

Miejsce Zlecenia : Klinika Modern Med Zięby 41, 02-808 Warszawa	ALIEN E –ORDINARY MAINTENANCE CHECKLIST - Rev 0.0 Przegląd Techniczny Okresowy	ED eurocolumbus
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Model:Alien X	S/N:2248	Date:12/07/2023	Operator:Wojciech Kasperek
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A) Unit general conditions

N.	Before maintenance	Maintenance check/procedure	After maintenance
1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity of the external covers	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity of the external cabling (e.g. displays, accessories)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity of the umbilical connector, both mechanical and electrical and optical	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
4	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	External cleaning check	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
5	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Internal cleaning check PASS	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

B) Mechanical functions

N.	Before maintenance	Maintenance check/procedure	After maintenance
1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity of the controlling handles	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check steering and brakes	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check manual movement devices (wig-wag, horizontal carriage)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
4	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check trolley wheels and their brakes	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
5	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check the c-arm manual motion activation devices (1)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

(1) only on unit equipped with manual motorized C-arm

C) Electromechanical functions

N.	Before maintenance	Maintenance check/procedure	After maintenance
1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check orbital motion and its position sensor	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check circumferential motion and its position sensors and end sensors	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check horizontal carriage brake, check the horizontal motor if present and horizontal position sensor if present (2)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
4	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check lift column and its position sensor	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
5	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check DFF (detector lift) and its position sensor	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
6	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check trolley monitors lift actuator	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
7	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check motion of the trolley touch control panel	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

(2) only on unit equipped with motorized horizontal carriage

(3) only on unit equipped with manual/motorized C-arm

D) X-ray inverter and generator tank

N.	Before maintenance	Maintenance check/procedure	After maintenance
1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check HT connector, integrity, clean and refill silicon grease.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check emission calibration and even recalibrate filaments.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check dose linearity, constancy. (*)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
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(*) in carico alla fisica sanitaria

E) tubehead and collimator

N	Before maintenance	Maintenance check/procedure	After maintenance
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1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check HT connector, integrity, clean and refill silicon grease	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check liquidcooling system	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check tube efficiency. (*)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
4	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check collimator positioning and even recalibrate it.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

(*) usually performed by local radioprotection service

F) Panel detector

N	Before maintenance	Maintenance check/procedure	After maintenance
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1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Detector recalibration.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check laser centering tool and even recalibrate	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check field illumination lamp, if present (5)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

(5) optional

G) Software

N	Before maintenance	Maintenance check/procedure	After maintenance
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1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check turning on time	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check graphic user interface functionality	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check dose point reproducibility (AEC)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
4	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Image quality test	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
5	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	X beam alignment and uniformity test	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
6	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check functioning of wireless pedal and remote controls, if present (6)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

(6) optional

H) Monitors

N	Before maintenance	Maintenance check/procedure	After maintenance
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1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity of the image displays	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check functioning and even calibrations of the image displays	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

S) Sicurezza

N	Before maintenance	Maintenance check/procedure	After maintenance
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1	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check functioning of the emergency switch.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
2	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check functionality of the xray interlock key switch.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
3	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity and functionality of the xray emission alarms, both visual and acoustic.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
4	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check integrity and functioning of the service port (injector, doorswitch, external exposure lamp) if used/present (7)	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
5	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check functioning of the main protection breaker.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

6	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Check/inspection the main power plug, especially the ground connection	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL
7	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	Perform the electrical safety test according with the IEC 60601-1 and collateral directives.	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL

(7) optional

Notes about the performed corrections:

(please indicate the maintenance step, for example H7 if related to the final electrical safety test, and provide details about the activity performed in order to pass the maintenance point)

Podsumowanie : **Aparat Sprawny Technicznie**

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