

Davis Model 00 Single-Shot Blaster

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These are photographs of the Davis Instruments Model 00 Single-Shot Blaster from the collection of Hal Post. Hal describes this blaster as follows:

“Davis Instruments Model 00 Single-Shot Blaster. Bottom: DAVIS INSTRUMENTS



MODEL 00 SINGLE-SHOT BLASTING UNIT. Rare cylindrical, single-shot blaster, brass body with handle attached by leather strap, 6 1/4 in. high and 1 5/8 in. dia. One side marked with oval DUPONT tag and other side marked with plate: ‘PERMISSIBLE SINGLE SHOT BLASTING UNIT APPROVAL NO. 1203 ISSUED TO DAVIS INSTRUMENT MFG. CO. INC.,’ and Bureau of Mines logo. Other marking notes: ‘Not permissible unless used with rubber covered leading wires of lengths not exceeding 600 feet of No. 14, 350 feet of No. 16, or 200 feet of No. 18 wire.’ Screw on brass bottom marked with incused stamping around edge ‘Davis Instrument Mfg. Co. Baltimore, MD.’ Ex-John Podgurski collection. This is one of the very earliest single-shot blasting units approved by the Bureau of Mines. Approval was granted to the

No. 00 spring-operated blaster on Oct. 17, 1924 and issued to the Davis Instrument Mfg. Co. Baltimore, MD. This is one of two known examples in collections.”¹

Hal’s example has to be one of the best known, and it is complete with its key (handle).

¹ Hal’s Lamp Post,

<http://www.halslampost.com/Blasting%20Items/slides/Davis%20Instruments%20Model%2000%20Single%20Shot%20Blaster%20Permissible%20Tag%20Side.html>, accessed 10/25/25.



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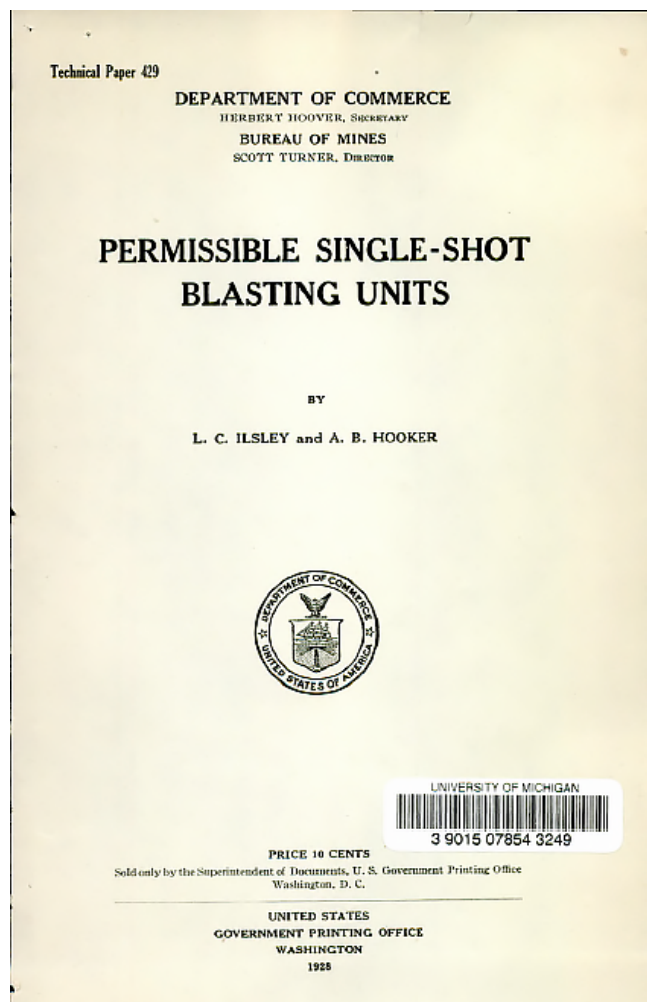


Top



Bottom

This blaster is described in detail in U. S. Bureau of Mines Technical Paper 429, the relevant portions of which are reproduced below.²



The description of the Davis Model 00 blaster begins one-third of the way down the right-hand column on page 14. The photograph on page 14 is of a different blaster. The Davis Model 00 is described as a magneto-type blaster, a spring-operated unit weighing 1.8 pounds, designed especially for single-shot service. It is equipped with a metal loop that may be used to attach the blaster to the shotfirer's belt. Details of the blaster are shown on page 15, figure 11. A complete view of the assembled blaster is shown on page 16, figure 12.

The standards for permissibility were very strict. They were intended in particular to prevent catastrophic accidents resulting from the ignition of methane or coal dust as a result of sparking of

² L. C. Isley and A. B. Hooker, *Permissible Single-Shot Blasting Units*, Technical Paper no. 429 (U. S. Department of Commerce, Bureau of Mines, 1928), 14–16.

The company made two changes in this blasting unit which were recommended as a result of life tests.

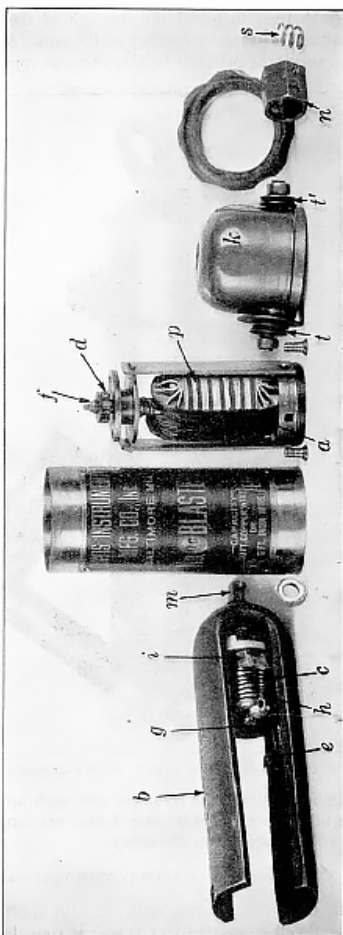


FIGURE 11.—Detail view of Davis No. 60 magnetotype vault



FIGURE 12.—Assembly view of Davis No. 66 magneto-type unit, approval No. 1203

Figure 12 shows the complete unit with approval plate attached. This unit is not sealed because it does not have any special features that require protection for safety.

CONCORDIA STORAGE-BATTERY TYPE UNIT—APPROVAL NO. 1204

The Concordia blasting unit, the fifth approved by the bureau, is of the 2-volt storage-battery type. It consists of a Concordia RM.

Magneto-type units were tested for shot-firing capacity, mechanical strength by dropping on a concrete floor, service life, and for safety in gaseous mines by tests in an explosive mixture of methane and air.⁴

⁴ L. C. Isley and A. B. Hooker, *Permissible Single-Shot Blasting Units*, 6.

A finding of permissibility was not required, but that finding, together with the U.S. Bureau of Mines seal of approval, was highly valuable to an explosives equipment manufacturer.⁵ The Davis Model 00 Single-Shot blaster was approved on October 17, 1924, approval no. 1203.

This is a photo of another Davis cylindrical, single-shot blaster recently discovered by a member of the Blasting Cap Tin Collectors Facebook page. It was found among a jumble of stuff in an old garage. Unfortunately, the blaster is missing its key (handle). The owner asked me what I thought it was worth. I had no idea, but I offered to try to find out. I contacted Hal Post to seek his opinion, and I sent him a photo of this blaster. He responded as follows: “This is a rare one. I know of three now. Surprisingly one of them showed up on eBay a couple years back. I think it was complete, but [the listing only included] one photo, and it was bad, so condition was hard to tell. It went for just shy of \$600, and I think the buyer got a pretty good deal. I did search for more info on mine but could not find a patent, but I suspect Davis Instruments did patent the model. ... It’s a neat and early single shot blaster.”



I also did a search of WorthPoint, an on-line resource that tracks auction results from a number of websites. I found one example of a Davis single-shot, cylindrical blaster that was sold along with another permissible blaster. Neither blaster had a key. The two blasters sold together for \$175 in October 2023.⁶ I’ve noticed that the labels on Hal’s blaster and the blaster recently discovered by a member of the Blasting Cap Tin Collectors Facebook page seem to be inverted as compared to the illustration in Technical Paper 429, page 16, figure 12. In contrast, the blaster pictured to the left matches the illustration in Technical Paper 429. Does this matter? I don’t think so, since the outer case of the blaster is merely a cylindrical tube that looks like it could be secured in either orientation.

⁵ See J. E. Crawshaw, L. C. Isley, D. J. Parker, and A.C. Fieldner, *Permissible Explosives, Mining Equipment, and Rescue Apparatus Approved Prior to January 1, 1925*, Technical Paper no. 376 (U. S. Department of the Interior, Bureau of Mines, 1925), 1.

⁶ WorthPoint, “Pair of Antique DuPont Permissible Blasting Machines,” <https://www.worthpoint.com/worthopedia/pair-antique-permissible-dupont-4677485018>, accessed 10/30/25.

These blasters are unique and intriguing, but they are very difficult to value, especially in the absence of a key. The condition of the blaster is also important, as is finding the right buyer, someone knowledgeable enough to recognize the rarity of this blaster. Thanks so much to Hal Post for his assistance and for his wonderful website for meticulously documenting the many rare mining artifacts in his collection.