

Hydraulic Stretcher Service and Use Manual

ST-3050





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General Use Guidelines

The ST-3050 Hydraulic Stretcher is designed to be MR Compatible, and is manufactured and tested to the highest standards. It is recommended that the trolley be inspected every 30 days, and serviced every six months.

The stretcher is designed and manufactured to work within an MR environment, every care has been taken to ensure that all components and accessories are manufactured from non-magnetic materials. This is essential for the safety of the patients and staff that use the stretcher. It is important that this unit is maintained properly, failure to do so could result in a severe or fatal accident. Any replacement parts <u>must</u> be ordered from the supplier, MRIequip, failure to adhere to this will void any expressed or implied warranties, as well as remove liability of any issues from the supplier.

All service should be done in an appropriate service environment, separate and away from the MRI unit. Part required for service may not be MR Safe and should therefore not be used in the MRI environment.

The stretcher should be kept clean at all times, and should be wiped over with a sterile wipe between patients, to prevent cross contamination with an institution approved cleaning agent.

When using the hydraulic foot pedal to raise the stretcher height, small, slow pumps are the most productive. Deeper pumps will release pressure, causing the stretcher to lower. Also avoid quick pumps, as slower pumps allow more time for the hydraulics to rise. Average pumps to rise to full height is 35.

The stretcher should always be steered by two people, one at the head and one at the foot. One person steering the stretcher is not adequate, and could result in injury to the patient or the person steering, as well as damage to the stretcher and surrounding property. Damage due to negligence and misuse are not covered under warranty.

Please contact MRIequip directly at any time with concerns or clarification on use and care of the hydraulic stretcher.



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Included with stretcher:

MAGNETIC Wrench, MAGNETIC Allen Key, Block



DO NOT perform service in the MRI room.



1. Removal of the Hydraulic Pump unit

 Pump the stretcher up to its maximum height, if the pump does not work ask for assistance in lifting and holding the trolley up at its maximum height, wedge a block, approximately 4" on length in the lower channel (Fig 1.1) and lower the trolley top until resting on the block (Fig 1.2).



Fig 1.1



2. Remove the 4 screws holding the pump cover. (Fig 1.3).





 Remove the Hydraulic Pump unit Tighten the green valve by turning in a clockwise direction. (Fig 1.4)



Fig 1.4

4. Put a catch pan under the **pump system**. (Fig 1.5)







 Disconnect two L-shape fittings on the top and the bottom of lift system, and let the oil drip down into the catch pan. Note a wrench may be needed to loosen the fittings. (Fig 1.6 & Fig 1.7)



6.0



6. Near the **pump system**, loosen one screw on the square bar, and remove another screw (Fig 1.8).Then move the square bar backward. (Fig 1.9)



Fig





7. Flip the pump pedal tube over. (Fig 1.10)



 Undo the 8 x M8 bolts (using a 6mm Allen Key) holding the reservoir in place, and lift out. (Fig 1.11)







2. Refill the Hydraulic Pump Unit

1. Use the thread seal tape and wrap the two L-shape fittings. (Fig 2.1)





2. Lower the reservoir and pump system unit, then tighten the 8 bolts. (Fig 2.2)





3. Reconnect two L-shape fittings on the top and the bottom of lift system. (Fig 2.3 & Fig 2.4)



Fig 2.3

Fig 2.4

4. Return the pedal tube (Fig 2.5) and refit screws on the square bar. (Fig 2.6)





Fig 2.6



5. Loosen the green valve by turning in an anti-clockwise direction. (Fig 2.7)



Fig 2.7

6. Use a funnel and pour hydraulic oil into the filler hole. (Fig 2.8 & Fig 2.9)



Fig 2.8

Fig 2.9



7. Pump the stretcher until the top lifts off the block, lower table to its lowest position and fill reservoir. Pump the stretcher to its uppermost limit. Repeat 2 to 3 times, this as this will expel any air from the system.

While the stretcher is at the top position, remove any excess oil from around the filler hole with a cloth, replace pump cover plate.



8. Finally, remove the block from the channel (Fig 2.10)

Fig 2.10



3. Replacing the Backrest Gas Spring

 Remove the M10 Bolt from the lower end of the gas spring (Fig 3.0), using a 6mm Allen Key and lift the backrest up manually, undo the locknut and remove the gas spring by rotating in the counter-clockwise direction. Refit the new gas spring by turning in a clockwise direction until you can lightly feel it touch the backrest handle. Replace the M10 bolt and tighten the locknut.



Test the function of the backrest. If the backrest lifts on its own, remove the M10 bolt using a 6mm Allen Key and loosen the locknut, rotate the gas spring one turn counter-clockwise, replace the M10 bolt, tighten the lock nut and try again, if the backrest fails to lift, remove M10 bolt, loosen the locknut and rotate clockwise one turn, replace and tighten all bolts, testing functionality again, repeating until functionality returns.



4. Replacing the Trendelenberg Gas Spring

 Remove the M10 bolt using a 6mm Allen Key from the intermediate frame (Fig 4.0), and loosen the locknut on the gas spring. Rotate in the counter-clockwise direction and remove the gas spring. Refit the new gas spring and adjust as above.





5. Removal and replacement of 150mm Caster

To remove a broken caster, begin by using a small flat blade screwdriver and remove the 2 dust caps (Fig 5.0). Place a 4mm Allen key in the head of the screw and turn counter-clockwise, note the locknut is retained in the castor fork. Pull out the screw and the wheel should slide out.

Using an 8mm Allen key, the M10 Screw can be removed. Note that the screw will be tight, as a screw adhesive is applied during the stretcher manufacture.

Replace new caster fork applying screw adhesive to M10 screw.

(See sheet at rear of manual for recommended adhesive)

Slide wheel into place and replace axle screw, tap dust caps into place and check for maneuverability.



Dust Cap

Fig 5.0



Recommended Oils, Greases and Adhesives

