WOODSTOCK

SHOP FOX®

INTERNATIONAL

MODEL D4035/D4045

CHAIN HOISTS

OWNER'S MANUAL

Phone: (360) 734-3482 · Online Technical Support: tech-support@shopfox.biz

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⚠ 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.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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 Chain Hoists

1. **SAFETY INSTRUCTIONS:** Ignoring these safety instructions could result in the hoist breaking and the load falling, which could cause death, serious personal injury, or property damage.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before operation.
3. **DO NOT USE IN DANGEROUS ENVIRONMENT.** Do not use pneumatic tools in damp or wet locations, or where any flammable or noxious fumes may exist. Keep work area well lighted.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept at a safe distance from work area.
6. **MAKE WORKSHOP CHILD PROOF** by locking your shop and shutting off air valves.
7. **DO NOT FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE THE RIGHT TOOL.** Do not force tool or attachment to do a job for which it was not designed.

⚠WARNING

Safety Instructions for Chain Hoists

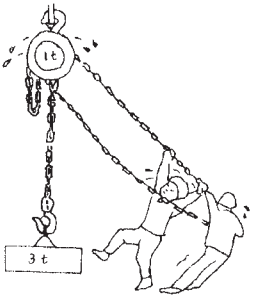
1. **KEEP ALL SAFETY DEVICES IN PLACE** and in good working order.
2. **LIFTING POWER.** This chain hoist is designed to be comfortable for one person to lift the load using only hand power. Never use a motor or an additional mechanical device with this chain hoist to lift the load.
3. **SAFETY HOOKS.** Before lifting, inspect the safety hooks to make certain they are securely attached, and verify that the safety catches are operating correctly.
4. **METAL FATIGUE.** Before using, inspect the hooks, chains, and hoist housing to verify that the metal parts do not have cracks or other signs of potential failure.
5. **DYNAMIC LOADING.** Swinging or jerking the load will cause dynamic loading that could exceed the capacities of the hoist, which could result in the load falling.
6. **VERTICAL MOVEMENT.** The chain hoist is designed to only move the load straight up and straight down. Swinging or dragging the load could cause hoist failure.
7. **CHAIN ENTANGLEMENT.** Always make sure the chains are not twisted around each other before lifting. Keep body parts, long hair, and jewelry away from the chains and hooks to prevent entanglement during lifting.
8. **WARNING LABEL.** Always make sure the warning label on the hoist is legible so that the operator can be aware of the immediate hazards of operating the hoist. If the label becomes damaged, replace it.
7. **CRUSHING HAZARD.** If the load should fall, it could cause death or serious personal injury to anyone underneath the hoist. Always make sure the operator and bystanders never move under the load.
8. **OPERATION SPEED.** Use a slow and steady pace when raising or lowering the load to avoid jerking or tangling the chains and load.
9. **HEAD PROTECTION.** Always wear a hard hat or similar head protection when using the hoist.
10. **OPERATIONAL DIFFICULTY.** If the lifting chain seems to require excessive force to lift the load, check for the following and resolve them before continuing:

- Is the load heavier than the rated capacity of the hoist?
- Are the chains or load entangled in any way?
- Is an obstacle blocking the load or chains?
- Are the chains and load not directly under the hoist?
- Have the gears inside the hoist housing jammed?

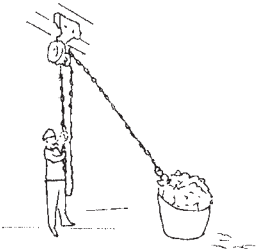
⚠WARNING

READ and understand this entire manual before using this hoist. Serious personal injury may occur if safety and operational information is not understood and followed. DO NOT risk your safety by not reading!

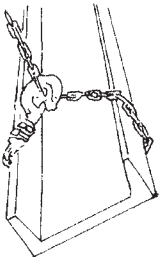
Additional Safety Precautions for Chain Hoists



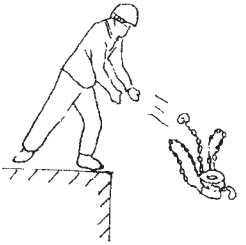
Do not attempt to lift a load in excess of the rated load capacity.



Do not drag the load or lift it when it is not directly under the chain hoist.

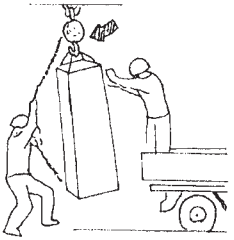


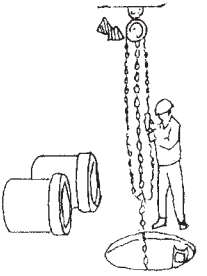
Do not wrap the lifting chain around the load to lift it—use a separate chain.



Do not mishandle the hoist assembly.

Do not allow the hook to become twisted around the chain.





Do not exceed the maximum lifting or lowering distance.

⚠CAUTION

USE this and other machinery with caution and respect. Always consider safety first, as it applies to your individual working conditions. No list of safety guidelines can be complete—every shop environment is different. Failure to follow guidelines could result in death, serious personal injury, or damage to equipment.

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**. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

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

Specifications

Refer to the table below to verify the operation specifications of the specific model of chain hoist that you purchased. The model number appears on the label attached to the side of the gearbox housing. Be sure you understand the capacity and lift dimension requirements for your particular model before using it!

Description	D4045	D4035
Maximum Load Capacity	1 Ton	2 Tons
Maximum Lifting Chain Length	120"	120"
Required Headroom	$3\frac{3}{16}$"	4"
Force to Lift Maximum Load	70 lbs.	72 lbs.
No. of Load Chain Lines	1	2
Gearbox Housing Diameter	$5\frac{9}{16}$"	$5\frac{9}{16}$"
Gearbox Housing Width	5"	5"
Maximum Hook Opening	$1\frac{1}{8}$"	$1\frac{3}{8}$"
Load Chain Hardness	Grade 80	Grade 80
Load Chain Link Thickness	6mm	6mm
Net Weight	22 lbs.	29 lbs.

OPERATION

To operate the chain hoist, do these steps:

1. Read and follow the safety precautions included in the front of the manual, wear protective head gear, and clear the area around the lifting operation.

2. Secure the safety hook on top of the gearbox housing to a structurally sound overhead beam that is capable of supporting the load weight.

   Make sure that the overhead connection point conforms to the required local and state safety and building codes for the hoist and load used.

   Note: *The hoist can be mounted a beam trolley if the capacity of the trolley system is at least twice the maximum load capacity of the hoist.*

3. Position the load directly under the chain hoist.

⚠WARNING

Always connect the chain hoist lifting hook to a separate lifting device attached to the load, such as straps, chains, or eye bolt. DO NOT wrap the hoist lifting chain and hook around the load in any way. If you do, the dynamic loads could exceed the capacity of the hoist, causing it to fail and drop the load. A falling load could cause death or serious crushing injuries.

4. Make sure the hoist chains are not tangled, then attach the lifting hook to the load.

5. Pull on the lifting chain until there is slight tension between the hoist and the load.

6. Inspect the hoist and load to make sure that the lifting chain will stay vertical during the lifting operation, that there is not a possibility of any type of entanglement, and that there are no obstacles in the path of the lift.

7. While keeping to the side of the lifting path, continue to pull on the lifting chain with a slow and steady pace.

   Note: T*he hoist has a built-in braking mechanism that will suspend the load at the current position when you release the lifting chain.*

8. When you are ready to lower the load, pull on the opposite side of the lifting chain at a slow and steady pace.

9. When the tension between the hoist and the load is completely released, detach the hoist hook.

MAINTENANCE

Follow regular maintenance to keep the hoist in good working condition. To avoid serious injury from hoist failure, never attempt to repair a hoist that malfunctions or becomes damaged. Hoist repair or service must be done by a qualified technician only.

The hazard of an improper repair job is that it could cause the hoist to fail and unexpectedly drop the load, which could crush or kill people below, or cause major property damage. For this reason, we strongly recommend replacing the hoist if it malfunctions or becomes damaged.

To avoid contaminating the friction brake during maintenance, you must know the difference between the gear cover and the lifting chain cover (see **Figure 1**).

The **Gear Cover** will be removed during routine maintenance. The **Lifting Chain Cover** should only be removed by a qualified technician; it encloses the friction brake and protects it from exposure to contaminants, such as liquids or lubrication, that will cause the brake to fail under load.

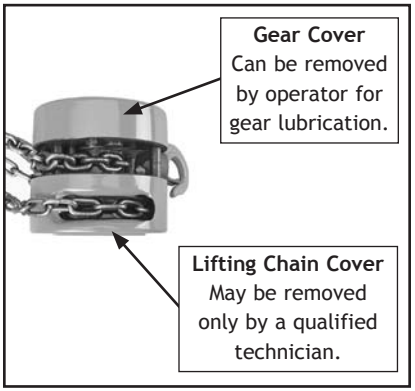


Figure 1. Hoist housing cover identification.

Cleaning

To prevent the chains from jamming, clean away dirt and debris from the outside of the hoist housing and the chains.

NOTICE

DO NOT submerge the hoist housing in liquid of any kind or allow liquid to enter the lifting chain housing during cleaning, or the braking mechanism may fail to work properly.

Chain Lubrication

When the chains are clean and dry, apply a thin coat of light machine oil to the links with an oiled shop rag to ensure smooth movement and prevent corrosion.

Storage

Before storing the hoist, clean and lubricate the chains. Always store the hoist in a clean, dry, and protected area to prevent corrosion or damage.

⚠WARNING

A malfunctioning or damaged hoist may drop its load and crush or kill people below, or cause major property damage. To reduce this risk, observe all care and maintenance noted in the manual. If hoist malfunctions or becomes damaged, replace it, or have it serviced by a qualified service technician.

Greasing Gears

Clean and grease the hoist gears every 6 months of normal use, or more frequently with heavier use.

Items Needed	Qty
Wrench or Socket 10mm	1
Wrench or Socket 14mm	1
Mineral Spirits	As Needed
Stiff-Bristled Brush	1
Shop Rags	As needed
Multi-Purpose Gear Grease	As Needed

To grease the hoist gears:

1. Lay the hoist housing on a flat working surface with the lifting chain cover facing down (see **Figure 2**).

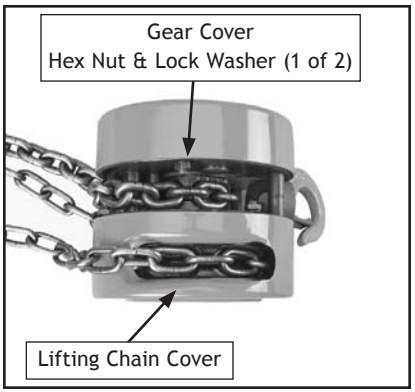


Figure 2. Gear cover fasteners.

2. Remove the two hex nuts and lock washers securing the gear cover, then remove the cover.

3. Remove the three hex nuts and lock washers that secure the gear bracket, then remove the bracket (see **Figure 3**).

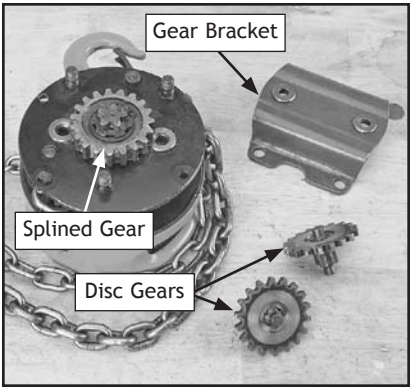


Figure 3. Gears exposed.

4. Remove the two disc gears from the housing.

5. Use mineral spirits, a stiff-bristled brush, and shop rags to clean the old grease and grime from the disc and splined gears.

   Take care not to allow the mineral spirits or lubricant to drip into the lower lifting chain housing and onto the braking mechanism.

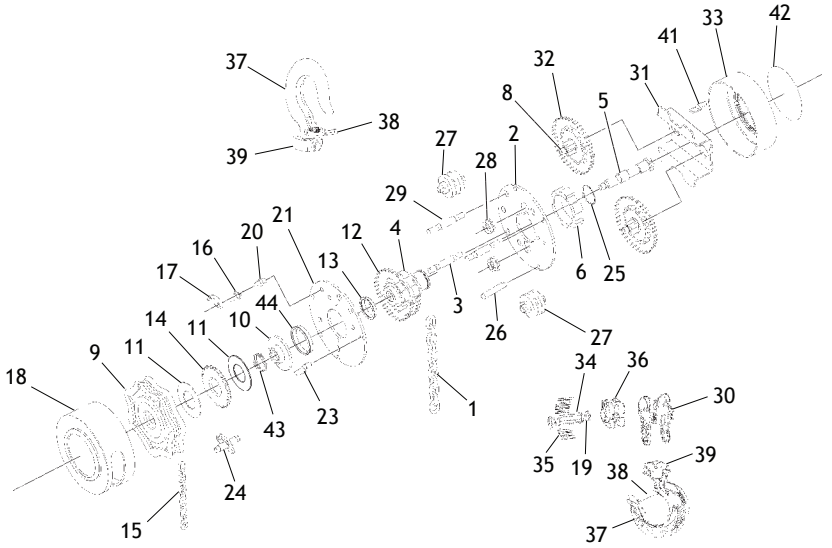
6. When the parts are dry, apply a medium coat of multi-purpose gear grease to the gear teeth.

7. Re-assemble the components in the reverse order that you disassembled them.

8. Test the lifting capabilities of the hoist with no load, then, if successful, with the rated maximum load for your hoist.

   — If you suspect any problems with the lifting or brake mechanisms, immediately lower the load and resolve any issues before using the hoist again.

D4035 PARTS



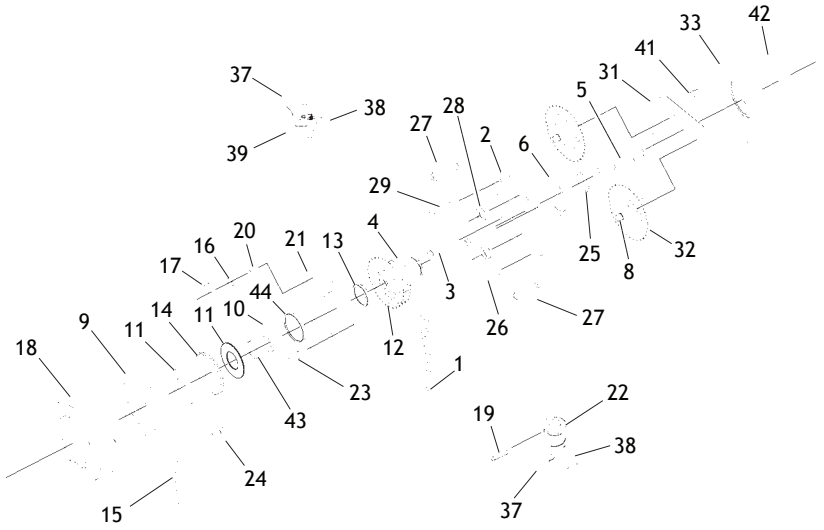
REF	PART #	DESCRIPTION
1	XD4035001	LOAD CHAIN G80
2	XD4035002	RIGHT SIDE PLATE
3	XD4035003	SHORT STUD
4	XD4035004	LOAD CHAIN SPROCKET
5	XD4035005	DRIVE SHAFT
6	XD4035006	SPLINED GEAR
8	XD4035008	DISK GEAR
9	XD4035009	LIFTING CHAIN SPROCKET
10	XD4035010	BRAKE SEAT
11	XD4035011	FRICTION PLATE
12	XD4035012	ROLLER
13	XD4035013	SPROCKET BEARING RACE
14	XD4035014	RATCHET DISC
15	XD4035015	LIFTING CHAIN
16	XD4035016	PAWL SPRING
17	XD4035017	PAWL
18	XD4035018	LEFT HOUSING
19	XD4035019	EXT RETAINING RING
20	XD4035020	PAWL PIN
21	XD4035021	LEFT SIDE PLATE
23	XD4035023	SUSPENSION PIN

REF	PART #	DESCRIPTION
24	XD4035024	CHAIN STRIPPER
25	XD4035025	EXT RETAINING RING
26	XD4035026	LOAD CHAIN PIN
27	XD4035027	GUIDE ROLLER
28	XD4035028	PLATE BEARING RACE
29	XD4035029	LONG STUD
30	XD4035030	LIFTING HOOK HANGER
31	XD4035031	PLATE BRACKET
32	XD4035032	ROLLER
33	XD4035033	RIGHT HOUSING
34	XD4035034	NEEDLE SHAFT
35	XD4035035	NEEDLE
36	XD4035036	IDLER SHEAVE
37	XD4035037	HOOK
38	XD4035038	SAFETY CATCH
39	XD4035039	HOOK HOLDER
41	XD4035041	ALIGNMENT PIN
42	XD4035042	WARNING LABEL
43	XD4035043	COMPRESSION SPRING
44	XD4035044	SIDE PLATE BUSHING

⚠WARNING

All service, repair, or part replacement to this hoist MUST be performed by a qualified hoist service technician. Failure to heed this warning could result in hoist failure, which could cause death, serious personal injury, or property damage.

D4045 PARTS



REF	PART #	DESCRIPTION
1	XD4045001	LOAD CHAIN G80
2	XD4045002	RIGHT SIDE PLATE
3	XD4045003	SHORT STUD
4	XD4045004	LOAD CHAIN SPROCKET
5	XD4045005	DRIVE SHAFT
6	XD4045006	SPLINED GEAR
8	XD4045008	DISK GEAR
9	XD4045009	LIFTING CHAIN SPROCKET
10	XD4045010	BRAKE SEAT
11	XD4045011	FRICTION PLATE
12	XD4045012	ROLLER
13	XD4045013	SPROCKET BEARING RACE
14	XD4045014	RATCHET DISC
15	XD4045015	LIFTING CHAIN
16	XD4045016	PAWL SPRING
17	XD4045017	PAWL
18	XD4045018	LEFT HOUSING
19	XD4045019	HOOK PIN
20	XD4045020	PAWL PIN

REF	PART #	DESCRIPTION
21	XD4045021	LEFT SIDE PLATE
22	XD4045022	BOTTOM HOOK HOLDER
23	XD4045023	SUSPENSION PIN
24	XD4045024	CHAIN STRIPPER
25	XD4045025	EXT RETAINING RING
26	XD4045026	LOAD CHAIN PIN
27	XD4045027	GUIDE ROLLER
28	XD4045028	BEARING RACE
29	XD4045029	LONG STUD
31	XD4045031	PLATE BRACKET
32	XD4045032	ROLLER
33	XD4045033	RIGHT HOUSING
37	XD4045037	HOOK
38	XD4045038	SAFETY CATCH
39	XD4045039	TOP HOOK HOLDER
41	XD4045041	ALIGNMENT PIN
42	XD4045042	WARNING LABEL
43	XD4045043	COMPRESSION SPRING
44	XD4045044	SIDE PLATE BUSHING

WARRANTY AND RETURNS

Woodstock International, Inc. warrants its pneumatic 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.

Woodstock International, Inc. reserves the right to implement any changes in specifications or discontinue any products without notice.