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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶:
A62D 3/00, C06B 21/00

A3

(11) International Publication Number: WO 99/58202

(43) International Publication Date: 18 November 1999 (18.11.99)

(21) International Application Number: PCT/US99/09066

(22) International Filing Date: 27 April 1999 (27.04.99)

(30) Priority Data:

09/066,690 27 April 1998 (27.04.98) US

(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application

US 09/066,690 (CON) Filed on 27 April 1998 (27.04.98)

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Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(88) Date of publication of the international search report:

29 December 1999 (29.12.99)

(54) Title: AMMONIA FLUIDJET CUTTING PROCESSES

(57) Abstract

Methods of cutting structural shapes by impinging a high pressure jet of anhydrous liquid ammonia or anhydrous ammonia-abrasive mixture at high impact velocity at a target substrate for faster, more efficient penetration/cutting rates i.e., up to 25 percent improvement over high pressure jet cutting methods with water as the cutting fluid, greater safety and flexibility, particularly in demilitarizing munitions comprising energetic materials and/or chemical warfare agents. The energy from the cutting jet comprising anhydrous ammonia may also be utilized in a continuous, uninterrupted sequence of processing steps after penetrating a closed casing for dispersing/dissolving and washing the contents from the penetrated containment.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US99/09066

A. CLASSIFICATION OF SUBJECT MATTER								
IPC(6) :A62D 3/00; C06B 21/00 US CL :588/202, 203; 134/22.1, 22.12, 22.13, 172, 167R; 149/124								
According to International Patent Classification (IPC) or to both national classification and IPC								
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Minimum documentation searched (classification system followed by classification symbols)								
U.S. : 588/202, 203; 134/22.1, 22.12, 22.13, 172, 167R; 149/124								
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C. DOCUMENTS CONSIDERED TO BE RELEVANT								
Category*	Citation of document, with indication, where app	propriate, of the relevant passages	Relevant to claim No.					
Y	US 5,284,995 A (MELVIN) 08 Februa ln. 30-64 & col. 8, ln. 10-14.	1, 2						
Y	US 5,516,970 A (MILLER et al.) 14 M ln. 35-63.	1, 2						
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