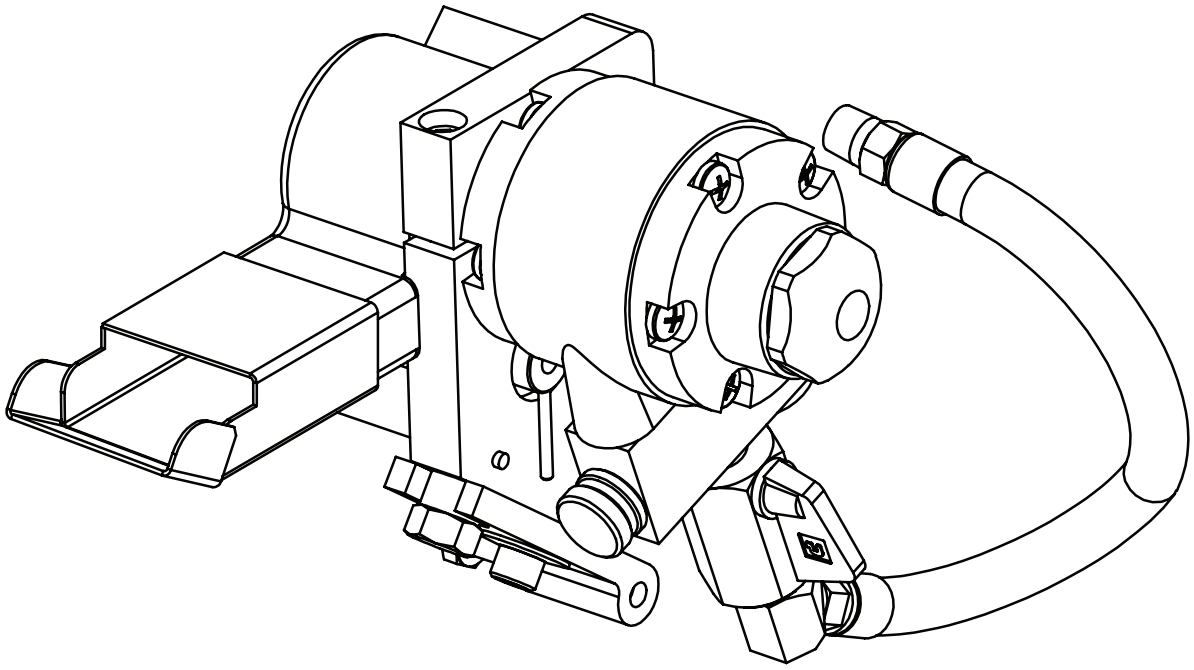
MODEL 201-510 ROVING CUTTER



⚠ WARNING

Extreme caution needed when using this product. Cutters have sharp blades which are rotating at high speed. Never operate this product with the safety guard removed.

The 201-510 Roving Cutter is designed to cut glass roving into short lengths (1/4" to 1"), and dispense them into the resin fan. When properly adjusted, the glass/resin mixture will need a minimum amount of rolling.

The air supply hose must have a minimum 5/16" ID. Lower air pressures or a smaller diameter hose could result in poor operation.

Max. Air Consumption: 27cfm (47 m^3/h)
Max. Air Inlet Pressure: 80 psi (5.52 bar)

201-510 ROVING CUTTER PACKAGE CONTENTS	
207-12194	ANGLED CHUTE
207-10903	SPARE PARTS KIT

In this part sheet, the words **WARNING**, **CAUTION** and **NOTE** are used to emphasize important safety information as follows:

⚠ WARNING
Hazards or unsafe practices which could result in severe personal injury, death or substantial property damage.

⚠ CAUTION
Hazards or unsafe practices which could result in minor personal injury, product or property damage.

NOTE
Important installation, operation or maintenance information.

⚠ WARNING

Read the following warnings before using this equipment.

READ THE MANUAL
Before operating finishing equipment, read and understand all safety, operation and maintenance information provided in the operation manual.

OPERATOR TRAINING
All personnel must be trained before operating finishing equipment.

EQUIPMENT MISUSE HAZARD
Equipment misuse can cause the equipment to rupture, malfunction, or start unexpectedly and result in serious injury.

LOCK OUT / TAG-OUT
Failure to de-energize, disconnect, lock out and tag-out all power sources before performing equipment maintenance could cause serious injury or death.

AUTOMATIC EQUIPMENT
Automatic equipment may start suddenly without warning.

PRESSURE RELIEF PROCEDURE
Always follow the pressure relief procedure in the equipment instruction manual.

KEEP EQUIPMENT GUARDS IN PLACE
Do not operate the equipment if the safety devices have been removed.

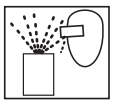
KNOW WHERE AND HOW TO SHUT OFF THE EQUIPMENT IN CASE OF AN EMERGENCY

WEAR SAFETY GLASSES
Failure to wear safety glasses with side shields could result in serious eye injury or blindness.

INSPECT THE EQUIPMENT DAILY
Inspect the equipment for worn or broken parts on a daily basis. Do not operate the equipment if you are uncertain about its condition.

NEVER MODIFY THE EQUIPMENT
Do not modify the equipment unless the manufacturer provides written approval.

NOISE HAZARD
You may be injured by loud noise. Hearing protection may be required when using this equipment.



PROJECTILE HAZARD
You may be injured by venting liquids or gases that are released under pressure, or flying debris.

PINCH POINT HAZARD
Moving parts can crush and cut. Pinch points are basically any areas where there are moving parts.

STATIC CHARGE
Fluid may develop a static charge that must be dissipated through proper grounding of the equipment, objects to be sprayed and all other electrically conductive objects in the dispensing area. Improper grounding or sparks can cause a hazardous condition and result in fire, explosion or electric shock and other serious injury.

WEAR RESPIRATOR
Toxic fumes can cause serious injury or death if inhaled. Wear a respirator as recommended by the fluid and solvent manufacturer's Safety Data Sheet.

TOXIC FLUID & FUMES
Hazardous fluid or toxic fumes can cause serious injury or death if splashed in the eyes or on the skin, inhaled, injected or swallowed. LEARN and KNOW the specific hazards or the fluids you are using.

FIRE AND EXPLOSION HAZARD
Improper equipment grounding, poor ventilation, open flame or sparks can cause a hazardous condition and result in fire or explosion and serious injury.

MEDICAL ALERT
Any injury caused by high pressure liquid can be serious. If you are injured or even suspect an injury:

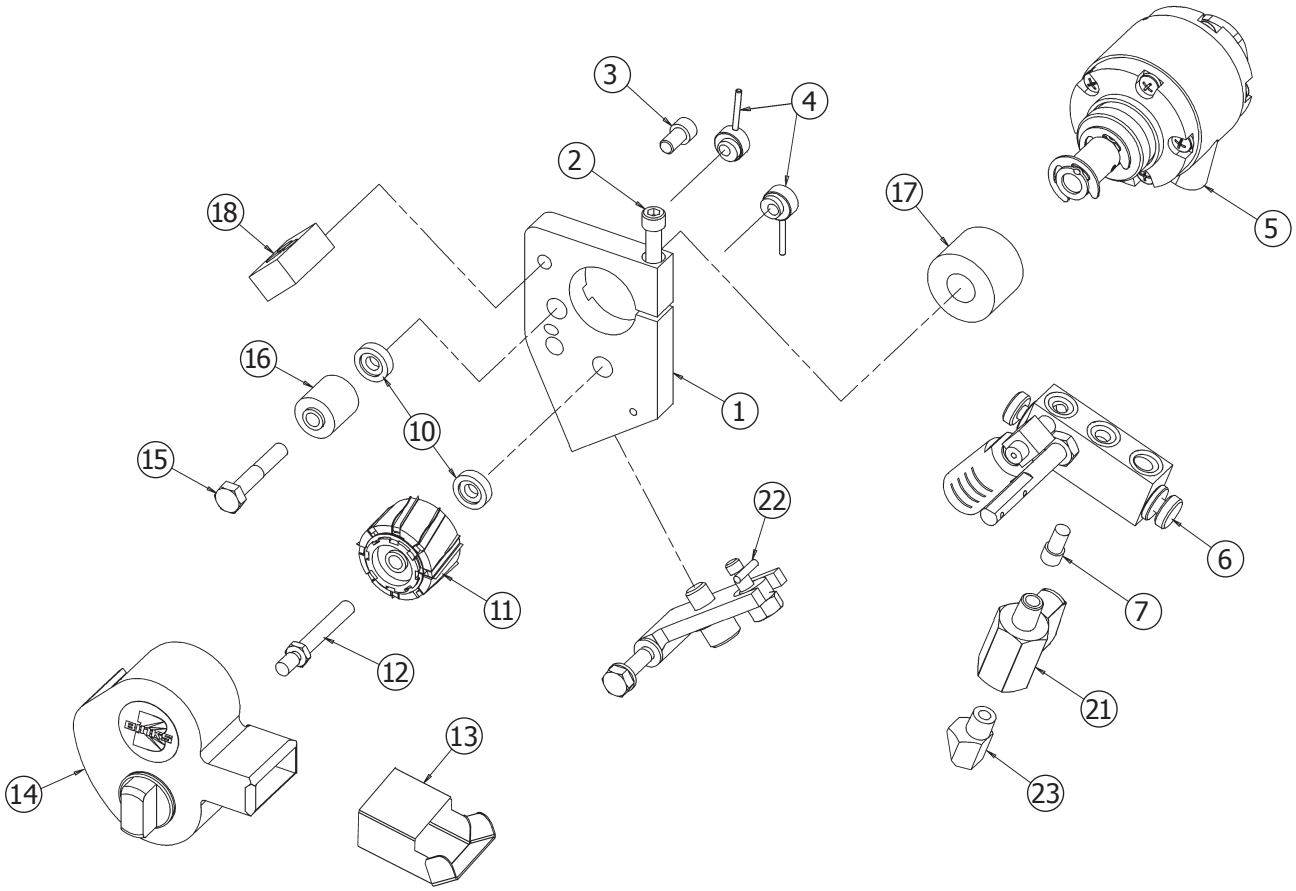
- Go to an emergency room immediately.
- Tell the doctor you suspect an injection injury.
- Show the doctor this medical information or the medical alert card provided with your airless spray equipment.
- Tell the doctor what kind of fluid you were spraying or dispensing.

GET IMMEDIATE MEDICAL ATTENTION
To prevent contact with the fluid, please note the following:

- Never point the gun/valve at anyone or any part of the body.
- Never put hand or fingers over the spray tip.
- Never attempt to stop or deflect fluid leaks with your hand, body, glove or rag.
- Always have the tip guard on the spray gun before spraying.
- Always ensure that the gun trigger safety operates before spraying.

IT IS THE RESPONSIBILITY OF THE EMPLOYER TO PROVIDE THIS INFORMATION TO THE OPERATOR OF THE EQUIPMENT.
FOR FURTHER SAFETY INFORMATION REGARDING THIS EQUIPMENT, SEE THE GENERAL EQUIPMENT SAFETY BOOKLET (77-5300).

MODEL 201-510 CUTTER ASSEMBLY



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1	207-11403	BACK PLATE	1
2	237-39	SOCKET HEAD SCREW	1
3	237-38	SOCKET HEAD SCREW	1
4	207-11192	ECCENTRIC NUT	2
5	207-12393	AIR MOTOR ASSEMBLY	1
6	207-11198-1	MANIFOLD ASSEMBLY	1
7	207-11205	MODIFIED SCREW	1
10	207-11193	SPACER	2
11	207-11185	CUTTING HEAD ASSEMBLY	1
12	207-11189	CUTTING HEAD AXLE	1
13	207-12194	ANGLED CHOPPER CHUTE	1
14	207-11182	CHOPPER GUARD ASSEMBLY	1
15	237-175	HEX HEAD SCREW	1
16	237-574	BEARING	1
17	207-11196-1-K25	ANVIL SLEEVE	1
18	207-11195	FEEDER BAR ASSEMBLY	1
21	107-1670	BALL VALVE	1
22	207-11415	MOUNTING BRACKET KIT	1
23	237-572	ELBOW	1
24	237-573	AIR HOSE	1

REPAIR KITS

106-1265 AIR MOTOR REPAIR KIT FOR ITEM 5
207-10903 SPARE PARTS KIT

Binks MODEL 201-510 ROVING CUTTER

OPERATION:

To introduce roving to the cutter, double over one end of roving and insert it through one of the three holes in the feed bar (18) on the top of the cutter assembly. The air motor control knob, on the front of the manifold (6), should be opened three or four turns, and the blower control knob, on the rear should be opened a 1/4 turn. Pull the trigger and the glass will be dispensed into the resin stream. By opening or closing the blower control knob, the glass pattern will vary in width. By opening the motor control knob, glass content will be increased. Close this knob and glass content will be decreased. Adjust both motor control and blower control to produce the desired output and pattern. The resin fan should be approximately 3" wider than the glass pattern. This allows the fan pattern to pre-wet the part and post wet the glass.

ADJUSTMENTS:

Cutting head (11): It should have sufficient tension against the anvil sleeve (17) to cut properly. Excessive tension will overload the air motor (5) and create starting problems. Insufficient tension will not allow complete cutting of the roving. The eccentric nuts (4) can be used to adjust the tension correctly.

Idler bearing (16): This should be adjusted to have a slight contact with the anvil sleeve (17). Excessive contact will create starting problems. Insufficient contact will not allow the roving to feed correctly. The eccentric nut (4) on the end of idler bearing is used to adjust the idler bearing to the correct tension.

Air motor oiling (5): This is accomplished by removing the motor control knob from the manifold assembly (6), and inserting 2 to 3 drops of light weight machine oil (use Binks 207-11155-1). Replace the control knob and the cutter guard, and run for a few seconds, wipe off any excess oil. (Or oil may be added to an in-line oiler on the air supply hose.)

NOTE

Lubrication is very important and the motor should be oiled after every 2-4 hours of continuous use.

Cutter alignment: The roving should enter the resin fan as soon as possible without excessive fall out. Simply push the cutter forward or pull back to achieve this. To adjust the cutter angle from side to side, simply turn the knob (22g) on the mounting bracket (22) in the direction desired.

DISSASSEMBLY:

1. Start by removing the cutter guard assembly (14) and chute (13).
2. To remove the air motor assembly (5) and manifold assembly (6) first remove the outer retaining ring (5b) and the anvil sleeve (17) from the air motor assembly.
3. Then loosen the Allen head cap screw (2), releasing the air motor assembly and the manifold assembly from the back plate (1).

⚠CAUTION

DO NOT USE A HAMMER TO FORCE THE AIR MOTOR OUT.

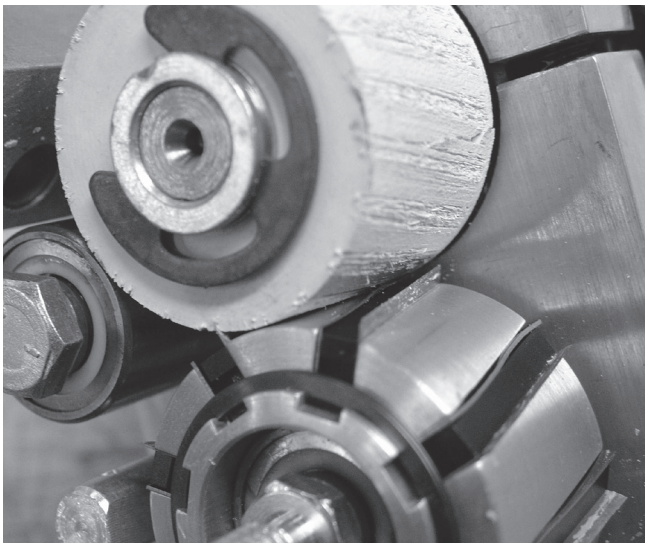
4. If it is stuck, you may need to use slight pressure from a screwdriver between the air motor and back plate to free it.
5. To remove the manifold assembly (6), remove the air hose (25), valve and elbow (21, 23), and the modified head screw (7) from within the manifold. The manifold assembly will then drop free of the air motor, and expose the three o-rings (6f).
6. Inspect the muffler (6a) and the blower tube (6c) for any wear. Replace if necessary. Be sure to insert so that the blower holes are pointing in the right direction.
7. To remove the control knobs from the manifold assembly, remove the thumbscrew (6k). Then use a screwdriver to remove the packing nut (6i) and the o-rings (6g, 6h). Replace the o-rings if necessary. Repeat for other side.
8. For disassembling the air motor assembly (5), begin by removing the two pins (5d) holding the tire shaft (5c) to the rotor. Next pull the tire off the shaft. Refer to Part Sheet 77-2883 for further details.
9. Check the bearings (5e) for any wear, replace if necessary.
10. To remove the cutting head assembly (11) from the back plate, hold the eccentric nut (4) and unscrew the cutting head bolt (12). To remove the cutting blades (11f), use a small screwdriver to pry out the blade spacer (11e), and the retaining spring (11d). The old blade will fall free of the slot when this is done.
11. To remove the cutter bearing (16) from the back plate, hold the eccentric nut (4) and unscrew the hex head screw (15).

RE-ASSEMBLY:

Manifold Assembly:

1. Lubricate the o-rings (6g, 6h) with petroleum jelly and insert into the manifold body (6e).
2. Next thread the packing nut (6i) into the manifold body.
3. Then thread the lock nut (6j) onto the thumbscrew (6k) and insert into the manifold body.
4. Repeat steps 1-3 for the other side of the manifold.
5. Now thread the jam nut (6d) onto the blower tube (6c). And then thread the blower tube into the manifold body. Be sure to note the position of the blower tube holes when inserting into the manifold body.
6. Finally thread the muffler (6a) into the muffler adapter (6b) and insert them into the manifold body.

Binks MODEL 201-510 ROVING CUTTER



⚠ WARNING

USE CAUTION TO PREVENT ACCIDENTAL CUTS AS THESE BLADES ARE SHARP.

Cutting Head Assembly:

The cutter comes from the factory set to cut 1" lengths, by using four evenly spaced blades, inserted in the cutting head (11c). You will note that there are slots every 1/2 inch. By inserting or removing the cutting blades, you can vary the length of cut for special applications. When reinserting the new blades, be sure that they are on the front side of the slot. (Refer to picture above.)

1. Insert the cutting blade (11f), then the cutting blade spacer (11e) into the cutting head (11c). Next add the retaining spring (11d); this is accomplished by using a pair of needle nose pliers.

2. Then secure the above items in place by adding the two retaining rings (11a) to the cutting head.

Final Assembly:

1. Begin by attaching the cutter bearing (16) and spacer (10) onto the back plate (1) with a hex head screw (15) and an eccentric nut (4).
2. Next attach the cutting head assembly (11) and spacer (10) onto the back plate using the cutting head axle (12) and an eccentric nut (4).
3. Now you can add the manifold assembly (6) by sliding it into the back plate. Be sure to lubricate the three o-rings (6f) on top of the manifold.
4. Connect the tire shaft (5c) to the air motor (5) using the two roll pins (5d). Then attach the air motor assembly (5) by sliding the shaft through the back plate. In doing this make sure to line up the three air passages with those of the manifold assembly and o-rings. Secure the air motor assembly onto the manifold assembly with the modified screw (7). Then secure to the back plate by tightening the socket head screw (2).
5. To add the anvil sleeve (17) onto the air motor shaft, you will need to apply pressure, while rotating the cutting head assembly (11) at the same time. This will prevent the blades from damaging the new sleeve. Replace the retaining rings (5b) and run the motor for one minute, to ensure proper break-in of the new sleeve.

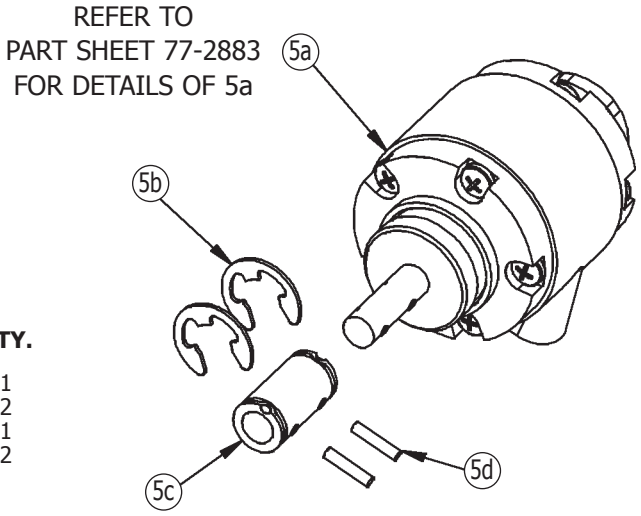
⚠ CAUTION

DO NOT USE ANY TOOL TO FORCE THE ANVIL SLEEVE ON THE MOTOR TIRE SHAFT. DAMAGE TO THE MOTOR CAN OCCUR.

6. Finally add the guard assembly (14) and the chute (13).

MODEL 207-12393 CHOPPER AIR MOTOR ASSEMBLY

(ITEM NO. 5 IN PARTS LIST ON PAGE 4)



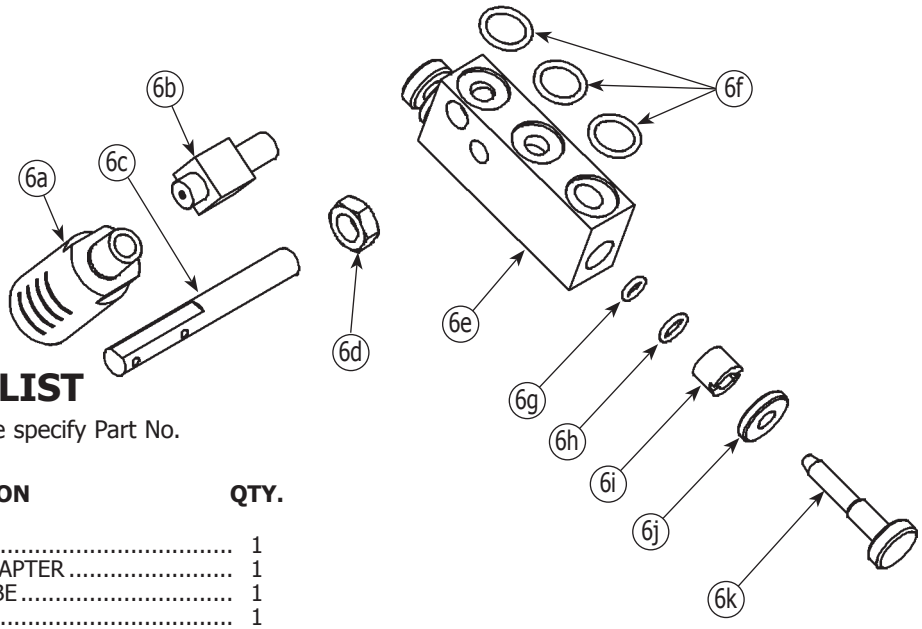
PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
5a	—	AIR MOTOR	1
5b	237-22-K5	E-CLIP	2
5c	207-10062	TIRE SHAFT	1
5d	237-14	ROLL PIN	2
	106-1265	REPAIR KIT FOR 5A	

MODEL 207-11198-1 MANIFOLD ASSEMBLY

(ITEM NO. 6 IN PARTS LIST ON PAGE 4)



PARTS LIST

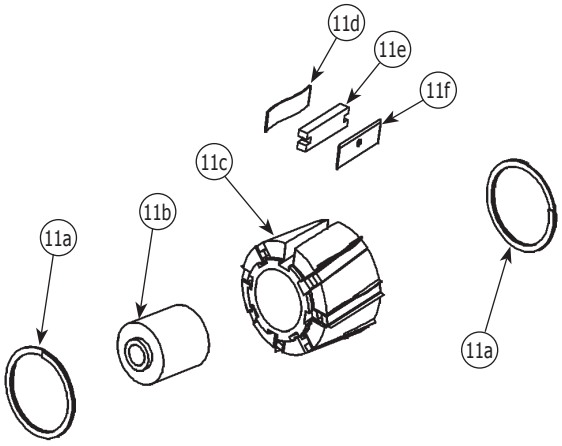
When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
6a	237-872	MUFFLER	1
6b	207-12299	MUFFLER ADAPTER	1
6c	207-11200	BLOWER TUBE	1
6d	237-164	JAM NUT	1
6e	207-11201	MANIFOLD BODY	1
6f	237-550■	O-RING	3
6g	20-3236-5■	O-RING	2
6h	20-3467■	O-RING	2
6i	207-11202	PACKING NUT	2
6j	207-11203	LOCK NUT	2
6k	207-11204	THUMBSCREW	2

■ Parts are included in 207-10903 Repair Kit.

MODEL 207-11185 1" CUTTING HEAD ASSEMBLY

(ITEM NO. 11 IN PARTS LIST ON PAGE 4)



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
11a	237-558	RETAINING RING	2
11b	237-574	BEARING	1
11c	207-11191-1	8 VANE CUTTING HEAD	1
11d	207-11186■	RETAINING SPRING	8
11e	207-11187■	CUTTER BLADE SPACER	8
11f	207-11188-1■	CUTTER BLADE	4

■ Parts are included in 207-10903 Repair Kit.

NOTE

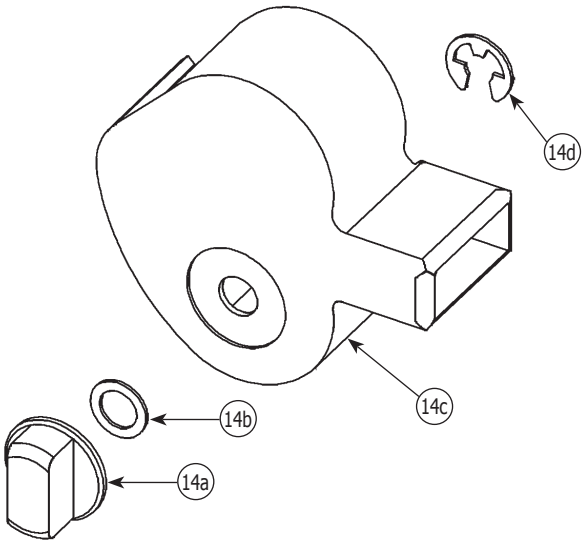
Blades (11f) are to be placed in every other slot. This will result in the standard 1-inch cut length. To insure proper balance, insert blades around cutting head (11c) equally.

AVAILABLE CUTTING HEAD ASSEMBLIES

PART NO.	LENGTH OF CUT	CUTTING HEAD PART NO. (ITEM NO. 11C)	NO. OF BLADES	AVAILABILITY
207-11185	1 INCH	207-11191-1	4	STANDARD
207-11185-1	1/2 INCH	207-11191-1	8	SOLD SEPARATELY
207-11185-3	3/8 INCH	207-11191-3	12	SOLD SEPARATELY

MODEL 207-11182 CUTTER GUARD ASSEMBLY

(ITEM NO. 14 IN PARTS LIST ON PAGE 4)



PARTS LIST

When ordering, please specify Part No.

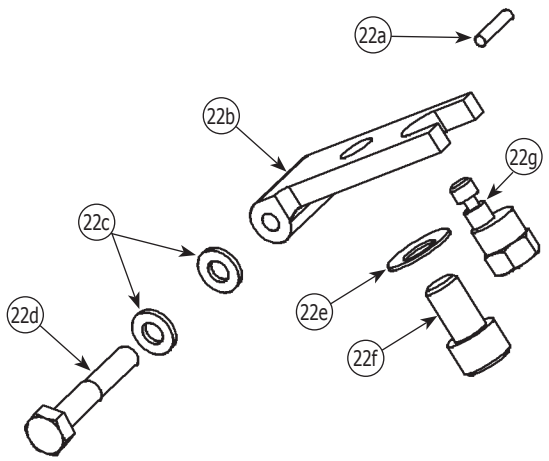
ITEM NO.	PART NO.	DESCRIPTION	QTY.
14a	207-10806	CHOPPER GUARD NUT	1
14b	237-159	NYLON WASHER	1
14c	207-11183	CUTTER GUARD	1
14d	237-19	RETAINING RING	1

NOTE

A cutter guard insert (207-11184-K5) is also available separately to increase the life of the guard.

MODEL 207-11415 CUTTER MOUNTING KIT

(ITEM NO. 22 IN PARTS LIST ON PAGE 4)



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
22a	237-14	ROLL PIN	1
22b	207-11407	CUTTER ADJUSTMENT BRACKET	1
22c	20-263-1	WASHER	2
22d	237-175	HEX HEAD SCREW	1
22e	—	SPRING WASHER	1
22f	237-44	SOCKET HEAD CAP SCREW	1
22g	207-10184	CUTTER ADJUSTING CAM	1

207-10903 REPAIR KIT

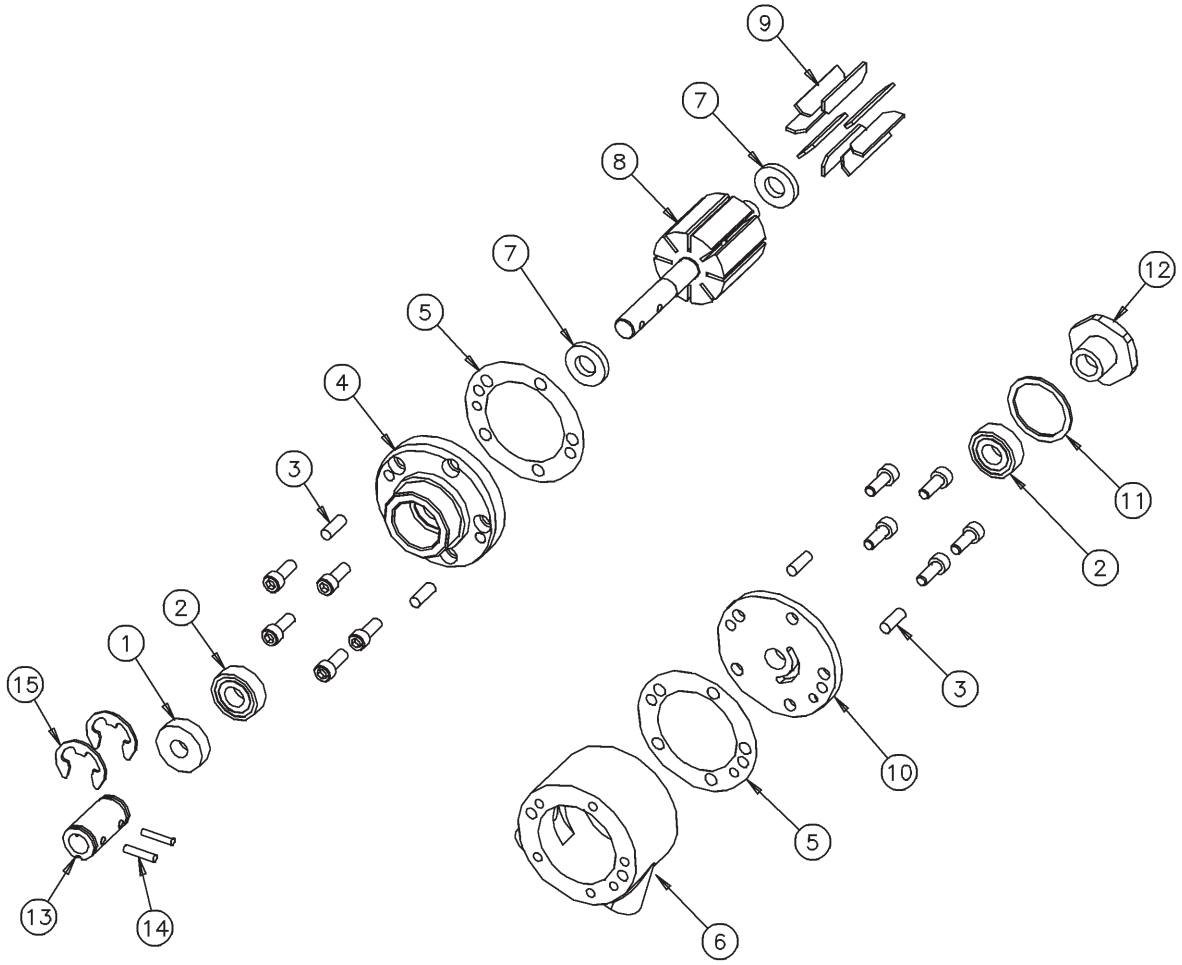
(ITEM NO. 20 IN PARTS LIST ON PAGE 4)

PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
5c	237-22-K5	RETAINING RING	2
6f	237-550	O-RING	3
6g	20-3236-K5	O-RING	2
6h	20-3467	O-RING	2
11d	207-11186	RETAININGSPRING	8
11e	207-11187	CUTTER BLADE SPACER	8
11f	207-11188	CUTTER BLADES (BOX OF 100)	1
	237-543-K5	O-RING	2
	207-11155-1	AIR MOTOR OIL 2 OZ	1

BINKS MODEL 207-12393
CHOPPER AIR MOTOR ASSEMBLY



PARTS LIST

When ordering, please specify Part No.

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1 ▲		SEAL	1
2 ▲		BEARING	2
3		DOWEL PIN	–
4		DRIVE END PLATE	–
5 ▲		SHIMS	2
6		BODY	–
7		CAM RING	–
8		ROTOR ASSEMBLY	–
9 ▲		VANE	8
10		DEAD END PLATE	–
11 ▲		END CAP GASKET	1
12		DEAD END CAP	–
13	207-10062	TIRE SHAFT	1
14	237-14	ROLL PIN	2
15	237-22-K5	E-CLIP	2

▲Items available in Repair Kit 106-1265. Please order separately.

Items with no quantity are not available for purchase.

ASSEMBLY INSTRUCTIONS: BINKS MODEL 207-12393 CHOPPER AIR MOTOR ASSEMBLY

1. Remove the end cap.
2. Remove dead end plate bolts.
3. Remove dead end plate.

NOTE

Take care as to not damage shims or shim surfaces when removing.

4. Remove rotor using an arbor press.
5. Remove vanes.
6. Remove shaft seal and bearings from drive end plate and bearing from dead end plate.

NOTE

DO NOT remove drive end plate bolts or drive end plate.

7. Clean parts. Check for scoring on the end plates and rotor assembly. If scoring exists, replacing the air motor is recommended.
8. Place a new cam ring between the rotor and the drive end plate.
9. Place the drive shaft of the rotor assembly through the drive end plate. Press the drive bearing onto the drive shaft.
10. Lightly tap on inner race of the drive bearing to snug up rotor to drive end plate.
11. Install new vanes as required. The angle cuts on the vane face to the center of the rotor.
12. Place the proper end plate gasket on the body of dead end. If the original is damaged, replace with a new one supplied in the Repair Kit (106-1265).
13. Place the dead end plate on the body.
14. Install the dead end bearing and press into place with an arbor press.
15. Fully tighten the remaining bolts to 75-100 in-lbs.
16. Set end clearance as required:
    Total end clearance: .002 in. (.05 mm)
    Top clearance: .0015 in. (.038 mm)
    Lightly tap on the inner race of the dead end bearing to free up and center the rotor in the body.

NOTE

The rotor must NOT rub on either end plate.

17. Apply a small amount of grease to bearing seal and install the drive end bearing seal by pressing flush.
18. Reattach end cap.
19. If the air motor is lubricated, apply a few drops of 207-11155-1 lubricant into ports and rotate shaft by hand for a few rotations.

TROUBLESHOOTING

TROUBLE	PROBABLE CAUSE	SOLUTION
Glass wrap up.	Wet glass or oil on anvil sleeve. Material in cutter guard. Blower control knob is shut. Tension adjustments. Dull or worn blades or anvil.	Remove guard and clean out. Open blower control knob. Correct tension adjustment. Replace blades or anvil.
Glass is not cut cleanly.	Dull or nicked blades. Anvil sleeve needs replacing. Tension adjusted incorrectly. Blades installed incorrectly.	Replace blades and anvil sleeve. Check tensions.
Motor will not run, or lack of power.	Rotor not centered. Glass wrap up. Broken vanes. Stuck bearings. Lack of lubrication. Tension adjusted incorrectly. Lack of air.	Re-center rotor. Clean out cutter. Re-lubricate and adjust tensions.
Idler bearing does not turn.	Frozen, or incorrectly adjusted.	Re-adjust tension and lubricate.
Cutting head does not turn.	Frozen, or incorrectly adjusted against back plate.	Re-adjust tension and lubricate.
Deep cuts in anvil sleeve.	Blades are in backwards.	Replace blades correctly.
Bad glass pattern.	Excessive drag. Cutter adjusted incorrectly. Too narrow a resin fan. Static electricity.	Re-adjust tensions, and cutter. Change spray tip angle. Ground the system.

WARRANTY POLICY

This product is covered by Carlisle Fluid Technologies' materials and workmanship limited warranty. The use of any parts or accessories, from a source other than Carlisle Fluid Technologies, will void all warranties. Failure to reasonably follow any maintenance guidance provided may invalidate any warranty.

For specific warranty information please contact Carlisle Fluid Technologies.

For technical assistance or to locate an authorized distributor, contact one of our international sales and customer support locations.

Region	Industrial / Automotive	Automotive Refinishing
Americas	Tel: 1-800-992-4657 Fax: 1-888-246-5732	Tel: 1-800-445-3988 Fax: 1-800-445-6643
Europe, Africa, Middle East, India	Tel: +44 (0)1202 571 111 Fax: +44 (0)1202 573 488	
China	Tel: +8621-3373 0108 Fax: +8621-3373 0308	
Japan	Tel: +81 45 785 6421 Fax: +81 45 785 6517	
Australia	Tel: +61 (0) 2 8525 7555 Fax: +61 (0) 2 8525 7575	

For the latest information about our products, visit www.carlisleft.com

Carlisle Fluid Technologies is a global leader in innovative finishing technologies.
Carlisle Fluid Technologies reserves the right to modify equipment specifications without prior notice.

CARLISLE FLUID TECHNOLOGIES