



**OWNER/OPERATOR'S  
MANUAL & PARTS  
LIST**

**POWER ANGLE  
DOZER BLADE**

**MODELS HD480/HD600/HD720**





Orrville, OH

[www.ventrac.com](http://www.ventrac.com)

## TO THE OWNER

*Congratulations on the purchase of a new VENTRAC **DOZER BLADE!** The purpose of this manual is to assist you in its safe and effective operation and maintenance.*

*With proper usage and care, the **dozer blade** will provide many years of service. Please read and understand this manual entirely before first using the **dozer blade**. Keep this manual on file for future reference.*

*Please fill in the following information for future reference:*

Date of Purchase: Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

Serial Number: \_\_\_\_\_

Dealer: \_\_\_\_\_

Dealer Address: \_\_\_\_\_

Dealer Phone Number: \_\_\_\_\_

Dealer FAX Number: \_\_\_\_\_

Venture Products Inc. reserves the right to make changes in design or specifications without incurring obligation to make like changes on previously manufactured products.

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## **WARRANTY**

# INTRODUCTION

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## Product Description HD480 HD600 HD720

The Ventrac Dozer Blades have working widths of 48, 60 & 72 inches and are hydraulically controlled. They are raised and lowered with the front hitch hydraulic control lever. An 8" stroke hydraulic cylinder angles the blade 30 degrees in either direction by using the auxiliary front hydraulic control lever on the tractor. At the full angle in either direction, the angled blade sub-frame lodges against fixed stops. At any angle or when straight, the sub-frame is supported within the hitch frame which provides exceptional horizontal stability to the ends of the blade. Adjustable skid shoes accommodate dozing at selected heights.

The blades can be used for backfilling, leveling and grading with the tractor operating in either reverse or forward directions.

The dozer blades are very versatile laborsaving attachments. They can be used for:

- \* moving loose materials such as snow, mulch, sand, gravel, soil, grain, corncobs, granular fertilizer products, etc.
- \* cleaning barn stalls, poultry houses, etc.
- \* light excavation of firm soil. They are especially useful for finish landscaping work around buildings, curbs, retaining walls, flower beds, etc.

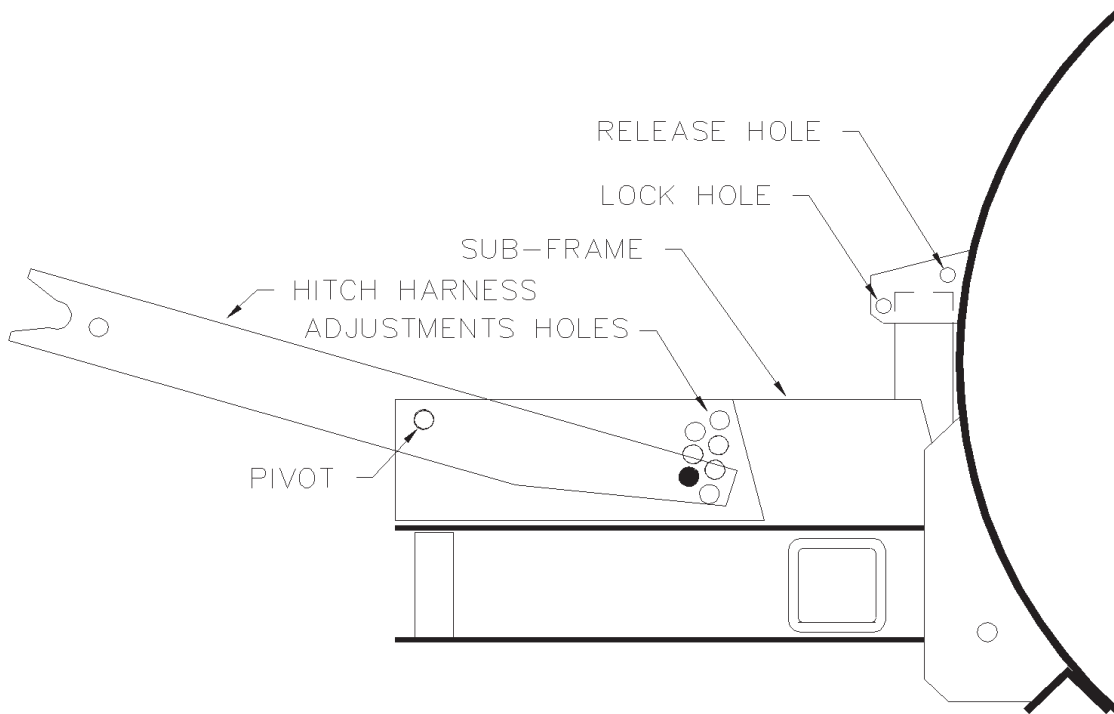
The Ventrac Dozer Blades, with the use of the skid shoes, are designed to sit upright after detachment with the lift arms in the proper position for reattachment.

# INTRODUCTION

## Ventrac Dozer Blade Specifications

	<u>HD480</u>	<u>HD600</u>	<u>HD720</u>
* Width	48 inches	60 inches	72 inches
* Length	32 inches	32 inches	32 inches
* Height	18-1/2 in	18-1/2 in	21-1/2 in
* Weight	135 LB	176 LB	205 LB
*Angle (right and left)	30 deg	30 deg	30 deg

- \* Hydraulic cylinder bore and stroke - 2" x 8"
- \* Spring trip - Mechanical "on" or "off"
- \* Ground clearance in raised position (flat) - 17 inches



# SAFETY

## DECALS

The following decals must be maintained on your Ventrac dozer blade. If any are faded or missing, contact the factory promptly for replacements.



A



B













C

Decal	Page & Location	Description	Part Number
A	D-1, #12	Danger Pinching Hazard	00.0102
B	D-2, #16	Warning High Pressure Hazard	00.0103
C	D-2	Serial Number Plate	N/A

# SAFETY

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## Safety

-  Please read and understand this manual before operating the equipment.
-  Always use proper safety precautions. Observe all safety decals.
-  Before adjusting or cleaning this attachment, lower it to the ground, set tractor brake and shut down the engine.
-  Be sure attachment is locked securely to tractor (power unit) before operating.
-  Be sure bystanders are clear of machine and attachment before operating.
-  Never allow anyone to ride on the dozer blade. Be especially careful and observant whenever anyone else is in the vicinity as you are operating this equipment.
-  Always look in the direction the tractor is moving.
-  Use very slow ground speeds when digging or moving soil where buried rocks or other obstructions could be present. If the blade engages a lodged rock or other object with the tractor moving fast, a sudden deceleration could potentially cause injury to the operator and/or damage to the equipment.
-  Note the dozer blade is equipped with a spring trip mechanism. This helps prevent sudden unexpected stops caused when contact is made with uneven sidewalk joints, rocks or other immovable objects. For heavy dozing, the 3/8" pin can be installed in the lower hole in the lock position. **Caution: Dozer blade will not trip with pin in the lower hole!!** The upper /forward hole serves only as a holder for the pin and does not restrict the spring -trip feature.
-  For snow removal **always** use the spring trip mechanism.



**This symbol identifies potential health and safety hazards. It marks safety precautions!!**

# OPERATION

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## Operating Instructions

### Attaching:

The Dozer Blade should be in its parked position from last usage with its hitch arms in the correct position to be connected to the tractor.

1. Disengage traction booster by turning both levers to “off.” NOTE: Raise hitch to its full height to release the booster spring latch and then lower to desired level.
2. Drive the tractor slowly forward to align the hitch lift arms with the mating arms on the dozer blade. It may be necessary to slightly raise or lower the hitch to complete the engagement.
3. Once completely engaged, close the front hitch latch.
4. Stop the tractor engine.
5. Clean any dirt from the hydraulic quick couplers on both tractor and attachment.
6. Connect the couplers from the blade to the mating couplers on the tractor. To do this, push the outer ring of the female coupler back, insert the male coupler, and release the ring. It must “snap” together in order for the hydraulics to function.

Test the security by tugging on the coupled hoses to insure they do not pull apart.

Check hose routing to avoid pinching and/or rubbing points on the tractor or dozer blade.

7. Start the tractor, raise the blade and then angle the blade from side to side.

NOTE: If the blade movements seem “backward” to you, stop the tractor engine, and reverse the 2 quick-coupler hoses.



# OPERATION

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## Detaching:

Park the tractor on a level surface and set the parking brake.

1. If the traction booster had been engaged when using the dozer blade, disengage both traction booster control levers. **IMPORTANT:** Lift hitch to its full height to release the booster spring latch then lower to desired level.
2. Lower the front hitch so that the blade and/or skid shoes are flat on the ground.
3. Stop the tractor engine.
4. Dismount and then disconnect the 2 quick-couplers by pulling back on the rings. Place the couplers of the 2 dozer blade hoses into the storage bracket with 2 holes on the right side of the dozer blade frame. This keeps the couplers out of the dirt.
5. Return to the operator's seat, start the engine, and disengage the front hitch latch.
6. Slowly back away from the dozer blade.

## Setting Dozer Blade for Various Hitch Heights

The Ventrac Dozer Blade is designed to accommodate hitches of various heights. The need for proper adjustment occurs when the blade is angled in either direction. Improper adjustment will cause one end of the blade to contact the ground before the other.

**SOLUTION:** Set the blade at approx. zero (0) angle on a level floor. Detach the dozer blade from the tractor for easy access to change points. Remove the 2 bolts from the hitch harness (See drawing on page A-2) that bolt into the sub-frame with other adjustment holes. Loosen the other 2 bolts nearer the tractor hitch and the 2 inside the cross-frame of the hitch harness.

Reattach the dozer blade to the tractor and lift or lower the hitch until the sub-frame, front to back, is parallel to the floor. Use a yard stick or measuring tape to determine this level. Find adjustment hole on each side nearest to the hole in the hitch harness and install bolts on both sides.

Before tightening the bolts, start the tractor and angle the blade in both directions to confirm the proper adjustment. **NOTE:** If the rear of the blade in angled position contacts the floor too soon, select the next higher adjustment hole in the sub-frame. If the front corner of the blade makes contact first, select the next lower adjustment hole.

Once the proper setting has been made, detach the dozer blade and retighten all 6 bolts. The dozer blade is now ready to be used.

# OPERATION

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## Operating Techniques and Tips:

With a little practice to develop your skills, operation will become very easy and simple.

Always keep **SAFETY** as the **First Priority**. Remember to keep the size of the task appropriate to the size of the equipment.

### • Moving Loose or Soft Materials:

• Lower the front hitch and position the dozer blade at the desired angle. If the skid shoes are used to determine depth of dozing, use float position. NOTE: For float to work properly, the traction booster should be disengaged.



Drive forward slowly. Do not use high speed to “ram” a pile of material!

• For scraping a hard surface, use a bit of down pressure on the cutting edge by taking the control lever out of the float position and slightly lowering the blade. This will take some weight off the front axle reducing steerability.

• If the blade “stalls” while attempting to take a deep bite of material, stop the forward motion or slightly reverse the tractor to reduce the penetration force on the blade. Then take a smaller bite.



While pushing material, use speeds safe for the driving surface roughness or deceleration caused by engaging a lodged rock or other obstruction which could potentially cause injury to the operator and/or damage to the equipment.

• Either pile or spread material by raising or lowering dozer blade to appropriate height while driving forward slowly. Learning to pile or spread evenly takes some practice.



Always look in the direction the tractor is moving.

• Usually the best smoothing results are obtained when moving a relatively small amount of material in reverse.



### • Excavating Firm Soil and SMALL Rocks:

Take very shallow cuts and drive very slowly. Never attempt a cut at a high rate of speed to try to increase thrust.

# OPERATION

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•Features:

- The Ventrac dozer blades have a double-sided cutting edge. Reverse the cutting edge when it wears down to the support structure.

- Adjustable skid shoes are standard equipment. They can be adjusted up high enough to let the cutting edge scrape the surface being cleared or down just enough to prevent contact or down further to reduce the amount of displaced gravel in snow removal.

- A clickpin is located in the center backside of the blade in one of two holes provided. (See drawing on page A-2). The hole near the blade allows a “trip” action when a solid object is struck. This feature is designed to reduce potential damage to operator, machine and/or surface being cleared. Reversing direction or lifting the blade will allow the spring to reposition the blade. Moving the click pin to the other hole will override the trip feature and keep the blade firmly upright. This position is recommended only for digging and scraping at a very slow speed.

- **Note:** Blade hitch can be adjusted for variables caused by different size tires.

Center sub-frame must be parallel to the ground. Improper setting will cause one end of the blade to be lower than the other when angled at ground level.



**Many different circumstances and situations can occur for which the operator must determine a safe way to operate the tractor and blade. Always follow safety procedures and always use common sense.**

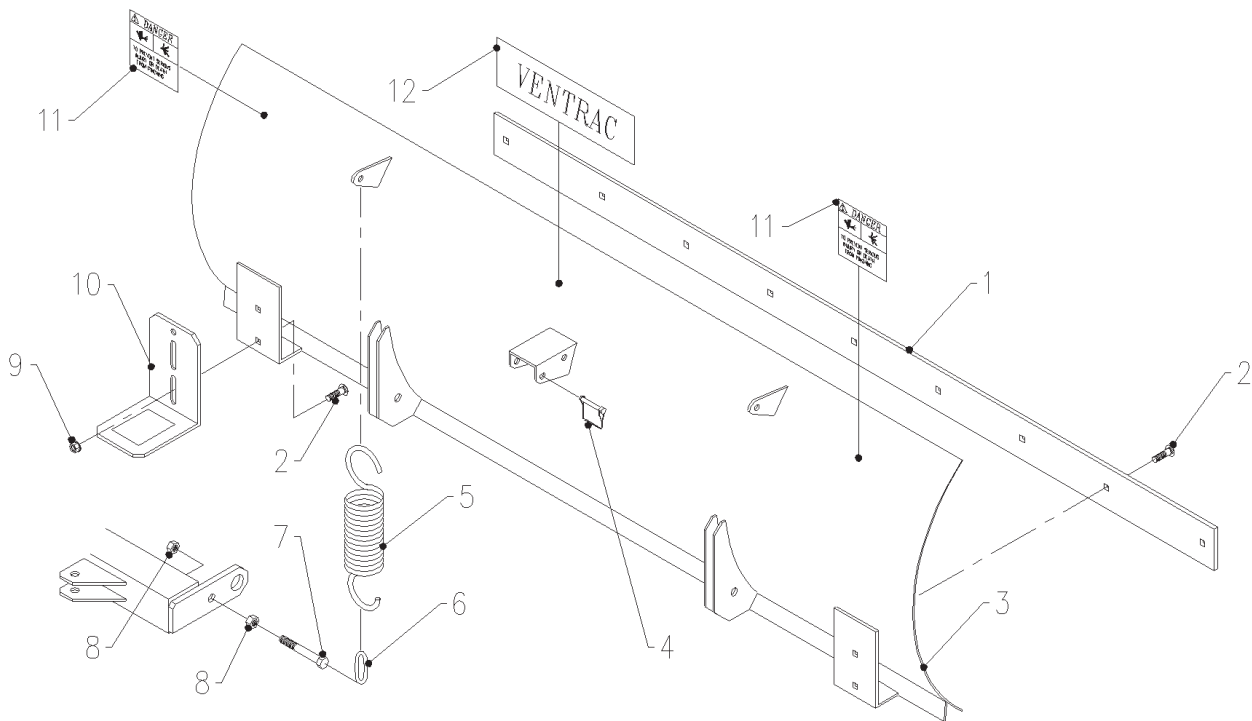


**Approach every task with an underlying consideration for your safety as well as for the safety of anyone who happens to be near your work area. Make sure that all operators of this equipment are thoroughly trained in using it safely.**

# PARTS

## BLADE PARTS & ILLUSTRATED DRAWINGS

REF.	PART NO.	DESCRIPTION	QTY.
1 . . . . .	78.0040. . . . .	Cutting Edge HD600. . . . .	1
1 . . . . .	78.0041. . . . .	Cutting Edge HD720. . . . .	1
1 . . . . .	78.0042. . . . .	Cutting Edge HD480. . . . .	1
2 . . . . .	97.0608. . . . .	3/8 x 1 Carriage Bolt . . . . .	15
3 . . . . .	62.0765. . . . .	Blade Weldment HD600 . . . . .	1
3 . . . . .	62.0839. . . . .	Blade Weldment HD720 . . . . .	1
3 . . . . .	62.0841. . . . .	Blade Weldment HD480 . . . . .	1
4 . . . . .	03.0003. . . . .	Safety Snap Pin . . . . .	1
5 . . . . .	41.0012. . . . .	Spring . . . . .	2
6 . . . . .	81.0127. . . . .	1/4 Chain Link . . . . .	2
7 . . . . .	90.0726. . . . .	7/16 x 3 1/4 USS Bolt . . . . .	2
8 . . . . .	92.07 . . . . .	7/16 USS Nut . . . . .	4
9 . . . . .	99.SF06 . . . . .	3/8 USS Flange Nut. . . . .	15
10 . . . . .	64.0677. . . . .	Skid Shoe . . . . .	2
11 . . . . .	00.0102. . . . .	Pinching Hazard Decal . . . . .	2
12 . . . . .	00.0189. . . . .	Ventrac Decal . . . . .	1



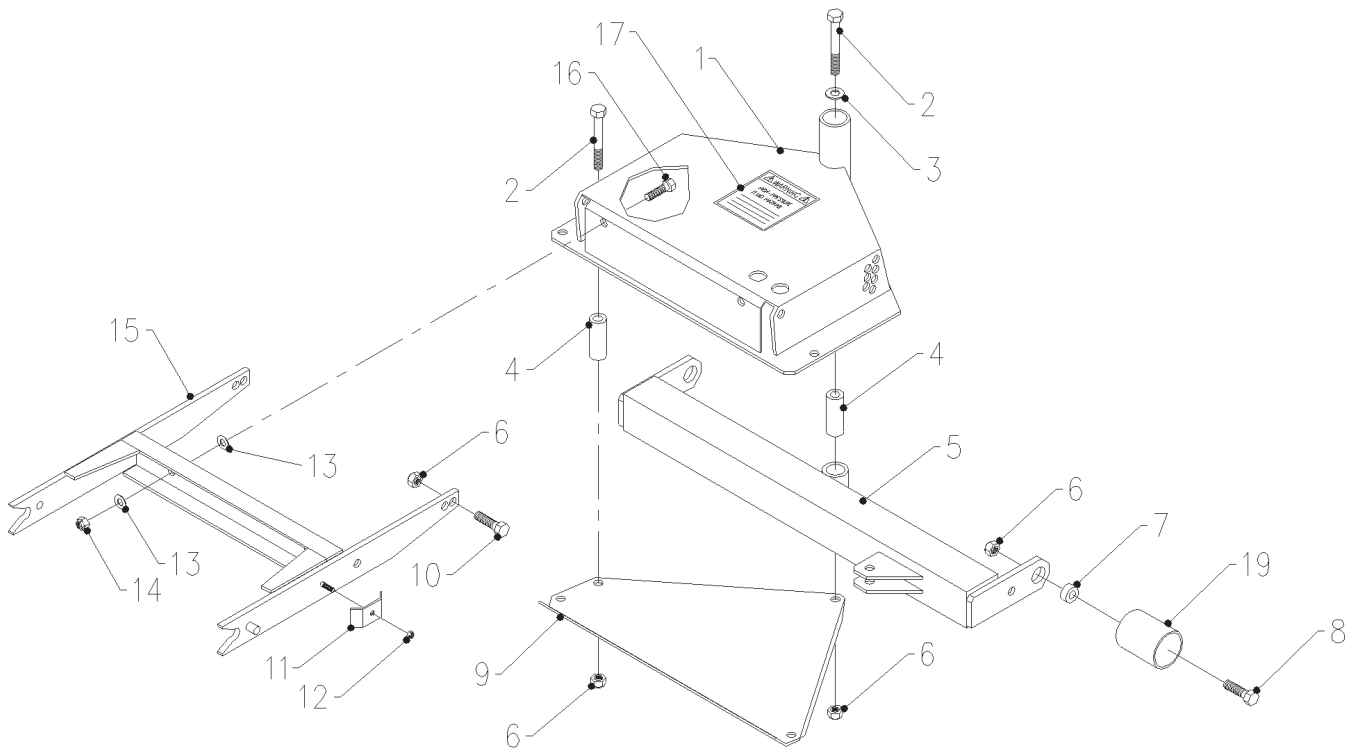
Revised 02-20-03

# PARTS

## FRAME PARTS & ILLUSTRATED DRAWINGS

REF.	PART NO.	DESCRIPTION	QTY.
1	62.0766	Sub-Frame	1
2	90.0828	1/2 x 3 1/2 USS Bolt	3
3	95.08	1/2 SAE Flat Washer	1
4	64.0675	9/16 x 1 x 2 9/16 Spacer	3
5	62.0768	Crossbar Frame	1
6	99.A08	1/2 USS Locknut	9
7	64.0676	9/16 x 1 x 9/16 Bushing	2
8	90.0812	1/2 x 1 1/2 USS Bolt	2
9	64.0674	Support Plate	1
10	90.0810	1/2 x 1 1/4 USS Bolt	4
11	64.0673	Hose Clamp	1
12	99.A04	1/4 USS Locknut	1
13	94.07	7/16 USS Flat Washer	4
14	99.A07	7/16 USS Lock Nut	2
15	62.0767	Hitch Frame	1
16	90.0708	7/16 x 1 USS Bolt	2
17	00.0103	High Pressure Fluid Hazard Decal	1
18	00.0128	Serial Number Plate (not shown)	1
19	64.1062	Spring Block (HD720 only)	2

Revised 02/05/03



# PARTS

## HYDRAULIC PARTS & ILLUSTRATED DRAWINGS

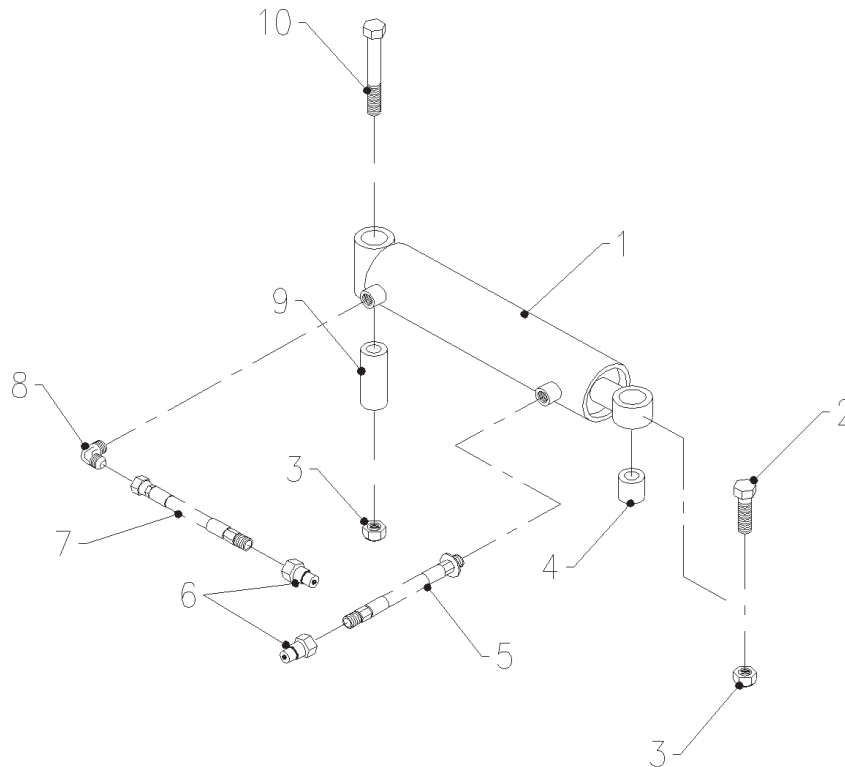
REF.	PART NO.	DESCRIPTION	QTY.
1 . . . . .	23.0103. . . . .	Hydraulic Cylinder (see note A below) . . . . .	1
1 . . . . .	23.0128. . . . .	Hydraulic Cylinder (see note A below) . . . . .	1
2 . . . . .	90.0814. . . . .	1/2 x 1 3/4 USS Bolt . . . . .	1
3 . . . . .	99.A08 . . . . .	1/2 USS Locknut . . . . .	2
4 . . . . .	64.0749. . . . .	9/16 x 1 x 1 1/16 Spacer . . . . .	1
5 . . . . .	20.0141. . . . .	1/4 x 47 1/2 Hydraulic Hose (see note B below). . . . .	1
5 . . . . .	20.0205. . . . .	1/4 x 47 1/2 Hydraulic Hose (see note B below). . . . .	1
6 . . . . .	23.0104. . . . .	Hydraulic Quick Coupler . . . . .	2
7 . . . . .	20.0140. . . . .	1/4 x 53 Hydraulic Hose . . . . .	1
8 . . . . .	25.2501-06-04 . . . . .	Hydraulic Fitting 90 deg. (See note C below) . . . . .	1
8 . . . . .	25.6801-06-06 . . . . .	Hydraulic Fitting 90 deg. (see note C below) . . . . .	1
9 . . . . .	64.0675. . . . .	9/16 x 1 x 2 9/16 Spacer . . . . .	1
10 . . . . .	90.0828. . . . .	1/2 x 3 1/2 USS Bolt . . . . .	1

NOTE A: Hydraulic Cylinder 23.0103 was discontinued and replaced by 23.0128 starting with the following serial #:  
 HD480 - AA1145                      HD600 - AA1326                      HD720 - AA1079

NOTE B: Hydraulic Hose 20.0141 was discontinued and replaced by 20.0205 starting with the following serial #:  
 HD480 - AA1145                      HD600 - AA1326                      HD720 - AA1079

NOTE C: Hydraulic Fitting 25.2501-06-04 was discontinued and replaced by 25.6801-06-06 starting with the following serial #:  
 HD480 - AA1145                      HD600 - AA1326                      HD720 - AA1079

Revised 02-28-08





## LIMITED WARRANTY – VENTRAC TURF EQUIPMENT

*Venture Products, Inc.* (shall be referred to as *V.P.I.*) warrants on the terms and conditions herein, that it will repair, replace, or adjust any part manufactured by *Venture Products Inc.* and found by *Venture Products Inc* to be defective in material and / or workmanship.

Effective September 1<sup>st</sup> 2005, *Ventrac* warranty on Tractors & Attachments (excluding the HG100/HG150 generator) for **Residential use only** is limited to **Three (3) years** from original purchase date. *Ventrac* Tractors & Attachments used **Commercially or for any income producing purpose** is limited to **Two (2) years** from original purchase date. *Ventrac* ET200 turbine blower (turbine only) is limited to **Two (2) years** from original purchase date. *Ventrac* HG100/HG150 generator is limited to **One (1) year** from original purchase date. *Ventrac* Tractors & Attachments used for **Rental** is limited to **180 days** from original purchase date. (**NOTE:** All accessories such as: 3-point hitch, foot pedal, dual wheel kit, etc. will be covered under the above warranty periods as they would apply provided they are installed by an Authorized *Ventrac* Dealer.) This warranty may be transferred and will carry the remainder of the warranty starting from the Original Purchase/Registration date with the dealership and/or *V.P.I.* In the event that product/s originally registered as **(3) year Residential use** are to be transferred to a commercial user the warranty would change to the remainder of **(2) year Commercial use** starting from the Original Purchase/Registration date with the dealership and/or *V.P.I.*

If this warranty covers a consumer product as defined by the Magnusson-Moss warranty act, no warranties, express or implied, (including, but not limited to, the warranty of merchantability or fitness for a particular purpose) shall extend beyond the applicable time period stated in bold face type above.

If this warranty covers a product used commercially or for any income producing purpose, the foregoing warranties are in lieu of all other warranties and no representations, guarantees or warranties, express or implied, (including, but not limited to, a warranty of merchantability or fitness for a particular purpose), are made by *V.P.I.* in connection with the manufacture or sale of its products.

The engine warranty is covered by its respective engine manufacturer. Please refer to the engine manufacturer's warranty statement that is included in the owner's manual.

The *Ventrac* turf equipment, including any defective parts, must be returned to an Authorized *Ventrac* Dealer within the warranty period. The warranty shall extend to the cost to repair or replace (as determined by *V.P.I.*) the defective part. **The expense of pickup and delivery of equipment, service call drive time or any transportation expense incurred for warranty repair is the sole responsibility of the owner and is not covered under warranty by *Ventrac* and/or *V.P.I.*** *V.P.I.*'s responsibility in respect to claims is limited to making the required repairs or replacements, and no claim of breach of warranty shall be cause for cancellation or rescission of the contract of sale of any *Ventrac* equipment. Proof of purchase may be required by the dealer to substantiate any warranty claim. Only warranty work performed and submitted by an Authorized *Ventrac* Dealer may be eligible for warranty credit.

This warranty extends only to *Ventrac* turf equipment operated under normal conditions and properly serviced and maintained. The warranty expressly does **NOT** cover: (a) any defects, damage or deterioration due to normal use, wear and tear, or exposure; (b) normal maintenance services, such as cleaning, lubrication, oil change; (c) replacement of service items, such as oil, lubricants, spark plugs, belts, rubber hoses or other items subject to normal service replacement; (d) damage or defects arising out of, or relating to abuse, misuse, neglect, alteration, negligence or accident; (e) repair or replacement arising from



## LIMITED WARRANTY – VENTRAC TURF EQUIPMENT

operation of, or use of the turf equipment which is not in accordance with operating instructions as specified in the operator's manual or other operational instructions provided by *V.P.I.*; (f) repair or replacement arising as a result of any operation from Ventrac turf equipment that has been altered or modified so as to, in the determination of *V.P.I.*, adversely affect the operation, performance or durability of the equipment or that has altered, modified or affected the turf equipment so as to change the intended use of the product; (g) repair or replacement necessitated by the use of parts, accessories or supplies, including gasoline, oil or lubricants, incompatible with the turf equipment or other than as recommended in the operator's manual or other operational instructions provided by *V.P.I.*; (h) repairs or replacements resulting from parts or accessories which have adversely affected the operation, performance or durability of the turf equipment; or (i) damage or defects due to or arising out of repair of *Ventrac* turf equipment by person or persons other than an authorized *Ventrac* service dealer or the installation of parts other than genuine *Ventrac* parts or *Ventrac* recommended parts.

The sole liability of *V.P.I.* with respect to this warranty shall be repair and replacement as set forth herein. *V.P.I.* shall have no liability for any other cost, loss, or damage. In particular *V.P.I.* shall have no liability or responsibility for: (i) expenses relating to gasoline, oil, lubricants; (ii) loss, cost or expense relating to transportation or delivery of turf equipment from the location of owner or location where used by owner to or from any Authorized *Ventrac* Dealer; (iii) travel time, overtime, after hours time or other extraordinary repair charges or charge relating to repairs or replacements outside of normal business hours at the place of business of an Authorized *Ventrac* Dealer; (iv) rental of like or similar replacement equipment during the period of any warranty repair or replacement work; (v) any telephone or telegram charges; (vi) loss or damage to person or property other than that covered by the terms of this warranty; (vii) any claims for lost revenue, lost profit or additional cost or expense incurred as a result of a claim of breach of warranty; or (viii) attorney's fees.

The remedies of buyer set forth herein are exclusive and are in lieu of all other remedies. The liability of *V.P.I.*, whether in contract, tort, under any warranty, or otherwise, shall not extend beyond its obligation as set forth herein. *V.P.I.* shall not be liable for cost of removal or installation nor shall *V.P.I.* be responsible for any direct, indirect, special or consequential damages of any nature. In no event shall *V.P.I.* be liable for any sum in excess of the price received for the goods for which liability is claimed.

There are no representations or warranties which have been authorized to the buyer of the turf equipment other than set forth in this warranty. Any and all statements or representations made by any seller of this equipment, including those set forth in any sales literature or made orally by any sales representative, are superseded by the terms of this warranty. Any affirmation of fact or promise made by *V.P.I.* or any of its representatives to the buyer which relates to the goods that are the subject to this warranty shall not be regarded as part of the basis of the bargain and shall not be deemed to create any express warranty that such goods shall conform to the affirmation or promise.

No employee, distributor, or representative is authorized to change the foregoing warranties in any way or grant any other warranty on behalf of *V.P.I.*

Some states do not allow limitations on how long an implied warranty lasts or allow the exclusion on limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

This warranty applies to all *Ventrac* turf equipment sold in the United States and Canada.