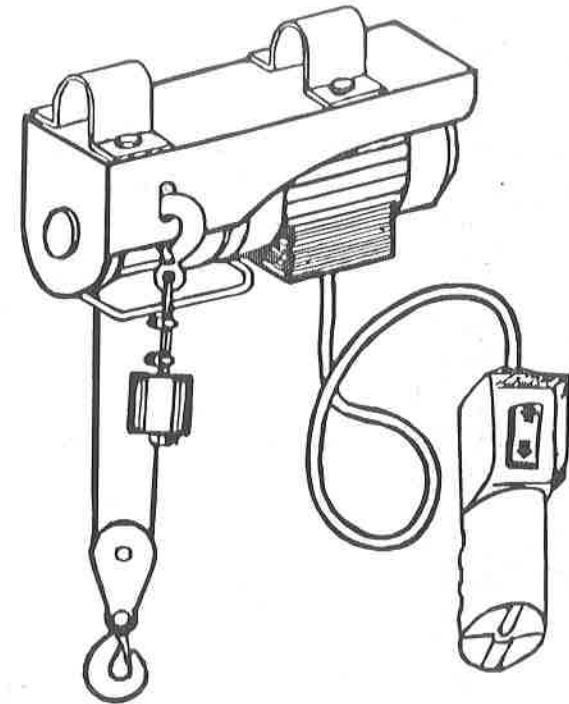


ELECTRIC HOIST

220/440LB 440/880LB 550/1100LB 660/1320LB 750/1500LB 1000/2000LB



ASSEMBLY AND OPERATING INSTRUCTIONS

Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

PRODUCT SPECIFICATIONS

Model	HGS220/440LB		HGS440/880LB		HGS550/1100LB		HGS660/1320LB		HGS750/1500LB		HGS1000/2000LB	
	Standard version	With pulley Hook	Standard version	With pulley Hook	Standard version	With pulley Hook	Standard version	With pulley Hook	Standard version	With pulley Hook	Standard version	With pulley Hook
Load capacity	220lb	440lb	440lb	880lb	550lb	1100lb	660lb	1320lb	750lb	1500lb	1000lb	2000lb
Lifting height	36ft	18ft	36ft	18ft	36ft	18ft	36ft	18ft	36ft	18ft	36ft	18ft
Lifting speed	33ft/min	16.5ft/min	33ft/min	16.5ft/min	33ft/min	16.5ft/min	33ft/min	16.5ft/min	33ft/min	16.5ft/min	33ft/min	16.5ft/min
Cable length	39ft		39ft		39ft		39ft		39ft		39ft	
Cable diameter	3.0mm		3.6mm		4.0mm		4.5mm		5.0mm		5.6mm	
Resistor cable	≥1540lb		≥2000lb		≥2200lb		≥2400lb		≥3000lb		≥4000lb	
Duty cycle	S3 20%-10min		S3 20%-10min		S3 20%-10min		S3 20%-10min		S3 20%-10min		S3 20%-10min	
Voltage	110V/60Hz		110V/60Hz		110V/60Hz		110V/60Hz		110V/60Hz		110V/60Hz	
Motor performance	3/4 HP		1-1/8HP		1-3/4 HP		2 HP		2 HP		2-1/4 HP	

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES

! WARNING!

READ AND UNDERSTAND ALL INSTRUCTIONS

Failure to follow all instructions listed below may result in
Electric shock, fire, and/or serious injury.

SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

ELECTRICAL SAFETY

4. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
5. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
6. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
7. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
8. **Do not abuse the Power Cord. Never use the Power Cord to carry the tools or pull the Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
9. **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

PERSONAL SAFETY

10. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
11. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

12. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.
13. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.
14. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
15. **Use safety equipment. Always wear eye protection.** Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

PERSONAL SAFETY

16. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
17. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.
18. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
19. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
20. **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with a sharp cutting edge are less likely to bind and are easier to control. Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
21. **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.

22. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

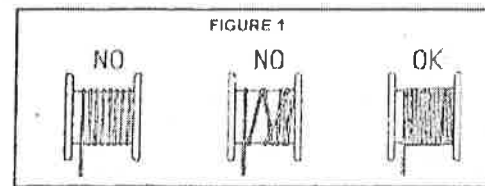
23. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
24. **When servicing a tool, use only identical replacement parts.** Follow instructions in the "*Inspection, Maintenance, And Cleaning*" section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain labels and nameplates on the Hoist.** These carry important information. If unreadable or missing, contact the distributor, Northern Tool + Equipment for a replacement.
2. **Always wear safety impact eye goggles and heavy work gloves when using the Hoist.** Using personal safety devices reduce the risk for injury. Safety impact eye goggles and heavy work gloves are available from Northern Tool + Equipment.
3. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use a power tool in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
4. **Always maintain a firm grip on the tool.**
5. **Always keep the extension cord away from moving parts on the tool.**
6. **Avoid unintentional starting.** Make sure you are prepared to begin work before turning on the Hoist.
7. **Do not force the Hoist.** This tool will do the work better and safer at the speed and capacity for which it was designed.
8. **Never use the Hoist to lift people or animals.**
9. **Always leave a minimum of 4 wraps of cable on the drum.** The cable fastener on this wire rope Hoist is not rated for the maximum capacity of the Hoist.

Additional Specific Safety Rules

10. **Do not exceed the maximum lift capacity.** The application, size and type of load, the attachments to be used and the period of use must be taken into account.
11. **Do not stand under hoisted loads.**
12. **Do not operate the Hoist in wet conditions. Do not allow the Hoist to freeze.**
13. **If pushing the lift button continually does not have any effect, do not continue.** This is a sign that the load exceeds the maximum capacity.
14. **Never adjust the cable or work on the Hoist when it is plugged into an outlet.**
15. **Always inspect the cable and hook prior to use.** If the cable is damaged in any way, do not use it. Hooks that are bent, worn or whose openings are enlarged beyond normal throat opening should not be used.
16. **If the Hoist is stopped during the lowering of a load it is normal for the load to drop a few inches more due to inertia.**
17. **The Hoist motor does not have an overload cut-out.** If you are unable to hoist a load and the load is under the maximum lift capacity, stop the Hoist and allow the motor to cool down before trying again.
18. **Make sure the cable is correctly wound around the wheel.** See FIGURE 1 below.
19. **Do not support a load over or around people or animals.**
20. **Do not leave load suspended in the air unattended.**
21. **Do not allow a load to bear against the hook latch.** Allowing a load to bear against the hook latch can result in loss of load.
22. **Do not allow load to swing or twist while hoisting.**
23. **Do not use cable as a sling or wrap cable around a load.**



! WARNING!

People with pacemakers should consult their physician(s) before using this product. Operation of electrical equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.

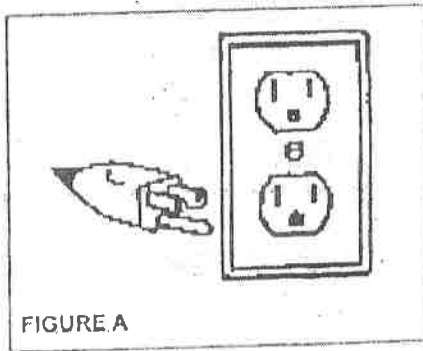
GROUNDING

! WARNING!

Improperly connecting the grounding wire can result in the risk of electric shock. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

GROUNDING TOOLS: TOOLS WITH 3- PRONG PLUGS

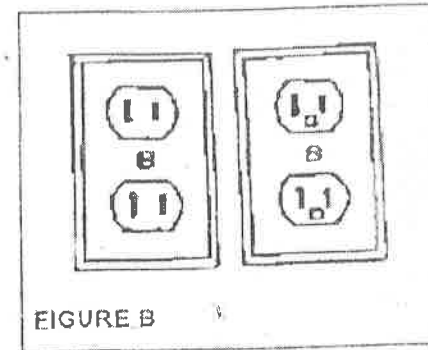
1. Tools marked with "Grounding Required" have a 3-wire cord and 3-prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. (See Figure A.)
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool's grounding system and must never be attached to an electrically "live" terminal. (See Figure A.)
3. Your tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. (See Figure A.)



PAGE 7

DOUBLE INSULATED TOOLS: TOOLS WITH TWO PRONG PLUGS

4. Tools marked "Double Insulated" do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code. (See Figure B.)
5. Double insulated tools may be used in either of the 120 volt outlets shown in the following illustration. (See Figure B.)



EXTENSION CORDS

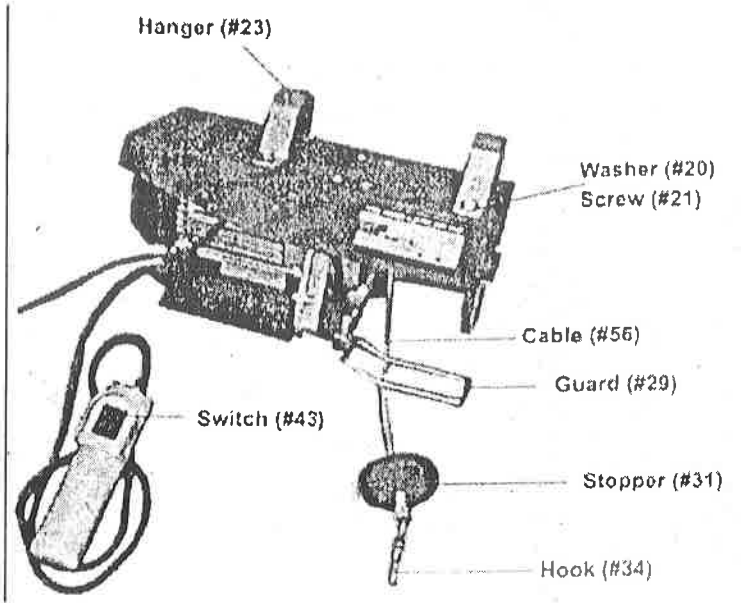
1. **Grounded** tools require a 3-wire extension cord. **Double Insulated** tools can use either a 2- or 3-wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage.
3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14- gauge cord can carry a higher current than a 16- gauge cord.
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required.
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size.

6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
7. Make sure your extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect your extension cords from sharp objects, excessive heat, and damp or wet areas.

SYMBOLOLOGY
Table A

□	Double Insulated
CSA	Canadian Standards Association
UL	Underwriters Laboratories, Inc.
V ~	Volts Alternating Current
A	Amperes
n_o xxxx/min.	No Load Revolutions per Minute (RPM)

FIGURE 2



ASSEMBLY AND OPERATING INSTRUCTIONS

Hoist Set-up

- ! **WARNING!** Unplug the Hoist before set-up.
- 1. This Hoist is designed to be attached to a beam or steel pipe and be securely held in place by both of the **Hangers (#23)**. See **FIGURE 2**.
Note: The beam or steel pipe must be capable of carrying several times the weight of the Hoist and its designated maximum capacity. If in doubt, consult a registered engineer and building code.
Note: Make sure the area underneath or around the Hoist is clear of obstructions. Do not Hoist loads over people or animals.
- 2. After determining the location of the Hoist, make sure the beam or pipe is the proper size to fit inside of the **Hangers (#23)**. Have a second person hold the top of the hoist flush against the beam or pipe. Line up the holes on each **Hanger (#23)** with the holes on the top of the Hoist. Thread in the two **Screws (#21)** and **Washers (#20)** per **Hanger (#23)** to secure the Hoist to the Beam or Steel Pipe. Check that it is secure. Before each use, check that the **Hangers (#23)** are securely fastened to the Hoist.
- 3. Ideally, the Hoist needs to be set-up within a reachable distance to a 3-prong power outlet without the need of an extension cord. However, extension cords are safe and acceptable when properly used.

OPERATION (continued)

Using the Hoist Refer to FIGURE

! WARNING! As illustrated in **FIGURE 2**, the **Cable (#56)** must flow through the cable **Guard (#29)**, and the **Stopper (#31)** must be securely attached to the end of the **Cable (#56)**.

1. Plug in the unit and press the **Switch (#43)** toward the "down" position to lower the **Hook (#34)** to the load.
2. When connecting the **Hook (#34)** to the load, you must be sure that the connection point on the load is capable of holding the weight of the entire load. If you are not sure, use a separate cable (not included) that is rated above maximum lift load capacity, to surround the unit and tie it off securely. Then, attach the load is completely inside of the hook and safety tab on the **Hook (#34)** and the load is centered under the hoist. The safety tab on the hook must latch or close over the connection point or cable or the load may fall causing serious damage and injury.
3. Make sure no people or animals are near the immediate area. Never support a load over people or animals.
4. Standing clear, push the **Switch (#43)** toward the "lift" position. Slowly raise the load only enough to clear the floor or support and check to be sure the load is securely fastened. Proceed only after you are ensured the load is secure and free of all obstructions. If the Hoist refuses to lift the load you might have exceeded maximum lift capacity. If you are under the maximum capacity and the Hoist stops on its own, release the lift switch and stay clear while the motor has sufficient time to cool down. Then, resume the process.
5. When you are ready to lower the load, press the **Switch (#43)** toward the "down" position.
6. When the load is completely on the ground, keeping clear of it, shake or move the load to make sure it is sitting firmly on the ground. Then, remove the **Hook (#34)** from the load.
7. Push the **Switch (#43)** toward the "lift" position and bring the **Stopper (#31)** up to within a few inches of the **Guard (#29)**.
8. When finished, unplug the unit.

INSPECTION, MAINTENANCE, AND CLEANING

! WARNING! Before each use, inspect the general condition of the hoist. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use. **Do not use damaged equipment.**

1. Wipe the Hoist down with a lint free cloth.
2. Check the cable for tears, excessive wearing, damage or frays. If you find any, Do not use the Hoist until the cable is replaced by a qualified technician. Only use genuine replacement cable (**Cable (#56)**). Do not substitute rope or any other type of cable.
3. Periodically lubricate the cable with a light oil.

PARTS LIST

Part No.	Description	Part No.	Description
1	Cover Fan	30	Screw
2	Impeller	31	Stopper
3	Shield	32	Clamp
4	Stator	33	Connector
5	Screw	34	Hook
6	Bearing	35	Bearing
7	Basket	36	Pinion
8	Hub	37	Key
9	Hub Gasket	38	Connector
10	Spring	39	Switch/Cable
11	Shaft	40	Spring
12	Bearing	41	Screw
13	Flange	42	Cover
14	Gasket	43	Switch
15	Bushing	44	Screw
16	Wheel	45	Grip
17	Bearing	46	Condenser
18	Crankcase	47	Grip
19	Support	48	Screw
20	Washer	49	Screw
21	Screw	50	Cable
22	Screw	51	Clamp
23	Hanger	53	Terminal
24	Key	54	O-ring
25	Shaft	55	Cable
26	Spool	56	Cable
27	Cable	57	O-ring
28	Bushing	58	Clip
29	Guard	59	Cable
		60	Wheel

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO. OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

