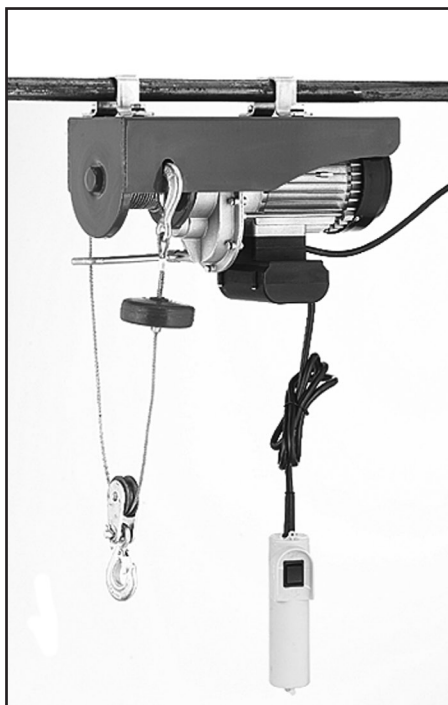


## MODEL D4070/D4077 ELECTRIC HOIST



## OWNER'S MANUAL

Phone: (360) 734-3482 • Online Technical Support: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz)

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#12925TR Printed in China

 **WARNING!**

This manual provides critical safety instructions on the proper setup, operation, maintenance and service of this machine/equipment.

Failure to read, understand and follow the instructions given in this manual may result in serious personal injury, including amputation, electrocution or death.

The owner of this machine/equipment is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, blade/cutter integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

# SAFETY

## **WARNING**

### **For Your Own Safety Read Instruction Manual Before Operating This Equipment**

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words which are intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures.

#### **DANGER**

Indicates an imminently hazardous situation which, if not avoided, **WILL** result in death or serious injury.

#### **WARNING**

Indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

#### **CAUTION**

Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury. It may also be used to alert against unsafe practices.

#### ***NOTICE***

This symbol is used to alert the user to useful information about proper operation of the equipment.

# **WARNING**

## **Safety Instructions for Electric Hoists**

- 1. READ ENTIRE MANUAL BEFORE USING.** Trained users have a lower risk of injury than untrained users.
- 2. NEVER ALLOW UNQUALIFIED PERSONNEL TO SERVICE HOIST.** Servicing hoist incorrectly may cause failure under load.
- 3. DO NOT LIFT MORE THAN THE MAXIMUM CAPACITY.** Be aware that the load weight, harnesses, and load bearing equipment all contribute to the total load weight. Overloading the hoist may cause the load to fall.
- 4. NEVER LIFT LOADS WHEN TIRED, OR UNDER THE INFLUENCE OF DRUGS OR ALCOHOL.** Be mentally alert at all times when lifting heavy loads.
- 5. AUTHORIZED USERS ONLY.** Only allow trained and properly supervised personnel to operate. Make sure operation instructions given while training others are safe and clearly understood.
- 6. NEVER LEAVE A SUSPENDED LOAD UNATTENDED.** Lower load to the ground and unhook all loads and harnesses before walking away.
- 7. NEVER SUSPEND THE LOAD OVER OR NEAR A PERSON.** Loads may fall at any given time due to overloading, improper loading procedures, or failure of a component. Also, cables can whip with great force if they break under load.
- 8. ONLY USE RECOMMENDED ACCESSORIES.** Using improper accessories may cause injury.
- 9. CHECK FOR DAMAGED PARTS BEFORE USING HOIST.** Check for broken parts, loose bolts, frayed cable, cracked or worn components and any other conditions that may affect operation. Repair or replace damaged parts.
- 10. ALWAYS DISCONNECT FROM POWER SOURCE BEFORE ADJUSTING.** Make sure the switch is in the OFF position and the hoist is unplugged before servicing or adjusting.
- 11. NEVER ALLOW LOADS TO SWING.** Unsteady loads may become unbalanced and fall. Swinging motions cause wear on components and may cause them to break.
- 12. USE CORRECT HARNESSSES.** Never use oversized or multiple harnesses in the hook. Use harnesses that are rated for the load being lifted.
- 13. DO NOT EXPOSE TO WATER.** Moisture increases the risk of electrical shock.
- 14. ENTANGLEMENT HAZARD.** Do not hold the hoist or lifting cable during operation. Clothing and body parts may get entangled.
- 15. NEVER USE HOIST FOR HORIZONTAL PULLING OR DRAGGING.** This hoist is only designed for vertical loads.

# INTRODUCTION

## Woodstock Technical Support

This tool has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our tools! In the event that questions arise about your tool, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz). Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

## Specifications

### MODEL D4070

	SINGLE CABLE	DOUBLE CABLE
MAX CAPACITY	220 lbs.	440 lbs.
LIFTING HEIGHT	33 ft.	16.5 ft.
LIFTING SPEED	38 ft./min.	19 ft/min
CABLE DIAMETER	1/8"	

### MODEL D4077

	SINGLE CABLE	DOUBLE CABLE
MAX CAPACITY	440 lbs.	880 lbs.
LIFTING HEIGHT	33 ft.	16.5 ft.
LIFTING SPEED	38 ft./min.	19 ft/min
CABLE DIAMETER	9/64"	

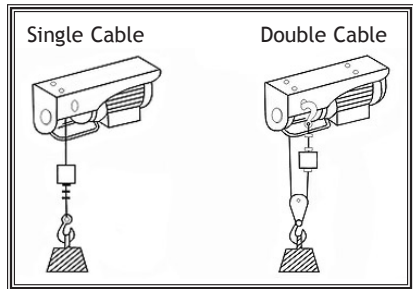


Figure 1. Cable options.

If you need the latest edition of this manual, you can download it from <http://www.shopfox.biz>.

If you have comments about this manual, please contact us at:

**Woodstock International, Inc.**  
**Attn: Technical Documentation**  
**Manager**  
**P.O. Box 2309**  
**Bellingham, WA 98227**  
**Email: manuals@woodstockint.com**

## ⚠️ WARNING



Read the manual before operation. Become familiar with this hoist, its safety instructions, and its operation before beginning any work. Serious personal injury may result if safety or operational information is not understood or followed.

# SETUP

## Unpacking

The electric hoist was carefully packaged for safe shipping. If you discover any damage after you have signed for delivery, immediately call Customer Service at (360) 734-3482 for advice.

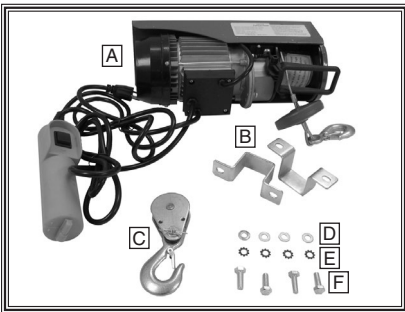
Save the containers and all packing materials for possible inspection by the carrier or its agent. Otherwise, filing a freight claim can be difficult.

When you are completely satisfied with the condition of the shipment, you should inventory the contents.

## Inventory

### Model D4070/D4077 Inventory (Figure 2)

- A. Electric Hoist ..... 1
- B. Mounting Brackets ..... 2
- C. Pulley Lift Hook ..... 1
- D. Flat Washers  
 8mm (D4070) ..... 4  
 10mm (D4077) ..... 4
- E. External Tooth Washers  
 8mm (D4070) ..... 4  
 10mm (D4077) ..... 4
- F. Hex Bolts  
 M8-1.25 X 25 (D4070)..... 4  
 M10-1.5 X 25 (D4077)..... 4



**Figure 2.** Model D4070/D4077 inventory (Model D4070 shown).

## Site Considerations

### Weight Capacity

Refer to the weight capacity listed in **Specifications on Page 3**. When choosing a mounting site, verify that the lifting structure can withstand at least the maximum loading capacity as well as any possible overloading that may occur.

### Working Clearances

Consider existing and anticipated needs, dimensions of your lifting platform, size of material to be lifted, and whether you need the hoist to be mobile or in a stationary location when establishing an installation site for your electric hoist.

### Power Supply

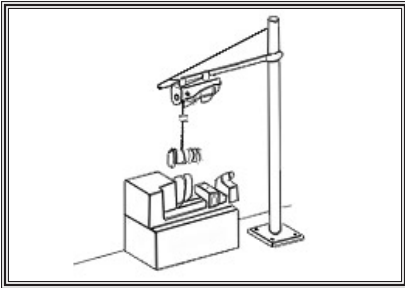
The Model D4070/D4077 requires a NEMA 5-15 power outlet with 110V/120V electricity. The hoist is equipped with a 5 ft. cord, but may require an extension cord to connect to power. If an extension cord is required, use a 14 gauge cord that is NOT longer than 50 ft.

When establishing a site for your hoist, make sure the control switch can be reached and that outlets are located near the hoist so power or extension cords are clear of high-traffic areas.

## Mounting

The Model D4070/D4077 electric hoist comes pre-assembled and only needs to be mounted to prepare for operation.

There are many mounting options for your hoist. It may be mounted on a metal tubing or on a rotating pillar (**Figure 3**). Above all, choose a mounting option that is safe and will withstand the maximum rated load of the hoist.



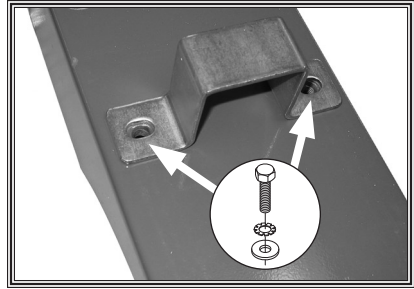
**Figure 3.** Hoist mounted on rotating pillar.

Also, make sure that the selected location is in a well lighted environment, the control switch will be within reach, and that the hoist will not be exposed to rain or moisture.

### To mount your electric hoist:

1. Place the two mounting brackets over a suitable fixture that will withstand the maximum load capacities and any possible overloading that may occur.
2. Have an assistant hold the hoist in place, and thread the hex bolts, external tooth washers, and flat washers through each of the mounting brackets and into the top of the electric hoist (see **Figure 4**).

**Note:** We strongly recommend using medium strength thread locking compound on the hex bolts when securing the hoist.



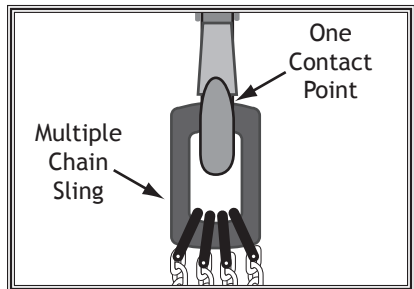
**Figure 4.** Securing mounting bracket (pole not shown for clarity).

3. Firmly tighten the hex bolts, and check to make sure the hoist does not swing or move after mounting.

## Lifting Equipment

**When attaching lifting equipment to the electric hoist:**

- DO NOT attach multiple chains or harnesses directly to the hook. Only one point of contact should be used on the hook and shackle to lessen the chance of the load falling and to allow proper load alignment. Use a multiple chain sling similar to the one shown in **Figure 5**.



**Figure 5.** Proper method of mounting multiple chains.

- DO NOT attach oversized items or harnesses directly to the hoist. Oversized lifting equipment creates multiple points of contact and will not fit properly on the hoist hook, resulting in uneven and dangerous lifting loads.

## Test Operation

The Model D4070/D4077 electric hoist has a safety stop microswitch that will automatically shut OFF the motor before the lift or pulley hook can be retracted into the housing.

If the hook is allowed to retract into the housing, the hoist will continue to pull the cable until the cable or cable hardware breaks, causing the load to drop.

### WARNING

A dropped load can kill or seriously injure people on the ground. NEVER allow anyone to walk underneath a hoisted load, and ALWAYS verify the integrity of how the lifting equipment is attached to the hoist to prevent accidentally dropping a load.

After mounting the hoist, the safety stop microswitch must be tested before lifting any loads.

#### To test the operation of the hoist:

1. Plug the electric hoist into a grounded 110V outlet.
2. Grab the lift hook and pull it away from the hoist while using the control handle to lower the hoist cable a few feet by pressing the switch downward (see Figure 6).

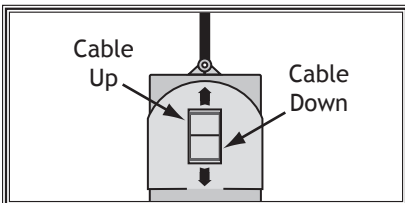


Figure 6. Hoist operation.

3. Let go of the hook and move to a safe distance.
4. Use the control handle to fully retract the cable.
  - If the motor shuts OFF when the cable stop compresses the spacing rack (Figure 7), the safety stop microswitch feature is working correctly and the test run is complete.
  - If the motor does not shut OFF when the cable stop compresses the spacing rack, immediately release the UP/DOWN switch. This safety feature must work properly before proceeding with regular operations. Call Tech Support at (360) 734-3482 for assistance.

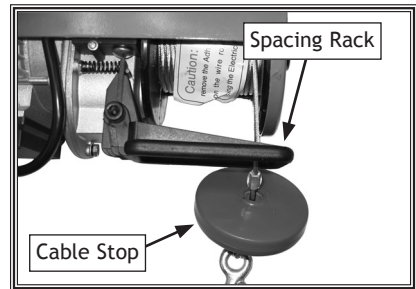


Figure 7. Safety stop mechanism.

### WARNING

Like all tools there is potential danger when operating this tool. Accidents can be caused by lack of familiarity or failure to pay attention. If normal safety precautions are overlooked or ignored, serious personal injury may occur.



# OPERATIONS

### To use the electric hoist:

1. Plug the electric hoist into a grounded 110V outlet.
2. Grab the lift hook and pull it away from the hoist while using the control switch to lower the hoist cable by pressing the switch downward.

4. Securely attach the item being lifted by using the lift hook (for single cable use) or the pulley lift hook (for double cable use).

**⚠ CAUTION**

Never fully unwind the cable from the electric hoist. Always leave at least 3 turns of cable on the hoist spool to prevent the cable from detaching.

**NOTICE**

Never wrap the cable around the item being lifted and hook it onto the cable itself. Damage to the object and fraying of the cable can result.

3. Verify the weight of the item to be hoisted. Review the **Specifications** on **Page 3** to see if the operation can be completed with a single or doubled-back cable, as shown in **Figure 8**.

5. Check that all bystanders are clear and that the item has a clear path of movement.
6. Use the control switch to retract the cable. Watch the cable as it winds up on the hoist spool. To prevent damage to the hoist cable, make sure that the cable is wound evenly, as shown in **Figure 9**.

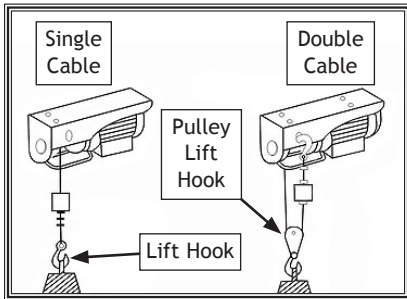


Figure 8. Cable setup options.

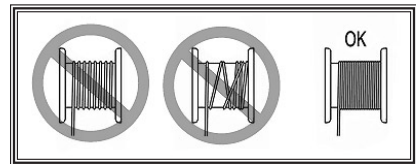


Figure 9. Proper cable winding.

**⚠ CAUTION**

No list of safety guidelines is complete, because every work environment is different. Always consider safety first and use common sense. Failure to use this tool with caution and respect could result in serious personal injury.

# MAINTENANCE

## General

Check mounting hardware daily before use for cracks, unsafe wear, deformation, or warping. If damaged or worn, replace it. **DO NOT** attempt to fix it or continue using it!

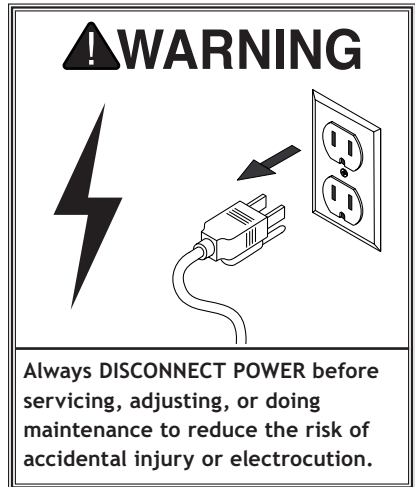
Check that the microswitch is functioning daily before use. Check daily for loose pins, rings, screws, wires and safety latches. Tighten or replace any loose items. Check daily for damage or fraying along the length of the hoist lifting cable. Damaged or loose parts may cause the load to fall, which may result in death or serious injury!

Never leave a load or hoisting equipment on the hoist when not in use. This may cause excessive strain on the hoist and cable and may shorten their usable life.

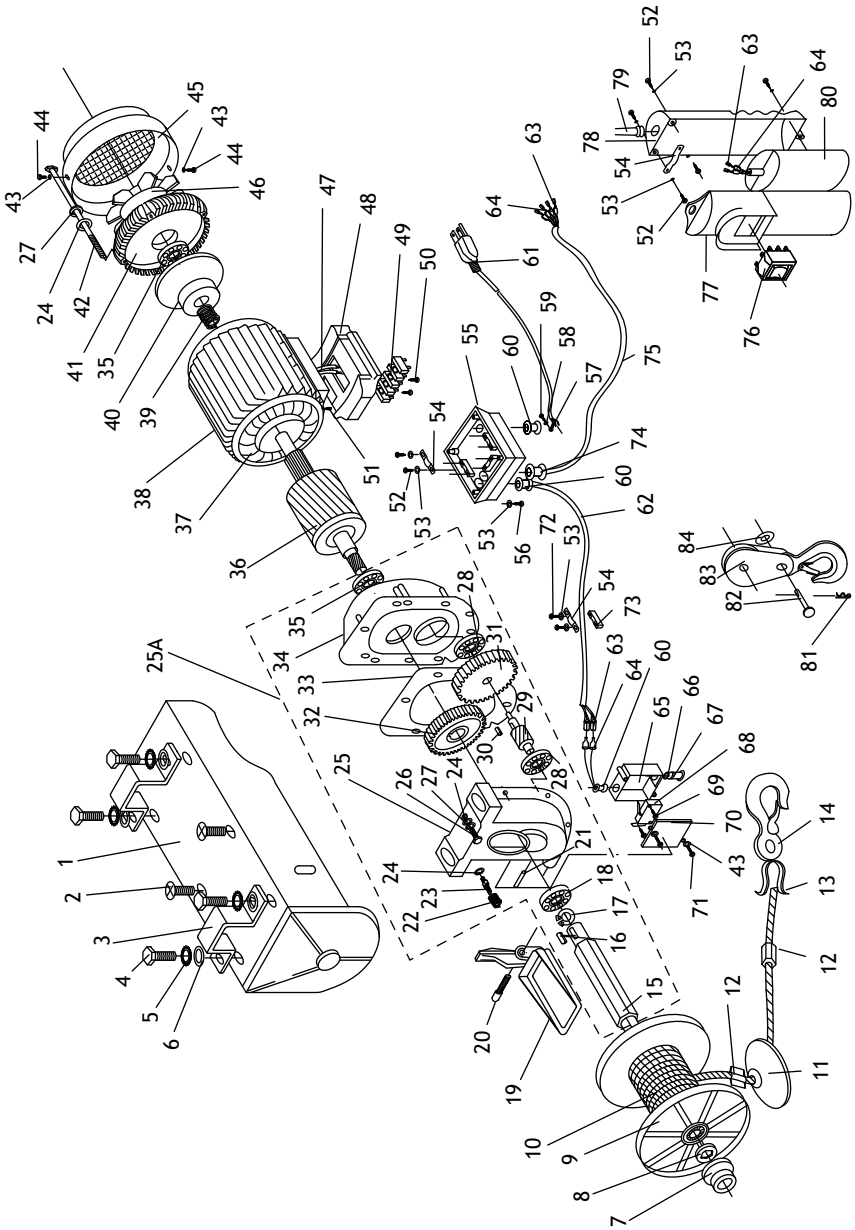
If the hoist becomes dirty, wipe it down with a damp soft cloth and thoroughly dry all surfaces. **DO NOT** use solvents, chemicals, or other corrosive materials to clean the hoist.

## Lubrication

Lubricate the hoist cable with a light oil to inhibit rust and reduce friction, depending on frequency of use and environment. If the cable becomes wet during use, dry and lightly oil it before retracting back onto the spool.



# D4070 Breakdown



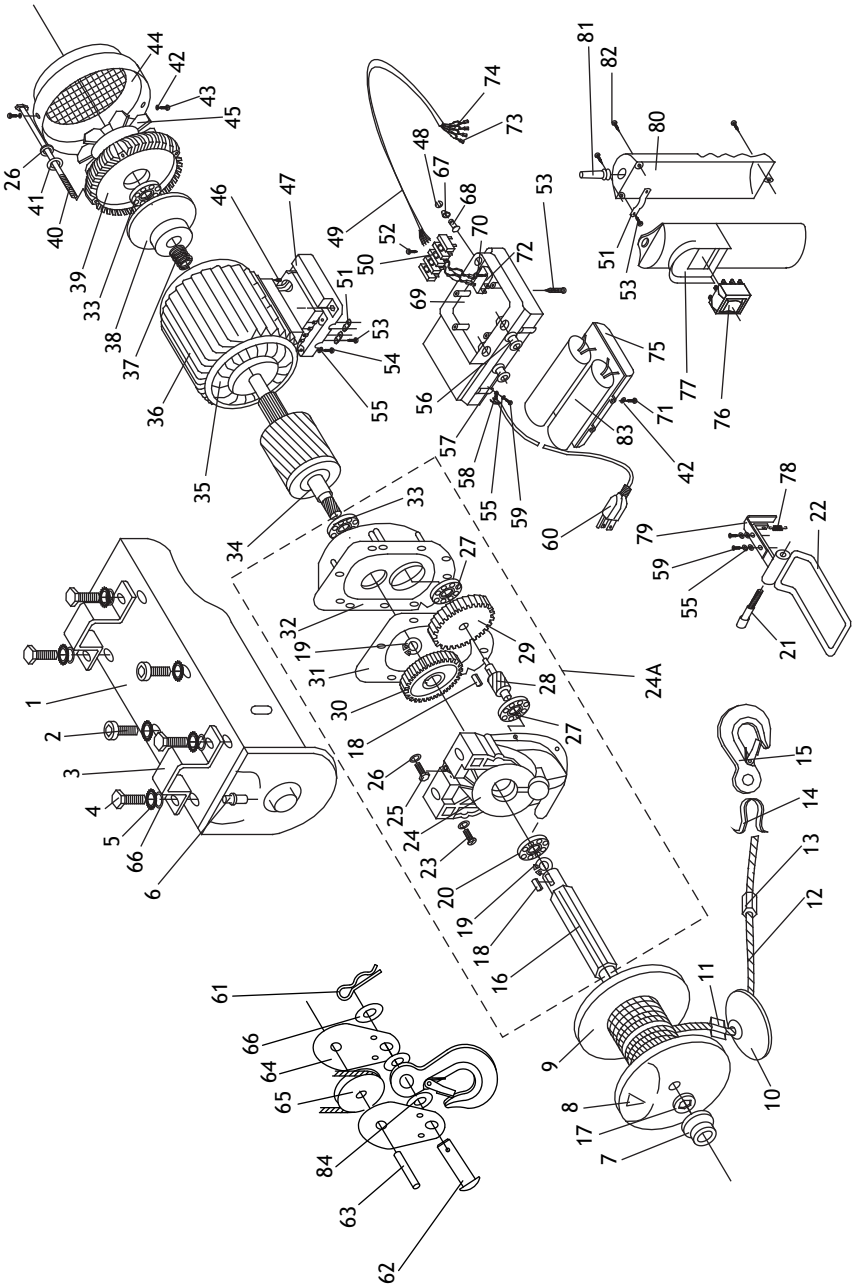


## D4070 Parts List

REF PART #	DESCRIPTION
1	XD4070001 BODY
2	XPCAP14M CAP SCREW M8-1.25 X 20
3	XD4070003 MOUNTING BRACKET
4	XD4070004 HEX BOLT M8-1.25 X 25 G-8.8
5	XD4070005 EXT TOOTH WASHER 8MM
6	XPW01M FLAT WASHER 8MM
7	XD4070007 SPOOL END
8	XD4070008 SPOOL WASHER
9	XD4070009 SPOOL FLANGE
10	XD4070010 CABLE
11	XD4070011 CABLE STOP
12	XD4070012 CABLE FASTENING SLEEVE
13	XD4070013 CABLE LOOP GUIDE
14	XD4070014 LIFT HOOK
15	XD4070015 HOIST SPOOL
16	XPK06M KEY 5 X 5 X 10
17	XPR05M EXT RETAINING RING 15MM
18	XP6202ZZ BALL BEARING 6202ZZ
19	XD4070019 SPACING RACK
20	XPCAP45M CAP SCREW M8-1.25 X 45
21	XPRP42M ROLL PIN 3 X 20
22	XD4070022 COMPRESSION SPRING
23	XD4070023 DOUBLE ENDED STUD
24	XPW02M FLAT WASHER 5MM
25	XD4070025 GEAR BOX
25A	XD4070025A GEAR BOX ASSEMBLY
26	XPCAP20M CAP SCREW M5-.8 X 14
27	XPLW01M LOCK WASHER 5MM
28	XP6200ZZ BALL BEARING 6200ZZ
29	XD4070029 INTERMEDIATE SHAFT
30	XPK06M KEY 5 X 5 X 10
31	XD4070031 GRADE 1 GEAR
32	XD4070032 GRADE 2 GEAR
33	XD4070033 GASKET
34	XD4070034 FRONT COVER
35	XP6202-2RS BALL BEARING 6202 W/2 RS
36	XD4070036 ROTOR
37	XD4070037 STATOR
38	XD4070038 CHASSIS
39	XD4070039 COMPRESSION SPRING
40	XD4070040 BRAKE HOOP
41	XD4070041 GEAR COVER
42	XD4070042 HEX BOLT M5-.8 X 140

REF PART #	DESCRIPTION
43	XPW07M FLAT WASHER 3MM
44	XPS12M PHLP HD SCR M3-.5 X 6
45	XD4070045 MOTOR FAN COVER
46	XD4070046 MOTOR FAN
47	XD4070047 CONNECTION CORDS
48	XD4070048 TOP CONNECTING HOUSING
49	XD4070049 TERMINAL BLOCK
50	XPS59M PHLP HD SCR M3-.5 X 14
51	XPCAP50M CAP SCREW M5-.8 X 10
52	XD4070052 TAP SCREW M3.5 X 14
53	XPW05M FLAT WASHER 4MM
54	XD4070054 CLAMP PLATE
55	XD4070055 BOTTOM HOUSING
56	XPS52M PHLP HD SCR M4-.7 X 20
57	XD4070057 GROUNDING SHEET
58	XD4070058 EXT TOOTH WASHER 4MM
59	XPS07M PHLP HD SCR M3-.8 X 8
60	XD4070060 STRAIN RELIEF LARGE
61	XD4070061 POWER CORD W/PLUG
62	XD4070062 MOTOR CORD
63	XD4070063 PLUG-IN SHEET
64	XD4070064 PLUG-IN SHEET SLEEVE
65	XD4070065 MICROSWITCH BOX
66	XPR04M EXT RETAINING RING 6MM
67	XD4070067 MICROSWITCH SHAFT
68	XD4070068 MICROSWITCH
69	XD4070069 TAP SCREW M2.4 X 14
70	XD4070070 MICROSWITCH COVER
71	XPS34 PHLP HD SCR M3-.5 X 25
72	XD4070072 TAP SCREW M4 X 25
73	XD4070073 CORD CLIP
74	XD4070074 STRAIN RELIEF SMALL
75	XD4070075 REMOTE SWITCH CORD
76	XD4070076 UP/DOWN SWITCH
77	XD4070077 CONTROL SWITCH FRONT
78	XD4070078 CONTROL SWITCH BACK
79	XD4070079 CORD SHEATH
80	XD4070080 CAPACITOR 60MFD 250VAC
81	XD4070081 HAIRPIN COTTER PIN 25 X 30
82	XD4070082 CLEVIS PIN 8 X 30
83	XD4070083 PULLEY HOOK ASSEMBLY
84	XPW04M FLAT WASHER 10MM

# D4077 Breakdown



## D4077 Parts List

REF PART #	DESCRIPTION
1	XD4077001 BODY
2	XPCAP64M CAP SCREW M10-1.5 X 25
3	XD4077003 MOUNTING BRACKET
4	XPB01M HEX BOLT M10-1.5 X 30
5	XPTLW08M EXT TOOTH WASHER 10MM
6	XD4077006 SPECIAL NUT
7	XD4077007 SPOOL END
8	XD4077008 WEDGE
9	XD4077009 SPOOL FLANGE
10	XD4077010 CABLE STOP
11	XD4077011 UPPER CABLE SLEEVE
12	XD4077012 CABLE
13	XD4077013 LOWER CABLE SLEEVE
14	XD4077014 CABLE LOOP GUIDE
15	XD4077015 LIFT HOOK
16	XD4077016 HOIST SPOOL
17	XD4077017 SPOOL WASHER
18	XPK10M KEY 5 X 5 X 12
19	XPR18M EXT RETAINING RING 17MM
20	XP6203ZZ BALL BEARING 6203ZZ
21	XPCAP45M CAP SCREW M8-1.25 X 45
22	XD4077022 SPACING RACK
23	XP540M PHLP HD SCR M5-.8 X 16
24	XD4077024 GEAR BOX
24A	XD4077024A GEAR BOX ASSEMBLY
25	XPCAP24M CAP SCREW M5-.8 X 16
26	XPLW01M LOCK WASHER 5MM
27	XP6201ZZ BALL BEARING 6201ZZ
28	XD4077028 INTERMEDIATE SHAFT
29	XD4077029 GRADE 1 GEAR
30	XD4077030 GRADE 2 GEAR
31	XD4077031 GASKET
32	XD4077032 FRONT COVER
33	XP6202ZZ BALL BEARING 6202ZZ
34	XD4077034 ROTOR
35	XD4077035 STATOR
36	XD4077036 CHASSIS
37	XD4077037 COMPRESSION SPRING
38	XD4077038 BRAKE HOOP
39	XD4077039 MOTOR COVER
40	XD4077040 SPECIAL HEX BOLT
41	XPW02M FLAT WASHER 5MM
42	XPW07M FLAT WASHER 3MM

REF PART #	DESCRIPTION
43	XP512M PHLP HD SCR M3-.5 X 6
44	XD4077044 FAN COVER
45	XD4077045 MOTOR FAN
46	XP5S03M SET SCREW M6-1 X 8
47	XD4077047 TOP HOUSING
48	XPR04M EXT RETAINING RING 6MM
49	XD4077049 REMOTE SWITCH CORD
50	XD4077050 TERMINAL BLOCK
51	XD4077051 CLAMP PLATE
52	XD4077052 TAP SCREW M2.4 X 14
53	XPHTEK2M TAP SCREW M3.5 X 16
54	XP538M PHLP HD SCR M4-.7 X 10
55	XPW05M FLAT WASHER 4MM
56	XD4077056 STRAIN RELIEF SMALL
57	XD4077057 STRAIN RELIEF LARGE
58	XD4077058 GROUNDING SHEET
59	XP507M PHLP HD SCR M4-.7 X 8
60	XD4077060 POWER CORD W/PLUG
61	XD4077061 HAIRPIN COTTER PIN 25 X 30
62	XD4077062 CLEVIS PIN 10 X 35
63	XD4077063 CLAMP CONNECTOR
64	XD4077064 PULLEY CLAMP
65	XD4077065 PULLEY WHEEL
66	XPW04M FLAT WASHER 10MM
67	XD4077067 MICROSWITCH SHAFT SEAL
68	XD4077068 MICROSWITCH SHAFT
69	XD4077069 BOTTOM HOUSING
70	XD4077070 TAP SCREW M2.4 X 14
71	XD4077071 TAP SCREW M2.4 X 14
72	XD4077072 MICROSWITCH
73	XD4077073 PLUG-IN SHEET
74	XD4077074 PLUG-IN SHEET SLEEVE
75	XD4077075 HOUSING COVER
76	XD4077076 UP/DOWN SWITCH
77	XD4077077 CONTROL SWITCH FRONT
78	XD4077078 EXTENSION SPRING
79	XD4077079 LIMIT BRACKET
80	XD4077080 CONTROL SWITCH BACK
81	XD4077081 CORD SHEATH
82	XD4077082 TAP SCREW M3.5 X 20
83	XD4077083 CAPACITOR
84	XD4077084 SPACER

# WARRANTY AND RETURNS

Woodstock International, Inc. warrants this equipment to be free of defects from workmanship and materials for a period of 1 year from the date of original purchase. The liability under this warranty shall not exceed the purchase price paid for the products and is limited to credit for, or replacement of the defective part.

We do not warrant or represent that the merchandise complies with the provision of any law or acts, and buyer assumes all risk and liability resulting from the use of the goods, whether using singly or in combination with other products.

This warranty does not apply to defects or damages due directly or indirectly from misuse, abuse, negligence, accidents, repairs or alterations, or lack of maintenance of our products. We shall in no event be liable for death or injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products. This disclaimer applies to both during and after the term of this warranty. Any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom.

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