tine Cultivator

Overview:

The Rear Tine Cultivator is intended for inter-row cultivation, helping operators manage weeds while working between planted rows.

Features:

Three-row cultivator format; adjustable tine placement; designed for weed removal between crop rows; supports more accurate cultivation in established plantings.



Potato Digger

Overview:

The Potato Digger is built to lift root crops from the soil efficiently at harvest time.

Features:

Designed for harvesting underground crops; helps lift root vegetables cleanly from the ground; useful for reducing manual harvesting effort.



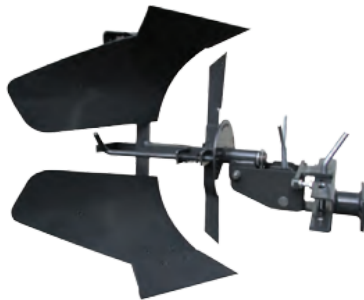
Mouldboard Plough

Overview:

The Mouldboard Plough is a straightforward soil-turning implement for cultivated land, suited to routine ploughing and furrow work.

Features:

Gross/net weight 24/22kg; packed size 60 x 43 x 28cm; designed for ploughing cultivated ground; simple, practical option for basic soil preparation.



Reversible Mouldboard Plough

Overview:

The Rotating Mouldboard Plough provides a ploughing solution for cultivated land where efficient soil turning and row preparation are needed.

Features:

Gross/net weight 34/32kg; carton size 63 x 59 x 28cm; intended for ploughing and cultivated-land preparation; heavier-duty mouldboard option within the Afrak lineup.

Power Tillage



Power Ridger

Overview:

The Power Ridger is a powered shaping tool for ditching, earthing-up, banking, and row formation in vegetable and field-crop systems.

Features:

Working width 40cm; working depth 30cm; suited to water and fertiliser ditch creation; also supports banking, row ridging, and bed forming.



Rotary Plough

Overview:

The Rotary Plough is designed for tougher ground conditions, combining soil breaking, reclamation, and earthing-up in one attachment.

Features:

Working width 25cm; working depth 30cm; suitable for hard soil and sod; supports ploughing, land reclamation, and ridge-building tasks.



Rotavator

Overview:

The Rotavator is a versatile tillage tool for seedbed preparation and general cultivation, making it useful for both first-pass and follow-up soil work.

Features:

Working widths 68cm and 80cm; working depth 20-25cm; suited to primary and secondary tillage; helps break sod, prepare seedbeds, and cultivate hard soil.

Transport



Trailer

Overview:

The Trailer adds haulage capability to the Afrak system, making it useful for moving tools, produce, and materials around the farm.

Features:

Bed size 100 x 75 x 30cm; tyre size 4.0-10; ride-on trailer format; designed for light farm transport and haulage.



Sulky

Overview:

The Sulky converts the walking tractor into a ride-on configuration for greater operator comfort during suitable tasks.

Features:

Ride-on attachment format; changes the machine from pedestrian use to seated operation; useful for reducing operator fatigue on longer jobs.

Mowing and Harvesting



Cutter Bar Mower

Overview:

The Cutter Bar Mower is designed for crop cutting and vegetation control across farm and yard environments.

Features:

Working width 110cm; cuts brush up to 1-2cm diameter; side-to-side articulation follows terrain contours; suited to cereal harvesting, topping, and yard maintenance.



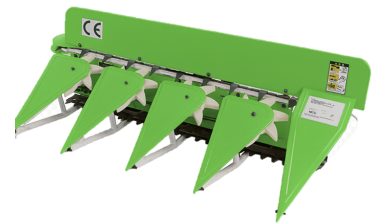
Flail Mower

Overview:

The Flail Mower is a multi-purpose mowing and mulching attachment for grass, brush, bush, shrub, and crop residue management.

Features:

Working widths 60cm and 100cm; 30 or 48 blades depending on version; adjustable working height; suited to mowing, mulching, and land reclamation.



Harvester

Overview:

The Harvester is designed to cut and gather multiple crop rows into a single laid row, improving efficiency during harvest operations.

Features:

Working width 120cm; working height 3-8cm; working capacity 0.2-0.3 hectares per hour; aligns cut crop heads in one direction for easier collection.

Extras



Iron Wheel Set

Overview:

The Iron Wheel Set is a traction accessory for improving grip in demanding field conditions. Size 5.0-10; built to improve traction in both wet and dry soil.



Wheel Weight

Overview:

The Wheel Weight improves machine stability and traction by adding weight directly to the wheel setup. Available in 15kg and 30kg options.



Axle Extension

Overview:

The Axle Extension helps adapt wheel spacing to field requirements and can support improved traction setups.