

# MANUAL HAND WINCH PILE ON DRUM – COMPACT UNIT

**GREEN STAGE MACHINERY LTD** is proud to introduce its Pile-On Drum, Manual Hand Winch to its range of Green-Gear products.

The Standard Hand Winch is available in two basic load / travel sizes each with 2-8 line drum configurations.

HW 1100	Working Load Limit = 1100 lbs @ 30 feet travel
HW 2200	Working Load Limit = 2200 lbs @ 20 feet travel

Other Load / Travel options are available upon request and are subject to engineering review.

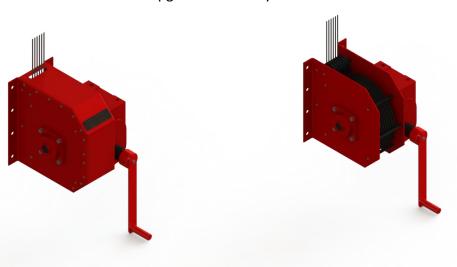
The Hand Winch is of Pile-On Drum, multi-compartment design of robust construction for compactness and safety.

Its robust design and multi-line configuration eliminates the need for the provision of clew plates and guide cables traditionally required when attaching suspension cables to a manual hand winch with a single cable that is subject to single point failure.

The Pile-On Drum Hand Winch has the capacity to raise and lower the specified load at a comfortable winding operator speed with its 12" long winding handle.

Each Hand Winch is provided with a winding handle as standard but can be drill drivable with the optional shaft adapter to suit a heavy duty right angle powered drill.

Alternatively, the Hand Winch can be upgraded to a fully motorized unit.





#### **Characteristics:**

Speed: Average hand winding over full range of travel.

Lifting Capacity:

HW 1100 1100 lb @ 30 feet of travel with full drum. HW 2200 2200 lb @ 20 feet of travel with full drum.

Lift Lines: Configured for 3/16" diameter - 7 x 19 Galvanized Aircraft Cable

Recommended minimum # of Lift Lines:

HW 1100 2 x 3/16" diameter (10: 1 - F.O.S) HW 2200 4 x 3/16" diameter (10: 1 - F.O.S)

Each model can be configured up to 8 lines

### **Construction:**

The heavy gauge steel side plates form the base for the sturdy mounting the winch and also to support and maintain the winch components in proper alignment.

The multi compartment drum is directly keyed to the output shaft of the integrated gearbox to ensure direct full load torque transmission.

The outboard end of the drum is supported by a self- aligning flange bearing to ensure that the adverse overhung shaft loads are minimal.

A total of six solid spacer guards are strategically spaced around the drum periphery to prevent the suspension cables from spilling out of their respective grooves should a slack line occur.

A multi-grooved diverter pulley is incorporated into the frame and in alignment with the drum to ensure that the suspension cables remain at constant distance from the wall irrespective of the varying drum diameter.



#### **Gearbox:**

The gearbox is of worm and wheel design and manufactured by a reputable gearbox manufacturer. The gearbox is securely bolted to the hand winch frame to become an integrated component of the hand winch.

The gear case is of cast iron for protection against shock damage.

The output shaft has a double lip oil seal to prevent leaks.

The AGMA gearing service factor is a minimum of 1.0 with a mechanical strength service factor of 1.25.

The gear set has a minimum ratio of 50:1 to ensure that the gearbox is statically irreversible as its primary load holding characteristic.

#### Pile-On Drum:

The Pile-On Drum is of cartridge design, typical of Green-Gear Pile- On drum hoists, where all plates are mounted to a common hub for ease of assembly and future maintenance.

Both the core and outer plates are fully machined and blanched ground to flatness and thickness tolerances. This ensures that each suspension cable is adequately supported and guided to prevent uneven wrapping between cables and all of the cables wrap evenly.

Each outer plate is provided with a deep slot for ease of access when installing the wire rope end stop attachments.

The minimum D/d ratio = 27:1 (measured at core diameter + 3 safety wraps)

## **Available Options:**

- 1. Secondary Mechanical Load Brake (Recommended for all Hoisting applications)
- 2. Drum Cover for additional operator safety
- 3. Drum Drive Gun Adaptor
- 4. Heavy Duty Right Angle Drill
- 5. Powder Coat Colors in Safety Yellow or Safety Red

**Standard Warranty:** One year from date of Purchase

**Shipping Weight:** 200 lbs for 6 Line Assembly