

## **Professional & Industrial**

### Operation Manual GENERAL PURPOSE

#### WARING: BEFORE USING THE WINCH, READ ACREFULLY THIS MANUAL AND KEEP IT FOR FUTURE NEEDS.

#### (A) USE

Lifting of the load must happen by rotating the crank clock-wise. When releasing the crank, the load remains suspended. The descent of the load must happen by rotation the crank countrclock-wise.

#### (B) WARNINGS FOR THE SAFETY OF YOURSELF AND OF OTHER PEOPLE

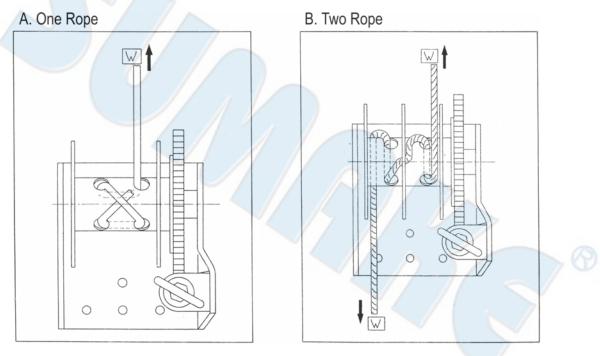
- The use of the winch is not allowed for lifting people or for lifting things over areas where people may loiter or pass by.
- Do not lift any load when the rope is completely unrolled.
- Make sure that there are three complete rope coils rolled on the drum.
- Use the winch only by hand and with the crank 195 mm long included in the equipment. In case it is difficult to rotate the crank with only one hand, must probably the maximum capacity had been exceeded.
- The winch must not be kept under continous loading.

#### (C) GREASING

It is advisable to lubricate frequently the holes guiding the shafts and the drum hub, and to grease the teeth of the two gear and of the thread of the crank shaft.

If installed in the open, it must be protected from dust, from dirt, rain, and should be more often checked and lubricated.

#### (D) FIXING OF ROPE TO DRUM



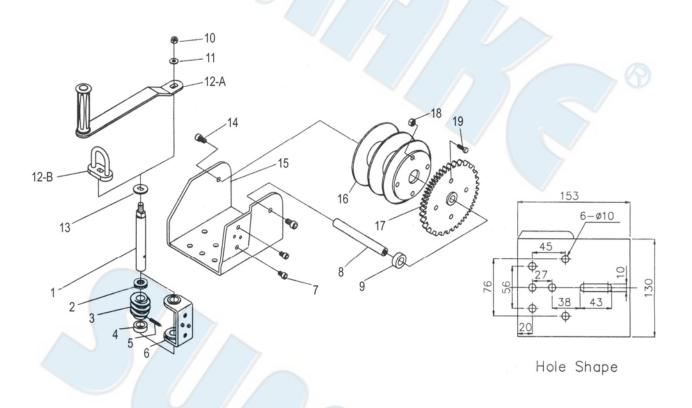


#### (E) TECHNICAL INFORMATION:

Capacity	(lbs / kg)	1500 / 680	
Lift Per Crank Rotation	Crank Rotation (mm)		
Hand Force Required	(lbs / kg)	10 / 4.5	
Gear Ratio		41 : 1	
Hub Diameter (mm)		Ф48	
Handle Length (mm)		195	
Rope Storage Capacity	(mm)	47M / ФЗММ	
Rope Storage Capacity		23M / Ф4MM	
Unit Weight	(kg)	4.9	

# (F) PARTS LIST

# **GENERAL PURPOSE**



#### PARTS LIST

No.	Parts No.	Description	No.	Parts No.	Description	
1	HW680-01	Worm Gear Shaft	/11	HW680-11	Washer	
2	HW680-02	Ball Bearing (51102)	12A	HW680-12A	Handle	
3	HW680-03	Worm Gear	12B	HW680-12B	Loop	
4	HW680-04	Worm Gear Collar	13	HW680-13	Washer	
5	HW680-05	Spring Pin (Φ5x24mm)	14	HW680-14	Screw (3/8"x3/4")	
6	HW680-06	Worm Gear Base	15	HW680-15	Winch Frame	
7	HW680-07	Screw (M8x12mm)	16	HW680-16	Winch Reel	
8	HW680-08	Reel Shaft	17	HW680-17	Reel Gear	
9	HW680-09	Reel Collar	18	HW680-18	Nu (5/16")	
10	HW680-10	Nylon Nut (M8)	19	HW680-19	Screw (5/16"x34")	

P.S. When Ordering Replacement Parts, Please Specify Model No., Part No. & Quantity.

HW-680-P-1108A-W6