



URDAN Mine Clearing Roller System (MCRS)

IN THE BATTLEFIELD MINUTES COUNT

The Mine Clearing Roller System MCRS is a Track Width, Tank Mounted Clearing System consisting of two roller banks with two push arms/suspension assemblies and a special Adaptor for each type Of MBT. The MCRS provides a capability for neutralization of Anti- Tank Land Mines, which are on the surface or buried in the track path of the pushing tank, and also clears Tilt-Rod Mines from between the roller banks.



IQNET
CERTIFIED MANAGEMENT
SYSTEM



ISO 9001
THE STANDARDS
INSTITUTION OF ISRAEL



OPERATION

A bank of rollers is pushed by the tank in front of each track. The weight and suspension of the rollers is such as to apply ground pressure higher than that exerted by the tank. This principle ensures explosion of mines which otherwise would explode under the track itself.

Mines which are activated and exploded by the MCRS cause the roller banks to be lifted from the ground and recoil. Most of the explosion energy absorbed by the system is thus converted into potential energy, the rest is partially conveyed to the pushing tank, and partially converted into plastic deformation by the system itself.

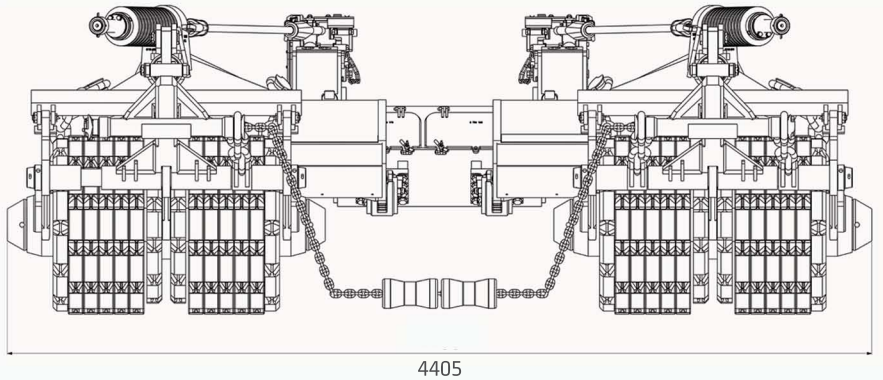
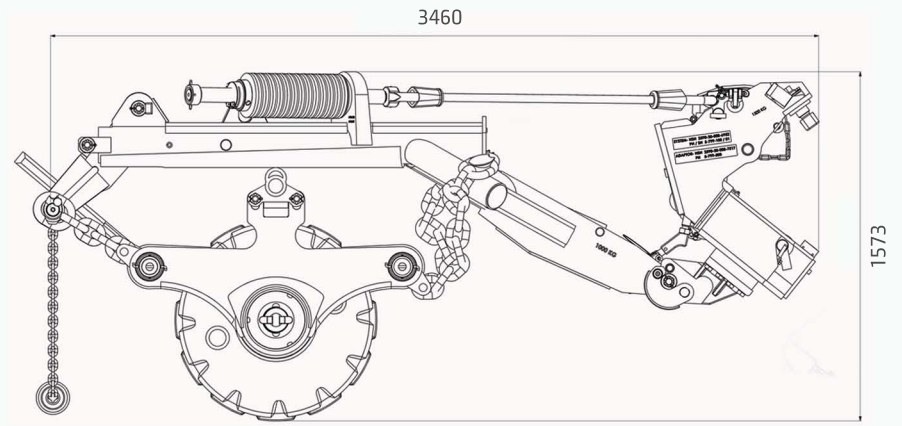
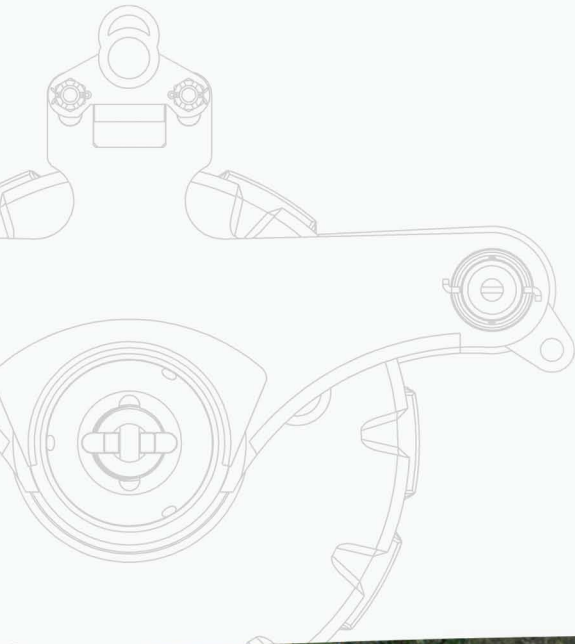
A weighted Chain is towed on the ground between the two roller banks and will activate and clear all tilt-rod mines encountered.

SPECIAL DESIGN FEATURES

The MCRS provides six inches of independent vertical roller articulation, and also a secondary vertical articulation of at least 10 inches downward, thus ensuring clearance of mines buried in small terrain irregularities.

In addition, the entire roller bank allows the roller to caster up to 30 degrees from the longitudinal axis when the pushing tank makes a turn.

Dimensions and Sizes



CONNECTING THE MCRS

The MCRS is easily connected to the Tank by a regular lifting device (3 ton Capacity) which is standard in any Armour Unit for maintenance purposes.

This enables two soldiers to couple the MCRS to the Tank (without the use of additional mechanized equipment) in about 15 minutes.

The coupling is carried out as follows:

Mounting the Adaptor on the front Glacis of the Tank. Coupling the MCRS to the Tank mounted Adaptor.

DISCONNECTING THE MCRS

The MCRS is attached to the tank with a quick disconnect system, which can be Operated either manually from outside the tank, or remotely from within the tank (when leaving the armour protection may be dangerous for the crew.) The manual release requires about 30 seconds to completely disconnect both roller banks. The remote release is instantaneous (using a pyrotechnical device).

TANK MODIFICATION NECESSARY TO ACCOMMODATE THE MCRS, NO modification whatsoever is necessary to couple the MCRS to the Tank; Special Adaptors designed for the front Glacis of each MBT enable the coupling of the MCRS to the Tank.

Urdan Metal & Casting Industries Ltd.

11 Haplada St. Industrial Area, Netanya 42378, Israel
Tel: +972 9 8624525, Fax: +972 9 8611571
sales@urdan.co.il
Environment Issues: Mr. David Moyal, moyal@urdan.co.il

URDAN USA Inc.

23c Poplar Street, East Rutherford, NJ 07073
Tel: 248 642 3882
Fax: 248 649 2084
urdanusa@urdan.co.il