



www.workmasterbatman.com



BM-700 CRAWLER BEACH CLEANING MACHINE **Operation and Maintenance Manual**

PLEASE KEEP THIS MANUAL AND READ CAREFULLY

Contents

Preface	1-3
Warning Signs and Labels	4-5
Safety and Requirements Information.....	6-7
Operating and Using Instructions.....	8
Explanation of Dashboard Icons	9-10
Levers and Control Panel Descriptions.....	11-12
Machine and Engine Maintenance Schedule... ..	13-14
Lubrication Scheme.....	15
Technical Data	16
CE Certificate	17

Preface

Information About this Booklet

This booklet should be placed in a folder where brochures are kept. This book contains safety information, operating instructions and maintenance recommendations. Some photos and illustrations in this book may differ from your vehicle's details or attachments. With the development and advancement of the product design, it may have undergone some changes that are not covered in this book. Read, study, and keep this book with your product. If a problem arises with your vehicle or this publication, please contact **BATMAN MAKINE** for the latest information.



Safety

Precautions are mentioned in the warning and operating instructions. However, in this section, the warning signs and labels used on the machine describe what they are and their location.

Operation

The operation section can be considered as a reference for a new operator and as a refreshing booklet for an experienced operator.

Photos and illustrations will guide the operator through checking, starting, operating and stopping the vehicle.

The operation techniques outlined in this book are basic techniques. The operator will improve his skills and techniques as he/she becomes more knowledgeable about the vehicle and its capabilities.

Maintenance

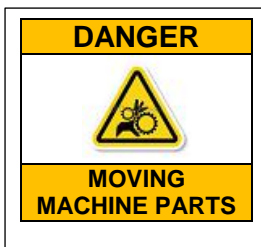
The Maintenance section is a guide to vehicle maintenance.



An electrical panel warning. Low voltage in the panel.



Keep clear the running machine and keep others away.



The places where this warning is present should not be interfered with while the machine is running



Maintenance-repair, cleaning, lubrication, etc. works should not be performed while the machine is running where this warning is put.



Keep away where this warning is while the machine is running

WARNING !

Do not operate or work on this machine until you have read and understood the instructions and warnings in the Operation and Maintenance Manuals. Failure to follow instructions or to follow warnings could result in injury or death. Consult BATMAN MAKINE for replacement manuals. It is your responsibility to pay due attention.

WARNING !

Before starting the vehicle, it should be checked around the vehicle and make sure that there is no living thing. Before the move, a warning should be given from the loudspeaker.

WARNING !

Accidental engine start can result in injury or death to personnel working around the conveyor, anchors, front and rear boom. Before operating on the machine, the emergency stop buttons must be pressed.

WARNING !

While the construction machine is running, the machine should not be interfered with. Do not climb on the vehicle.

WARNING !

The cabin must be locked while performing lubrication, cleaning, maintenance, etc. works on the heavy equipment. Only the driver must be present in the vehicle cabin.

WARNING !

Replace any missing or damaged safety signs with new ones.

Always consider the safety of the operator.

Clean safety signs with mild soap and water.

Do not use solvent-based cleaners so as to prevent damage to the material forming the safety signs.

WARNING !

Never try to plug leaky hydraulic hose lines with your hand or finger.

WARNING !

Standing persons on the machine climbing while machine is running may result in falling hazard for the people!

WARNING !

Eyebolts must be used when lifting the machine. The vehicle must not be lifted from the cab lug.

Worksite safety

Only personnel holding G class driving license and having certified training from the Manufacturer can operate the machine.

Personnel must maintain and operate the vehicle in accordance with the instruction and training received.

Hand crush hazard

Personnel should never interfere with the moving parts while the machine is running.

The vehicle should be stopped and cleaning, maintenance, etc. operations should be performed after the emergency stop buttons are pressed.

Falling hazard

Personnel must get in and out of the vehicle facing the vehicle. Both arms and one foot must be in contact with the vehicle while getting on and off.

Jamming-Crushing Hazard

The machine should not be operated in the presence of people. There should be no one around during running and garbage disposal.

The construction machine should not be started before making sure that the audible and visual warnings are operational.

Personal protection measures

The operator of the beach cleaning machine should use SNR DB 20 > earplugs in TS EN 352-2 standard. When getting out of the vehicle, he/she should wear EN 166 safety glasses, EN 374-2 gloves, S1 type work shoes in EN 20345 Standard, and EN 812 barrier cap.

Requirements of the construction machine operator

The operator who runs the machine occasionally or regularly should have the following qualifications:

Health requirements:

The operator must have a medical report that can work in heavy and dangerous works within the validity period given by the worksite physician. Before and after work, the operator must not drink any alcohol, take medication or other substances that may impair mental and physical abilities and, consequently, the ability to operate machinery.

Physical requirements:

Must have good eyesight and hearing ability, good coordination and the ability to safely perform all functions required for running as described in this manual.

Mental requirements:

Must have the ability to understand and apply occupational safety rules and measures. He/she should be very careful and sensitive about his/her own and others' safety. He/she should take on his/her duty to do things correctly and responsibly.

Emotional requirements:

He/she should have the ability to stay calm, endure stress, and accurately assess his/her own physical and mental state.

Training requirements:

He/she should carefully read and study this manual, attached graphics and diagrams, remarks and warning labels and signs. He/she must have sufficient skills and training in operation of the machine.

The operator must have a driver's license (license) to drive the vehicle within the limits stipulated by the laws applicable in the country where this type of machine is operated, and must have been trained to operate the machine as certified by the manufacturer. Please consult the relevant authorities.

The operator must be at least eighteen years old.

He/she should be very careful and sensitive about his/her own and others' safety. He/she should take on his/her duty to do things correctly and responsibly.

Running and Operating Instructions

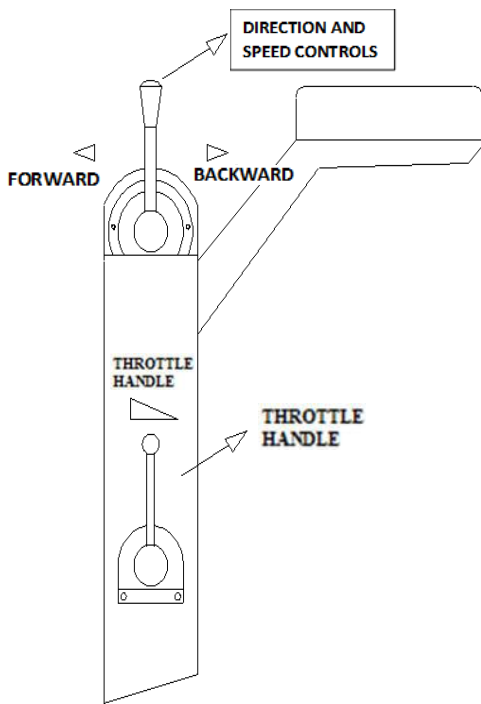
- 1- Only personnel who have a G class license, trained and certified to operate the machine can use the machine.
- 2- The cabin key should only be at the driver.
- 3- No one other than the operator should be in the driver's cabin.
- 4- Before starting work, put on personal protective earplugs, glasses, a barrier cap and safety shoes.
- 5- Get on and off facing the vehicle in contact from 3 points (2 arms one foot – two feet one arm).
- 6- The construction machine should be used only after making sure that there is no one in the sandy area and around, and in accordance with intended use.
- 7- Make sure that no living thing is under the vehicle.
- 8- Clean the anchors from unrelated materials, foreign materials such as wrapped wire, fishing line, cable, etc., after making sure that the emergency stop button of the machine is pressed.
- 9- Clean the sieve from unrelated materials after making sure that the emergency stop button of the machine is pressed.
- 10- Make sure that the audible warnings of the flasher, reverse gear, speaker, camera, boom on the machine are operational.
- 11- Check the hydraulic oil and engine coolant level, tire pressures before starting work.
- 12- Replenish grease into the grease nipples indicated in the lubrication chart.
- 13- Adjust your seat and mirrors according to your own viewing angle.
- 14- The vehicle should not be used on extremely inclined surfaces.
- 15- Follow the traffic rules on highways.
- 16- Only maintenance and repair personnel should intervene in machine malfunctions.
- 17- Pay attention to the warnings on the vehicle.
- 18- While the vehicle is running, no maintenance, cleaning, adjustment should be made and the vehicle should not be climbed on. All of these operations should be done after the engine has stopped and the emergency stop button has been pressed.
- 19- Avoid quick and hard movements during maneuvering and driving, do not allow the vehicle skid. You may sink the car.
- 20- While starting the vehicle, turn the ignition key to the '1' symbol position, after the glow plug on the instrument panel goes out, turn the ignition key to the '2' position. The engine will start.
- 21- Select the working speed suitable for the beach conditions and cleaning depth. Track your running and walking speed on the dashboard.
- 22- Check the cleaning process from the camera and the windows under your feet and the full garbage tank.
- 23- Empty the garbage, at the end of the work, in a suitable area.
- 24- The vehicle should be towed to the relevant parking area, at the end of the work, the hoes and garbage collector should be lowered and the parking brake should be applied.
- 25- If the parking brake is not applied, the symbol number 23 below on the display will light up.
- 26- Always stop the engine before refueling and/or lubricating process.
- 27- Accumulation of exhaust fumes can be extremely harmful. The machine should be operated in a well-ventilated environment and after making sure that there is no living things nearby.
- 28- If the battery fluid level is below the LOWER mark, do not use or charge the battery.



1. It is the fuel indicator on the construction machine.
2. **Trailer directional signal, it is an unused icon.**
3. **4 WD, It is an unused icon.**
4. Automatic lifting system.
5. Hydraulic filter.
6. Preheating.
7. Air filter.
8. Indicates the amount of vehicle in the construction machine.
9. Left directional signal light.
10. It indicates the speed of the construction machine and the number of engine revolutions. When the light bulb icon illuminates, it indicates the speed or RPM option.
11. Displays the working time in hours.
12. It is a warning showing that the engine is running.
13. Indicates the time.
14. Right directional signal light.
15. Indicates the engine coolant temperature.
16. **It is an unused icon.**
17. Differential lock.
18. **It is an unused icon.**

19. Brake system malfunction.
20. **It is an unused icon.**
21. **It is an unused icon.**
22. Hydraulic temperature.
23. Indicates that the parking brake is engaged.
24. Indicates that the vehicle's main beam is on.
25. Indicates that parking brakes are on.
26. Malfunction.
27. PTO active.
28. Engine oil pressure.
29. Battery charge.





VEHICLE DIRECTION AND SPEED LEVERS

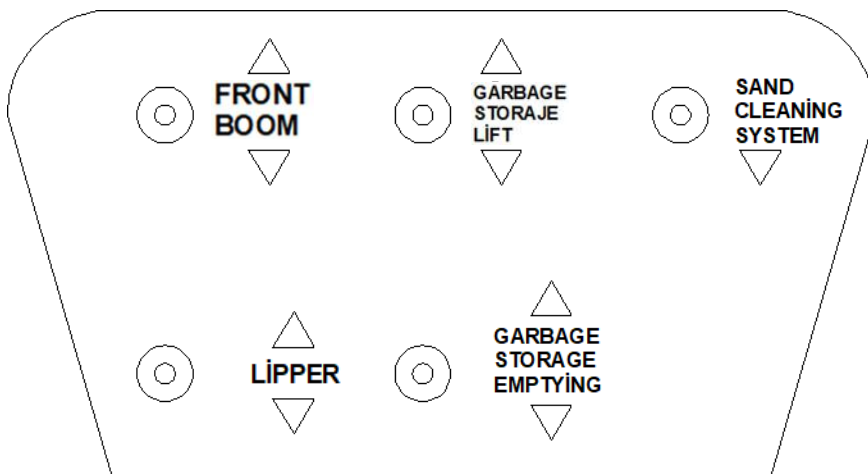
Throttle handle: It accelerates the vehicle and increases the engine speed.

Speed and Direction Control: Allows the vehicle to go forward and backward.

The middle position of the lever provides braking.

In order to change the direction of movement of the vehicle, the lever is first taken in the middle position. Then it is withdrawn to the other direction position.

Do not change the direction of travel before the vehicle comes to a complete stop.



CONTROL PANEL

Front Boom: Serves to move the sand collection system upwards and downwards.

Garbage Storage Lift: It is the function used to raise and lower the garbage storage located at the back of the vehicle.

Sand Cleaning System: It is a function for turning the anchors and sieve inside the front boom.

Lipper : The Lipper located at the back of the garbage storage levels and smooths the surface of the cleaned, sieved sand. It forms a corrugated sand surface.

Garbage Storage Emptying: Opens and closes the emptying cover of the filled garbage storage.



Depth Control System: Laser sensing cleaning depth control system adjusts the beach cleaning depth. Depth adjustment is made by loosening the wing nut and tightened after adjustment.

ENGINE SERVICE FREQUENCIES

Every 50 hours	Checking fuel pipes and clamp bands
	Emptying the water separator
250 hours or 1 year, whichever comes first	Engine oil change 1"
Every 250 hours	Cleaning the air filter element
	Fuel filter change
	Battery electrolyte level check
	Checking the fan belt tension
	Checking radiator hoses and clamp bands
	Intake air line check
Every 500 hours	Oil filter cartridge replacement
	Fuel filter cartridge replacement
	Cleaning the sludge in the fuel tank
	Cleaning the water jacket (inside of the radiator)
	Cleaning the fan belt
	Cleaning the water separator
Monthly or bimonthly	Charging the battery
Once a year	Replacing the air filter element
Every 1000 hours	Valve clearance check
Every 1500 hours	Fuel nozzle injection pressure control
Every 3000 hours	Turbocharger control
	Spray pump control
Once in two years	Radiator coolant change (L.L.C.)
	battery replacement
	Replacement of radiator hoses and clamp bands
	Replacing fuel pipes and clamp bands
	Changing the intake air line
	Fan belt replacement (or every 500 hours)

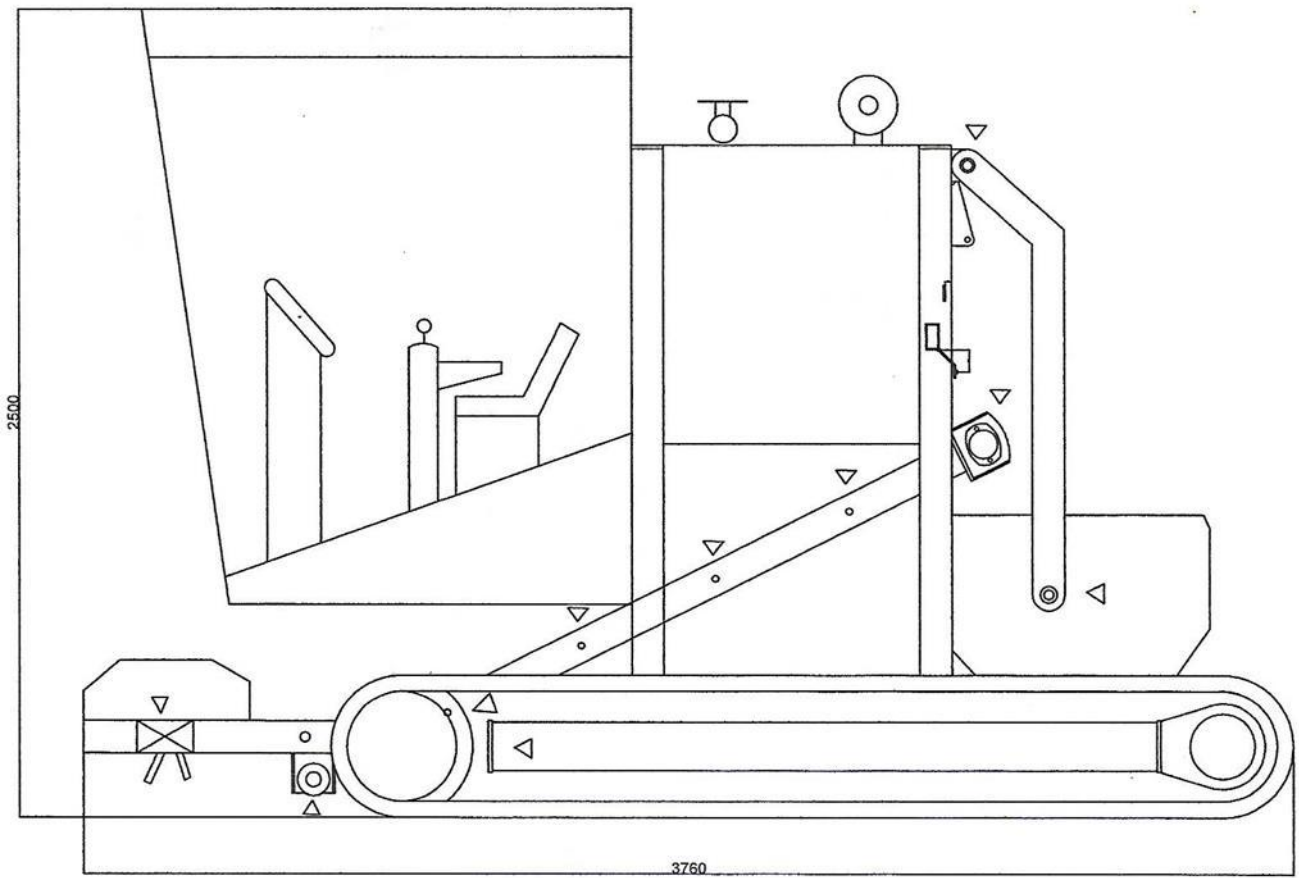


BEACH CLEANING MACHINE MAINTENANCE SHEET

YEAR :
Form No: _____
MACHINE :

MAINTENANCE TO PERFORM MONTHLY		DATE																																					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31							
1- Check Overview 2- Perform Peripheral Check 3- Tires, Gauges, Water level, Hydraulic level 4- Anchor and Conveyor Cleaning 5- Replenish Grease Nipples 6- Check Safety Equipment	OPERATOR	Jan 13																																					
		Feb 13																																					
		Mar 13																																					
		Apr 13																																					
		May 13																																					
		Jun 13																																					
		Jul 13																																					
		Aug 13																																					
		Sep 13																																					
		Oct 13																																					
		Nov 13																																					
		Dec 13																																					
1- Control of Hydraulic Systems 3- Conveyor and Anchor Mech. Control 4- Control of Other Mechanisms	MAINTENANCE - REPAIR	Jan 13																																					
		Feb 13																																					
		Mar 13																																					
		Apr 13																																					
		May 13																																					
		Jun 13																																					
		Jul 13																																					
		Aug 13																																					
		Sep 13																																					
		Oct 13																																					
		Nov 13																																					
		Dec 13																																					
MANUFACTURER OVERALL CONTROL MAINTENANCE REPAIR	MANUFACTURER	YEAR.....																																					

Lubrication Scheme



TECHNICAL DATA:

Machine Description: Crawler Beach Cleaning Machine

Machine Model: BM-700

Engine Type : Kubota V-3600 Stage 3A Tiar 4

Fuel Type: EURODiesel

Fuel Tank Capacity: 55 liter

Total Weight: 3045 kg

Hydraulic Tank Capacity: 95 liter

Hydraulic To Use: SAE 46

Vehicle Dimensions: L=3760 mm W=2430 mm H=2500 mm

Recommended battery capacity: 12V, 88AH

EC-ATTESTATION CERTIFICATE
AT-ONAY SERTİFİKASI

Date/Place of Issue <i>Sertifika Yayın Tarihi/Yer</i>	: 28.03.2022/ İstanbul
Valid Until <i>Sertifika Geçerlilik Tarihi</i>	: 28.03.2027
Name of Applicant <i>Başvuru Sahibi</i>	: BATMAN MAKİNA-SEZAI BATMAN TC:11204534000 Mimarsinan Mah. Salhane Sk No:2/C Silivri / İstanbul - TURKEY
Name of Manufacturer <i>Üretici</i>	: BATMAN MAKİNA-SEZAI BATMAN TC:11204534000 Mimarsinan Mah. Salhane Sk No:2/C Silivri / İstanbul - TURKEY
Trade Mark <i>Tescilli Marka</i>	: WORKMASTER BATMAN
Description of Product <i>Ürün Tanımı</i>	: BEACH CLEANING MACHINE Plaj Temizleme Makinası
Model(s) <i>Model(ler)</i>	: # BM-700, BM-1700. #
Assessment Performed <i>Uygulanan Değerlendirme</i>	: Conformity to Annex I's Applicable Paragraphs of 2006/42/EC Machinery Directive & 2014/35/EU Low Voltage Directive. 2006/42/AT Makina Emniyeti Yönetmeliği Ek-I Gerekliliklerine Uygunluk & 2014/35/AB Belirli Gerilim Sınırları İçin Tasarlanan Elektrikli Ekipman İle İlgili Yönetmeliği.
Standard(s) / Standart(lar) <i>Değerlendirme Dayanağı</i>	: # EN ISO 12100:2010, EN 60204-1:2018, EN 13019:2001+A1:2008. # : In the opinion of SGS the submitted technical file TR-MD-20220328-1 satisfies the requirements of the Machinery Directive 2006/42/EC Annex-VII TR-MD-20220328-1 Numaralı Teknik Dosya, Makina Emniyeti Yönetmeliği Ek-VII Gerekliliklerini Karşılıdığı SGS Tarafından Saptanmıştır.
Assessor ID No. / Denetçi No	: TR-EE-S01
Date/Place of Assessment <i>Değerlendirme Tarihi/Yer</i>	: 09.03.2022 / İstanbul – Turkey

Test reports in technical file TR-MD-20220328-1 are reviewed and found to be acceptable. The certificate is valid as long as the relevant directives and harmonised standards written above are current. The CE mark as shown below can be used, under the responsibility of the manufacturer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.
TR-MD-20220328-1 numaralı Teknik Dosya içindeki test raporları incelenmiş ve uygun bulunmuştur. Bu sertifika referans alınan ilgili yönetmelikler ve standartlar güncel olduğu sürece geçerlidir. Üretici firmanın sorumluluğunda uygunluk beyanının düzenlenmesi ve ilgili tüm AB yönetmeliklerine uygunluğun sağlanması sonrası aşağıda gösterilen CE işareti kullanılabilir.



This EC-Attestation Certificate is only valid for the equipment and configuration described in conjunction with the data detailed above. It refers only to the sample submitted to SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. for testing and certification. Any modifications made to the product shall immediately be reported to SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. office in order to examine whether this certificate remains valid.

Bu Sertifika, SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.'ye sunulan örnek makina üzerinde yapılan değerlendirmeler referans alınarak düzenlenmiş olup, yukarıda bilgileri verilen ürünler için geçerlidir. Üretici tarafından ürün üzerinde yapılacak olan her türlü modifikasyon işlemleri mevcut sertifikanın geçerliliğini değerlendirmek adına SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş. ye bildirilmek zorundadır.

For and on behalf of
SGS Supervise Gözetme Etüd
Kontrol Servisleri A.Ş.



D.Cem BATMAN

GÖZETME ETÜD KONTR

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

SGS

This document is issued by the Company under its General Conditions of Service accessible at <https://www.sgs.com/en/terms-and-conditions>. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein.

Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

Bağlar Mah. Osmanpaşa Cad. No 95 İş İstanbul Plaza, E Girişi
Güneşli 34209 İstanbul - TURKEY

t: 90.212.3684000 (Pbx) / f: 90.212.2964782-83 / e: sgs.turkey@sgs.com

S-CRS-EE-F-51 Rev.00 11/2016 Page 1 of 1 F150201M