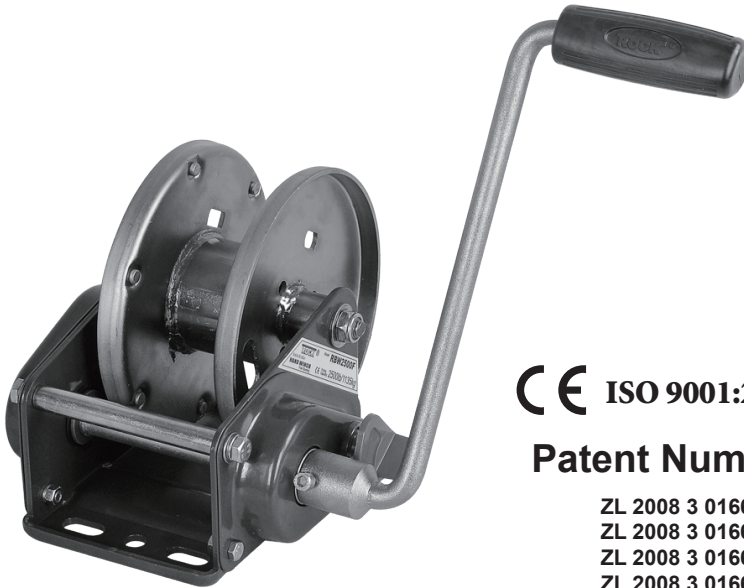




HAND WINCH

ASSEMBLY AND OPERATING INSTRUCTION

AUTO BRAKE



CE ISO 9001:2008

Patent Number

ZL 2008 3 0166141.6
ZL 2008 3 0166142.0
ZL 2008 3 0166399.6
ZL 2008 3 0166400.5
ZL 2010 2 9180002.8
ZL 2010 2 9180028.2
ZL 2010 2 9180031.4
ZL 2010 2 0606524.2
ZL 2011 2 0244158.5

To prevent serious injury, read and understand all warnings and instructions before use. The technical data must be followed.

Due to continuing improvement, the actual product may differ slightly from what described herein

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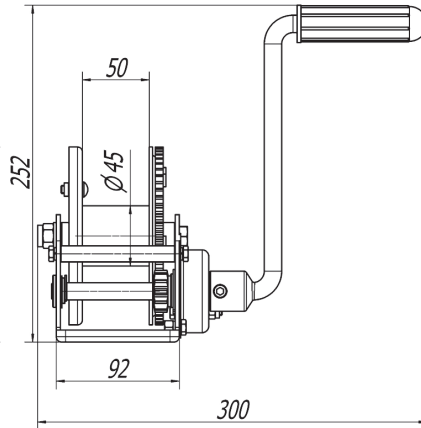
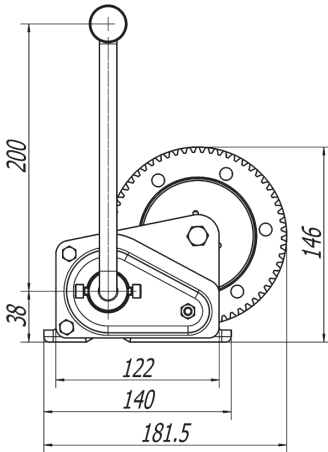
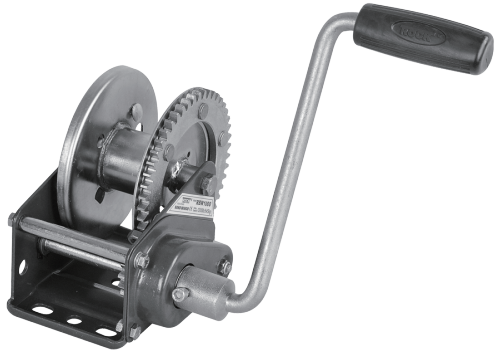
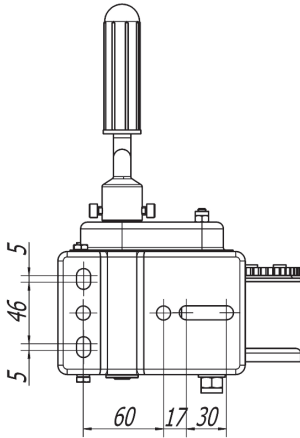
FIELD OF APPLICATION

Auto Brake winches are suitable for lifting, raising, and pulling of various loads without jerking and are mainly used as a trailer winch.

- It is not tested for building hoists.
- It is not suitable for continuous operation.
- It is not approved for stages and studios.
- It is not approved for lifting persons.
- It is not approved for motor-driven operation.

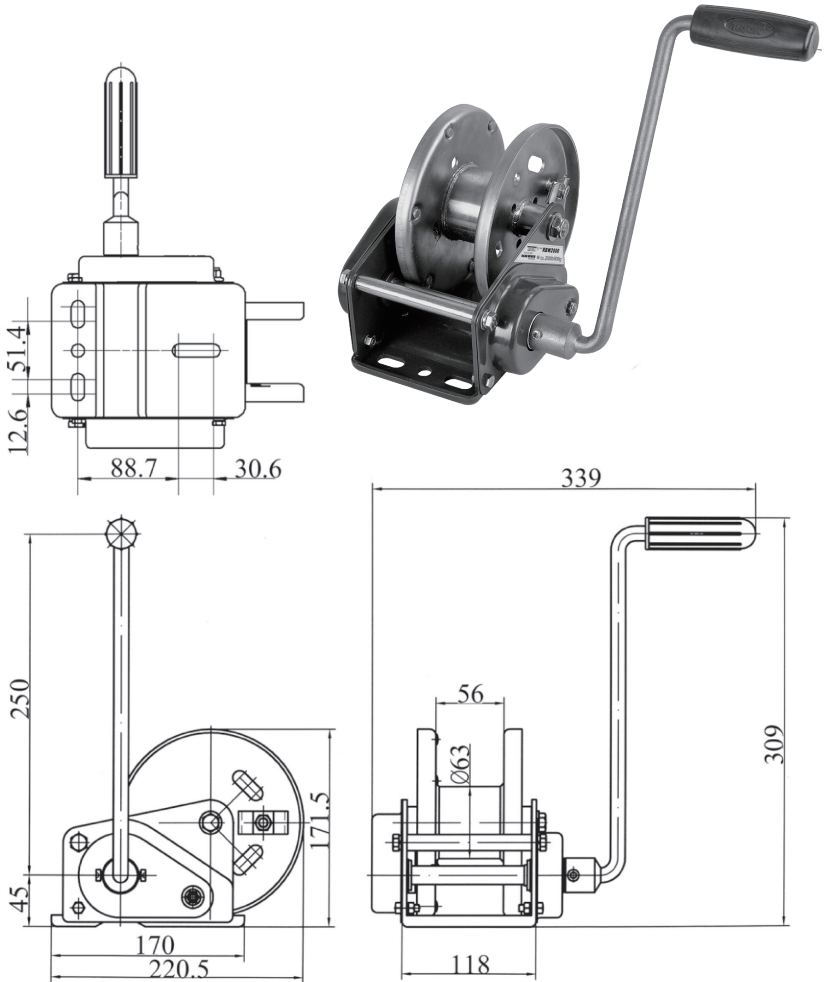
Model:RBW1000/RBW1200/RBW1500

| Model | Capacity kgs lbs | Gear ratio | Drum capacity cable | Drum capacity belt | Handle force(N) | N.W. (kgs) |
|---------|------------------------|---------------|------------------------|-----------------------|--------------------|---------------|
| RBW1000 | 454 1000 | 3.5:1 | ø4.76mm×15m | 1x50mm×6m | <160 | 3.1 |
| RBW1200 | 545 1200 | 4.3:1 | ø4.76mm×15m | 1x50mm×6m | <160 | 3.3 |
| RBW1500 | 681 1500 | 5.1:1 | ø4.76mm×15m | 1x50mm×6m | <200 | 3.4 |



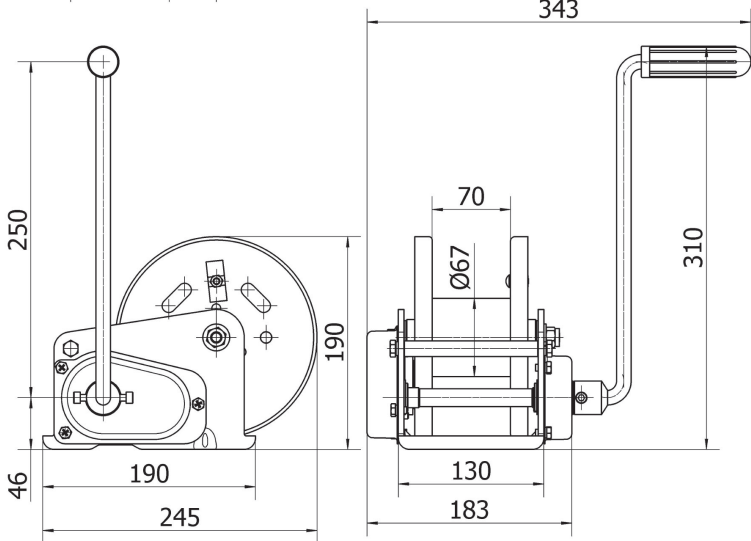
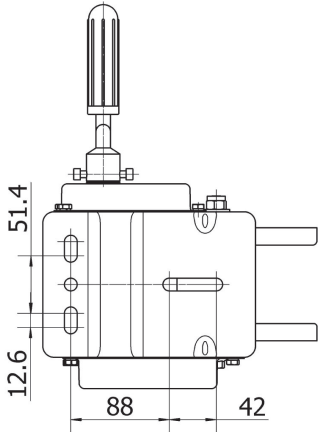
Model:RBW2000/RBW2500

| Model | Capacity | | Gear ratio | Drum capacity | | Handle force(N) | N.W. (kgs) |
|---------|----------|------|------------|---------------|---------------|-----------------|------------|
| | kgs | lbs | | cable | belt | | |
| RBW2000 | 908 | 2000 | 8.8:1 | ø6.35mm×15m | 1.2×50mm×6m | <200 | 6.8 |
| RBW2500 | 1135 | 2500 | 11:1 | ø6.35mm×15m | 1.2×60mm×6.5m | <200 | 6.9 |



Model:RBW3500

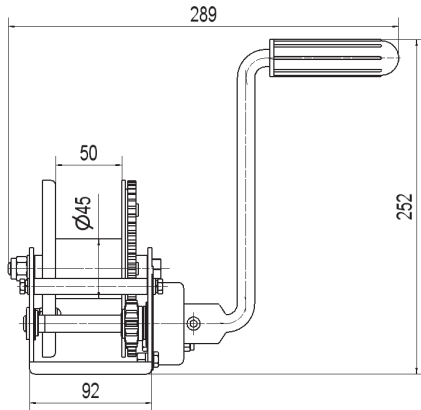
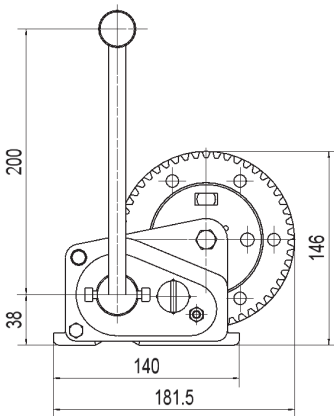
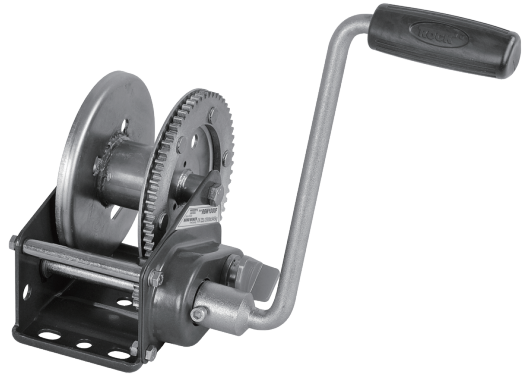
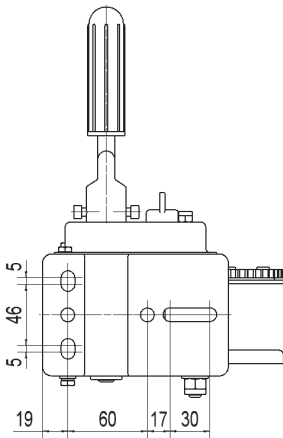
| Model | Capacity | | Gear ratio | Drum capacity | | Handle force(N) | N.W. (kgs) |
|---------|----------|------|------------|---------------|---------------|-----------------|------------|
| | kgs | lbs | | cable | belt | | |
| RBW3500 | 1588 | 3500 | 18.4:1 | ø7mm×15m | 1.2×60mm×6.5m | <200 | 8.15 |



Model:RBW1000F/RBW1200F/RBW1300F/RBW1500F

Free Spooling

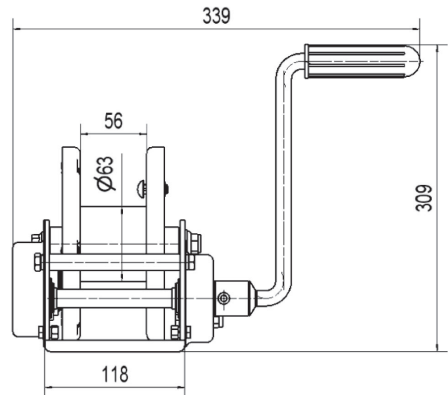
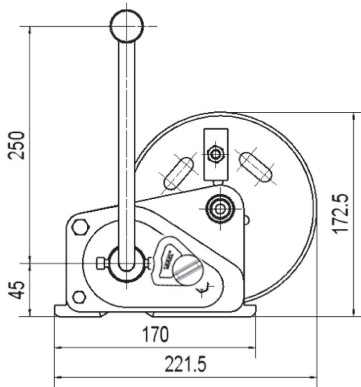
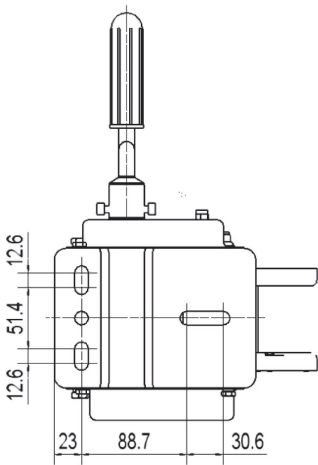
| Model | Capacity kgs lbs | Gear ratio | Drum capacity cable belt | Handle force(N) | N.W. (kgs) |
|----------|------------------------|---------------|--------------------------------|--------------------|---------------|
| RBW1000F | 454 1000 | 3.5:1 | ø4.76mm×15m 1×50mm×4.5m | <160 | 3.1 |
| RBW1200F | 545 1200 | 4.3:1 | ø4.76mm×15m 1×50mm×4.5m | <160 | 3.4 |
| RBW1300F | 590 1300 | 5.1:1 | ø4.76mm×15m 1×50mm×4.5m | <200 | 3.4 |
| RBW1500F | 681 1500 | 5.1:1 | ø4.76mm×15m 1×50mm×4.5m | <200 | 3.4 |



Model:RBW2000F/RBW2500F

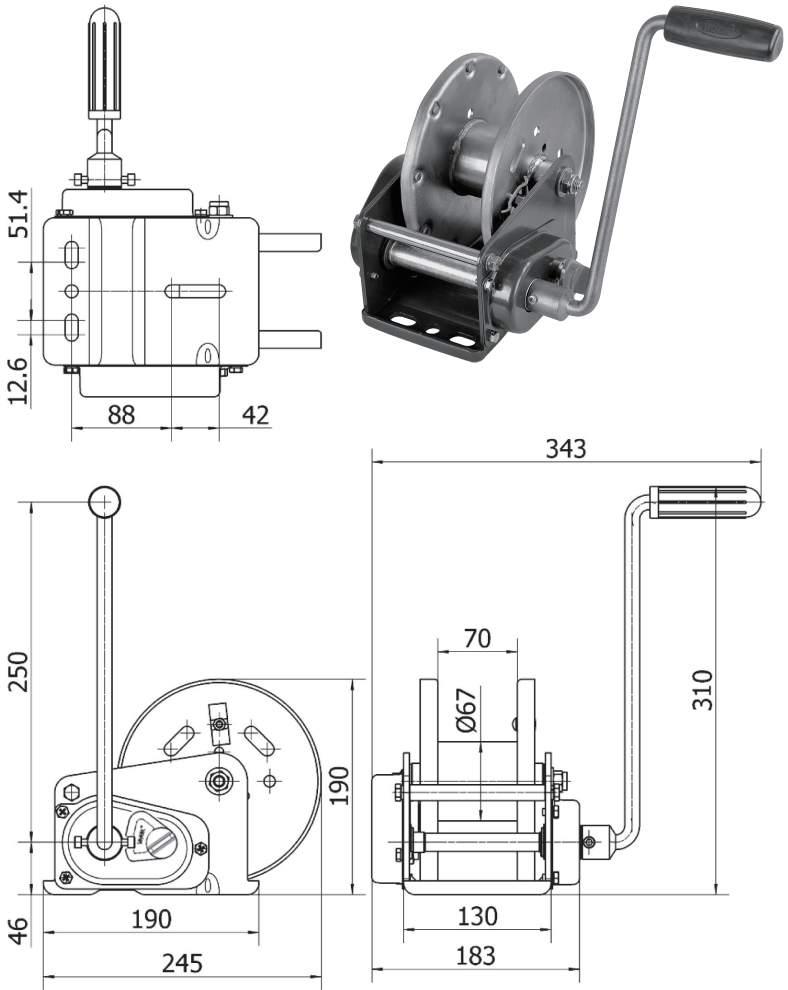
Free Spooling

| Model | Capacity | | Gear ratio | Drum capacity | | Handle force(N) | N.W. (kgs) |
|----------|----------|------|------------|---------------|-------------|-----------------|------------|
| | kgs | lbs | | cable | belt | | |
| RBW2000F | 908 | 2000 | 8.8:1 | ø6.35mm×15m | 1.2×50mm×8m | <200 | 6.8 |
| RBW2500F | 1135 | 2500 | 11:1 | ø6.35mm×15m | 1.2×50mm×8m | <200 | 6.9 |



Model:RBW3500F
Free Spooling

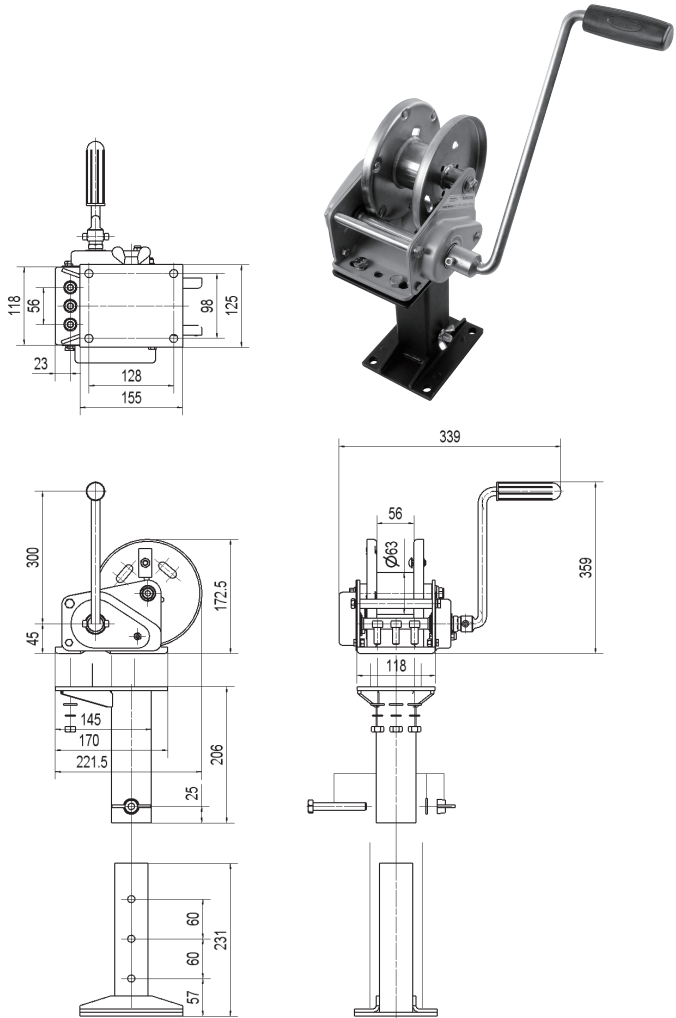
| Model | Capacity | | Gear ratio | Drum capacity | | Handle force(N) | N.W. (kgs) |
|----------|----------|------|------------|---------------|---------------|-----------------|------------|
| | kgs | lbs | | cable | belt | | |
| RBW3500F | 1588 | 3500 | 18.4:1 | ø7mm×15m | 1.2×60mm×6.5m | <200 | 8.15 |



Model:RWS2000

Three Height Settings

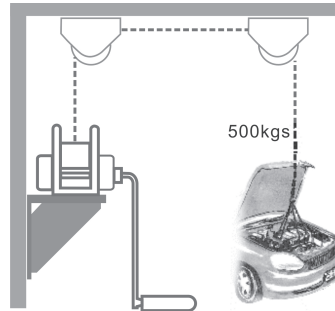
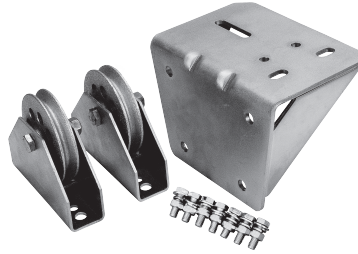
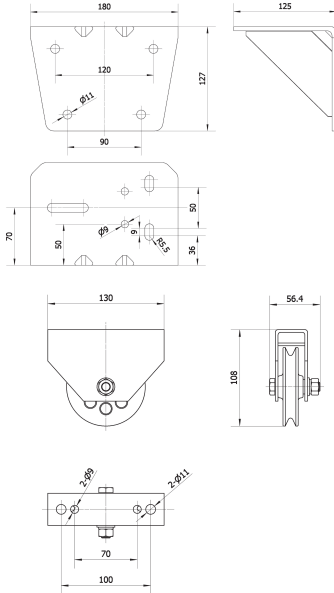
| Model | Capacity | | Gear ratio | Drum capacity | | Handle force(N) | N.W. (kgs) |
|---------|----------|------|------------|---------------|-------------|-----------------|------------|
| | kgs | lbs | | cable | belt | | |
| RWS2000 | 908 | 2000 | 8.8:1 | ø6.35mm×15m | 1.2×50mm×8m | <200 | 6.8 |
| | | | | | | | 4.5 |



Model:RWC1200

Winch Console

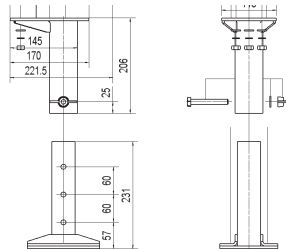
| Model | Capacity | | N.W. (kgs) | Inner carton (cm) | Outer carton (cm) | pcs/ carton | G.W. (kgs) |
|---------|----------|------|---------------|----------------------|----------------------|----------------|---------------|
| | kgs | lbs | | | | | |
| RWC1200 | 545 | 1200 | 4.4 | 19.5×15×14 | 41×31×28 | 8 | 38 |



Model:RSS2000

Separate Stand for Winch

| Model | Capacity | | N.W. (kgs) | Inner carton (cm) | Outer carton (cm) | pcs/ carton | G.W. (kgs) |
|---------|----------|------|---------------|----------------------|----------------------|----------------|---------------|
| | kgs | lbs | | | | | |
| RSS2000 | 908 | 2000 | 5.1 | 20.5×13.5×24.5 | 63×26×28.5 | 6 | 33 |



SAFETY WARNING AND PRECAUTION

1. KEEP WORK AREA CLEAN AND DRY

Cluttered, damp or wet areas invite injuries.

2. KEEP CHILDREN AWAY FROM WORK AREA

Do not allow children to handle this winch.

3. DO NOT USE THIS WINCH IF UNDER THE INFLUENCE OF ALCOHOL OR DRUGS

Read warning labels on the winch to determine if your judgement of reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this winch.

4. USE EYE AND HAND PROTECTION

Wear safety impact eyeglasses and heavy duty work gloves when using this winch.

5. DRESS SAFELY

Do not wear loose clothing or jewelry, as they can become caught in moving parts. Wear a protective hair covering to prevent long hair from becoming caught in moving parts. If wearing a long sleeve shirt, roll sleeves up above elbows.

6. DO NOT OVERREACH

Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.

7. STAY ALERT

Watch what you are doing at all times. Use common sense. Do not use this winch when you are tired.

8. CHECK FOR DAMAGED PARTS

Before using this winch, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this winch. Replace or repair damaged or worn parts immediately.

9. REPLACEMENT PARTS AND ACCESSORIES

When servicing, use only identical parts. Only use accessories intended for use with this winch.

10.MAINTENANCE

For your safety, service and maintenance should be performed regularly by a qualified technician.

WARNING:

The warnings, precautions and instructions discussed in this Manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SPECIAL WARNINGS AND PRECAUTIONS

1. **CAUTION:** Never exceed the maximum load capacity specified on page 2 - 8 for each model.

2. AUTOMATIC MECHANICAL BRAKE REQUIREMENT

The minimum tractive force (pulling load) required for a proper braking function on the winch is 55 lbs (25kgs). Without this minimum load, the braking function will not take place.

3. AVOID SIDEWAYS CABLE SLIP

The cable under a load should only be wound on to the drum to such an extent that a minimum space of 2 times the cable diameter remains on the drum flange (Fig.1). Winch overloading and a sideways cable slip will here be avoided.

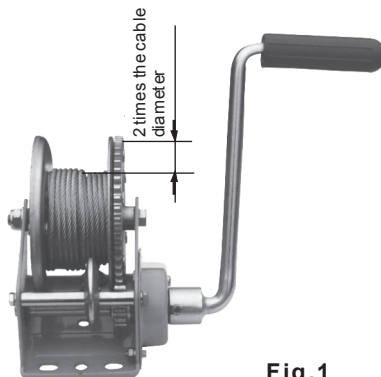


Fig.1

4. ALWAYS LEAVE AT LEAST 5 WRAPS OF THE CABLE (OR BELT) ON THE DRUM

Failure to do so may break cable connection to drum and may result in serious accident. (see fig.2)

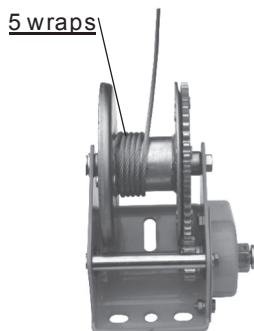


Fig.2

5. DO NOT OIL OR GREASE THE BRAKE MECHANISM

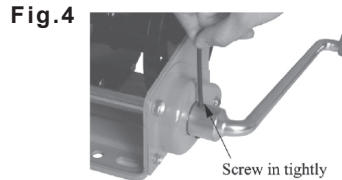
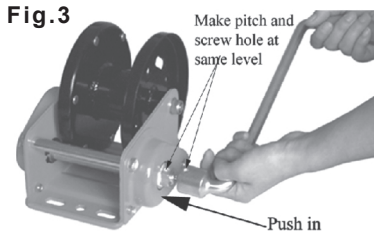
Oil or grease will make the winch reduce or lose brake function.

- 6. ALWAYS USE PROPER COUPLINGS WHEN CONNECTING THE WINCH CABLE HOOK TO A LOAD.**
- 7. MAKE SURE THE WINCH BASE IS PROPERLY BOLTED TO A STRUCTURE (OR VEHICLE) THAT CAN HOLD WINCH AND WINCH LOAD**
Failure to bolt down the winch properly can result in personal injury and/or property damage.
- 8. DO NOT USE ANY ATTACHMENTS** to extend the length of the winch cable.
- 9. AFTER MOVING AN OBJECT WITH THE WINCH, SECURE THE OBJECT. DO NOT RELY ON THE WINCH TO HOLD AN OBJECT FOR AN EXTENDED PERIOD OF TIME.**
- 10. WHEN LOADING A BOAT ONTO A TRAILER** without keel or side hull rollers, make sure the trailer is submerged in the water when the boat is loaded by the winch. Attempting to drag the boat onto the trailer while on land can cause the winch failure and possible personal injury and property damage.
- 11. DO NOT APPLY A LOAD** to the winch when the winch cable is fully extended. The cable anchor on the winch is not capable of holding the maximum rated load capacity.
- 12. STAND BACK**
Stay out of the direct line that the winch cable is pulling. In the event the winch cable slips or breaks, it will “whip lash” along this line.

ASSEMBLY

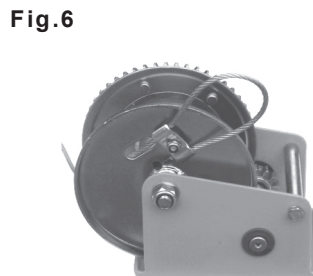
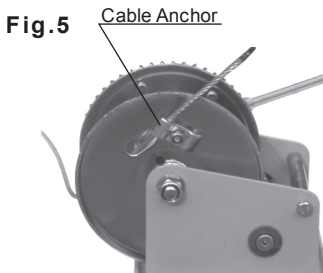
CRANK HANDLE ASSEMBLY:

Insert the hexagon socket of the Crank Handle on to the hexagon end of the Main Drive Axle. (Fig.3) Screw tightly using the enclosed screw (nut) and Hex-key.(Fig.4)

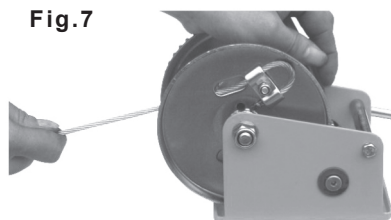


FITTING THE CABLE:

Insert the Steel Cable (not included, supplied to special order) through the square hole from inside to outside. Thrust the Steel Cable into one side of the Cable Anchor (Fig.5). Insert the cable end into the other side of the Cable Anchor leaving a large loop outside (Fig.6).



Tighten the Nut slightly. Pull and reduce the loop down to the Cable Anchor. (See Fig.7)



Tighten the Nut with a turning torque of 5-10 NM (fig.8).
Replace the Cable Anchor each time when the Cable is replaced.



Fig.8

The cable must be pressed by a Cable Clamp into the eye of Spring Latch Hook with a Grommet Thimble on. (Fig.9)



Fig.9

FITTING BELT with Fitting Bar

The winch is designed to fit a belt as well as a cable. Push the Belt fitting Bar, through the belt loop in the direction of the arrow (Fig.10)

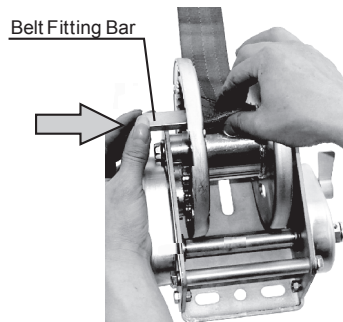


Fig.10

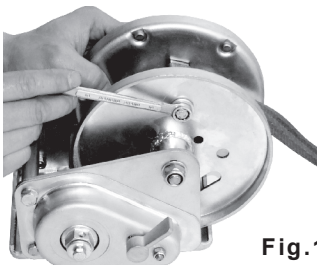


Fig.11

Secure the Belt Fitting Bar with a screw, a spring washer and a flat washer.(Fig.11)

WARNING

The belt breaking strain must be at least 3 times the pulling capacity and 7 times the lifting capacity of the winch.

FITTING POSITION OR DIRECTION OF OPERATION

Fitting the winch with the fleet angle no more than 4° (Fig.12)

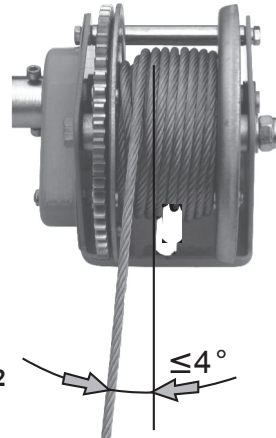


Fig.12

OPERATION

1. Lifting, Pulling

Turn the Crank Handle clockwise.

2. Stopping

The load can be stopped in any position simply by letting go off the Crank Handle.

3. Lowering, Cable releasing

Turn the Crank Handle anti-clockwise to lower the load or releasing the cable. The automatic brake can prevent the Crank Handle from kicking back.

WARNING:

The brake function will only be activated by a minimum load of 25kgs. Do not oil or grease the brake mechanism. (Fig. 13)

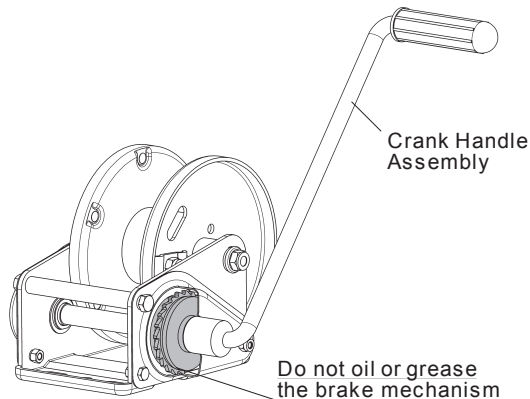


Fig. 13

OPERATION

MODEL:RBW1000F, RBW1200F, RBW1500F, RBW2000F, RBW2500F,RBW3500F

1. Lifting, Pulling

Turn the Crank Handle(Handle Assembly) clockwise.

2. Stopping

The load can be stopped in any position simply by letting go off the Crank Handle.

3. Lowering

Turn the Crank Handle anti-clockwise to lower the load. The auto matic brake can prevent the Crank Handle from kicking back.

WARNING:

The brake function will only be activated by a minimum load of 25kgs. Do not oil or grease the brake mechanism.

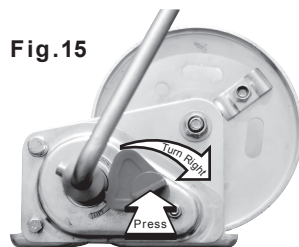
4. Free Spool

- 1). Take off the Crank Handle.
- 2). Press Handle Knob in the direction of arrow(Fig.14).
- 3). Turn left as indicated on the operating label. The cable drum now can be turned freely.

WARNING: With load on the cable(or belt), you can not use this FREE SPOOL function, otherwise you may get personal injury or property damage.



Free Spool Position



Auto Brake Position

5. Stop using Free Spool function

Turn the Handle Knob back to Auto Brake position(Fig.15).



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