

SIFTER SYSTEMS | KZC VIBRATION GRID SIFTER

Khabat Zangana Company | Sulaimaniyah, Iraq

GENERAL DESCRIPTION

This machine consists of a commercial agriculture tractor with a special attached vibrating grid sifter, manufactured by Khabat Zangana Company (KZC), which was founded in 1998. KZC also manufactures a special cabin with armoured plate and safety glass to protect the driver. No more information was provided by the manufacturer.



KZC VIBRATION GRID SIFTER

CLEARANCE METHODOLOGY

A front-end loader (with armoured cabin) or an excavator (with armoured cabin) is used to excavate and transfer the suspected soil to the vibration sifter. The vibration separates the larger soil pieces (which may contain mines) into the hopper. The sifter has 4 cm x 4 cm grid so that larger pieces (eg a M14 mine) remain within the sifter. Suspect items are examined by a deminer. If a mine or UXO is found on the screening bed, EOD-trained personnel are notified.

The machine can excavate up to 500 m²/h and can operate in all kinds of soil conditions.

MACHINES IN USE TO DATE

There are 14 sifters in operation in Northern Iraq and three in Southern Iraq.

ENGINE, FUEL AND OIL

No information provided.

FACTORY SUPPORT

No information provided.

MAINTENANCE AND SUPPORT

No information provided.

TESTS AND EVALUATIONS

No information available.

REPORTED LIMITATIONS AND STRENGTHS

Limitations

- > It operates in a time- and resource-consuming method.

Strengths

- > It is in a simple and rugged design.
- > It is useful for AT and AV mine clearance or ERW clearance.



Sifter in mine clearance area

DIMENSIONAL DATA

1. Length without attachment	3,000 mm
2. Length total	7,000 mm
3. Width without attachment	2,000 mm
4. Width total	2,500 mm
5. Clearing Working width	N/A
6. Height Overall	2,500 mm
7. Mass Basic vehicle	5,000 kg
8. Mass Detachable unit(s)	3,000 kg
9. Mass Overall	8,000 kg

OPERATIONAL DATA

10. Wheels Tracks (description)	N/A
11. Ground Bearing Pressure (kPa)	N/A
12. Hill climbing ability (in degrees)	N/A
13. Number of Chains Chisels Tools	N/A
14. Beat pattern (hits per m ²) at different operating speeds	N/A
15. Length of Chains Tools	N/A
16. Diameter of flail drum	N/A
17. Rotation Speed	N/A
18. Clearance Working depth in varying terrain	
19. Working Speed (m ² /h)	
> Light Soil Medium Vegetation	100 m ²
> Medium Soil Medium Vegetation	75 m ²
> Heavy Soil Dense Vegetation	50 m ²
20. Control of Clearance Working depth	N/A
21. Additional attachable working tools	No
22. Armour	Yes
23. Remote controlled	N/A
> greatest distance	
24. Transportation	Low loader
> short distances	
> long distances	
> sea transport	
> air transport	

SYSTEM STATUS AND DEPLOYMENT

25. Machines in use	17
26. Other types	No
27. Location of use	Northern and Southern Iraq
28. Totally cleared so far (m ²)	More than 400,000 m ²

ENGINE | FUEL | OIL

29. Engine	Depending on the prime mover
30. Engine power at the flywheel	Depending on the prime mover
31. Sufficient power supplied to working tool	Depending on the prime mover
32. Fuel capacity	Depending on the prime mover
33. Fuel consumption	Depending on the prime mover
34. Separate engine for working unit	Depending on the prime mover
35. Cooling system	Depending on the prime mover
36. Oil capacity (both engines)	Depending on the prime mover
37. Hydraulic oil capacity (both engines)	Depending on the prime mover

COSTS

38. Cost of system	On negotiation
39. Other costs	On negotiation
> training	
> spare part set chains belts	
> repair costs for one year	
40. Availability for hire	No

OTHER

41. Operator comfort	N/A
42. Air conditioning	N/A