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OFFICE OF NAVAL RESEARCH EUROPEAN OFFICE Box 39, FPO New York 09510-0700 Phone (AV)235-4131 (Comm) 409-4131

MASB 30-89

2 May 1989

DM 109 UNDERWATER ACOUSTIC SIGNAL

Background. DIEHL GmbH & Co. has developed the DM 109 Underwater Acoustic Signal for use as a hand-thrown, submarine acoustic signaling device.

Description. The DM 109 consists of an explosive charge and detonating fuse. The fuse has pyrotechnic delay and hydrostatic switch built in. Handling of the DM 109 is similar to the handling of a conventional hand grenade. When the safety pin is pulled and the DM 109 is thrown overboard, the spring-loaded safety lever is thrown off and the device is armed. As the DM 109 reaches a water depth of between 3 and 6 meters, the hydrostatic switch operates and commences the detonation sequence, and the grenade explodes at a depth of 7 to 10 meters.

For further information contact DIEHL GmbH & Co., Wehrtechnik, Fischbachstrasse 16, D-8505 Röthenbach, Federal Republic of Germany. Telephone 0911/5977-1, Telex 6/22481.

ONREUR point of contact is CDR R. H. Taylor, USN, Undersea Systems Officer.

Distribution:
Diver/Special Warfare
Submarine

AD-A271 895



Technical Data

Ignition delay assembly comprises primer DM 1024 A1 B1, delay charge, and booster

Detonator	DM 1066 B1
Booster	DM 1034
Delay time	4 s
Detonator armed	after 2.4 s
Pressure required to release the hydrostatic switch	0.3 to 0.6 bar
Detonation depth	7 m to 10 m
Rate of descent	1 m/s

Weights

Grenade body	283 g
Fuze	DM 106 117 g
Total weight	400 g

Explosives

High-explosive charge (Tetryl)	31 g
Delay charge in hand grenade fuze	2.31 g

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DM 109 Underwater Acoustic Signal