

Boom Single Hoses Replacement With Twin Hoses

Tools Needed:

4,5 m of resistant guide rope, quantity 2,
37mm rod, quantity 2, 200mm rod,
10mm combination wrench, 13mm combination wrench,
17mm combination wrench, 24mm combination wrench,
27mm combination wrench, 30mm combination wrench,
5mm hex key, 6mm hex key,
mallet, soft metal drift,
container, Overhead supporting device 500 Kg capacity,
safety glasses.

Model:

**GTH 5519 from S/N 190006 to
GTH5515B-3801**

**GTH-2506/Agri 625 from S/N
18957 to GTH250615B-231**

Genie
A TEREX BRAND

TECH-PRO™

SERVICE AND TECHNICAL TRAINING

TECH-TIP

Tech Tips Safety Rules



Danger

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury. Many of the hazards identified in the operator's manual are also safety hazards when maintenance and repair procedures are performed.

Do Not Perform Maintenance Unless:

- You are trained and qualified to perform maintenance on this machine.
- You read, understand and obey:
 - manufacturer's instructions and safety rules
 - employer's safety rules and worksite regulations
 - applicable governmental regulations
- You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this tech tip is a supplement to the service manual. Consult the appropriate service manual of your machine for safety rules and hazards.

TECH-TIP

Step 1

Start the engine and extend the boom until letter C is visible on the left side of the boom, as shown at right. Turn the engine off.



Step 2

Attach a lifting strap from an overhead supporting device to the boom second section for support. Do not apply lifting pressure.

Crushing hazard. The boom assembly can fall if not properly supported by an overhead supporting device



TECH-TIP

Step 3

Using a 13mm combination wrench, remove the screws securing the cover to the rear side of the machine and remove the cover. Set the cover and the fasteners to the side.



Step 4

Using a 13mm combination wrench, remove the screws securing the hose guide to the front lower side of the boom first section and remove the hose guide. Discard the hose guide and the fasteners.



TECH-TIP

Step 5

Put a clean container under the iron pipes fittings, on the lower side of the first boom section.



Step 6

Using a 27mm and a 30mm combination wrenches, disconnect the four hoses from the iron pipes on the lower side of the boom first section.

Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.



TECH-TIP

Step 7

Pull the U fittings of the hoses at step 6 out from the boom first section, as shown at right.



Step 8

Using a 13mm combination wrench, remove the screws securing the cover to the tilt cylinder and remove the cover. Set the cover and the fasteners to the side.



TECH-TIP

Step 9

Put a clean container under the tilt cylinder safety valve.



Step 10

Using a 24mm combination wrench, disconnect the two hoses shown at right from the tilt cylinder safety valve.

Bodily injury hazard. Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.



TECH-TIP

Step 11

Using a 10mm combination wrench, remove the screws securing the manifold on the front engine side of the boom second section. Set the fasteners to the side.



Step 12

Using a 5mm hex key, remove the fasteners securing the extension cylinder pin to the boom second section. Set the fasteners to the side.



TECH-TIP

Step 13

Using a mallet and a soft metal drift, remove the pin securing the extension cylinder to the boom second section. Set the pin to the side.



Step 14

Using a 17mm combination wrench, remove the screws securing the two wear pads to the front upper side of the boom first section and remove the wear pads. Set the fasteners and the wear pads to the side.



TECH-TIP

Step 15

Using the overhead supporting device apply lifting pressure to the boom second section.



Step 16

Using a 17mm combination wrench, remove the screws securing the two wear pads to the front lower side of the boom first section and remove the wear pads. Set the fasteners and the wear pads to the side.



TECH-TIP

Step 17

Using a 17mm combination wrench, remove the screws securing the wear pad to the right upper side of the boom first section and remove the wear pad. Set the fasteners and the wear pad to the side.



Step 18

Using a 17mm combination wrench, remove the screws securing the wear pad to the left upper side of the boom first section and remove the wear pad. Set the fasteners and the wear pad to the side.



TECH-TIP

Step 19

Using the illustration at right a guide position a trestle under the boom second section.



Step 20

Using the overhead supporting device pull the boom second section out from the boom first section and lie it on the trestle at step 19.



TECH-TIP

Step 21

Using the illustration at right as a guide, pull the ends of the hoses at step 7 out from the boom first section.



Step 22

Using a 6mm hex key, remove the fasteners securing the hose guide inside the boom second section, in the upper rear side. Remove and discard the hose guide and the fasteners.



TECH-TIP

Step 23

Using a 13mm combination wrench, remove the fasteners securing the hose guide to the lower rear side of the boom second section and remove the hose guide. Discard the hose guide and the fasteners.



Step 24

Pull the manifold at step 11 until the two hoses connected to it come out of the boom, as shown at right.



TECH-TIP

Step 25

Using a 24mm combination wrench, remove the two hoses at step 24 from the manifold. Set the manifold to the side.



Step 26

Securely attach a resistant guide rope (length about 15 feet/ 4,5 m) to one of the hoses at step 25, as shown at right.

NOTE: The rope will be used to install the new twin hose.



TECH-TIP

Step 27

Working on the rear right side of the boom second section, pull the two hoses shown at right out from the boom.



Step 28

Remove the rope from the hose at step 27 and discard the hoses.



TECH-TIP

Step 29

Securely attach a resistant guide rope (length about 15 feet/ 4,5 m) to one of the hoses disconnected from the tilt cylinder safety valve at step 10, as shown at right.

NOTE: The rope will be used to install the new twin hose.



Step 30

Working on the rear left side of the boom second section, pull the two hoses shown at right out from the boom.



TECH-TIP

Step 31

Remove the rope from the hose at step 30 and discard the hoses.

Step 32

Refer to the welding diagram attached to identify the boom second section surface area where some rods are to be welded.



TECH-TIP

Step 33

Using a grinder, remove all paint and existing weld material from the boom surface area identified at step 32.



Step 34

Weld two 37mm rods inside the boom second section. Refer to welding diagram attached for welding specifications.



TECH-TIP

Step 35

Weld a 200mm rod in the rear lower side of the boom second section. Refer to welding diagram attached for welding specifications.



Step 36

Remove any weld slag and paint the area that was welded.

TECH-TIP

Step 37

Locate the provided twin hose (Genie part number 04.0605.1608GT) and attach to its straight end the rope at step 28.



Step 38

Working on the front engine side of the boom second section pull the rope shown at right until the fittings of the twin hose at step 37 reach the opening where the manifold was removed at step 24. Remove the rope from the hose.



TECH-TIP

Step 39

Locate the provided twin hose (Genie part number 04.0605.1817GT) and attach to its straight end the rope at step 31.



Step 40

Working on the front left side of the boom second section pull the rope shown at right until the fittings of the twin hose at step 39 reach the tilt cylinder safety valve at step 10. Remove the rope from the hose.



TECH-TIP

Step 41

Using a 24mm combination wrench install the fittings of the hose at step 38 onto the fittings of the manifold at step 25. Torque the fittings to 41 ft-lbs / 55 Nm.



Step 42

Using a 10mm combination wrench and the fasteners removed at step 11, reinstall the manifold at step 41 into the front engine side of the boom second section. Replace the fasteners Securely.



TECH-TIP

Step 43

Using a 24mm combination wrench install the fittings of the hose at step 40 onto the fittings of the tilt cylinder at step 10. Torque the fittings to 41 ft-lbs / 55 Nm.



Step 44

Working on the rear cab side of the boom second section, fold in half the twin hose shown at right and put it through the boom first section.

NOTE: Route the hose U fittings to the opening on the front lower side of the boom first section.



TECH-TIP

Step 45

Working on the rear engine side of the boom second section, fold in half the twin hose shown at right and put it through the boom first section.

NOTE: Route the hose U fittings to the opening on the front lower side of the boom first section.



Step 46

Using a 24mm and a 30 mm combination wrenches, install the U fittings of the hoses at step 44 and 45 into the fittings of the iron pipes on the lower side of the boom first section. Torque the fittings to 41 ft-lbs / 55 Nm.



TECH-TIP

Step 47

Using the overhead supporting device put the boom second section through the boom first section.



Step 48

Using a mallet and a soft metal drift, reinstall the pin at step 13 securing the extension cylinder to the boom second section.



TECH-TIP

Step 49

Using a 5mm hex key and the fasteners at step 12, secure the extension cylinder pin to the boom second section.



Step 50

Using the overhead supporting device apply lifting pressure to the boom second section.

TECH-TIP

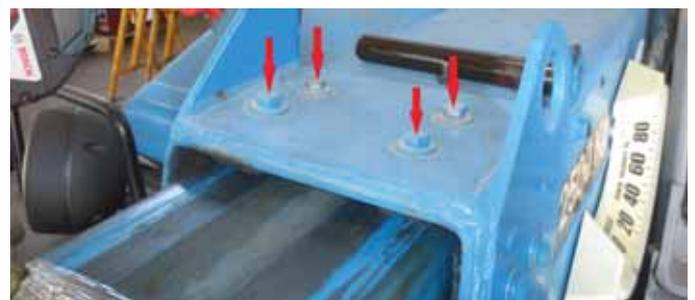
Step 51

Using a 17mm combination wrench and the fasteners at step 16, reinstall the wear pads to the front lower side of the boom first section. Replace the fasteners Securely.



Step 52

Using a 17mm combination wrench and the fasteners at step 14, reinstall the wear pads to the front upper side of the boom first section. Replace the fasteners Securely.



TECH-TIP

Step 53

Using a 17mm combination wrench and the fasteners at step 18, reinstall the wear pad to the upper cab side of the boom first section. Replace the fasteners Securely.



Step 54

Using a 17mm combination wrench, and the fasteners at step 17, reinstall the wear pad to the upper engine side of the boom first section. Replace the fasteners Securely.



TECH-TIP

Step 55

Using a 13mm combination wrench and the fasteners at step 8 secure the cover to the tilt cylinder. Replace the fasteners Securely.



Step 56

Using a 13mm combination wrench and the fasteners at step 3, reinstall the cover into the rear side of the machine. Replace the fasteners Securely.



TECH-TIP

Step 57

Remove the lifting strap from the boom second section.

Step 58

Perform the function tests. Refer to the Operator's Manual on your machine.

TECH-TIP

Step 59

Return the machine to service.