

Ishida OMNi-4000 Monthly Maintenance and Lubrication Guide

Customer: _____ Inspection Date: _____
 Contact: _____ Technician(s): _____
 Model: OMNi-4000 Cycle Count: _____
 Serial Number: _____ Print Distance: _____ Km
 Installation Date: _____



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This guide describes the required maintenance and lubrication for an OMNi-4000 Wrapper. For high volume wrappers the maintenance schedule may be divided into three monthly sections. This allows for frequent observations resulting in fewer problems and service calls. The full maintenance procedure may be performed in one quarterly visit for standard volume wrappers.

Allow 2-3 hours for a monthly inspection and 4-6 hours for a full inspection.

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

- Required materials:**
- Grease: White, Yellow, and Black (see table below for specifications)
 - Disposable brushes, small or cotton swabs (for grease application)
 - Wrench set, metric
 - Socket set, metric (optional)
 - Screwdrivers, assorted
 - Allen wrench set, metric
 - Sandpaper / File set
 - Thread Lock (blue)
 - Compressed Air / Vacuum
 - Silicone spray lubricant
 - Adhesive remover (for labels)
 - Thermal head cleaning kit
 - Weight set
 - Key, interlock bypass, 2 pieces
 - Tape measure
 - Laptop with i-View software

Lubrication for OMNi-4000

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 SIZE CHANGE	Check for abnormal noise when lift changes between small / large size.	Check in Test Mode		X			
		Confirm all five moveable fingers lock into front detent position.	Check in Test Mode		X	X	X	
		Confirm size change bar travel is parallel.			X			
		Lubricate threaded drive shafts (right and left).	Grease (Y)		X			
2	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			
		Lubricate lifter head springs, check 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			
		Lubricate two Lifter Assy mounting pins.	Grease (B)		X			
		Clean area under Lifter.			X	X	X	
3	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			
4	INFEED CONVEYOR	Clean and examine chain and pusher tabs for cracks.		Chain	X			
		Lubricate pull out slide rails of Infeed Conveyor.	Grease (Y)				YEARLY	
		Clean film and food pieces from four photo sensors and reflectors: "Hand in Wrapper" (2) "Foreign Object" "No Item"	Compressed air		X			
		Clean crumb catch tray and bottom cover catch tray.			X	X	X	
		Lubricate front idler pulleys for infeed chains	Silicone spray		X			
5	SCALE	Check zero and span calibration.	Weight of 5 lb x 6 Test Mode		X			
		Check four-corner accuracy.	5 lb Weight		X			
		Check seal on plastic case is watertight. [Calibration button access]			X			
6	DISCHARGE PUSHER	Check 4 mounting bolts (allen head, two each side) in plastic slide blocks (black) are tight. [Do Not over tighten] (4mm)			X	X	X	
		Check right side and left side timing belts (black). (Check for equal tension on both sides, no sag).				X		
		Lubricate square travel shafts. (Done in section 6)	Grease (B)			X		
		Clean top, front, and under sides of pusher plate. (Remove any labels, etc.)				X		
		Check Tray Press "skis" clearance. (Approx. 1/8 inch above the Discharge Pusher)				X		

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7	REAR WRAPPING PLATE	Check 4 mounting bolts (two each side) in plastic slide blocks (black) are tight. (10mm) [Do Not over tighten]			X	X	X		
		Check for smooth movement of the slide block bushings.			X	X	X		
		Check condition of roller on leading edge of rear wrap plate. (If polished, roughen with coarse sandpaper).	Sand paper				X		
		Check if inner fixed exit discharge roller shaft is bowed and touched by rear wrap plate.		Exchange rollers			X		
		Lubricate square travel shafts. Note: lubricate inside and outside, see section 8	Grease (B)				X		
		Lubricate linkage and pivot points of the rear wrap plate drive arms (right + left sides).	Silicone spray				X		
		Clean rear wrap plate. (Remove any labels, etc.)					X		
8	LEFT/RIGHT WRAPPING PLATES	Check that all screws are tight: 8 counter sink allen head bolts (front) [4mm] 4 bolts in “scissors” drive linkage (rear) [10mm]			X	X	X		
		Lubricate front and rear round travel shafts. (Check shaft, and apply grease)	Grease (W)			X			
		Lubricate 4 “scissors” drive linkage & pivot points (rear)	Silicone spray			X			
		Check condition of leading edge of side wrap plates. (If polished, roughen with coarse sandpaper).	Sand paper				X		
		Clean left and right wrap plates. (Remove any labels, etc.)					X		
9	FILM FEED (POLISHED) ROLLERS (Right and Left)	Check operation of DC clutch. (Check film stop position relative to small hex shaft)		DC clutch			X		
		Check effect of DC brake. (Check if Roller turns with brake applied)		DC brake			X		
		Clean and 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		
10	FILM PRESS UNIT (Right and Left)	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		
		Check stretch of small 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 film width detection sensor and reflector (rear feeder position). (Confirm red LED on/off)					X		

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11	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	
12	FILM FEEDER (Front and Rear)	Check film feed belt (white) for damage, stretch, and shiny surface required for adequate film gripping. Remove large film pieces. [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 and clean film pieces from drive and idler pulleys of white film feed belts (two places each Feeder Assy).			X	X	X	
		Clean film pieces from wrapper interior including catch trays.	Vacuum		X	X	X	
		Check stretch and path on pulley of drive (timing) belt (black). [Left side]					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	
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 film roll brake operation. Confirm "O" Ring gap is 2mm when engaged. (Solenoid movement and leather belt gripping)		Leather belt	X	X	X	
		Check Film Roll Heater thermostats, fan blowers, and R/L switching.				X		
14	REAR 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 belts (black).				X		
		Check that rear feeder unit is parallel with front feeder unit.	Reposition drive belt clamp			X		
		Lubricate square travel shafts. (Check shafts, and apply grease)	Grease (B)			X		
15	DISCHARGE & HEATER CONVEYORS	Check operation of each conveyer for abnormal noise or tracking.			X			
		Check stretch of Heater Conveyer drive chain, adjust tension if necessary.			X			
		Lubricate heater conveyer drive chain.	Silicone spray		X			
		Check condition and tracking of Exit Conveyer belt.			X			
		Check temperature adjustment.			X			
		Clean each conveyer surface.			X			

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16	APPLICATOR	Check directional operation of applicator arm. Up/Down Right/Left Froward/Back	Operated by Test Mode		X				
		Check feed position of labels for Applicator pickup.			X				
		Check operation of blower fan. Check for abnormal noise. (Clean dust and remove labels).			X				
		Lubricate internal applicator shafts. • Front/Back (2) • Up/Down (2)	Grease (W)		X				
		Lubricate two horizontal travel shafts.	Grease (Y)		X				
		Check condition of applicator Sponge (blue). Clean or replace as needed.		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 Label Gap Sensor Level Backing Paper only: 100~250 Backing + Label: Less than 100 Difference must be more than 60 counts [Graph: 2000, PRESET key] Peel Sensor Level Unblocked: 100~250 Blocked: Less than 20 * Press Sensor Level button → Adjust with green ▲ or ▼ buttons	Confirmed by Test Mode		X				
18	LCD DISPLAY CHECK	Confirm sufficient contrast.		Back light (Replace/ 3 years)	X				
		Check Touch Screen response. Calibrate if necessary.	Test Mode		X				
19	KEYBOARD CHECK	Check keyboard response.	Test Mode		X				
		Check membrane key cover.		Membrane key cover	X				
20	SWITCHES	Check eight (8) Door Safety Switches.					X		
		Check Emergency Stop.					X		
21	MISCELLANEOUS	Lubricate four leveling legs.	Grease (W)				X		
22	WRAPPING TEST	Check that film centers (right / left) during film feed from both right and left sides.				X			
		Check balance of side (left and right) gripper pads.				X			
		Check condition of seal and film stretch. (Tray registration page 1/2)					X		
		Check label application position. (Tray registration page 2/2)					X		
23	DATA BACKUP	Backup OMNi-4000 wrapper memory.	i-View		X	X	X		

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					1	2	3	
24	CUSTOMER CONCERNS							

25. Adjustments, Comments, Parts Required, etc.

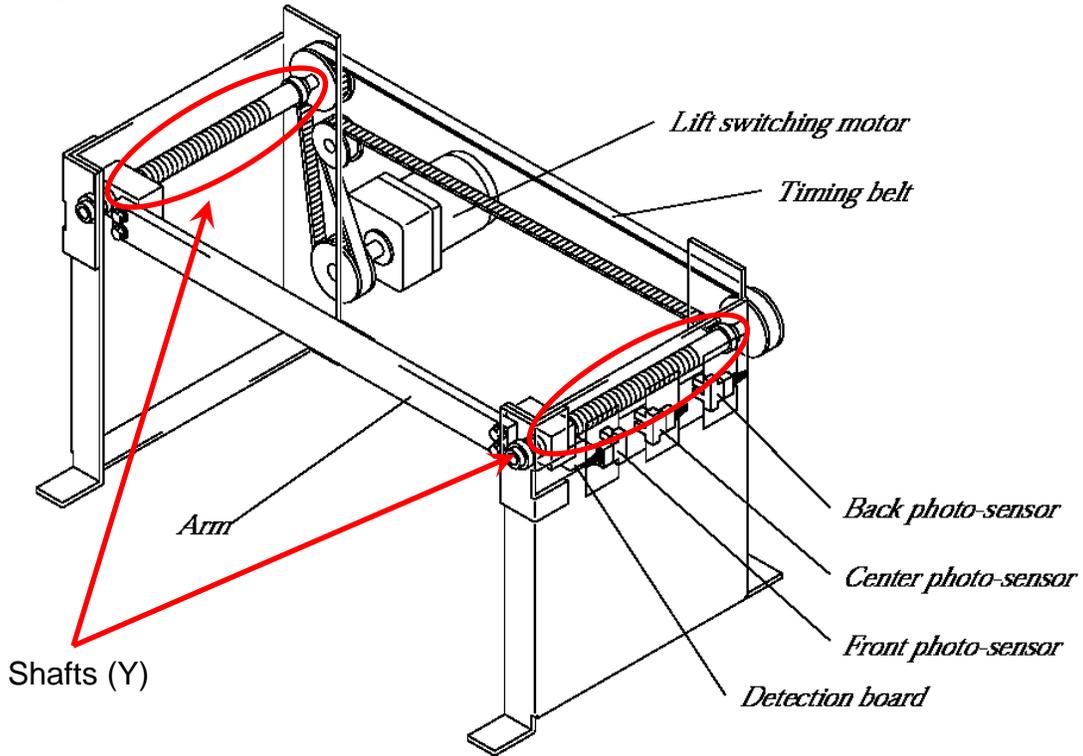
Section	Inspection Items and Contents	Comments	Replacement Parts

[SAMPLE LABEL]

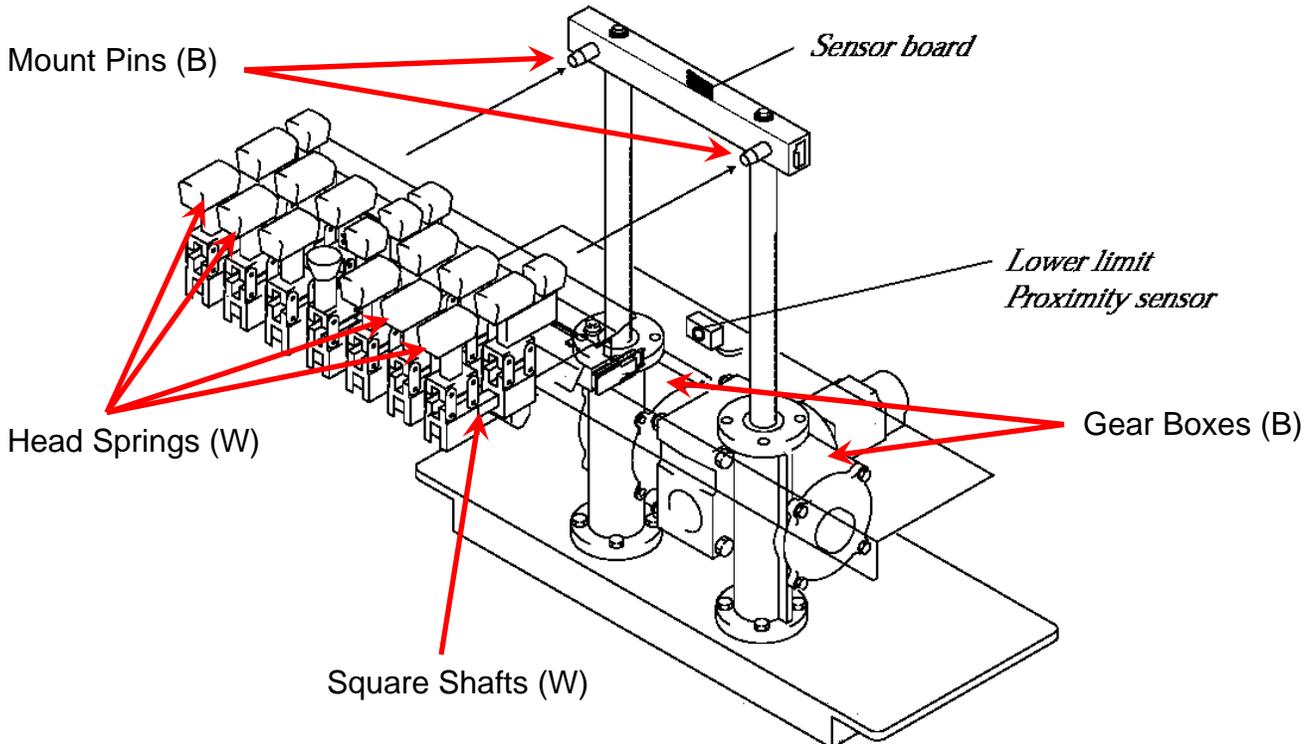
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26. Reference Drawings

Lift Size Change (Section 1)

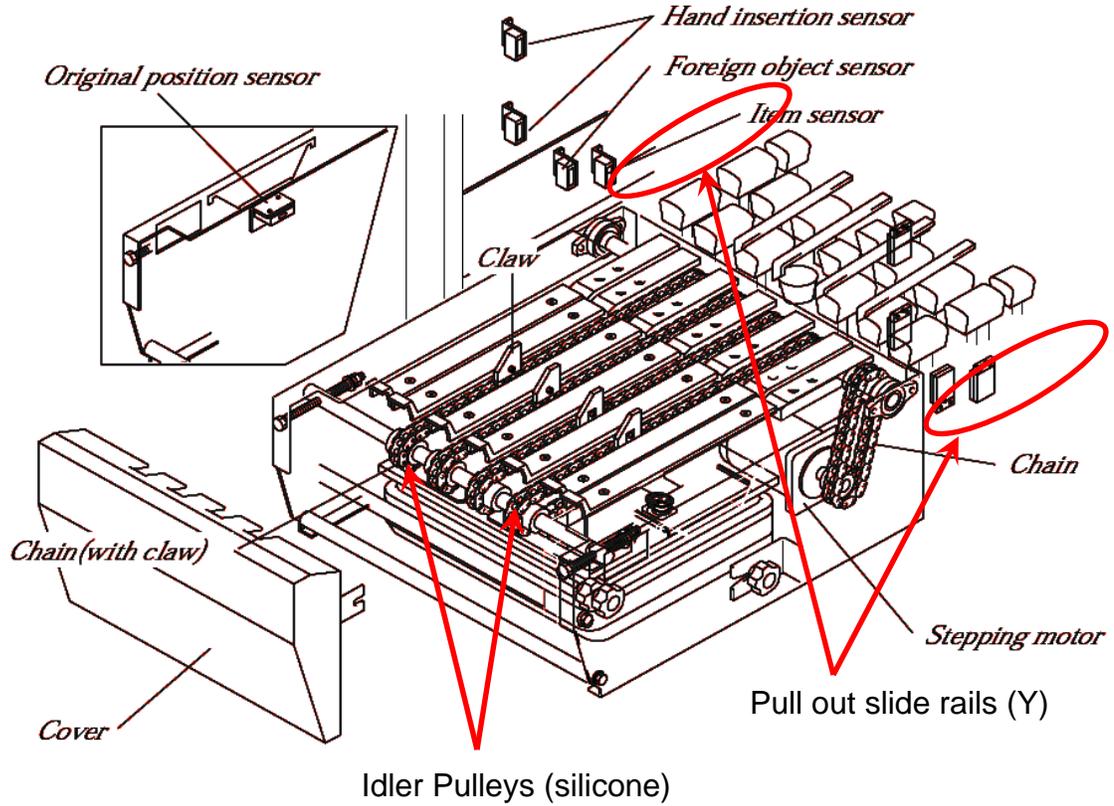


Lift Head Unit, Lift Drive (Sections 2, 3)

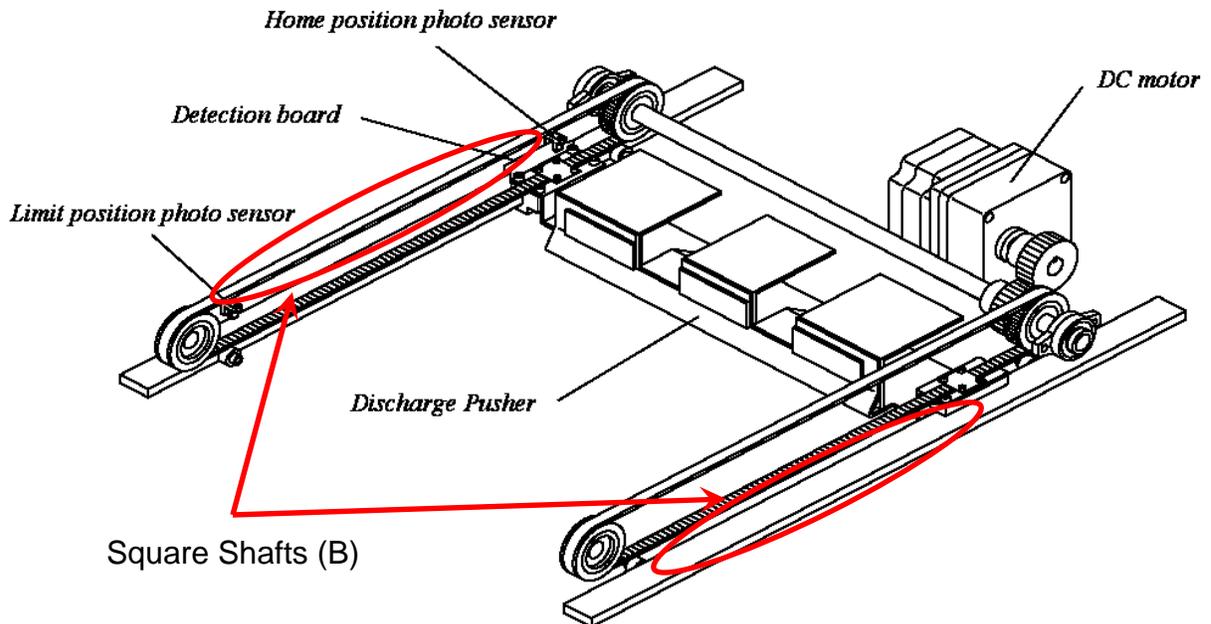


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Infeed Conveyor (Section 4)

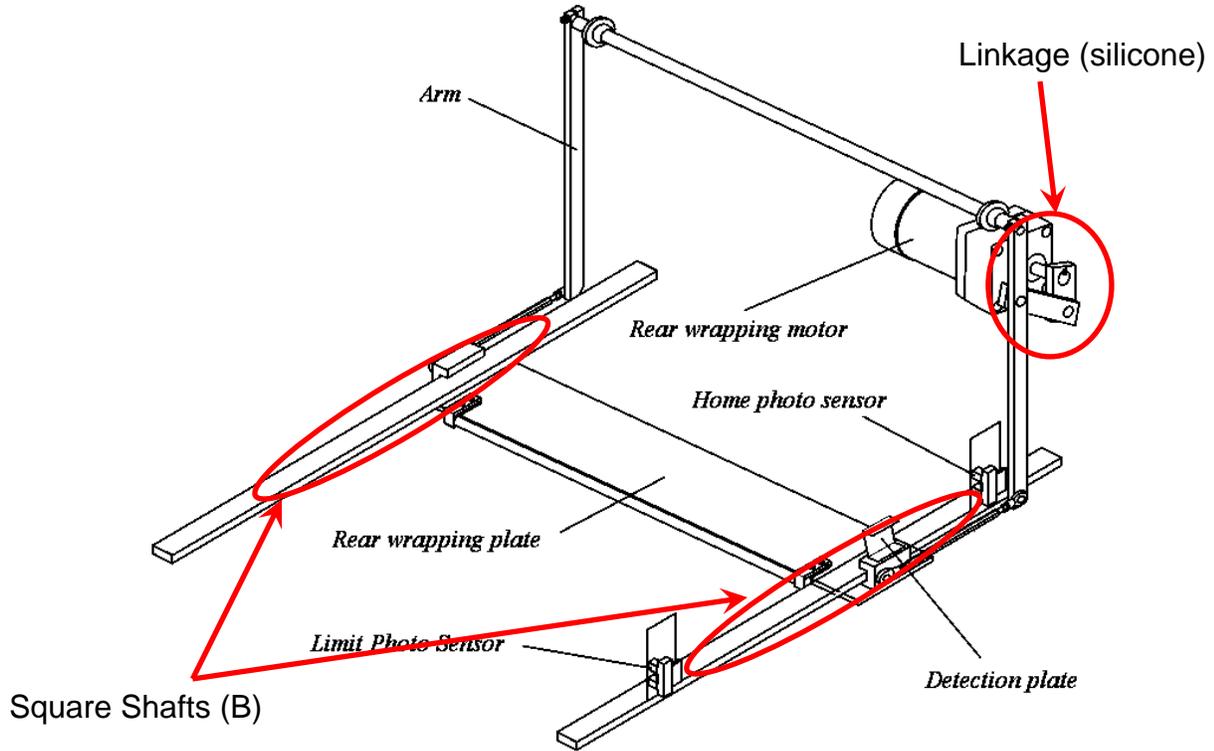


Discharge Pusher (Section 6)

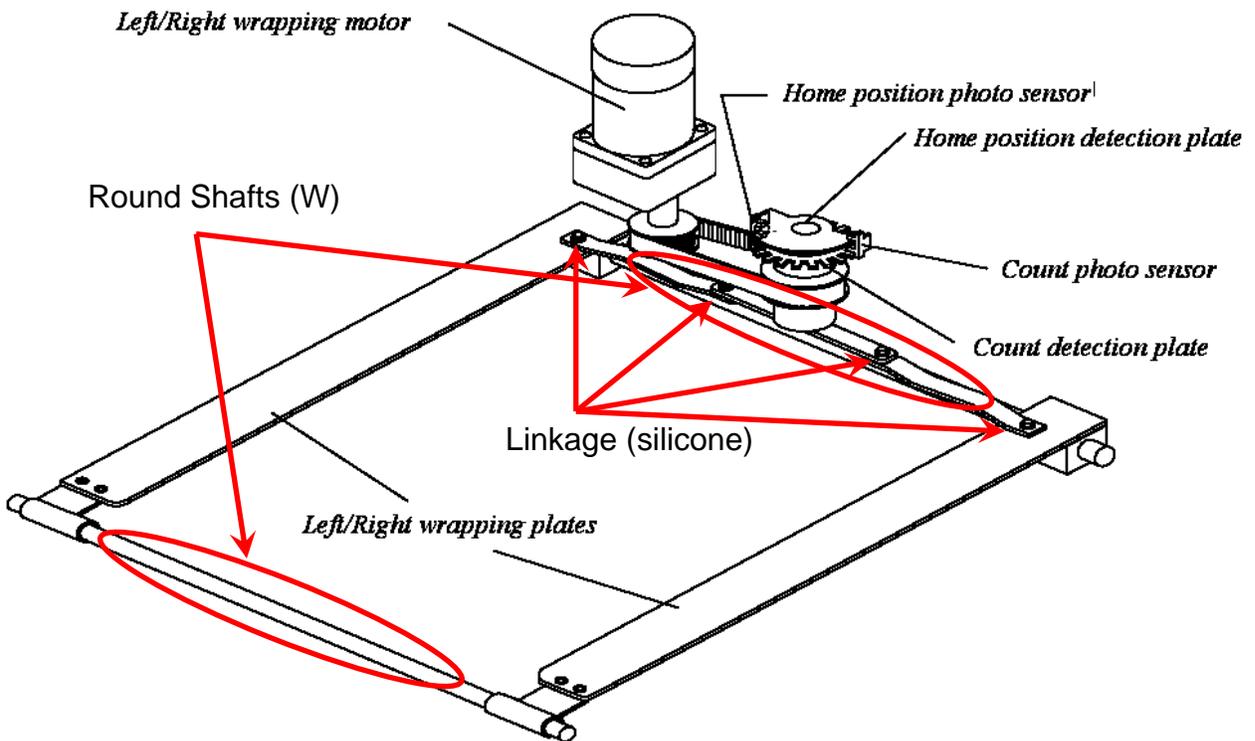


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Rear Wrapping (Section 7)

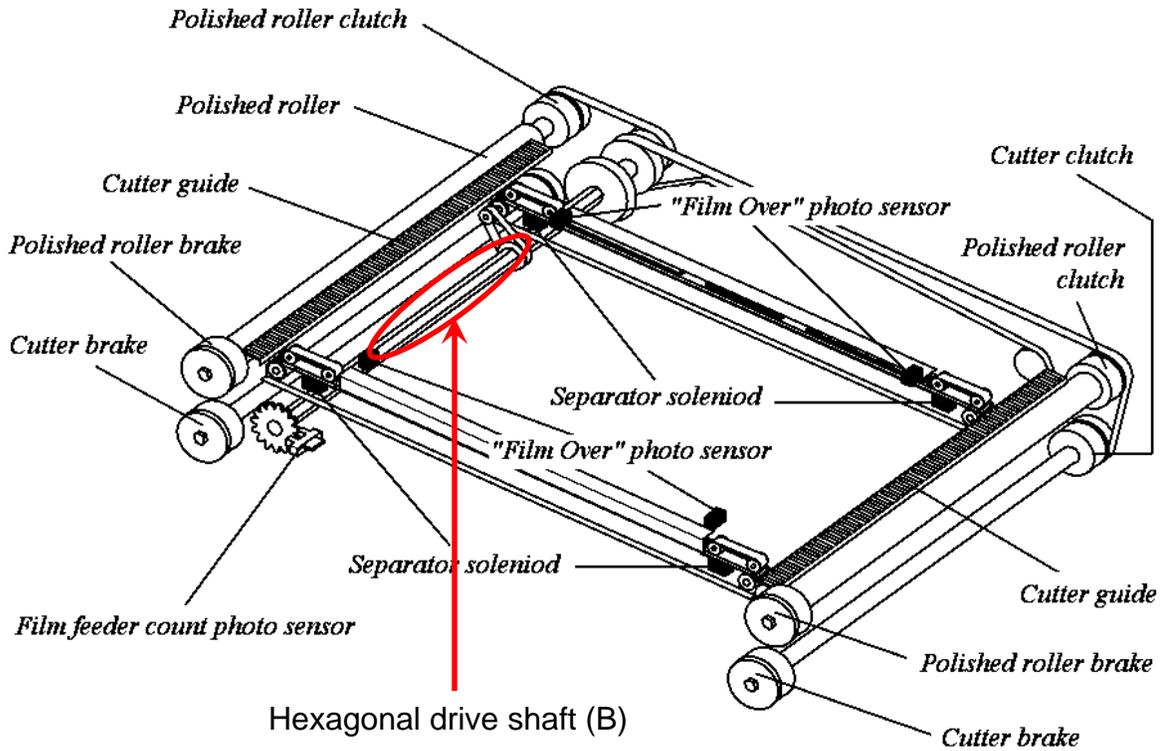


Left/Right Wrapping (Section 8)



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Film Feeder (Section 12)



Rear Feeder Movement (Section 14)

