

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

	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
 - 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"]

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

Ishida OMNi-3000 Maintenance and Lubrication Guide

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

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

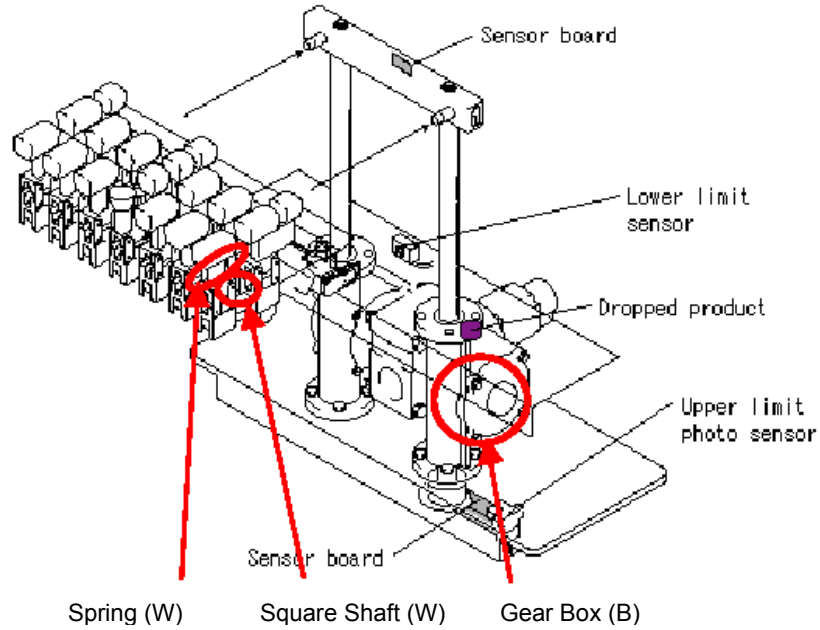
Ishida OMNi-3000 Maintenance and Lubrication Guide

Section	Inspection Items and Contents	Comments	Replacement Parts

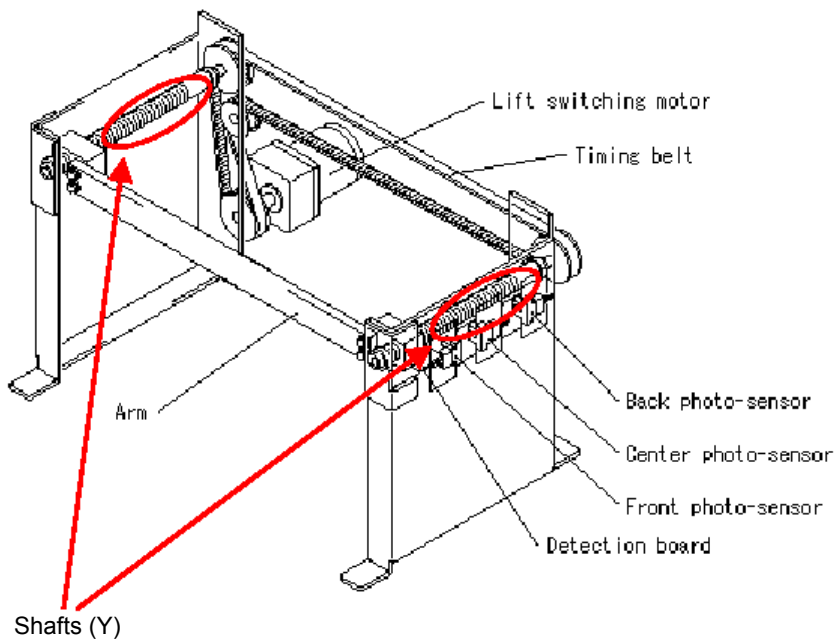
Ishida OMNi-3000 Maintenance and Lubrication Guide

Reference Drawings

Lift Head Unit, Lift Drive

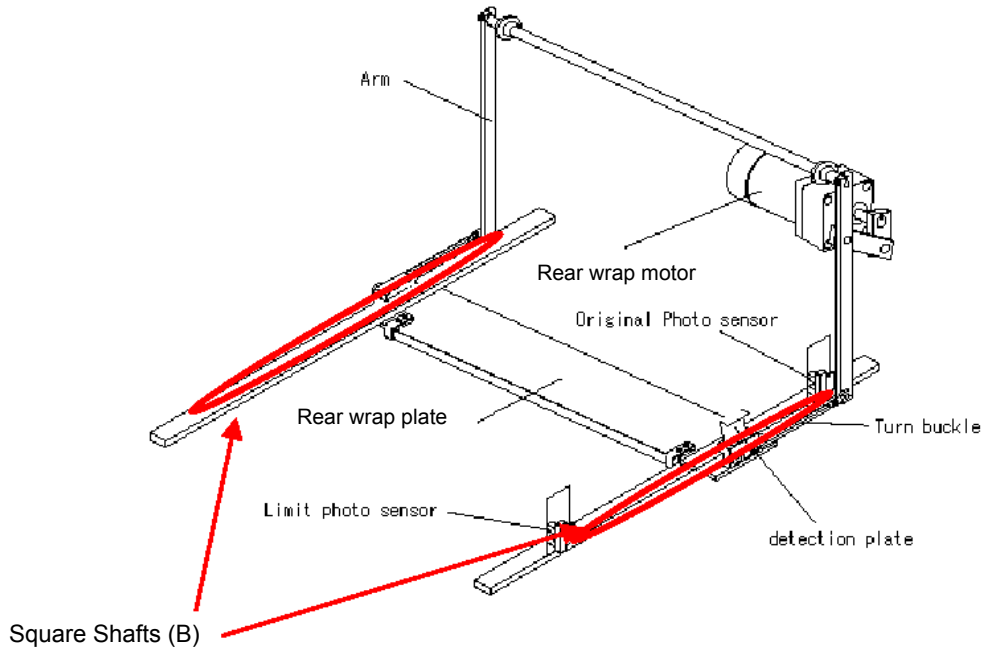


Lift Size Change

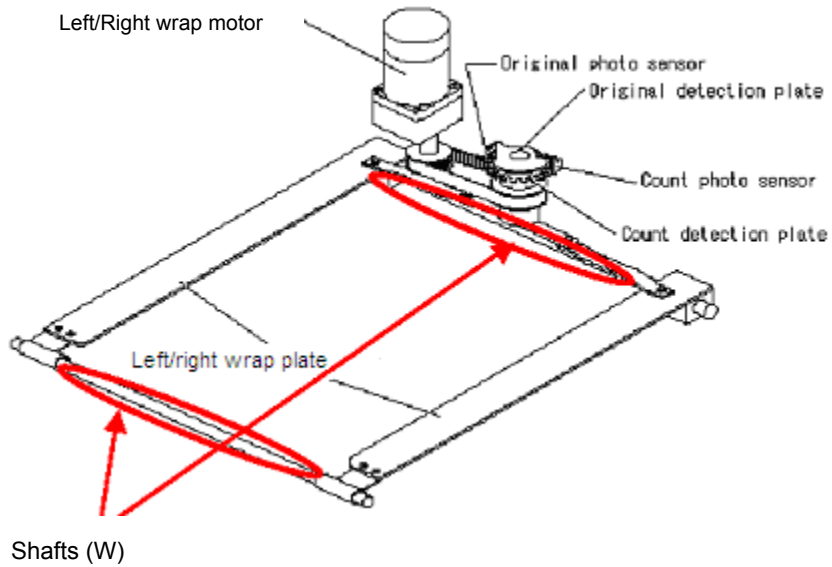


Ishida OMNi-3000 Maintenance and Lubrication Guide

Front/Rear Wrapping

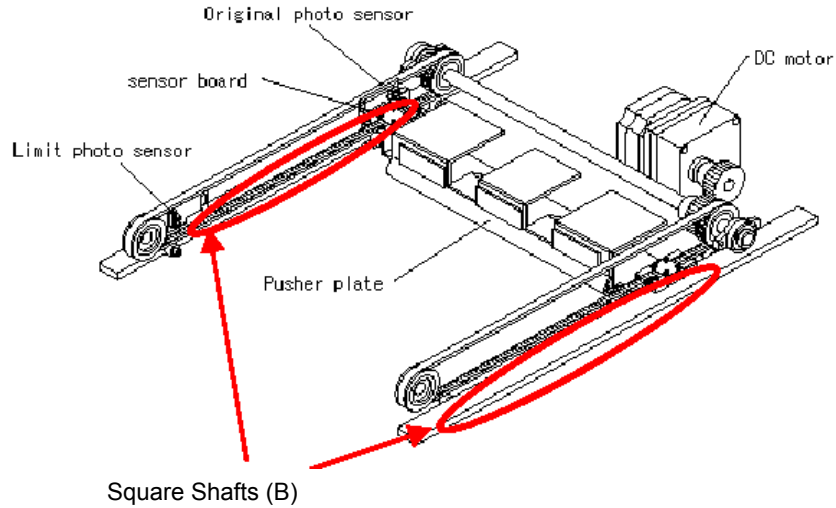


Left/Right Wrapping

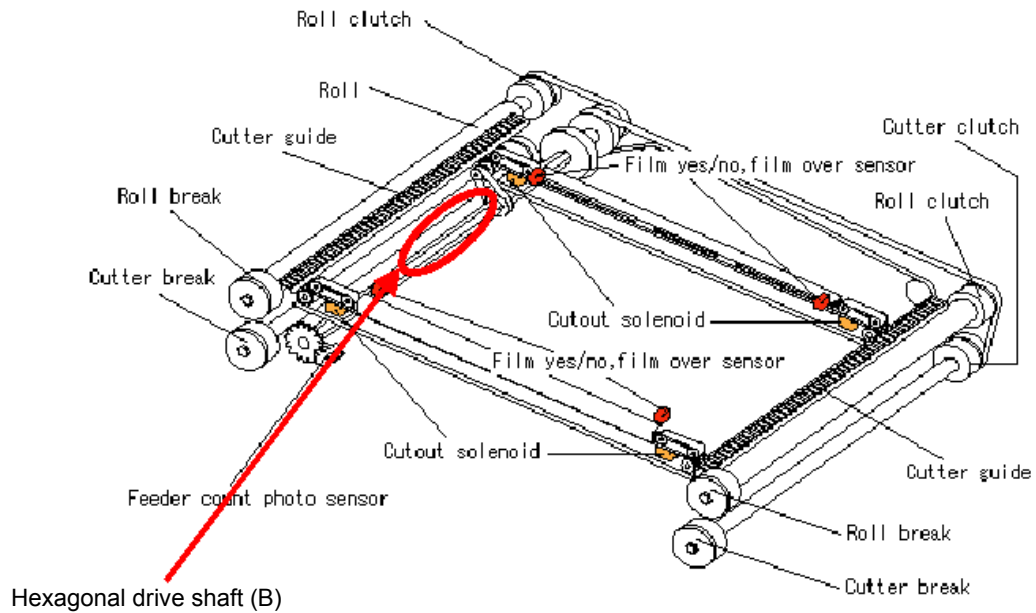


Ishida OMNi-3000 Maintenance and Lubrication Guide

Discharge Pusher

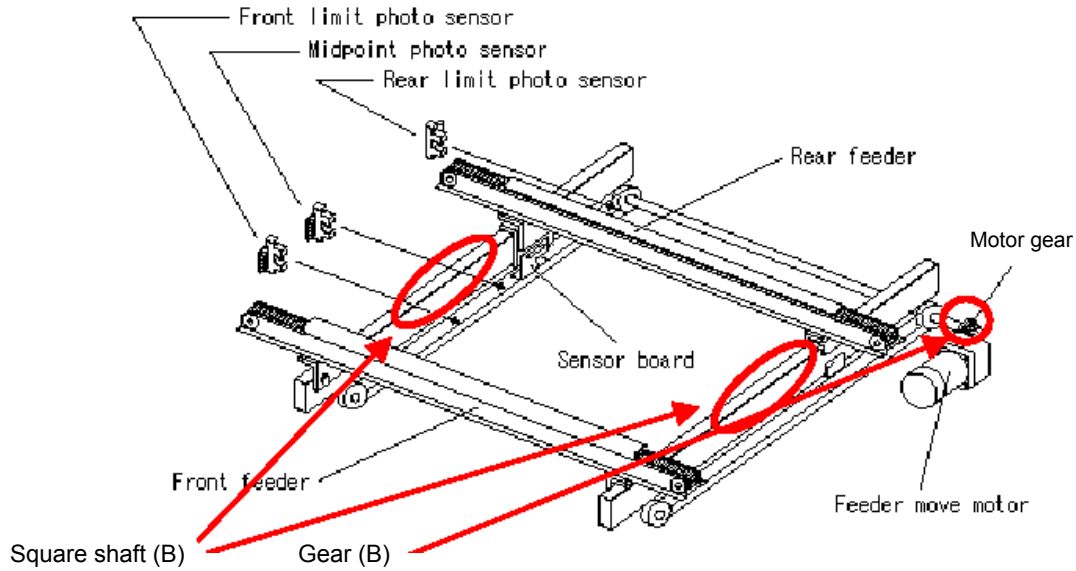


Film Feeder

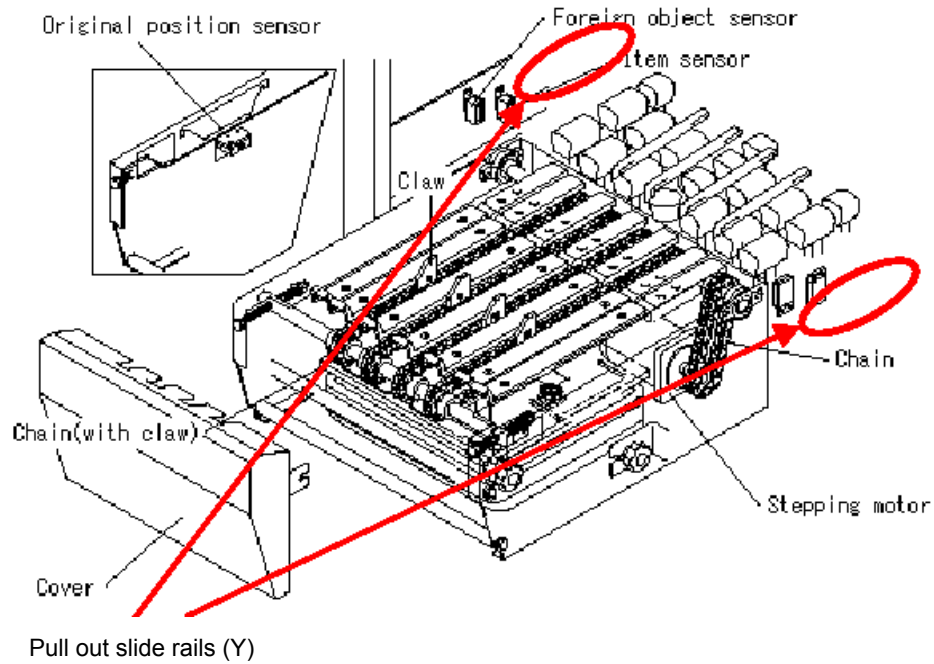


Ishida OMNi-3000 Maintenance and Lubrication Guide

Rear Feeder Movement

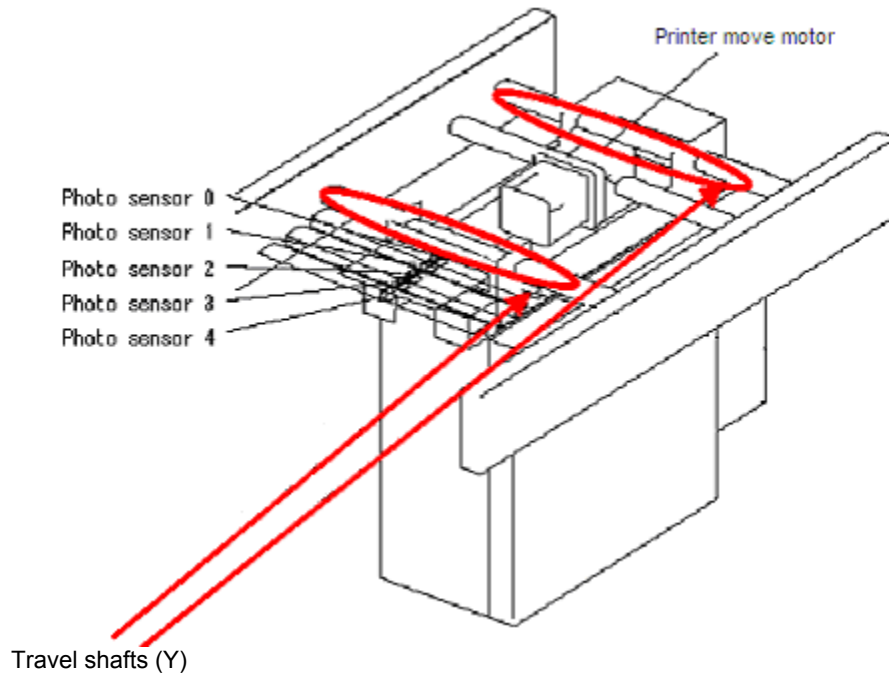


Infeed Conveyor



Ishida OMNi-3000 Maintenance and Lubrication Guide

Printer Movement



Label Applicator

