ELECTRO-HYDRAULIC CUTTER

1. The tool is designed to be a hydraulically operated piston activating a mechanical joint to open or close a set of two opposite blade arms whereby cutting surfaces go on top of each other without making contact thus enabling objects to be cut.
2. Electro-hydraulic cutter must not require connection to an external hydraulic source, generation of the required hydraulic pressure takes place within the body of the device by either a quick exchange lithium-ion battery or an external power supply.
3. The electro-hydraulic tool is equipped with light-emitting diodes attached on the operating side to facilitate work under poor lighting conditions. For simplicity, the lights must be powered by the same Lithium-Ion battery that powers the electro-hydraulic tool and not a secondary battery.
4. The cylinder of the tool shall be made of anti-corrosive T6-7075 grade light aluminium alloy for its lightweight, strength and long life. The body of the tool shall have a high impact, non-metallic housing.
5. The maximum cutter opening at the tips will be 2.06 in (53 mm).
6. The cutter must have an advanced blade geometry for pulling metal to the back of the blades, reducing tool rotation and providing maximum cutting performance.
7. The blades shall be made of dropped-forged steel which has a glass-pearl blasted finish and are re-grindable. The blades of the tool should be attached to the piston rod via removable links for ease of repair, efficient power transmission and smooth operation. The pivot points of the blades shall have a rubber booted hand guard for safety purposes.
8. The cutting performance of the tool shall be able to cut up to 1.65 in (42 mm) diameter round stock steel.
9. The tool shall have a dual pilot check valve to prevent accidental movement of the blades in the event of power loss.
10. The control mechanism shall feature a star-grip control actuator for ease of operation by allowing 360 º operations in any position. The mechanism shall be separate and independent from the handle to provide added control in close-quarter operation.
11. The tool must provide a non-interflow shear seal “dead man” actuator, whereby the unit stops functioning when star grip control valve is released.
12. The opening and closing positions are clearly marked.
13. The tool shall be protected by a pressure relief valve that prevents it from being over pressurized.
14. The tool dimensions without the battery shall not be any longer than 18.3 in (465 mm), wider than 3.21 in (82 mm) or higher than 5.08 in (130 mm).
15. The operating pressure to the tool will be 10,000 psi (70 MPa).
16. The current consumption should be 8A DC in idle mode and 42A DC at maximum load.
17. The tool shall be able to tolerate an ambient temperature range of -4ºF (-20ºC) up to +131ºF (+55ºC).
18. The tool must be compatible with all variations of the Makita 18V battery platform. *****call out 2 Ah for NFPA compliance
19. The tool must be NFPA 1960; 2024 Edition compliant and shall be labelled as such bearing the mark of the 3rd party testing agency.
20. Cutting classification should be no less than A5 / B3 / C2 / D3 / E3 as defined in NFPA 1960; 2024 and certified by a 3rd party testing agency.
21. The tool will not weigh more than 8.1 lbs (3.7 kg), excluding the power source.
22. The tool shall have a noise pressure level of 75 dB(A) at max load.
23. The tool shall have an IP rating of IP44.