

Easy access to publicly available information on humanitarian demining equipment

by

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This article describes a new feature that was recently introduced on the ITEP website: the humanitarian demining equipment database. The database provides a list of pointers to directly accessible/downloadable information, together with a summary description of the available information.

Appropriate application of demining equipment leads to cost-effective clearance and, as a result, to the safe return of land to communities. Appropriate application implies that the right equipment is used for the envisaged task. This means not only that the task and the conditions in which the task has to be fulfilled are well understood, but it also implies that the capabilities of the available demining equipment are known so that it is possible to match the equipment to the task.

To fully understand the capabilities of equipment for a specific task, the equipment has to be tested in the operational conditions where it is going to be used. However, prior to selecting equipment for field assessment and/or procurement, it might be useful to screen the range of equipment that is on the market to learn about the characteristics, to obtain data on the performance in standardised conditions, and to maybe find out what other users think of the particular equipment. Apart from the communication between field practitioners, several sources of information on humanitarian demining equipment are available nowadays which should allow potential buyers/users to make an informed decision:

- Most equipment manufacturers have a website on which they provide a basic description of their equipment, and the equipment specification.
- The GICHD equipment catalogues provide comprehensive overviews of mechanical demining equipment, detectors and

personal protective equipment available on the market today (1, 2). Next to an equipment description, which is in many cases more exhaustive than on the equipment manufacturer website, these directories include additional information such as where the equipment is in use today, details on factory support and maintenance, information on reported limitations and strengths, and a list of references where test and evaluation information can be found.

- The ITEP website provides a list of directly downloadable test reports (3), as well as information on projects in which humanitarian demining equipment was tested (4).
- The Journal of Mine Action (5) and the UNMAS GICHD Mine Action Technology Newsletter (6) also publish articles on humanitarian demining equipment, equipment trials and operational applications.
- Workshop and conference articles may also include useful data.

This list suggests that in many cases the information is out there, publicly available. A series of internet searches will most likely provide what is needed to screen the available equipment and make a first assessment. However, some time might be necessary to search and some patience might be required to extract the useful data amongst the found information. The ITEP Secretariat has therefore made an attempt to centralise pointers to available information on a "webpage per equipment item" basis. Currently, the database can only be searched for mechanical demining equipment (7), but the search will be expanded to also include detection equipment, and in the long term personal protective equipment. Every equipment page includes:

- The equipment name, as listed in the GICHD mechanical demining equipment catalogue. If the equipment is not listed in the catalogue, the name given on the manufacturer website is used.
- The manufacturer name, with a link to the manufacturer's website. In most cases, the link points to the description of the selected equipment on the manufacturer's website. When this is not possible, it points to the manufacturer's website home page.
- A list of the GICHD mechanical demining equipment catalogues which contain the selected equipment, with a link to the catalogues followed by the machine category under which the equipment is listed in the GICHD catalogues.
- A list of publicly available test and evaluation reports, indicating if the described trials were carried out by ITEP Participants or by other testing entities. If the reports are the result of ITEP trials, links to the ITEP project descriptions provide summary information on the test projects (ITEP nations and/or other partners involved, trial period and place, etc.). For each trial report, a short description of the type of trial is given which should allow users to assess if this is the type of report they are looking for, without having to download the report. For instance, the trial description will show if it is a trial executed according to the CEN Workshop Agreement (CWA) on Test and Evaluation of Demining Machines (8) or not, if it concerns a performance trial or a survivability trial, and in the latter case if it was the survivability of the machine/tools that was tested or also of the operator, etc.
- A list of other documents, with links. These documents are publications and articles extracted from journals and conference proceedings which include additional information on the equipment.

Tables 1, 2 and 3 provide examples of the equipment webpage layout and content, as well as of the different information sources

users are directed to. The examples have been selected in order to illustrate the type of information that can be found on the equipment page.

From Table 1 visitors can determine that:

- the Mini MineWolf was tested according to the CWA agreement by ITEP, and that information will be found on the CWA performance, as well as on the AP and AT survivability of the machine.
- the Mini MineWolf was tested by HCR-CTRO and that information will also be found on performance, AP survivability of the machine and ground processing depth, although the test was not a CWA test.
- there are several articles available which provide additional information

From Table 2 it can immediately be seen that the only publicly available test information available for the MANTIS is a 2005 report from an ITEP trial. The user is informed that it concerns a performance and AP survivability trial, not carried out according to the CWA guidelines, and that the test report also includes information on additional capabilities of the machine.

From Table 3 visitors will learn that a considerable amount of public test information is available for the Scanjack 3005, and that the test information is wide ranging. There are reports from trials executed by various test organisations and according to different test procedures. Furthermore, the equipment page shows that the visitor will find data on the CWA performance of the machine, the AT survivability of the machine, hammer-wear issues and other machine capabilities.

Table 1: result of a search on the equipment “Mini MineWolf”


<p>Equipment: Mini MineWolf Manufacturer: MineWolf Systems</p>	
<p>GICHD catalogues:</p> <p>Mechanical Demining Equipment Catalogue 2008 Mine clearance machine - Medium Dual Capability (Flail or Tiller) Mechanical Demining Equipment Catalogue 2006 - Tiller</p>	
<p>Reports:</p> <p>Tested by ITEP:</p> <p>Project No.: 3.2.44 Report: Mini MineWolf Test and Evaluation - 2007 Trial type: CWA (CWA performance trial + CWA AP and AT survivability trial - machine)</p> <p>Tested by another entity:</p> <p>Report: Mini MineWolf demining machine testing report - 2006 Trial type: Non-CWA (CROMAC-CTRO performance, AP survivability trial - machine + Ground processing depth trial)</p>	
<p>Other documents:</p> <p>Remote Operation of the Mini MineWolf in High-Threat Mine Environments - 2008 - 'Article/Publication' Humanitarian Mine Clearance in the Balkans - 2007 - 'Article/Publication' Machine Demonstration Analysis and Preliminary Results - 2007 - 'Article/Publication'</p>	

Table 2: result of a search on the equipment “Mantis”

<p>Equipment: MANTIS (Mine Clearing Survivable Vehicle - MCSV) Manufacturer: Pearson Engineering Ltd.</p>	
<p>GICHD catalogues:</p> <p>Mechanical Demining Equipment Catalogue 2008 Ground preparation machine - Multi-Tool</p>	

[Mechanical Demining Equipment Catalogue 2006](#) - Multi-Tool

Reports:

Tested by ITEP:

Project No.: [3.2.5](#)

Report: [Proof of Performance Test Report on Mine Clearing/Survivable Vehicle \(MANTIS\)](#) - 2005

Trial type: Non-CWA (Capabilities demonstration + Non CWA performance trial + non CWA AP survivability trial - machine)


Tested by another entity:

No report found

Other documents:

No other document found

Table 3: result of a search on the equipment "Scanjack 3500"

<p>Equipment: Scanjack 3500</p> <p>Manufacturer: Scandinavian Demining group AB</p>	
<p>GICHD catalogues:</p> <p>Mechanical Demining Equipment Catalogue 2008 Mine clearance machine - Heavy Flail</p> <p>Mechanical Demining Equipment Catalogue 2006 - Heavy Flail</p> <p>Mechanical Demining Equipment Catalogue 2004 - Heavy Flail</p> <p>Mechanical Demining Equipment Catalogue 2003 - Heavy Flail</p> <p>Mechanical Demining Equipment Catalogue 2002 - Heavy Flail</p>	
<p>Reports:</p> <p>Tested by ITEP:</p> <p>Project No.: 3.2.29</p> <p>Report: Flail Hammer Head Test and Evaluation - 2005</p> <p>Trial type: CWA (CWA performance trial + Hammer wear-out trial)</p> <p>Project No.: 3.2.30</p> <p>Report: Scanjack 3500 System Technical Test Report - 2005</p> <p>Trial type: Non-CWA (Capabilities demonstration)</p> <p>Tested by another entity:</p> <p>Report: Verification of Mine Clearance Vehicle 1/T Deep Mine Clearance Machine. - 2003</p> <p>Trial type: Non-CWA (Non CWA AT survivability trial)</p>	

Report: [Area Mine Clearing System \(AMCS\), Study Report](#) - 2002
Trial type: N/A

Report: [Performance Test of Demining Machines Performed by SWEDEC](#) - 2001
Trial type: Pre-CWA, CWA like (Pre CWA performance trial following closely the CWA guidelines)

Other documents:

[Test Report after Trials with Mine Detection Dogs \(MDD\) and the Mechanical Mine Clearance System Scanjack](#) - 2003 - 'Technical note'

References:

1. GICHD Mechanical Demining Catalogue 2008, <http://www.gichd.org/gichd-publications/mde-catalogue/>
2. GICHD Metal Detection and PPE Catalogue 2007, <http://www.gichd.org/gichd-publications/metal-detectors-and-ppe-catalogue/>
3. ITEP reports database, <http://www.itep.ws/reports/search1.php>
4. ITEP work Plan database, http://www.itep.ws/activities/itep_workplan/search_workplan.php
5. Journal of Mine Action, <http://maic.jmu.edu/journal/index/>
6. UNMAS GICHD Mine Action Technology Newsletter, <http://www.gichd.org/gichd-newsletters/mine-action-technology-newsletter/current-edition/>
7. Humanitarian demining equipment database for mechanical equipment: http://www.itep.ws/equipment/search_mech_equipment.php
8. EN Workshop Agreement on Test and Evaluation of Demining Machines, CWA 15044:2004, http://www.itep.ws/pdf/CWA_demining_machines.pdf