

Ishida OMNi-3000 Monthly Maintenance and Lubrication Guide

Customer: _____ Inspection Date: _____
 Contact: _____ Technician(s): _____
 Model: OMNi – 3000 / S / ST Cycle Count: _____
 Serial Number: _____ Print Distance: _____ Km
 Installation Date: _____

This version of the OMNi-3000 Series Maintenance Guide is designed for high volume wrappers. It breaks the full maintenance schedule into **three sections**. These are designed **to be performed on a monthly rotation**. This allows frequent observation of the wrapper, which will result in fewer problems and service calls.

	Sections		Sections
1	LIFT HEAD	15	PRINTER MOVEMENT
2	REAR WRAPPING	16	APPLICATOR (OMNi, OMNi S/ST)
3	LEFT / RIGHT WRAPPING	17	PRINTER
4	DISCHARGE PUSHER	18	DISCHARGE HEATER (OMNi, OMNi-S)
5	INFEED CONVEYOR	18a	DISCHARGE and HEATER CONVEYORS (OMNi-ST)
6	SCALE	19	SWITCHES
7	FILM FEED (POLISHED) ROLLER	20	CONNECTORS
8	FILM FEEDER	21	LCD DISPLAY CHECK
9	FILM CUTTER	22	KEYBOARD CHECK
10	FILM PRESS UNIT	23	WRAPPING TEST
11	LIFT DRIVE	24	CONSOLE
12	LIFT SIZE CHANGE	25	CUSTOMER CONCERNS
13	FILM ROLL	26	ADJUSTMENTS, COMMENTS, ETC.
14	FILM FEEDER MOVEMENT	27	REFERENCE DRAWINGS

Term is based on 275,000 – 300,000 cycles per 6-months and 550,000 – 600,000 cycles per year.

- Required materials:**
- Grease: White, Yellow, and Black (see table below for descriptions)
 - Disposable brushes, small (for grease application)
 - Silicone spray lubricant
 - Screwdrivers, assorted
 - Weight set
 - Thermal head cleaning kit
 - Compressed Air/Vacuum
 - Key, interlock bypass, 2 pieces
 - Adhesive remover (for labels)
 - Wrench set, metric
 - Allen wrench set, metric
 - Socket set (optional)
 - IF-21 Disk Recorder and 2DD diskette
 - Sandpaper
 - File set
 - Sharpening stone

Lubrication for OMNi-3000

Color of grease	Part code	Description
(Y) Yellow	77932	General Purpose Lithium Grease (323916) [Shell Alvania Grease "No2"]
(W) White	77933	White Food-Grade Grease (380059) [Sumico White alcom grease "No2"]
(B) Black	77934	Multi-Purpose Grease (371219) [Daizo Nichimori "L-210"]

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	Section	Inspection Items and Contents	Tool / Method	Replacement Parts	Check		
					1	2	3
1	LIFT HEAD	Remove and Clean lifter head assembly. (Clean with brush and towel – do NOT soak in water.)			X	X	X
		Check surface friction and damage of lifter heads.		Supporter head	X		
		Check that the five moveable lifter heads slide freely but are not too loose.		Pole plunger	X		
		Lubricate square shafts of the five moveable lifter heads and locking detents.	Grease (W)		X		
		Check lifter heads for rust. Verify that heads return to upright position.	Grease (W)	Spring Coil	X	X	X
		Check all screws in the lifter head assembly. Tighten as necessary.			X		
2	REAR WRAPPING PLATE	Check that all screws are tight.			X	X	X
		Check condition of roller on leading edge of rear wrap plate. (If polished, roughen with coarse sandpaper).	Sand paper			X	
		Check for smooth movement of the block bushings.		Bushing (two years)	X	X	X
		Check if inner fixed exit discharge roller shaft is bowed and touched by rear wrap plate.				X	
		Lubricate square travel shafts. (Check shafts, and apply grease) Note: lubricate inside and outside, see section 4	Grease (B)			X	
		Lubricate tie rod end fittings on the turnbuckles of the drive arms.	Grease (Y)			X	
		Lubricate linkage and pivot points of the rear wrap plate drive arms (right side).	Grease (Y)			X	
		Clean photo sensors (Home and Limit positions). (Confirm sensor operation in Test Mode)	Compressed air		X	X	X
		Clean rear wrap plate. (Remove any labels, etc.)				X	
3	LEFT/RIGHT WRAPPING PLATES	Check that all screws are tight.			X	X	X
		Check timing belt for damage and stretching (black).				X	
		Lubricate rear travel shaft. (Check shaft, and apply grease)	Grease (W)			X	
		Disassemble and lubricate front linear bearing assemblies. (Check for film pieces, apply grease)	Grease (W)	Liner bearings		X	
		Clean photo sensors (Home position/Counter) (Confirm sensor operation in Test Mode)	Compressed air		X	X	X
		Clean left and right wrap plates. (Remove any labels, etc.)				X	

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					1	2	3	
4	DISCHARGE PUSHER	Check that all screws are tight.			X	X	X	
		Check right side and left side timing belts (black). (Check that the length is equal on both sides).				X		
		Lubricate square travel shafts. (Check shafts, and apply grease)	Grease (B)				X	
		Check clearance of sensor flag bracket and home and limit photo sensors.			X	X	X	
		Check that the Pusher does not hit when it returns to the Home position.				X		
		Clean photo sensors (Home and Limit positions). (Confirm sensor operation in Test Mode)	Compressed air		X	X	X	
		Clean top, front, and under sides of pusher plate. (Remove any labels, etc.)				X		
5	INFEED CONVEYOR	Clean crumb catch tray and infeed chains.			X	X	X	
		Examine chain and pusher tabs for cracks.		Chain	X			
		Check infeed plastic slide rails for damage. Confirm rails have not been polished smooth – roughen if necessary.	File		X			
		Lubricate pull out slide rails of Infeed Conveyor.	Grease (Y)				YEARLY	
		Lubricate front idler pulleys for infeed chains	Silicone spray		X			
		Clean Infeed pusher tray stop position sensor and reflector. (Confirm sensor operation in Test Mode)			X			
		Clean "Hand in Wrapper" safety detection sensors and reflectors. (Confirm sensor operation in Test Mode)	Compressed air		X			
		Clean "Foreign Object" and "No Item" sensors and reflectors. (Confirm sensor operation in Test Mode)	Compressed air		X			
6	SCALE	Check zero and span calibration.	Weight of 5 lb x 6 Test Mode		X			
		Check four-corner accuracy.	30 lb Weight		X			
		Check seal on metal platter and plastic case is watertight. [Calibration button access]			X			
7	FILM FEED (POLISHED) ROLLERS (Right and Left)	Check operation of DC clutch. (Check film feed condition & stop position) [Right and Left sides]		DC clutch			X	
		Check effect of DC brake. (Check film feed condition & stop position) [Right and Left sides]		DC brake			X	
		Clean polished Film Feed Roller. Check condition of polished Film Feed Roller (scratches and burs). Replace if necessary.		Film Feed Roller	X	X	X	
		Check condition of anti-static brushes and contact with film. [Side doors and Film Press unit].		Anti-static brush			X	

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8	FILM FEEDER (Front and Rear)	Check film feed belt (white) for damage, stretch, and shiny surface required for adequate film gripping. [Check grip change with tension knob].		White film feed belt	X	X	X	
		Check blue flat belt for damage and stretch.		Blue flat belt (Replace /2.5 years)			X	
		Check balance of side (left and right) gripper pads.					X	
		Check stretch and path on pulley of drive (timing) belt (black). [Left side]					X	
		Check that film centers (right / left) during film feed from both right and left sides.					X	
		Clean film pieces from white film feed belts and wrapper interior, including catch trays.	Vacuum			X	X	X
		Check operation of solenoids (8). Use fingers and "pinch test" to check operation strength. (film separator / gripping clamps)						X
		Lubricate main film drive shaft (hexagonal). Note: excessive grease will clump and fall off.	Grease (B)					X
		Check stretch and damage of main film drive timing belt (white).		Timing belt (AT5)				X
		Check and clean film pieces from drive and idler pulleys of white film feed belts (four places).				X	X	X
		Clean feeder count encoder photo sensor. [Front left side]	Compressed air					X
		Check clearance between rear "Film Over" detection sensor brackets and rear wrap plate.						X
		Clean and check "Film Over" detection sensors. (Confirm red LED on/off)						X
9	FILM CUTTER (Right and Left)	Check operation of DC clutch. (Check film perforation condition & stop position)		DC clutch		X		
		Effect of DC brake. (Check film cut condition & stop position)		DC brake		X		
		Check gap between (upper / lower) cutter guide – confirm it is 2 mm across the entire length.						X
		Check for rust on the cutter blade. (Clean as needed)	Sharpening stone					X
		Clean photo sensor for cutter home position. (Confirm sensor operation in Test Mode) [Rear side]	Compressed air					X

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10	FILM PRESS UNIT (Right and Left)	Check that all screws are tight. Check that Film Press Unit is square.			X	X	X
		Grip strength of film grabber levers. (When film is not selected)		Sponge (Replace /2.5years)			X
		Clean photo sensors for rotation of film grabbers. (Confirm sensor operation in Test Mode) [Rear side]	Compressed air				X
		Check stretch of blue belts.					X
		Check alignment of blue belts and white film feed belts.					X
		Clean white cams that raise/lower the Film Press Unit. Lubricate as needed.	Silicone spray				X
		Clean photo sensors for raising/lowering when film is selected. (Confirm sensor operation in Test Mode)	Compressed air				X
		Clean film width detection sensor and reflector (rear feeder position). (Confirm red LED on/off)					X
		11	LIFT DRIVE	Clean lower limit magnetic proximity sensor. (Confirm sensor operation in Test Mode)	Compressed air		X
Check lubrication level in gearbox. (Remove gear box cover on both shafts)	Grease (B)					2 YEARS	
Check for abnormal noise when lifter is operated.	Operated by Test Mode				X		
12	LIFT SIZE CHANGE	Check for abnormal noise when lift changes between small / large size.	Operated by Test Mode		X		
		Confirm size change bar travel is parallel.			X		
		Confirm mounting blocks of size change bar are correct: right is rigid, left is free.			X		
		Confirm all five moveable fingers lock into front and rear detent positions.			X		
		Clean size change photo sensors (3). (Confirm sensor operation in Test Mode)	Compressed air		X		
		Lubricate drive shafts (right and left).	Grease (Y)		X		
13	FILM ROLL (Right and Left)	Check that clamp lever provides adequate film roll grip tension.					X
		Confirm that rear film feeder is correctly positioned for the film width. (by Roll Set button)					X
		Check condition of Film Roll rubber gripper pads.					X
		Check that Film Roll shaft is horizontal (parallel to bottom cover).					X
		Check film roll brake operation. (Solenoid movement and leather belt gripping)					X
		[Option] Check Film Back Tension knobs are set correctly.					X
		[Option] Check Film Roll Heater thermostats, fan blowers, and R/L switching.					X

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14	FILM FEEDER MOVEMENT	Check for abnormal noise when rear film feeder changes from small roll to large roll.	Operated by Test Mode		X	X	X
		Check condition and stretch of drive timing belt (black).					X
		Check that rear feeder unit is parallel with front feeder unit.	Reposition drive belt clamp				X
		Lubricate gear head (90 degree).	Grease (Y)				X
		Lubricate square travel shafts. (Check shafts, and apply grease)	Grease (B)				X
		Clean movement position photo sensors. (3 places – front, middle, rear) [Left side] (Confirm sensor operation in Test Mode)	Compressed air				
15	PRINTER MOVEMENT	Check right/left movement to all positions.	Operated by Test Mode		X		
		Clean movement position photo sensors (5). (Confirm sensor operation in Test Mode)	Compressed air		X		
		Lubricate two horizontal travel shafts.	Grease (Y)		X		
		Lubricate horizontal gear drive shaft.	Grease (B)		X		
		Check printer position (forward/back) micro switch. (Confirm sensor operation in Test Mode)			X		
		Clean and check catch magnet that holds printer in the back position.		Catch magnet	X		
16	APPLICATOR	Check up/down operation of applicator arm.	Test button		X		
		Check application/feed position of labels.			X		
		Check operation of Snap Lock latch.			X		
		Check operation of blower fan. Check for abnormal noise. (Clean and remove labels).			X		
		Lubricate internal applicator shafts.	Grease (W)		X		
		Check condition of rubber applicator tips. (OMNi-3000 S/ST)		Rubber tip (Replace/ 1 year)	X	X	X
		Lubricate main hinge (OMNi-3000)	Grease (Y)		X		
		Lubricate and check condition of Friction Block: Interference on applicator arm. (OMNi-3000)	Grease (W)	Block (Replace/ 2 year)	X		
		Check condition of applicator Insulator Sponge. Replace as needed. (OMNi-3000)		Insulator Sponge	X		
17	PRINTER	Clean thermal head.	Alcohol (Ethanol)	Thermal head (Replace 30Km – 60Km)	X	X	X
		Clean and check condition of printer rubber roller.	Alcohol	Printer roller (Replace/ 2 years)	X		
		Check printing condition by Test Pattern. (Check darkness and printing position)	Confirmed by Test Mode		X	X	X
		Check and clean label sensors (peeling and gap).	Confirmed by Test Mode and LED		X		
		Check "head up" micro switch.			X		
		Check condition and clearance of magnetic label roll holder.	Straighten if bent		X		

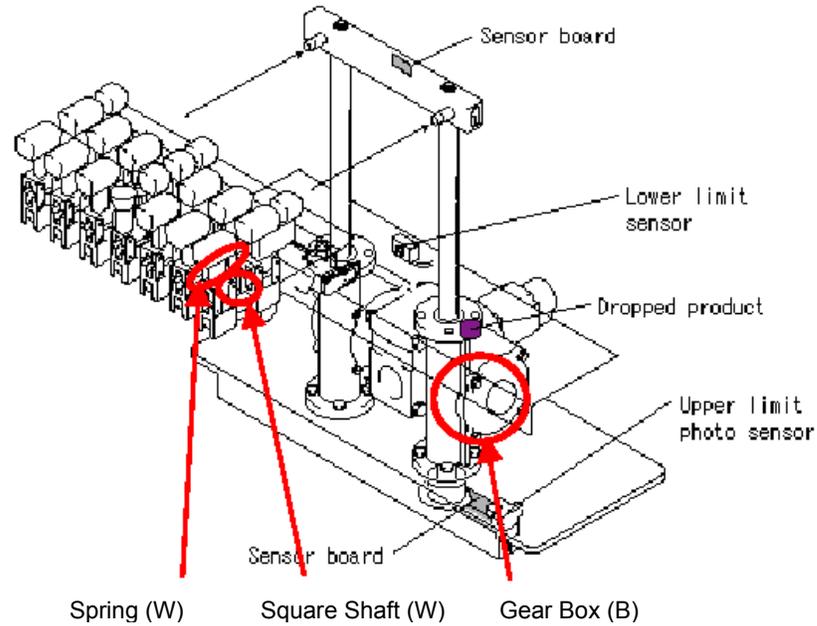
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					1	2	3
18	DISCHARGE HEATER (OMNi,OMNi-S)	Check all screws. Tighten as necessary.			X		
		Check condition of fixed exit rollers and heater rollers.			X		
		Check temperature adjustment.			X		
		Clean heater surface.			X	X	X
18a	DISCHARGE & HEATER CONVEYORS (OMNi-ST)	Lubricate heater conveyor drive chain.	Silicone spray		X		
		Check all screws. Tighten as necessary.			X		
		Check operation of each conveyor. Check condition of conveyor belts.			X		
		Check temperature adjustment.			X		
		Clean each conveyor surface.			X	X	X
19	SWITCHES	Check Roll Set and Film Feed buttons (right and left).			X		
		Check Emergency Stop and Cycle Start buttons.			X		
		Check operation of Film Tension dial (beeps).			X		
20	CONNECTORS	Visual inspection of all connectors.					YEARLY
21	LCD DISPLAY CHECK	Confirm sufficient contrast.		Back light (Replace/ 3 years)	X		
		Check Touch Screen response. Calibrate if necessary.	Test Mode		X		
22	KEYBOARD CHECK	Check membrane keyboard response.	Test Mode		X		
23	WRAPPING TEST	Check condition of seal and film stretch. (Tray registration page 1/2)				X	
		Check label application position. (Tray registration page 2/2)				X	
24	CONSOLE	Data backup by IF-21 disk recorder.	Test Mode				X
25	CUSTOMER CONCERNS						

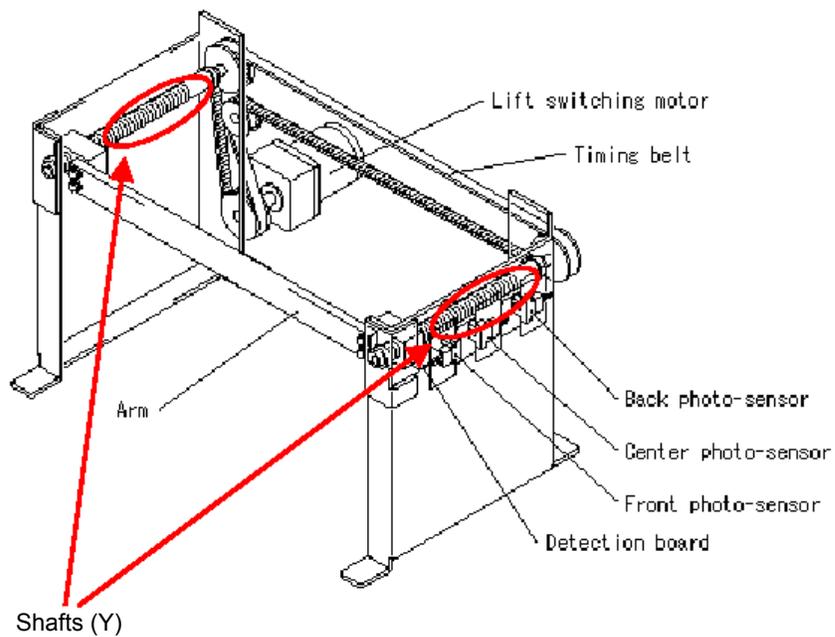
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Reference Drawings

Lift Head Unit, Lift Drive

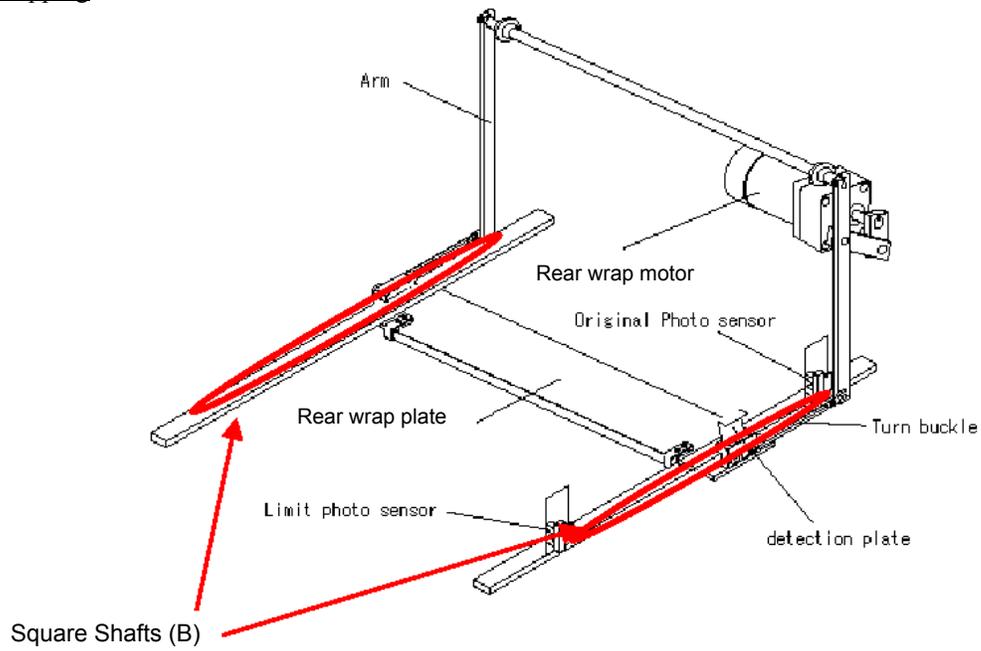


Lift Size Change

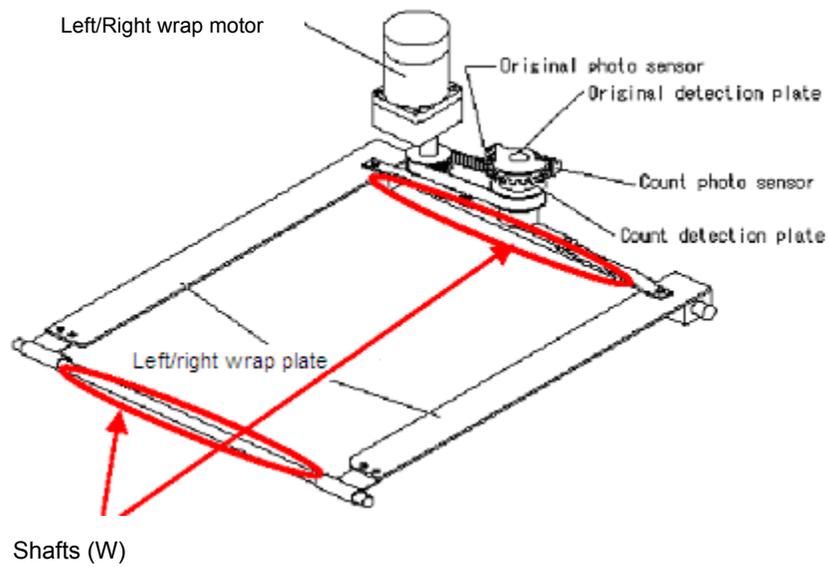


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Front/Rear Wrapping

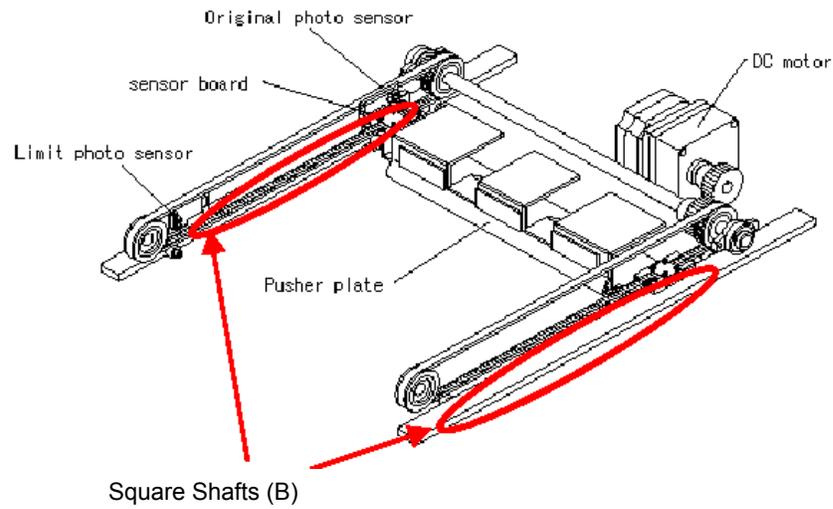


Left/Right Wrapping

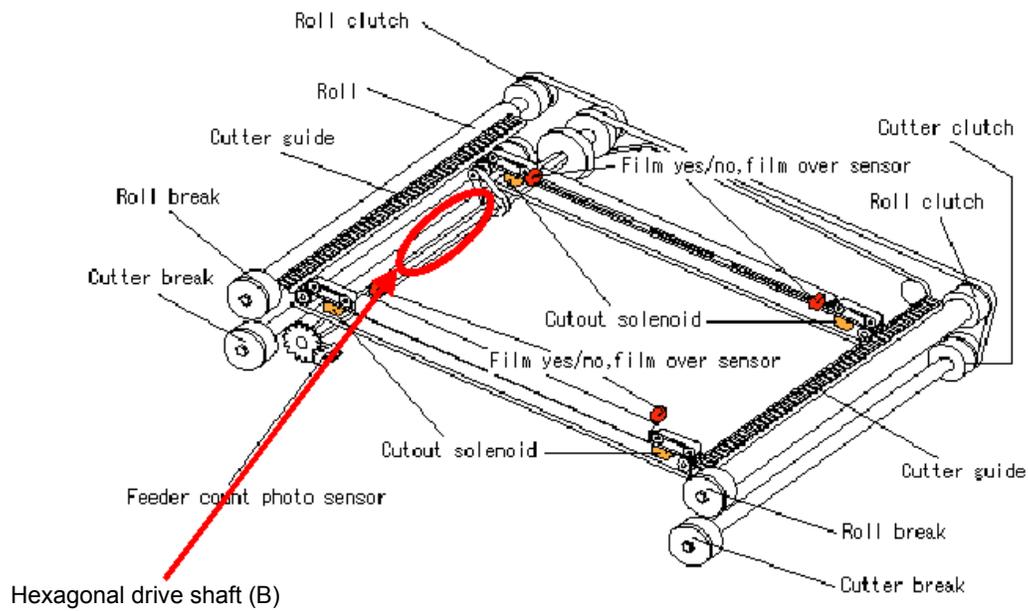


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Discharge Pusher

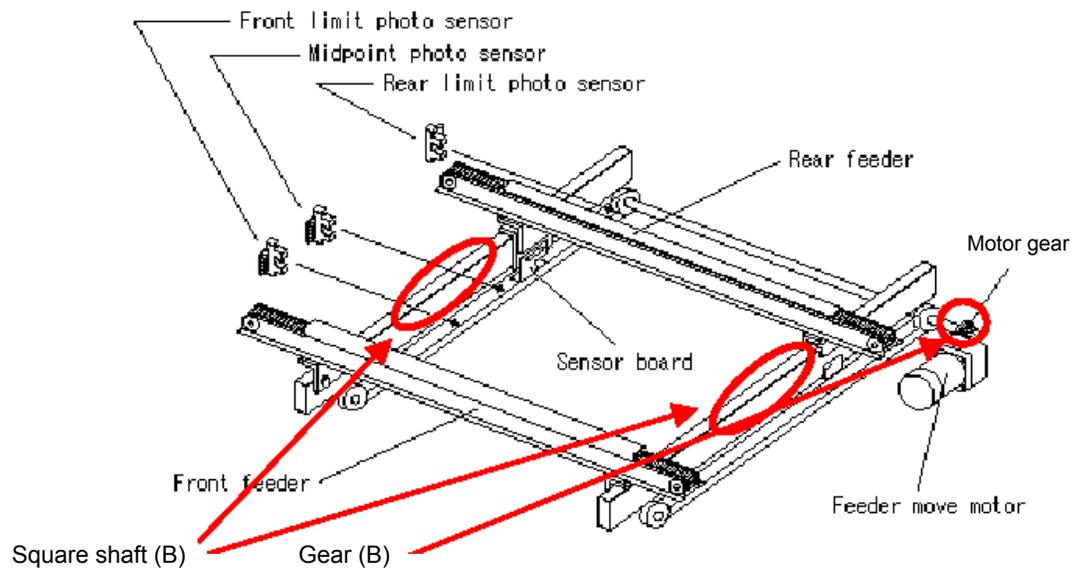


Film Feeder

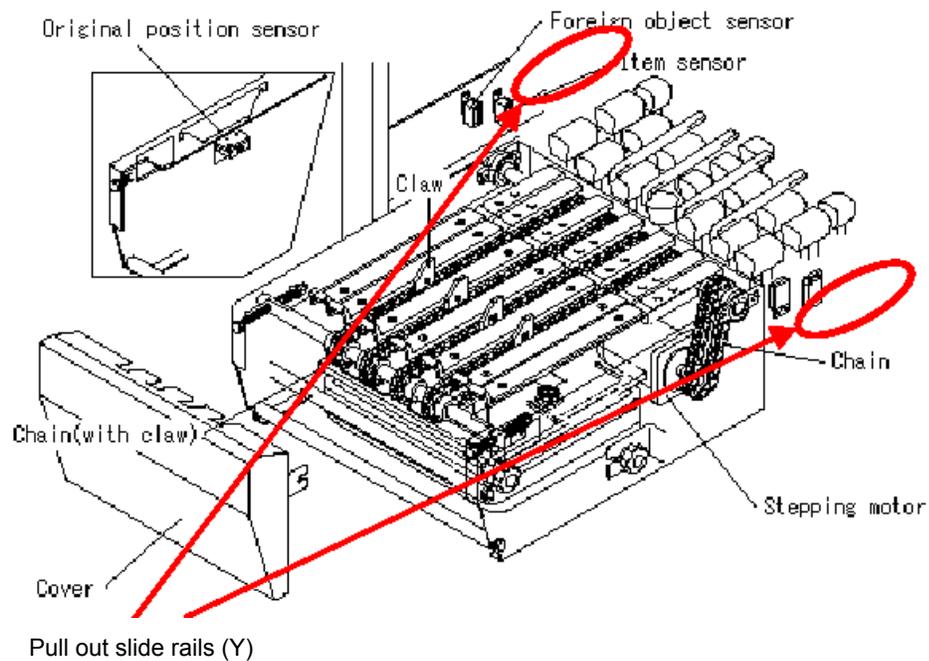


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Rear Feeder Movement

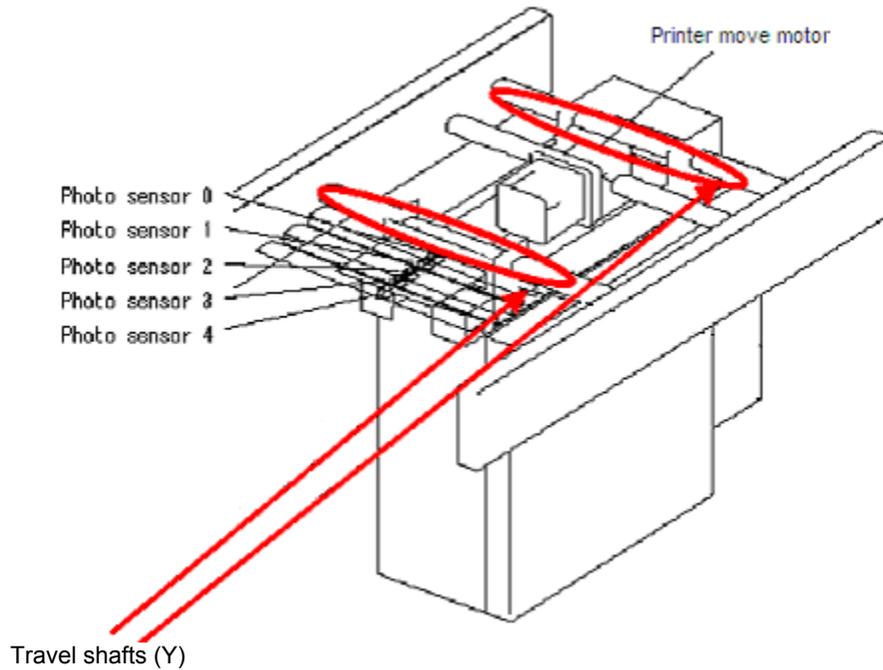


Infeed Conveyor



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Printer Movement



Label Applicator

