



INSTRUCTION MANUAL

**HEAVY-DUTY PIPE GRAB
MODEL PG (CAST IRON & STEEL)**



FRONT VIEW



SIDE VIEW

MODEL NO. _____
SERIAL NO. _____

VESTIL MANUFACTURING CORP.

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We produce several models of heavy duty pipe grab so that our customers may select a product that satisfies specific requirements. The products identified on the front page conform to the generalized specifications disclosed in this manual. Each model fulfills our demanding standards for quality, safety and durability.

SAFETY PRINCIPLES

Vestil Manufacturing Corp. recognizes the critical importance of workplace safety. Each person who **might** participate in the assembly, use, operation, or maintenance of the product must read this manual. **Read the entire manual and fully understand the directions BEFORE assembling, using or maintaining the pipe grab. If you do not understand an instruction, contact Vestil for clarification. Failure to adhere to the directions in this manual may result in serious personal injury or even death.**

Vestil is **not liable** for any injury or property damage that occurs as a consequence of failing to apply the safe operation and maintenance procedures explained in this manual or that appear on labels attached to the product. Failure to exercise good judgment and common sense may result in property damage, serious personal injury, or death, and are **not the responsibility of Vestil.**

This manual applies the hazard identification methods suggested for instruction manuals by the American National Standards Institute (ANSI) in ANSI standard Z535.6-2006. In accordance with ANSI guidelines for hazard warning language, this manual identifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. These signal words announce an associated safety message. The reader must understand that the signal word chosen to identify a particular safety hazard categorizes the seriousness of that hazard according to the following convention:

These symbols identify hazards that may result in personal injury

DANGER

Identifies a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY**. Use of this signal word is limited to the most extreme situations.

WARNING

Identifies a hazardous situation which, if not avoided, **COULD** result in **DEATH** or **SERIOUS INJURY**.

CAUTION

Indicates a hazardous situation which, if not avoided, **COULD** result in **MINOR** or **MODERATE** injury. Although Z535.6-2006 approves the use of "CAUTION" without an accompanying safety alert symbol (black equilateral triangle with yellow exclamation point) as an alternative to "NOTICE", this manual differentiates between hazards that pose a risk of personal injury and those that create mere property damage situations. **CAUTION** appears **exclusively in conjunction with the safety alert symbol to identify injury risks.**

NOTICE

Identifies practices not related to personal injury, such as operation that could damage the pipe grab. No safety alert symbol (equilateral triangle enclosing an exclamation point) accompanies this signal word.

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PRODUCT INTRODUCTION



Thank you for purchasing a Heavy Duty Pipe Grab (“pipe grab” or simply “grab”) made by Vestil Manufacturing Corporation (“Vestil”). Each pipe grab is a durable, high-quality product that combines safety features and superior lifting capabilities. Despite ease of use, all personnel *must* familiarize themselves with the safe operation instructions provided in this manual.

We produce 2 main types of heavy duty pipe grab, the PG-C and PG-S. PG-C’s are constructed of cast iron; PG-S’s are made of steel. Additionally, we offer several models of cast iron and steel grabs, which are distinguishable by lifting capacity. Lifting capacity varies from 450lbs. to 2,000lbs. All models incorporate 2 pipe guide weldments that engage the top of the pipe load. These arms provide greater control of the load and the ability to easily release the load.

Vestil Manufacturing Corp. created this manual to acquaint owners and users of our pipe grabs with safe use and maintenance procedures. **Employers are responsible for instructing employees to use the product properly. Employees and any other persons, who might foreseeably use, install or perform maintenance on the pipe grab, must read and understand every instruction before using the pipe grab. Persons who use the pipe grab should have access to the manual at all times, and in particular should consult the directions before each use. Contact Vestil for answers to any question you have after reading the manual.**

Although Vestil strives to identify hazardous situations that could arise during the use of its products, this manual cannot address every conceivable danger. The end-user is responsible for exercising sound judgment at all times.

SAFETY GUIDELINES

Read the entire manual before attaching the pipe grab to a lifting device or using it for the first time. Refer to the manual for safe use and maintenance procedures (p. 11-14). If questions remain after you finish reading the manual, contact Vestil for answers. DO NOT attempt to resolve any problems with the pipe grab unless you are certain that it will be safe to use afterwards. NEVER modify the product in any way without the express written approval of Vestil.

DANGER

- **Electrocution Risk: DO NOT contact live electrical wires with the pipe grab or the load!**

WARNING

- Review the safety messages included in the manual(s) for the crane, trolley, hoist, and any other device used in conjunction with the pipe grab.
- To open the grab, lift one or both of the pipe guide weldments. DO NOT open the grab while using it to lift and/or move material.
- ALWAYS inspect the pipe grab before each use according to the inspection procedures described in ASME B30.20. B30.20 also recommends “frequent” and “periodic” inspections.
- Properly maintain the pipe grab according to the maintenance procedures on p. 14. These procedures were developed to supplement suggested maintenance practices of B30.20.
- ONLY attach the pipe grab to a safety hook (e.g. a hoist that has a safety hook connected to the end of the chain or rope) or to a connection that includes safety features to prevent accidental/unintended detachment from the hoist. DO NOT use the pipe grab on a hook that might release the grab. DO NOT connect the grab to a safety hook that does not function properly or that is damaged.
- DO NOT grab a load that has any debris or surface contamination on it that might affect the quality of the connection between the grab and the load. Remove all debris, such as oil, grease, dirt, or water.
- Clear all debris, including fluids, from the path of travel (if the job requires moving the load to a new location) BEFORE picking up material. If moisture is present in the path of travel, absorb it before using the grab to reposition the load. Make sure that no person is in the travel path.
- DO NOT remove or obscure any label. Verify the placement and legibility all labels as shown in FIG. 6 on p. 15. If any label becomes damaged or unreadable, contact Vestil for a replacement. DO NOT use the grab UNLESS all labels are attached and readable.
- DO NOT attempt an unbalanced lift. Always use enough grabs to balance the load before lifting and/or moving the load.
- DO NOT sit on or apply any weight/pressure to a load grasped by the pipe grab.
- DO NOT attempt to lift material that exceeds the load rating. ALWAYS make sure that the material weighs no more than the rated load of the pipe grab.
- DO NOT lift a load higher than necessary. (See “Use Instructions” on p. 11-13).
- Stay clear of the suspended load. DO NOT raise the load over your feet or any other part of your body. DO NOT use the pipe grab to lift material over people!
- DO NOT lift any apparatus that is used to support people, such as a work platform.
- Always orient yourself so that the load is visible to you. You are less likely to be injured by the load if it remains within sight at all times. Standing to one side of the load next to the pipe grab will allow you to stabilize the load as you move it to the desired location.
- DO NOT leave a suspended load unattended. An unattended, suspended load creates a risk of injury to yourself and others. Always move a load to its desired location, set the material down and properly immobilize it, and then disengage the grab from the load. Disconnect the grab from the hoist BEFORE you leave the work area.

FIG. 1: Labeled photographs (front and side views)

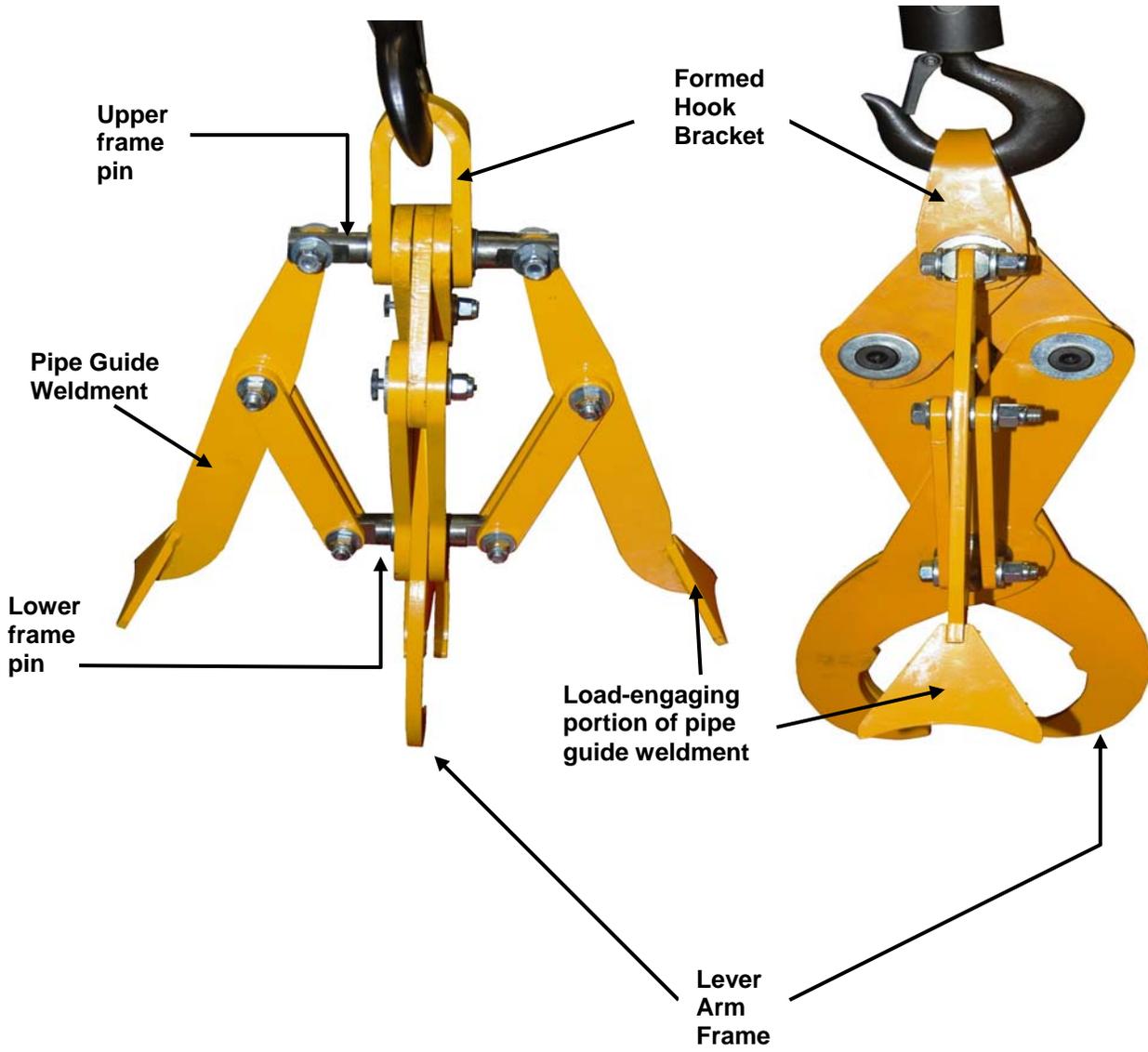
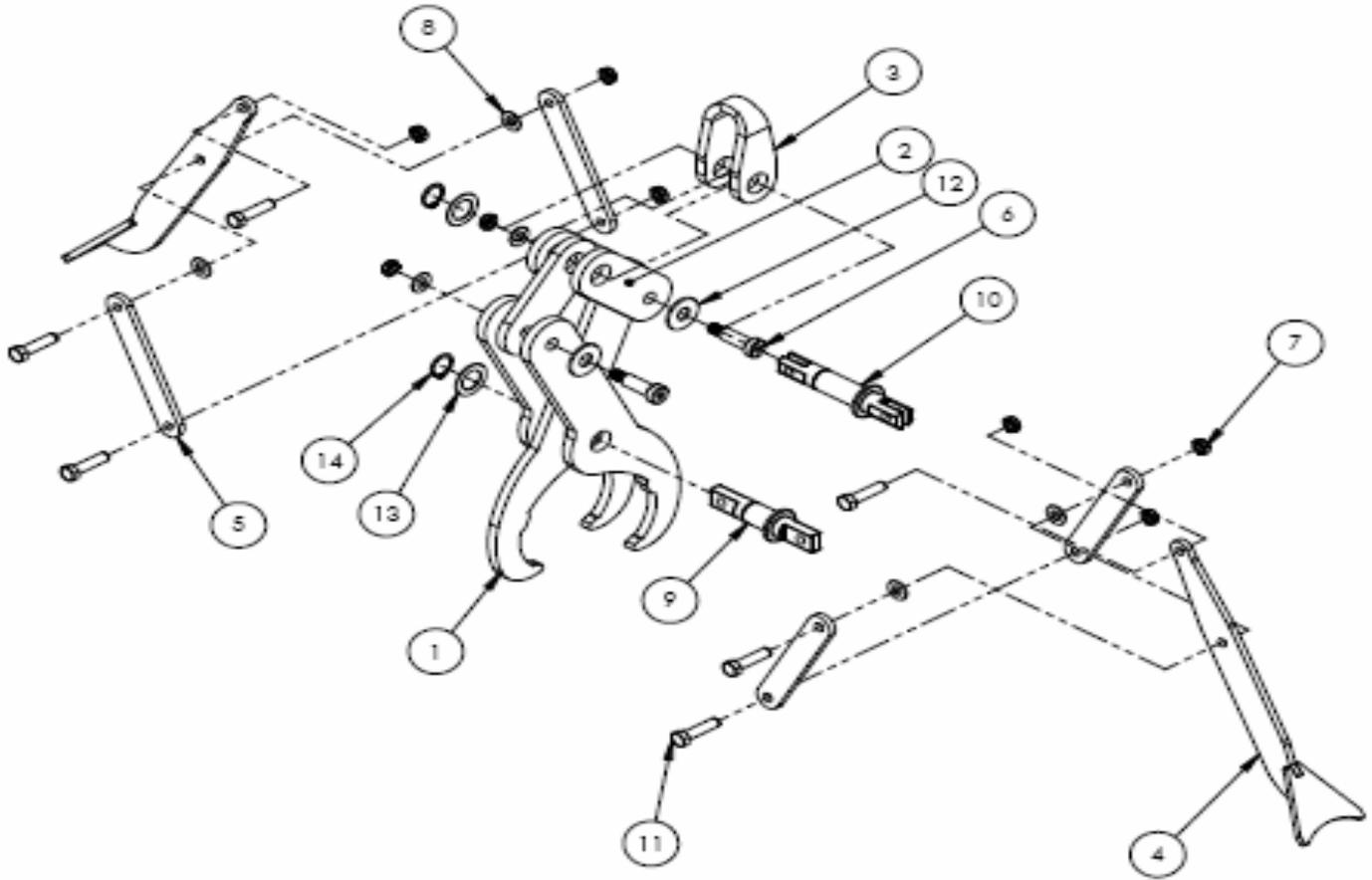
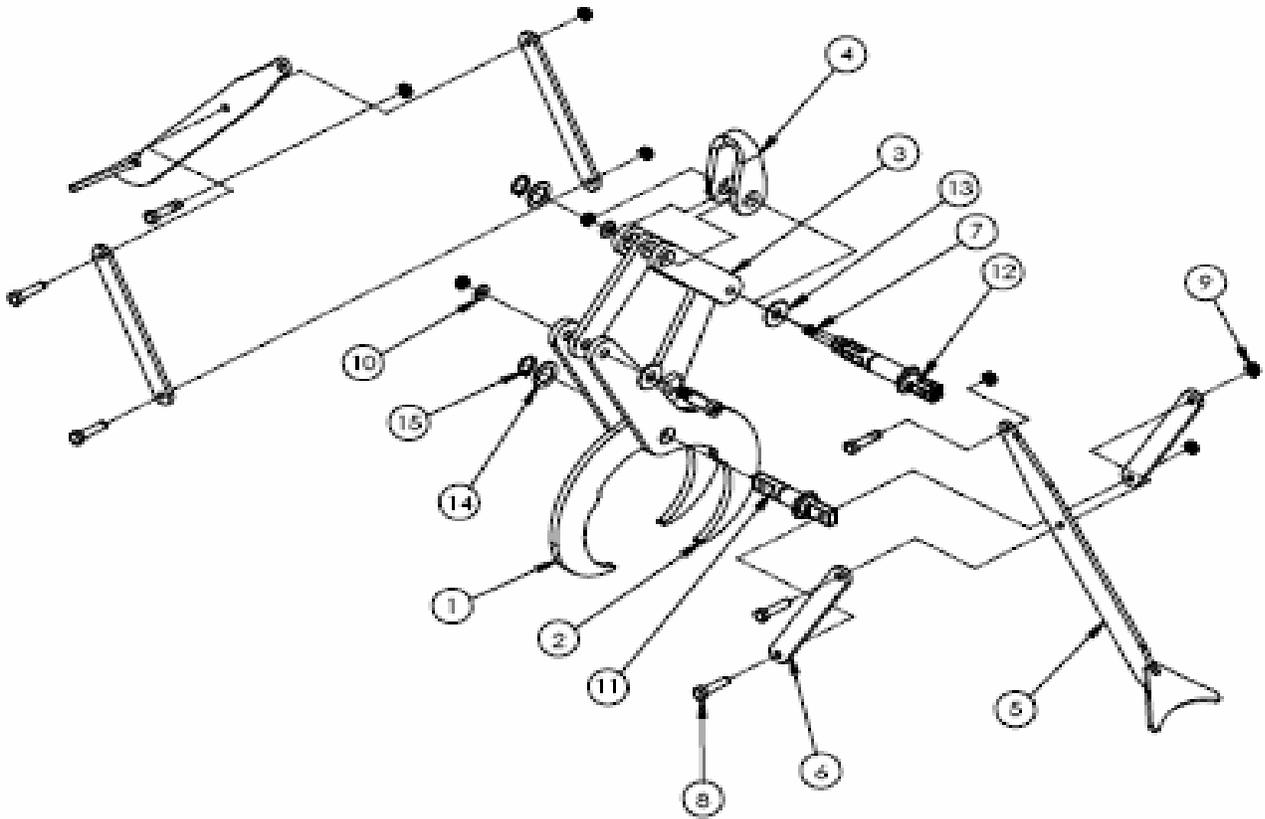


FIG. 2: Exploded Parts View for Models PG-C-045, PG-C-060, PG-S-045, PG-S-060



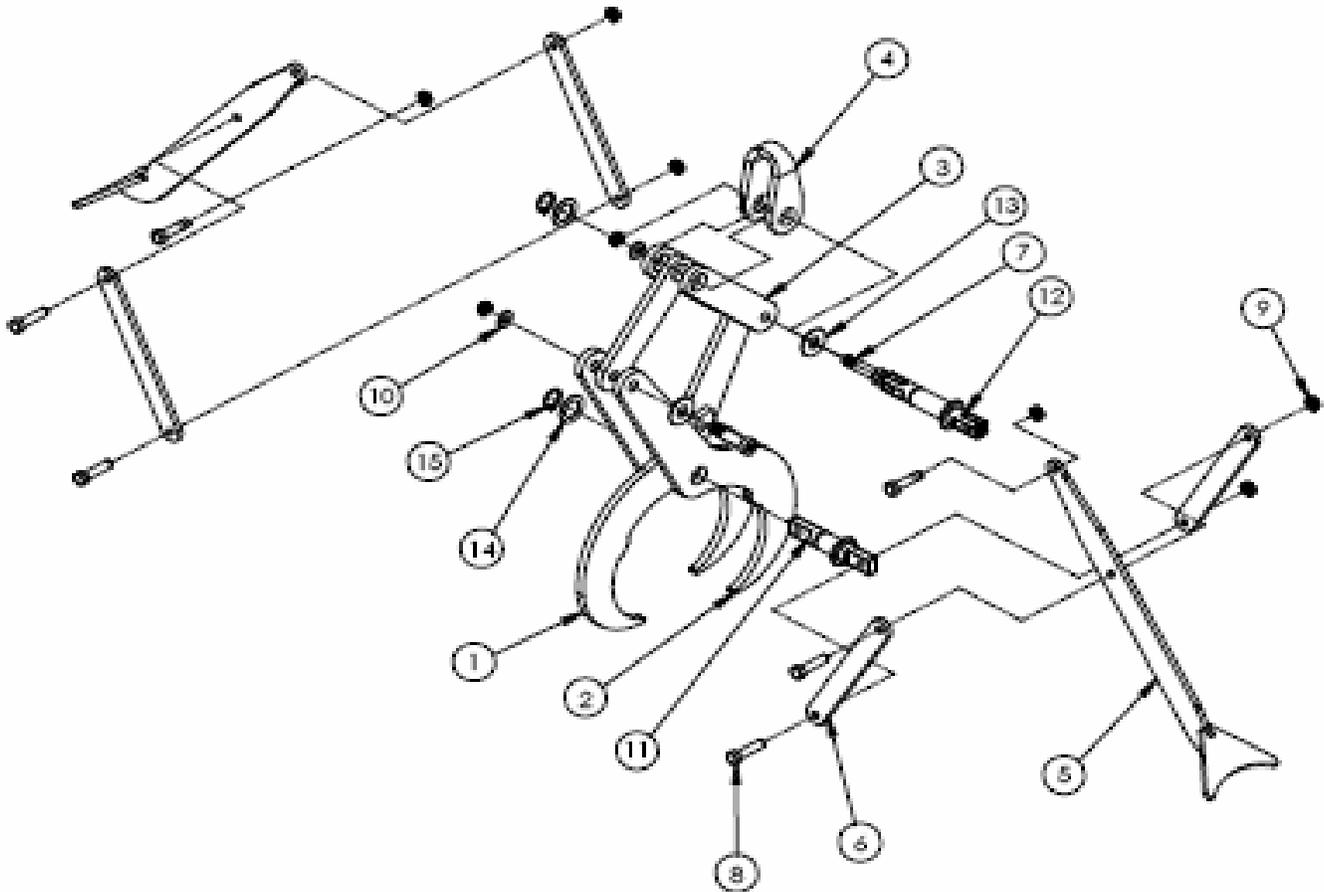
Item No.	Part No.	Description	Quantity
1	28-014-196 28-014-199	Lever Arm (Frame)	3
2	28-014-197	Top Link (Frame)	3
3	28-016-090	Formed Hook Bracket	1
4	25-516-043	Pipe Guide Weldment	2
5	28-014-198	Link Arm (Frame)	4
6	26351	Socket Head Shoulder Bolt, 1/2 x 1-1/4 with 1/4 Hex, 3/8-16UNC Threads	2
7	37024	3/8 Nylock Insert Nut	8
8	33008	3/8 USS Flat Washer Z Plated	6
9	28-112-024	Lower Frame Pin	1
10	28-112-025	Upper Frame Pin	1
11	11109	3/8-16x1-1/2 Z Plated	6
12	33012	1/2 Z-plated Flat Washer	2
13	33434	7/8 x 18Ga. Machine Bushing	2
14	68017	External Snap Ring, 7/8 Shaft	2

FIG. 3: Exploded Parts View for Models PG-C-100, PG-S-100



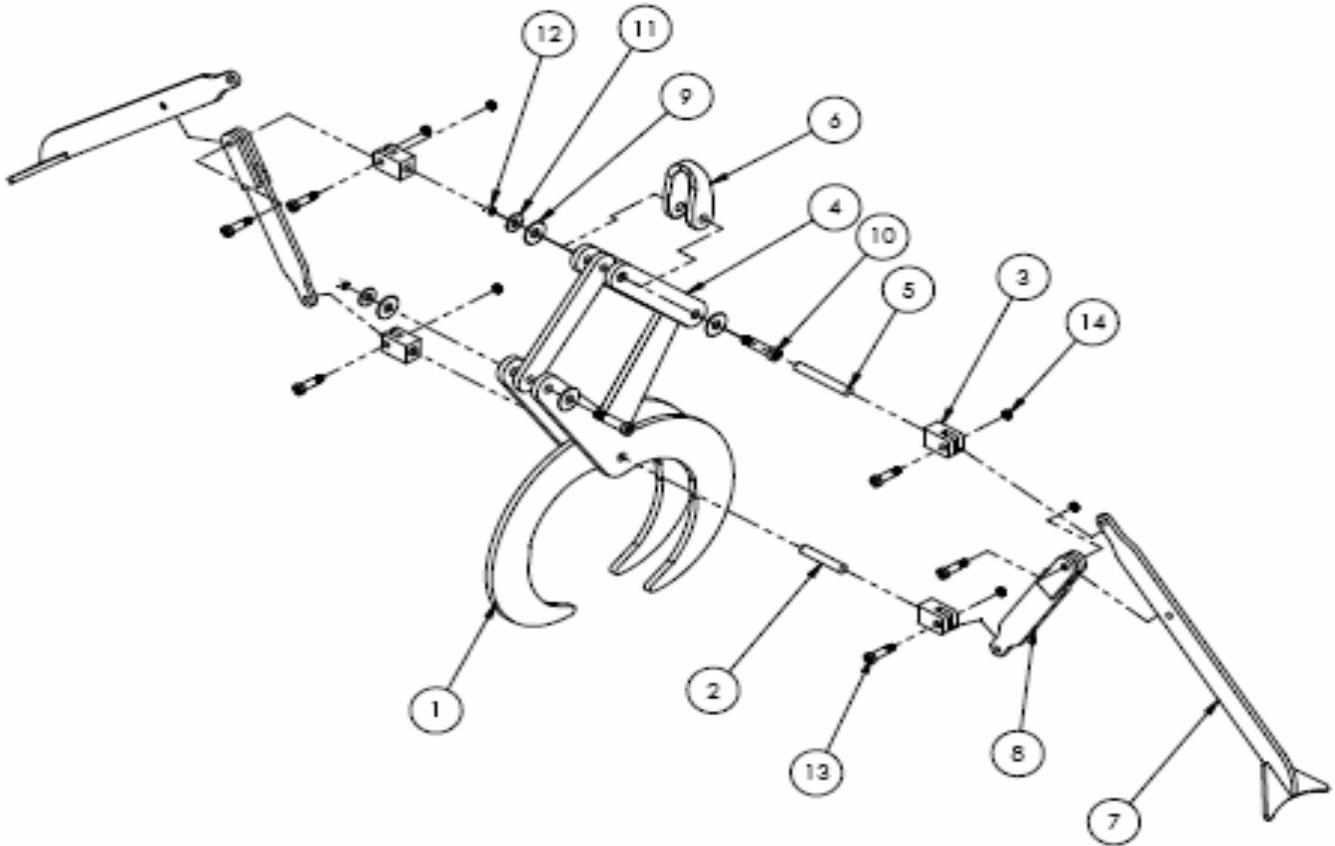
Item No.	Part No.	Description	Quantity
1	28-514-168	Lever Arm Weldment with Stop Block	1
2	28-014-199	Lever Arm (Frame)	2
3	28-014-200	Top Link (Frame)	3
4	28-016-090	Formed Hook Bracket	1
5	28-516-044	Outrigger Arm Weldment	2
6	28-014-201	Link Arm (Frame)	4
7	26351	Socket Head Shoulder Bolt, 1/2x1-1/4 with 1/4 Hex, 3/8-16 UNC Threads	2
8	11109	3/8-16x1-1/2 Z-plated Bolt	6
9	37024	3/8 Nylock Insert Lock Nut	8
10	33008	3/8 USS Z-plated Flat Washer	2
11	28-112-024	Lower Frame Pin	1
12	28-112-025	Upper Frame Pin	1
13	33012	1/2 Z-plated USS Flat Washer	2
14	33434	7/8I.D.x18GA. Machine Bushing	2
15	68017	External Snap Ring, 7/8 Shaft	2

FIG. 4: Exploded Parts View for Models PG-C-140 and PG-S-140



Item No.	Part No.	Description	Quantity
1	28-514-168	Lever Arm Weldment with Stop Block	
2	28-014-199	Lever Arm (Frame)	2
3	28-014-200	Top Link (Frame)	3
4	28-016-090	Formed Hook Bracket	1
5	28-516-044	Outrigger Arm Weldment	2
6	28-014-201	Link Arm (Frame)	4
7	26351	Socket Head Shoulder Bolt, 1/2 x 1-1/4 with Hex. 3/8 - 16 UNC Threads	2
8	11109	3/8 - 16 x 1-1/2 Z-plated HHCS #2	6
9	37024	3/8 Nylock Insert Nut	8
10	33008	3/8 Z-plated USS Flat Washer	2
11	28-112-024	Lower Frame Pin	1
12	28-112-025	Upper Frame Pin	1
13	33012	1/2 Z-plated USS Flat Washer	2
14	33434	7/8 I.D. x18GA.	2
15	68017	External Shaft Ring, 7/8 shaft	2

FIG. 5: Exploded Parts View for Models PG-C-200 and PG-S-200



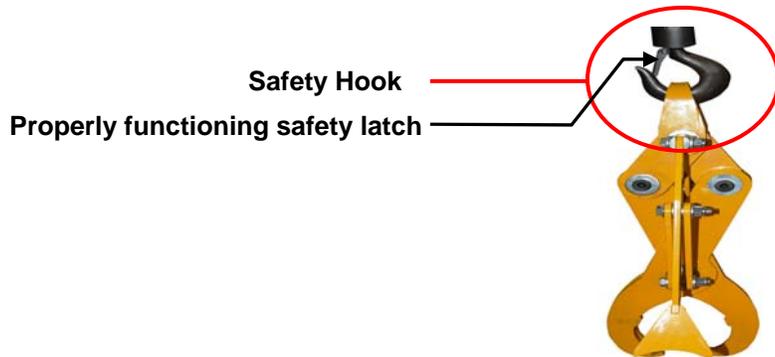
Item No.	Part No.	Description	Quantity
1	28-014-205	Lever Arm (Frame)	3
2	28-112-022	Lower Frame Pin	1
3	28-016-096	Arm Link Bracket	4
4	28-014-206	Top Link (Frame)	3
5	28-112-023	Upper Frame Pin	1
6	28-016-097	Formed Hook Bracket	1
7	28-514-045	Pipe Guide Weldment	2
8	28-516-046	Outrigger Link Weldment	2
9	33016	5/8 USS Flat Washer Z-plated	4
10	26372	Socket Head Shoulder Bolt, 5/8x1-3/4 with 5/16 Hex, 1/2 -13 UNC Threads	2
11	33012	1/2 Z-plated USS Flat Washer	2
12	37030	1/2-13 Nylock Insert Lock Nut	2
13	26351	Socket Head Shoulder Bolt 1/2x1-1/4 with 1/4 Hex, 3/8-16 UNC Threads	6
14	37024	3/8 Nylon Insert Lock Nut	6

Use Instructions:

NOTICE The operating instructions in this manual are meant to **supplement** the operating recommendations of ASME standard B30.20.

Only trained, designated persons should use the Pipe grab. "Designated person" means someone selected by his or her employer, or by a representative of the employer, as competent to use the pipe grab. Trainees under the direct supervision of a designated person may use the device. Maintenance personnel and persons who perform tests also may use the pipe grab when necessary for the performance of their employment duties. **BEFORE you connect the grab to a hoisting device, perform a proper "Every Lift" inspection as described in the most recent revision of ASME B30.20. Proceed to step 1 ONLY IF the pipe grab passes the inspection and is deemed safe to use by designated inspection personnel.**

Step 1: Connect the Pipe Grab to the hoisting device that will be used. The pipe grab *must* be connected to the hoist via a safety hook to prevent accidental detachment.



Step 2: Test the pipe grab for normal function. Lift each of the pipe guide weldments to verify that the grab opens and closes smoothly.



Step 3: Move the pipe grab into position above the load.



Step 4: Grasp the object. Lift one of the pipe guide weldments to open the grab (photo 5), and while open, lower the grab around the object (photo 6). Lower the pipe guide weldment until the load-engaging portions of both arms (identified in FIG. 1) contact the top of the load material (circled in photo 7).





Step 5: Make sure that the load is balanced. Lift the load just a few inches off of the ground or supporting surface to see if it remains horizontal. If the load hangs lower on one side of the grab, lower the load until it fully rests on the ground/supporting surface and immobilize it. Release the load by lifting one of the pipe guide weldments. Move the grab slightly towards the end of the load that hung lower. Raise the object again just a few inches into the air to check the balance of the load. Once the load is properly balanced, proceed to step 6. ("Properly balanced" means that the load remains level when suspended by the grab). If you cannot balance the load with a single grab, use one or more additional grabs as necessary to balance the material.

Step 6: Raise the load and move it to the desired location. Grasp the hoist hook as shown in photo 8, and raise the load to waist height.

WARNING Review all hazard safety messages (p.5) and always follow these rules when using the pipe grab:

1. NEVER lift material over yourself or other persons. Inform everyone in the area that you will use the grab and make sure that no one is in or around the starting point, path of travel, or end point.
2. DO NOT press down on the object. Grasp the hoist hook to stabilize the load while elevated and/or traveling to a new location.
3. **Always stand at arm's length to the side of the load** and hold onto the hoist hook as shown in photos 8-10. Make sure that your clothing, feet, and all other body parts stay out from underneath the load. This stance allows the operator to exercise some control of the load while maximizing safety.
4. If the object has to be removed from a container or be lifted over an obstacle, continue gripping the hoist hook. **You MUST use a different device if you will not be able to maintain the safe stance described in Rule 3.**

If you are using a motorized trolley:

- DO NOT push or pull either the tongs or the die. Allow the trolley to supply all movement. Your hold on the hook is a means ONLY for stabilizing the load.

If you are using a manual trolley:

- Grasp the hoist hook with one hand. DO NOT push/pull the load in the direction of travel. Use the hand that grasps the hoist hook to move the trolley in the intended direction.



Step 7: Lower the load to the ground/supporting surface (photos 11 and 12). Position the object above the surface that will receive it (ground, pallet, work platform, etc.). Make sure that the load is not swinging or rotating before beginning to lower it.



Step 8: Once the load has been fully lowered, immobilize it. Disengage the pipe grab by lifting one or both of the pipe guide weldments. Raise the grab so that it is completely free of the load.



Maintenance and Inspections:

A designated person must verify that the device complies with all regulations, codes, and standards that apply to "Under-the-Hook Lifting Devices" in the location where the pipe grab is used. The person designated to conduct inspections must do so before the pipe grab is used for the first time, and EACH time the grab is installed for use.

Inspections:

NOTICE The end-user is responsible for performing inspections as recommended in ASME B30.20, which categorizes examinations based on regularity of performance. *Highlights* of the recommended inspection procedures appear below. However, the full procedures as explained in the published standard **must** be used.

WARNING DO NOT use a pipe grab that is structurally damaged. Such damage might include bent jaws, deformation of the clevis or support pin(s), or damaged pipe guide weldments. Restore the grab to normal operating condition **BEFORE** using it again.

Inspections Before & During EVERY lift: visual examination must be performed by the operator prior to AND during each lift. In particular, the *operator* should inspect for:

1. Debris on the load surfaces; AND
2. Condition and operation of the controls.

Frequent Inspections: the specific meaning of “frequent” varies from daily to monthly depending on the service classification (normal, heavy, severe, and special/infrequent) of the pipe grab. Definitions of the service classifications appear in ASME B30.20. The *operator* or other *designated person(s)* should visually inspect the pipe grab for:

1. Deformation, cracking, or excessive wear of any part of the pipe grab;
2. Operating mechanisms for conditions that interfere with proper function; AND/OR
3. Loose or missing fasteners, stops or nameplates.

Periodic Inspections: complete visual inspections performed AND recorded by a *qualified* person. The inspection should specifically look for:

1. Loose bolts or fasteners;
2. Excessive wear of friction pads, linkages, and other mechanical parts; AND/OR
3. Excessive wear at the points where the grab connects to the hoist hook, and load support clevises or pins.

Maintenance: the end-user must implement a maintenance program to ensure the proper function and safety of the pipe grab. A qualified person may establish a program that is used in preference to the maintenance procedures described below. However, if you apply the procedure below, complete EVERY step each time maintenance is performed.

⚠WARNING ONLY qualified persons may perform maintenance on the pipe grab. A qualified person is someone “who, by possession of a recognized degree in an applicable field or certificate of professional training, and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.” See ASME B30.20-0.2-2003.

Step 1: All sources of power must be disconnected, locked out and tagged, “Out of Service.”

Step 2: Disconnect the pipe grab from the hoist hook, and tag it as, “Out of Service.”

Step 3: Perform all adjustments identified as necessary during any inspection (every lift, frequent, or periodic). Refer to ASME B30.20 for recommended inspection procedures.

Step 4: If the inspection identified conditions which require new parts to repair, contact Vestil to order replacement parts. Deformity, corrosion, rusting, or excessive wear of fasteners, jaws, pipe guide weldments, or the clevis warrants immediate replacement of the affected part(s).

⚠WARNING The reader should understand the significant difference between “Adjustments [and] repairs,” and modifications. An adjustment or repair is a simple correction that restores the grab to normal operating condition, such as tightening loose fasteners, or removing debris from the surface of the grab. A modification is a change that alters the grab from normal operating condition, like bending the structural members or removing the pipe guide weldments. **NEVER modify the pipe grab without the express, written approval of Vestil. Modifications may render the pipe grab unsafe to use.**
DO NOT use the pipe grab if adjustments and/or repairs are incomplete! Return the grab to service ONLY after finishing all necessary repairs and/or adjustments.

Step 5: Install the replacement parts.

NOTICE ASME B30.20 requires special markings for all repaired or modified lifters (pipe grab). Consult the standard and affix/attach the necessary marking(s).

Step 6: After the grab has been repaired, conduct a periodic inspection. The grab may be returned to service ONLY IF the grab passes the inspection. Repeat steps 3-5 if the inspection reveals additional issues.

Step 7: Make a dated record of the repairs, adjustments and/or replacements made.

Markings:

Only use the pipe grab if ALL of the labels are readable and undamaged. Contact Vestil for replacement labels.

FIG. 6: Product label placement

