

GRIZZLY

OPERATOR'S INSTRUCTION MANUAL

MODEL: 511 000 / 512 000

ENGINE MODEL: _____

SERIAL: _____

ENGINE SERIAL: _____

DATE OF PURCHASE: _____

PURCHASED FROM: _____

WARNING: THIS PRODUCT IS DESIGNED AND MANUFACTURED TO GIVE SAFE AND DEPENDABLE SERVICE IF OPERATED ACCORDING TO INSTRUCTIONS. THE MANUFACTURER PROVIDES THE FOLLOWING INSTRUCTIONS FOR USE AND CARE OF THIS EQUIPMENT AND RELIES UPON THE PURCHASER TO SEE TO IT THAT THESE INSTRUCTIONS ARE MADE CLEAR TO THE PERSONS WHO WILL ACTUALLY BE USING THE EQUIPMENT. FAILURE TO DO SO COULD RESULT IN SERIOUS INJURY OR EQUIPMENT DAMAGE.

GRIZZLY EQUIPMENT

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INTRODUCTION

511 000, 512 000 LADDER HOISTS

Thank you for purchasing this quality **GRIZZLY** product. With proper use and care, this ladder hoist will provide many years of reliable service. For the safety of all job-site personnel it is mandatory that the instructions provided for the use and handling of the equipment be read and thoroughly understood by the operators.



CAUTION

INTENDED USE: THIS MACHINE IS INTENDED TO BE USED FOR THE SOLE PURPOSE OF LIFTING AND LOWERING MATERIAL AND SUPPLIES TO AND FROM THE ROOF. ANY OTHER USE OF THIS EQUIPMENT VOIDS THE MANUFACTURER'S WARRANTY AND IS THE SOLE RESPONSIBILITY OF THE OWNER/USER, SHOULD ANY DAMAGE OR INJURY MAY OCCUR.

PREPARATION

OPERATOR:

START BY READING AND FULLY UNDERSTANDING OPERATING INSTRUCTIONS. IF SOMETHING IS NOT UNDERSTOOD, HAVE SOMEONE ELSE READ AND EXPLAIN THE INSTRUCTIONS TO THE OPERATOR OR CALL THE MANUFACTURER FOR INFORMATION. AN UNINFORMED OPERATOR CAN SUBJECT HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY.

WEAR PROPER ATTIRE

Safety glasses are recommended and must be worn if any roof cutting or scraping is being done in the vicinity. Safety glasses and or face shield are also necessary when working with hot stuff.

Wear properly fitting clothes. Tight clothing can restrict movement and slow down reaction time in a dangerous situation. Loose fitting clothing can be dangerous and cause serious injury if it gets caught in moving mechanical parts. Wear a long-sleeved shirt, buttoned at the cuffs, safety shoes, and pants without cuffs, and knit wrist type gloves.

Hard hat must be worn by operator when work is being done.

ROOF PREPARATION

Inspect Roof Deck

Before allowing equipment and personnel access to roof, make certain roof is strong enough to support the weight. Check load limits of deck with owner, builder or architect. Clear the work area of all potentially dangerous obstacles that could cause personal injury to the operator or others. Keep unauthorized people away from construction area. Check to see that all roof openings are guarded to protect against falls.

Warning Line System

The operation of this piece of equipment must be in compliance with Federal **OSHA** standards governing safety perimeters with respect to the use of power equipment. When operating parallel to roof edge warning line system must be at least six feet from edge. When operating perpendicular to edge warning line must be ten feet from roof edge. For specific information on warning lines, the use of guard rails and motion-stopping-safety systems, refer to section on OSHA Law.

GENERAL PREPARATION

Clear the work area of all potentially dangerous obstacles that could cause personal injury to the operator or others. Keep unauthorized people away from construction area.

INSPECT THE PLATFORM AND HOIST ACCESSORIES

Make certain top bracket, track shoes, track, and platform are in safe operating condition, to be operated by trained personnel. The hoist should be clear of ground objects and overhead obstacles, such as power lines. Make sure everyone on the ground is completely clear of the hoisting area. Do not exceed the weight and size capacity of your hoist. Use only on a flat and level surface. Do not use if you have any doubts.

SIZE AND CAPACITIES OF PLATFORM HOISTS

MODEL 511000 LH 250 ladder hoist

- 17" wide track
- 250 lbs lifting capacity
- GX120 or GX160 power unit
- 44' maximum length
- ladder support required at heights exceeding 28'
- hoist speed varies to 220 ft. /min.

MODEL 512000 LH 400 ladder hoist

- 24" wide track
- 400 lbs lifting capacity
- GX120 or GX160 power unit
- 44' maximum length
- ladder support required at heights exceeding 28'
- hoist speed varies to 110 ft. /min.

NOTE: Platform speeds and capacities are average and are based on 3/16 inch diameter of cable. As cable builds up on drum, lifting speed increases and lifting capacity decreases in direct proportion to drum diameter.

COMPLETING THE PLATFORM ASSEMBLY

Assemble the platform as follows:

1. Remove all parts from the box
2. You should have;
 - 1 main frame and platform
 - 1 pivot bracket with wheels
 - 2 braces
 - 1 bottom sheave (LH 400 only)
3. Install braces #38 to point “A” and “B”, tighten all bolts securely.

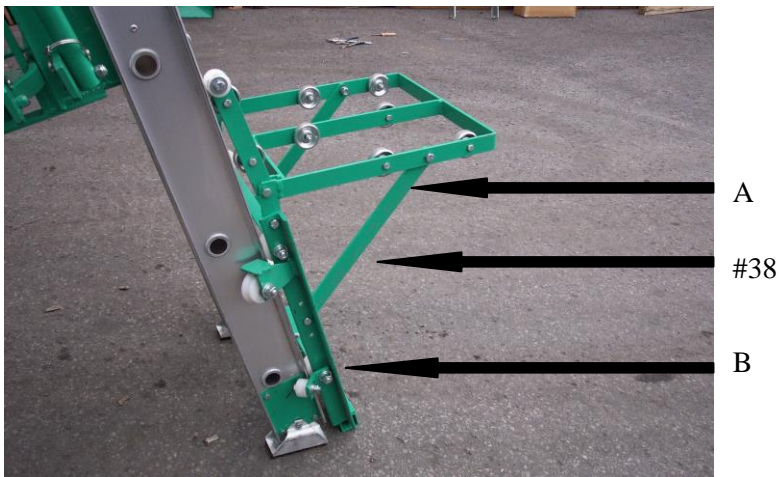


Fig. 2

4. Connect #33 pivot bracket to point “C” making sure to install pivot bracket with offset wheels #14 closest to ladder.

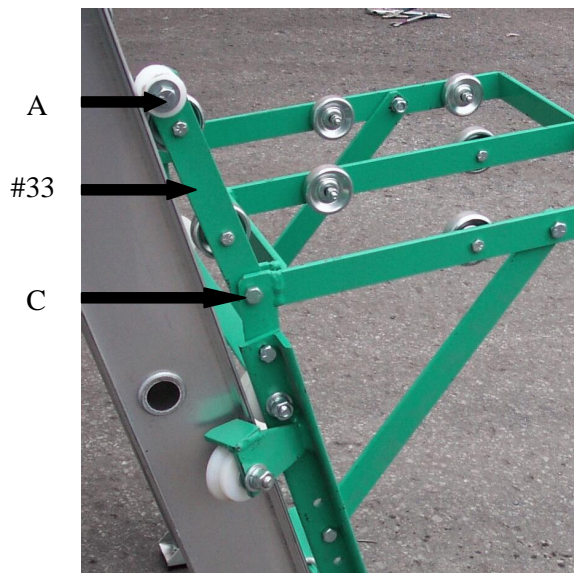


Fig. 3

MOUNTING THE PLATFORM ON TRACK

Both models have the cross ties offset from the center of the rails to allow passage of the platform wheels. Before erecting the track, lay the bottom 16 ft. track section on the ground with the cross ties closest to the ground and the track shoes as shown.

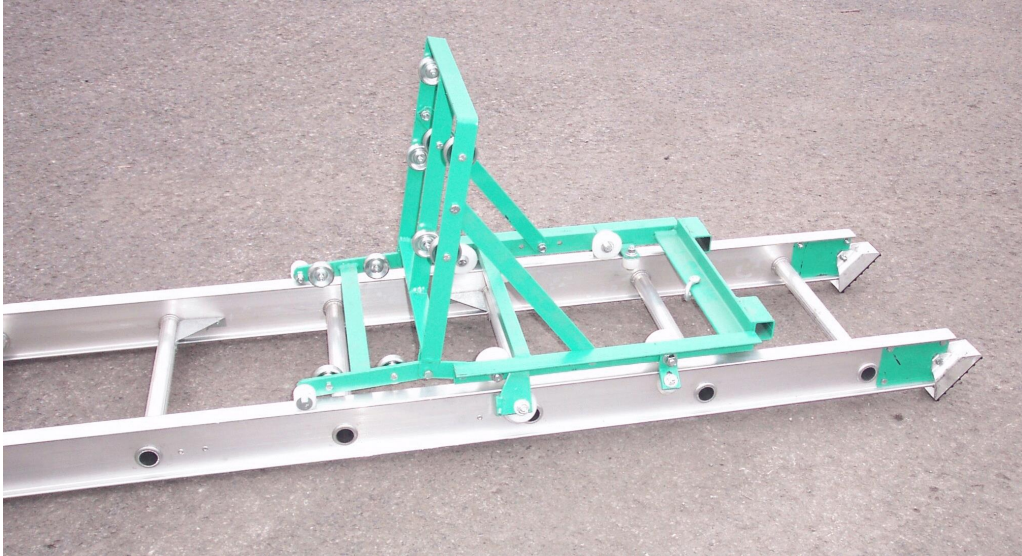


Fig. 4

The assembled platform will slide onto rails from the top of the track section (opposite the shoes.) The platform bumper should be on the bottom facing the shoes. Roll platform down the track without striking the shoes and securely tie it to any cross tie to prevent movement when raising the track.

SETTING UP THE TRACK

The standard sectional platform hoist consists of three sections of track; a 16 ft. bottom section with shoes, an 8 ft. and a 4 ft. section, both with splice plates bolted permanently to their bottom end. These sections may be joined together with their splice plates by sliding the bottom of one section into the top of lower section and installing wing nuts and carriage bolts provided. Tracks of 16 ft., 20ft, 24 ft., and 28 ft. can be assembled as desired from these three sections. Select a length that will allow the top of the assembled rail to project 2 to 2-1/2 ft. above the cornice or eave of roof.

For longer track lengths, a 16 ft. center section with splice plates attached is available to provide tracks up to 44 ft. in 4 ft. increments. Lengths over 28 ft. require the use of a track support to provide additional support for these long tracks.

Warning: Tighten all bolts and nuts securely. If all bolts are not in place and tightened securely, track failure will occur under load.

MOUNTING THE TOP BRACKET

Slide top bracket into end of the top track section and bolt securely to the track. Make sure top sheave is centered with cross ties, or cable might cut through cross ties.



Fig. 5

RAISING THE TRACK

WARNING: Keep tracks clear of all electrical wires and equipment. Never climb the tracks.

CAUTION: Because of its long length and with the top bracket attached, the track assembly is extremely top heavy and must be kept under control at all times.

Two alternate methods are suggested for raising the track to its operating position.

PROCEDURE A

1. Lay the assembled track with platform and top bracket attached parallel to the building wall that is to support the track.
2. Use a man on the roof with a rope dropped from the roof and attached to the top bracket to pull up the track while a man on the ground, with his feet braced against the track shoes to keep the bottom of track from slipping, aids in raising by pulling against the rails, cross ties or platform.
3. Another man on the ground may aid in erecting by “walking” the track up hand over hand on the rails or cross ties. When track reaches a vertical position, carefully turn the track away from the building where track is to be supported. Allowance must be made for an overhand on building.

ALTERNATE PROCEDURE B

1. Place track perpendicular to building with bottom shoes resting against building to prevent slipping.
2. Use a man on the roof with rope dropped from the roof and attached to the top bracket to pull up the track. A man on the ground may aid in erecting by “walking” up the track hand over hand on the rails or cross ties.
3. When track reaches a vertical position, carefully turn the track 180E with platform away from building 1/4 of height where track is supported. Allowance must be made for an overhang of building.

AFTER USING ONE OF THE PROCEDURES (A OR B) CONTINUE AS FOLLOWS:

4. Securely tie track to the roof with a rope fastened to a cross tie or top bracket to prevent track from slipping. Platform will not roll on track if rope is fastened around the rails
5. Mount the power unit on the 3rd and 5th track cross ties and clamp in place. Fasten or bolt the operating handles on the power hoist. When facing the power unit from the rear or building side of the track, the power unit handles are on your right.
6. Using a rope from the roof and with brake released, pull the hoist cable to the roof on the underside of track and reeve through the sheave on the top bracket. Drop the cable to ground (on platform side of the track) and fasten to shackle provided on the platform.

Note: The LH 400 requires two parts of line. After dropping cable end to ground, pass cable through block on LH 400 platform and pull end once more to the roof on platform side of track. Fasten end to shackle provided on top bracket.

7. Remove the tie rope holding platform in position on the track.
8. Make certain that both track shoes or spikes are firmly resting on a level surface. This prevents track slippage or uneven loading of track which could cause damage or injury to equipment or personnel.
9. Attach accessories to platform as required. Before operating read and understand the power hoist operating instructions. Your platform hoist is now ready for use.

LOWERING THE TRACK

WARNING: Before lowering track, check carefully for proximity of electrical power lines.

When dismantling and lowering the equipment, reverse the erection procedure.

USE OF TRACK SUPPORT

Track lengths in excess of 28 feet require the use of track support. The table below provides the suggested information for the distance of the bottom of the track to the building and the location of the track support for various conditions.

Building Height (feet)	Length of Track (feet)	Base of track to Building	Track support location Cross Tie to Bottom
12	16	3' 0"	Not required
16	20	4' 0"	Not required
20	24	5' 0"	Not required
24	28	6' 0"	Not required
28	32	7' 0"	13th
32	36	8' 0"	15th
36	40	9' 0"	18th
40	44	10' 0"	20th
42	44	10' 0"	21st

Base of track to building distance must be increased by the amount of any overhang on the building on which the platform is being used.

WARNING: Tighten all bolts and nuts securely. If all bolts are not in place and tightened securely, track failure will occur under load.

POWER UNIT OPERATION

To prevent damage or injury to the equipment or operator it is important that the operator of this equipment thoroughly understands these instructions.

These instructions should be readily available for references on job site.

CONNECTING TO TRACK

The power unit is designed to operate in essentially a vertical position. This is necessary for the proper operation of the brake and clutch levers. They will not work if the unit is in a horizontal position.

When used on platform hoist, place the #2 clamp on the fifth cross tie from the bottom on the underside of the track. Center the unit between the track rails and lock in place by rotating #3 lock to the left. Insert # 126 lock pin in hole provided to prevent lock from loosening. (Fig. 6 for more information).

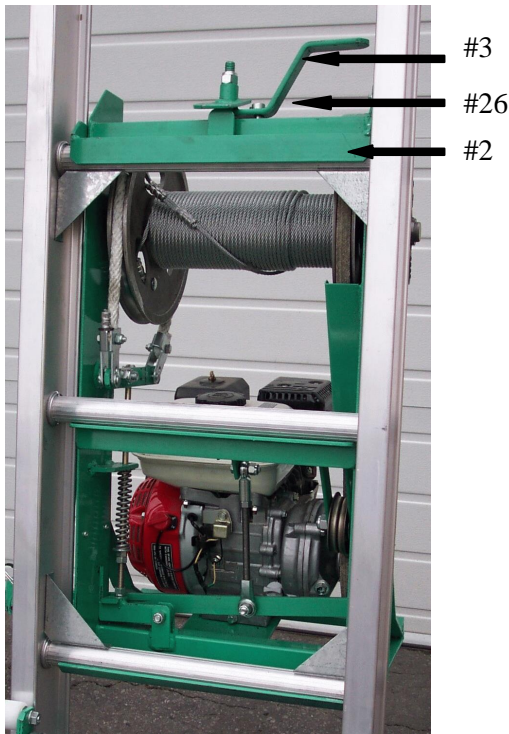


Fig.6

When you face the unit from the front of the track, the operating handles will be on your left.



Fig. 7

SAFETY PRECAUTIONS:

1. Do not allow other people to be near the equipment during operation (except operator).
2. Do not exceed the weight capacity of your platform.
3. Never operate equipment that is damaged in any way. Repairs or replacement of damaged components must be made by a qualified mechanic.
4. Do not modify the equipment. Do not operate a modified piece of equipment.
5. Wear safety footwear, and snug fit clothing.
6. Be trained to do the specific job before operating the hoist on an actual job.
7. Do not operate this equipment if you are under the influence of alcohol, marijuana, or drugs that could impair judgment and ability.
8. Keep the equipment in good condition.
9. The owner or operator must see that all warning decals are in place and legible. Write **Grizzly** equipment for replacement decals and instructions.

MAINTENANCE

POWER UNIT

Engines are guaranteed against defects by the manufacturer. Follow the manufacturer's instructions for proper lubrication and maintenance. For repairs contact the nearest authorized center.

Grease the drum bearings every 30 hours of operation.

Lubricate each moving joint with SAE 30 oil on a regular basis to ensure free operation.

BELT REPLACEMENT

Check the belt regularly for wear or stretching. If a belt requires replacement, follow these steps:

- Remove guard #4
- Remove the right bearing #23 and spacer #24 (do not forget to support the drum assembly #18 by tying it to the frame or by blocking it to prevent it from dropping).
- Remove the belt.
- Reverse this procedure to reassemble.

See illustrated parts list for details

BRAKE ADJUSTMENT

All the settings and adjustments for proper brake operation are made at the factory. If wear or part replacement require that a major adjustment be made, follow this procedure:

- If the load drifts down, tighten nut #118 to compress spring #12 (see illustrated parts list for full understanding).

CAUTION: Over tightening will fully compress the spring and brake will not release.

- If engine stalls when clutch handle is lifted, you must practice to arrive at perfect coordination between the raise of clutch handle and the raise of brake handle (the brake must be loose when the clutch belt is tightened).
- If the brake rim is too hot to touch, reduce the lowering speed. Check the brake sheave periodically for excessive heat. If the heat persists, check the wearing surface of brake band.

GRAVEL HOPPER (511 050, 512 050)

Place #38 braces in the desired holes on main frame to achieve optimum placement of gravel hopper (center hole as shown in fig. #8 is usually the best option).

Before tightening the bolts on hinged brackets, make certain that both front legs of hopper are resting solidly on platform. (If not, excessive load will be placed on #14 wheels causing undue wear).



OPERATION

When the platform reaches the top, and #3 pivot bracket goes over the top of the rails, the discharge gate opens and dumps the material into waiting wheelbarrow or spreader.

SAFETY HAZARDS

Safety hazards are not always obvious to workers. Unlike exposure to health hazards, where illness or injuries develop slowly, safety hazards usually result in immediate injury or death.

Broken bones, cut, bruises, sprains, burns and loss of limbs, eyesight and hearing are the kinds of injuries caused by safety hazards.

The rate of occupational injuries in roofing, in fact, ranks in the top ten of all major occupational groups.

Falls

Falls are the number one cause of serious injury and death to roofers. An estimated 10 percent of all roofing accidents result from falls off roof edges, through roofing openings or off ladders, more than half of the non-fatal accidents result in serious injury.

Unprotected and unguarded roof edges and roof openings create extremely hazardous conditions.

Ladders with cracked, loose or missing steps: with side rails broken or cracked and not attached firmly to the steps; with broken, loose or missing locks, or coated with grease, oils or hardened bitumen can lead to serious injury. Ladders should be inspected to make sure they're properly maintained and constructed and that they're long enough to extend three feet above the roof's surface.

Improperly balanced or unstable hoists overturn and will often carry the worker along. Rolls of roofing felt should never be used as counterweight. Workers should know the load capacity; it should be posted.

Burns

Skin contact with hot asphalt and hot coal tar pitch usually results in second and third degree burns. They usually involve deeper portions of the skin and are easily infected.

An estimated 16 percent of all injuries are burns from hot stuff. The major causes of burns have been from;

- < Kettle flashes
- < Kettle splashes from dropping pieces of coal pitch or asphalt into the kettle
- < Slips and trips while carrying hot bitumen in open containers
- < Splashes involving transfer operations like from the hot pipe outlet to a hot lugger, from a hot lugger to a mop cart or a pail, or from the kettle to a pail

Heavy Lifting

Sprains and strains, a majority of which involve the back, are the most common roofing injury and one of the most severe. Almost 30 percent of these injuries result in 10 or more days away from work.

Fire/Explosion

Two conditions must be met in order for fires and explosions to occur. First, there must be an ignition source, a welding arc, spark, cigarette, flame or simply a hot spot as in a kettle or tanker. Secondly, there must be the right mixture of vapours (from asphalt, pitch, solvents) and oxygen.

For kettles and tankers, fire/explosion conditions arise when;

- < Oversized burners are used to fire the kettle, causing localized overheating of the heating tubes creating a hot spot.
- < The temperature of the bitumen is brought up to the desired operation temperature too quickly.
- < Allowing the level of bitumen to drop to the level of the firing tubes, allowing excessively high surface

temperatures.

- < Heating the bitumen to its flash point (for asphalt, about 525E-540E; for pitch, about 450E-475E)
- < The temperature of the bitumen is hot enough to reach the auto-ignition level
- < In tankers, the vent pipe is clogged or plugged so that flammable vapours can build up to explosive levels

Many solvents evaporate quickly at roof temperatures. Explosive mixtures of vapours can be readily formed within confined spaces like high parapet walls, in atriums or in any space where little or no ventilation exists. And any kind of spark or flame can ignite the vapours.

Electrocution

Low voltage electricity can cause shock, muscle contractions, breathing difficulty, irregular heartbeat, severe burns and death. The route that the current takes through the body affects the degree of injury. Current flowing from one finger to another would not pass vital organ, while from one hand to another would pass through the heart and lungs.

Electrical tools should be properly grounded. The electrical cord should end in a three-prong grounding contact, or the wires should be enclosed in a metal case with a special grounding attachment.

Employers are required to provide ground fault circuit interrupters for all outlets on construction sites that are not part of the permanent wiring of the building. This is actually a fast-acting circuit breaker, which can shut off electricity in a fraction of a second.

Aluminum or other metal ladders pose a serious electrical hazard around electrical equipment and energized lines.

Falling Objects

Tools, bricks, materials, buckets, boxes, pallets or almost anything dropped from a sufficient height can cause severe damage. Head injuries, one of the highest compensated injuries to workers, often include brain damage.

Workers need protective head gear when working beneath people, tools and equipment.

Flying Objects

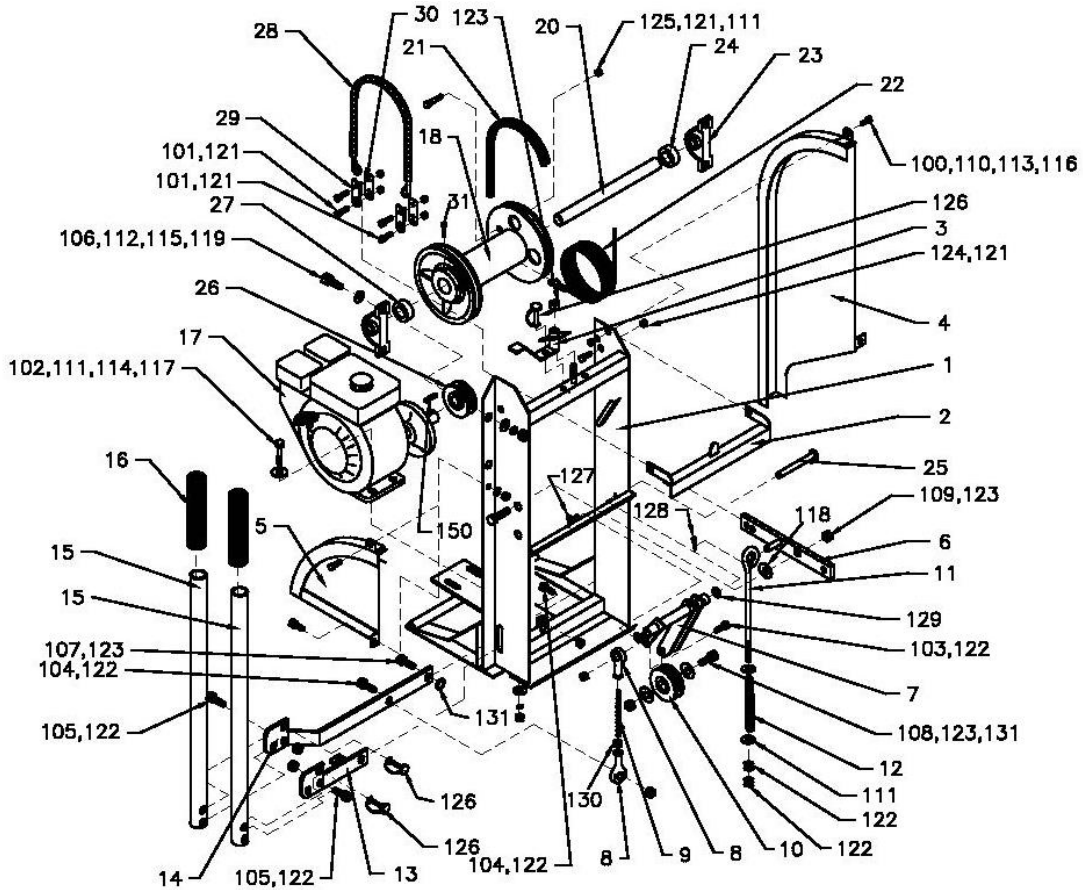
Objects can be projected by machines, from welding or grinding operations and can be windblown. Tear-off operations, where power cutters, power brooms and power spudders are generally used, are the major source of flying substances.

The part of the body most often injured is the eyes.

Unguarded Machinery

Exposed blades and chains on powered machinery like hoists and roof cutters can severely lacerate and crush parts of the body. Guards should always be fitted over moving parts to protect workers.

BLOW OUT

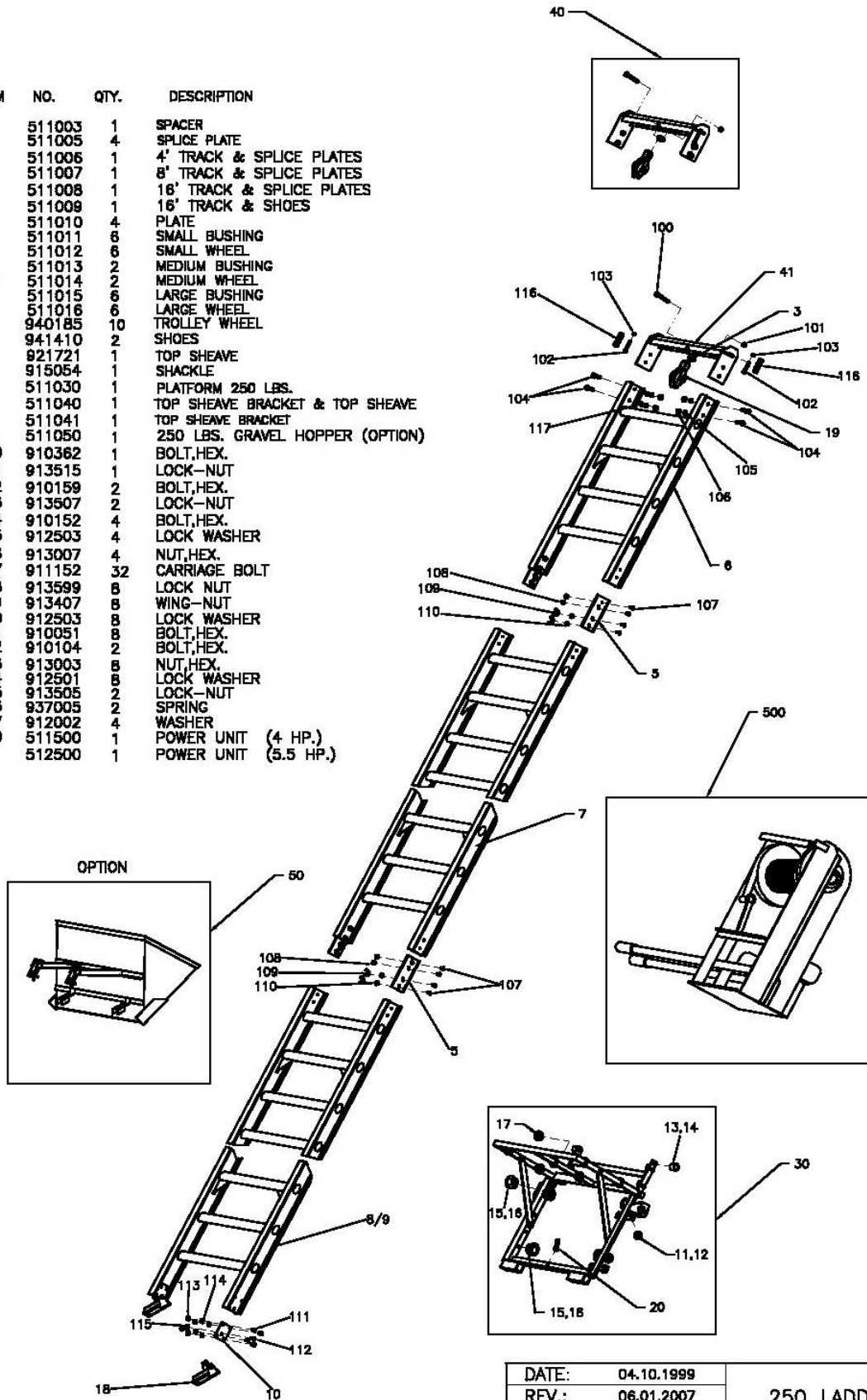


ITEM	NO.	QTY.	DESCRIPTION	ITEM	NO.	QTY.	DESCRIPTION
1	511501	1	FRAME	100	910051	4	BOLT,HEX.
2	511502	1	RUNG CLAMP	101	910104	2	BOLT,HEX.
3	511503	1	RUNG LOCK	102	910106	4	BOLT,HEX.
4	511504	1	BELT GUARD	103	910153	1	BOLT,HEX.
5	511505	1	BRAKE COVER	104	910154	2	BOLT,HEX.
6	511506	1	BRAKE LEVER	105	910156	2	BOLT,HEX.
7	511507	1	CLUTCH ARM	106	910205	4	BOLTHEX.
8	923250	2	ROD END BEARING	107	910255	1	BOLT,HEX.
9	511509	1	THREADED ROD	108	910256	1	BOLTHEX.
10	921403	1	IDLER PULLEY	109	910257	1	BOLT,HEX.
11	915200	1	EYE BOLT	110	912001	2	WASHER
12	937009	1	SPRING	111	912002	7	WASHER
13	511513	1	BRAKE LEVER	112	912003	10	WASHER
14	511514	1	CLUTCH LEVER	113	912501	2	LOCK-WASHER
15	511515	2	HANDLE EXTENSION	114	912502	4	LOCK-WASHER
16	940005	2	GRIP	115	912504	4	LOCK-WASHER
17	950120/950161	1	ENGINE	116	913003	2	NUT,HEX.
18	511518	1	CABLE DRUM	117	913005	4	NUT,HEX.
20	511520	1	DRUM SHAFT	118	912024	1	WASHER
21	920338	1	BELT	119	913009	4	NUT,HEX.
22	940031	1	WIRE ROPE	121	913505	5	LOCK-NUT
23	923181	2	BEARING	122	913507	7	LOCK-NUT
24	511524	1	SPACER	123	913511	3	LOCK-NUT
25	511525	1	PIN	124	911102	2	CARRIAGE-BOLT
26	921150	1	PULLEY	125	911103	1	CARRIAGE-BOLT
27	511527	1	SPACER	126	940160	3	LOCK-PIN
28	511528	1	BRAKE ROPE	127	914703	1	COTTER PIN
29	501506	2	END CHANNEL	128	914702	1	COTTER PIN
30	501505	2	FLET CLAMP	129	912024	4	WASHER
31	915392	1	SET SCREW	130	913008	1	NUT,HEX.
				131	912004	3	WASHER
				150	921302	1	KEY

MADE FROM FEBRUARY 1998

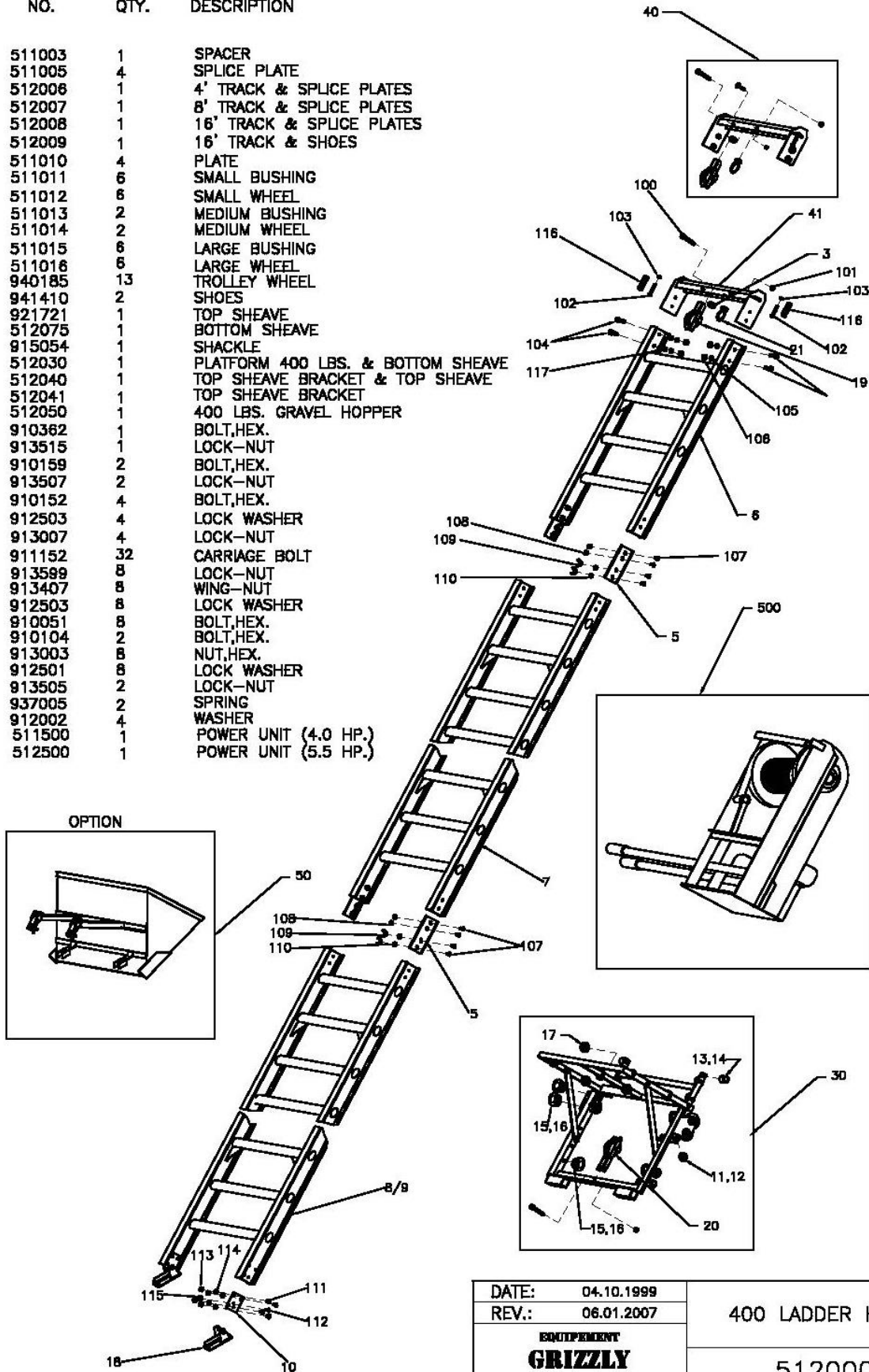
DATE:	04.04.2001	POWER UNIT
REV.:	01.01.2005	
EQUIPMENT GRIZZLY EQUIPMENT		511500A/512500A

ITEM	NO.	QTY.	DESCRIPTION
3	511003	1	SPACER
5	511005	4	SPLICE PLATE
6	511006	1	4' TRACK & SPLICE PLATES
7	511007	1	8' TRACK & SPLICE PLATES
8	511008	1	16' TRACK & SPLICE PLATES
9	511009	1	16' TRACK & SHOES
10	511010	4	PLATE
11	511011	6	SMALL BUSHING
12	511012	6	SMALL WHEEL
13	511013	2	MEDIUM BUSHING
14	511014	2	MEDIUM WHEEL
15	511015	6	LARGE BUSHING
16	511016	6	LARGE WHEEL
17	940185	10	TROLLEY WHEEL
18	941410	2	SHOES
19	921721	1	TOP SHEAVE
20	915054	1	SHACKLE
30	511030	1	PLATFORM 250 LBS.
40	511040	1	TOP SHEAVE BRACKET & TOP SHEAVE
41	511041	1	TOP SHEAVE BRACKET
50	511050	1	250 LBS. GRAVEL HOPPER (OPTION)
100	910362	1	BOLT, HEX.
101	913515	1	LOCK-NUT
102	910159	2	BOLT, HEX.
103	913507	2	LOCK-NUT
104	910152	4	BOLT, HEX.
105	912503	4	LOCK WASHER
106	913007	4	NUT, HEX.
107	911152	32	CARRIAGE BOLT
108	913599	8	LOCK NUT
109	913407	8	WING-NUT
110	912503	8	LOCK WASHER
111	910051	8	BOLT, HEX.
112	910104	2	BOLT, HEX.
113	913003	8	NUT, HEX.
114	912501	8	LOCK WASHER
115	913505	2	LOCK-NUT
116	937005	2	SPRING
117	912002	4	WASHER
500	511500	1	POWER UNIT (4 HP.)
	512500	1	POWER UNIT (5.5 HP.)



DATE:	04.10.1999	250 LADDER HOIST
REV.:	06.01.2007	
EQUIPMENT GRIZZLY EQUIPMENT		511000

ITEM	NO.	QTY.	DESCRIPTION
3	511003	1	SPACER
5	511005	4	SPLICE PLATE
6	512006	1	4' TRACK & SPLICE PLATES
7	512007	1	8' TRACK & SPLICE PLATES
8	512008	1	16' TRACK & SPLICE PLATES
9	512009	1	16' TRACK & SHOES
10	511010	4	PLATE
11	511011	6	SMALL BUSHING
12	511012	8	SMALL WHEEL
13	511013	2	MEDIUM BUSHING
14	511014	2	MEDIUM WHEEL
15	511015	6	LARGE BUSHING
16	511016	6	LARGE WHEEL
17	940185	13	TROLLEY WHEEL
18	941410	2	SHOES
19	921721	1	TOP SHEAVE
20	512075	1	BOTTOM SHEAVE
21	915054	1	SHACKLE
30	512030	1	PLATFORM 400 LBS. & BOTTOM SHEAVE
40	512040	1	TOP SHEAVE BRACKET & TOP SHEAVE
41	512041	1	TOP SHEAVE BRACKET
50	512050	1	400 LBS. GRAVEL HOPPER
100	910362	1	BOLT, HEX.
101	913515	1	LOCK-NUT
102	910159	2	BOLT, HEX.
103	913507	2	LOCK-NUT
104	910152	4	BOLT, HEX.
105	912503	4	LOCK WASHER
106	913007	4	LOCK-NUT
107	911152	32	CARRIAGE BOLT
108	913599	8	LOCK-NUT
109	913407	8	WING-NUT
110	912503	8	LOCK WASHER
111	910051	8	BOLT, HEX.
112	910104	2	BOLT, HEX.
113	913003	8	NUT, HEX.
114	912501	8	LOCK WASHER
115	913505	2	LOCK-NUT
116	937005	2	SPRING
117	912002	4	WASHER
500	511500	1	POWER UNIT (4.0 HP.)
	512500	1	POWER UNIT (5.5 HP.)



DATE:	04.10.1999	400 LADDER HOIST
REV.:	06.01.2007	
EQUIPMENT GRIZZLY EQUIPMENT		512000