

Vestil Manufacturing Corp.

2999 North Wayne Street, P.O. Box 507, Angola, IN 46703 Telephone: (260) 665-7586 -or- Toll Free (800) 348-0868

Fax: (260) 665-1339

Web: <u>www.vestilmfg.com</u> e-mail: <u>info@vestil.com</u>

SPB-P-72 Fork-Mounted Snow Plow Instruction Manual



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.

Replacement Parts and Technical Support:

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 http://www.vestilmfg.com/parts info.htm.

Table of Contents						
Signal Words	<mark>2</mark>					
Hazards	2					
Exploded View and Bill of Materials						
Installation.	4 - 5					
Record of Normal Condition.	6					
Inspections & Maintenance	6					
Labeling Diagram						
Limited Warranty.						

Signal Words:

This manual classifies personal injury risks and situations that could lead to property damage with SIGNAL WORDS. A safety message appears with a signal word that describes an improper/dangerous use of the product. The signal word indicates the seriousness of the injury that could result from the described use.

A 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.

AWARNING

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

ACAUTION

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.

Hazards:

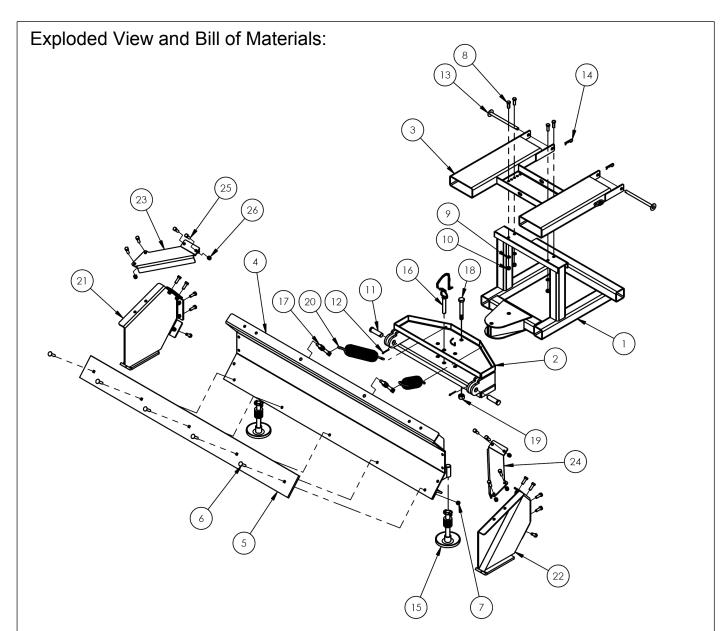
Vestil strives to identify all hazards associated with the use of its products. However, material handling is dangerous and no manual can address every risk. The most effective means for preventing accidents is for the end-user to exercise common sense and sound judgment whenever using this product.

AWARNING If this product is used or maintained improperly serious personal injuries or death might result. ALWAYS use the product properly.

- Read and understand the entire manual before assembling, using or servicing the product.
- Read the manual to refresh your understanding of proper use and maintenance procedures.
- DO NOT attempt to resolve any issue with the product unless you are both authorized to do so and <u>certain</u> that it will be safe to use afterwards.
- DO NOT modify the product in any way. Unauthorized modifications might make the plow unsafe to use and automatically void the *Limited Warranty* on p. 7.
- DO NOT exceed the capacity of the plow. Capacity is provided on Label 287, which is shown in the *Labeling Diagram* on p. 6.
- Inspect the plow before each use according to the *Inspection* procedures on p. 6. Look for signs of excessive wear, damage, or distortion. Check all fasteners and confirm that they are securely tightened and undamaged.
- Review the safety messages included in the manual(s) for your fork truck and operate it according to the instructions while using this plow / fork attachment.
- DO NOT stand or walk, or allow any other person to stand or walk, beneath an elevated plow. Always maintain ample separation between the plow and all persons involved with snow-clearing operations. DO NOT plow nearby or towards any person.
- Remain at a safe distance from the fork lift and plow while the plow is in use.
- ONLY use the plow to move snow. For example, DO NOT push equipment, vehicles, pallets, etc.
- DO NOT leave the fork truck unattended if the plow is elevated. Always lower the forks until the plow rests on the ground.
- DO NOT remove or obscure any label. Verify the placement and legibility of all labels as shown in the *Labeling Diagram* on p. 6. DO NOT use this device UNLESS all product labels are readable, undamaged, and fastened securely to the plow.

NOTICE Proper use, maintenance, and storage are essential for this product to function properly.

- o Always use this product in accordance with the instructions in this manual and consistent with any training applied to fork truck operation at your workplace
- o Periodically lubricate moving parts.

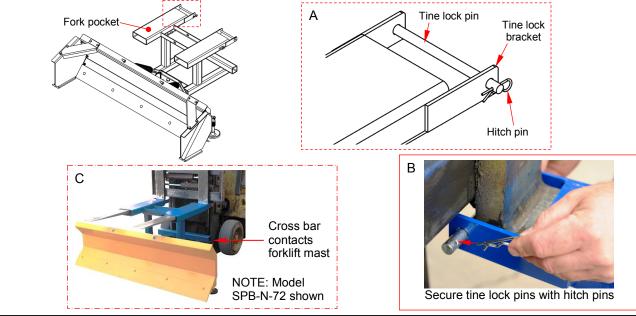


Item	Part no.	Description	Qty.	Item	Part no.	Description	Qty.
1	47-514-001	Weldment, mid-frame	1	14	45286	#11 hitch pin clip, ¹ / ₈ " x 2 ⁵ / ₈ "	2
2	47-514-003	Weldment, frame, plow attachment	1	15	47-157-001	Snow plow ski/shoe	2
3	47-528-004	Weldment, fork pocket	1	16	47-612-001	Weldment, pin with chain	1
4	47-514-023	Weldment, frame, blade	1	17	47-145-002	Eyebolt with nuts & lock washer	2
5	47-017-006	Bar stiffener, front blade	1	18	15374	Hex cap screw, ³ / ₄ "-10 x 5 ¹ / ₂ "	1
6	21826	Carriage bolt, Gr. 5, zinc-plated, 1/2"-13UNC x 2"	5	19	0147910	Hex nut, ³ / ₄ "-10, Gr. 8	1
7	36309	Hex nut, Gr. 5, zinc-plated, ¹ / ₂ "-13UNC	5	20	01-146-006	Spring	2
8	15209	Bolt, HHCS, Gr. 8, zinc-plated, ¹ / ₂ "-13UNC x 1 ¹ / ₂ "	4	21	47-514-021	Weldment, frame, right side	1
9	33626	Lock washer, zinc-plated, 1/2"	4	22	47-514-022	Weldment, frame, left side	1
10	36110	Hex nut, zinc-plated, ¹ / ₂ "-13	4	23	47-014-038	Frame, right side, formed	1
11	47-112-001	Clevis pin, 1" x 3 ¹ / ₄ "	2	24	47-014-039	Frame, left side, formed	1
12	65127	Cotter pin, zinc-plated, ³ / ₁₆ " x 2"	2	25	11209	¹ / ₂ "-13 x 1 ¹ / ₂ " HHCS, ASTM A307, Gr. A, zinc-plated	18
13	14-612-001	Pin, lock, weldment	2	26	37030	¹ / ₂ "-13 Nylon insert lock nut	18

Installation:

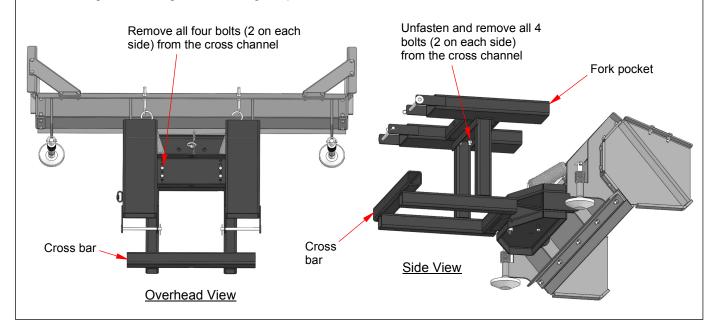
Step 1: Mount the plow on your forklift.

- (A) Remove the locking pins from the tine lock brackets: First pull out the hitch pins and then remove the lock pins as shown in diagram A. Adjust the positions of the tines of your lift truck to match the locations of the fork pockets; then slowly drive the truck forward until the forks extend all the way through the fork pockets. The heels of the forks should contact the ends of the fork pockets so that the tine lock brackets project behind the heel of each fork).
- (B) Secure the plow to the forks by reinstalling the tine lock pins and hitch pins (see frame B below).
 NOTE: It might not be possible to lock the tines in the tine locks until step 2 on the following page has been completed.
- (C) When properly adjusted, the cross bar of the mid-frame will rest against the mast of your forklift.



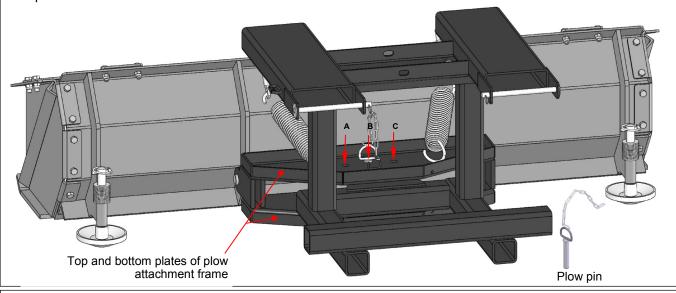
Step 2: Adjust the position of the mid-frame.

When properly adjusted, the cross bar of the mid-frame weldment (MFW) will rest against the mast of your forklift. Four bolt fasten the fork pocket weldment (FPW) fastens to the MFW. To adjust the position of the mid-frame, unfasten and remove all 4 bolts. Complete *Step 1B* now (reinstall tine lock pins) if you were unable to do so in step 1. Adjust the position of the mid-frame to bring the cross bar into solid contact with the mast of your forklift. Align the bolt holes in the cross channels of the FPW and the MFW. Then, reinstall and fasten the bolts. Tighten the connections. The cross bar MUST solidly contact the forklift mast otherwise the vertical frame elements might be damaged while using the plow.



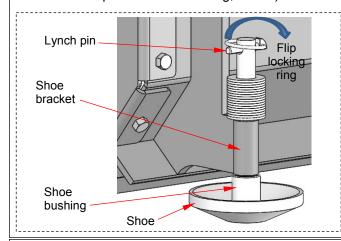
Step 3: Select the desired plow angle.

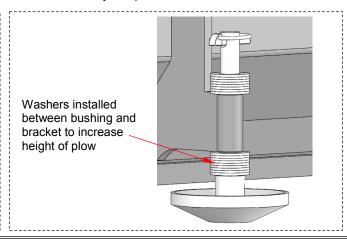
The plow can be set in 3 positions by pinning the plow pin through the appropriate hole (A-C) in the Mid-Frame Weldment (MFW). In the diagram below, the plow is pinned at position B. To change the plow position, remove the plow pin. Rotate the plow until hole A, B or C aligns with the holes in the top and bottom plates of the plow attachment frame. See also *Exploded View, item 2*, p. 3. The pin must extend through both plates of the plow attachment frame.



Step 4: Adjust plow blade height (above ground level).

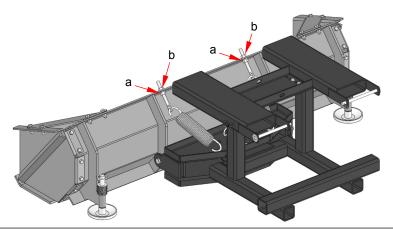
Plow blade height can be increased by adding washers between the shoe bushing and the shoe bracket on both sides of the plow: 1) Remove the lynch pin (flip the locking ring over; then pull out the pin); 2) Pull the shoe out of the bracket. Leave the shoe bushing in place on the shaft of the shoe. Put the necessary number of washers on top of the shoe bushing; then 3) Reinstall the shoe and the lynch pin.





Step 5: Adjust spring tension.

Two coil springs control the pitch of the plow. Greater spring tension pulls the top edge of the plow back and causes the bottom edge of the plow to move farther forward. Decreasing spring tension has the opposite effects. To adjust spring tension, loosen the hex nuts on the inside of the plow lip (nuts labeled "a" in the diagram). Adjust the position of the nuts on the outer side of the lip (labeled "b") to achieve the desired spring tension. Tighten the inside nuts (a) against the lip to complete the adjustment.



Record of Normal Condition:

Before using the lifter for the first time, create a written record of its appearance and operation. Include detailed descriptions about the frame, fork pockets, pins and pin brackets, plow blade, springs, shoes, eye bolts, and pivot points. Thoroughly photograph the unit including all labels applied to it. Add the photographs to the record. This record establishes normal condition of the plow. When conducting inspections in the future, compare your observations to this record to determine if a component is in normal condition or requires repair or replacement.

Inspections & Maintenance: Numbers in parentheses () correspond to item numbers in *Exploded View* on p. 3.

Before each use, inspect the plow to confirm that it is in normal condition. DO NOT use the plow unless it is in normal condition.

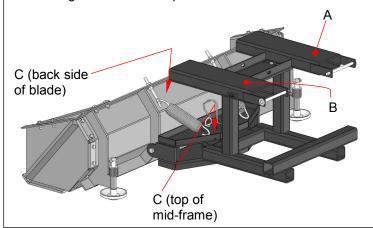
- 1. Tine lock pins (13): Confirm that both lock pins are straight and undamaged. Also confirm that the pin holes in the tine lock brackets (see *Step 1*, frame A, on p. 4) are not enlarged and that the brackets are not cracked, warped, etc. Both lock pins must be secured with their hitch pins every time the plow is installed on your forklift
- 2. Labeling: All labels should be readable and located as shown below in the *Labeling diagram*. Replace any label that is missing or not easily readable (e.g. faded). Contact *Technical Service* to order replacement labels.

Inspect the following components at least once per month.

- 1. Hardware: bolts, nuts, washers, pins, hinge pins; pay particular attention to the 5½ in. hex cap screw (Item no. 9) that fastens the plow attachment frame weldment (18) to the mid-frame weldment (1); also closely inspect the fasteners (8; 9; 10) that connect the fork pocket weldment to the mid-frame weldment.
- 2. Shoes (15) and shoe brackets: both shoes should be securely fastened to the shoe brackets with lynch pins. They should not be bent or worn so substantially that they do not across the ground.
- 3. Fork pockets: confirm that each pocket is structurally sound and free of rust. Do not use the plow if the fork pockets are structurally compromised, e.g. significantly rusted, bent, or broken.
- 4. Welds: confirm that all welds are intact.
- 5. Weldments (1; 2; 3; 4; 21; 22): examine each weldment for abnormal shape, broken welds, and looseness.
- 6. Overall condition of the plow: the structure should be clean, square and rigid, and free of significant rust and corrosion. Remove dirt and debris. Grease pivot points. Apply touchup paint to all areas where the finish is damaged.
- 7. Springs: examine the two springs that control plow pitch (20). The springs should resist forward rotation of the plow and should securely attach to the plow blade (4) and plow attachment frame (2). Examine the springs for rust, cracks, stretching, etc. that compromises function.

Labeling diagram:

Each unit should be labeled as shown in the diagram. However, label content and location are subject to change without notice so your product might not be labeled exactly as shown. Compare the diagram below to your *Record of Normal Condition*. If there are any differences between actual labeling and this diagram, adapt the diagram to reflect actual labeling. Replace all labels that are damaged, missing, or not easily read (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 Parts Department.



A: label 287 MODELMODÉLOMODÉLE STATIC CAPACITY (eventy) distributed) LO CAPACIDA CONSTANTE (distribude uniformemente) kgs. CAPACITÉ STATIOUE (distribude régulièrement) kgs. SERIAL/SERIE/SÉRIE 287 PECCESS

B: label 218

▲ WARNING	▲ ADVERTENCIAS
Improper use might result in death or serious	El uso imapropiado puede resultar en muerte o herirás
personal injury. Attach device to fork carriage	personales. Atar aparato al mástil del montagcargas con
with safety chain/strap.	cadenas/correrás.
 Drive lift truck forward until forks contact ends	 Maneje el montacargas para adelante hasta que las cuñas hagan
of fork pockets	contacto con la orilla del bolsillo de las cuñas.
 Chain/straps must not be able to disconnect	 La cadenas y correas no deben de deslizarse (soltarse) del mástil
(slide free) from carriage.	del montacargas.
 Safety chain/strap must be taut. Connect chain/ strap to carriage via shortest line. 	La cadena/correa de seguridad debe de estar apretado. Asegure la cadena/correa al mástil via la ruta mas corta.

C: label 208

ı	AWARNING	▲ ADVERTENCIA	AVERTISSEMENT	
	KEEP CLEAR OF	MANTENGASE ALEJADO DEL	SETENIR À DISTANCE DU	
ı	PINCH POINT	PUNTO DE CORTE	POINT DE PINCEMENT	208
•				

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 507PhoneEnter "Warranty service request"Angola, IN 46703(260) 665-7586in 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>30 days</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.