

Date: 06/12/2024

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MacLean Power Systems strives to implement continuous improvements for the benefit of its customers whenever possible. Due to the need to remake production tooling for HCD88 series Dead End Clamp keepers, MPS has also improved the torque capability of the redesigned keepers.

The enhanced design allows for 30% more torque capability than the previous design adding robustness to the product and preventing damage from over torque during installation. Refer to Figure 1 for updated design schematics of the HCD88 keepers. The mass of the keeper has been increased to improve torsional loading capability and resistance to damage from torque overloads. The conductor sizes accepted and holding strengths have not changed.

HISTORIC DESIGN

REVISED DESIGN

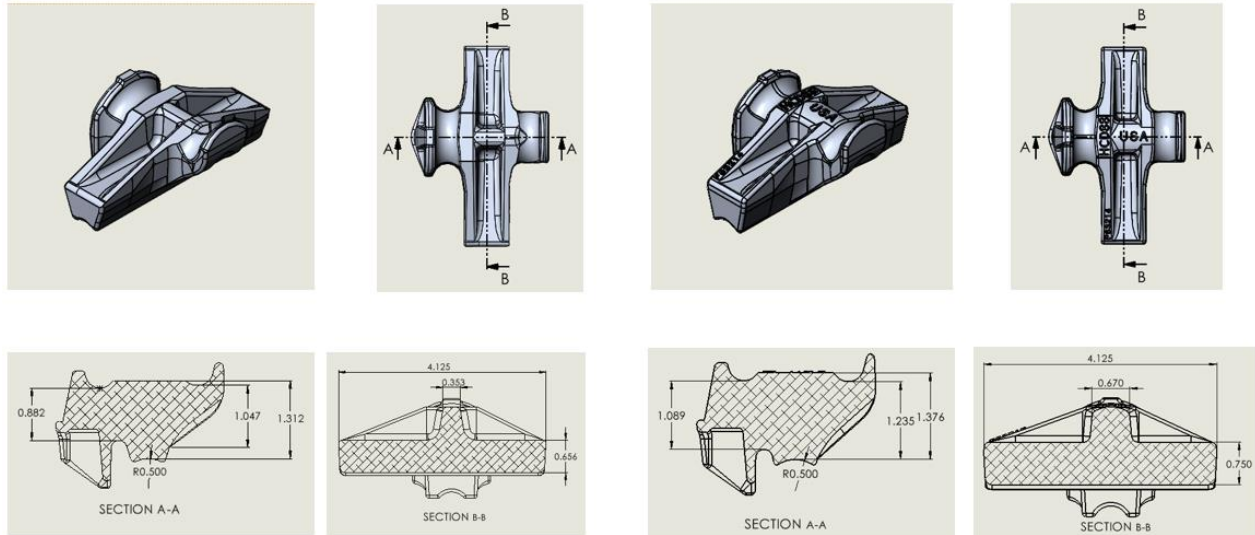


Figure 1 – Enhanced HCD88 Keeper Cross-section Drawing

This change goes into effect for production components as of the release of this notice. There are no changes to catalog numbers, active orders, or quotations resulting from this notification.

Included catalog numbers in this change are limited to HCD88SO, HCD88SOH, and HCD88SOHC. Test reports for the enhanced design and part drawings are referenced in the Appendix of this notification.

Please contact your MPS representative with any additional questions or requirements.

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Appendix

Figure 2 – HCD88 Series Product Drawing

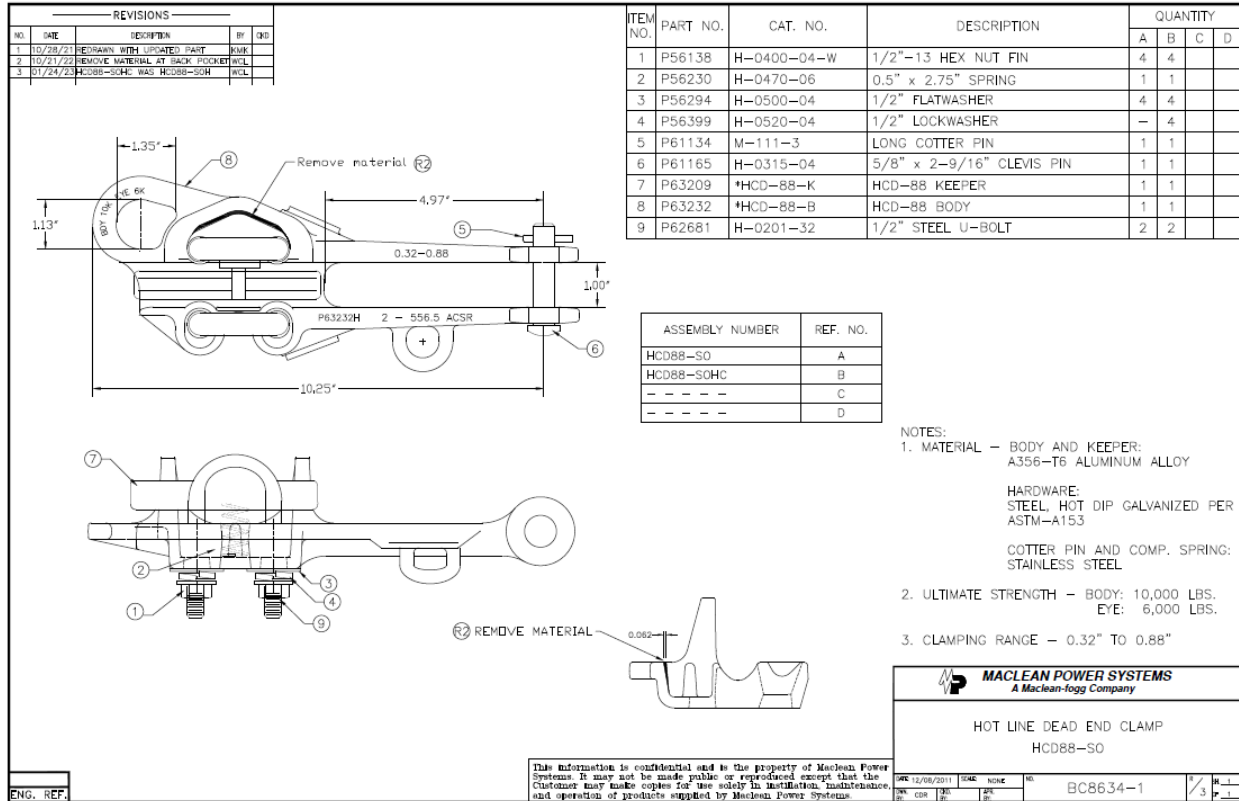


Figure 3 - HCD88SO Test Report (TR-2403-38: Page 1)



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Mechanical Test Report

Test Report no.	<u>TR-2403-38</u>	Date	<u>3/25/2024</u>
Part no.	<u>HCD88SO</u>	Description	<u>Dead end clamp</u>
Rated strength	<u>45 foot pounds</u>	Material	<u>Aluminum</u>

Test setup: An assembled HCD88SO was attached to a section of 4/0 Penguin conductor (diameter 0.563"). The clamp was then torqued down until reaching 70 foot pounds (150% of rating) or failure in the clamp components.

TEST DATA

TEST #	LOAD APPLIED (FT-LBS)	ULTIMATE RATING (FT-LBS)	FAILURE MODE
1	70	45	None (150% of load)
2	70	45	None (150% of load)
3	70	45	None (150% of load)
4	70	45	None (150% of load)
5	70	45	None (150% of load)
6	70	45	None (150% of load)
7	70	45	None (150% of load)
8	70	45	None (150% of load)
9	70	45	None (150% of load)
10	70	45	None (150% of load)
11	70	45	None (150% of load)
12	70	45	None (150% of load)
13	70	45	None (150% of load)
14	70	45	None (150% of load)

Figure 3 - HCD88SO Test Report (TR-2403-38: Page 2)

15	70	45	None (150% of load)
16	70	45	None (150% of load)
17	70	45	None (150% of load)
18	70	45	None (150% of load)
19	70	45	None (150% of load)
20	70	45	None (150% of load)
21	70	45	None (150% of load)
22	70	45	None (150% of load)
23	70	45	None (150% of load)
24	70	45	None (150% of load)
25	70	45	None (150% of load)
26	70	45	None (150% of load)
27	70	45	None (150% of load)
28	70	45	None (150% of load)
29	70	45	None (150% of load)
30	70	45	None (150% of load)

Figure 3 - HCD88SO Test Report (TR-2403-38: Page 3)

Test Report no.	<u>TR-2403-38</u>	Date	<u>3/25/2024</u>
Part no.	<u>HCD88SO</u>	Description	<u>Dead end clamp</u>
Rated strength	<u>6000 lbs eye, 10000 lbs body</u>	Material	<u>Aluminum</u>

Test setup: An HCD88SO body was attached to the tensile test machine either via eye-ears, or with a fixture to simulate a body pull. The clamp was then pulled to failure.

TEST #	TEST TYPE	LOAD APPLIED (LBS)	ULTIMATE RATING (LBS)	FAILURE MODE
1	Eye-ears	8,280	6,000	Sag eye
2	Eye-ears	8,020	6,000	Sag eye
3	Eye-ears	8,000	6,000	Sag eye
4	Body	11,350	10,000	Leg
5	Body	15,640	10,000	Leg
6	Body	13,470	10,000	Ear

ALL STATEMENTS AND DATA IN THIS TEST REPORT ARE CERTIFIED TO BE A TRUE AND ACCURATE RECORD OF TESTING.

<u>David Brehmer</u>	<u>3/25/2024</u>
QA Technician	Date