

# SEPSON SEPTRAC



Recovery winch with separate traction and rope storage units

For superior performance, flexible vehicle  
integration and constant pulling force

- Constant pulling force along entire rope length.
- Flexible installation with separate rope storage unit.
- Compact, space-efficient traction unit.
- Storage unit size defined by rope length only.
- Low tension storage – protects rope from wear.
- Low operation cost and long service life cycles.



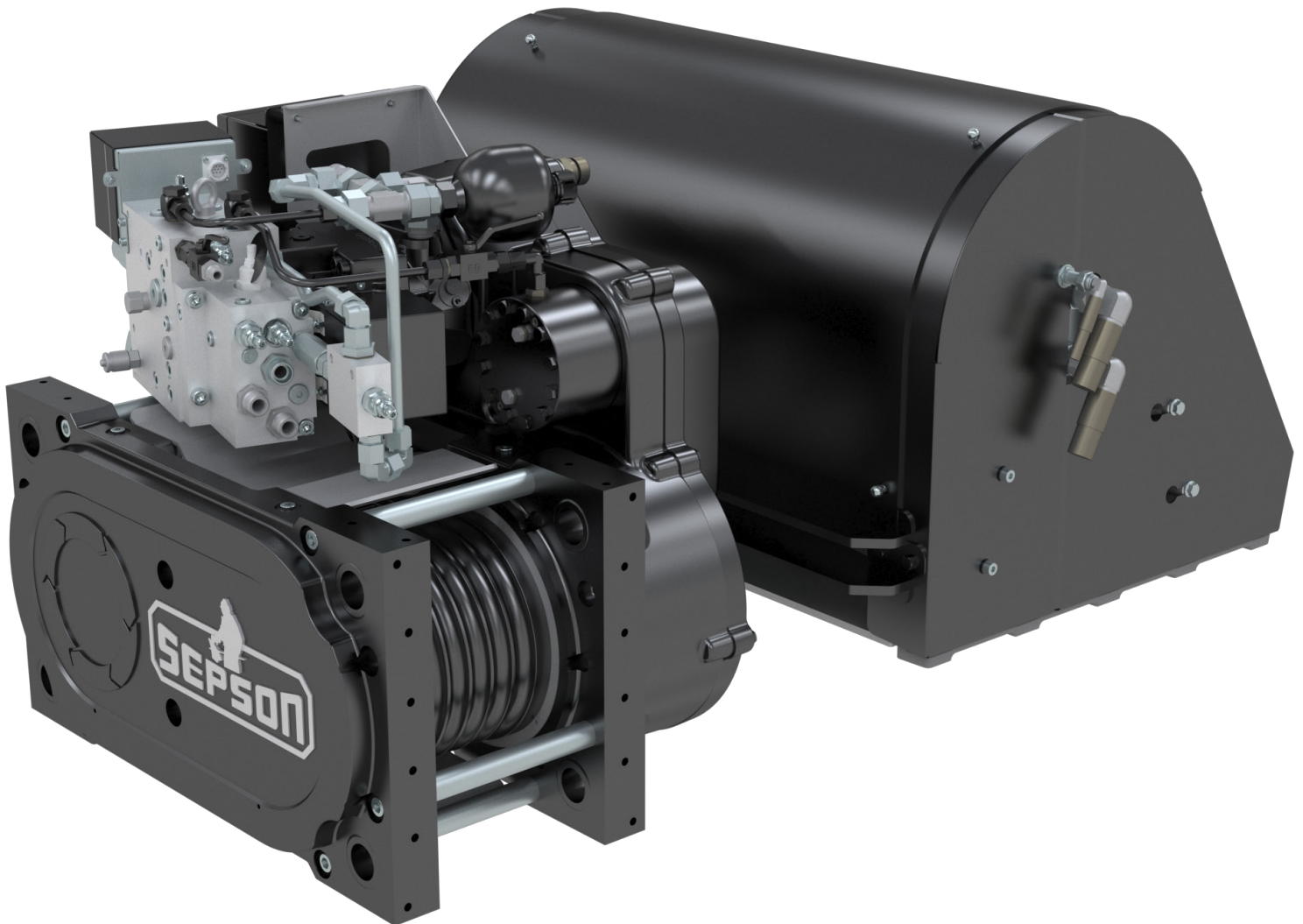
## Constant pulling force along the entire rope length

**SEPSON SEPTRAC** uses two separate units – one for pulling and one for storing the rope – allowing for constant pulling force and constant rope speed, regardless of rope length and spool diameter.

Hence, the **SEPSON SEPTRAC** traction unit is optimized to let the powerful motor smoothly offer the same performance and speed over the entire rope length. No loss of pulling force and no stops or jamming. In comparison a conventional drum winch must overcompensate, resulting in an "oversized design", dimensioned to handle the top layer pull force and the massive pressure from the high tension rope storage.

## Compact design – small space claim

The compact traction unit, with its fully integrated planetary gearbox, is smaller than a conventional drum winch and can be mounted separately from the storage unit, with a guiding of the rope between the two units. This design ensures a small space demand and offers great flexibility in vehicle integration and choice of rope entry point. The rope storage unit can be dimensioned, positioned and oriented independently of the traction unit position and the wire rope entry point. All of which provides vehicle designers and manufacturers with unsurpassed advantages.



## Flexible installation

Different vehicles require different winch applications.

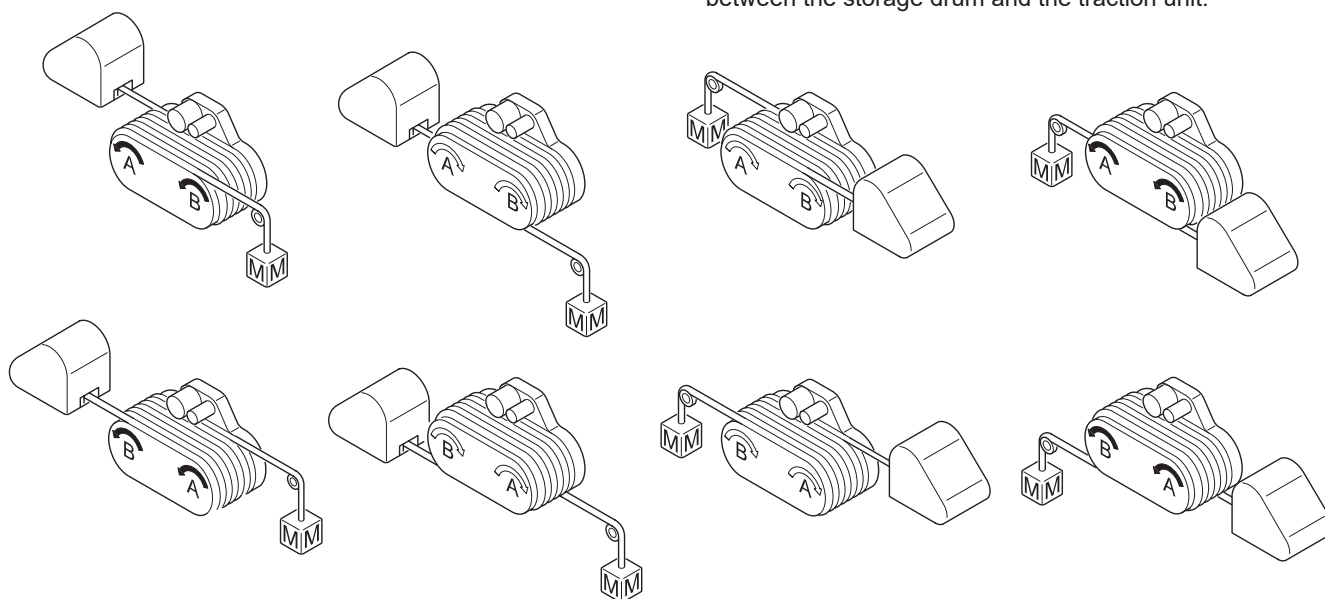
Due to the separate traction and storage units

**SEPSON SEPTRAC** offers a wide range of flexibility regarding:

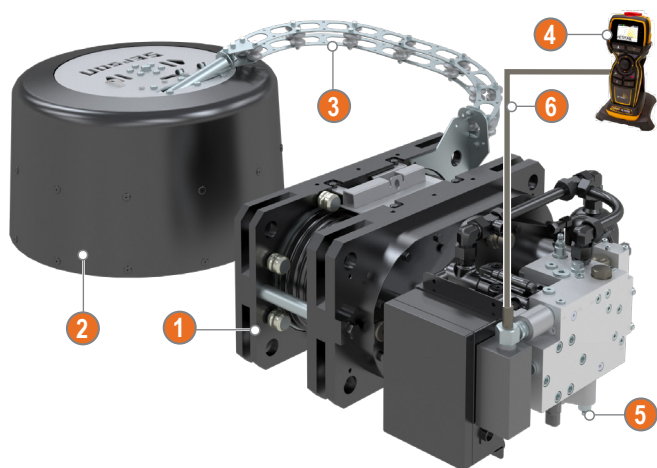
- vehicle integration
- rope entry point
- rope length.

For **SEPTRAC H150/H200/H250** eight different rope entry points are possible, supporting a flexible vehicle integration. The different configurations all include the same parts, only differing in how they are assembled in the winch.

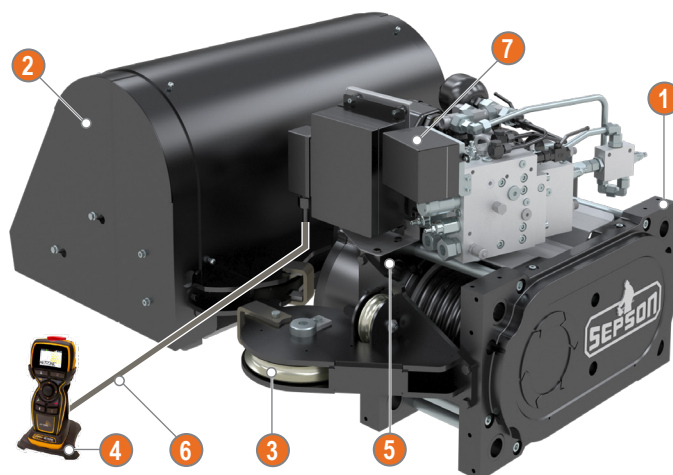
The **SEPTRAC** powered storage drum can be assembled several meters away from the traction unit. The restriction is the number of redirecting pulleys used between the storage drum and the traction unit.



## SEPTRAC Layout



1. **SEPTRAC H100**
2. Storage drum (90m)
3. Rope guide
4. Remote radio control
5. Directional valve (hand lever for manual control)
6. Back up cable for remote control



1. **SEPTRAC H200**
2. Storage drum (100m)
3. Rope guides (optional)
4. Remote radio control
5. Control box
6. Back up cable for remote
7. EMC (optional protection over sensors and coils)



## Low tension storage protects rope from wear and ensures safe service operation

With, or without, intermediate rope guidance, the rope winds up onto the storage unit, with a modest back tension force of just 2-4% of the available **SEPTRAC** pulling force (H150/H200/H250). The low storage tension force eliminates the risk for crushing layered coils as well as jamming when rewinding a slack rope. It also ensures long rope life, and safe service operation.

**SEPTRAC H100** has a storage drum where rope is pushed into the drum, making it turn. For extra long rope lengths, powered storage drums are also available.

Storage drums are available in several different sizes to utilize the available package space. **SEPTRAC H150/H200/H250** have powered storage drums and can therefore accommodate long rope lengths.

### TECHNICAL DATA

#### SEPTRAC H100

Rope dimension: 14 mm  
Rope length: 60-90 m

#### SEPTRAC H200

Rope dimension: 20 mm  
Rope length: 60-165 m

#### SEPTRAC H150

Rope dimension: 18 mm  
Rope length: 65-180 m

#### SEPTRAC H250

Rope dimension: 22 mm  
Rope length: 55-150 m



Storage drum 65 m



Storage drum small

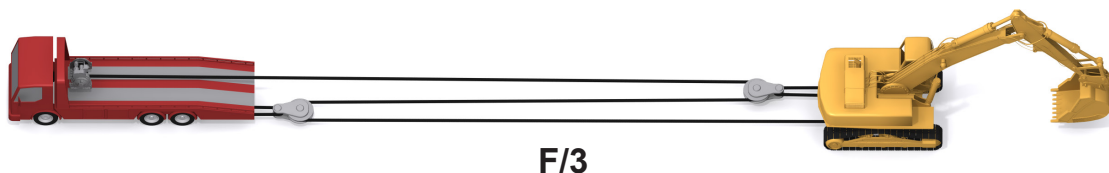
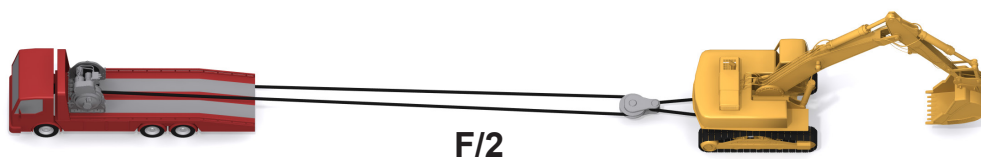
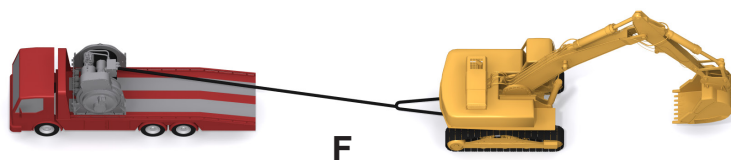


Storage drum large

## Multiple rope pull

By using longer rope lengths it is possible to use a double or triple pull to increase pulling force. With longer rope lengths it is also possible to have smaller winches

and rope dimensions. Smaller rope dimensions are easier to handle for the operator and can also make it possible to reduce the need of an auxiliary winch.



## General description

### Two speed engine

The axial piston motor used for **SEPTRAC** has a variable displacement. The H150/200/250 have a force steered gear change, meaning that the winch is pulling at high speed and low force and more power is required, the motor will automatically reduce the speed and increase the pulling power to meet the requested pulling force. The H100 has a two speed motor offering only high speed/low pulling force or low speed/high pulling force.

### Radio remote control

A control system including radio remote control is standard for all **SEPTRAC** winches. If radio silence is needed or the battery is depleted it is also possible to use the remote control tethered. The **SEPTRAC** control system is designed to meet MIL-STD-461G.

### End-of-rope sensor

All **SEPTRAC** systems are equipped with an end-of-rope

sensor. The sensor and the control system automatically stop the winch system when the rope end comes close to the traction unit. After such a stop, only pay-in is possible.

### Pulling force measurement

A force measurement function is also standard for all **SEPTRAC** winch systems. During pulling or lowering load at low gear, pressure sensors are measuring the delta pressure over the motor and translates the difference to a pulling force. The pulling force is visualized to the operator via the remote control's screen.

### Accessories

The **SEPTRAC** winch system can be equipped with rope trumpet/fairlead by **SEPSON** upon request. Winch attachments can be designed and manufactured by **SEPSON**. Special control systems for twin winch systems can also be offered.

## Twin winch system

The Septrac winch system suites very well for twin winch applications. Since Septrac's modular architecture enables mirroring of the traction units with same ingoing parts it's easy to have a symmetrical rope entry and installation. Sepson can also offer remote controls specially made for twin winch system. Via the remote it's possible to control each winch individually and simultaneously with high accuracy proportional levers. Sepson can also offer the possibility to steer other functions on the vehicle via the remote control and CANbus e.g. start of TPO, flood lights and control of support legs.



## SEPTRAC H100

### Pulling force

Nominal force - Low speed	100 kN
Max force	120 kN
Nominal force - High speed	10 kN

### Rope speed

High speed	35 m/min
Low speed	10 m/min

### Vehicle interface

Max oil pressure	260 bar
Max oil flow	65 l/min

### Traction unit dimensions

Weight	165 kg
Length/Width/Height	550/590/280 mm
Drum PCD	205 mm
Drum grooves	6

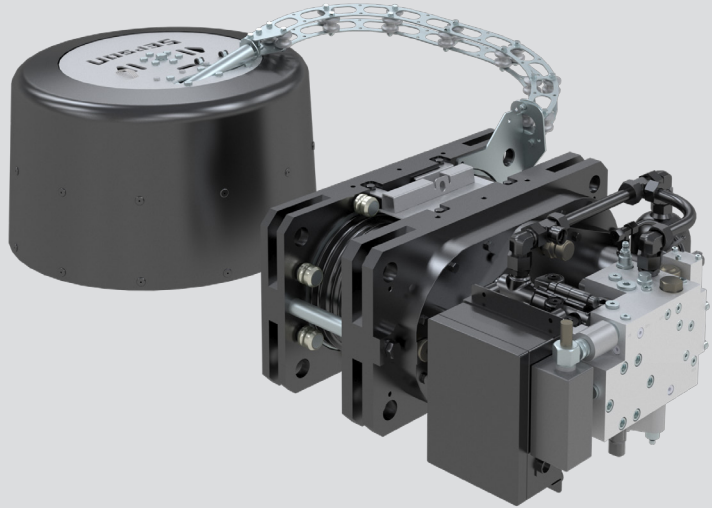
### Storage unit dimensions

Weight*	25 kg
Diameter/Height*	560 x 247/685/235 mm

### Wire rope

Diameter	14 mm
Break load strength MBL	> 210 kN
Length options	60-90 m
Weight	0.976 kg/m

\* Size and weight depending on rope length



## SEPTRAC H150

### Pulling force

Nominal force - Low speed	150 kN
Max force	170 kN
Nominal force - High speed	10 kN

### Rope speed

High speed	32 m/min
Low speed	8 m/min

### Vehicle interface

Max oil pressure*	300 bar
Max oil flow	80 l/min

### Traction unit dimensions

Weight	350 kg
Length/Width/Height	640/509/563 mm
Drum PCD	200 mm
Drum grooves	6

### Storage unit dimensions

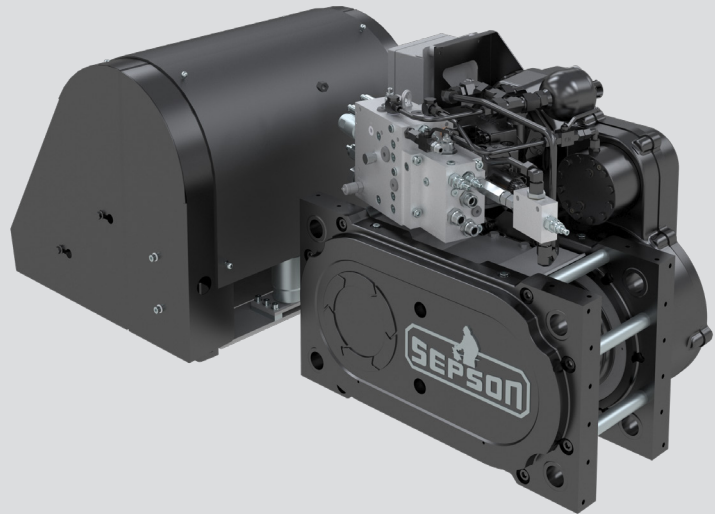
Weight**	180 kg
Diameter/Height**	610/695*/540 mm

### Wire rope

Diameter	18 mm
Break load strength MBL	> 300 kN
Length options	50-180 m
Weight	1.61 kg/min

\*Pressure at directional valve

\*\* Size and weight depending on rope length



## SEPTRAC H200

### Pulling force

Nominal force - Low speed	200 kN
Max force	215 kN
Nominal force - High speed	10 kN

### Rope speed

High speed	32 m/min
Low speed	8 m/min

### Vehicle interface

Max oil pressure*	300 bar
Max oil flow	100 l/min

### Traction unit dimensions

Weight	380 kg
Length/Width/Height	640/540/563 mm
Drum PCD	225 mm
Drum grooves	6

### Storage unit dimensions

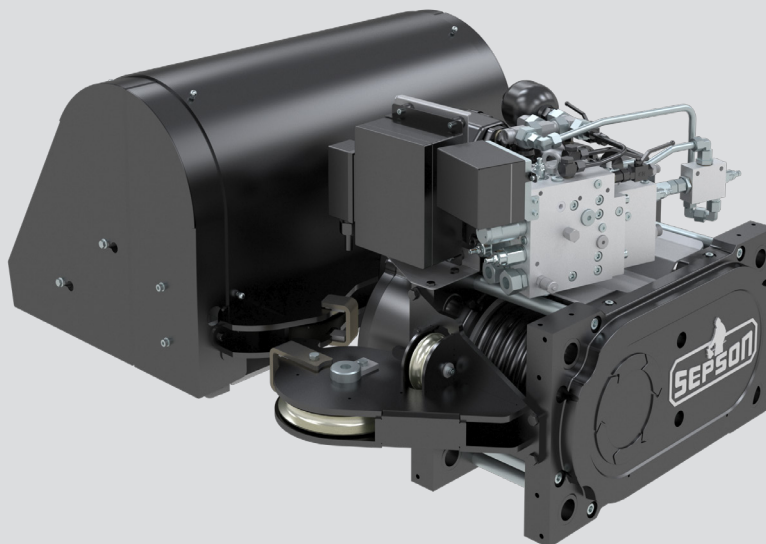
Weight**	180 kg
Diameter/Height**	610/695*/540 mm

### Wire rope

Diameter	20 mm
Break load strength MBL	> 400 kN
Length options	50-160 m
Weight	1.99 kg/m

\* Pressure at directional valve

\*\* Size and weight depending on rope length



## SEPTRAC H250

### Pulling force

Nominal force - Low speed	230 kN
Max force	250 kN
Nominal force - High speed	10 kN

### Rope speed

High speed	32 m/min
Low speed	8 m/min

### Vehicle interface

Max oil pressure*	300 bar
Max oil flow	120 l/min

### Traction unit dimensions

Weight	420 kg
Length/Width/Height	807/663/570 mm
Drum PCD	245 mm
Drum grooves	6

### Storage unit dimensions

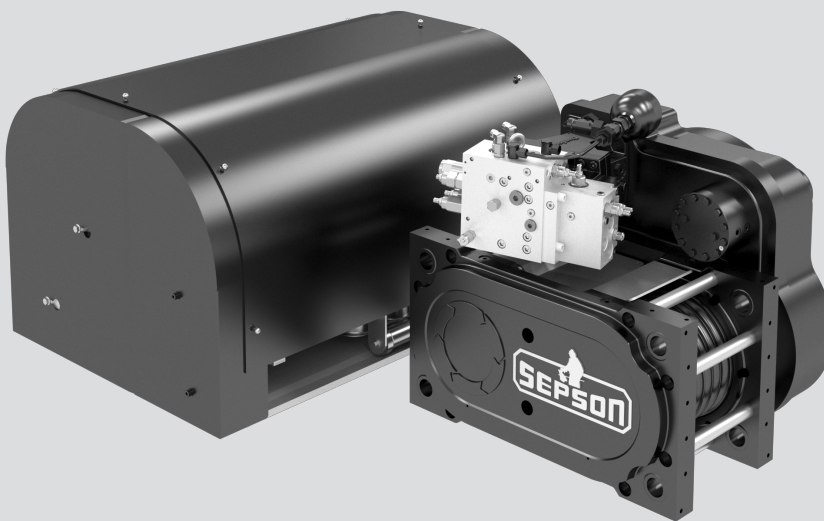
Weight**	200 kg
Diameter/Height**	610/695*/540 mm

### Wire rope

Diameter	22 mm
Break load strength MBL	> 500 kN
Length options	50-150 m
Weight	2.41 kg/m

\*Pressure at directional valve

\*\* Size and weight depending on rope length







## Applications

Developed for military and civilian applications, **SEPSON** winches are used all over the world. The space-efficient design, flexible integration and reliable performance,

as well as the constant pulling force make **SEPTRAC** especially well-suited for Heavy Equipment Trailer (HET) and Armoured Personnel Carriers (APC:s).

## World Class Winches – Since 1900

*A global supplier of reliable, dependable and uncomplicated vehicle-mounted winches, Sepson is always in the forefront with competent and innovative development of world class hydraulic winches and systems for civilian and military users all over the world.*



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