

PORTABLE SEWING MACHINE
MOBILE HAND-HELD SEWING MACHINE (for geotextiles)

Equipment Number			
Customer			
Dispatch/Receipt	Date Out / /	Date In / /	
Store Location			
Expected Return Date			

Item Number	Number of items	Item name	Checked OUT	Checked IN	Comments
1	1	Sewing Machine			
2	1	Case			
3	1	Accessories bag			
4	1	Oil bottle			
5	1	Screwdriver			
6	2	Springs			
7	2	Extra needles			
8	2	Small spanners			
9	1	Documentation			

This equipment has received an in-service inspection and was found to have no obvious defects.

CHECKED OUT BY

CHECKED IN BY

Name:

Name:

Signature:

Signature:

Comments: _____

Dear Customer

On receipt of this equipment, please check all equipment has been received, ensure your site staff read and understand the operating, maintenance and safety information, and use the equipment in a safe manner.

- You are responsible for the safe operation of the equipment and the safety of your staff.
- Standard Occupational, Health and Safety guidelines should be followed as per normal site operations. Site safety and safe work practices are your responsibility.
- At the conclusion of the use of the equipment, please clean the equipment, repack it for transportation and return to Geofabrics.
- Please advise if there are any missing parts. All equipment usage must be in accordance with Geofabrics' Hire Agreement. You will be charged for any damaged or missing components.

SEWING MACHINE – OPERATING AND SAFETY INSTRUCTIONS

WARNING!

- Any alterations to this hire equipment may prove dangerous to the operator and will be in breach of the Equipment Hire Agreement.
- Service must only be performed by an authorised Geofabrics service organisation or representative.
- Please contact Geofabrics (0800 60 60 20) for return of this equipment or servicing if it is found to be faulty.
- All hire related documentation, operating and safety instructions are available on our website (www.geofabrics.co.nz).



The Geofabrics Sewing machines are used to achieve a high quality field seam when geotextile panels are required to be sewn together on-site.

Pre-operational considerations

- Before operating the Sewing Machine, it is important that you read and understand the maintenance and safety precautions outlined below and in the Equipment Hire Agreement document (Use and Maintenance).
- Contact Geofabrics (0800 60 60 20) if you do not understand any of the instructions in this document.
- To operate the Sewing Machine, operators must be in good physical and mental condition. Do not operate if on medication or under the influence of alcohol or drugs. Seek medical advice if unsure.
- As the installation of Geofabrics products is considered a construction activity, the contractor using the hire equipment must prepare a site safety plan that incorporates the safe work methods for high risk work involving the Sewing Machine.

Safety Precautions

- **Never** operate or work in the vicinity of a tool in use without eye protection that provides protection against flying particles both from the **front** and **side**. Eye protection is required to guard against potential flying needle shards and debris, which could cause severe eye injury. The employer and/or user must ensure that proper eye protection is worn. Eye protection equipment must conform to the requirements of the relevant NZ Safety Standards and provide frontal and side protection.

Warning Eye protection equipment must provide both frontal and side protection.



- Always use appropriate personal protective equipment such as riggers gloves, high visibility clothing (shirt or tabard), hard hats, steel capped safety boots, safety eye wear with side protectors, etc.
- Only properly trained personnel are permitted to operate the Sewing Machine.
- **Never** use the machine without safety devices. All safety devices must be in position when the machine is ready for work or when in use.
- **Never** engage in horseplay with the tool. **It is not a toy.**
- **Never** tamper with, disable or remove the safety device.
- **Never** leave the work area for any extended period of time without disconnecting the tool from the electricity.
- **Never** attempt to clear a jam without disconnecting the tool from electricity and removing the remaining fasteners from the tool.
- **Never** operate a dirty tool. Clean the tool at least daily and lubricate if required.
- **Never** wear loose clothing or jewellery that can be caught in moving parts. Wear protecting hair covering to contain long hair.
- **Never** carry the machine by cord or yank it to disconnect it from the socket. Keep the cord away from heat, oil and sharp edges.
- For detailed information on the machine use, maintenance and threading instructions, refer to the Sewing machine manual.

Warning Keep fingers clear of all moving parts of the tool.

- Only use thread that is recommended by Geofabrics, as there are standard strength and fibre requirements, to meet specifications.
- Keep the Sewing Machine clean and dry.

- Do not use the Sewing machine for any application other than its intended purpose.
- Do not abuse the Sewing Machine in any way which may result in personal injury and/or damage to the equipment. Treat the machine with respect and it will perform safely and reliably for you.
- Exercise caution not to drop the Sewing Machine.
- Check the condition of the Sewing Machine before each use for any damage. If the behaviour of the Sewing machine changes, check it immediately and return it to Geofabrics for service if necessary.

Warning The following operations must not be performed until the machine has been disconnected from its power supply by turning-off the main switch or by pulling out the main plug.

1. Threading needle(s), looper, spreader etc.
 2. Replacing sewing tools such as needle.
 3. Leaving the work place unattended.
 4. Maintenance work
- Never attempt to service or modify the equipment in any way.

Site Conditions

- The Sewing Machine is designed for the application of geotextile products to suitable construction site areas. The Sewing Machine should not be operated in conditions which could endanger the operator or other site personnel.

Working Techniques and Operation

- Before leaving our store, each machine is carefully inspected, adjusted and given a sewing test. However, upon receipt, the machine should be inspected, and any damage or complaints should be reported to Geofabrics without delay
- Check the threading of the machine. See Threading Diagram **Fig 2**, and thread accordingly:

Threading - Pull Out Mains Plug Before Threading!

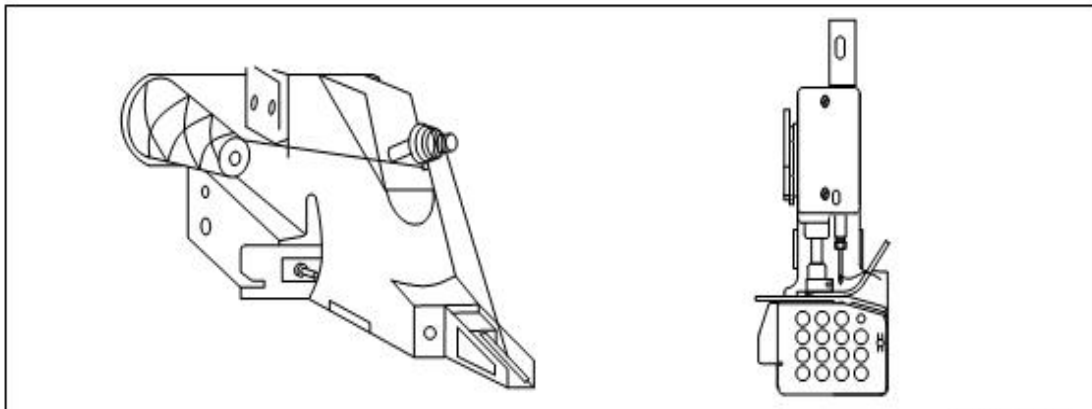


Figure 2

Changing The Needle

- Pull the motor belt, to make sure the needle bar lifts to its highest position.
- Loosen the screw of the needle holder, take off the old needle from the needle holder, and then insert the new needle to the hole of the needle holder.
- Fasten the screw. See **Fig 3-A**.
- During the needle changing process remember to keep the needle's long groove facing the left side of the machine. See **Fig 3 & 4**.

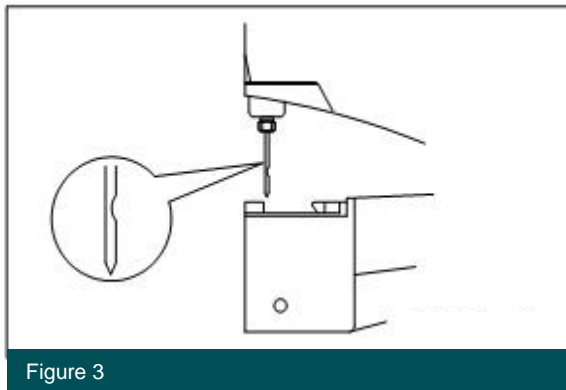


Figure 3

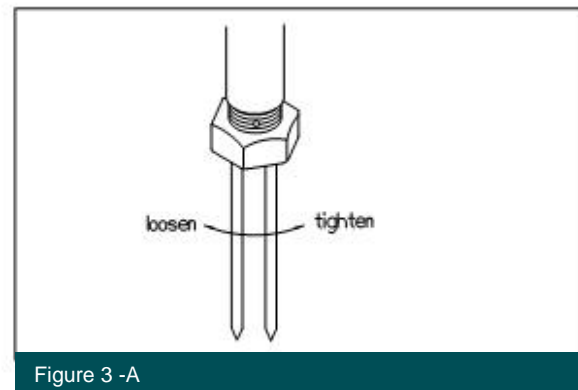


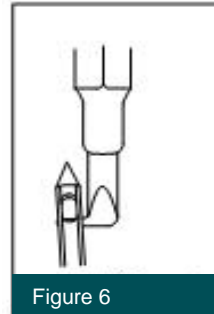
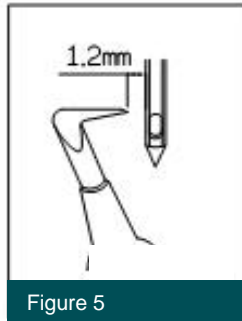
Figure 3 -A



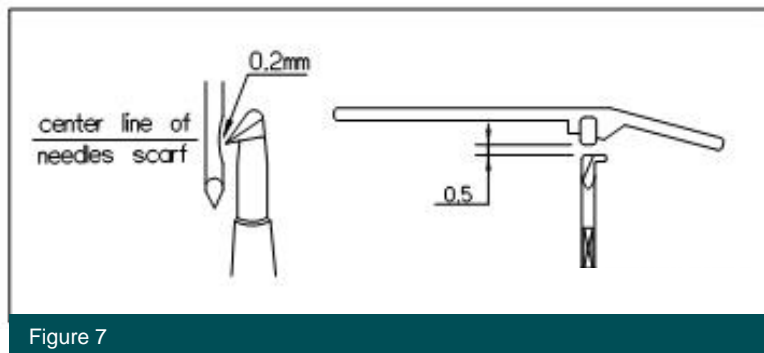
Figure 4

Adjusting The Needle Bar - **Pull Out Mains Plug Before Changing the Needle!**

- Release the needle bar cover; pull the motor belt to let the looper move as per the instruction on **Fig 5**.



- Slightly loosen the needle bar screw.
- For adjusting the height of needle, please see **Fig 6**.
- When the needle and looper meet, the distance between the tip of looper and the needle cannot exceed over 0.4mm. At the same time, the bottom edge of the looper's tip just passes over the needle hole.
- Fasten the needle bar screw, put the needle bar protective cover back and then readjust the clearance between the needle and the looper according to **Fig 7**.



Stitch Length - **Pull Out Mains Plug Before Oiling!**

The normal stitch length is 7.2mm, and the tips of the feed dog should be set higher than the needle plate by 2.7mm. If the stitch length is too long, check and do as follows:

- The tips of feed dog may be worn out, then feed dog must be replaced.
- The feed dog may possibly sink and the height of the tips of feed dog over the needle plate is less than 2.7mm consequently. Loosen the feed dog holder screw and adjust the feed dog.

Installing And/Or Replacing The Looper - **Pull Out Mains Plug Before Oiling!**

- Turn the motor belt to make sure the feed dog is at its highest position.
- Loosen the looper holder screw and take off the looper holder.

- Loosen the screw of looper and take off the looper.
- Replace the old looper and put the new looper in the holder.
- Put the holder back in the holder bed and adjust the height and timing of looper as per **Fig 7** and fasten the screw.
- Adjust the position of looper holder as per **Fig 5** and fasten the screw.

Adjusting The Looper - Pull Out Mains Plug Before Oiling!

- If the replacement of looper is required the adjustment is then not necessary. But when the looper holder bar, plastic cam or cam component parts are replaced, the adjustment would need to be done.
- When the looper returns backwards to its extreme, looper's tips will be only away from the needle's edge about a distance 1.2mm as per **Fig 5**.
- If an adjustment is required first move the motor belt to let the looper come back to its extreme position. Loosen the screw on looper older bed and then adjust it.

Cleaning

- Clean the machine periodically from lint, dust and sand.
- Reclose covers.
- Regularly blow out dust and sand particles with an air compressor.
- When working in coastal areas, daily spray the machine with a light lubricant: e.g. CRC.

Maintenance

- All routine maintenance and repairs shall be carried out by Geofabrics or its authorised repairer, to ensure the equipment remains reliable.
- Keep sewing machine clean after using.
- Make sure the oil box is topped up with oil, see **Fig 8**.



Figure 8

TROUBLE SHOOTING

Thread - Breaking

- If the looper is damaged or incorrectly adjusted, looper's tip needs to be polished or replaced and then adjusted once again.
- The thread breaking may be caused by incorrect threading or wrong thread tension. Check the threading as per **Fig 2**.

Stitch - Skipping

- The position of looper may be wrong. Check the looper as per **Fig 6 & 7**.
- The position of needle may be wrong. Check the needle as per **Fig 3**.
- Threading tension spring may be damaged and may need replacing.

Needle - Breaking

- Incorrect needle installation. Check if the needle's long groove is facing the left side of the machine.
- Incorrect needle installation. Check and adjust as per **Fig 5**.

Failure In Sewing

- The needle plate may be deformed and may need replacement.
- The presser foot may be damaged and may need replacement.

Uneven Stitching

- The pressure of the presser foot may be improper. Adjust the pressure.
- The feed dog is damaged and may need replacement.

SEWING MACHINE COMPONENTS

To ensure no parts are lost, all components should be stored and transported as a set, in such a way as not to cause damage to the equipment.

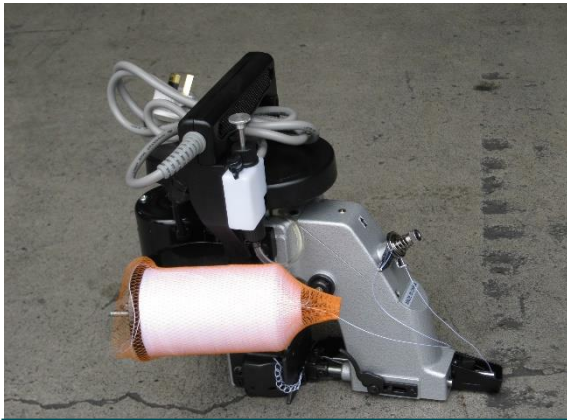


Figure 9



Figure 10



Figure 11

Sewing machine (Fig 9)

- Check the machine is clean and not damaged.
- Check the plug and power cable are not damaged.

Case (Fig 10)

- Check the case is not severely damaged.

Accessories (Fig 11)

- Check that all accessories are included

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Quality System AS/NZS ISO 9001:2015

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