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Xerox® Phaser® 3400B/3400N Remanufacturing Instructions



an available network configuration, the Phaser® 3400 was said to “bridge the gap between personal and network printers”. The machine is based on the ML-1650 engine produced by Samsung® to Xerox’s specifications.

There are two versions of the Phaser 3400- the base 3400B and the network-ready 3400N. Both include parallel and USB ports, 16 MB of memory standard (expandable to 80 MB), a 166 MHz PowerPC processor, and a 550 sheet input tray standard. The 3400N also has a 10/100 Base-TX Ethernet interface installed. Other than connectivity, the two machines are identical.

There are two all-in-one print cartridges available for the 3400- a 4,000 page standard yield and an 8,000 page high yield version. Testing is currently underway by Static Control’s Imaging Labs, and system-qualified components are anticipated soon. Contact your Static Support Team for product availability.

Reference Info

The following report contains preliminary information on the Xerox® Phaser® 3400 printer and cartridge. In order to keep you informed of important market developments, additional information and product availability will posted on our website as it becomes available.

The Xerox Phaser 3400 monochrome laser printer was released in June 2001, targeted at individual business users and small workgroups. With a print speed of 17 pages per minute, a first-page-out time of 12 seconds and

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WWW.SCC-INC.COM

Get the latest information on the web at Static Control’s Xerox® Phaser® 3400B/3400N Online Engine Center at www.scc-inc.com System Support Series™ Documents are available on our Web site in Adobe® Acrobat® format.



If you need additional information or technical assistance, please contact the Technical Support Group.

1.800.948.1072 (USA)
 +44 (0) 118 935 1888 (UK)
 e-mail: techservices@scc-inc.com
www.scc-inc.com

Printer Information

Printer Name	Xerox® Phaser® 3400B/3400N
Printer Intro Price	\$649
Date of Printer Introduction	June 2001
Cartridge Design	All-in-one
First Page Out	12 seconds
Paper Input Tray	550 sheets
Memory	16MB standard/upgradeable to 80MB
Processor	166MHz

Engine Information

Engine	Samsung® ML-1650
Print Speed (pages per minute)	17
Duty Cycle (pages per month)	40,000
Print Resolution (dpi)	600 (true)/1200 IQ

Cartridge Information

Cartridge Part Number (OEM)	106R00461 (Standard), 106R00462 (High Yield)
Cartridge List Price	\$125 (Standard), \$199 (High Yield)
OEM Rated Page Yield	4,000 @ 5% (Standard), 8,000 @ 5% (High Yield)
Typical Cartridge Distributor Price	\$84 (Standard), \$133 (High Yield)

*Prices as of December 2001

Model Compatibility

Xerox® Phaser® 3400B (base model)
 Xerox® Phaser® 3400N (network-ready model)

Tools and Supplies You Will Need

For Basic Remanufacturing:

- 91-99% Isopropyl Alcohol (See below)
- Compressed Air for Cleaning (See below)
- Phillips Screwdriver
- Needlenose Pliers
- Tube Cutter
- Odyssey® Phaser® 3400 Drum Kit w/Gears .(OSPH34DRUM-K)
- Phaser® 3400 Toner, 240g Bottle(PH34-240B)
- Fast Drying Adhesive
- Kynar® Lubricating Powder(KPOW)
- Lint-Free Swab(LFSWAB)
- Conductive Cartridge Lubricant(CONCLUBE)
- Lint-Free Cleaning Cloth(LFCCLOTH)

Use of Compressed Air

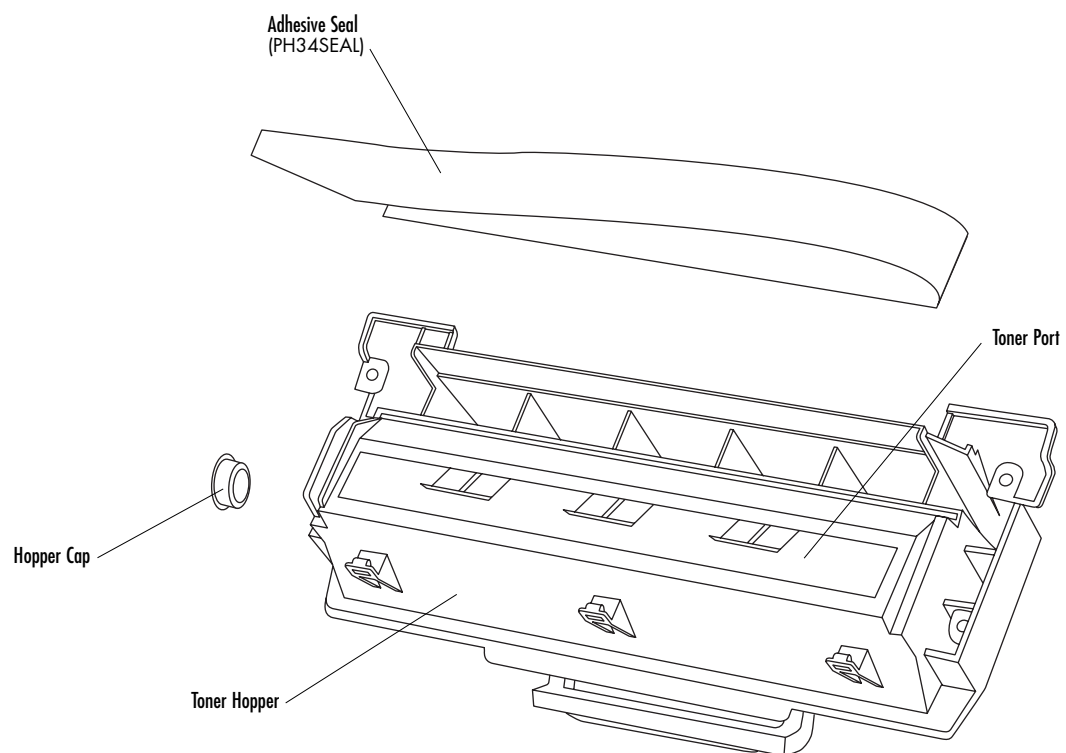
As of April 28, 1971, the Occupational Safety & Health Administration (OSHA) Standard, 29 CFR 1910.242 paragraphs a & b for general industry requires effective chip guarding and personal protective equipment (PPE) when using compressed air. When cleaning residual toner particles from cartridges using a compressed air system, you must use air nozzles meeting OSHA requirements. Air nozzles that regulate air pressure to a maximum of 30 psi comply with this standard. Refer to the OSHA publication for any updates or changes that have occurred since the date noted above.

Use of Isopropyl Alcohol

For best results, we recommend using ONLY 91-99% for cleaning as directed in these instructions. 91% isopropyl alcohol is available at most major drug stores; 99% isopropyl alcohol is available through distributors of chemical products. Follow the alcohol manufacturer's safety instructions.

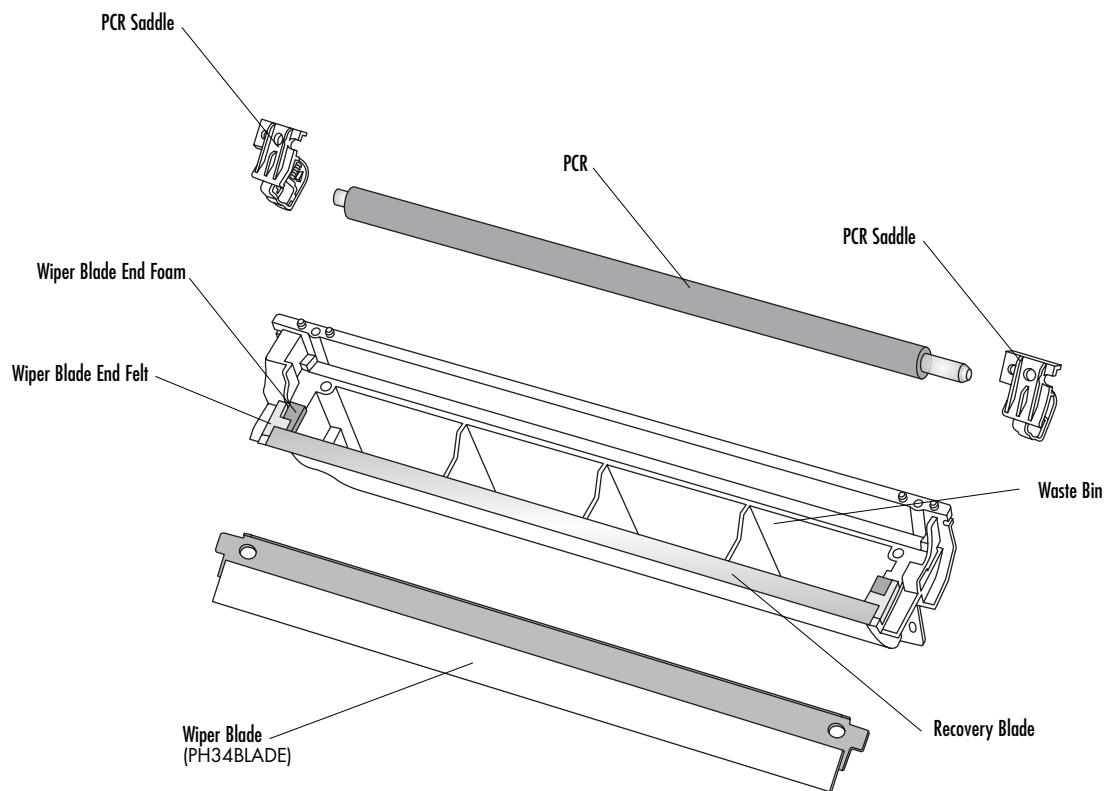
XEROX® PHASER® 3400

TONER HOPPER UNIT



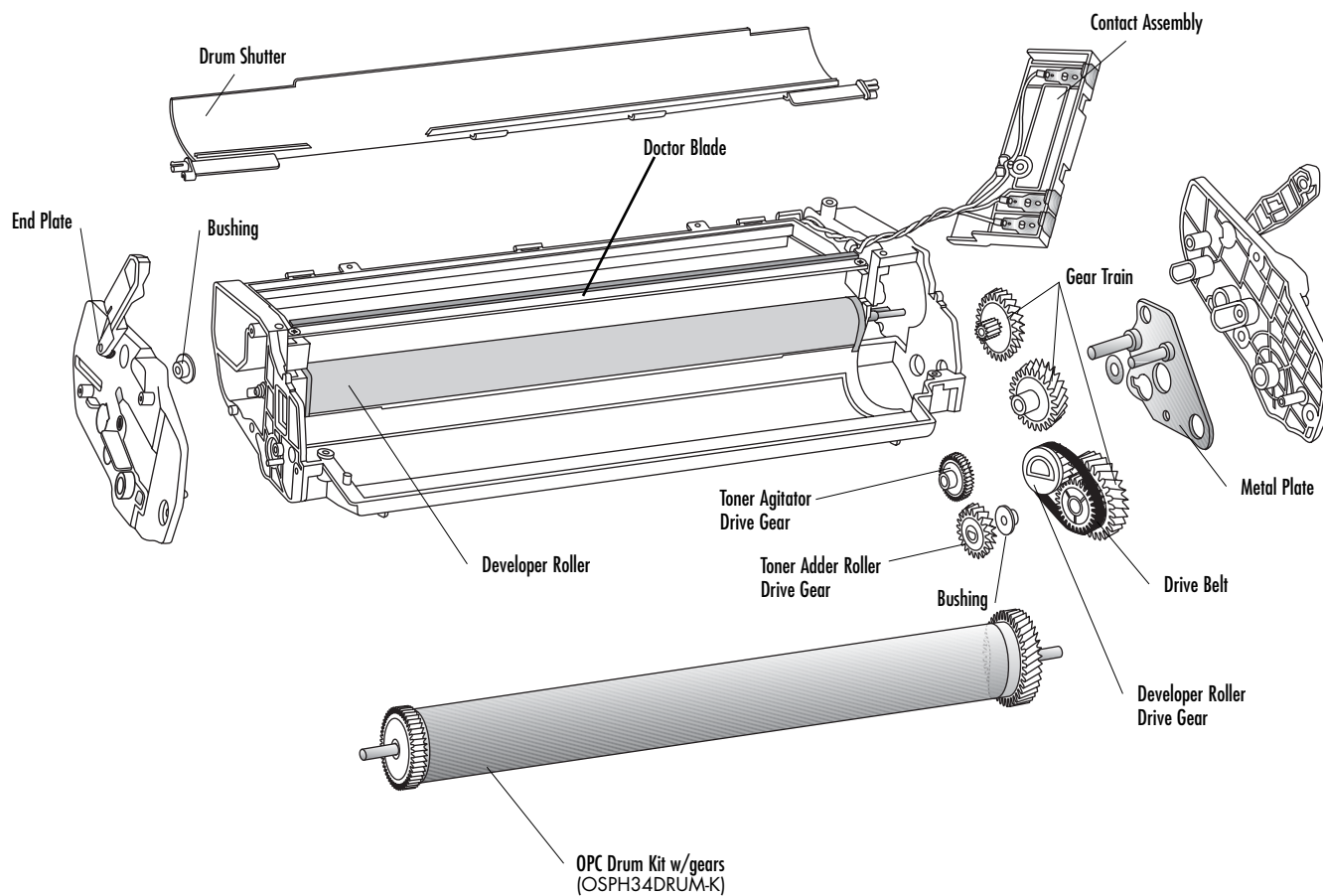
XEROX® PHASER® 3400

WASTE BIN UNIT



XEROX® PHASER® 3400

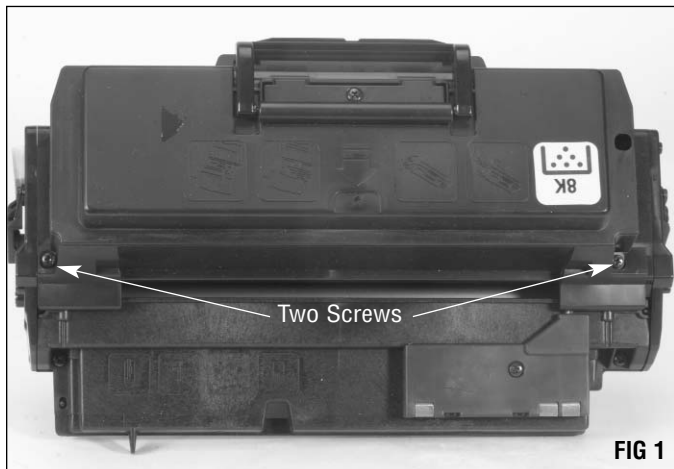
DRUM UNIT



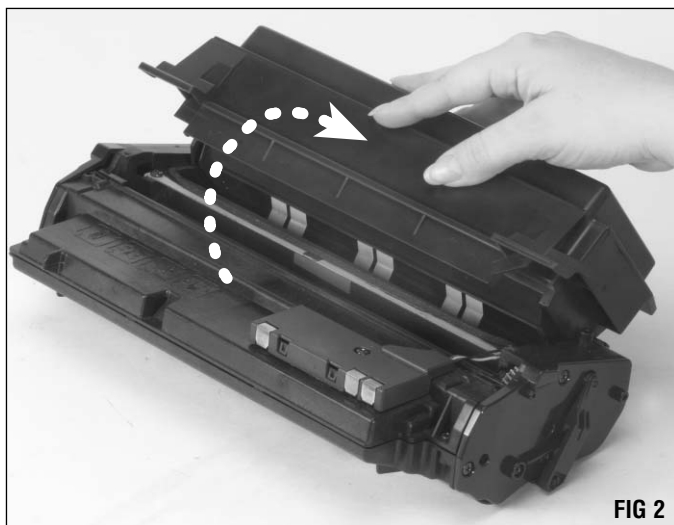


Disassembly of the Cartridge

1. Use a Phillips screwdriver to remove the two screws on top of the cartridge (FIG 1).



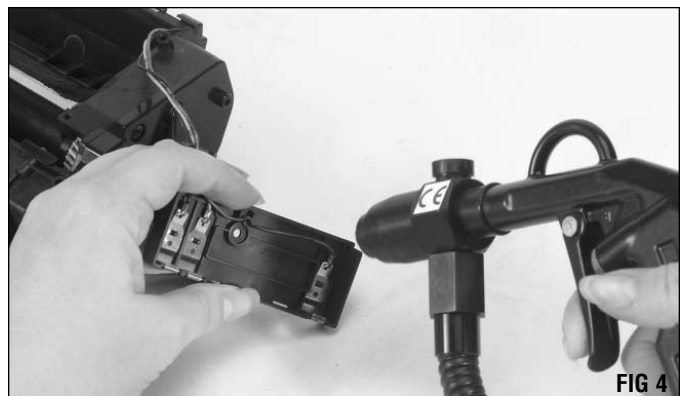
2. Rotate the top back and separate the sections (FIG 2).



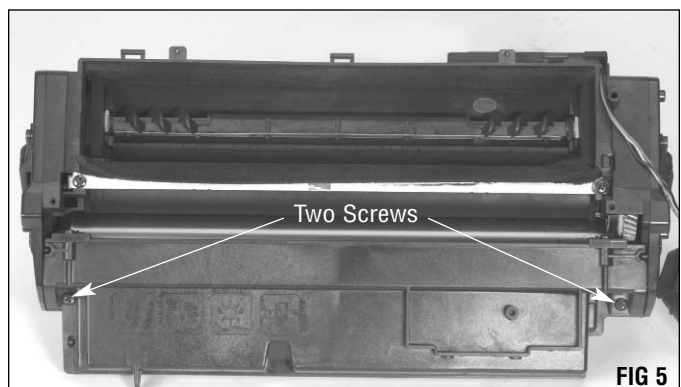
3. Use a Phillips screwdriver to remove the one screw that secures the contact assembly (FIG 3). Remove the contact assembly.



4. Use dry, filtered, compressed air to clean the inside of the contact assembly cover (FIG 4).



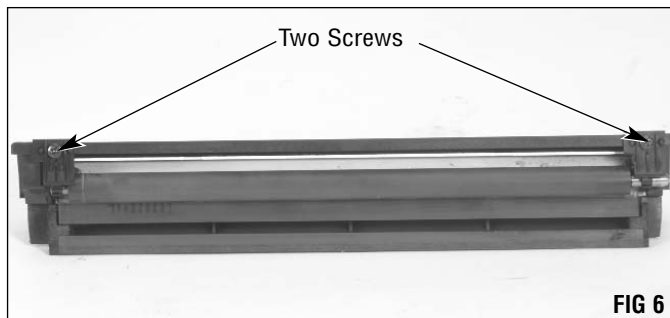
5. Use a Phillips screwdriver to remove the two screws that secure the waste bin (FIG 5). Remove the waste bin.



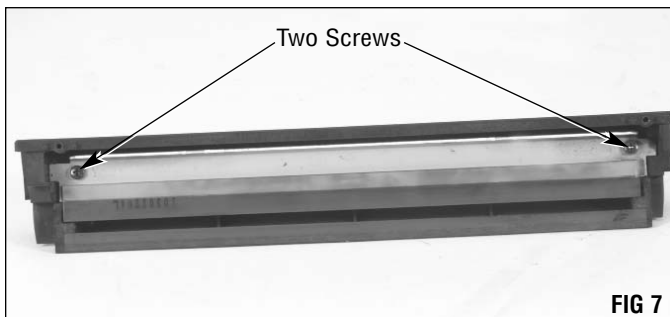


Disassembly of the Waste Bin

1. Use a Phillips screwdriver to remove the two screws that secure the PCR saddles (FIG 6). Remove the PCR along with the saddles.



2. Use a Phillips screwdriver to remove the two screws that secure the wiper blade (FIG 7). Remove the wiper blade.



3. Clean the waste bin with dry, filtered, compressed air (FIG 8).



Toner Hopper (Cleaning and Sealing)

1. Clean the toner hopper with dry, filtered, compressed air (FIG 9).



2. SCC recommends sealing the cartridge to insure against toner leakage. For complete sealing instructions refer to SSS™ 453; Phaser® 3400 Adhesive Seal.



Disassembly of the Drum Unit

1. Use needlenose pliers to squeeze the clip at each end of the shutter to release the shutter from the shutter arms, and remove the shutter (FIG 10).

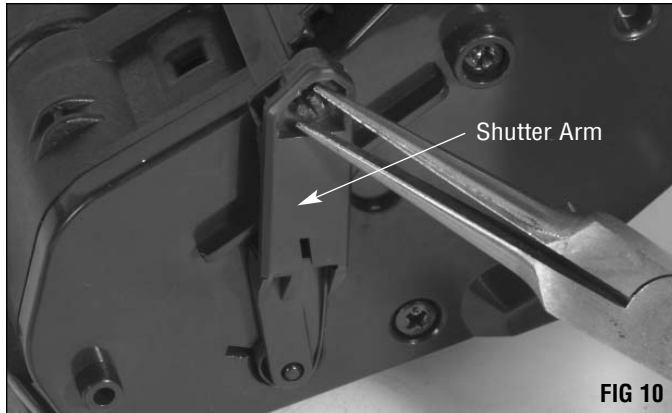


FIG 10

NOTE The shutter arms can be easily removed, if required, by rotating the arm until the arm of the spring lines up with the slot on the endplate.

2. Use a Phillips screwdriver to remove the three screws from the spur gear side endplate (FIG 11). Remove the endplate.

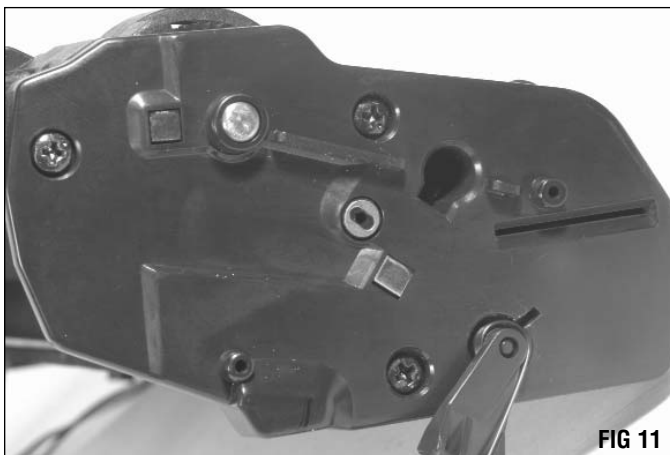


FIG 11

3. Remove the toner adder roller bushing (FIG 12)



FIG 12

4. Use a Phillips screwdriver to remove the four screws from the helical gear side endplate (FIG 13). **Note that the screw that goes into the helical gear end of the OPC drum is left-handed thread, so it must be loosened in a clockwise direction as shown.** Since it is different from all the other screws, it should be stored in a separate location. Note that the left-handed thread screw is a little shorter than the other screws and its threads are closer together. Remove the endplate.

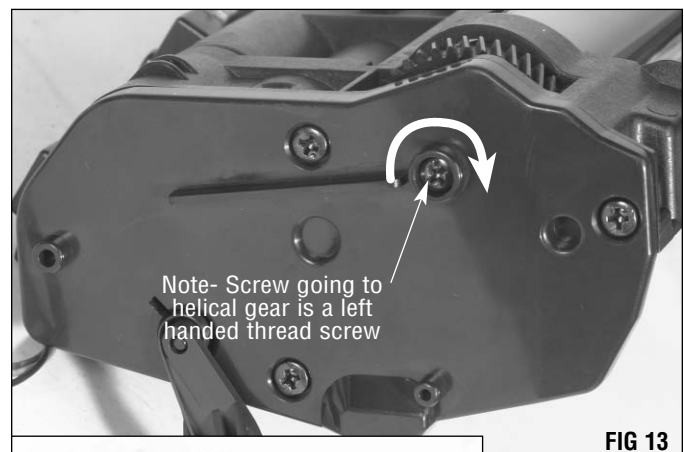
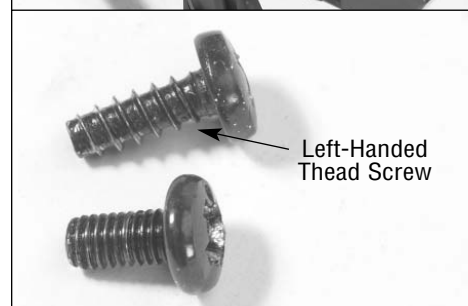
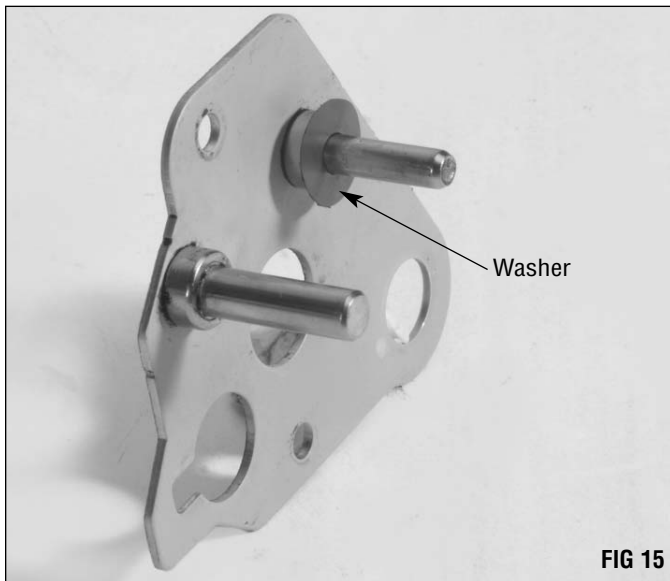


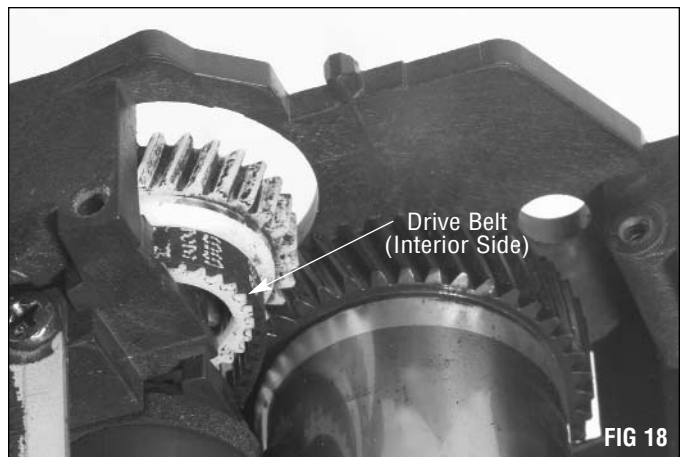
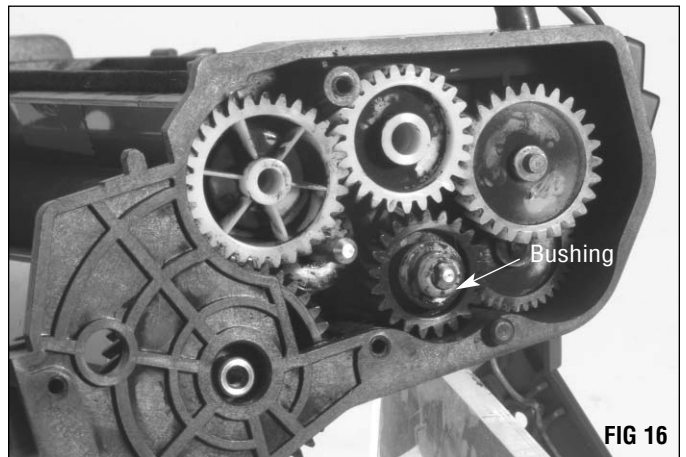
FIG 13



5. Remove the metal plate (FIG 14). Note the washer on the inside of the plate (FIG 15).



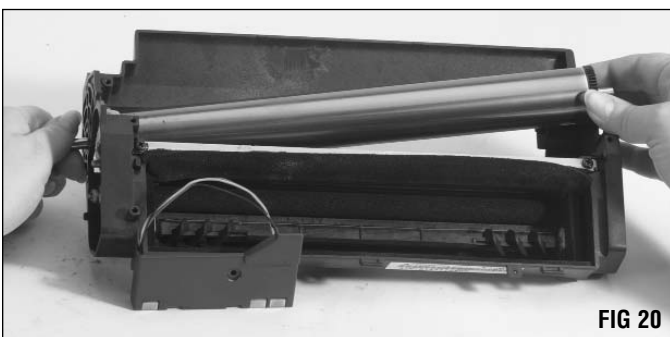
6. Remove the gears, developer roller bushing and drive belt (FIG 16). Note the location of the drive belt on the exterior side (FIG 17) and the interior side (FIG 18).



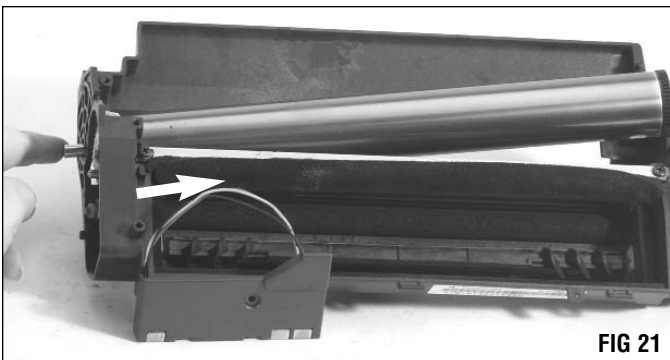
7. Push the axle toward the helical gear as shown (FIG 19).



8. Press on the axle to bring the spur gear side of the drum up as shown (FIG 20).



9. Push the axle back toward the spur gear side of the drum and remove the drum (FIG 21).

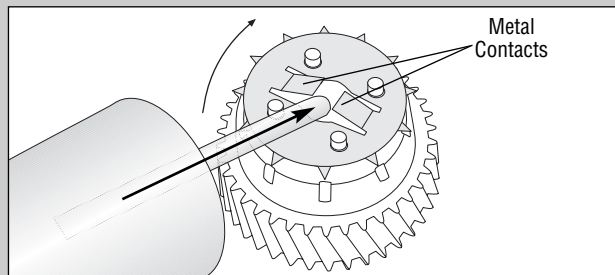
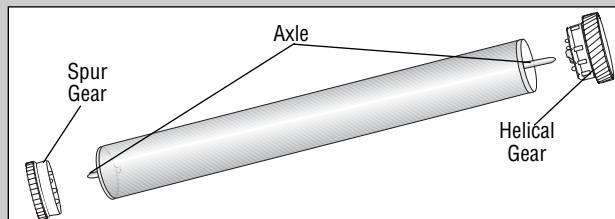


NOTE The OPC drum axle must be removed and inserted into the new Phaser® 3400 Drum (OSPH34DRUM-K). Follow steps 1 through 5 below when replacing the drum.

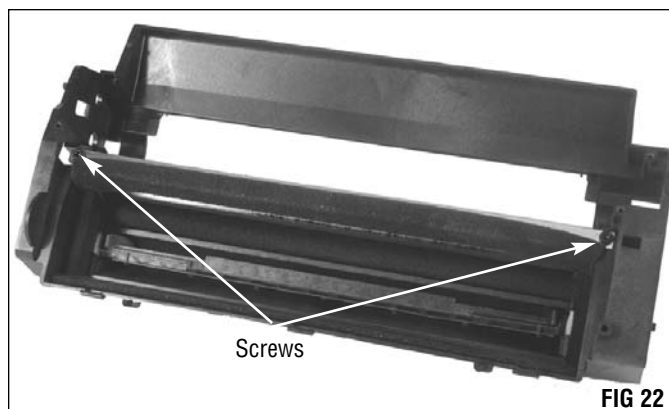
1. Use a tube cutter to cut the old drum about 1/2" to 5/8" from the drive gear. Remove the drum axle.
2. Insert the axle into the OPC drum (OSPH34DRGR).
3. On the spur gear side of the drum, place a bead of adhesive around the perimeter of the inside of the drum. Make sure to place the adhesive 1/8" from the end of the drum. On the helical gear side of the drum, place two small even beads of adhesive (about 1/4" to 3/8" in length) on the inside diameter of the drum.

NOTE: The helical gear is put on the shaft end that receives the screw. It is a left hand thread screw.

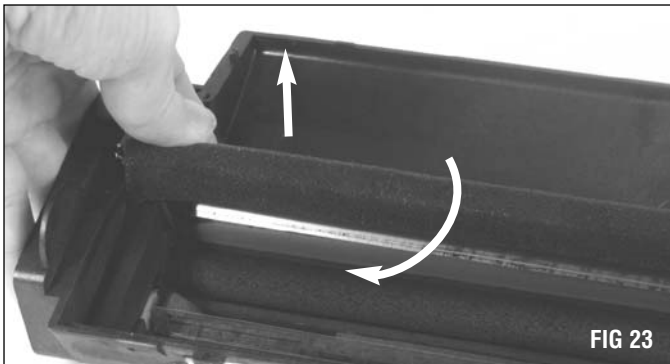
4. Insert the helical gear on the OPC drum. When inserting the gear onto the axle, make sure that the metal contacts remain in the position shown and are making contact with the axle. Try to avoid getting adhesive on the contacts.
5. Insert the spur gear on the OPC drum.



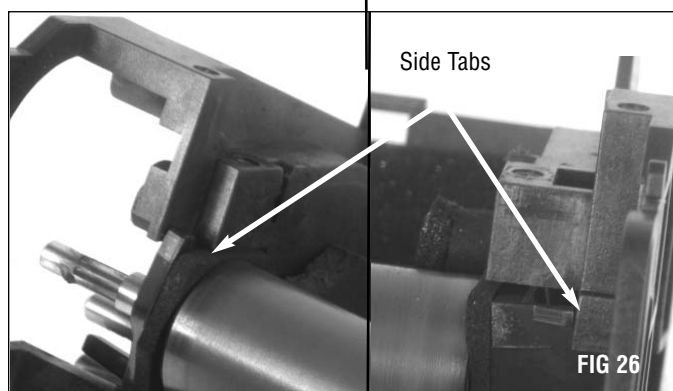
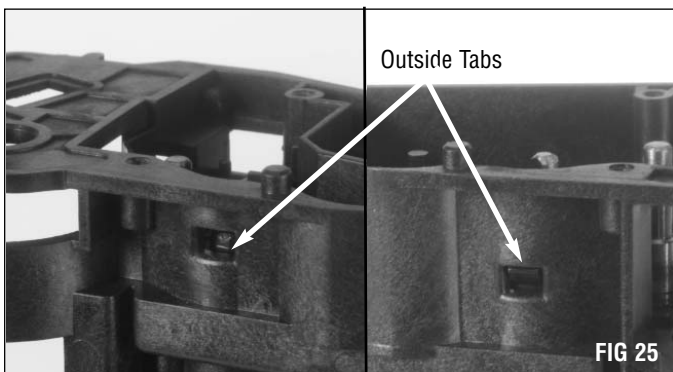
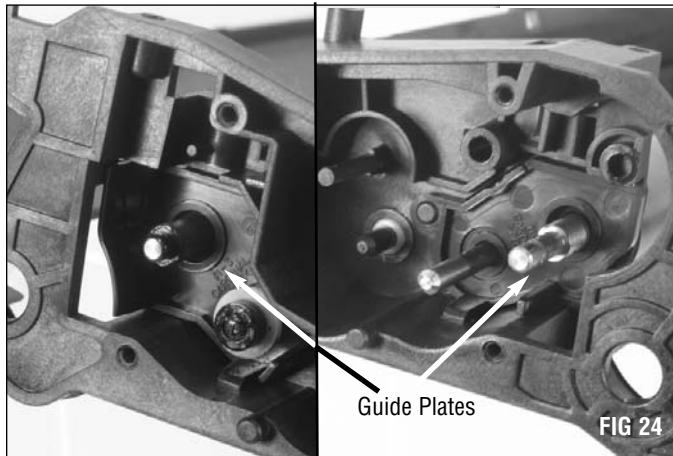
10. Using a Phillips Screwdriver, remove the two screws from the Doctor Blade (FIG 22).



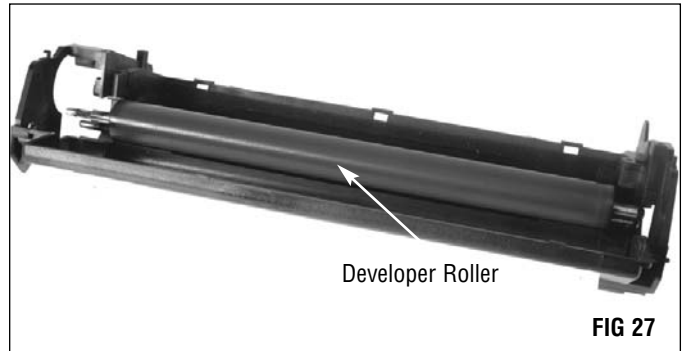
11. Lift the Doctor Blade up and then rotate forward in order to rip the foams out (FIG 23).



12. Remove the Developer Roller Guide Plates on each side (FIG 24). Press down on the outside tabs (FIG 25) and the side tabs (FIG 26) in order to pull out the guide plates.

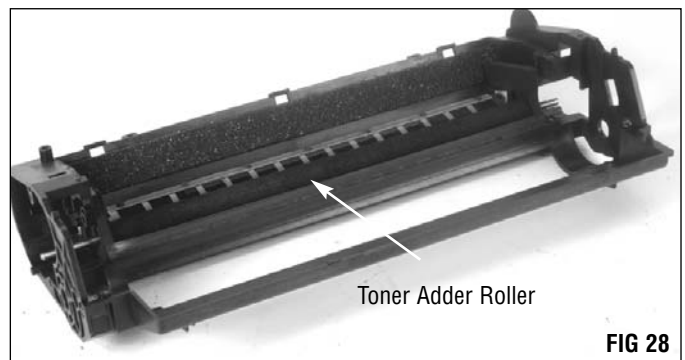


13. Remove the Developer Roller (FIG 27). If replacing remaining foams continue with step 14, otherwise skip to step 19 on page 12 to continue the remanufacturing process.

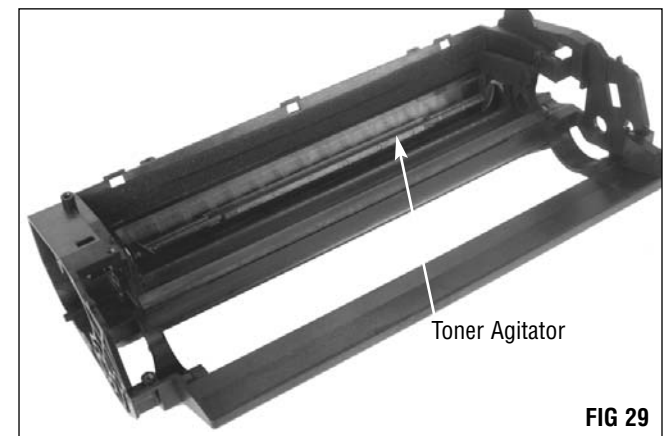


14. Remove the Toner Adder Roller from the Hopper (FIG 28).

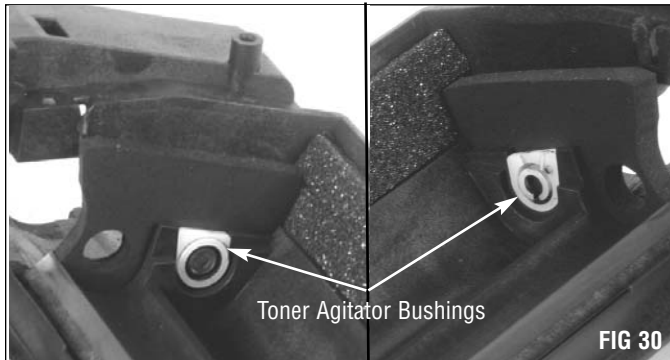
NOTE: When removing the Toner Adder Roller, the Sealing Channel Endfoams may rip, but will be replaced.



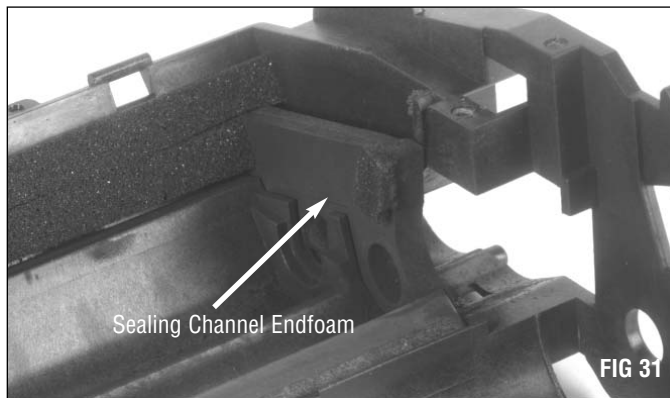
15. Remove the Toner Agitator by gently pulling up on the Agitator at the center (FIG 29).



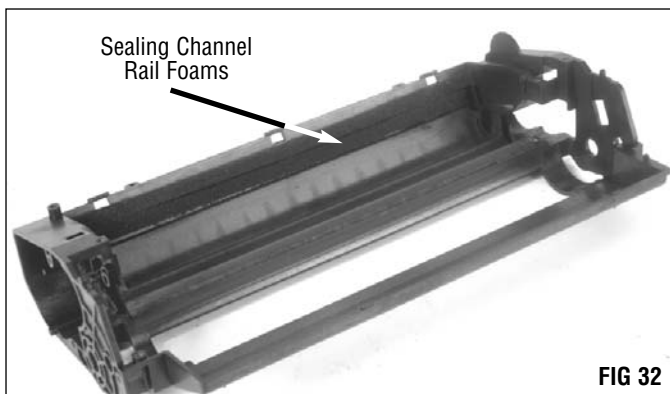
16. Remove the Toner Agitator Bushings on each side of the Hopper (FIG 30).



17. Remove the two Sealing Channel Endfoams on each side of the hopper (FIG 31).



18. Inspect and remove the Sealing Channel Rail Foams if necessary. Using a Scraper Tool, remove the two Sealing Channel Rail Foams on the back of the Hopper (FIG 32).



19. Clean the drum unit with dry, filtered, compressed air (FIG 33).

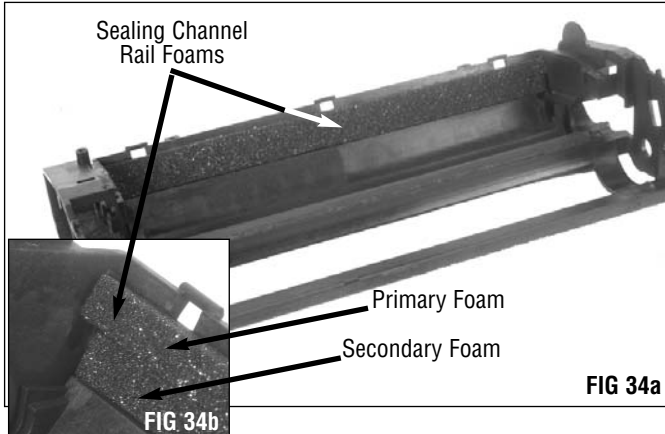




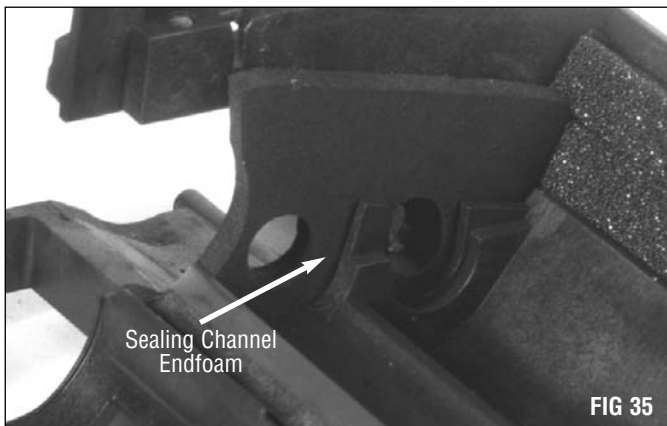
Assembly of the Drum Unit

Follow steps 1-5 only if additional foams need to be replaced, otherwise skip to step 6 to continue the remanufacturing process.

1. Install the two Sealing Channel Rail Foams (Primary & Secondary Foams) on the back of the Hopper (FIG 34a & 34b).



2. Install the two Sealing Channel Endfoams on each side of the hopper (FIG 35).

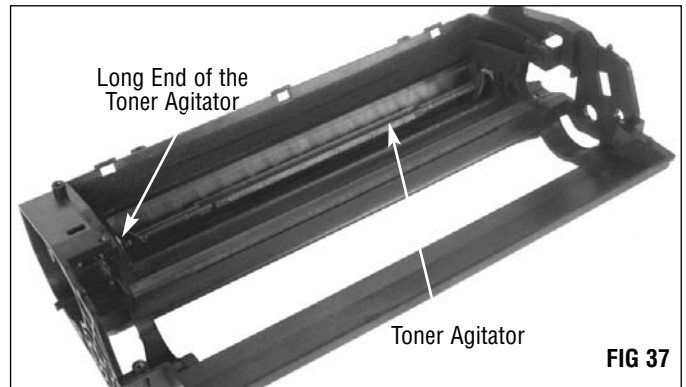


3. Replace the Toner Agitator Bushings on each side of the Hopper (FIG 36).



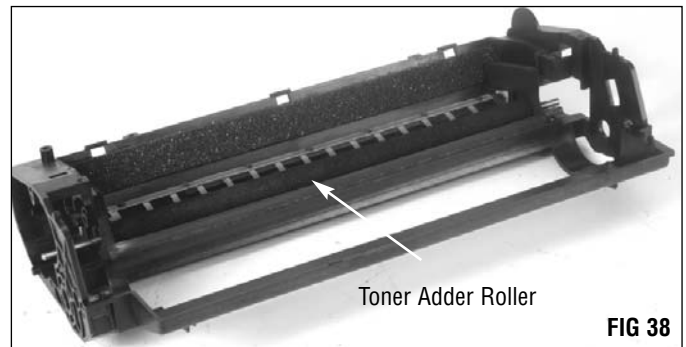
4. Replace the Toner Agitator (FIG 37).

NOTE: When replacing the Toner Agitator, insert the long end into the drive side.

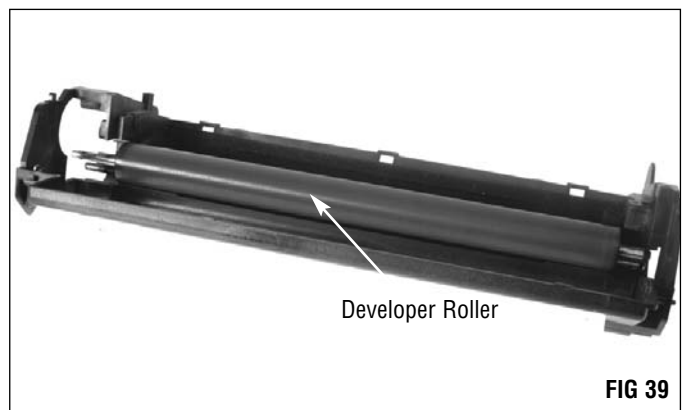


5. Replace the Toner Adder Roller from the Hopper (FIG 38).

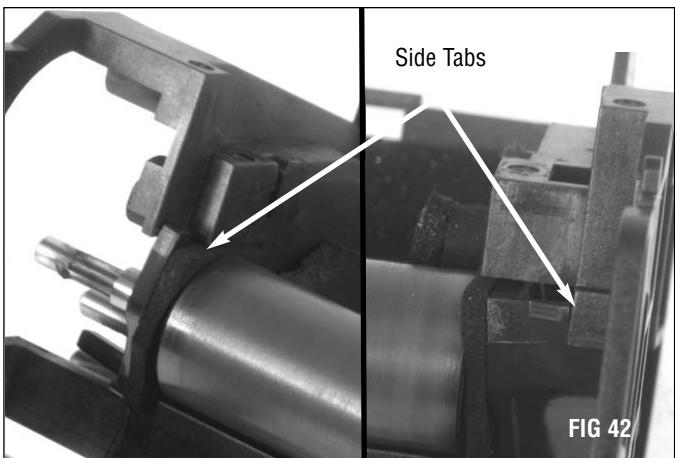
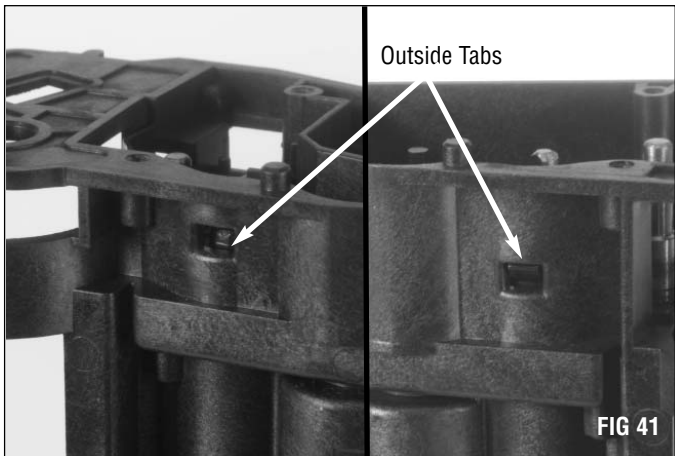
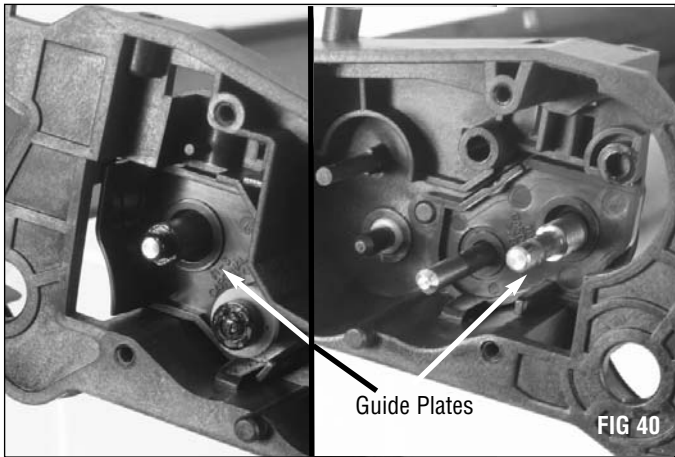
NOTE: Be careful not to tear the Sealing Channel Endfoams when replacing the Toner Adder Roller.



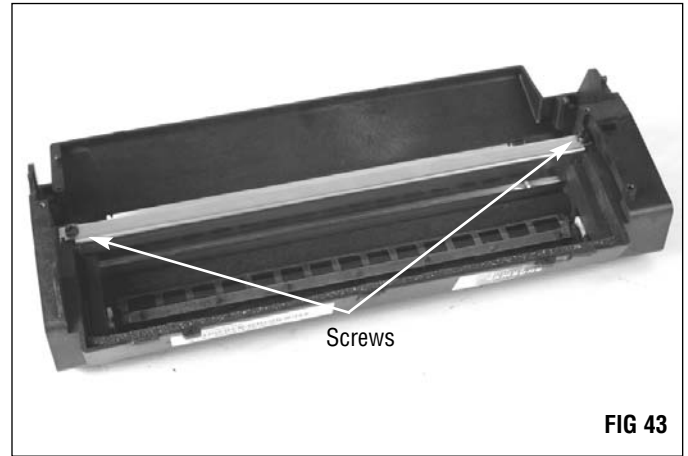
6. Replace the Developer Roller (FIG 39).



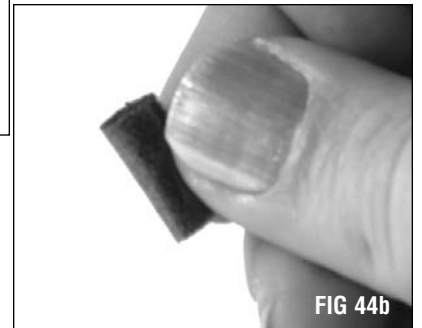
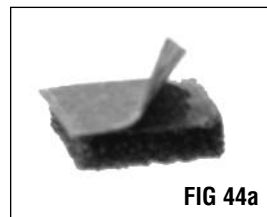
7. Replace the Developer Roller Guide Plates on each side (FIG 40). Press down on the Guide Plates until the tabs are locked into place (FIG 41 & 42).



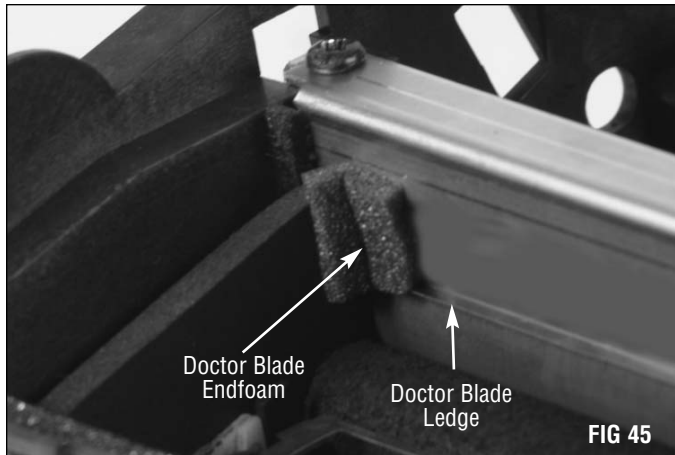
8. Install the new Doctor Blade, secure with two screws as shown (FIG 43).



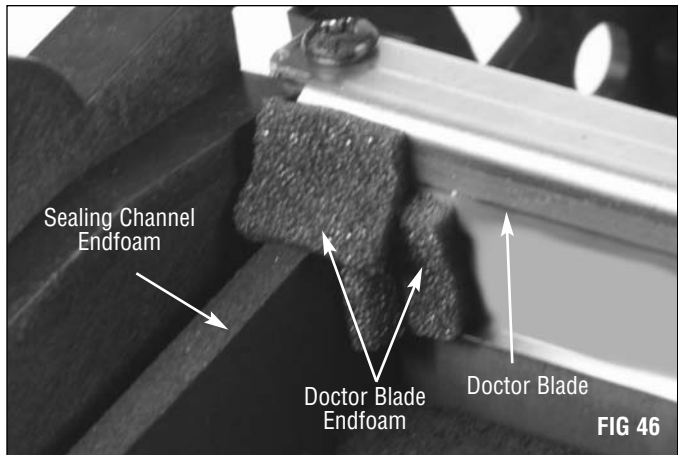
9. Remove the backing from the two Doctor Blade Endfoams (FIG 44a). Fold the Endfoam as shown (FIG 44b).



10. Install the two Doctor Blade Endfoams on either side of the Hopper as shown (FIG 45). Each Foam should create a 90 degree angle against the Endfoams and Doctor Blade Ledge.



11. Install the other two Doctor Blade Endfoams on either side of the Hopper as shown (FIG 46). The Foams should lay adjacent to the Doctor Blade and overlap both the Sealing Channel Endfoams and the Doctor Blade Endfoams.



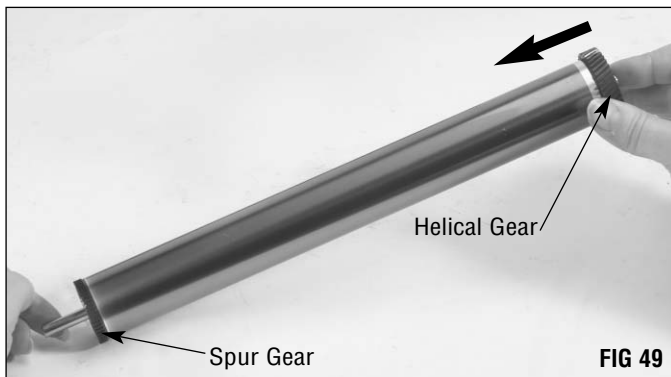
12. Install the Doctor Blade Sealing Foam (FIG 47).



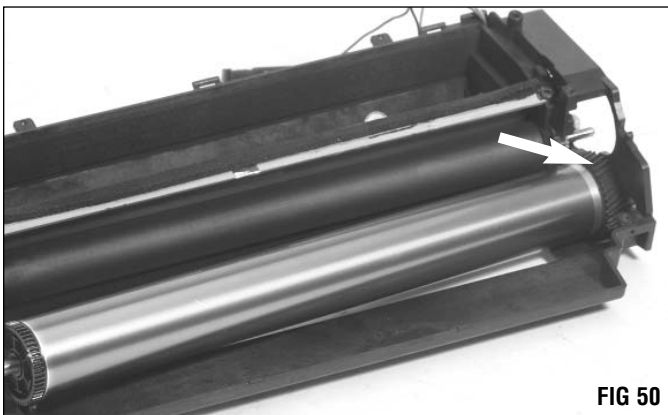
13. Pad the coated area of the drum with Kynar® Lubricating Powder (KPOW). Be careful to avoid getting powder on the gears (FIG 48).



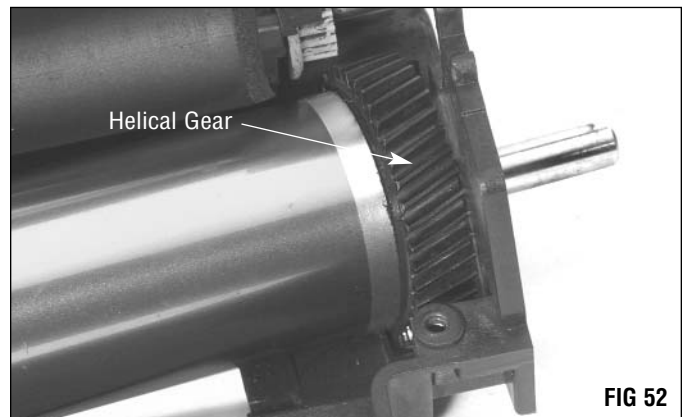
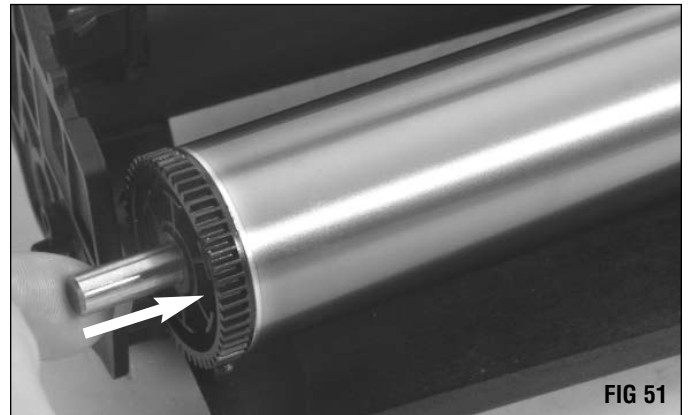
14. Push the axle to the spur gear side of the drum (FIG 49).



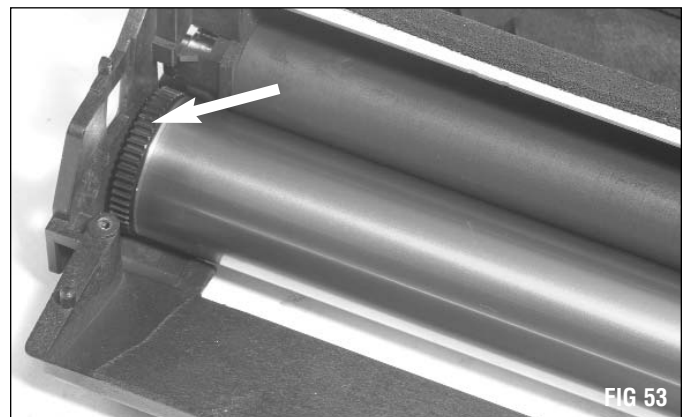
15. Place the helical gear end of the drum into the cartridge as shown (FIG 50).



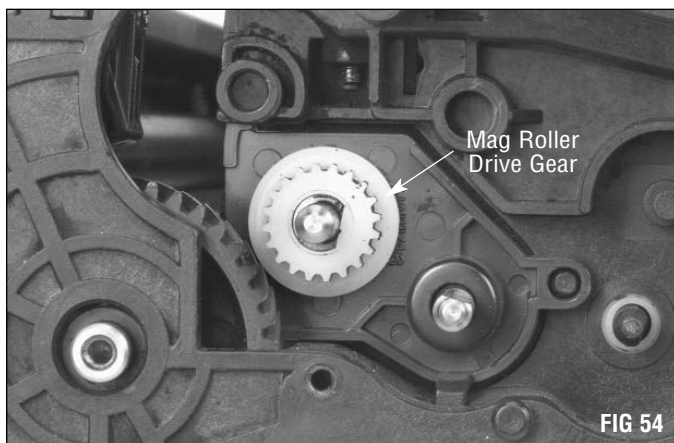
16. Push the axle toward the helical side of the drum as shown (FIG 51 & 52).



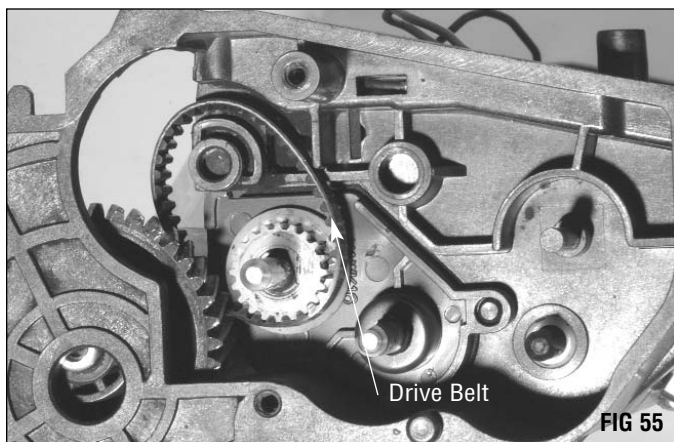
17. Place the spur gear end of the drum into the cartridge as shown (FIG 53).



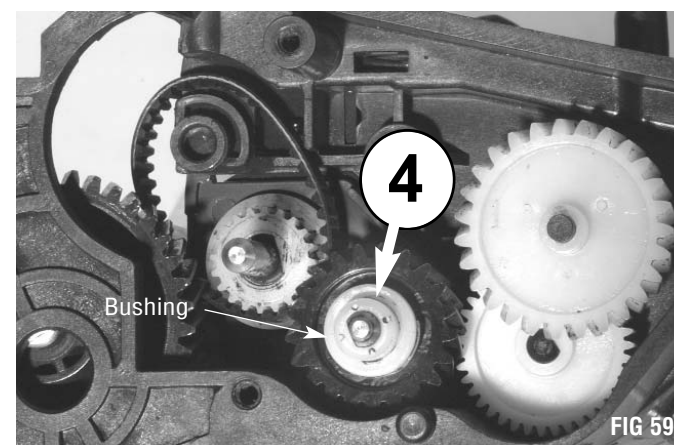
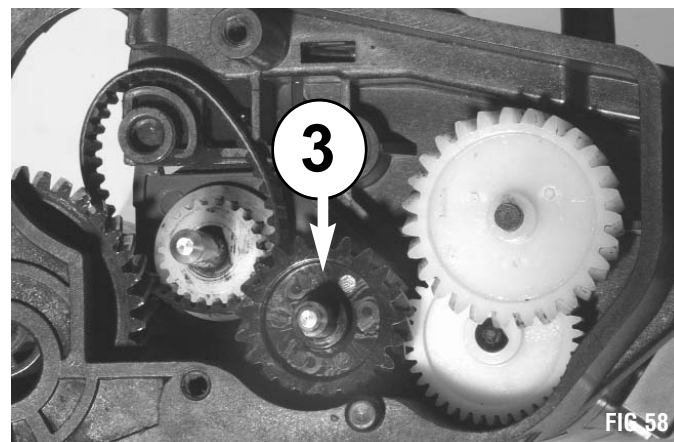
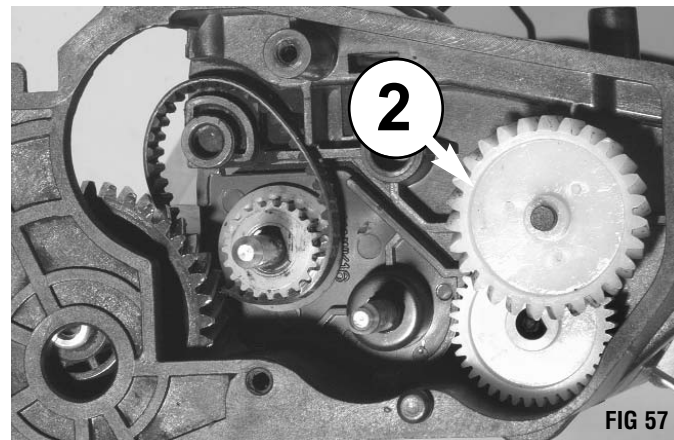
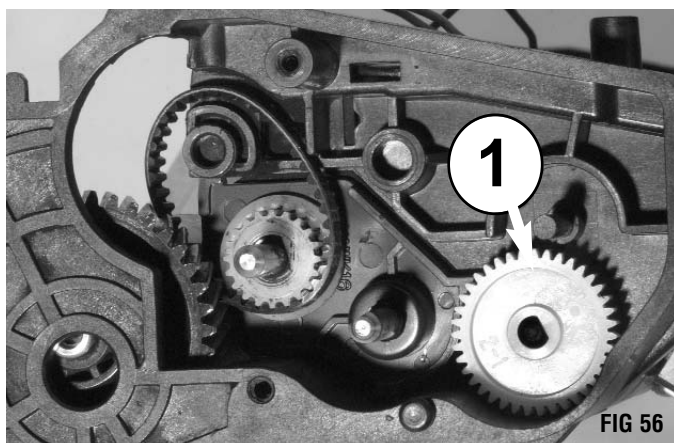
18. Place the mag roller drive gear on the cartridge as shown (FIG 54).

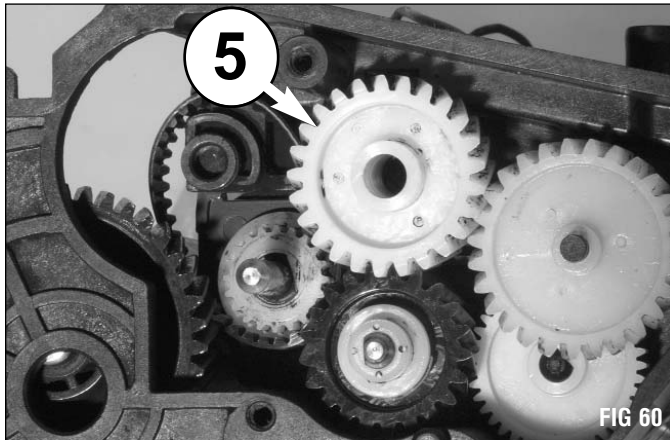


19. Place the drive belt on the cartridge as shown (FIG 55).

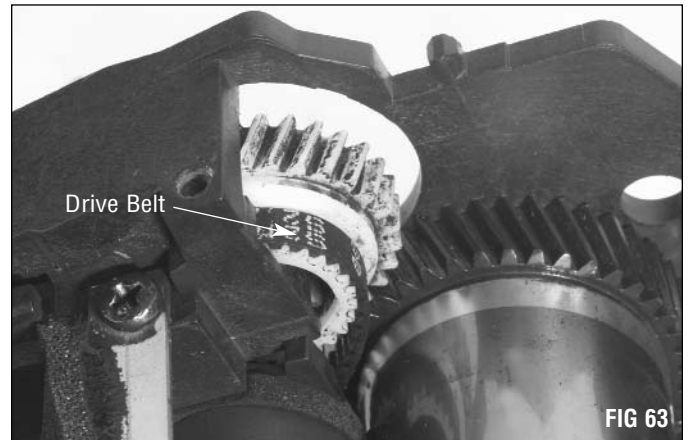
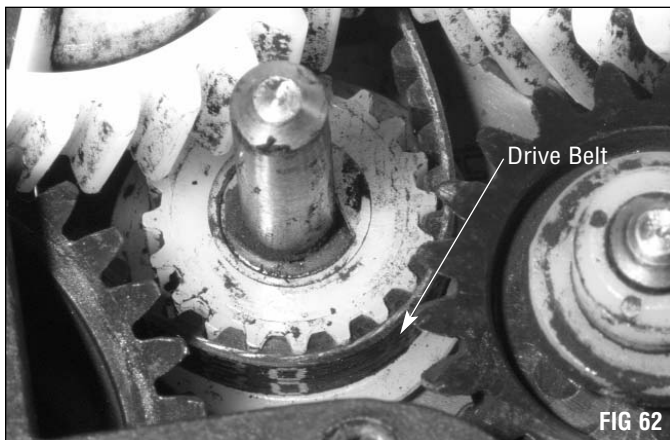
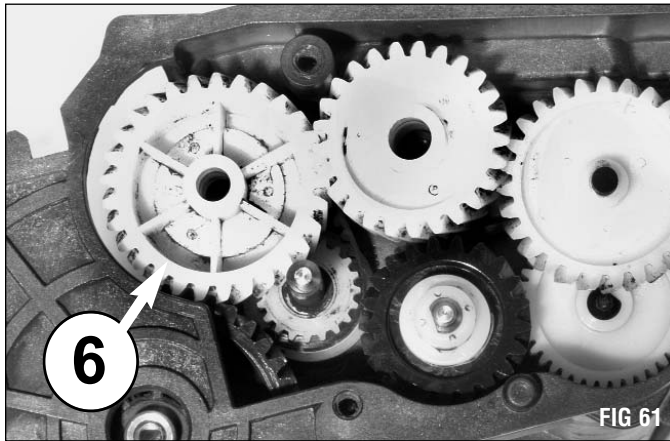


20. Begin replacing the gears and bushing in the sequence as shown (FIG 56 through 60).

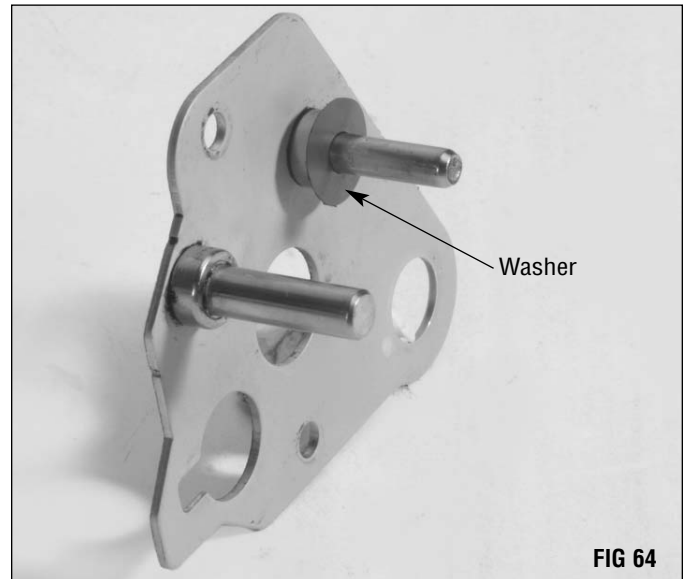




21. Place the last gear into position as shown (FIG 61). Hook the drive belt around the gear on the outside of the cartridge (FIG 62) and the gear on the inside of the cartridge (FIG 63). Make sure the teeth on the gears are intermeshed with the teeth on the drive belt.



22. Place the washer on the metal plate (FIG 64) and place the metal plate into position as shown (FIG 65).



23. Using a Lint-free Swab (LFSWAB) clean the two areas shown where conductive lubricant has been applied (FIG 86), and then apply a thin layer of Conductive Cartridge Lubricant (CONCLUBE). Use the wooden end of a swab as an applicator.

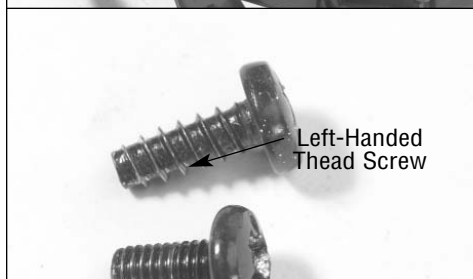


FIG 86

24. Replace the helical side endplate and secure with the four screws. **Note that the screw that goes into the helical gear end of the OPC drum is left-handed thread, so it must be tightened in a counter-clockwise direction as shown (FIG 87).** Note that the left-handed thread screw is a little shorter than the other screws and its threads are closer together.



FIG 87



25. Replace the toner adder roller bushing (FIG 88)

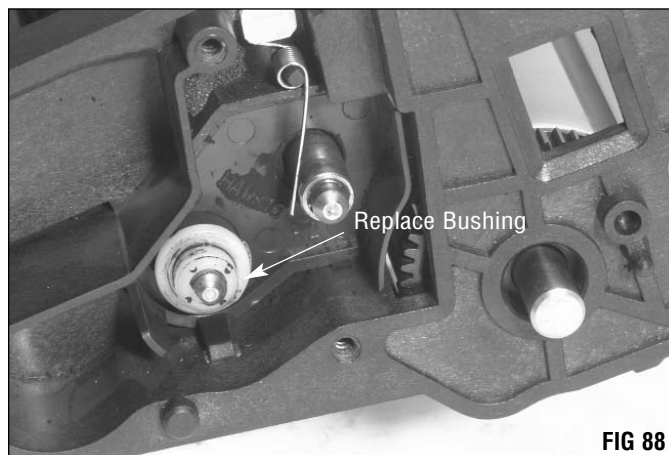


FIG 88

26. Use a lint-free swab to clean the electrical contacts and the place where conductive lubricant has been applied as shown (FIG 89). Then use the wooden end of the swab to reapply a thin layer of conductive lubricant.



FIG 89

27x. Replace the spur gear side endplate and secure with the three screws (FIG 90).

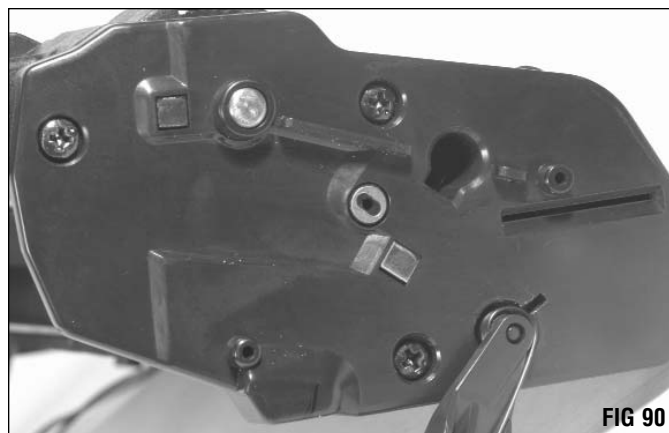


FIG 90

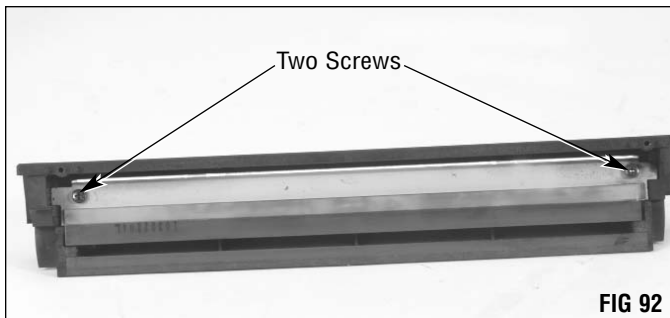


Assembly of the Waste Bin

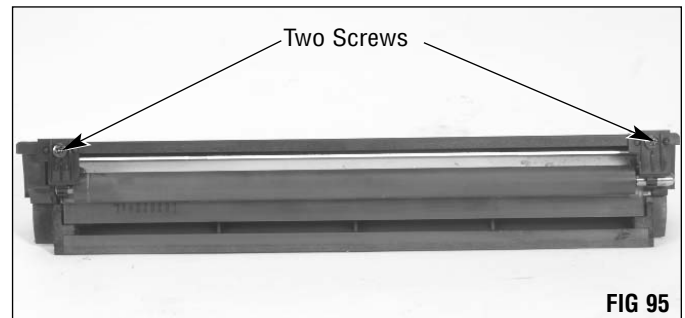
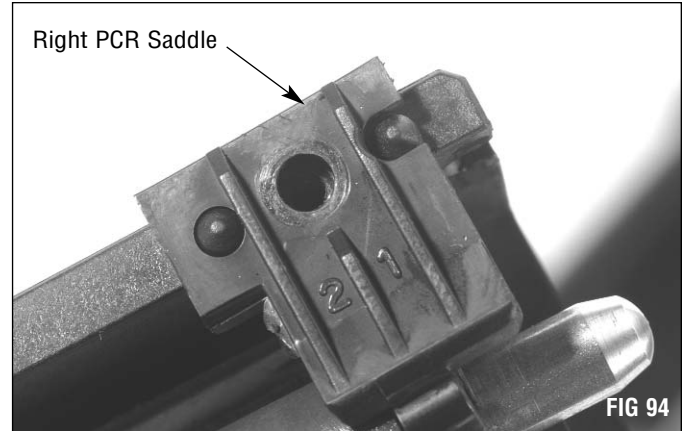
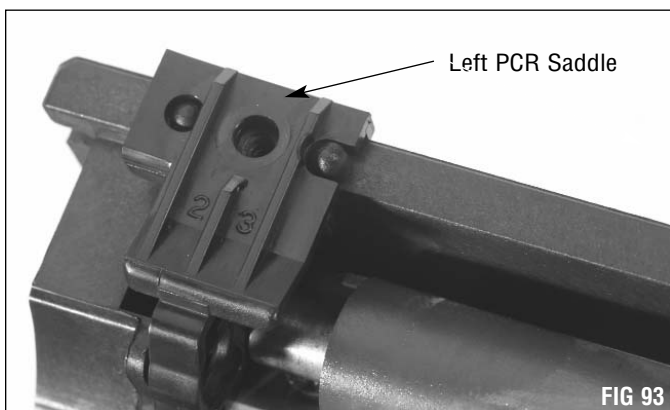
1. Dip the edge of the wiper blade in a long, shallow container of Kynar lubricating powder as shown (FIG 91). Examine the blade to ensure even coverage.



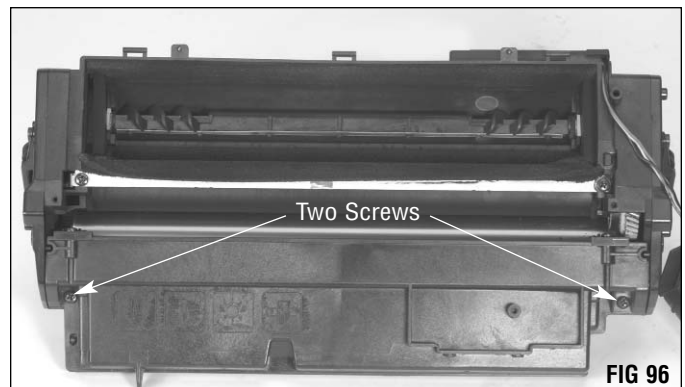
2. Replace the wiper blade and secure with two screws (FIG 92).



3. Replace the PCR and PCR saddles. Note the position of the left saddle (FIG 93) and the right saddle (FIG 94). Secure with two screws (FIG 95).



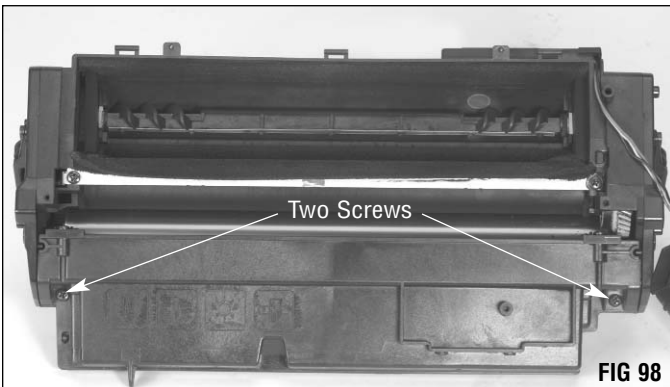
4. Replace the waste bin and secure with two screws (FIG 96).



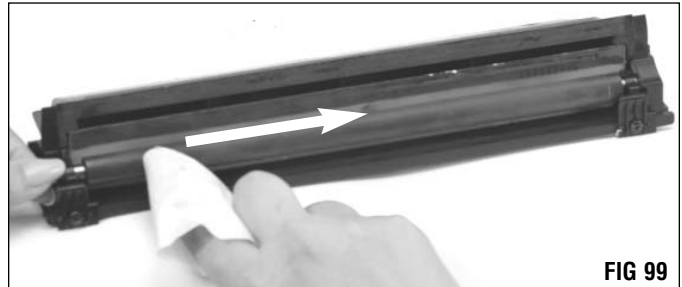
5. Rotate the drum in its normal rotational direction, at least six full drum rotations (FIG 97). Rotating the drum will help lubricate the wiper blade and prevent the potential of blade “flip overs”. The lubricating powder wiped from the drum by the wiper blade will deposit in the waste bin.



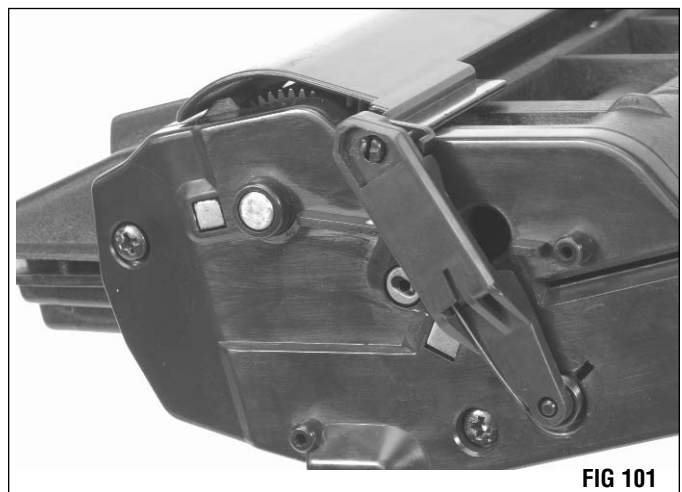
6. Remove the two screws that secure the waste bin (FIG 98). Remove the waste bin.



7. Rotate the PCR and wipe the powder from the PCR using a lint free cleaning cloth (FIG 99). Wipe in one direction only. You can also use dry, filtered, compressed air instead of the lint-free cloth to remove the powder from the PCR.



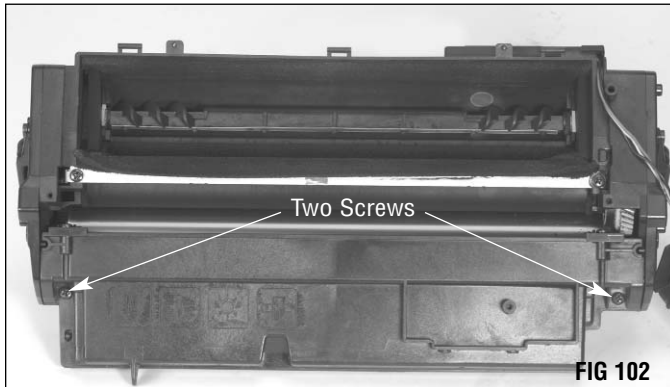
8. Attach the drum shutter to the drum shutter arms. If the arms have been removed replace with the springs in position as shown. FIG 100 shows the position of the sprur side shutter arm and FIG 101 shows the position of the helical side shutter arm.





Assembly of the Cartridge

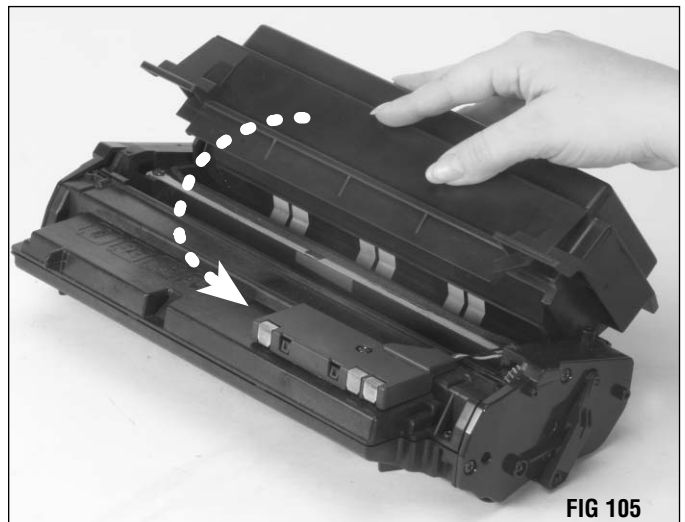
1. Replace the waste bin and secure with two screws (FIG 102).



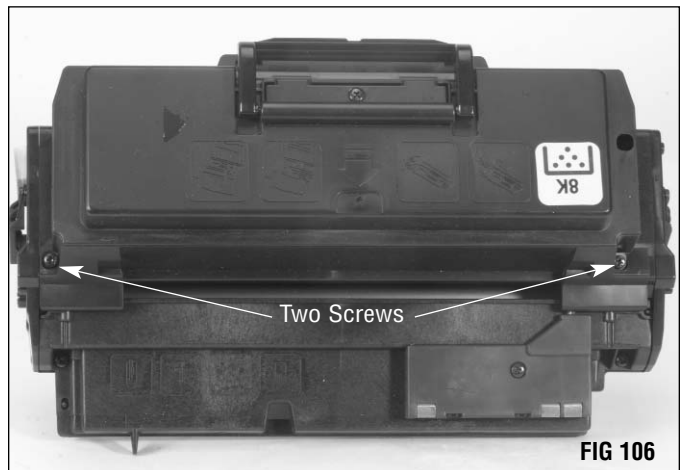
2. Replace the contact assembly cover and secure with one screw. Note position of wires along the side of the cartridge (FIG 103).



3. Align the three tabs on the toner hopper with the three tabs on the cartridge as shown (FIG 104), then rotate the hopper back together with the cartridge as shown (FIG 105).



4. Use a Phillips screwdriver to replace the two screws on top of the cartridge (FIG 106).





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Static Control Components, Inc.
3010 Lee Avenue • PO Box 152 • Sanford, NC 27331
US/Can 800-488-2426 • US/Can Fax 800-488-2452
Int'l 919-774-3808 • Int'l Fax 919-774-1287
www.scc-inc.com

Static Control Components (Europe) Limited
Unit 30, Worton Grange • Reading Berkshire RG2 0TG •
United Kingdom
Tel +44 (0) 118 923 8800 • Fax +44 (0) 118 923 8811
www.scc-inc.com

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