

VESTIL MANUFACTURING CORP.

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FPG SERIES PORTABLE GANTRY CRANES



Receiving Instructions

After delivery, remove the packaging from the product. Inspect the product closely to determine whether it sustained damage during transport. If damage is discovered, record a complete description of it on the bill of lading. If the product is undamaged, discard the packaging.

NOTE: The end-user is solely responsible for confirming that product design, use, and maintenance comply with laws, regulations, codes, and mandatory standards applied where the product is used.

Technical Service & Replacement Parts

For answers to questions not addressed in these instructions and to order replacement parts, labels, and accessories, call our Technical Service and Parts Department at (260) 665-7586. The Department can also be contacted online at https://www.vestil.com/page-parts-request.php.

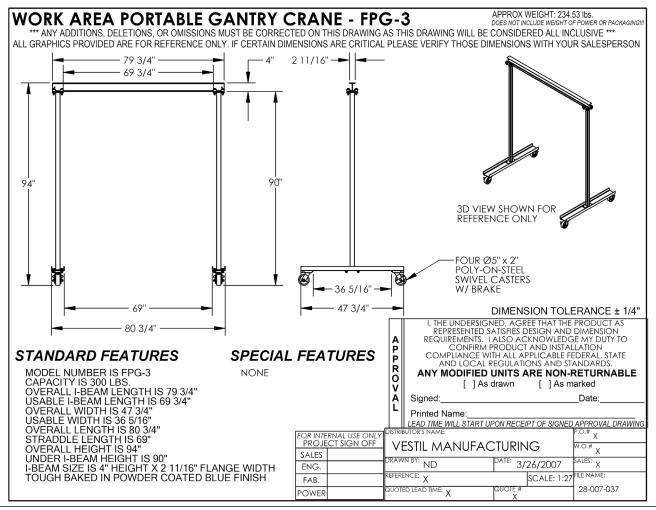
Electronic Copies of Instruction Manuals

Additional copies of this instruction manual may be downloaded from https://www.vestil.com/page-manuals.php

Table of Contents	Page
Specifications	2
Specifications. Signal Words. Safety Instructions.	2
Safety Instructions	3
National Standards	3
FIG. 1: FPG-3 Exploded View and Bills of Materials	4
FIG. 2: FPG-6 Exploded View and Bill of Materials	4
FIG. 3: FPG-10 Exploded View and Bill of Materials	5
FIG. 4: FPG-20 Exploded View and Bill of Materials	5
Assembling the Crane	6 - 7
Using the Crane	8
Record of Satisfactory Condition.	9
Inspections and Maintenance.	9
Labeling Diagram	10
Limited Warranty	11

SPECIFICATIONS

Specifications for all FPG-series cranes, including dimensions, net weight, and capacity information, are subject to change from time to time. To acquire the most up-to-date specifications for your unit, download the appropriate specifications document from Vestil's website as soon as you receive your crane. To access the specifications document, navigate to this webpage: https://www.vestil.com/product.php?FID=526. Click the "Product Specifications Table" drop-down menu bar partway down the page. Scroll down to the entry for the model you purchased and click the button in the column titled "PDF's" that looks like a pencil inside a box. A PDF file will open. This file is the specifications document. Print a copy of the document and keep it with your copy of this manual. The following is an exemplar specifications document for model FPG-3.



SIGNAL WORDS

This manual uses SIGNAL WORDS to indicate the likelihood of personal injuries, as well as the probable seriousness of those injuries, if the product is misused in the ways described. Other signal words call attention to uses of the product likely cause property damage. The following are signal words used in this manual and their definitions.



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

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

Indicates a hazardous situation which, if not avoided, COULD result in MINOR or MODERATE injury.

Identifies practices likely to result in product/property damage, such as operation that might damage the product.

SAFETY INSTRUCTIONS

Vestil strives to identify foreseeable hazards associated with the use of its products. However, no manual can address every conceivable risk. The most effective way to avoid injury is to exercise sound judgment when assembling, using, inspecting, and maintaining this crane.

▲ DANGER

Electrocution might result if the crane contacts electrified wires. DO NOT assemble or use the crane in an area where contact with electrified wires could occur.

WARNING

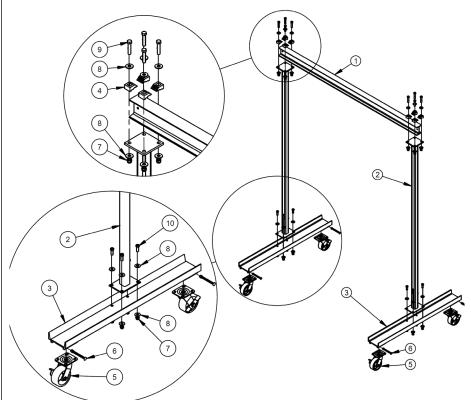
Material handling is dangerous. Improper or careless operation might result in serious personal injuries.

- Inspect the usage area each time the crane is used. Make sure that all debris on the ground is removed.
- DO NOT use a damaged or malfunctioning crane. ALWAYS inspect the crane before each use by following the <u>INSPECTIONS AND MAINTENANCE</u> instructions on p. 9. DO NOT use the crane unless it passes every part of the current inspection. DO NOT use the crane unless it is in <u>SATISFACTORY</u> CONDITION. See <u>RECORD</u> on page 9.
- DO NOT attempt to lift a load that weighs more than the capacity of your crane. The capacity of your crane is provided on labels applied to the I-Beam. See <u>LABELING DIAGRAM</u> on p. 10. Capacity is also provided in <u>SPECIFICATIONS</u> documents. Instructions for downloading up-to-date specifications documents for FPG-series cranes are provided in the <u>SPECIFICATIONS</u> section on page 2.
- Keep clear of suspended loads. DO NOT put any part of your body under a suspended load.
- Avoid the crane usage area unless you are currently using the crane. Inform all persons in the usage area that you are going to use the crane; instruct them to stay clear of the crane and the load during operation.
- DO NOT lift people with the crane. This crane is a material handling device.
- DO NOT lift loads over people.
- DO NOT lift unstable loads with the crane.
- DO NOT allow people to climb on the load or the crane.
- DO NOT operate manual motions with other than manual power.
- DO NOT use the crane on a sloped surface. Only use the crane on even, level ground.
- ALWAYS load the crane in accordance with <u>USING THE CRANE</u> recommendations on p. 8.
- DO NOT lift a load unless it is centered under your hoist. A swinging load might cause serious injury.
- DO NOT remove or obscure any label on the crane. DO NOT use the crane if any label is damaged, missing, or not easily readable. See <u>LABELING DIAGRAM</u> on p. 10. Contact the <u>TECHNICAL SERVICE AND</u> <u>REPLACEMENT PARTS DEPARTMENT</u> for replacement labels.
- ullet DO NOT modify the crane in any way. Modifying the crane automatically voids the <u>LIMITED</u> <u>WARRANTY</u> on p. 11 and might make the crane unsafe to use.

NATIONAL STANDARDS

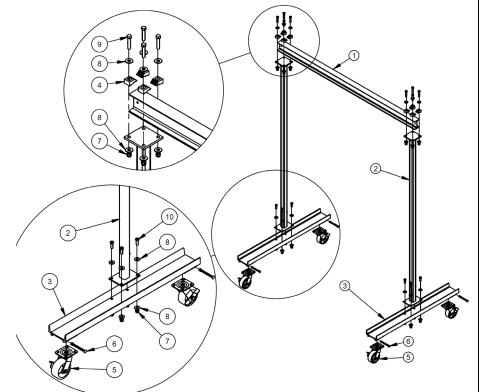
This product is a portable gantry crane (PGC). <u>ASME standard B30.17</u> (the "Standard") applies to PGC's. You <u>should</u> acquire a copy of the latest version of the standard. Follow all use and maintenance/care instructions provided in the Standard as well as all other provisions for PGC owners and users. If any content in this manual conflicts with any recommendations or mandatory provision(s) in the Standard, apply the provision(s) from the Standard. Vestil encourages you to immediately contact <u>TECHNICAL SERVICE</u> if you discover any inconsistencies.



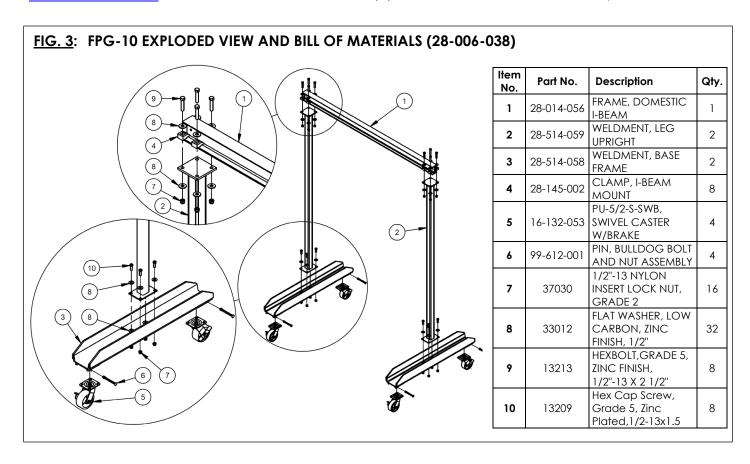


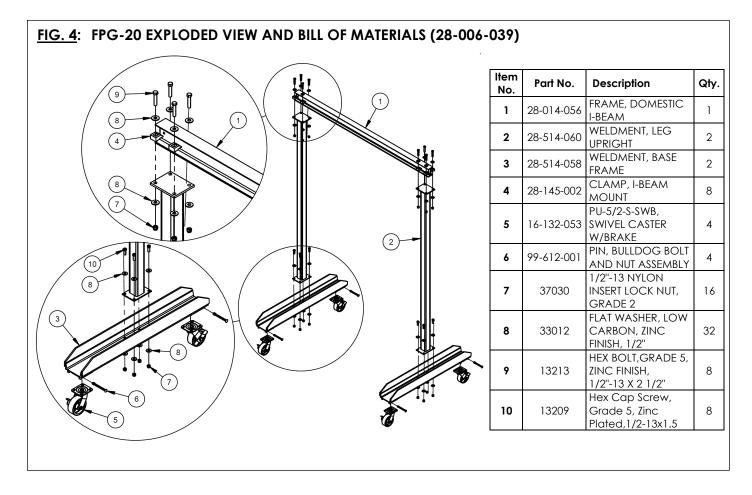
Item	I		
No.	Part No.	Description	Qty.
1	28-014-056	FRAME, DOMESTIC I-BEAM	1
2	28-514-057	WELDMENT, LEG UPRIGHT	2
3	28-514-056	WELDMENT, BASE FRAME	2
4	28-145-002	CLAMP, I-BEAM MOUNT	8
5	16-132-053	PU-5/2-S-SWB, SWIVEL CASTER W/BRAKE	4
6	99-612-001	PIN, CASTER BRACKET BOLT AND NUT ASSEMBLY	4
7	37030	1/2"-13 NYLON INSERT LOCK NUT, GRADE 2	16
8	33012	FLAT WASHER, LOW CARBON, ZINC FINISH, 1/2"	32
9	13213	HEX BOLT, GRADE 5, ZINC FINISH, 1/2"-13 X 2 1/2"	8
10	13209	Hex Cap Screw, Grade 5, Zinc Plated,1/2-13x1.5	8





Item No.	Part No.	Description	Qty.
1	28-014-056	FRAME, DOMESTIC I- BEAM	1
2	28-514-057	WELDMENT, LEG UPRIGHT	2
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7	37030	1/2"-13 NYLON INSERT LOCK NUT, GRADE 2	16
8	33012	FLAT WASHER, LOW CARBON, ZINC FINISH, 1/2"	32
9	13213	HEX BOLT,GRADE 5, ZINC FINISH, 1/2"-13 X 2 1/2"	8
10	13209	Hex Cap Screw, Grade 5, Zinc Plated,1/2- 13x1.5	8





ASSEMBLING THE CRANE

Numbers in parentheses () correspond to parts numbers in the <u>EXPLODED VIEWS</u> on pages $\underline{4}$ and $\underline{5}$. Tighten all beam clamp bolt-and-nut connections to 50-52ft-lb with a torque wrench.

Unit conversions: 1" = 2.54cm 2.2 lb. = 1kg.

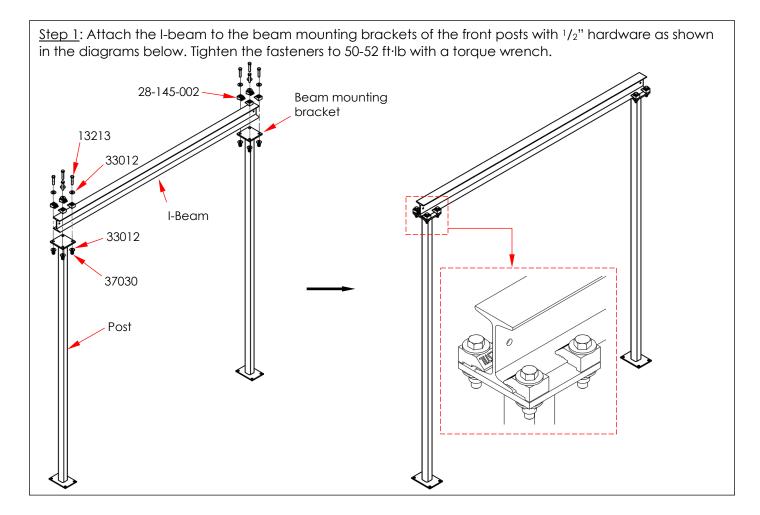
AWARNING

If the crane is improperly assembled, it might malfunction and result in serious personal injuries. Read this instruction manual in its entirety before assembling the crane.

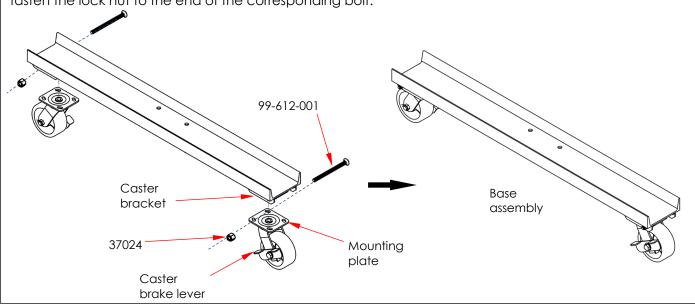
- ONLY qualified personnel should assemble the crane.
- **DO NOT** modify the crane in any way. Unapproved modifications might make the crane unsafe to use and automatically void the *LIMITED WARRANTY* on p. 11.
- **DO NOT** use the crane if you notice that either post, the I-beam, and/or base frame are damaged. Damage might weaken the crane and result in crane collapse.
- **DO NOT** use the crane if any of the hardware (bolts, nuts, yokes, etc.) is damaged or missing. Contact our <u>TECHNICAL SERVICE AND PARTS DEPARTMENT</u> at (260) 665-7586 to order replacement parts.

NOTICE

- Modifying the crane in any way automatically voids the LIMITED WARRANTY.
- This crane must be sheltered from weather. DO NOT install the crane where it is exposed to the elements.
- Inspect the crane for damage before each use as described in Inspections & Maintenance.



<u>Step 2</u>: Attach casters to the base frame weldments. There are 2 caster brackets attached to the underside of each base frame weldment. Insert the mounting plate of a caster into the receiver; then install the bolt of the bolt-and-lock nut combo (99-612-001) through the bolt holes in the brackets. Tightly fasten the lock nut to the end of the corresponding bolt.



Step 3: Apply the caster brakes by pushing down the brake levers. Then, attach the posts to the base assemblies with 1/2" hardware as shown in the diagrams below.

USING THE CRANE

Before using the crane for the first time: 1) Perform a "Before & after each use" inspection (INSPECTIONS & MAINTENANCE, part A, p. 22); and 2) Conduct a load test (INSPECTIONS & MAINTENANCE, part C, p.).

AWARNING

Operate the crane in a safe manner to reduce the risk of serious personal injuries or death.

- Only use this crane if you are qualified and trained to use it. The operating instructions in this manual supplement safe crane and hoist operation practices applied at your work site. Acquire a copy of the most recent edition of ASME B30.17 and apply all operation, inspection, maintenance, and care recommendations.
- ALWAYS apply the safe material handling practices learned from your training program.
- All personnel not participating in the use of the crane must stay out of the area during use. Be certain no part of any person or object is under any part of the boom (I-beam) or the suspended load at any time and particularly before lowering it. Instruct all persons to remain at a safe distance during operation.
- Always carefully watch the boom and any load hanging from it while using the crane.
- Always follow the hoist and trolley manufacturers' instructions regarding proper use of their products.
- BEFORE the load is connected to the hoist, lock or immobilize the casters, for example with chocks.
- Only use this crane on level concrete (or equal) surface.
- DO NOT use the crane and notify your supervisor and authorized maintenance personnel if: 1) you observe any damage or hear unusual noise during operation; or 2) you observe any warping or deformation of the I-beam, the adjustable uprights, the load hook or hoist chain/cable.

 Front
- DO NOT operate a hoist with a twisted, kinked, or damaged chain or rope. DO NOT operate a rope hoist unless the rope is properly seated in its groove.

NOTICE

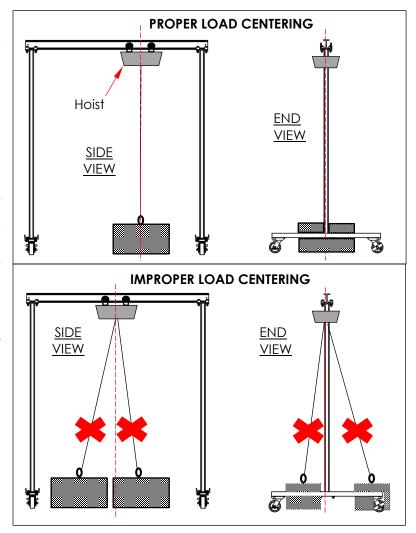
This crane can be used outdoors but should be sheltered from the weather when not in use.

Position the hoist directly above the load. Center the hoist above the center of the load (see SIDE VIEW) and position the long axis of the I-beam above the center of the load (see END VIEW). Proper positioning is illustrated in the loading diagrams.

Apply all caster brakes by pressing brake levers down. See STEP 2 on p. 7. Confirm that the crane is immobilized.

Connect the load to the hoist chain/cable with appropriate rigging following the instructions supplied with your hoist and the material handling methods applied at your work site. Raise the load only as high as is necessary. Once the load is properly centered above the work location, lower the load until it is fully supported by the ground or work surface. and disconnect the load from the hoist. Return the crane to its storage locations.

If you must move the load to a different location, return the load to the ground or other supporting surface, e.g. pallet, and disconnect it from the hoist. Move the crane and load separately to the work location. Only use the crane to <u>lift</u> loads.



RECORD OF SATISFACTORY CONDITION (THE "RECORD")

Thoroughly inspect the crane after assembling it and before putting it into service. Record the condition and appearance of each of the frame members (I-beam, posts, base frame weldments), casters, beam clamps, and all fasteners (bolts, nuts, etc.). Thoroughly photograph the crane from multiple angles. Include close range photographs of the casters, all labeling, and all beam clamp connections. Add the photographs to the record. Collect all photographs and writings in a single file. This file is a record of the crane in satisfactory condition. Compare the results of all <u>INSPECTIONS</u> to this RECORD to determine whether the crane is in satisfactory condition. Do not use the crane unless it is in satisfactory condition. Purely cosmetic changes, like damaged paint or powdercoat, are not changes from satisfactory condition. However, touchup paint should be applied as soon as damage occurs. If your crane is not painted or powdercoated, touchup paint is not required.

INSPECTIONS AND MAINTENANCE

NOTE: Inspection procedures are included in the most current revision of ASME B30.17. As stated above in the <u>NATIONAL STANDARDS</u> section, Vestil recommends that you acquire a copy of the most recent revision of this standard. Apply all use and maintenance/care instructions in the standard. Vestil also recommends that you contact your local occupational health and safety authority to determine if any laws, regulations, codes, ordinances, etc. apply inspection requirements where the crane is used.

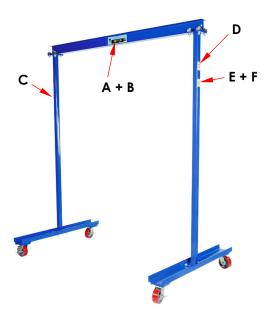
Inspections and all necessary repairs should be performed by qualified persons. Compare the results of each inspection to the <u>RECORD OF SATISFACTORY CONDITION</u>. Do not use the crane unless every part is in satisfactory condition. **DON'T GUESS! If you have any questions about the condition of your crane, contact the <u>TECHNICAL SERVICE</u> department. The phone number is provided on the cover page of this manual. <u>Never make temporary repairs of damaged or missing parts</u>. Only use manufacturer-approved replacement parts to restore the crane to satisfactory condition.**

A. **Before and after each use**, including first use, unload the crane and inspect the following components:

- 1) I-Beam Examine the beam, especially the lower flanges, for bends, cracks, and other damage.
- 2) **Beam clamps and beam clamp fasteners –** Clamp connections are shown in <u>STEP 1</u> on p. 6. Verify that all lock nuts are present and tight. The clamps (28-145-002) should equally overlap the I-beam flange.
- 3) **Beam brackets –** Look for cracks, warps, bends, etc.
- 4) **Casters and caster fasteners** Examine each caster for cracks, warps, cuts, grooves, pitting, significant wear, etc. Push the crane a short distance. All 4 casters should maintain continuous contact with the ground. Confirm that the casters roll smoothly, e.g. without wobbling or skidding. Make sure that caster fasteners (bolt and nut combo) are tight. Fastener connections are shown in <u>STEP 2</u> on p. 7.
- 5) Base frame weldments Inspect both base frames. Look for cracks, bends, warps, and other forms of damage. Pay particular attention to bolt holes and caster brackets. Look for elongations, cracks, etc. Look closely for corrosion/rusting where posts attach to the base frames.
- B. **Monthly inspections** Unload the crane and inspect the following:
 - 1) **Beam clamps and beam clamp fasteners** Tighten all loose nuts. Pay particular attention to the quality of contact between the beam clamps and the beam flange. Every clamp should solidly contact the flange. The degree of flange overlap should be the same for all 8 clamps. Use a torque wrench to tighten each bolt and nut to 50-52ft·lb. Examine all of the clamps for damage such as deformations and cracks. The I-beam flange should be solidly/immovably clamped to the tops of the posts.
 - 2) **Posts** Examine the base of each post. Closely inspect the fasteners that connect a post to the base frame. Look for cracks, rust/corrosion, and other forms of deterioration and damage. Make sure that each post is solidly fastened to its base frame. Thoroughly examine the rest of each post, including the beam bracket, for damage. Bolt holes in beam brackets must not be elongated, rusted, cracked, etc.
- C. Once per year: Perform a load test of the crane. Lift a load equal to 125% of its rated load (capacity). Only lift the load high enough to ensure that it is entirely supported by the crane. Transport the load by means of your hoist (or hoist & trolley) the full usable length of the I-beam (dimension C in SPECIFICATIONS table). Return the test load to the ground. Perform inspections A (Before and after each use) and B (Monthly). NOTE: Perform this part C (Load test and a Before & after use inspection) whenever the crane is partially or fully disassembled and reassembled, e.g. after installing replacement parts.

LABELING DIAGRAM

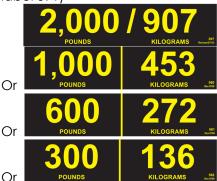
Each unit should be labeled as shown in the diagram. Label content and location are subject to change so your product might not be labeled exactly as shown. Compare the diagram below to your <u>RECORD OF SATISFACTORY CONDITION</u>. If there are any differences between actual labeling and this diagram, contact the <u>TECHNICAL SERVICE AND PARTS DEPARTMENT</u>. Replace all labels that are damaged, missing, or not easily readable (e.g. faded). To order replacement labels or to inquire whether your unit is properly labeled, contact the technical service and parts department online at http://www.vestilmfg.com/parts_info.htm or by calling (260) 665-7586 and asking for the <u>PARTS DEPARTMENT</u>.



A: Label 391 (both sides of jib) - Capacity



B: Label 397, 560, 561, or 562 (both sides of jib; applied to black rectangle of label 391)



C: Label 256

loading. Check for damage and be sure all hardware is light before search and a contract of the contract of t

ADVERTENCIA - Asegure todas las ruedas en la posición perpendicular antes de

- Compruebe por daños y asequires que superse que toda la ferreteria está sigieta antes de cada uso. Retira del servicio y repare ante se cada uso.
- Nunca excede la capacidad impresa en la viga la Nunca mueva o cargue la unidad a no ser que antico pasadores.
- Nunca deje que la carga sobresalga en un solo extremo.
- Sempre incluya el pece de la capacidad impresa en la carga sobresalga en un solo extremo.
- Viempre incluya el pece de la carga sobresalga en un solo extremo.
- Viempre incluya el pece de la carga sobresalga en un solo extremo.
- Viempre incluya el pece de la carga sobresalga en un solo extremo.
- Viempre incluya el pece de la carga control de la carga.
- Usa en comento a nivel o en una vugerficie equivalente.
- Mantengase alejado de todas las obstrucciones en lo alto especialmente equipos electrico cuando se mueva la grau.

AVERTISSEMENT

Sloquer fixed en position properties de la companya de la control de la

D: Label 649



E: Label 532



F: Label 395, 394, 393, or 486 (applied to black rectangle of label 532)

2,000 LBS.
907 KGS.
907 KGS.
453 KGS.
453 KGS.
453 KGS.
272 KGS.
300 LBS.
272 KGS.



LIMITED WARRANTY

Vestil Manufacturing Corporation ("Vestil") warrants this product to be free of defects in material and workmanship during the warranty period. Our warranty obligation is to provide a replacement for a defective, original part covered by the warranty after we receive a proper request from the Warrantee (you) for warranty service.

Who may request service?

Only a warrantee may request service. You are a warrantee if you purchased the product from Vestil or from an authorized distributor AND Vestil has been fully paid.

Definition of "original part"?

An original part is a part used to make the product as shipped to the Warrantee.

What is a "proper request"?

A request for warranty service is proper if Vestil receives: 1) a photocopy of the <u>Customer Invoice</u> that displays the shipping date; AND 2) a <u>written request</u> for warranty service including your name and phone number. Send requests by one of the following methods:

US MailFaxEmailVestil Manufacturing Corporation(260) 665-1339info@vestil.com2999 North Wayne Street, PO Box 507PhoneWrite "Warranty service request"Angola, IN 46703(260) 665-7586in the subject field.

In the written request, list the parts believed to be defective and include the address where replacements should be delivered. After Vestil receives your request for warranty service, an authorized representative will contact you to determine whether your claim is covered by the warranty. Before providing warranty service, Vestil will require you to send the entire product, or just the defective part (or parts), to its facility in Angola, IN.

What is covered under the warranty?

The warranty covers defects in the following original, dynamic parts: motors, hydraulic pumps, motor controllers, and cylinders. It also covers defects in original parts that wear under normal usage conditions ("wearing parts"), such as bearings, hoses, wheels, seals, brushes, and batteries.

How long is the warranty period?

The warranty period for original dynamic components is <u>1 year</u>. For wearing parts, the warranty period is <u>90 days</u>. Both warranty periods begin on the date Vestil ships the product to the Warrantee. If the product was purchased from an authorized distributor, the periods begin when the distributor ships the product. Vestil may, at its sole discretion, extend a warranty period for products shipped from authorized distributors by up to 30 days to account for shipping time.

If a defective part is covered by the warranty, what will Vestil do to correct the problem?

Vestil will provide an appropriate replacement for any covered part. An authorized representative of Vestil will contact you to discuss your claim.

What is not covered by the warranty?

The Warrantee (you) is responsible for paying labor costs and freight costs to return the product to Vestil for warranty service.

Events that automatically void this Limited Warranty.

- Misuse;
- Negligent assembly, installation, operation or repair;
- Installation/use in corrosive environments;
- Inadequate or improper maintenance;
- Damage sustained during shipping;
- Collisions or other accidents that damage the product;
- <u>Unauthorized modifications</u>: Do not modify the product IN ANY WAY without first receiving written authorization from Vestil.

Do any other warranties apply to the product?

Vestil Manufacturing Corp. makes no other express warranties. All implied warranties are disclaimed to the extent allowed by law. Any implied warranty not disclaimed is limited in scope to the terms of this Limited Warranty. Vestil makes no warranty or representation that this product complies with any state or local design, performance, or safety code or standard. Noncompliance with any such code or standard is not a defect in material or workmanship.