

**MODIFICATION INSTRUCTIONS**  
**for the**  
***Kodak X-Omat* MULTILOADER 300**  
**Service Code: 3058**  
**Modification No. 41/43**  
***Kodak X-Omat* 270 RA PROCESSOR**  
**Service Code: 3059**  
**Modification No. 23/24**  
***Kodak X-Omat* 180 LP/180 LPS PROCESSORS**  
**Service Codes: 3227, 3198**  
**Modification No. 10/12**

**Type 2**

- Purpose:** To upgrade the DRYER RACK with new RACK SIDEPLATES to improve reliability.  
Mods 10/23/41 will:
- improve the film path by making changes to the positions of the “F” and “E” ROLLERS.
  - make changes to the diameter of the new “F” and “E” ROLLER GEARS.
  - make the bottom GUIDE SHOE adjustable.
  - include new SIDEPLATE BEARINGS which have a longer service life.
- Mods 12/24/43 will:
- reduce wear and binding in the RACK by installing new BEARING WASHERS.



**Important**

Use qualified personnel to install this modification.

- Service Effects:** Make changes to the Illustrated Parts Lists to include the new part numbers.
- Special Requirements:** None
- Serial Numbers:** There are two modifications for the PROCESSORS. The modifications were combined since they are both for the DRYER RACK. See “Serial Numbers:” on Page 2.
- Installation Time:** 1.5 hours
- Special Tools:** None
- Parts Status:** Parts are available at Service Parts Management.
- Parts Requirements:** See “Parts Lists:” on Page 2.



**HEALTH IMAGING**

**PLEASE NOTE** The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

No patent license is granted by this information.

Eastman Kodak Company reserves the right to change this information without notice, and makes no warranty, express or implied, with respect to this information. Kodak shall not be liable for any loss or damage, including consequential or special damages, resulting from any use of this information, even if loss or damage is caused by Kodak's negligence or other fault.



This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

#### Serial Numbers:

|                                   |  |
|-----------------------------------|--|
| 101 - 1659                        | 270 RA INTEGRATED PROCESSOR in a MULTILOADER 300 |
| 101 - 2495                        | 270 RA PROCESSOR                                 |
| 101 - 4099 and 100001 - 100073    | 180 LP PROCESSORS                                |
| 10001 - 13564 and 125001 - 125229 | 180 LPS PROCESSORS                               |

#### Parts Lists:

MODIFICATION KIT 7C8712 for the 270 RA PROCESSOR (Mod 23/24) and the 270 INTEGRATED in a MULTILOADER (Mod 41/43) includes:

| Part No. | Description                | Qty. |
|----------|----------------------------|------|
| 3H8277   | SIDEPLATE - Drive Side     | 1    |
| 9B8871   | SIDEPLATE - Non-Drive Side | 1    |
| 1C7245   | "F" ROLLER GEAR            | 1    |
| 1C7244   | "E" ROLLER GEAR - snap-in  | 1    |
| 544267   | GUIDE SHOE BRACKET SCREW   | 2    |
| 852611   | GUIDE SHOE BRACKET WASHER  | 2    |
| 9B8719   | BEARINGS                   | 18   |
| 3H8282   | BEARING WASHERS            | 14   |
| 7C8299   | MODIFICATION INSTRUCTIONS  | 1    |

MODIFICATION KIT 7C8713 for the 180 LP and 180 LPS PROCESSORS (Mod 10/12) includes:

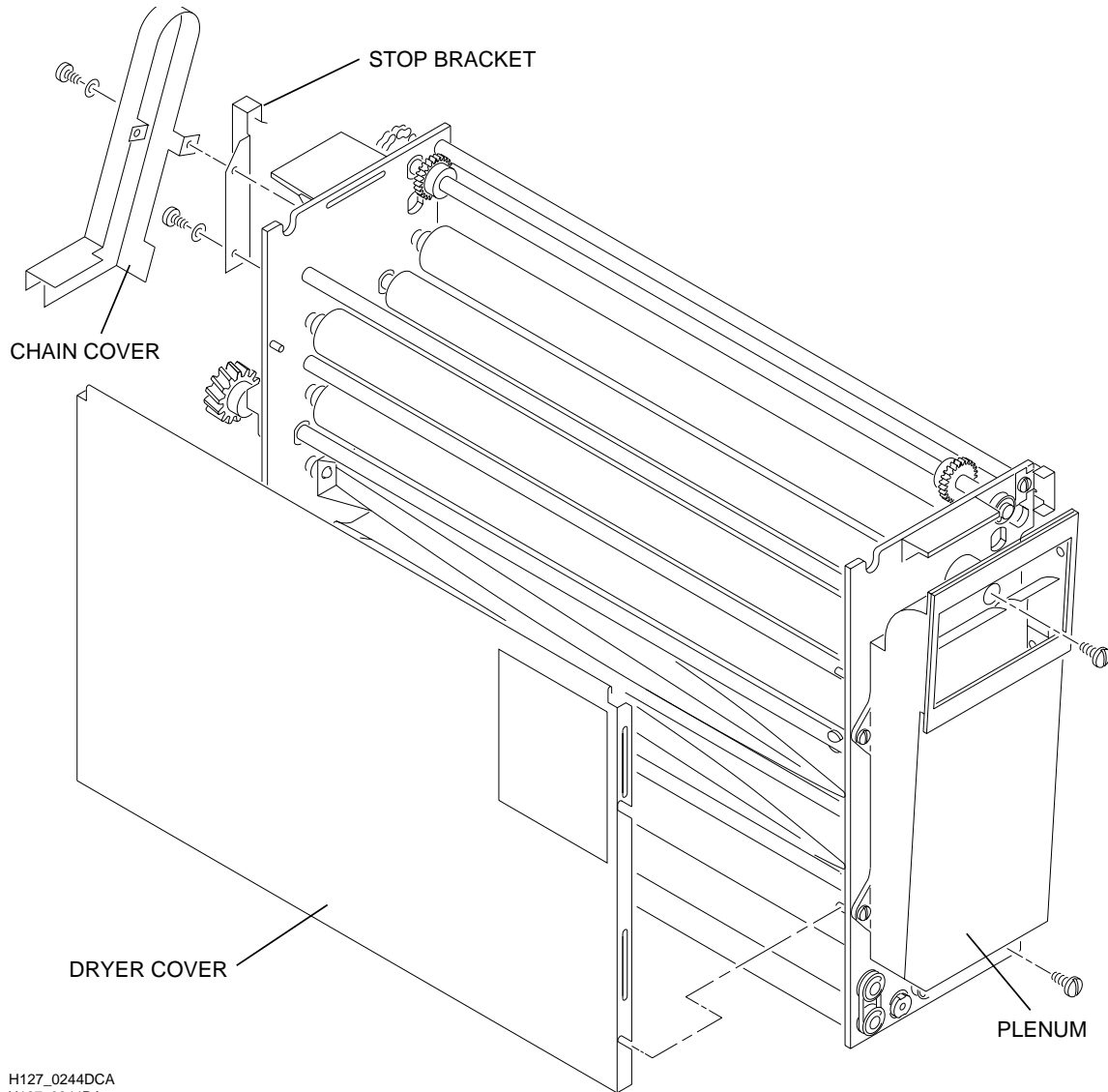
| Part No. | Description                | Qty. |
|----------|----------------------------|------|
| 3H8276   | SIDEPLATE - Drive Side     | 1    |
| 9B8873   | SIDEPLATE - Non-Drive Side | 1    |
| 1C7245   | "F" ROLLER GEAR            | 1    |
| 1C7244   | "E" ROLLER GEAR - snap-in  | 1    |
| 544267   | GUIDE SHOE BRACKET SCREW   | 2    |
| 852611   | GUIDE SHOE BRACKET WASHER  | 2    |
| 9B8719   | BEARINGS                   | 16   |
| 3H8282   | BEARING WASHERS            | 14   |
| 7C8299   | MODIFICATION INSTRUCTIONS  | 1    |

## Upgrading the DRYER RACK

### Note

- Modification 10 may be installed already on some 180 LP / LPS PROCESSORS. It is still necessary that all of the Steps in these instructions are followed.
- All of the Figures are of a 180 LP PROCESSOR. The DRYER RACK in the 270 RA PROCESSOR is similar. Save all of the parts removed except for the parts that are replaced by new parts in the KIT.

Figure 1 **DRYER RACK**



H127\_0244DCA  
H127\_0244DA



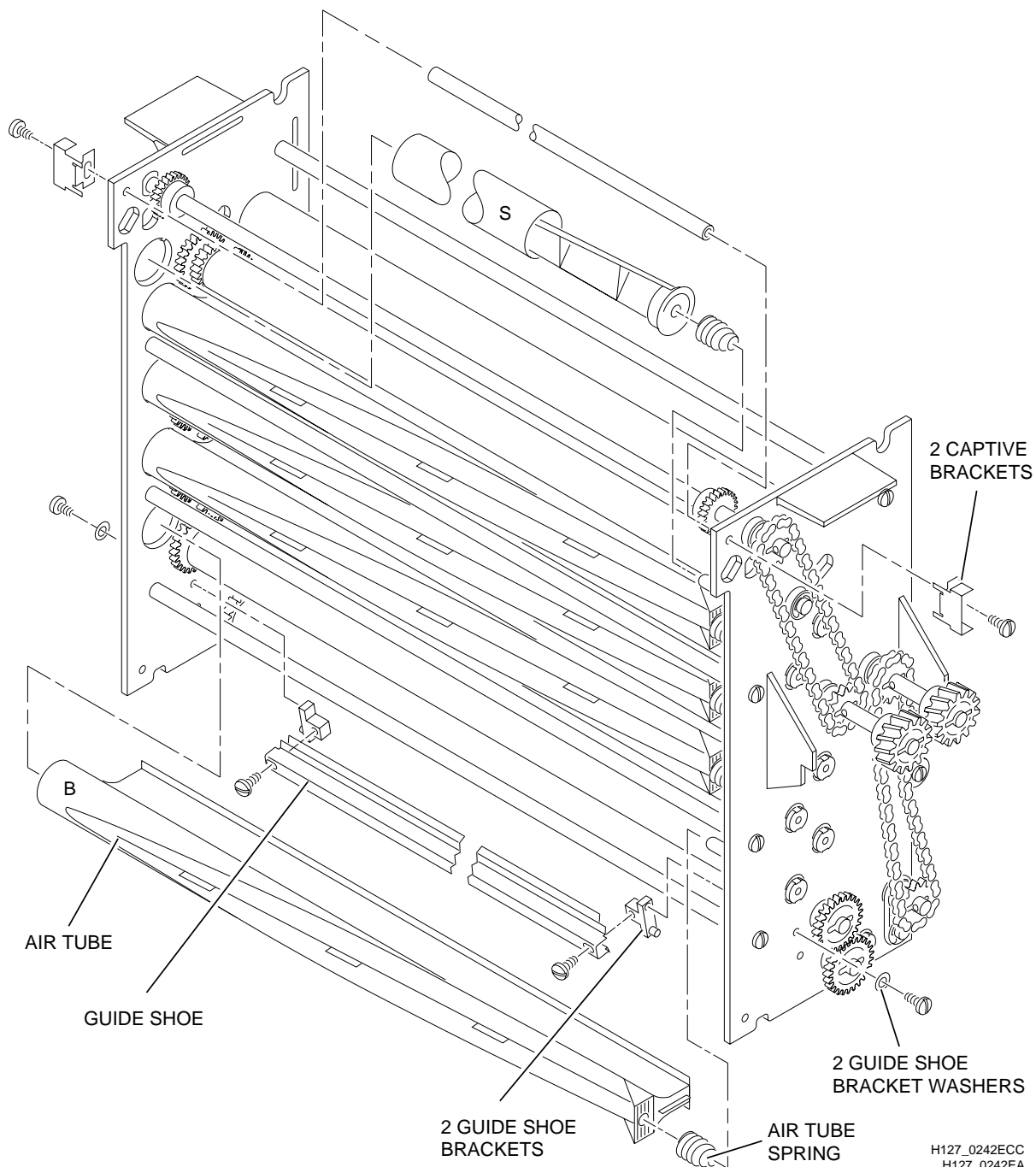
**Warning**  
Dangerous Voltage

- [1] De-energize the PROCESSOR.
- [2] Remove the DRYER RACK from the PROCESSOR.

**[3]** Remove the following from the DRYER RACK:

- DRYER COVER
- TOP COVER and top GUIDE SHOE, if necessary (parts not shown)
- PLENUM
- STOP BRACKET
- CHAIN COVER (newer RACKS have a larger COVER than shown)

**Figure 2 AIR TUBES, GUIDE SHOE, and CAPTIVE BRACKETS - Drive Side View**

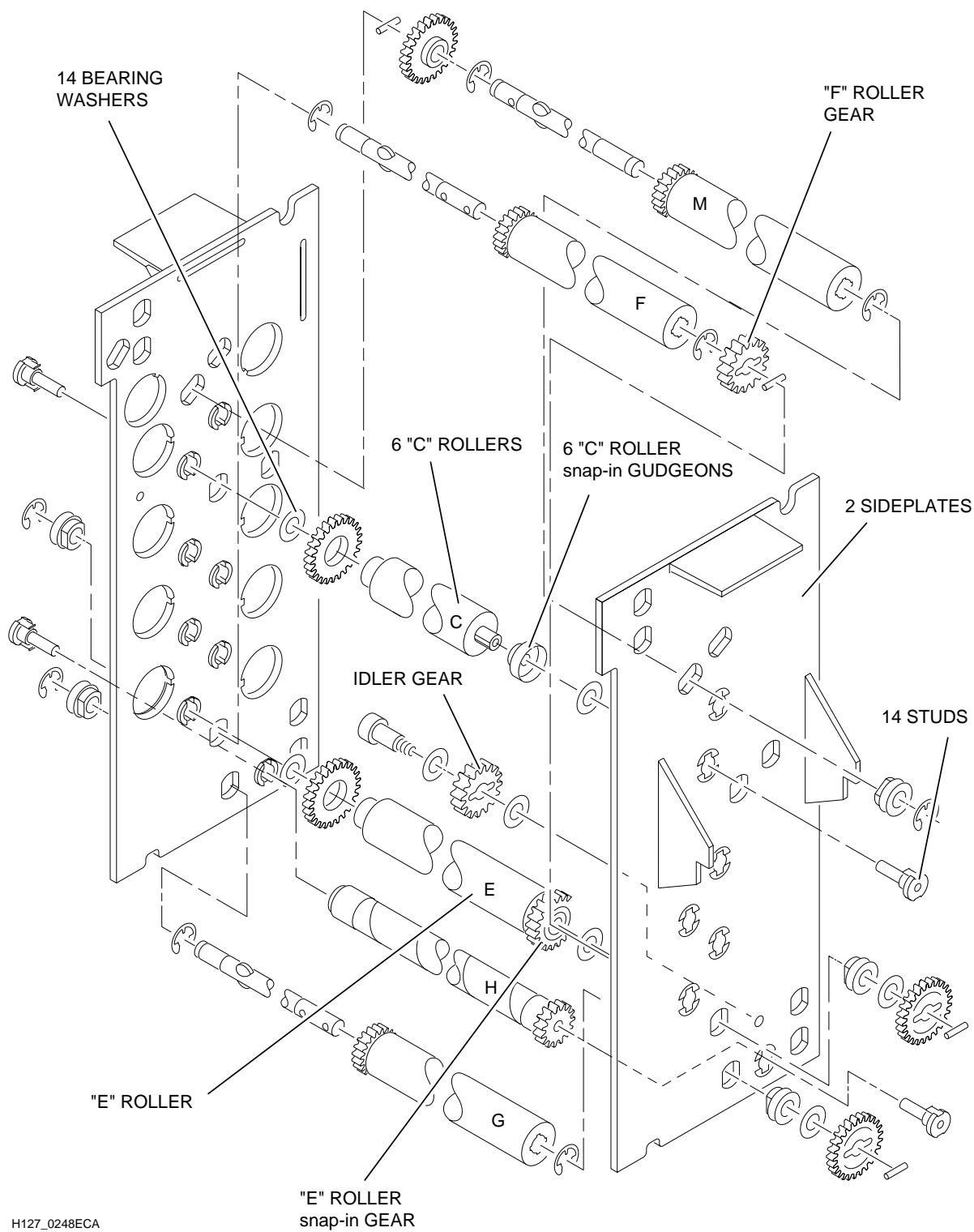


H127\_0242ECC  
H127\_0242EA

[4] Remove:

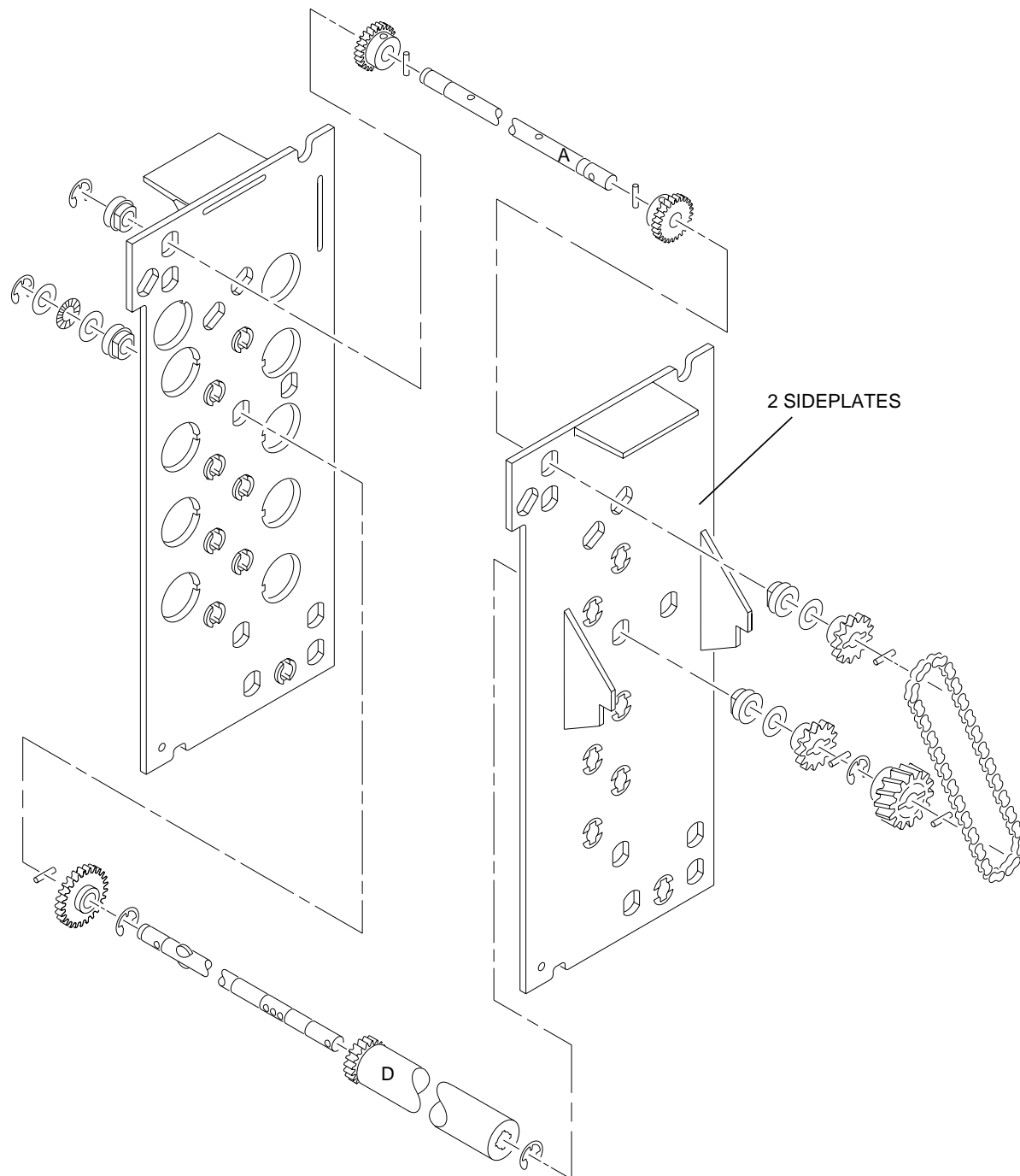
- AIR TUBES
- AIR TUBE SPRINGS
- bottom GUIDE SHOE
- 2 GUIDE SHOE BRACKETS
- 2 CAPTIVE BRACKETS, if necessary

Figure 3 **SIDEPLATES, ROLLERS, and GEARS - Drive Side View**



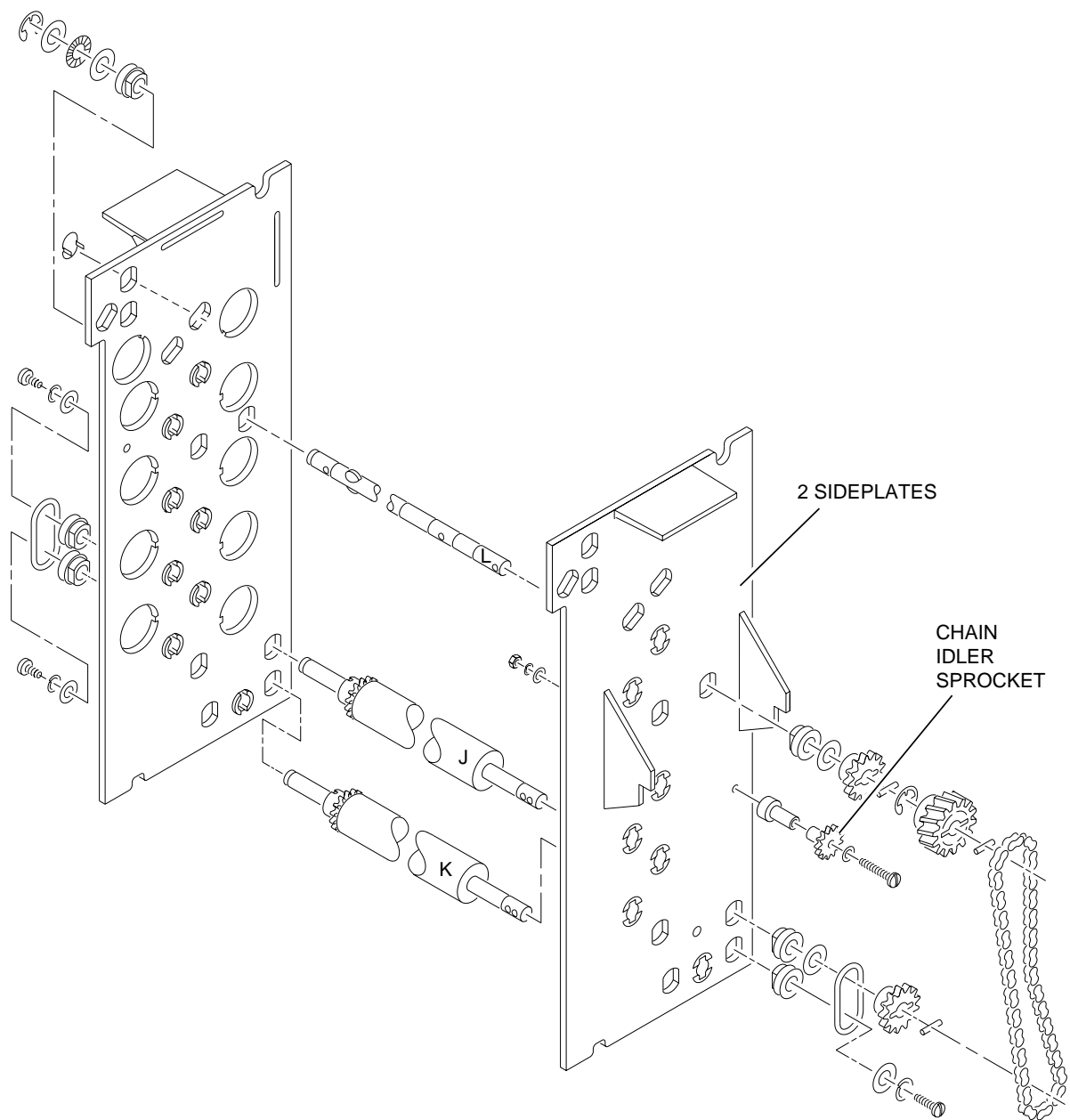
H127\_0248ECA  
H127\_0248EA

Figure 4 SIDEPLATES, DRIVE CHAIN, and SPROCKETS - Drive Side View



H127\_0240ECA  
H127\_0240EA

Figure 5 **SIDEPLATES, DRIVE CHAIN, and SQUEEGEE ROLLERS - Drive Side View**



H127\_0241ECA  
H127\_0241EA

**Note**

“J” and “K” ROLLERS may have E-RINGS and not SCREW FASTENERS.

[5] Remove the old SIDEPLATES. See Figures 3, 4, and 5.

[6] See Figure 3. Remove and discard:

- existing GEAR from the “F” ROLLER (drive side)
- existing snap-in GEAR from the “E” ROLLER (drive side)
- 6 snap-in GUDGEONS from the 6 “C” ROLLERS

---

## Installing the New SIDEPLATES and Adjusting the GUIDE SHOE

[1] See Figure 3. Install the new snap-in “E” ROLLER GEAR 1C7244 on the “E” ROLLER.

[2] Remove the CHAIN IDLER SPROCKET in Figure 5 and the IDLER GEAR in Figure 4 from the old SIDEPLATE and install them on the new drive side SIDEPLATE.



### Important

Do **not** install the following parts at this time: See Figure 6.

- “E” ROLLER
- bottom “C” ROLLER
- 2 bottom AIR TUBES

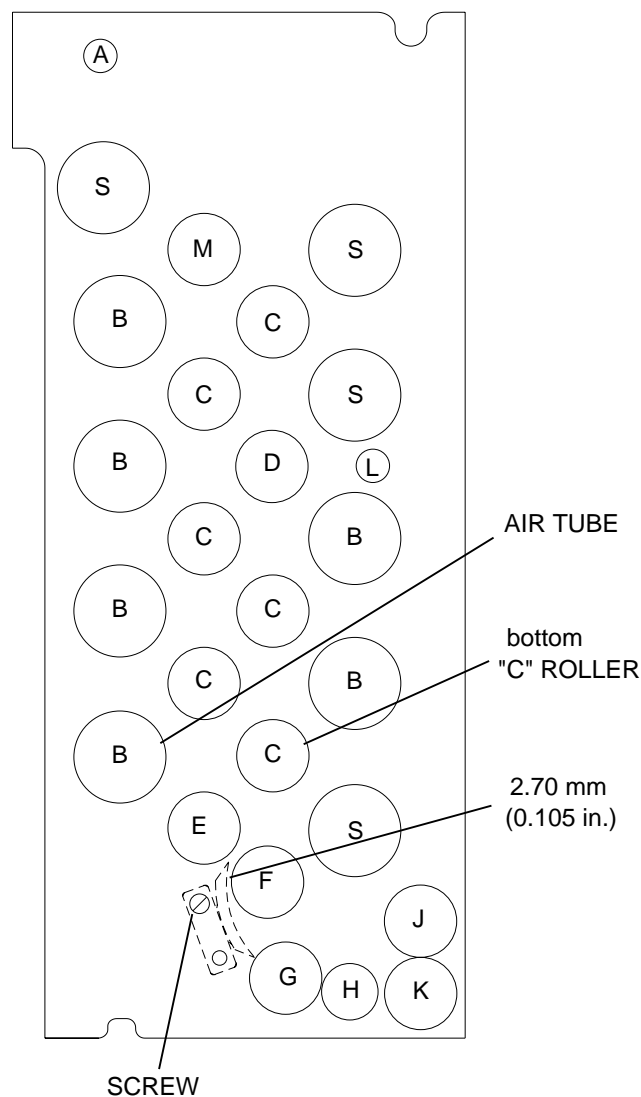
[3] See Figures 3, 4, and 5. Install:

- the parts removed in Step 5 on Page 8.
- the new BEARING WASHERS, one on each end of each “C” ROLLER between the SIDEPLATE and the end of the ROLLER.
- the new “F” ROLLER GEAR 1C7245 (located inside the SIDEPLATE) on the “F” ROLLER.

[4] See Figure 2. Install the parts removed in Step 4 on Page 5.

- use new SCREWS 544267 and WASHERS 852611 to install the bottom GUIDE SHOE BRACKETS on the SIDEPLATES.
- check that the long edge of the bottom GUIDE SHOE is in the direction of the film path.

Figure 6 **GUIDE SHOE**



H127\_0243CCB  
H127\_0243CA

[5] See Figure 6. Loosen the SCREWS.

[6] Set the distance between the "F" ROLLER and the GUIDE SHOE:

- (a) Place a 2.70 mm (0.105 in.) FEELER GAUGE between the "F" ROLLER and the long edge of the GUIDE SHOE. See Figure 6.
- (b) Hold the GUIDE SHOE against the FEELER GAUGE and tighten the SCREWS.
- (c) Check that the clearance between the GUIDE SHOE and the ROLLER is 2.70 mm (0.105 in.) +/- 0.10 mm (0.005 in.) at both ends and in the center.

#### **Note**

Apply a small amount of water on the BEARING WASHER to help hold it in place on the "E" ROLLER.

[7] See Figure 3. Install the "E" ROLLER and the bottom "C" ROLLER using a new BEARING WASHER at each end of each ROLLER between the SIDEPLATE and the end of the ROLLER.

[8] Install the 2 bottom AIR TUBES.

[9] See Figure 1. Install the parts removed in Step 3 on Page 3 to assemble the DRYER RACK.

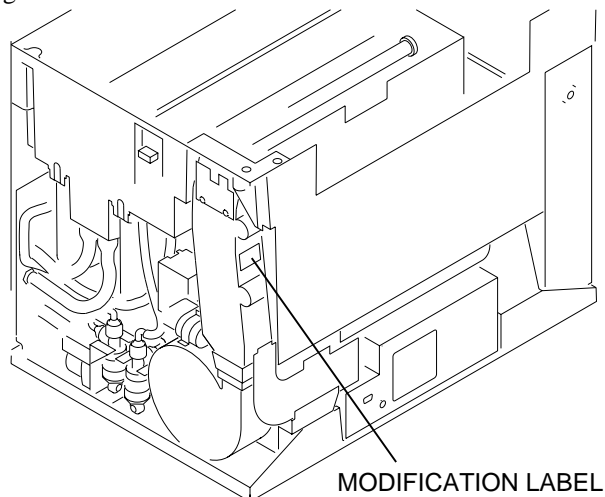
[10] Check the squareness of the DRYER RACK on a smooth, flat surface.

[11] Rotate the DRIVE SHAFT on the DRYER RACK and check for interference.

[12] Install the DRYER RACK in the PROCESSOR.

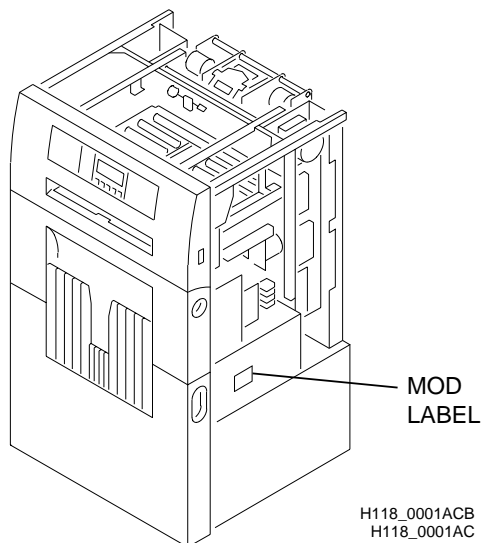
## Completing the Modification

Figure 7 270 RA PROCESSOR



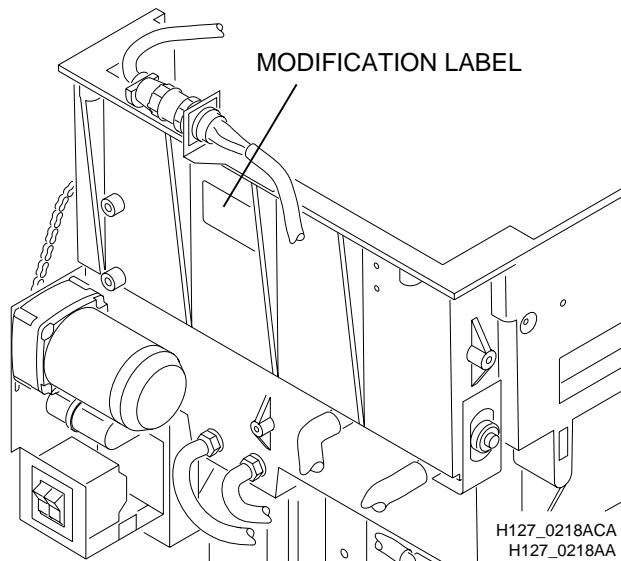
H104\_0554ACA  
H104\_0554AA

Figure 9 MULTILOADERS 300 with Serial No. 1369 and Below



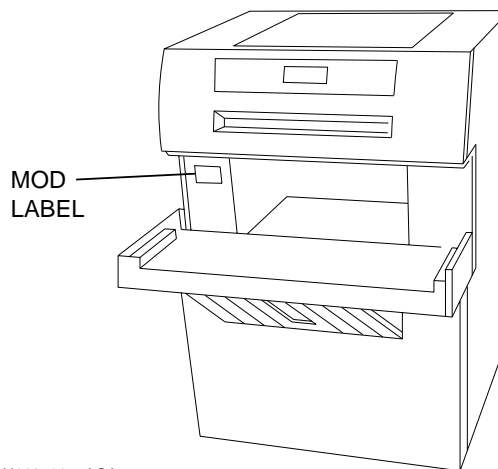
H118\_0001ACB  
H118\_0001AC

Figure 8 180 LP or 180 LPS PROCESSORS



H127\_0218ACA  
H127\_0218AA

Figure 10 MULTILOADERS 300 with Serial No. 1370 and Above



H118\_0055ACA  
H118\_0055AC

[1] Circle:

- “23” and “24” on the MODIFICATION LABEL on the 270 RA PROCESSOR.
- “10” if necessary, and “12” on the MODIFICATION LABEL on the 180 LP or 180 LPS PROCESSOR.
- “41” and “43” on the MODIFICATION LABEL on the MULTILOADER 300.

---

## Assembling and Checking PROCESSOR Operation

[1] Assemble the PROCESSOR and check for correct operation.

[2] Check for correct operation of the DRYER RACK by processing 35.0 x 43.0 cm (14.0 x 17.0 in.) films.

### Note

If the DRYER RACK bottom GUIDE SHOE causes film scratches or stubbing, do the following adjustments:

- for scratches, **increase** the distance approximately 0.10 mm (0.005) between the GUIDE SHOE and the “F” ROLLER.
- for stubbing, **decrease** the distance approximately 0.10 mm (0.005 in.) between the bottom GUIDE SHOE and the “F” ROLLER.
- after making the adjustment, check for film quality by processing the film. Do the above procedures again as necessary, to minimize the film scratching or stubbing.

## Publication History

| Print Date | Pub. No. | ECO No.  | Affected Pages | File Name             | Notes   |
|------------|----------|----------|----------------|-----------------------|---|
| 24MAR98    | 7C8299   | 2619-169 | All            | ma3058_41_24mar98.doc | First printing  |
| 30JUL98    | 7C8299   | 2650-194 | All            | mb3058_43_30jul98.fm  | Add Mods 12, 24, and 43.  |
| 15MAR99    | 7C8299   | 2592-416 | Pages 3 and 4. | mb3058_43_15mar99..fm | Old Page 3: Deleted<br>“Preliminary Instructions”.<br>New Page 3: Added Note. |

*Kodak and X-Omat are trademarks.*

