Diversified Fabricators, Inc.

Owner / Operator Manual

Soil Stabilization Spreader

1325 US 41 Bypass South
Griffin, Georgia 30224
1-800-526-6480
www.dfiequipment.com

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DIVERSIFIED FABRICATORS, INC.

Dear Customer,

Thank you for purchasing a D.F.I. Soil Stabilization Spreader. With proper operation and maintenance, it will provide you with years of service.

In order to make the best use of your investment; be certain to familiarize yourself with the contents of the entire user manual before attempting to operate your unit.

Included in this manual are details on the operation and maintenance of your Soil Stabilization Spreader. We also custom manufacture quality water tankers, lubrication service trucks, liquid fertilizer applicators, dry fertilizer spreaders and a variety of equipment. Our Griffin, Georgia plant continues to grow as we are constantly adding inventory and improving equipment to meet our customer's needs.

If you have any questions, please feel free to call one of our representatives at 1-800-526-6480.

Thank you,

Diversified Fabricators, Inc.

Soil Stabilization Spreader

Owner / Operator Manual

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	Read operator's manual and follow all safety warnings on the machine.
	Follow the chassis manufacturer's recommendations for maintenance and safety.
	Do not operate without shields and guards in place.
	Never move your equipment without checking to see that people and obstructions have been moved from your path.
	Never operate at unsafe speed.
	Use caution when operating on uneven terrain. **Top heavy loads may cause a unit to turn over on a steep hillside.**
	As with any heavy equipment, the operator has the ultimate responsibility for safe operation of this equipment.
	BEFORE you start up equipment, look over the entire machine. Look for worn, broken or missing parts. Repair or replace BEFORE ATTEMPTING TO OPERATE.
	Never allow unauthorized riders.
	Keep hands and feet away from rotating parts and drive belts.
	Stop engine before adjusting or servicing the machine.
	Never exceed the GVWR (Gross Vehicle Weight Rating) of the unit.
	1. **Never allow an unqualified or untrained person to operate this equipment.**
	2. Rotating shafts and spinning parts can cause injury if you come in contact with them.
	Read and understand all labels and operating procedures before operating this equipment.
	Check air pressure in all tires. Add air as necessary to meet the tire manufacturer's specifications.

	Check all hydraulic hoses for worn spots or leaks. Pad the sharp corners where the hose might wear through. **High-pressure hydraulic lines can cause injury to skin and eyes.** Wear proper protection. Be sure hydraulic lines are kept away from hot exhaust lines and mufflers. **Hydraulic oil that gets on the exhaust will flame up and burn. This can cause serious injury or death.** **NEVER ALLOW ANYONE TO OPERATE EQUIPMENT WITHOUT A FIRE EXTINGUISHER ON BOARD.**
⚠ CAUTION	Replace safety decals when the original decals become illegible.
	Make any adjustments to the machine before engaging the Power Take-Off or hydraulic system. Never engage PTO above manufacturer's recommended RPM rate.
	Stop all moving parts before attempting any adjustments or service.
	Check all lug nuts daily to be certain they are tight.
	Use caution when operating equipment on a hillside. **A fully loaded truck will be top heavy and can turn over causing injury or death.**
	Operators should have prior training in truck driving, covering loaded stopping distances as well as cornering.

Most accidents are caused by the failure of some individuals to observe simple and fundamental safety rules or precautions. Accidents can be prevented by recognizing the cause and by doing something about them before an accident occurs.

Regardless of the care used in the design and construction, there are many points that cannot be completely safeguarded without interfering with accessibility and efficient operation.

A careful operator is the best insurance against an accident.

The complete observance of one simple rule can prevent many thousands of serious injuries each year.

The rule is **NEVER ATTEMPT TO CLEAN OR MAKE ADJUSTMENTS TO A MACHINE**

WHILE IT IS IN MOTION.

Service and Maintenance

DFI Soil Stabilization Spreader Unit

1. Follow all recommendations of the attached safety format as well as the chassis manufacturer's safety recommendations
2. Check PTO and pump for loose, worn parts or hydraulic leaks. Repair as necessary.
3. Check transmission lubricant level. Add if necessary. Refer to the chassis manufacturer's recommendations.
4. Grease all bearings daily to ensure proper function.
5. Always clean unit after each use. (hardened material may cause unit to function improperly)
6. Clean filter bags after every load.
7. Check the baghouse for cement/lime accumulation. Clean as necessary (about every 4-5 loads). Cement/lime should fall into the delivery hopper when the door opens. A rubber hammer against the rear end panel may loosen accumulations. If this area is not clean, the bags will fill up/fill up the entire bag house.
8. Check hydraulic oil level. Add oil as necessary.

Procedures for Operation

We advise our customers to partially load their spreader the first time of use in order to familiarize yourself with the machine and make any necessary adjustments for your specific spreader application. Each spreader is equipped with a load-bearing inverted “vee” to help distribute the weight of the material on the main auger.

If you are spreading lime we recommend the “vee” above the main hopper auger to be low and close to the auger.

If you are using cement or fly-ash we suggest the “vee” be raised or further away from the main auger. Experience will help with the height of the “Vee” above the auger. Too close, and the material will not fall to the auger. To high, may cause excessive load/excessive hydraulic pressure and the auger may stall.

Check the baghouse for cement/lime accumulation. Clean as necessary (about

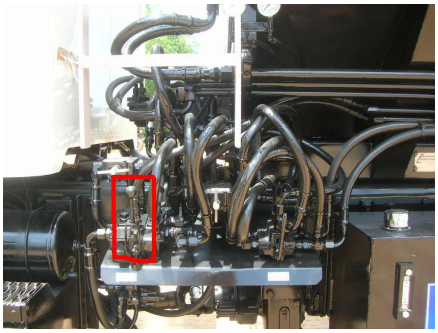
every 4-5 loads).

After all maintenance and service has been performed you are now ready to use your equipment.

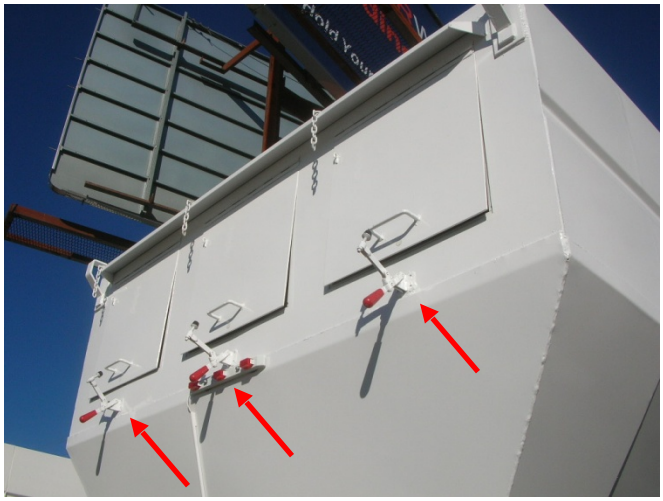
Always operate all functions, run both augers and the flapwheel, open and close the hydraulic door ***before loading the unit.*** Any material left in the hopper may have hardened since the last time you used the unit.

If you have any material left in the hopper and it is left in the hopper overnight or over the weekend, always run the bed auger and delivery auger before you add new material. The same should be done if you transport the unit with left over material.

Start by closing the door to the delivery augers using the handle marked *Delivery Door* on the side of your unit. Be sure that door is completely closed for filling.



The door must be closed completely. Failure to close the door during loading will allow the baghouse to fill. You do not want the material to fill the baghouse.

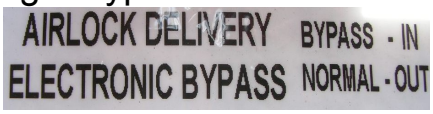


Then make sure you have bags in the bag house and the doors are unlatched. The exhaust air exits the hopper through the 3 bag house doors. These doors should be latched only after the spreading is complete and the unit is in storage.

Next, if your unit is equipped with scales, power the unit on and be sure to zero the scale so you will be able to measure the amount of material that is will be loaded in the hopper.(Refer to V600 Owner's Manual) If you need further assistance contact D.F.I.

Now you are ready to load your truck. Attach a fill hose from the delivery truck to the 4" fill pipe of the spreader truck and be sure it is latched securely. Have the driver of the cement delivery truck begin pumping on to the spreader but make sure the pressure of the pumper truck does not exceed 7psi. Continue to fill hopper until desired amount is loaded.

You are now ready to start spreading. Make sure the “Airlock Delivery Bypass” and the “Bed Auger bypass” are in the ‘normal’ position. **The “T” handle should be pulled out.**



Make sure the Bed Auger control handle is **pulled out** in the “normal” position.

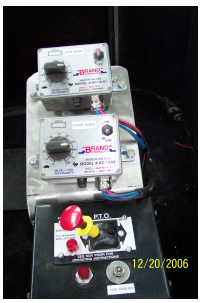
Pull, pull, pull

⚠ WARNING If the auger is operated in the wrong direction, that is, packing material to the front, it will stall. The hydraulic pressure will exceed the 2000 psi relief. You will not be able to get the material off the truck. Get a vacuum truck or open the side hatches and shovel it off.

Engage the Power-Take-Off on your control tower.

⚠ WARNING - DO NOT operate the main bed auger while the hopper is loaded, unless the delivery door is open.

Then you need to make sure the bed auger speed and the delivery auger speed are set to your desired needs. This is done with the two controls located in the cab.



See the Rate chart on the next page. The chart is intended as a start up guideline. With experience you will refine the settings for your truck, materials and application.

RECOMMENDED HYDRUALIC FLOW CONTROLL SETTINGS
RATE CHART FOR DFI SOIL STABILIZATION SPREADER

The following settings are recommended for a DFI soil stabilization spreader. The spread rate is varied depending on material being spread. The listed rates below are specifically for Portland cement. Pelletized lime, Fly ash, lime, and or blended a material will have different consistencies, thus the spread rate for those materials will vary. A test spread is recommended prior to the disbursement of material for milling.

1) For the 18lbs per square yard spread. The truck should be in third gear selection. Adjust the bed auger in-cab flow control to setting # 5 / adjust the delivery system in-cab flow control to setting # 6 open the hyd. door and operate the chassis @ 1400RPM. At these settings your spreader delivery should be in the 17-20lbs per square yard percentage.

2) For the 36lbs per square yard. The truck should be in the lowest gear selection. Adjust the bed auger in-cab flow control to setting # 5 / adjust the delivery system in-cab flow control to setting # 6 open the hyd. door and operate the chassis @ 1400RPM. At these settings your spreader delivery should be in the 35-38 per square yard percentage.

3) For the 72lbs per square yard. The truck should be in the lowest gear selection. Adjust the bed auger in-cab flow control to setting # 8 / adjust the delivery system in-cab flow control to setting # 5 open the hyd. door and operate the chassis @ 1400RPM. At these settings your spreader delivery should be in the 70-73lbs per square yard percentage.

4) For the 108lbs per square yard. The truck should be in the lowest gear selection. Adjust the bed auger in-cab flow control to setting # 10 / adjust the delivery system in-cab flow control to setting # 8 open the hyd. Door and operate the chassis @ 1400RPM. At these settings your spreader delivery should be in the 105-110lbs per square yard percentage.

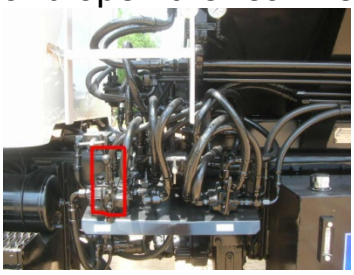
5) For the maximum per square yard. The truck should be in the lowest gear selection. Adjust the bed auger in-cab flow control to setting # 10 / adjust the delivery system in-cab flow control to setting # 10 open the hyd. door , and operate the chassis @ 1400RPM. At these settings your spreader delivery should be in the 110-130lbs (plus) per square yard percentage****

NOTE: The recommend spreader setting are highly effected by ground speed of the chassis(truck) DFI's recommendation for these low ground speed are drive trains with low reduction transmission(7LL/8LL/9LL/ Mack T2050-2080), and gear ratio for lower ground speeds (5:17-6:43) . These drive train components are a key factor in the high spread percentages (80-130lbs) **** All wheel drive chassis with these components normally have a very low reduction in all wheel drive function. These chassis combined with an experienced operator are key elements to consistent spread percentages.

In an effort to maximize the profitability of your, newly purchased DFI equipment. Please feel free to contact DFI with any questions concerning spreader rates, hydraulic flow control settings, ground speed, and or the material for your application. We will provide all needed information, and help answer any questions you might have with new spreader application.

When all adjustments have been made, turn on the Hydraulic Oil Cooler (switch located on the console inside the truck)

and open the rear Delivery Door all the way and begin spreading.



If your application calls for a high rate use the truck's lowest gear ratio.

*Normally you can spread 8000+ pounds of material before you start the main bed auger.

When the hopper is empty repeat previous steps until job is complete.
Upon completion the unit must be cleaned and serviced to be ready for next job.
Check baghouse for cement/lime accumulation. Clean as necessary (about every 4-5 loads).

⚠ WARNING Unit must be clean to ensure no material hardens in spreader. This will make your next job much easier and avoid costly repairs.

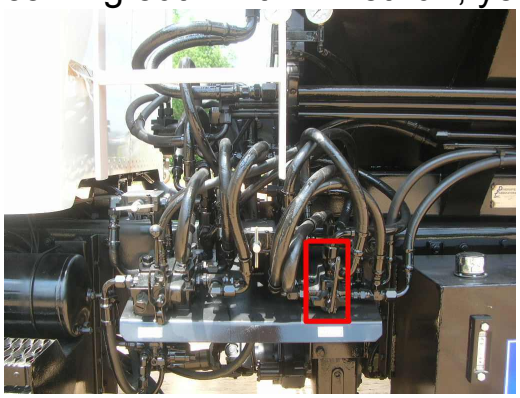
⚠ WARNING Do not exceed 1400 engine rpms. Higher rpms cause excessive hydraulic heat as well as excessive wear on the PTO and pump.

TROUBLESHOOTING

Use the following as an aid to troubleshoot your spreader. If you do not have an experienced technician-mechanic to do this work, call D.F.I. 1-800-526-6480.

- Bed auger not turning. Possible material overloading the auger.

  Possible clogged auger: Run the bed auger in reverse, if it will turn, place main auger control back in the normal position and product should start coming out. If it will not run, you may have to unload the hopper other means.



- Bed auger turning but not delivering material to the rear; Raise the “Vees”

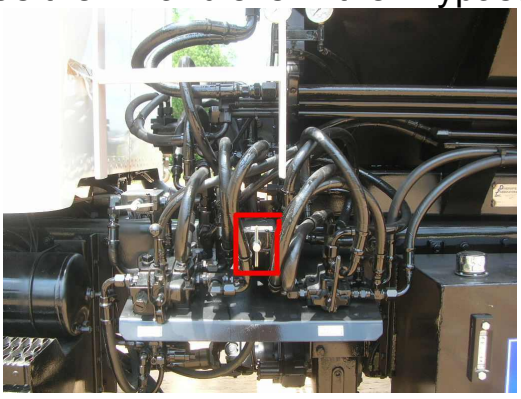
- Spreader does not put out enough material.

  Insure that the delivery door is fully open

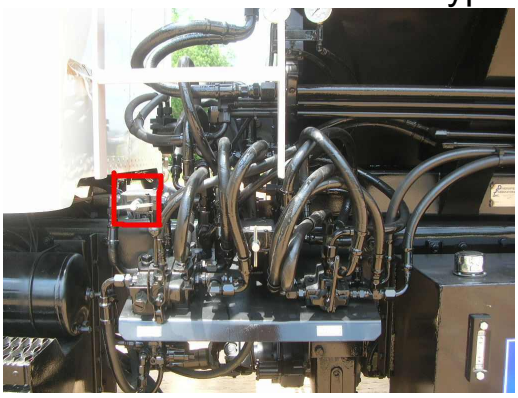
  1. Increase the speed of the bed auger. Do this with the control located in the cab.
  2. Increase the speed of the delivery.
  3. Shift to a lower gear in the truck.

- If you think the problem is in the electronic controls you may override them.

Locate the T-handle on the Bed Auger Bypass and push it in to bypass the electronic controls. The Electronic Controls in the cab will have no effect as long as the T-handle is in the “Bypass” position.

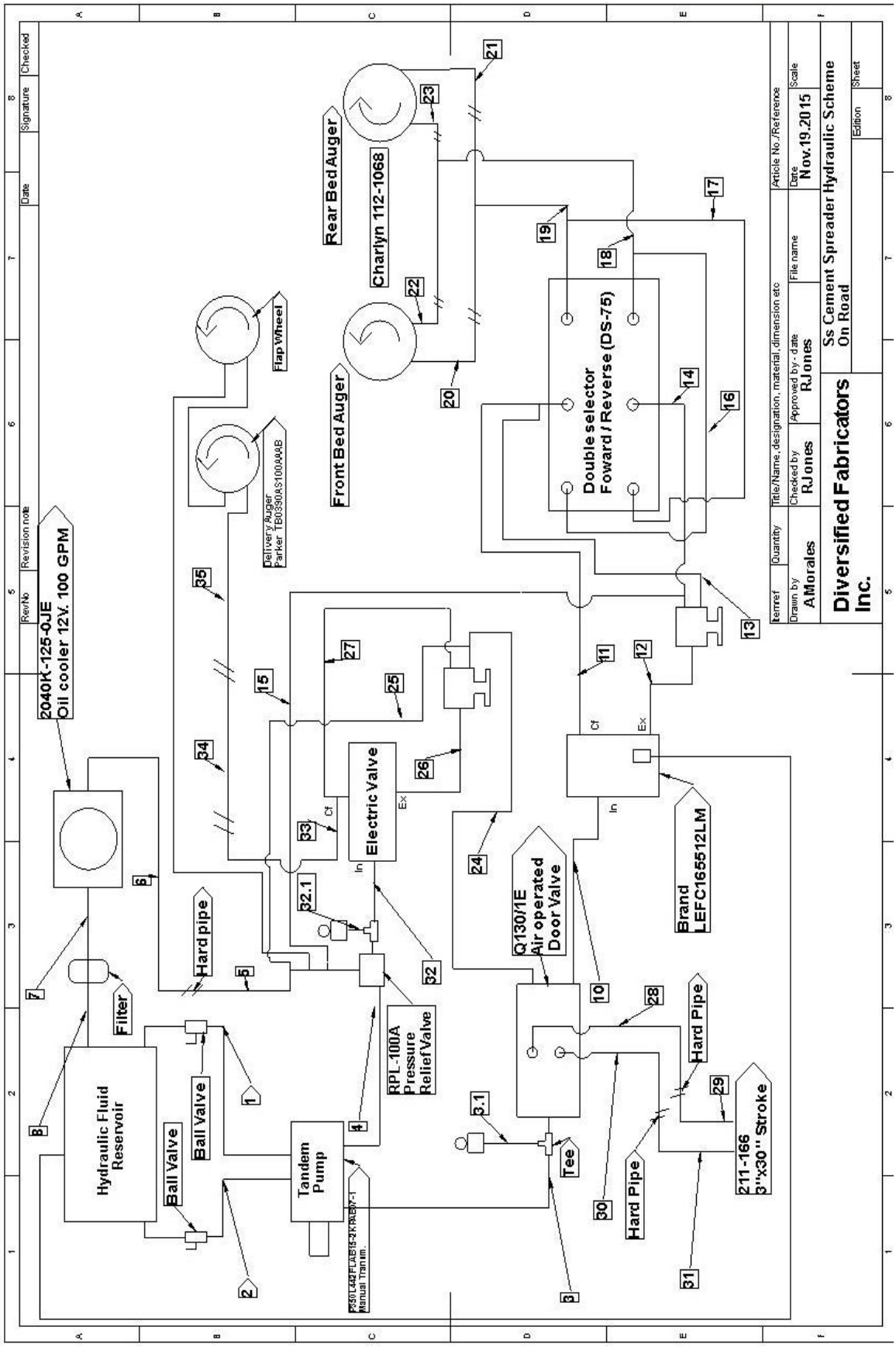


Locate the T-handle on the Airlock Delivery Bypass and push it in to bypass the electronic controls. The Electronic Controls in the cab will have no effect as long as the T-handle is in the “Bypass” position.



For “normal” operation (using electronic controls) the T-handles must be pulled out in the “normal” position.

Always operate all functions, run both augers and the flapwheel, open and close the hydraulic door ***before loading the unit.*** Any material left in the hopper may have hardened since the last time you used the unit.


2040K-125-0JE
Oil cooler 12V. 100 GPM
Hydraulic Fluid Reservoir
Ball Valve
Ball Valve
Filter
Tandem Pump
Hard pipe
Electric Valve
RPL-100A Pressure Relief Valve
Q130/1E Air operated Door Valve
Brand LEFC165512LM
Double selector Foward / Reverse (DS-75)
Rear Bed Auger
Charlyn 112-1068
Front Bed Auger
Flap Wheel
Delivery Auger Parker TB0390AS1000MAB
Tee
Hard Pipe
Hard Pipe
211-166 3"x30" Stroke
Diversified Fabricators Inc.
Ss Cement Spreader Hydraulic Scheme
On Road
Drawn by AMorales
Checked by RJones
Approved by - date RJones
Date Nov.19.2015

FOR VEHICLES EQUIPPED WITH POWER TAKE-OFF

Refer the Owner's Manual for Power Take-Offs

PTO MAINTENANCE WARNING

Periodic PTO MAINTENANCE is required by the owner/operator to ensure proper, safe and trouble free operation.

Refer the Owner's Manual for Power Take-Offs

Warranty – Effective May 1, 2009

DIVERSIFIED FABRICATORS, INC. is hereinafter called DFI.
The products manufactured by DFI, exclusive of used or re-built machinery or equipment, are subject to the following warranty:

a) Warranty.
DFI warrants all products manufactured by it to be free from defects in material and manufacture at the time of shipment and for twelve (12) months from date of delivery to customer, and provided that the product is in normal use and service. DFI will furnish to the customer without charge, f.o.b. Griffin, Georgia replacements for such parts as DFI finds to have been defective at the time of shipment, or DFI's option, will make or authorize repairs to such parts, provided that, upon request, such parts are returned, transportation prepaid, to the factory at Griffin, Georgia. THIS WARRANTY SHALL NOT BE EFFICTIVE IF THE BUYER IS IN DEFAULT AS OUTLINED BELOW.

This warranty is furnished to customer without labor charge **only if work is performed at our manufacturing facility in Griffin, Georgia.**

Warranty service calls performed at the customer's jobsite are subject to a minimum charge of $200.00. Both service technician travel time @ $60.00 per hour and a vehicle mileage charge of $1.00 per mile round trip will be charged to customer.

Customer must receive a written authorization for any and all repair not performed by employees of Diversified Fabricators, Inc. Any parts purchased by the customer are the responsibility of the customer without this written authorization.

This warranty shall not apply to any product which has been subjected to misuse, misapplication; neglect (including but not limited to use of unauthorized parts or attachments), unauthorized adjustments, or unauthorized repair. Engines, motors, and any accessories furnished with DFI's products, but which are not manufactured by DFI, are not warranted by DFI but are sold only with the express warranty, if any, of the manufacturer thereof. THE FOREGOING IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED (INCLUDING THOSE OF MERCHANTABILITY AND FITNESS OF ANY PRODUCT FOR A PARTICULAR PURPOSE), AND OF ANY OTHER OBLIGATION OF LIABILITY ON THE PART OF DFI. FURTHERMORE, THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF.

b) Limitation of Liability
It is expressly understood that DFI's liability for its products, whether due to breach of warranty, negligence, strict liability, or otherwise, is limited to the furnishing of such replacement parts, and DFI will not be liable for any other injury, loss, damage, or expense, whether direct or consequential, including but not limited to loss of use, income, profit, or production, or increased cost of operation, or spoilage of or damage to material, arising in connection with the sale, installation, use, or inability to use, or the repair or replacement of, DFI's products.

Any operation expressly prohibited in the operating instructions or safety manual furnished with the machine, or any adjustment, or assembly procedures not recommended or authorized in the operating or service instructions shall void such warranty.

c) THIS WARRANTY IS VOID UNLESS "DIVERSIFIED FABRICATORS WARRANTY" CARD IS COMPLETED AND RETURNED TO THE FACTORY AT GRIFFIN, GEORGIA WITHIN 30 DAYS AFTER DELIVERY OF UNIT TO CUSTOMER.
d) The laws of the State of Georgia apply to this transaction. DFI as mentioned on the front side of this invoice maintains a purchase money security interest in the machinery, equipment, and parts listed and maintains the right to file a U.C.C.-1 financing statement to perfect said interest. Buyer hereby waives signature for the execution of the U.C.C.-1 and grants DFI a limited Power of Attorney to execute on Buyer's behalf a U.C.C.-1 financing statement if necessary. As this is a commercial transaction, DFI maintains the right to declare the indebtedness created by this invoice in default if payment is not made within forty-five (45) days or is the Buyer breaches any other term of this invoice.
e) In the event of default, DFI shall have the right of self help repossession in addition to other remedies allowed under the laws of the State of Georgia. Additionally, DFI shall have the right to apply for an immediate writ of possession pursuant to O.C.G.A.§44-14-260 et.seq. DFI shall be entitled in addition to the principal and interest reflected on the front of the invoices all costs of collection including 15% of the unpaid principal and interest as attorney fees.
f) Buyer listed on the front side of this invoice hereby agrees that this is a commercial transaction and waives any and all rights to notice of seizure by DFI if payment is not made within forty-five (45) days from the date of delivery on the front side of the invoice. Additionally, Buyer hereby waives and posting of bond by DFI for the issuance of the immediate writ of possession as outlined in O.C.G.A. §44-14-260 et.seq.

ALWAYS GIVE PART NAME, NUMBER, AND EQUIPMENT SERIAL NUMBER WHEN ORDERING PARTS

GQ-0155938B (06/02)