

i2 Series Electric Balaman Inspection Item List (1/2)

No.	Inspection Items	Inspection Method	Implementation Period	Verdict	Action Taken	Inspection Date	Remarks
Body/Installation/Wiring	Check to make sure nuts and bolts are tight. Tighten if necessary.	Visually inspect and tighten					
	(1) Installation base (main unit mount and base mount)		B				
	(2) Body and arm (especially parallel rod / support arm and mechanical stopper)		B				
	(3) End effector and end effector mounts		A				
	(4) Terminal blocks and connectors in the control panel		B				
	(5) Terminal block of switching power supply in control panel		B				
	Check wiring for damage, and check wiring connectors.	Visually inspect and feel					
	(1) Check for damage to cables connecting the controls box and the operation panel. Check points: Arm joints, C-arm to operation panel, operation panel to A-arm entry		B				
	(2) Check for damage to the wiring inside the operation panel and check wire connectors. Connections should not be defective, loose, corroded, etc.		C				
	(3) Check for damage to the wiring inside the operation panel and check wire connectors. Connections should not be defective, loose, corroded, etc.		C				
	(4) Check for damage or defects in the motor and encoder cable/connector.		C				
	(5) Check pendant switch cable for damage.		C				
	⑥Check for damages or disconnection of the power cables.	B					
	3 Check for looseness of the mounting screws of the gripper and retighten them.	Feel/tighten	A				
	4 Check for abnormalities in bearings	Visually inspect	B				
	5 Check for abnormal wear or damage to moving parts	Visually inspect	C				
	6 Check and adjust brake on swivel mount	Operate and adjust	B				
7 Check for abnormalities and cracks in welds, etc.	Visually inspect	C					
8 Inspect or replace hooks on the chain and mounting bolts	Disassemble /visually inspect	C				With hook	
9 Check for abnormal movement in horizontal operation (main unit, B-arm, C-arm)	Confirm operation	C					
10 Lubrication of ball splines, linear guides, etc.	Grease	C				Refer the User Manual	
End effectors	1 Check vacuum pads for wear, damage, etc.	Visually inspect, feel and replace	B				With vacuum pad
	2 Check for wear and damage to claws, etc.	Visually inspect	B				Clamp, fork type
	3 Check air cylinder for air leaks and proper operation	Confirm operation	C				With air cylinder
	4 Air set inspection and cleaning	Disassemble and replace	B				With air set
	5 Check for abnormal wear or damage to moving parts	Visually inspect	C				
	6 Check for damage to piping hoses and fittings	Visually inspect/feel	B				With air equipment
	7 Air set drain removal	Visually inspect	A				
	8 Check for breakage or damage to the wiring around the end effector	Visually inspect/feel	B				
	9 Check outer appearance of switches, and their operation.	Visual check /operation check	B				
	10 Check outer appearance of sensors, installation and operation.	Visual check /operation check	B				
	11 Check the gap at the stopper part at the bottom of the load cell. (Tolerance: 1.5 to 2.5 mm)	Measure	C				With balancing function

Implementation timing: A: daily inspection, B: 1-month inspection (all items including daily inspection), C: 6-month inspection (however, 1-year inspection is possible depending on the frequency of use. This inspection includes all items including daily and monthly inspections.)

i2 Series Electric Balaman Inspection Item List (2/2)

No.	Inspection Items	Method of inspection	Implementation Period	Verdict	Action Taken	Date of inspection	Remarks
Controls	Check display on touch panel (1) When the power is turned on, the "System Inspection" screen → "Main Menu" screen → Operation screen should appear in that order. (2) On the main menu screen, the "Connected to Main unit" and "TP communication" lamps at the bottom of the screen should blink.	Visually confirm	A				
	Check operation of limit switches for overruns, etc. (1) When upper limit of limit switch is operated or forced ON by manual operation, the "upper limit overrun ON" should be displayed. (2) When lower limit switch is operated or forced ON, "lower limit overrun ON" should be displayed	Visually inspect Confirm operation	C				
	Check the operation of the relay box emergency stop button (1) When emergency stop is pressed, the machine must go into emergency stop mode. (Check on the touch panel screen.)	Visually inspect Confirm operation	C				
	Check operation of crane lever. (1) Depending on the operating angle of lever, speed is invariable.	Confirm operation	A				
	Check balancing function (only if equipped with balancing function) (1) Should be able to hold the workpiece and operate it in the vertical direction. (2) The balance lamp should light up when in balance mode.	Visually inspect Confirm operation	A				
	Check operation of pendant (only if pendant is used) (1) When lifting in 2nd gear, when operation button is lightly pressed, arm should rise slowly, and when hard pressed, should rise faster. When lifting in 1st gear, speed will not change. (2) When lowering in 2nd gear, when operation button is lightly pressed, arm should lower slowly, and when hard pressed, should lower faster. When lifting in 1st gear, speed will not change. (3) When emergency stop is pressed, the machine must go into emergency stop mode. (Check on the touch panel screen.)	Confirm operation	A				
	Checking the operation of the brake (1) When the brake is OFF and turned ON (servo ON→OFF), the arm shall not descend.	Confirm operation	A				
	Check for unusual noise and vibration during operation.	Confirm operation	A				
	Check for abnormal motor noise and heat.	Feel/listen	A				
	Save parameters, position data and load balance weight data to SD card (1) After completing the work, back up the above data to the internal SD card in the device.		C				

Implementation timing: A: daily inspection, B: 1-month inspection (all items including daily inspection), C: 6-month inspection (however, 1-year inspection is possible depending on the frequency of use. This inspection includes all items including daily and monthly inspections.)