It is very important that only professional and competent ‘rope riggers’ operate this winch when used for raising or lowering tools, materials or equipment on National Grid pylons and similar structures. Likewise when raising personnel in emergency situations.

The winch must be suitably secured back to a strong anchor point using double ropes or a bridle attached to the two fitted rear shackles. It is important that the winch be either laid on firm level ground or if working on wet, boggy ground or an undulating surface, secure the winch to strong base at least one metre square. A large pallet with a close boarded top would be ideal. Two bolting positions are provided in the base under the rope clutches. If bolting down, ensure you use spacers on the bolts under the base. In addition, it is recommended that a ‘U’ bolt is then taken over the top of each lifting handle close to the winch base for further holding down.

Using the winch

Line the well secured winch up with the angle of pull directed to the pulley block at the base of the pylon or structure. Only ever pull across the ground, never attempt to send the rope partway up a pylon or tripod for the simple reason that the rope **MUST** go through the bottom of the guide hoop to either of the revolving capstan bollards as shown in the pictures here.

From the first change of direction pulley block at the base of the pylon or structure, ensure the winch position is well clear of men working overhead and again for obvious reasons, not directly below high tension cables being worked upon.
Ensure that the rope going up the pylon from the first pulley at the base to the top pulley does not snag or rub against any part of the structure or interfere with the rope or load attached to it when lifting or lowering.

Back at the winch, ensure that the rope goes 3 or a maximum of 4 times around the capstan bollards when looking underneath them (i.e. a maximum of 3 wraps showing over the top). If you apply any more wraps, you could get riding turns which must be avoided at all costs – you have been warned!

After the last wrap of rope on the capstan bollard, take the rope through the eye of the rear guide and up through the centre of the rope clutch with the operating lever folded downwards to open it.

Start the Honda engine (make sure the safety cut out switch is in the up position) usually using the choke control fully open for the first few seconds. Set the throttle lever to somewhere between halfway and full throttle based on experience gained and only when you, the operator, have been given the ‘all clear’ by the person directing operations to commence winching, take up the slack and close the rope clutch operating lever by pulling it fully up.

Working hand over hand, pull the rope up in line with the rope clutch applying sufficient strain on the rope to raise the load. When told or signalled to hold the load, simply stop pulling on the rope and the rope clutch will hold the load, and at the same time return the throttle to idle. For extra safety, you can ‘make off’ the rope in a figure of eight on the handle above the rope clutch.
To lower the load, hold the rope securely with one hand whilst disengaging the rope clutch lever and simply, carefully, hand over hand, lower the rope out against the revolving capstan bollard. If you need to slow up a bit, or hold the load, apply some strain and maybe lock the rope clutch lever back into the locked position.

Only use a strong, low stretch matt polyester 16 plait rope with either a terylene, Kevlar or Dyneema® core for strength in 11 or 12mm diameter.

Never ever attempt to raise more than 300kg, even when using a safety rope lifting at the same time on the opposite capstan bollard. Using two operators with a rope each would always be a good idea when using loads between 200 and 300kgs. Raising a canvas holdall with normal maintenance tools requires very little effort on the winch.

Finally, look after your Portable Petrol Twin Capstan Winch and just as importantly, the ropes, pulley blocks and shackles you use with it. Try to avoid using whilst raining. It goes without saying: practice perfects.