

OPERATORS MANUAL FOR Compadre



801 Burton Blvd. DeForest WI 53532
Ph: 608-846-7016 Fax: 608-846-1024
E-mail: info@aglaminators.com

Table of Contents

Chapter 1 Installation

Selecting Area - - - - -	1-1
Electrical Connection - - - - -	1-2
Pneumatic Connection - - - - -	1-2

Chapter 2 Specifications

Machine Dimensions - - - - -	2-1
Electrical Requirements - - - - -	2-1
Pneumatic Requirements - - - - -	2-1
Material Capacity - - - - -	2-1

Chapter 3 Safety

General Machine Safety - - - - -	3-1
Operator Safety - - - - -	3-1

Chapter 4 Operation

General - - - - -	4-1
Right Hand Control Panel, Figure 1 - - - - -	4-2
Laminator Setup - - - - -	4-3
Process Output Trouble Shooting - - - - -	4-4
Process Control Chart - - - - -	4-6

Chapter 5 Maintenance

Nip Roll Section - - - - -	5-1
Checking the Nip - - - - -	5-1
Zeroing the Nip - - - - -	5-1
Cleaning the Nip Rolls - - - - -	5-1
Roller Open and Close Rate - - - - -	5-2
Lubrication - - - - -	5-2

Chapter 6 Warranty

Limited Warranty - - - - -	6-1
----------------------------	-----

Chapter 7 Schematics

Electrical - - - - -	7-1
Pneumatic - - - - -	7-2

Selecting Area

Select an area that has a smooth, level surface for the laminator to set on, this will allow for easier maneuverability of the machine if it requires moving later on. The area should be large enough to allow an operator ample room to properly handle your largest product on the infeed and outfeed sides of the laminator. The sides of the laminator should also be easily accessible in case service or maintenance is required. AGL approximates this area should be about 7-8 feet in front and back of the machine and 3-4 feet on either end. This is only a suggestion, your plant and the products to be laminated will be the determining factor.



CAUTION

The laminator is a large heavy piece of equipment. Do not attempt to move the machine with one person. Injury is possible as well as permanent damage to the laminator. The laminator should only be rolled on a relatively smooth and level surface. Tipping or forcing the machine over large bumps can destroy the alignment of the rolls, idlers, and unwind/windup shafts. This alignment is required for proper lamination. Advanced Grieg Laminators, Inc.'s warranty does not cover malfunction of the machine due to improper handling of the machine during installation.



CAUTION

Do Not use a knife or other sharp object to remove the shrink wrap from the laminator and the protective coverings from the rolls. This can cause irreparable damage to the laminator enclosures and rolls.

Electrical Connection

Refer to the **Electrical Requirements** under Specifications for the proper requirements for your laminator. All connections to components and terminal blocks should be checked for tightness before initial startup. This will help avoid and electrical problems caused by connections that may have loosened due to vibration during shipping. The circuit breaker on the laminator is not considered a disconnect device. Consult a qualified, licensed electrician to ensure that the power supply for the machine is properly installed in your facility. Use supplied power cord and a standard outlet to provide power to the laminator. Advanced Grieg Laminators, Inc. will not be responsible for damage caused by incorrect electrical installation. Before initial startup, check all switches to make sure they are in the off or open position.

Pneumatic Connection

Refer to the Pneumatic Requirements under Specifications for the proper requirements for your laminator. The air supply should be clean, dry, and regulated. Failure to properly clean and dry the air supplied to the laminator will cause damage to the cylinders and valve. The laminator is supplied with a 1/4npt port for your final connection located in the lower right rear of the machine.



CAUTION

The air supply to the laminator must be clean and dry. Particles and moisture can damage the cylinders, brakes and clutches.

Before laminating with your new laminator, the open close rate of the nip and pull rolls must be checked. Refer to the maintenance section under **Roller Open and Close Rate**.

Machine Dimensions

Width: 83"
Height: 54"
Depth: 25.5"
Weight: 1600 lbs.

Electrical Requirements

115 VAC single phase, 50/60 Hz, 15 Amp service

Pneumatic Requirements

Approximately 1-2 cfm at 90 psi line pressure supplied via your cleaned/dried/regulated plant air.

Material Capacity

Upper Rear Station: 7.0" Diameter x 62 long x 3" Diameter core. Standard

Upper Front Station: 7.0" Diameter x 62 long x 3" Diameter core. Standard

Lower Front Station: 7.0" Diameter x 62 long x 3" Diameter core. Standard

IMPORTANT

READ THIS SECTION BEFORE OPERATING YOUR LAMINATOR

General Machine Safety

The following messages are written here for your safety, all operators and others around the laminator should read, understand and follow these messages.

1. Read and understand all the safety instructions.
2. Keep this manual in a place where it can be easily referenced by all operators.
3. **All connections to components and terminal blocks should be checked for tightness before initial startup. This will help avoid and electrical problems caused by connections that may have loosened due to vibration during shipping.**
4. Use only the recommended power source to run the laminator. Consult a qualified and licensed electrician if you are unsure of the power supply and the safety features of the supply.
5. If power supply cord is run across the floor, provide adequate protection to the cord to avoid damage from foot traffic, dropped items or rolling items.
6. Do not attempt to service the laminator without qualified personnel available. Damage to the machine or injury to you could be caused by moving parts or high voltage.
7. Do not operate the laminator with out all guards in place. If a guard is damaged or not working properly, replace or repair before returning the machine to operation. If the machine is run without all guards in place the safety obligation of the manufacturer is null and void.
8. Do not insert fingers, hands, or items into openings in the sideframes. Items may become entangled in moving parts or in contact with high voltage.
9. Disconnect or lockout power from machine when any service is required and when cleaning the nip rolls.
10. Disconnect or lockout power from the machine and refer to service personnel if the performance of the machine changes indicating a problem or if machine does not operate normally to correct operational procedures.
11. Adjust only items specifically covered by the operations portion of this manual. Any other adjustments may create problems in performance in your machine and may require servicing by qualified personnel to get machine back in correct working condition.

Operator Safety

Your laminator is designed to protect the operator from injury when used properly. Do not operate the machine until you have read and understand this manual and without all guards and protection devices in place, serious injury could occur.



WARNING

The nip section can pull you into laminator! Do not place fingers into the nip section when the rolls are rotating. It is recommended that operators tie long hair back and not wear neckties, loose clothing and jewelry since they can be caught in the nip section and pull the operator into the machine. Proper equipment such as gloves should be used if the material being laminated requires it. The nip rolls will lower if there is a loss of air pressure.

The nip section is protected by a photoelectric eye that shoots a light beam across the machine in front of the nip rolls. When the machine is in continuous run mode, the rolls will stop when the beam is broken by an item too close to the nip section. However, if the machine is in jog mode, an alarm will sound warning the operator that he/she is very close to the nip section, but the rolls will not stop rotating. The jog mode is useful for starting prints into the laminator and smoothing the print corners out as they enter the nip section, but this mode should be used as sparingly as possible since it puts the operator at a greater risk than the run mode.



CAUTION

When the machine is in jog mode, an alarm will sound to warn the operator but the rolls will not stop rotating when the light beam is broken. Use this mode sparingly and with respect.

There are E-stop switches on all four corners of the machine, as well as an E-stop ribbon switch in front and back. The machine will stop and the nip section will open if any of these switches are tripped. Striking the red mushroom heads on the switches with your palm can activate the two switches. The ribbon switches can be tripped by stepping on the yellow ribbon. The machine must be reset after and E-stop condition has occurred. Refer to the **Operation** section for further details.

General

1. Main Power Switch: A switch in the lower right rear switches the main power on and off. The switch is labeled clearly so the operator can tell if the power is on or off.
2. Power Button: The power button is used to start the machine initially and restart the machine after an E-stop condition has occurred. After the power is turned on, the reset button is held for 15 seconds to allow the machines electrical controls to reset to initial settings. The button will illuminate if machine has been properly reset.
3. Speed: A potentiometer is used to control the speed that the laminator will run product. Your laminator has the electrical and mechanical capability to run up to 10 feet per minute, but the quality of the product output is the governing factor in maximum process speed.
4. E-stops: E-stop switches are located in the front to allow the operator to stop the machine and open the nip rolls and pull rolls in case of emergency. The button must be pulled back out before pressing the power button to restart the machine.
5. Nip Rolls: The nip rolls are the heart and soul of the laminator and must be cared for properly in order to give years of quality product output. Always dial the shim wheel to a shim setting greater than "0" when the machine is not in use. This will prevent the rolls from forming a flat spot from resting against each other. This also applies to the pull rolls.



CAUTION

Always set the shim wheel to a setting greater than "0" when the machine is not in use. This will prevent the roll from coming together and forming a flat spot. Permanent damage can be caused to the rolls if this warning is not heeded.

6. Fwd-Stop-Rev: These buttons control the drive of the machine. Pressing the Fwd button will make the machine run in the forward direction at the set speed. Pressing the stop button will stop the drive. Pressing the Rev button will jog the machine in reverse, the rolls will stop when the button is released. There are also a Fwd and Stop button located near the rear of the machine on the RH side.
7. Foot Switch: The foot switch will run the laminator in the fwd direction at the speed set by the potentiometer. The foot switch is always active, this allows an operator to press the foot switch to get a print started and then press the Fwd button to transfer to the continuous run mode without stopping.
8. Nip Roll open/close- This switch will open and close the nip rolls. When the switch selects the roll to close the switch will illuminate.
9. The ready light tells the operator that the top roll has reached it's preset temperature. The light will turn off if the roll temp drops below this preset range. If the light turns off during the laminating process, the roll temperature has dropped below the preset range. The process may need to be adjusted to prevent the roll temp from dropping.

Right Front Control Panel

The right front control panel looks like the figure below.

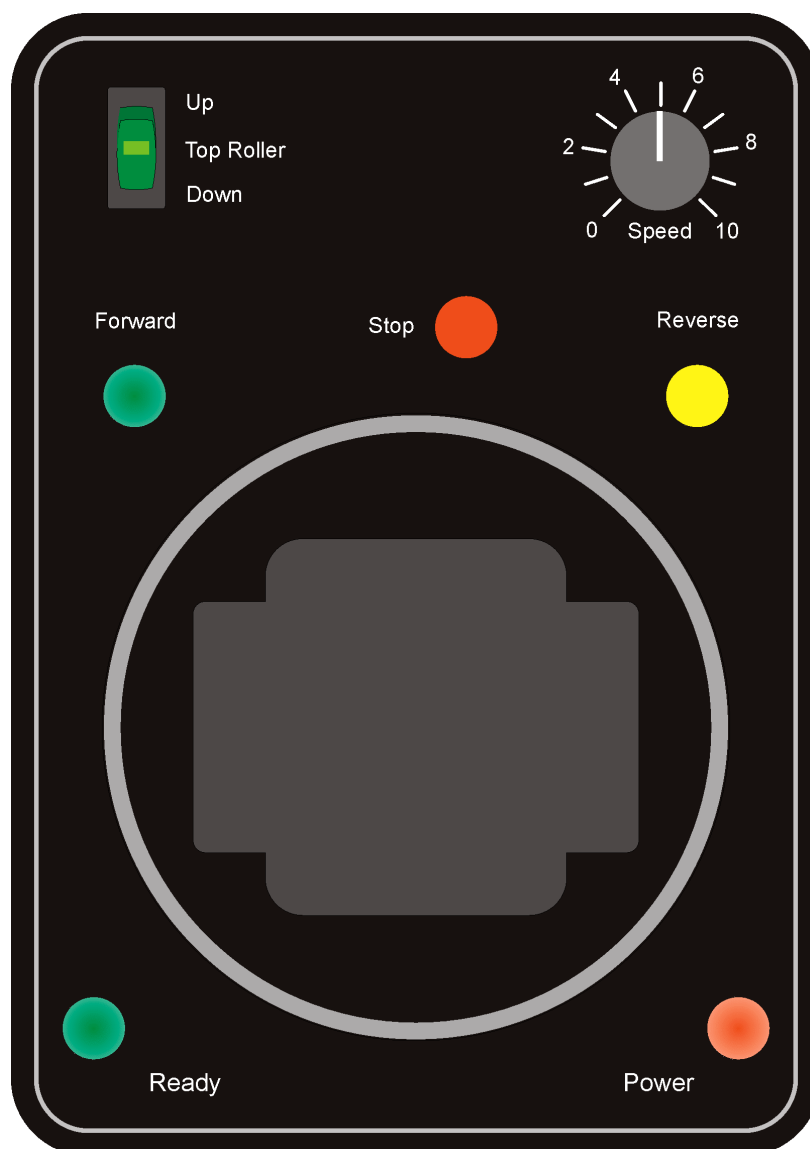


Figure 1 Right Front Control Panel

Top Roller:

The rocker switch will open and close the main nip rollers. The switch will illuminate when the rolls are selected to close.

Speed Potentiometer:

The dial indicates the speed the laminator will run.

Forward:

Press to put machine in continuous run mode. Button will illuminate when machine is in run mode.

Stop:

Press to stop machine.

Reverse:

Press to jog the machine in reverse. Drive will stop when button is released.

Ready:

Indicator to show that top roll has reached preset temperature.

Power:

Press and hold 15 seconds. to reset machine. Button will illuminate when machine has been properly reset.

The cutout in the control panel is to hold your Microsoft Zune media player. The plug to connect your media player to the speaker system in the Compadre is in the upper left of the cutout as shown above. Make sure your Zune is not locked then align the headphone jack on the media player with the plug on the Compadre. Carefully push the Zune to the left until the plug has fully inserted itself into the media player. Allow Zune to rest in the opening. The holder may be rotated 90 degrees clockwise to allow the media player to be viewed in portrait mode for mp3 playback. Rotate as shown above to view videos in landscape mode. To remove the Zune, turn off media player then tilt the RH end of the media player up and gently pull to the right until plug has been removed from your Zune. Please refer to the Zune documentation for operating instructions on the media player.

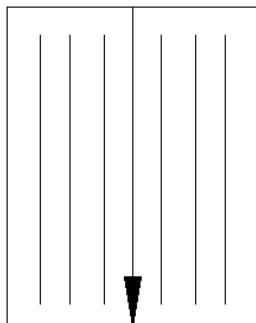
Web Tension adjust

The brakes on your machine are located on the unwind shafts near the left hand side of the machine. The brakes and clutch use compression via spring pressure to create tension on the web. For best results when laminating use the least amount of tension as possible for your application. When standing in front of the machine, turn the wheel toward you to increase tension and away from you to decrease tension. To load the shafts, the wheel must be turned all the way against the sideplate.

Laminator Setup

Your laminator has been designed to make the setup and lamination process as easy and repeatable as possible, however, there will be techniques that make this phase easier that you will only learn by using the machine. Your Compadre came with a Zune media player and a disc with 5 videos on it. The videos need to be copied into your "My documents/My videos" before installing the software. The first introduction video, "Introduction to your Compadre- Watch before lamin" will walk you through how to set up your Compadre to laminate prints. The remaining 4 videos show you how to run the most common applications with your laminator. For your reference, web diagrams and information is located on a decal under the infeed table. Lift table up into the loading position to see decal.

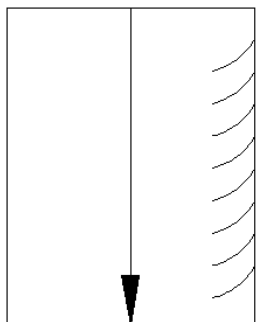
Process Output Trouble Shooting



Straight waves in output

Pull roll creating too much tension → Decrease clutch air pressure

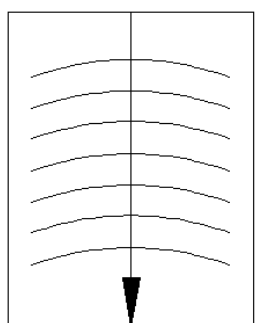
Film not cooling fast enough → Slow feed rate down and turn on cooling system.



Waves on one side of output

Nip “zero” setting may be incorrect → Check nip setting and adjust if necessary. Refer to **Zeroing the Nip** in the maintenance section.

Pull roll “zero” setting may be incorrect → Check nip setting and adjust if necessary. Refer to **Zeroing the Nip** in the maintenance section. Pay particular attention to sides opposite the waves.



D-Waves in Product

If waves are in the substrate and not film

Substrate problem → Check the substrate moisture content and the substrate tension.

If waves are in the film

Low tension between nip & pull roll → Increase air pressure to pull roll clutch.
Roll pressure settings → Adjust nip and pull roll settings as required.

Web Breaks

Web breaks caused by excess tension: If the web breaks between the unwind station and the nip, reduce the unwind brake tension. If the web breaks between the laminating opening and the rewind station, reduce the rewind clutch tension.

Web breaks will occur from faulty material. The AGL laminator will not correct this; the material must be replaced.

Curl in Product

1. Running a hot mount material in cold-mount machine sometimes creates a curl in the finished product.
2. Too much web tension: Reduce unwind brake pressure.
3. Excessive roll pressure: Reduce upper roll pressure.
4. Wrong spacers being used.

Wrinkles in Product

1. Check the adhesive stock for wrinkles while operating. If wrinkles exist, this is a manufacturing material defect, and must be cut out of the roll. A laminator will not correct material defects.
2. String the web straight and square between the unwind and the windup shafts. If it is not straight and square, the tension will not be even across the web and will cause wrinkling.
3. If the web is loose between the unwind and the drive roll, there is not enough pressure on the unwind brake. Increase the pressure on the unwind brake to correct.
4. If the web is loose between the windup and the drive roll, there is not enough pressure on the windup clutch. Increase the pressure on the windup clutch to correct.
5. If the web gets narrow between the unwind and the drive roll, there is too much pressure on the unwind brake. Decrease the pressure on the unwind brake to correct.
6. Top and bottom laminating rolls may not be parallel. Make sure spacer shims are the same size, then zero the nip. Refer to **Zeroing the Nip** in the maintenance section.

Poor Lamination

1. All substrate materials must be cleaned and free of dust, dirt, grease, and any other type film.
2. Poor lamination is usually caused by thickness variation in the substrate materials such as plywood, hard board or other such non-precisely made materials. To overcome this, cylinder spacers may have to be removed and materials laminated without the use of cylinder spacers, or the next smaller spacer may be used or special spacer utilized.
3. Material such as Plexiglas or glass sometimes carry a greasy or oily film. These materials may need to be cleaned with a solvent prior to lamination.
4. Poor lamination can be caused by defective material. To correct this, replace defective material with higher quality material.

Bubbles in Product

1. Visually inspect materials, mounting or overlays for any voids in the adhesive film. If any exist, it cannot be corrected by any laminating machine - that part of the material should be discarded.
2. Low pressure on nip rolls → Increase air pressure to nip rolls.
3. Incorrect shim setting → Adjust shim wheel to correct setting.
4. Nip “zero” setting may be incorrect → Check nip setting and adjust if necessary. Refer to **Zeroing the Nip** in the maintenance section.

Process Control Charts

In order to consistently output high quality product, the operator must have a definite starting point on the many process variables. This can be achieved by having the operators document system settings when you have achieved acceptable quality output. The process control chart will allow any operator to set the machine up for a given process. Keep in mind that the system variables may require adjusting as the process is being run, but the chart gives an excellent starting point. Factors such as temperature, humidity, changing film roll diameters all affect the process, therefore, operator technique in running the machine is inevitable. There is a blank process control chart located on page 4-10, copy this page as often as needed for new processes.

PROCESS CONTROL CHART

Process: _____
Product: _____
Material Top: _____
Material Bottom: _____
Other Material: _____
Date Settings Documented: _____

Front Control Settings	
Speed (Ft/min):	Shim Dial Setting:

Other Instructions: _____

Maintenance

As a result of years of experience, refined engineering and construction techniques, very little time need be lost to maintenance. However, regular maintenance will keep your laminator operating at its optimum level.



WARNING

Removing the enclosure covers to work on machine exposes person to electrocution and moving parts hazard. Only trained service personnel should perform maintenance with any guards or covers removed.

Nip Roll Section

The most critical adjustment of the nip and pull rolls is the “zero” position. This adjustment makes the top roll parallel to the bottom roll which creates even pressure and pull distribution across the face of the roll. If the rolls are out of adjustment, the machine will not laminate properly. Zeroing the nip is done at the factory before shipment, but should be checked at startup and if laminator is not creating quality output.

Checking the Nip

1. Place two pieces of thin paper (approximately 1.0” wide by 12.0” long) between the upper pressure roll and the lower roll (about 3.0” from each end).
2. Set the shim dial to the “0” setting and put the upper pressure roll in the down position by activating pressure roll valve.
3. Pull gently on both pieces of paper, if both pieces of paper have the same drag, the nip is fine, if the drag is different, follow the procedure below to correct the setting. The pull rolls are adjusted the same as the nip rolls.

Zeroing the Nip

1. Loosen the jam nut on the top of the cylinder rod.
2. Adjust the cylinder stop clockwise to raise the roll and counter clockwise to lower the roll.
3. Check the nip using the 3 steps shown in the **Checking the Nip** section.
4. Once the drag on the pieces of paper has been equalized, turn each cylinder stop ¼ turn and lock the jam nut down on top of it.

Cleaning the Nip Rolls



WARNING

Cleaning the nip rolls may require the nip rolls to be rotating. Rotate the rolls at a very slow rate to avoid being pulled into the nip section. Do not wear neck ties, loose clothing or hanging jewelry that could be pulled into the nip section.

The nip rolls should be cleaned as often as necessary, the frequency will vary on the products used and the processes being run. AGL recommends a mild detergent solution or denatured alcohol with a 100% lint free cloth to clean the rolls. Your film manufacturer can recommend solvents that will remove the adhesive from silicone and neoprene rolls without causing damage to the coverings. To facilitate the cleanup process, adhesives should be cleaned from the rolls as soon as possible and while the roll is still warm. A rubber “eraser” has been included in your accessory kit that can be used to clean the adhesive from the warm rolls. Rub the eraser over the adhesive with the rolls turning very slowly. The cloth and alcohol can be used to remove the residue.



CAUTION

Use of incorrect solvents on your nip and pull rolls can cause irreparable damage to the coverings. Advanced Grieg Laminators, Inc. is not responsible for damage to roll coverings caused by these solvents.

Roller open and close rate

The rollers must open and close evenly to prevent excessive wear on the cylinders and bearings. This rate is set at the factory, but can be adjusted in the field. Follow the procedure below to adjust either the pull rolls or nip rolls.



WARNING

Maintenance that requires working on the machine while power and air are connected poses and imminent danger of electrocution or extremities being caught in rotating parts. Only qualified personnel should work on a machine in this state

1. There are flow control fittings on both cylinders, but the fittings on the left hand cylinders will require most of the adjusting.
2. To increase the rate, turn the adjustment screw counter clockwise, to decrease the rate turn the adjustment screw clockwise. The upper fitting controls the "Open" rate, and the lower fitting controls the "Close" rate. Do not rotate the screw more than ½ turn at a time.
3. Adjust the open rate until the rolls open correctly, then proceed with the close rate.
4. Lock the adjustment screw in place with the jam nut. Be careful not to turn the adjustment screw as you tighten the nut.
5. Replace enclosure covers.

Lubrication

The high temp grease that is packed into the upper nip roll bearings will begin to pass by the seal as the machine is used in high temperature applications. The frequency of high heat processes will determine the frequency of adding grease to the bearings. Inspect the nip roll bearings at least weekly for grease outside the seals, regrease as necessary with a high temperature No. 2 consistency bentone-based grease with petroleum oil. Your lubrication vendor can recommend a quality product with this specification. The bearings on the lower roll should be checked for grease leakage after 3 months of use and then every 6 months from there on. The grease is a standard lithium based grease. The grease should be added slowly with the shaft turning until a slight bead forms at the seal.

When the bearings are being greased, the sideplate under the nip lifting plate should also receive a coating of lithium grease.

The chain should be lubricated as needed with a Lubriplate spray chain lubricant. The tension in the chain should be checked at 6 months and tightened to take up any stretching that may have occurred, and then inspected yearly from that point on.

Warranty and Conditions

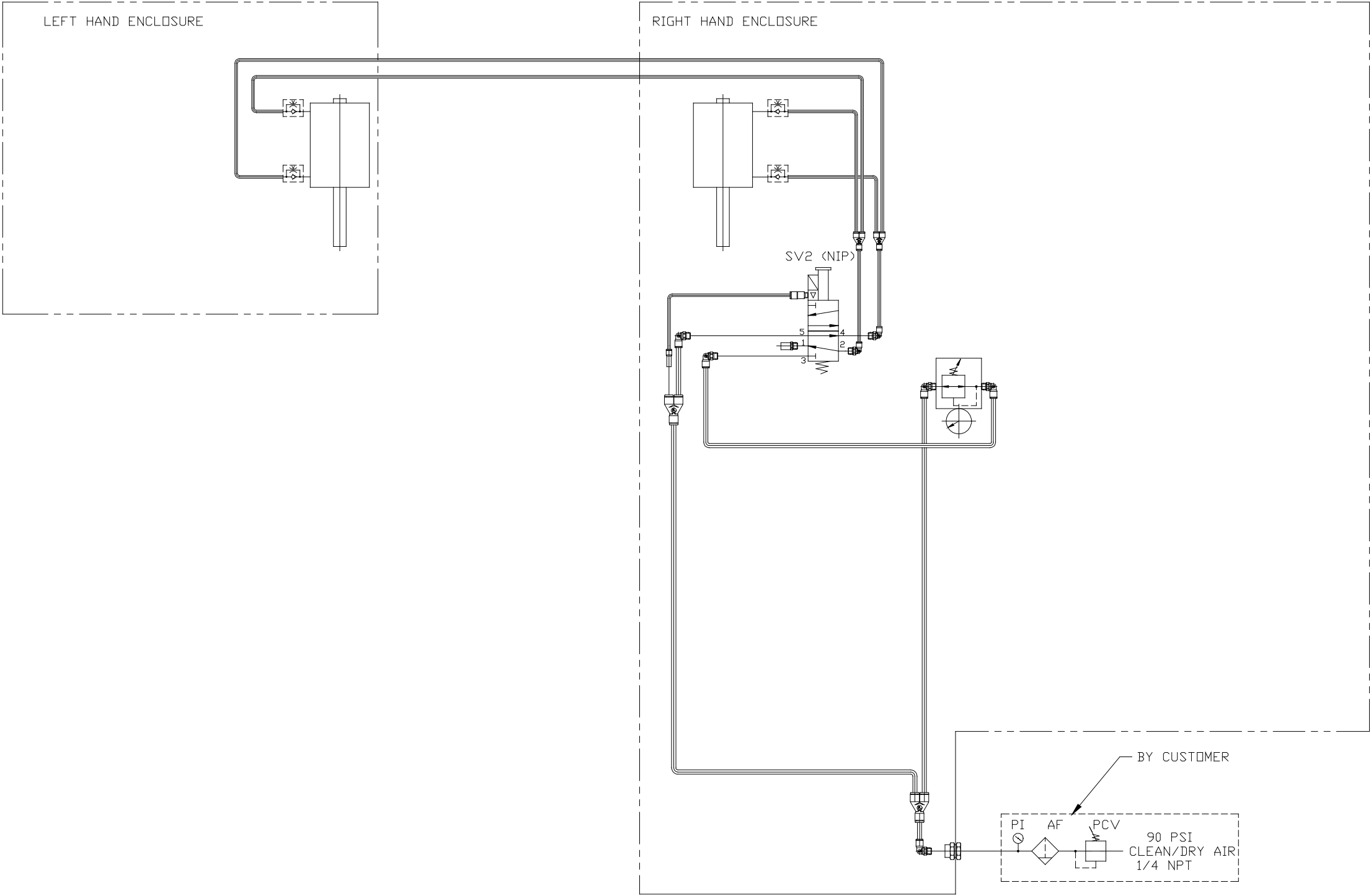
AGL warrants all models of the laminator's product line manufactured to be free from defects in workmanship and materials for a period of one year with the exception of operator caused damage, or surface abrasions to the laminating rolls or other obvious caused damage. Compression set in silicone covered nip rolls can occur when a thicker material combination is run in the same lateral position through the nip roll on a consistent basis. This will permanently damage the silicone cover. Randomizing the lateral position of the process through the nip rolls for continuous production runs will maximize the life of the silicone covering. It is the sole responsibility of the end user to periodically shift the process from one side to the other to prevent compression set from happening. Compression set in the silicone coverings is not covered under the factory warranty. The warranty period will commence on the date it ships from AGL.

This warranty does not apply to any equipment which after delivery has been subject to abuse, accident or alterations by anyone other than persons authorized by AGL.

Component parts such as controls, motors, heating elements, air cylinders, rubber coverings, etc. which are incorporated into the design and manufacture of our laminators are purchased from reputable manufacturers and suppliers and, as such carry their respective warranties. Failure of any components purchased by AGL and incorporated in the laminators carry supplier warranty and to insure proper credit all parts that should fail must be returned freight prepaid for evaluation **LABOR AND ALL RELATED COSTS TO REPLACE THE DEFECTIVE PART WILL BE BORNE ENTIRELY BY THE END USER.** AGL assumes the responsibility of incorporating these various component parts into the fabrication of the laminator and warrants that this will be done in a suitable and workable manner.

AGL offers no warranty for the laminated product and/or process that the machine produces and as such will not be liable for any special, indirect or consequential damages.

NO OTHER WARRANTY IS EXPRESSED OR IMPLIED INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. AGL is not liable for incidental or consequential damage such as, but not limited to, lost profits, loss of use of other equipment or increases in operating costs or expenses.



Bill Of Material

Part #: AGL-64-K6928-1

Appl #:

Assy #:

BOM Rev: -

Model #:

Rev:

Rev:

Date: 11/8/2007

Description: MASTER BILL OF MATERIALS, COMPADRE (FIRST BUILD)

Item:	Part #:	Description:	Qty:
1	AGL-64-K6922-2	MAIN MACHINE FRAME ASSEMBLY	1
2	AGL-64-K6867	NIP ROLL ASSEMBLY, COMPADRE	1
3	AGL-64-K6904	DRIVE ASSEMBLY, COMPADRE	1
4	AGL-64-K6879-1	UNWIND ASSEMBLY, COMPADRE	1
5	AGL-64-K6884-1	RELEASE LINER WINDUP ASSEMBLY, COMPADRE	1
6	AGL-64-K6909	INFEED TABLE ASSEMBLY	1
7	AGL-64-K6924	PNEUMATIC ASSEMBLY, COMPADRE	1
8	AGL-64-K6926	ELECTRICAL ASSEMBLY, COMPADRE	1
9	AGL-XX-K7035-1	PVT SYSTEM, COMPADRE	1
10	AGL-64-K6978-1	REAR TABLE ASSEMBLY	1
11	AGL-XX-K2660-1	ACCESSORIES KIT, COMPADRE	1

Bill Of Material

Part #: AGL-64-K6922-2

Appl #:

Assy #: AGLD6921-2

BOM Rev: -

Model #:

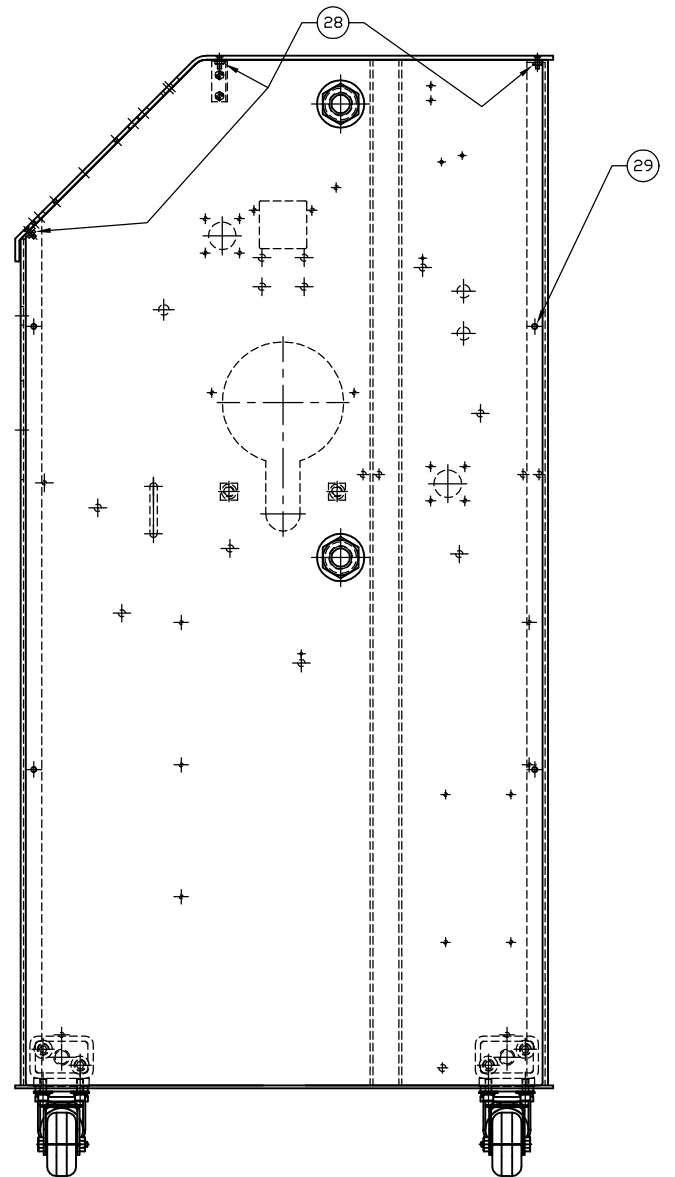
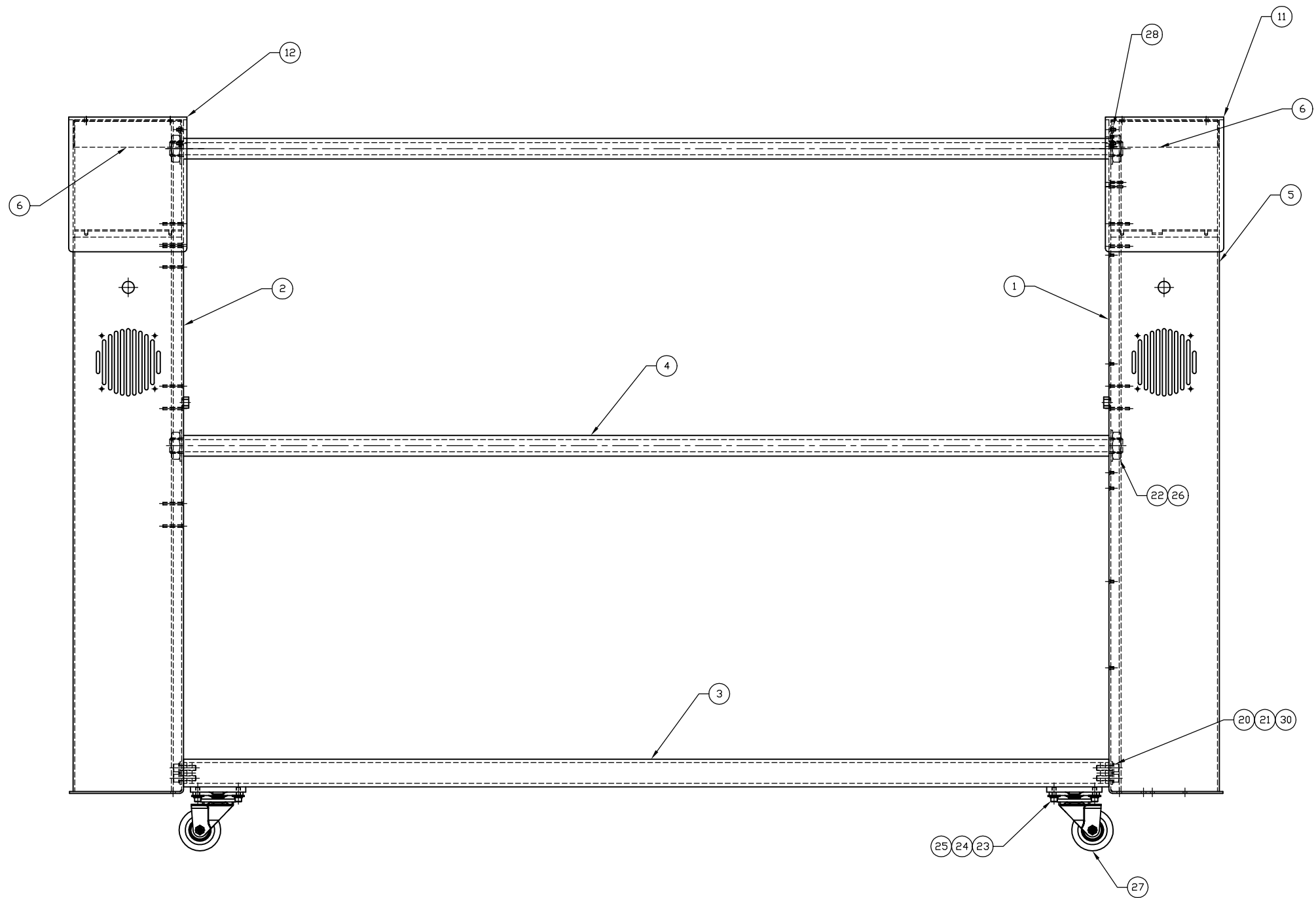
Rev:

Rev: -

Date: 11/1/2007

Description: MAIN MACHINE FRAME ASSEMBLY

Item:	Part #:	Description:	Qty:
1	64-D7255_2of2	RH. ENCLOSURE WELDMENT	1
2	64-D7256_2of2	LH. ENCLOSURE WELDMENT	1
3	AGL-64-B6863-1	LOWER TIE BAR	2
4	AGL-64-B7262	UPPER CROSS TUBE	2
5	AGL-64-C6963	COVER, COMPADRE	2
6	AGL-XX-B6965	BRACKET, TOP SUPPORT	2
11	AGL-64-C6961	RH. TOP	1
12	AGL-64-C6962	LH. TOP	1
20	000013-10	SHCS, 3/8-16UNC, 1-1/4 LG, BLACK	8
21	000493-08	WASHER, LOCK, 3/8 DIA, SPLIT, ZINC	8
22	000198-15	NUT, HEX, JAM, 1-1/8-12UNF, ZINC	4
23	000011-06	SHCS, 5/16-18UNC, 3/4 LG, BLACK	16
24	000207-07	WASHER, FLAT, SAE, 5/16 DIA, 11/16 OD, 11/32 ID, ZINC	16
25	000493-07	WASHER, LOCK, 5/16 DIA, SPLIT, ZINC	16
26	000207-16	WASHER, FLAT, SAE, 1-1/8 DIA, 2-1/4 OD, 1-3/16 ID, ZINC	4
27	012643-02	CASTER, 300 LB, 3" WHEEL W/ BRAKE	4
28	001211-05	NUT, K-LOCK, #10-32UNF, ZINC	16
29	000055-04	BHSCS, #8-32UNC, 1/2 LG, BLACK	8
30	000698-08	WASHER, HARDENED, 3/8	8



REV. NO.	DESCRIPTION	DATE	INT.	ECN

BREAK ALL SHARP EDGES				DO NOT SCALE DWG.			
UNLESS OTHERWISE SPECIFIED				MATERIAL: AGLK6922-2			
0.00 +/-0.015				FINISH:			
0.000 +/-0.005				JOB NO. QTY. DWG. BY. CHK. BY.			
ANGLES +/-5°				SCALE: 1/4" = 1'			
				DATE: 11-13-07			
				DWG. NO. AGL-64-D6921-2			
				REV.			



Advanced Greig Laminators, Inc.
801 Burton Blvd.
DeForest, WI 53532

MAIN MACHINE FRAME ASSEMBLY

Bill Of Material

Part #: AGL-64-K6867

Appl #:

Assy #: AGLD6866

BOM Rev: C

Model #:

Rev:

Rev: C

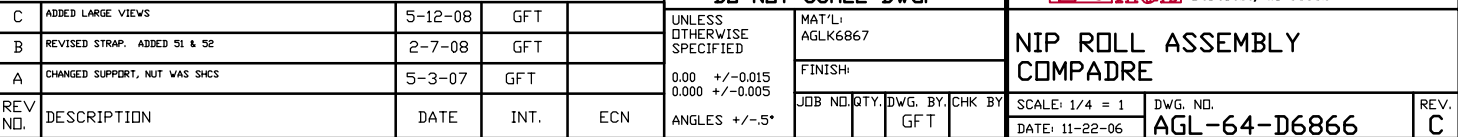
Date: 2/2/2007

Description: NIP ROLL ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
1	AGL-64-D6898	UPPER NIP ROLL, 5.0 DIA. x 66.0 FACE	1
2	AGL-XX-B6864	LIFTING PLATE, NIP ROLL	2
3	AGL-64-D6899	LOWER NIP ROLL, 5.0 DIA. x 66.0 FACE	1
4	AGL-XX-B6900	BRACKET, THERMOCOUPLE MTG.	2
5	AGL-XX-B6639	STRAP, HEATER SUPPORT	2
6	AGL-XX-B6982	SHIM SHAFT SUPPORT, COMPADRE	2
7	AGL-64-C6897	SINGLE ROD HEATER, COMPADRE, 1000 WATTS	1
8	AGL-64-B0015	SHIM WHEEL	2
9	AGL-64-B0913-1	STOP, CYLINDER, TAPPED	2
10	AGL-XX-B6773-1	THREADED ROD, 5/16-18UNC x 3.50 LG.	4
20	012633-23	BEARING, FLANGE, 2-BOLT, 1-7/16 DIA BORE	4
21	001457-09	AIR CYLINDER, 2 DIA BORE, 1 1/4" STROKE, FINE THD	2
22	000011-04	SHCS, 5/16-18UNC, 1/2 LG, BLACK	8
23	001211-05	NUT, K-LOCK, #10-32UNF, ZINC	4
24	001392-15	PLUNGER, SPRING, LEP, 3/8-16UNC, 5/8 LG	2
25	000289-16	PIN, DOWEL, 3/8 DIA, 2 LG	2
26	000129-06	SSS, CUP PT, #10-24UNC, 3/8 LG, BLACK	2
27	000732-06	BUSHING, BRONZE, 3/8 ID, 1/2 OD, 3/4 LG	4
28	012514-01	PHMS, SLOTTED, #5-40UNC, 3/16 LG, ZINC	4
29	000349-10	HHCS, 1/2-13UNC, 1-1/4 LG, ZINC	4
30	000493-10	WASHER, LOCK, 1/2 DIA, SPLIT, ZINC	8
31	000195-09	NUT, HEX, JAM, 1/2-13UNC, ZINC	4
32	000097-12	FHSCS, 1/2-13UNC, 1-1/2 LG, BLACK	4
33	000793-04	WASHER, FLAT, TEFLON, WHITE, 1/32 THK, .28 ID. x .50 OD.	8
34	012623-05	SHOULDER SCREW, 1/4 DIA, 5/16 LG (#10-24UNC)	4
35	000195-06	NUT, HEX, JAM, 5/16-18UNC, ZINC	8
36	006137-48	THERMOCOUPLE, TYPE J, KAPTON BRKT STYLE, 48" LEAD	1
37	000198-07	NUT, HEX, JAM, 3/8-24UNF, ZINC	4

Part #: AGL-64-K6867**Appl #:****Assy #:** AGLD6866**BOM Rev:** C**Model #:****Rev:****Rev:** C**Date:** 2/2/2007**Description:** NIP ROLL ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
38	000417-07	COLLAR, SHAFT, 2-PIECE, 7/16 DIA BORE, 11/32 WIDE	2
39	012672-01	SPRING, COMPRESSION, 0.85 OD, 0.08 THICK, 2.00 LG,MW	1
40	000161-24	SSS, CUP PT, 3/8-24UNF, 1-1/2 LG, BLACK	4
41	001350-07	WASHER, FLAT, USS, 5/16 DIA, 7/8 OD, 3/8 ID, ZINC	4
42	002728-04	MTG. BRACKET, SERIES 10, RIGHT ANGLE	2
43	000553-06	PHMS, SLOTTED, #4-40UNC, 3/4 LG, ZINC	2
44	001211-01	NUT, K-LOCK, #4-40UNC, ZINC	2
45	012348-08	SSS, NYLON TIPPED, 1/4-20UNC, 1 LG. BLACK	1
46	000071-04	BHSCS, #10-32UNF, 1/2 LG, BLACK	2
47	000053-02	BHSCS, #6-32UNC, 1/4 LG, BLACK	4
48	001211-04	NUT, K-LOCK, #10-24UNC, ZINC	4
49	012686-05	SLEEVING, COATED FIBERGLASS, 3/8" NOMINAL	6
50	001089-01	CABLE TIE, NYLON, WHITE, 4" LG	4
51	000003-06	SHCS, #6-32UNC, 3/4 LG, BLACK	2
52	000055-06	BHSCS, #8-32UNC, 3/4 LG, BLACK	1



Bill Of Material

Part #: AGL-64-K6904

Appl #:

Assy #: AGLC6903

BOM Rev: C

Model #:

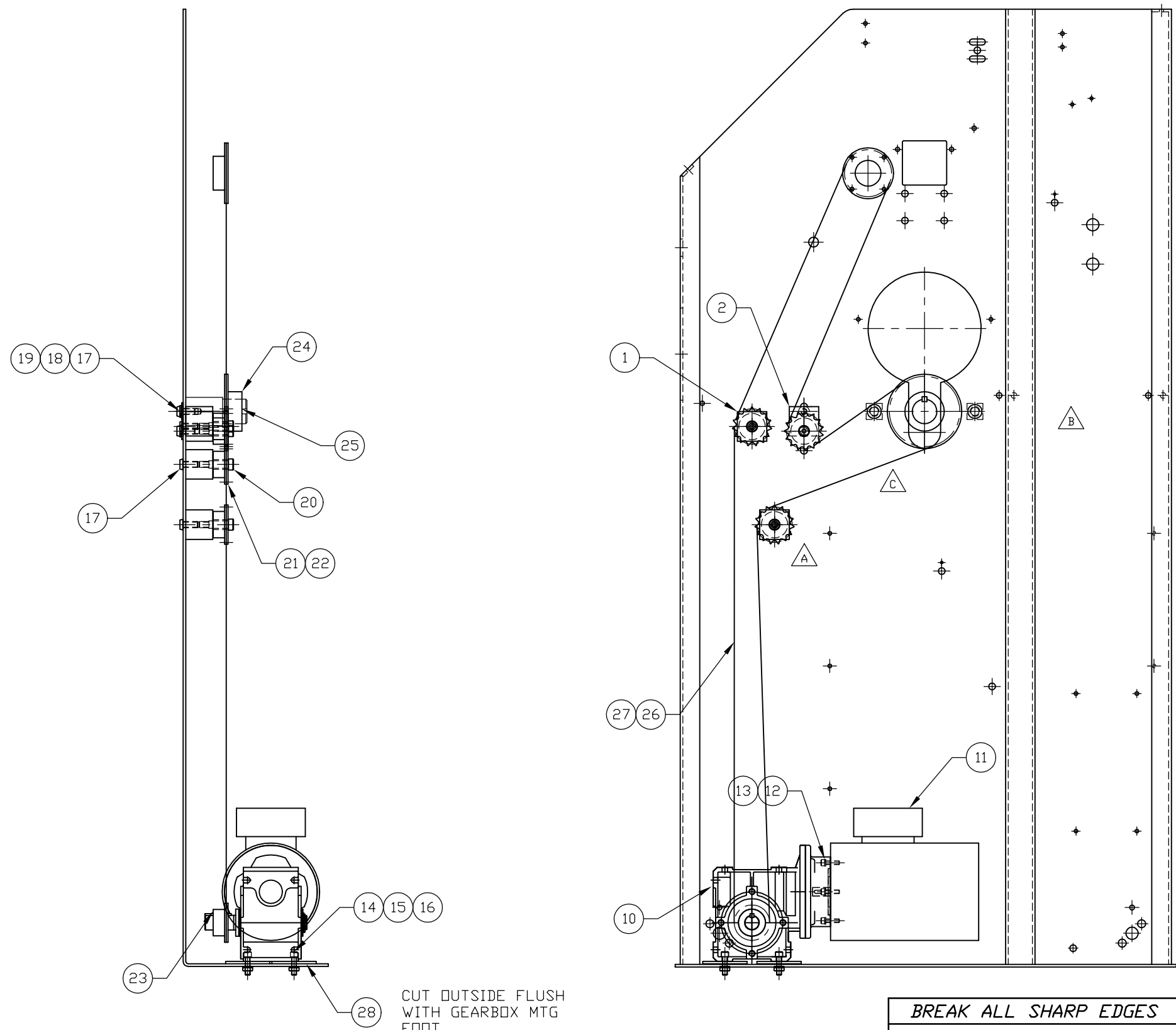
Rev:

Rev: C

Date: 2/8/2007


Description: DRIVE ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
1	AGL-64-B0048-2	IDLER, 1.38 LG.	2
2	AGL-64-B0049-3	IDLER TENSIONER, 1.38 LG.	1
10	012638-01	GEAR BOX, 80:1, 63B14 FACE	1
11	006138-01	MOTOR, 1/4HP, AC, 3 PHASE	1
12	001329-20	SHCS, M5-.8, 20mm LG., BLACK	4
13	001478-05	WASHER, LOCK, M5, ZINC	4
14	000009-08	SHCS, 1/4-20UNC, 1 LG, BLACK	4
15	000493-06	WASHER, LOCK, 1/4 DIA, SPLIT, ZINC	4
16	000195-05	NUT, HEX, JAM, 1/4-20UNC, ZINC	4
17	000061-06	BHSCS, 5/16-18UNC, 3/4 LG, BLACK	4
18	000493-07	WASHER, LOCK, 5/16 DIA, SPLIT, ZINC	2
19	000207-07	WASHER, FLAT, SAE, 5/16 DIA, 11/16 OD, 11/32 ID, ZINC	2
20	000635-08	SHOULDER SCREW, 3/8 DIA, 1 LG (5/16-18UNC)	3
21	000732-08	BUSHING, BRONZE, 3/8 ID, 1/2 OD, 1 LG	3
22	000912-15	SPROCKET, 3/8 PITCH, 0.50 DIA BORE, 15 TOOTH	3
23	001487-15	SPROCKET, 3/8 PITCH, 3/4 BORE, 15 TEETH	1
24	001401-30	SPROCKET, 3/8 PITCH, 1-1/4 BORE, 30 TEETH	1
25	001330-08	KEY, 0.25 SQ, 1.00 LG, CRS	1
26	012141-344	CHAIN, #35, 344 PITCHES (129")	1
27	001275	CHAIN, #35, CONNECTING LINK	1
28	012495-03	WASHER, RUBBER, 2.25 OD. X .38 ID. X .13 THICK	4



C	REMOVED IDLER	6-4-08	GFT	
B	REMOVED PRODUCT WINDUP	11-2-07	GFT	
A	ADDED IDLER	5-4-07	GFT	
REV NO.	DESCRIPTION	DATE	INT.	ECN

BREAK ALL SHARP EDGES				
DO NOT SCALE DWG.				
UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK6904		
0.00 +/-0.015		FINISH:		
0.000 +/-0.005		JDB NO. QTY. DWG. BY. CHK BY		
ANGLES +/- .5°		GFT		



Advanced Greig Laminators, Inc.
801 Burton Blvd.
DeForest, WI 53532

DRIVE ASSEMBLY
COMPADRE

SCALE: 1/4" = 1"	DWG. NO.	REV.
DATE: 2-8-07	AGL-64-C6903	C

Bill Of Material

Part #: AGL-64-K6879-1

Appl #:

Assy #: AGLB6878-1

BOM Rev: -

Model #:

Rev:

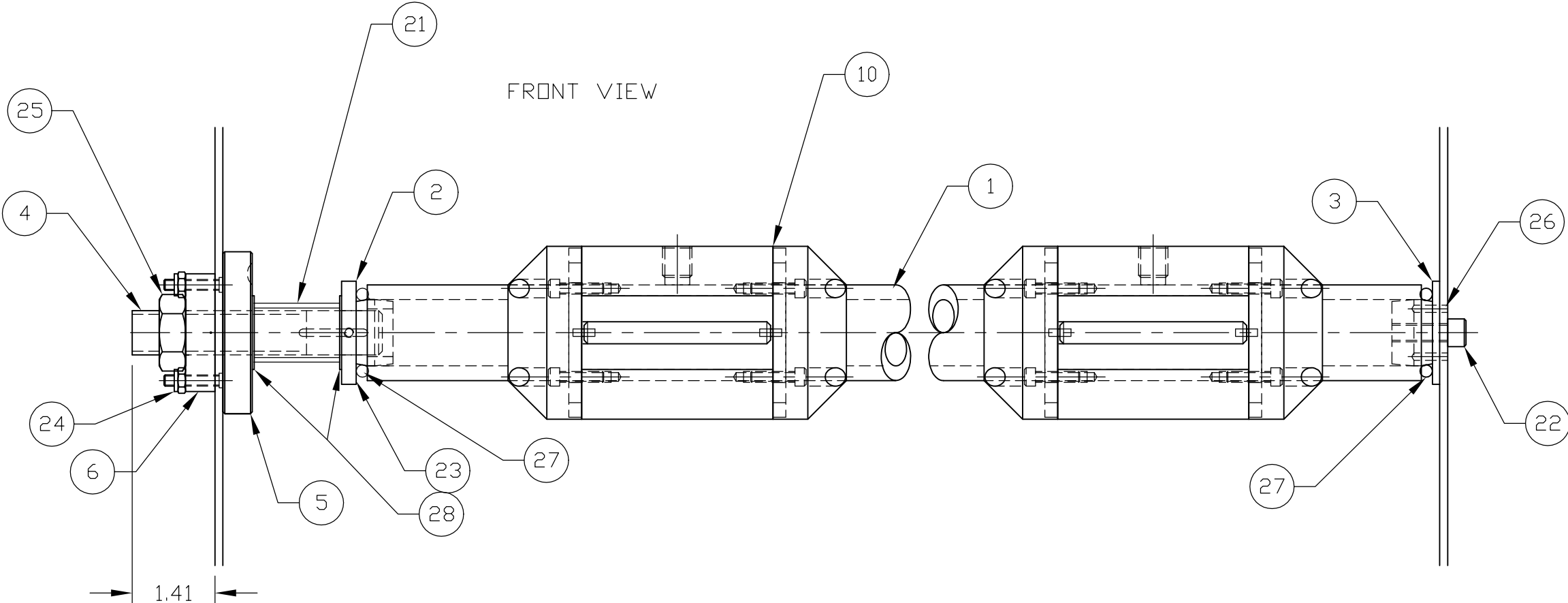
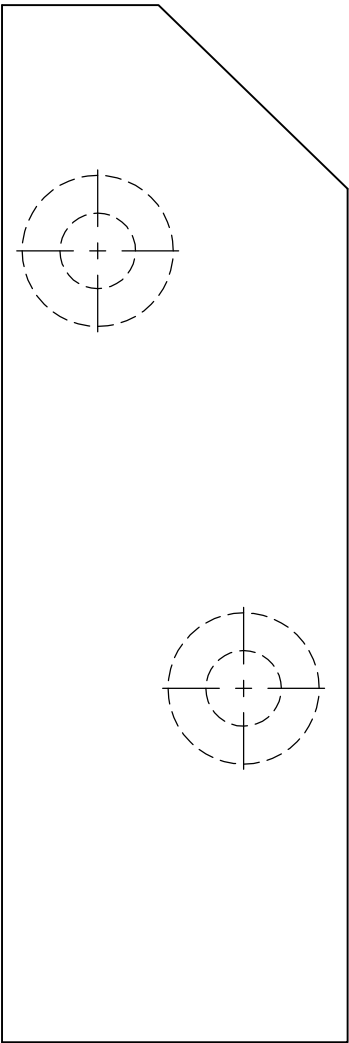
Rev: -


Date: 11/2/2007

Description: UNWIND ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
1	AGL-64-B6869	UNWIND/WINDUP TUBE	2
2	AGL-XX-B6870-1	TUBE SUPPORT, IDLER END, ORING	2
3	AGL-XX-B6871-1	TUBE SUPPORT, BRAKE END, ORING	2
4	AGL-XX-B6873-1	STUD, UNWIND/WINDUP	2
5	AGL-XX-B6876-2	ADJUSTMENT WHEEL, 2.75 DIA.	2
6	AGL-XX-B6877	SUPPORT, STUD	2
10	AGL-XX-B5124	CORE HOLDER, 1-5/8 BORE, NO FLANGE	4
21	012634-02	SPRING, COMPRESSION, 1.00 OD. X .08 WIRE x 1.75 LG.	2
22	000011-06	SHCS, 5/16-18UNC, 3/4 LG, BLACK	2
23	012635-08	SSS, DOG PT, #8-32UNC, 1/2 LG, BLACK	4
24	000654-04	NUT, HEX, NYLOCK, #10-32UNF, ZINC	8
25	000195-12	NUT, HEX, JAM, 3/4-10UNC, ZINC	2
26	000217-04	PIN, SPRING, 1/8 DIA, 1/2 LG	2
27	012710-314	ORING, SIZE 314, BUNA-N	4
28	012105-12	BEARING, THRUST, WASHER, 3/4 DIA BORE, .03 THICK	4

UNWIND STATION LOCATIONS



BREAK ALL SHARP EDGES					<div>AGL^{INC.}</div> <div>Advanced Greig Laminators, Inc. 801 Burton Blvd. DeForest, WI 53532</div>				
DO NOT SCALE DWG.									
UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK6879-1			UNWIND ASSEMBLY				
		FINISH:							
0.00 +/-0.015 0.000 +/-0.005		JOB NO.	QTY.	DWG. BY. GFT	CHK BY	SCALE: 1/2 = 1		DWG. NO. AGL-64-B6878-1	REV.
ANGLES +/- .5°						DATE: 11-2-07			

Bill Of Material

Part #: AGL-64-K6884-1

Appl #:

Assy #: AGLC6883-1

BOM Rev: -

Model #:

Rev:

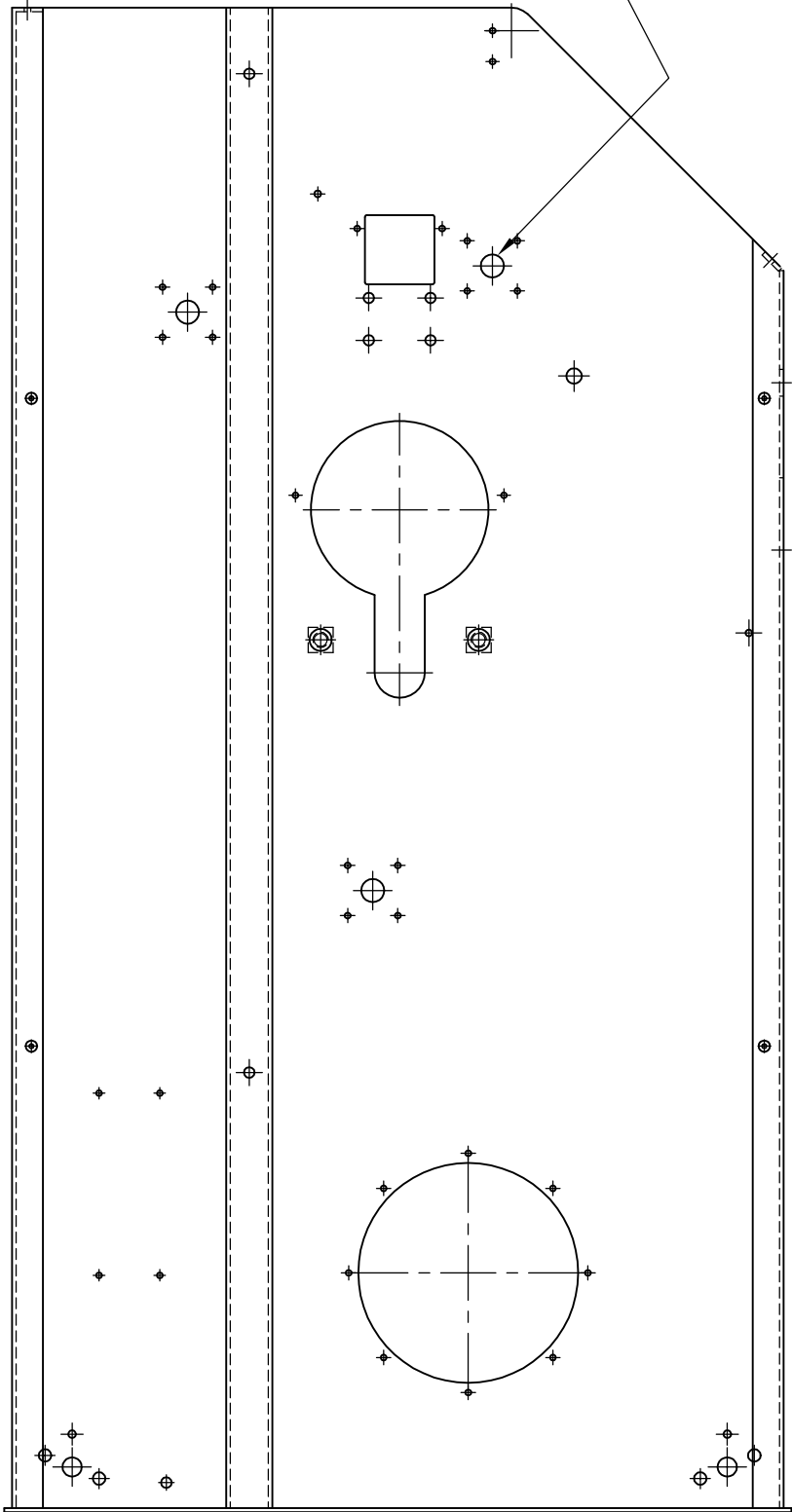
Rev: -

Date: 11/2/2007

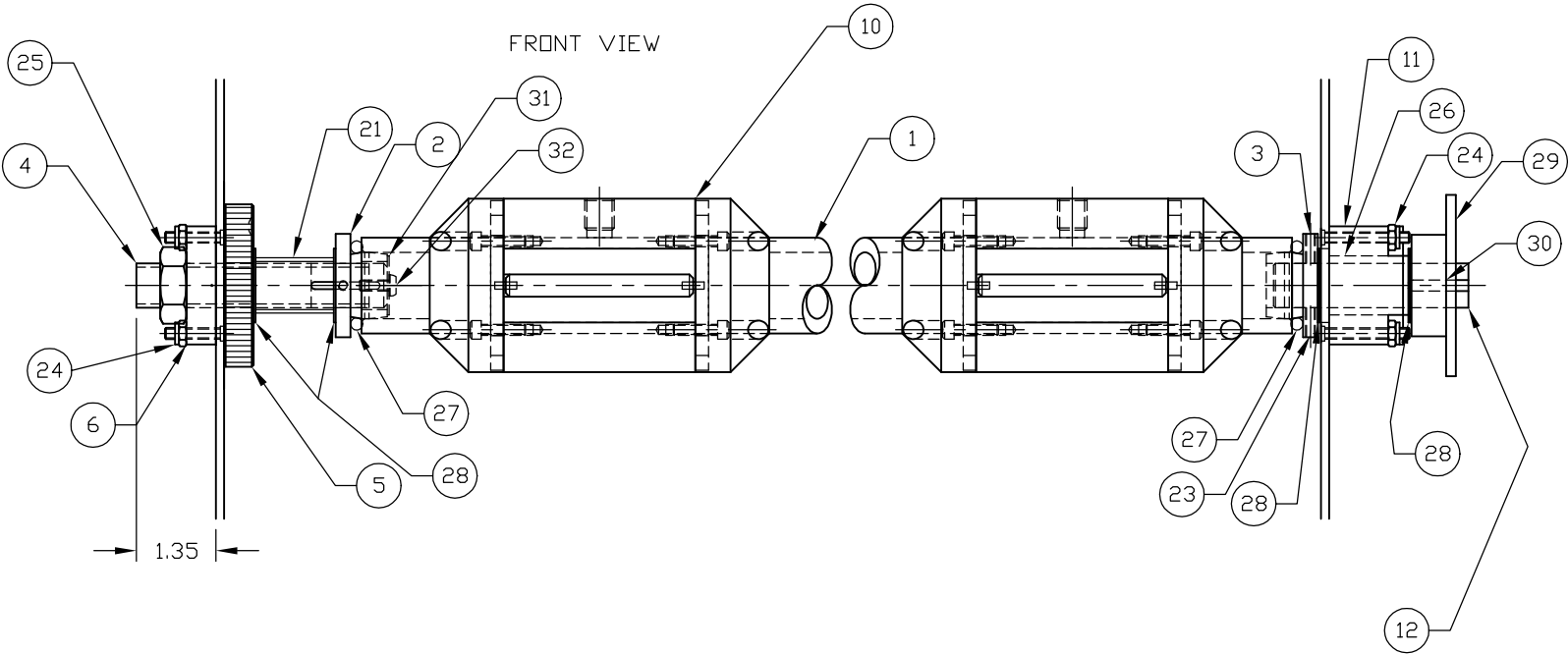
Description: RELEASE LINER WINDUP ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
1	AGL-64-B6869	UNWIND/WINDUP TUBE	1
2	AGL-XX-B6870-1	TUBE SUPPORT, IDLER END, ORING	1
3	AGL-XX-B6872-1	TUBE SUPPORT, CLUTCH END, ORING	1
4	AGL-XX-B6873-1	STUD, UNWIND/WINDUP	1
5	AGL-XX-B6876-2	ADJUSTMENT WHEEL, 2.75 DIA.	1
6	AGL-XX-B6877	SUPPORT, STUD	1
10	AGL-XX-B5124	CORE HOLDER, 1-5/8 BORE, NO FLANGE	2
11	AGL-XX-B6875	BEARING BLOCK	1
12	AGL-XX-B6874	WINDUP DRIVE SHAFT	1
21	012634-02	SPRING, COMPRESSION, 1.00 OD. X .08 WIRE x 1.75 LG.	1
22	012711-60	CORE, 3" NOMINAL ID, .25 WALL x 60" LG.	1
23	000127-08	SSS, CUP PT, #8-32UNC, 1/2 LG, BLACK	2
24	000654-04	NUT, HEX, NYLOCK, #10-32UNF, ZINC	8
25	000195-12	NUT, HEX, JAM, 3/4-10UNC, ZINC	1
26	000743-12	BUSHING, FLANGE, BRONZE, 3/4 ID, 1 OD, 1-1/2 LG	1
27	012710-314	ORING, SIZE 314, BUNA-N	2
28	012105-12	BEARING, THRUST, WASHER, 3/4 DIA BORE, .03 THICK	4
29	012161-20	SPROCKET, 3/8 PITCH, 0.75 DIA BORE, 20 TOOTH	1
30	001317-07	KEY, 0.188 SQ, 0.88 LG, CRS	1
31	012663-07	WASHER, 1.0" OD. X .20" ID. X .03 THICK, ZINC PLATED STEEL	1
32	000071-04	BHSCS, #10-32UNF, 1/2 LG, BLACK	1


RELEASE LINER WINDUP LOCATION



22 CORE LOADED AND SHIPPED WITH MACHINE



REV NO.	DESCRIPTION	DATE	INT.	ECN

BREAK ALL SHARP EDGES				 Advanced Greig Laminators, Inc. 801 Burton Blvd. DeForest, WI 53532				
DO NOT SCALE DWG.								
UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK6884-1		RELEASE LINER WINDUP ASSEMBLY, COMPADRE				
		FINISH:						
0.00 +/-0.015 0.000 +/-0.005		JOB NO.	QTY.	DWG. BY:	CHK BY	SCALE: 1/2 = 1	DWG. NO.	REV.
ANGLES +/- .5°				GFT		DATE: 11-2-07	AGL-64-C6883-1	

Bill Of Material

Part #: AGL-64-K6909

Appl #:

Assy #: AGLC6908

BOM Rev: B

Model #:

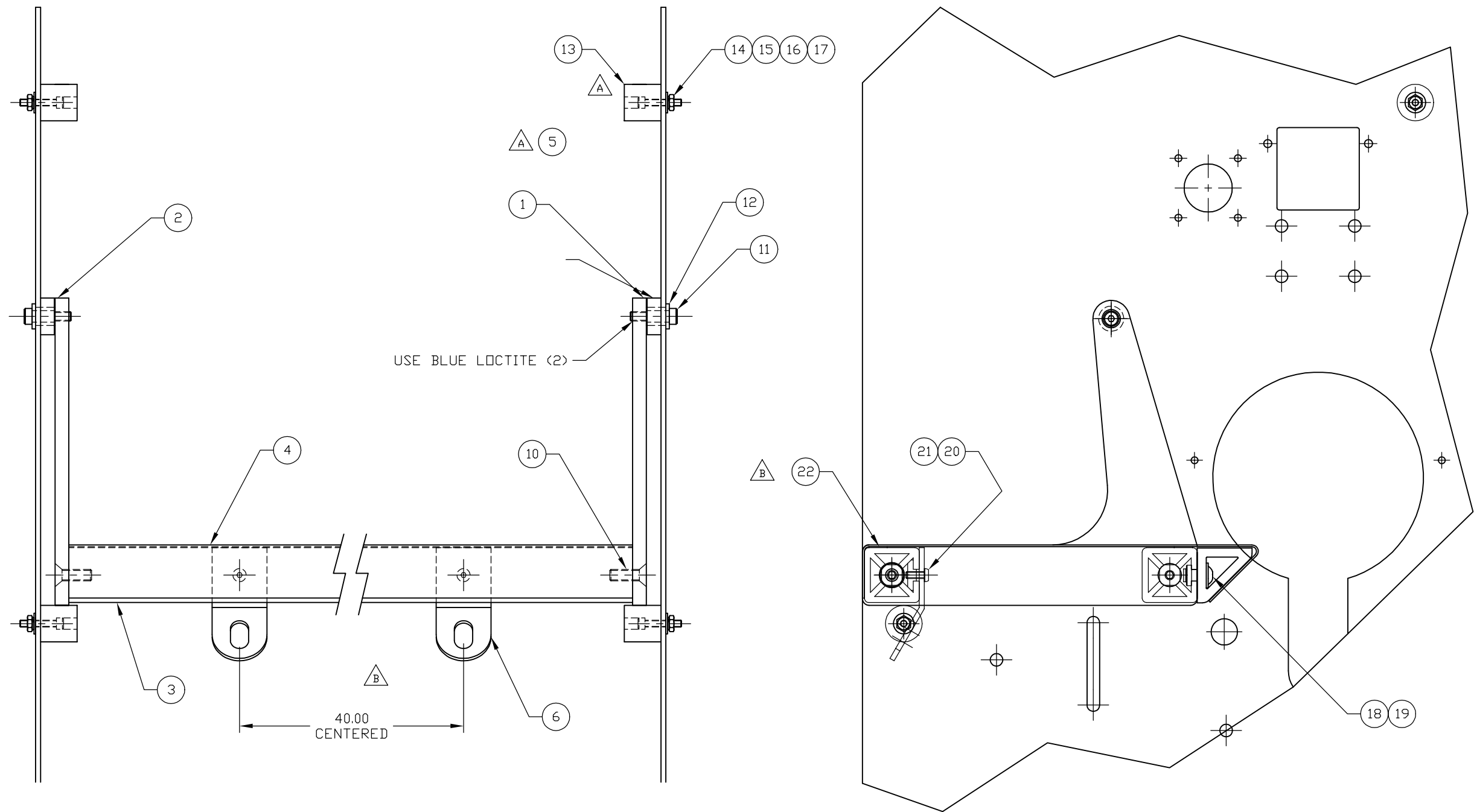
Rev:



Rev: B

Date: 2/9/2007


Description: INFEED TABLE ASSEMBLY

Item:	Part #:	Description:	Qty:
1	AGL-XX-B6905-1	TABLE END, RH	1
2	AGL-XX-B6905-2	TABLE END, LH	1
3	AGL-64-B6906	EXTRUSION MOD. 1.5 SQ. x 65.46 LG.	2
4	AGL-64-C6907	TABLE SKIN	1
5	AGL-XX-B6970	SPACER, TABLE ARM	2
6	AGL-XX-B4328	HANGING BRACKET, BASKET	2
7	AGL-64-D4329	INFEED BASKET	1
10	000091-10	FHSCS, 5/16-18UNC, 1-1/4 LG, BLACK	4
11	000633-04	SHOULDER SCREW, 5/16 DIA, 1/2 LG (1/4-20UNC)	2
12	012642-05	BUSHING, FLANGE, BRONZE, 5/16 ID, 1/2 OD, 5/8 LG	2
13	001411-04	BUMPER, ROUND, 1.0 DIA x 1.00 LG, C'BORE FOR #10	4
14	000007-08	SHCS, #10-24UNC, 1 LG, BLACK	4
15	000207-04	WASHER, FLAT, SAE, #10 DIA, 1/2 OD, 7/32 ID, ZINC	4
16	000493-04	WASHER, LOCK, #10 DIA, SPLIT, ZINC	4
17	000201-04	NUT, HEX, #10-24UNC, ZINC	4
18	012640-01	GUSSET, 1.5 x 1.5	4
19	012641-01	HARDWARE, BHSCS 5/16-18UNC x .63 LG. & ECONOMY NUT	4
20	000071-04	BHSCS, #10-32UNF, 1/2 LG, BLACK	2
21	012326-08	T-NUT, 8mm, #10-32UNF THREADS	2
22	012393	DOUBLE SIDED TAPE	120



  INFEEED BASKET NOT SHOWN

B	ADDED INFEEED BASKET, #22	11-20-07	GFT	
A	ADDED #5, CHANGED BUMPER	4-26-07	GFT	
REV NO.	DESCRIPTION	DATE	INT.	ECN

BREAK ALL SHARP EDGES				 Advanced Greig Laminators, Inc. 801 Burton Blvd. DeForest, WI 53532				
DO NOT SCALE DWG.								
UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK6909		INFEEED TABLE ASSEMBLY				
		FINISH:						
0.00 +/-0.015		JOB NO.	QTY.	DWG. BY: GFT	CHK BY	SCALE: 1/2 = 1	DWG. NO. AGL-64-C6908	REV. B
0.000 +/-0.005						DATE: 2-9-07		
ANGLES +/-5°								

Bill Of Material

Part #: AGL-64-K6924

Appl #:

Assy #: AGLC6923

BOM Rev: -

Model #:

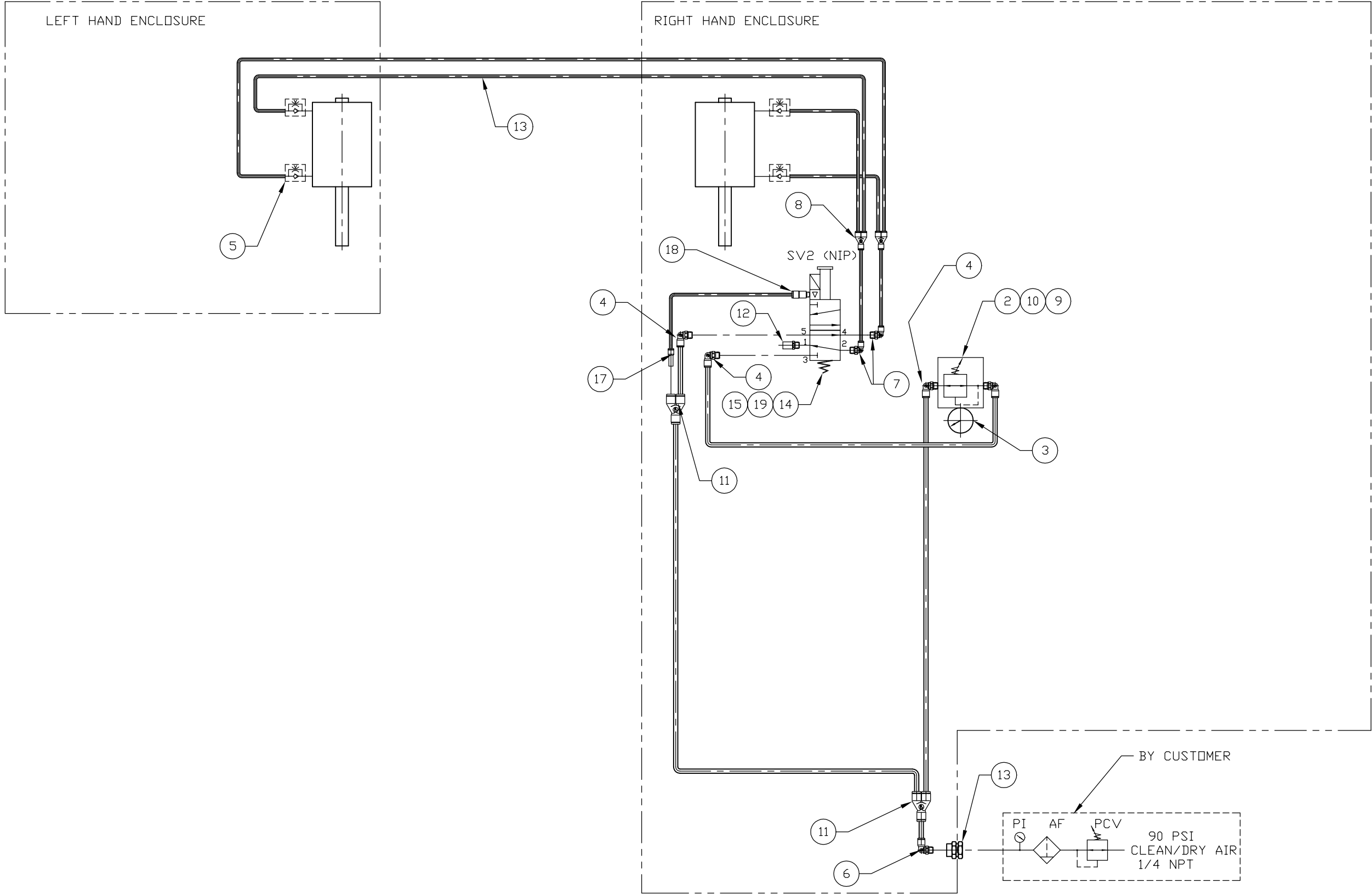
Rev:

Rev: -

Date: 2/14/2007

Description: PNEUMATIC ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
1	012263-05	TUBING, 1/4" OD, BLACK	15
2	001294	REGULATOR, PRESSURE, 1/8NPT	1
3	012234-03	GUAGE, PRESSURE, 0-100PSI, 1/8NPT, PANEL MNT.	1
4	000847-10	FITTING, PIPE, ELBOW, MALE, 1/4 OD, 1/8 NPT	4
5	000861-02	FITTING, PIPE, FLOW CONTROL, ELBOW, 5/32 OD, 1/8 NPT	4
6	000847-12	FITTING, PIPE, ELBOW, MALE, 1/4 OD, 1/4 NPT	1
7	000847-06	FITTING, PIPE, ELBOW, MALE, 5/32 OD, 1/8 NPT	2
8	000855-01	FITTING, TUBE, "Y", 5/32 OD TUBE	2
9	001211-05	NUT, K-LOCK, #10-32UNF, ZINC	2
10	012010-02	BRACKET KIT, REGULATOR	1
11	000855-04	FITTING, TUBE, "Y", 1/4 OD TUBE	2
12	012011-01	MUFFLER, EXHAUST, 1/8NPT	1
13	000822-02	FITTING, PIPE, BULKHEAD, 1/4 NPT, 3/4-16UNC	1
14	012303-04	VALVE, SOLENOID, 2 POSITION, 24VDC, EXT. PILOT	1
15	001211-03	NUT, K-LOCK, #8-32UNC, ZINC	2
16	012262-05	TUBING, 5/32" OD, BLACK	85
17	012280-05	FITTING, REDUCER, PLUG-IN, 1/4 TUBE-5/32 TUBE	1
18	000845-02	FITTING, PIPE, MALE, 5/32 OD,10-32UNF	1
19	012572-04	CONNECTOR, SOLENOID VALVE	1



REV NO.	DESCRIPTION	DATE	INT.	ECN

BREAK ALL SHARP EDGES				AGL Advanced Greig Laminators, Inc. 801 Burton Blvd. DeForest, WI 53532			
DO NOT SCALE DWG.				PNEUMATIC ASSEMBLY COMPADRE			
UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK6924		SCALE: 1/4" = 1"		DWG. NO. AGL-64-C6923	
0.00 +/-0.015		FINISH:		DATE: 2-14-07		REV.	
0.000 +/-0.005		JOB NO. QTY. DWG. BY. CHK BY					
ANGLES +/-5°		GFT					

Bill Of Material

Part #: AGL-64-K6926	Appl #:	Assy #:	BOM Rev: B
Model #:	Rev:	Rev:	Date: 2/15/2007
Description: ELECTRICAL ASSEMBLY, COMPADRE			

Item:	Part #:	Description:	Qty:
0	AGL-64-D6925-1	CONTROL SCHEMATIC, COMPADRE	REF.
1	AGL-64-B0104	BRACKET, MOUNTING, OVERTEMP CONTROLLER	1
2	AGL-XX-C7000	SUBPANEL, COMPADRE	1
20	002728-01	EMITTER, SERIES 10	1
21	002427-04	SWITCH, FOOT, SPDT, MTD. IN GUARD, 16' CABLE	1
22	006140-01	DRIVE, AC, 115Vin, 230V 3ph out	1
24	006141-01	SWITCH, PUSHBUTTON, MOMENTARY, ILLUMINATED, 16mm, GREEN, SPDT	2
25	006142-01	SWITCH, PUSHBUTTON, MOMENTARY, 16mm, RED, SPDT	2
26	002099-10	LABEL, .50 x 1.50, VINYL, SELF LAMINATING	50
27	001883-05	TERMINAL BLOCK, 35MM, 10-26 AWG, GRAY, UK5N 12K5521	51
28	001879-01	DIN RAIL, 35MM WIDE, 7.5MM HIGH, 2 MT LG, NS35/7.5	30
29	006142-03	SWITCH, PUSHBUTTON, MOMENTARY, 16mm, YELLOW, DPDT	1
30	002448-01	CORD GRIP, LIQUID-TIGHT, 1/2" NPT, 0.20-0.35 DIA, BLK	1
31	001089-01	CABLE TIE, NYLON, WHITE, 4" LG	50
32	001090-01	CABLE TIE, MOUNT, ADHESIVE-BACKED, 3/4" SQ	35
33	001876-10	TERMINAL BLOCK, GND, 35MM, 8-20 AWG, USLKG10 29C3451	8
34	002544-02	WIRE, THERMOCOUPLE, TYPE J, #20AWG,SHIELDED, 1000 FT ROLL	5
35	002728-02	RECEIVER, SERIES 10	1
36	001886-01	BAR, JUMPER, 10-POS, #FB10-6 (10 pcs.per bag)	1
37	006015-02	SWITCH, ROCKER, SPST, ILLUMINATED, GREEN	1
38	000718-00	WIRE, STRANDED, 12 AWG, BLACK	20
39	001089-02	CABLE TIE, NYLON, WHITE, 5.5" LG	15
40	001090-02	CABLE TIE, MOUNT, ADHESIVE-BACKED, 1" SQ	15
41	001875-01	FUSE HOLDER, TERMINAL BLOCK, 35MM MTG, (NOW INCLUDES 001881-01)	2
42	001882-01	FUSE HOLDER, TERMINAL BLOCK, 6-20 AWG, UK 10.3 HESi, 30A	2
43	006113-015	FUSE, FAST-BLO, 15A, 600V, CC RATED, 13/32x1-1/2"	1
44	001530-015	FUSE, SLO-BLO, 1.5A, 250V, 1/4X1-1/4"	1
45	001530-050	FUSE, SLO-BLO, 5.0A, 250V, 1/4X1-1/4"	1

Part #: AGL-64-K6926	Appl #:	Assy #:	BOM Rev: B
Model #:	Rev:	Rev:	Date: 2/15/2007

Description: ELECTRICAL ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
46	006143-01	LAMP, INDICATOR, 24VDC LED, GREEN	1
47	002507-04	END COVER, TERMINAL BLOCK, D-UK4/10	2
48	006141-02	SWITCH, PUSHBUTTON, MOMENTARY, ILLUMINATED, 16mm, RED, SPDT	1
49	002728-03	CABLE, SERIES 10, 2M LG.	1
50	001509-08	TERMINAL, RING, INSULATED, BRAZED SEAM, 12-10 AWG, #10 STUD	12
51	001509-07	TERMINAL, RING, INSULATED, BRAZED SEAM, 16-14 AWG, #6 STUD	12
52	000557-03	PHMS, SLOTTED, #8-32UNC, 3/8 LG, ZINC	2
53	001211-05	NUT, K-LOCK, #10-32UNF, ZINC	16
54	000581-02	PHMS, PHILLIPS, #10-32UNF, 1/4 LG, ZINC	11
55	006134-09	CONTACTOR, 3-POLE, 25A, 24VDC, 1 AUX	1
56	002512-01	LEGEND, HIGH VOLTAGE	2
57	002511-01	ALARM, PANEL MTG, 3-28VDC	1
58	006162-03	CORD, #14AWG, NEMA15-5 TO IEC C19, 8' LG.	1
59	001966	LUG, GROUNDING, 1/0-14AWG	1
60	000337-04	HHCS, 1/4-20UNC, 1/2 LG, ZINC	1
61	000493-06	WASHER, LOCK, 1/4 DIA, SPLIT, ZINC	1
62	001826-08	POWER SUPPLY, SINGLE, 24VDC, 2.1A	1
63	002337-01	SOCKET, RELAY, 11-PIN, DIN RAIL MTG, FINGER SAFE	2
64	000715-00	WIRE, STRANDED, 18 AWG, BLACK	10
65	002728-05	CABLE, SERIES 10, 5M LG.	1
66	002974-01	RELAY, MIDGET, 3PDT, 24VDC	2
67	001352-06	STANDOFF, HEX, M/F, #10-32UNC, 3/4 LG, AL	4
68	002523-08	FERRULE, INSULATED, 18AWG, WIDE COLLAR	30
69	002523-02	FERRULE, INSULATED, 14AWG, STD LENGTH, BLUE	6
70	000717-24	WIRE, STRANDED, 14 AWG, GREEN/YELLOW	2
71	002955-01	WIRE DUCT, 1 x 1-1/2, WHITE	144.0
72	000581-04	PHMS, PHILLIPS, #10-32UNF, 1/2 LG, ZINC	4
73	001211-03	NUT, K-LOCK, #8-32UNC, ZINC	2
74	000573-02	PHMS, PHILLIPS, #4-40UNC, 1/4 LG, ZINC	2

Part #: AGL-64-K6926	Appl #:	Assy #:	BOM Rev: B
Model #:	Rev:	Rev:	Date: 2/15/2007

Description: ELECTRICAL ASSEMBLY, COMPADRE

Item:	Part #:	Description:	Qty:
75	002523-10	FERRULE, INSULATED, 12AWG, STD LENGTH, GRAY	8
76	002523-02	FERRULE, INSULATED, 14AWG, STD LENGTH, BLUE	2
77	002512-07	LEGEND, DANGER PINCH POINT (2.5x4)	4
78	002512-03	LEGEND, DO NOT OPERATE WITHOUT GUARDS IN PLACE	2
79	002512-08	LEGEND, DANGER HOT (2.5x4)	2
80	002506	SWITCH ASSY, PUSHBUTTON, E-STOP	2
81	001625-08	CONTROLLER, TEMP, THERMOCOUPLE, 3-OUTPUTS	1
82	001623-50	RELAY, 50A, 240V, 1-PHASE	1
83	006004-67	RIBBON SWITCH, 4' LEADS, 4 WIRE, YELLOW, 67" LG.	2
84	002974-02	RELAY, MIDGET, 1PDT, 24VDC	1
85	002337-06	SOCKET, RELAY, 5-PIN, DIN RAIL MTG	1
86	012393	DOUBLE SIDED TAPE	134
87	002345-221	RESISTOR, METAL-FILM, 1%, 1/4W, 221 OHM	1
88	002856-03	TERMINAL, FEMALE, FULLY INSULATED, 22-18 AWG,.110	20
89	002893-02	END BARRIER, FUSE BLOCK	1
90	006113-010	FUSE, FAST-BLO, 10A, 600V, CC RATED, 13/32x1-1/2"	1
91	006154-01	POWER ENTRY MODULE, SWITCHED	1
92	002961-015	CIRCUIT BREAKER, CLASS 720, SINGLE POLE, 15 A	1
93	012686-05	SLEEVEING, COATED FIBERGLASS, 3/8" NOMINAL	6

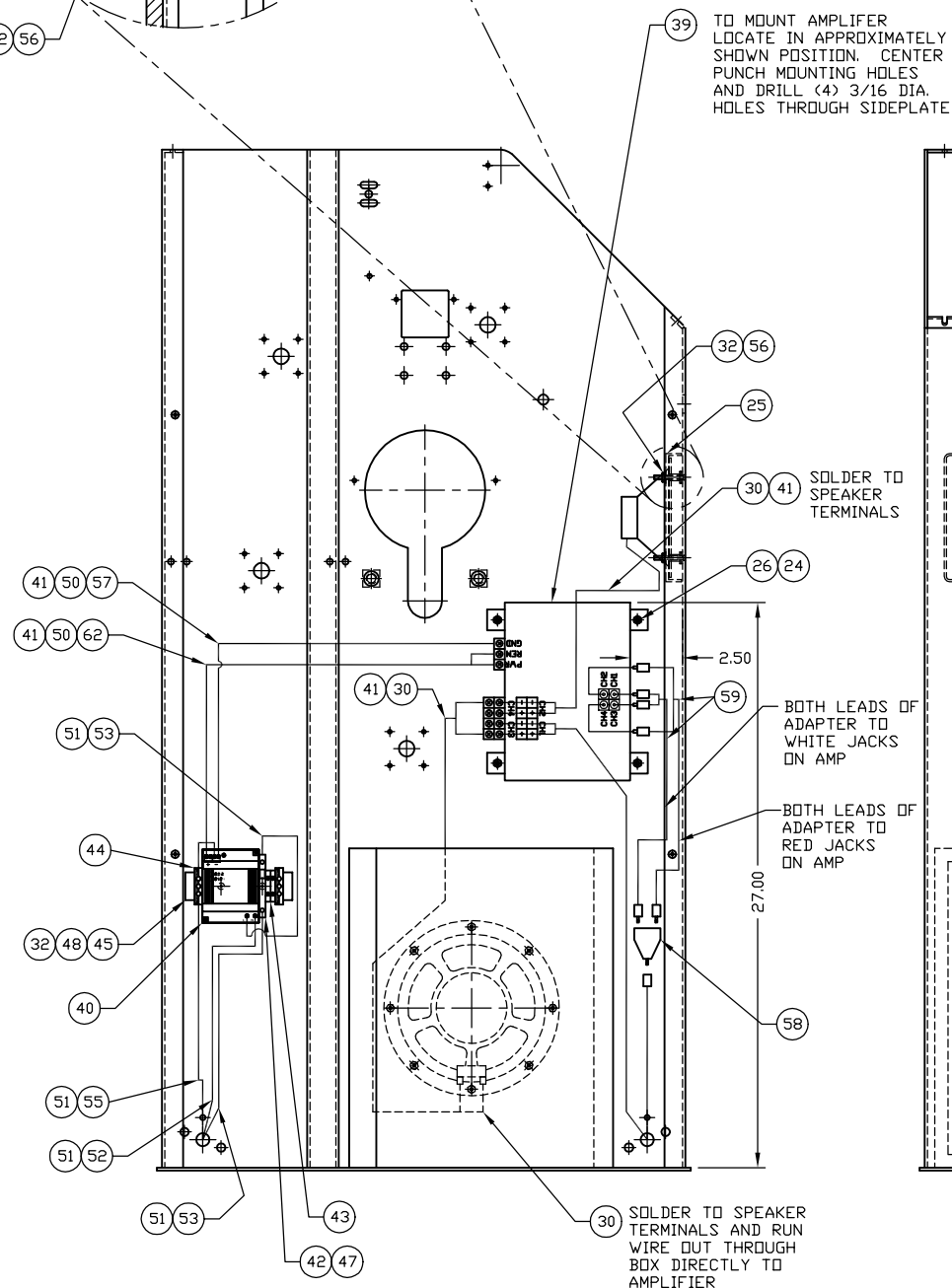
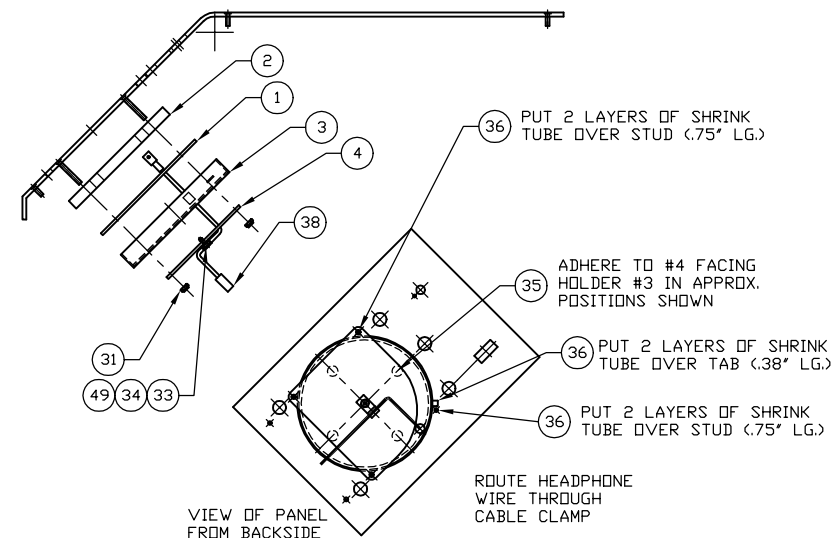
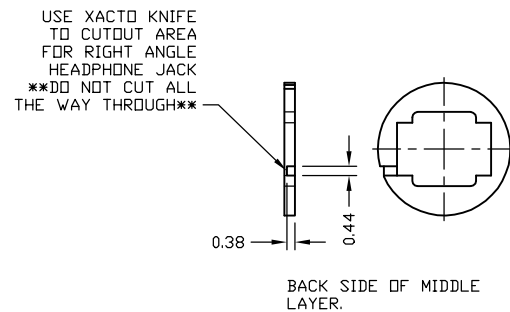
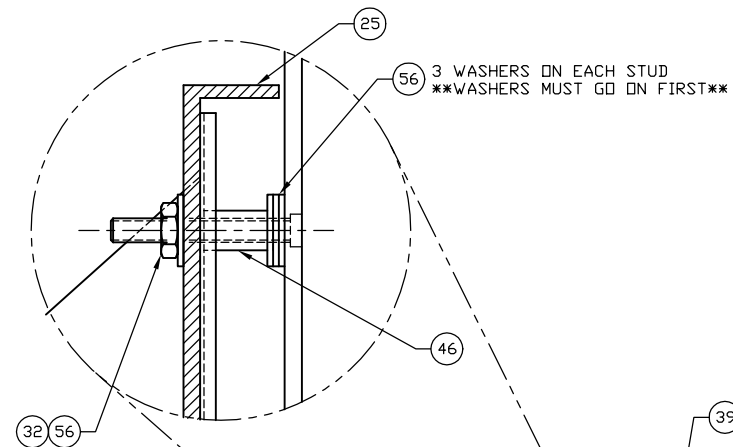
Bill Of Material

Part #: AGL-XX-K7035-1 **Appl #:** **Assy #:** AGLD7033-1 **BOM Rev:** A
Model #: **Rev:** **Rev:** A **Date:** 10/31/2007
Description: PVT SYSTEM, COMPADRE

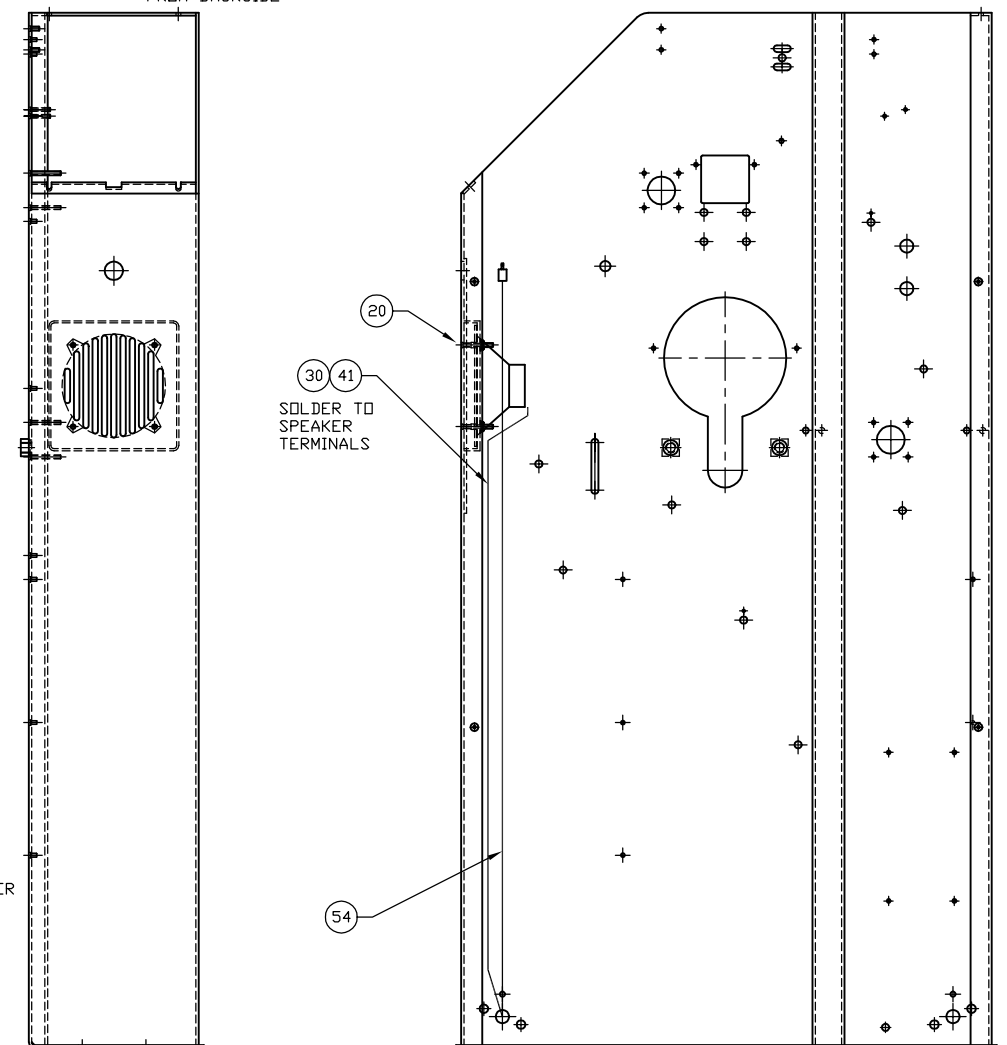
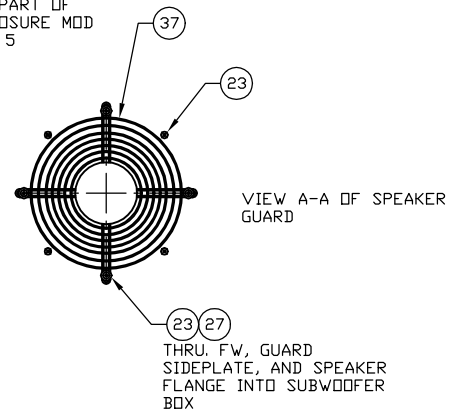
Item:	Part #:	Description:	Qty:
1	AGL-XX-B6986	BOTTOM LAYER, HOLDER	1
2	AGL-XX-B6987	MIDDLE LAYER, HOLDER	1
3	AGL-XX-B6991	HOLDER WELDMENT	1
4	AGL-XX-B7032	SUPPORT, ZUNE HOLDER	1
5	AGL-XX-C7253	SUBWOOFER BOX MODIFICATION	1
20	006156-01	SPEAKER, 5-1/4", 2 WAY, PAIR	1
21	000055-04	BHSCS, #8-32UNC, 1/2 LG, BLACK	20
22	006156-02	SPEAKER, 8", SUBWOOFER	1
23	000055-12	BHSCS, #8-32UNC, 1-1/2 LG, BLACK	8
24	000651-03	NUT, HEX, NYLOCK, #8-32UNC, ZINC	4
25	006156-03	DEPTH EXTENDER, 5-1/4 SPEAKER (PAIR)	1
26	000055-06	BHSCS, #8-32UNC, 3/4 LG, BLACK	4
27	000207-03	WASHER, FLAT, SAE, #8 DIA, 7/16 OD, 3/16 ID, ZINC	4
30	006152-05	WIRE, SPEAKER, TWO CONDUCTOR, 16AWG	20
31	000654-04	NUT, HEX, NYLOCK, #10-32UNF, ZINC	3
32	001211-05	NUT, K-LOCK, #10-32UNF, ZINC	10
33	012599-08	SSS, BRASS TIP, #8-32UNC, 1/2" LG.	1
34	012227-105	CLAMP, CABLE, 1/4"	1
35	012679-01	FELT PADS, 1/2" DIA. x .13 THICK, BLACK	4
36	002440-04	TUBING, SHRINK, 1/4", BLACK	.25
37	012682-200	FAN GUARD, WIRE, 200mm FAN	1
38	006152-01	HEADPHONE EXTENSION, 3.5mm RIGHT ANGLE PLUG TO 3.5mm JACK	1
39	006157-04	AMPLIFIER, 4 CHANNEL. 400 WATT	1
40	001826-09	POWER SUPPLY, SINGLE, 12VDC, 4.5A	1
41	002908-01	TERMINAL, FORK, INSULATED, 16-14AWG, #10 STUD	9
42	001875-01	FUSE HOLDER, TERMINAL BLOCK, 35MM MTG, (NOW INCLUDES 001881-01)	1
43	001883-05	TERMINAL BLOCK, 35MM, 10-26 AWG, GRAY, UK5N 12K5521	2
44	001876-10	TERMINAL BLOCK, GND, 35MM, 8-20 AWG, USLKG10 29C3451	2

Part #: AGL-XX-K7035-1**Appl #:****Assy #:** AGLD7033-1**BOM Rev:** A**Model #:****Rev:****Rev:** A**Date:** 10/31/2007**Description:** PVT SYSTEM, COMPADRE

Item:	Part #:	Description:	Qty:
45	001879-01	DIN RAIL, 35MM WIDE, 7.5MM HIGH, 2 MT LG, NS35/7.5	3
46	012722-13	SPACER, ROUND, NYLON, #10, .31 DIA. x 1/2 LG	8
47	001531-150	FUSE, FAST-BLO, 15A, 250V, 1/4X1-1/4"	1
48	000071-03	BHSCS, #10-32UNF, 3/8 LG, BLACK	2
49	001211-03	NUT, K-LOCK, #8-32UNC, ZINC	1
50	002523-01	FERRULE, INSULATED, 16AWG, STD LENGTH, BLACK	2
51	002523-02	FERRULE, INSULATED, 14AWG, STD LENGTH, BLUE	7
52	000717-09	WIRE, STRANDED, 14 AWG, WHITE	15
53	000717-00	WIRE, STRANDED, 14 AWG, BLACK	15
54	006152-02	HEADPHONE EXTENSION, 3.5mm PLUG TO 3.5mm JACK, 12' LG.	1
55	000717-24	WIRE, STRANDED, 14 AWG, GREEN/YELLOW	3
56	000207-04	WASHER, FLAT, SAE, #10 DIA, 1/2 OD, 7/32 ID, ZINC	32
57	000716-39	WIRE, STRANDED, 16 AWG, BLUE/WHT	3
58	006152-03	SPLITTER, (1) 3.5mm PLUG TO (2) 3.5mm JACK	1
59	006152-04	ADAPTER, (1) 3.5mm PLUG TO (2) RCA JACK	2
60	012708-01	TEE NUT, NO PRONGS, #8-32UNC	8
61	012707-8	ENCLOSURE, 8" SUBWOOFER	1
62	000716-03	WIRE, STRANDED, 16 AWG, BLUE	3



ITEMS 60 & 61 ARE PART OF ENCLOSURE MOD ITEM 5



STORE EXCESS SPEAKER AND AUDIO CABLE TO SIDE OF SUBWOOFER ENCLOSURE

A REVISED AND REDRAWN		3-14-08	GFT		UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK7035-1		PVT SYSTEM COMPADRE		SCALE: 1/4" = 1"	DWG. NO. AGL-XX-D7033-1	REV. A
REV. NO.	DESCRIPTION	DATE	INT.	ECN	0.00 +/-0.015 0.000 +/-0.005	ANGLES +/- .5°	JOB NO.	QTY.	DWG. BY: GFT	CHK BY:	DATE: 10-31-07		

BREAK ALL SHARP EDGES
DO NOT SCALE DWG.

AGL Advanced Greig Laminators, Inc.
801 Burton Blvd.
DeForest, WI 53532

Bill Of Material

Part #: AGL-64-K6978-1

Appl #:

Assy #: AGLB6977-1

BOM Rev: -

Model #:

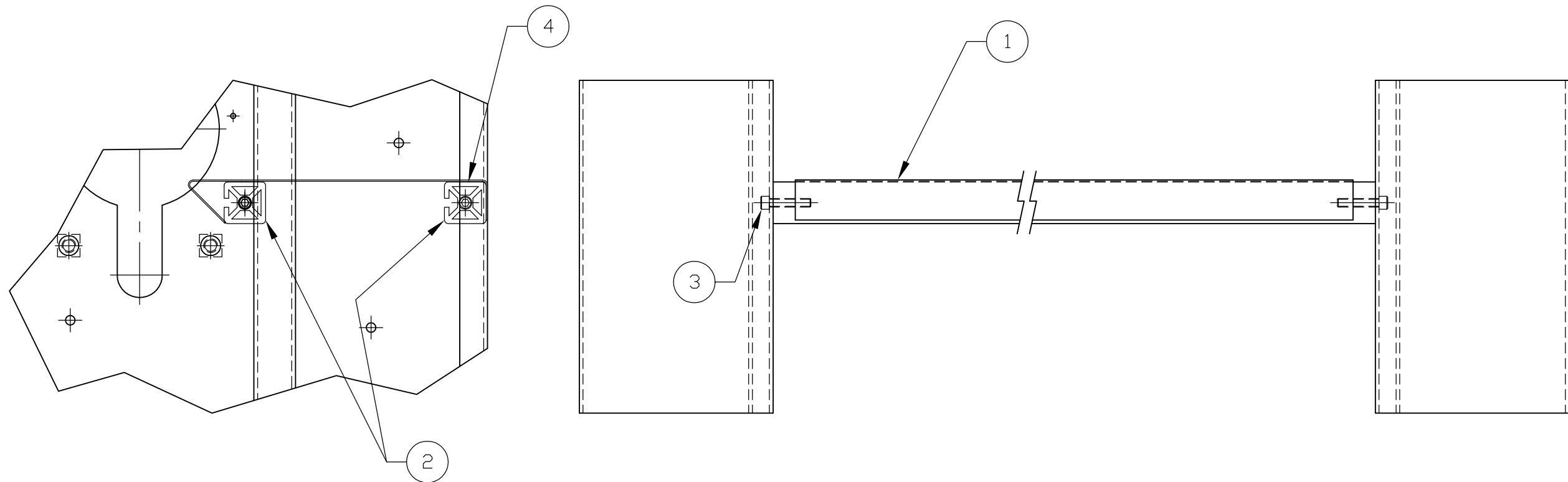
Rev:


Rev: -

Date: 10/30/2007

Description: REAR TABLE ASSEMBLY

Item:	Part #:	Description:	Qty:
1	AGL-64-C6907	TABLE SKIN	1
2	AGL-64-B6885	EXTRUSION, MOD. 1.5 SQ. x 67.00 LG.	2
3	000011-12	SHCS, 5/16-18UNC, 1-1/2 LG, BLACK	4
4	012393	DOUBLE SIDED TAPE	120



					BREAK ALL SHARP EDGES				 Advanced Greig Laminators, Inc. 801 Burton Blvd. DeForest, WI 53532			
					DO NOT SCALE DWG.							
					UNLESS OTHERWISE SPECIFIED		MAT'L: AGLK6978-1		REAR TABLE OPTION ASSEMBLY			
FINISH:												
REV NO.	DESCRIPTION	DATE	INT.	ECN	0.00 +/-0.015	JOB NO.	QTY.	DWG. BY. GFT	CHK BY	SCALE: 1/4 = 1	DWG. NO. AGL-64-B6977-1	REV.
					0.000 +/-0.005					DATE: 10-30-07		
					ANGLES +/- .5°							

Bill Of Material

Part #: AGL-XX-K2660-1

Appl #:

Assy #:

BOM Rev: -

Model #:

Rev:

Rev:

Date: 1/30/2008

Description: ACCESSORIES KIT, COMPADRE

Item:	Part #:	Description:	Qty:
1	012235-01	CUTTER, ZIPPY	1
2	012236-01	ROLL ADHESIVE ERASER, PLAIN, SHRINKWRAPPED	1
3	001446-04	ALLEN WRENCH, LONG ARM, 3/32, T-HANDLE	1
4	012248	CLOTH, LOW LINT, 12x13	1
5	012249	ALCOHOL, ISOPROPYL, 1 PINT	1
6	001530-015	FUSE, SLO-BLO, 1.5A, 250V, 1/4X1-1/4"	1
7	006113-015	FUSE, FAST-BLO, 15A, 600V, CC RATED, 13/32x1-1/2"	1
8	006113-010	FUSE, FAST-BLO, 10A, 600V, CC RATED, 13/32x1-1/2"	1
9	001530-050	FUSE, SLO-BLO, 5.0A, 250V, 1/4X1-1/4"	2
10	006176-01	ZUNE MEDIA PLAYER, 30 GB, BLACK	1
11	006176-02	CD, COMPADRE STARTUP VIDEOS	1
12	X6	OPERATORS MANUAL	1