

STIGA



WORKSHOP MANUAL

**Mower Decks
2008 - 2020**



ALPINK

Mountfield

ATCO

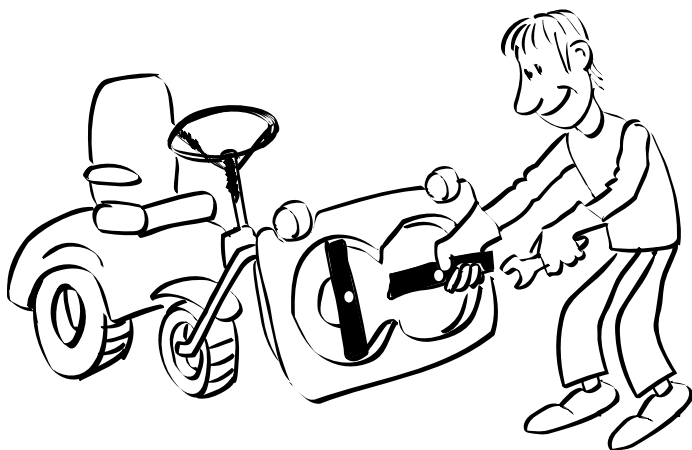
CASTELGARDEN

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Mower Deck

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1 General

The decks are equipped with two or three synchronised rotating blades. The tracks of adjacent blades are overlapping each other, which means that the synchronization is vital. All shafts/pulleys are pivoted in sealed and permanent lubricated ball bearings.

All decks are provided with a quick-coupling to simplify the lifting up procedure for cleaning and inspection and. The decks are also provided with an electrical or manual adjusting device for the cutting height.

All decks are tested prior to delivery and are delivered as completely assembled as possible. This ensures that assembly on delivery is rapid and simple.

This chapter describes assembly on delivery, repair, replacements and adjustments of stressed parts of the mower decks.

1.1 General tightening torque

Unless otherwise stated, the following tightening torque are applicable for screws and nuts on the machine:

Tightening torques:

Thread	Torque
M5	5 Nm
M6	9 Nm
M8	22 Nm
M10	45 Nm



Note!

Blade shafts with external threads, cutted at the shaf, have special tightening torques. Note the actual torque in the special case.

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1 Cutting theory

1.1 Cutting height

The best cutting results are achieved when the top third of the grass is cut off. I.e. 2/3 of the length of the grass remains.

If the grass is long and has to be cut significantly, cut twice using different cutting heights.

Do not use the lowest cutting heights if the lawn surface is uneven. This would entail a risk of the blades being damaged against the surface and the lawn's top layer of soil being removed.

1.2 Incline

The cutting deck's rear section can be lifted so that the deck has a greater forward incline than that provided by the basic setting. This incline affects the cutting results as follows.

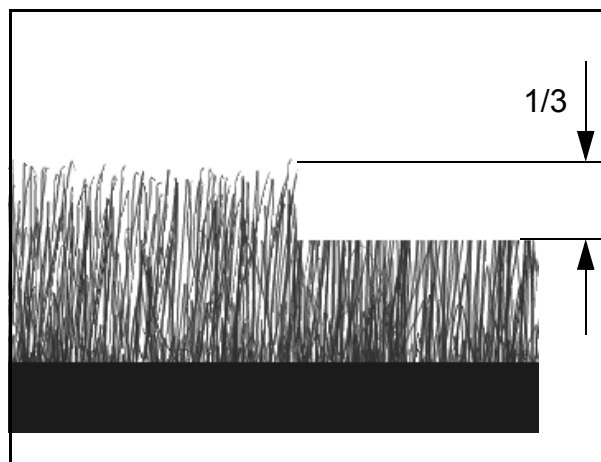
No incline

When the deck is in the basic setting, the best mulching effect and good dispersion of the cut grass are achieved. The basic setting is recommended for normal grass.

Incline

When the cutting deck is inclined forwards, the mulching effect is reduced while the cut grass is dispersed better.

Inclining forwards is recommended for thicker grass.






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2 Original blades

2.1 Why it is so important to use original blades and blade tips from the retail dealer?

The table below shows the demands on original blades and blade tips, delivered from the retail dealer.

The table is intended to display the importance to use the original blades and blade tips.

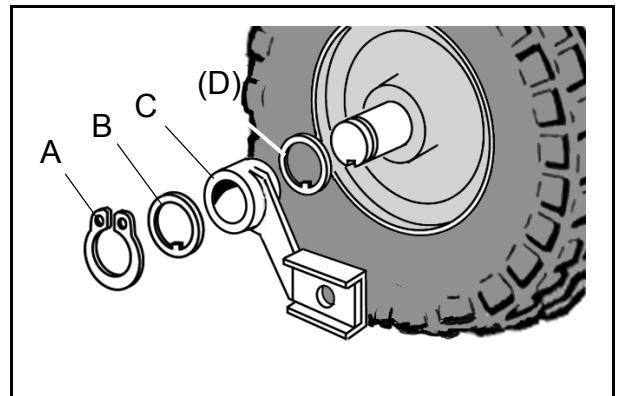
Demand	Remarks
No splitting of blade tips. 	Using steel balls, the manufacturer simulates what can happen if you drive over foreign objects on the lawn. The sharpening of the blades may be destroyed, but no parts are allowed to loosen or fly away.
No splitting of blades. 	The impact test is the toughest durability test a lawn mower can be subject to. An iron pipe is placed right into the blades during operation. The blade can be deformed but it may not under any circumstances, come off or split. This test verifies that blades and other parts fulfil the high safety requirements.
Optimal balance. Minimum of noise. Minimum of vibrations. 	Blades and blade tips from the retail dealer have exactly the same weight. Blades and blade tips from the retail dealer are optimal balanced. This guarantee a minimum of vibration and noise which gives a maximal durability of the machine. It also guarantee that the machine corresponds to the specification according to noise and vibrations.
Optimal cutting result.	Blades and blade tips from the retail dealer are optimized in the application. I.e. the blades are adapted to the shape of the cover and the number of revolutions to give the best cutting result.

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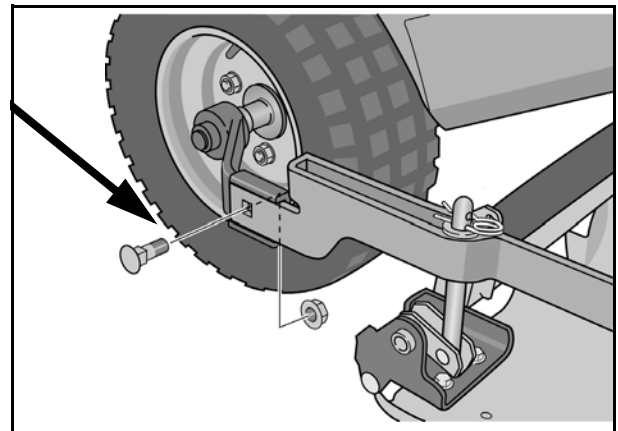
3 Mower deck 85, 95, 105 Combi

3.1 Assembly on delivery of Park 4WD with fixed deck connections and Villa/Ready

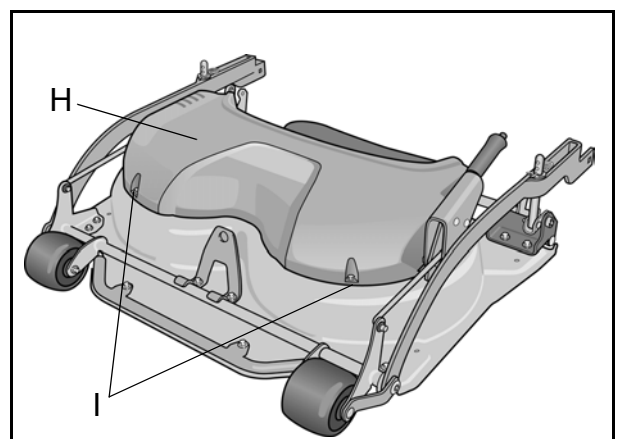
- Place the deck in position in front of the machine.
- Check that the deck mounts are installed on the machine as follows.
 - Washer (D). Only machines up to and including 2006.
 - Deck mount (C).
 - Washer (B).
 - Circlip (A).



- Screw the arms into each other.

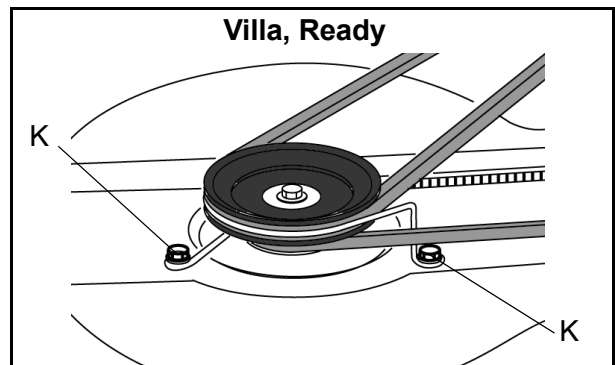


- Remove the belt cover (H) by loosening the screws (I).

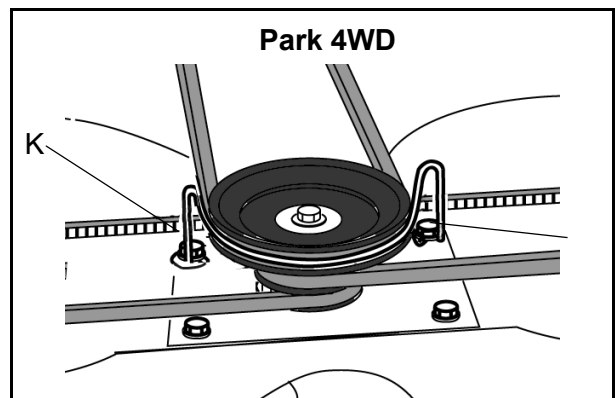


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5. Loosen the belt guide screws (K) a couple of turns.

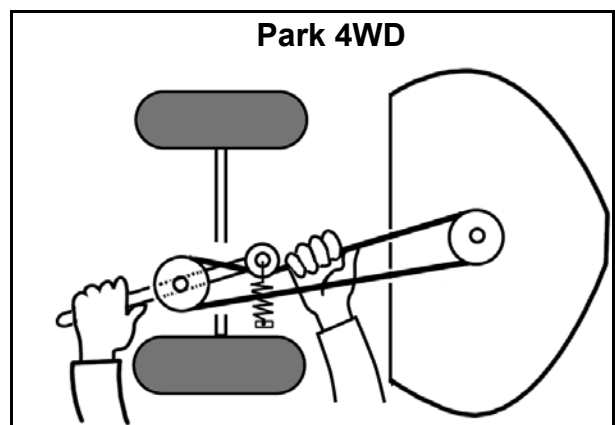


6. Set the maximum cutting height.
7. Work off the belt from the cutting deck pulley.
8. Fit the belt to the machine pulley and after that to the cutting deck pulley.
9. Tighten the belt guide screws (K).
10. Tension the belt as follows.



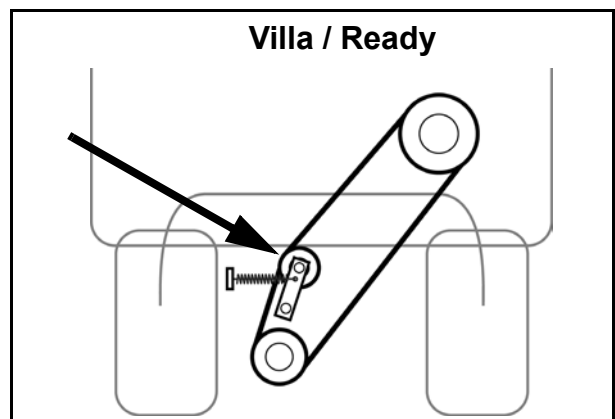
Park 4WD:

Grip the belt tensioner's lever with your left hand. Pull the lever and apply the tensioner to the outside of the belt with your right hand.



Villa, Ready:

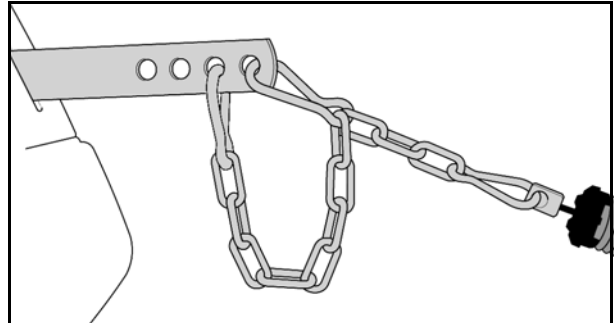
Tension the belt with the belt idler. The belt idler should be on the inside of the belt and pull out to the left (viewed from the driver's position).



11. Install the belt cover (H) with the screws (I).

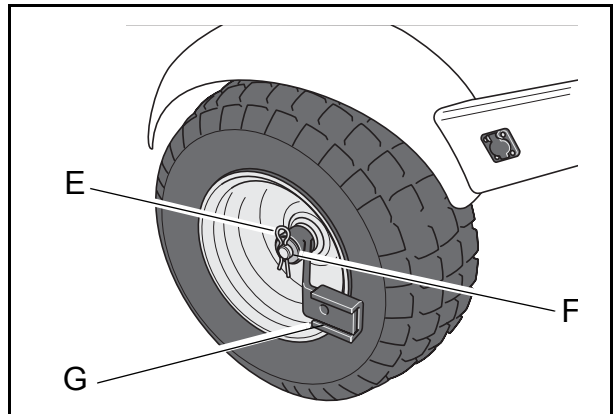
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12. Suspend the unit in the implement lifter.
13. Perform the cutting deck basic setting. See "Basic setting" at page 9".
14. If the deck has electrical cutting height adjustment, connect the cable to the machine's front right socket.



3.2 Assembly on delivery of Park 2WD with fixed deck connections

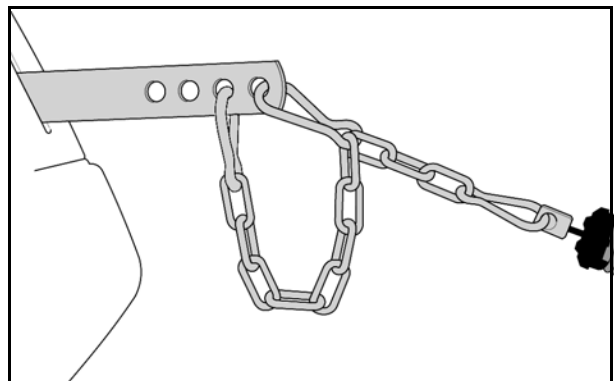
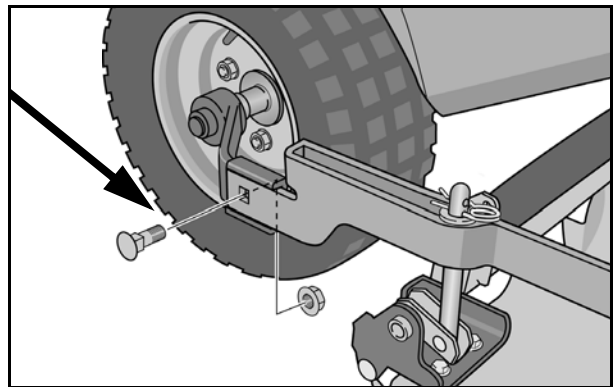
1. Place the deck in position in front of the machine.
2. Check that the deck mounts are installed on the machine as follows.
 - Deck mount (G).
 - Washer (F).
 - Lock pin (E).



3. Screw the arms into each other.
4. Set the maximum cutting height.
5. Locate the belt around the machine's belt pulley.
6. Tension the belt as follows.

Tension the belt with the belt idler. The belt idler should be on the left side of the belt viewed from the driver's position.

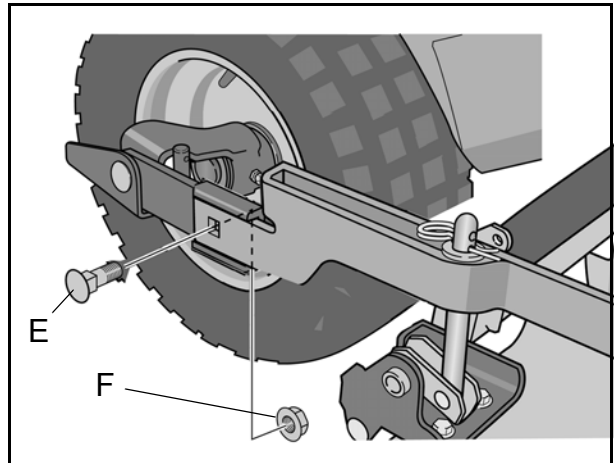
7. Suspend the unit in the implement lifter.
8. Perform the cutting deck basic setting. See "Basic setting" at page 9".
9. If the deck has electrical cutting height adjustment, connect the cable to the machine's front right socket.



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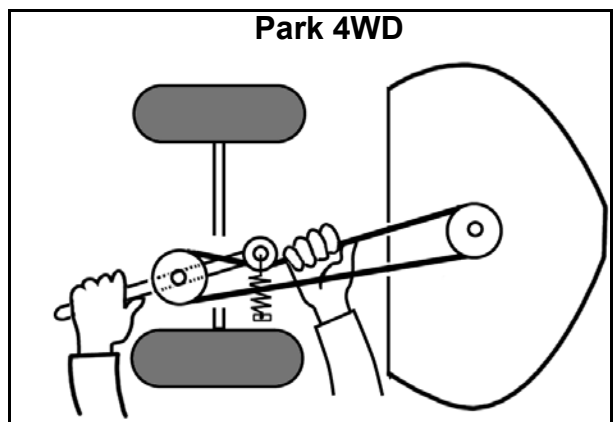
3.3 Assembly on delivery of machines with quick connections

1. Place the deck in position in front of the machine.
2. Check that the quickconnections are fitted to the machine See "Quick connections" at page 45.
3. Screw the arms into each other.
4. Set the maximum cutting height.
5. Set the quick connections in their rear positions. See their supplied separate instruction.
6. Fit the belt on to the machine pulley.
7. Tension the belt as follows.



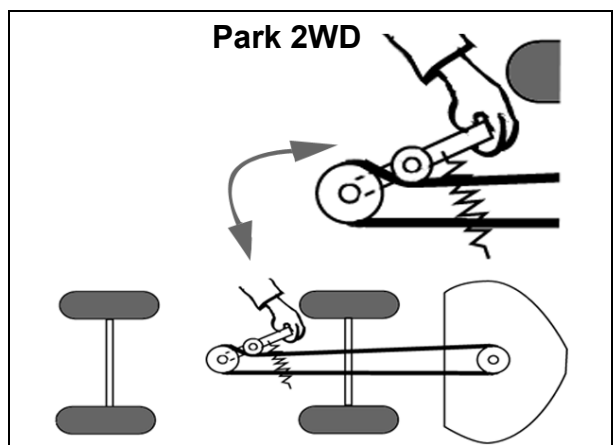
Park 4WD:

Grip the belt tensioner's lever with your left hand. Pull the lever and apply the tensioner to the outside of the belt with your right hand.



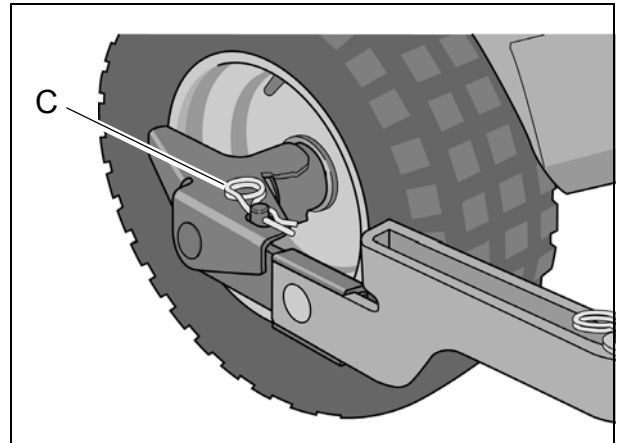
Park 2WD:

Tension the belt with the belt idler. The belt idler should be on the left side of the belt viewed from the driver's position.



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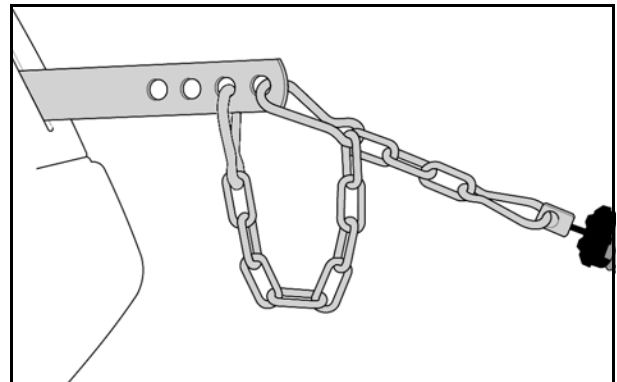
8. Set the quick connections in their front positions and fit the locking pins (C).



9. Suspend the unit in the implement lifter.

10. Perform the cutting deck basic setting. See "Basic setting" at page 9".

11. If the deck has electrical cutting height adjustment, connect the cable to the machine's front right socket.



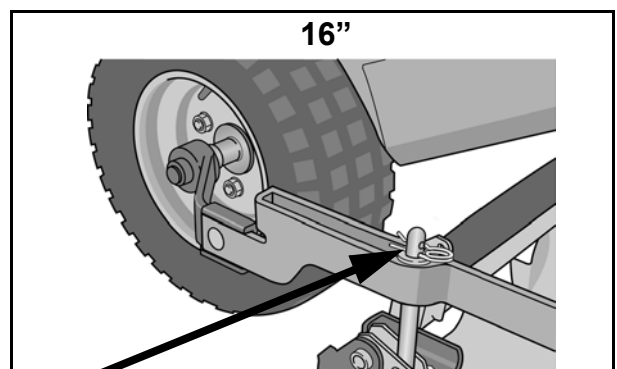
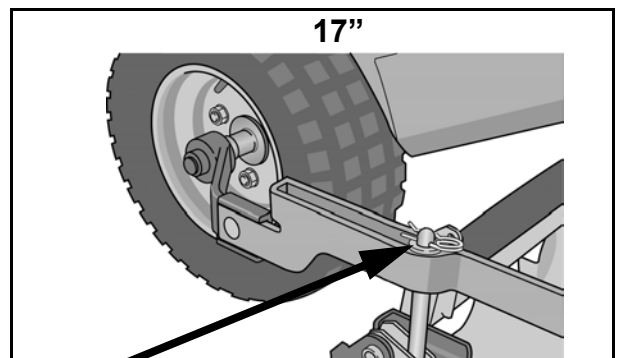
3.4 Basic setting

In order for the cutting deck to cut optimally, the correct basic setting is required. The deck is in the basic setting when its rear edge is 5 mm above its front edge. This means that the deck is inclined forwards.

Move the deck to the basic setting by lifting and securing as follows.

On machines with 17" wheels: Install the washers and the pins in the top hole.

On machines with 16" wheels: Install the washers and the pins in the middle hole.

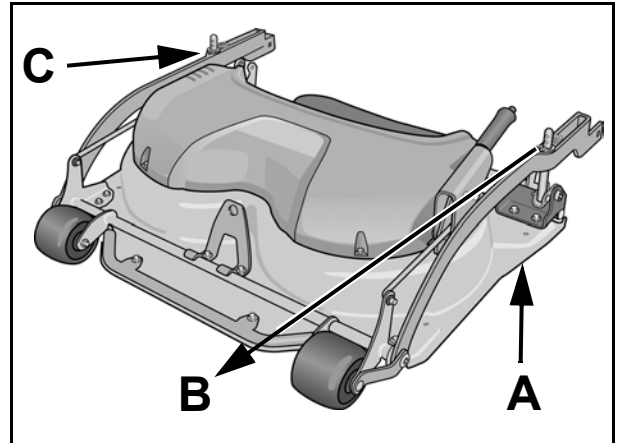


3.5 Washing position


1. Activate the parking brake.
2. Set the implement lifter in transport position.
3. Set the highest cutting height.

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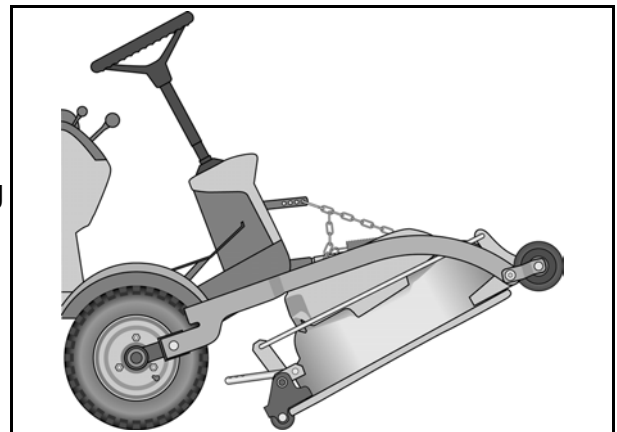
4. Detach the rear section of the deck on the right and left-hand side as follows:
 - A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washers.
 - C. Remove the right-hand cotter pin and washer in the same way.



5. Grip the front edge of the deck and lift up. Hook on the chain so that the deck is pointing diagonally upwards.

Warning!
 It is absolutely forbidden to start the engine when the deck is in the washing position.

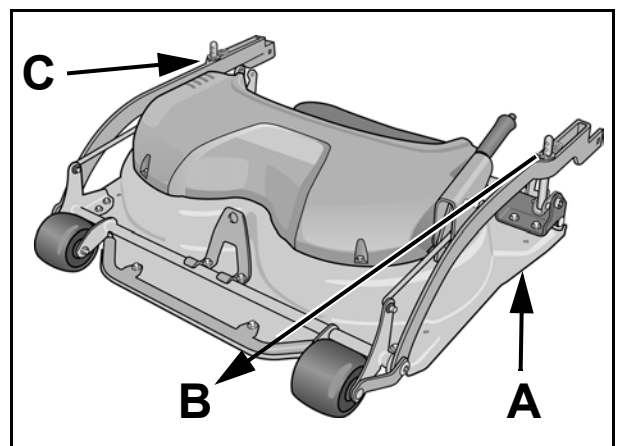
Reset the deck according to the actual previous described assembly instruction.



3.6 Service position

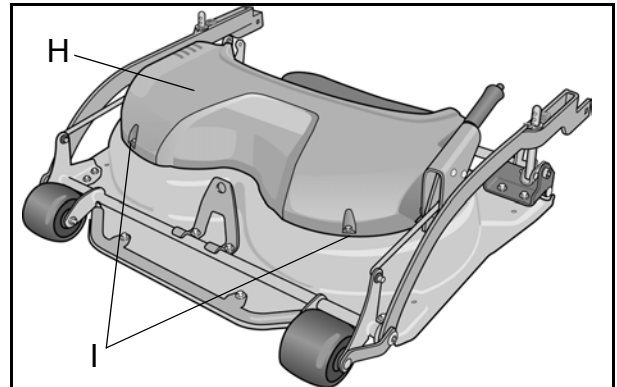
Park 4WD with fixed deck connections and Villa/Ready

1. Activate the parking brake.
2. If the deck has electrical cutting height adjustment, disconnect the cable from the machine.
3. Set the maximum cutting height.
4. Detach the rear section of the deck on the right and left-hand side as follows:
 - A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washers.
 - C. Remove the right-hand cotter pin and washer in the same way.



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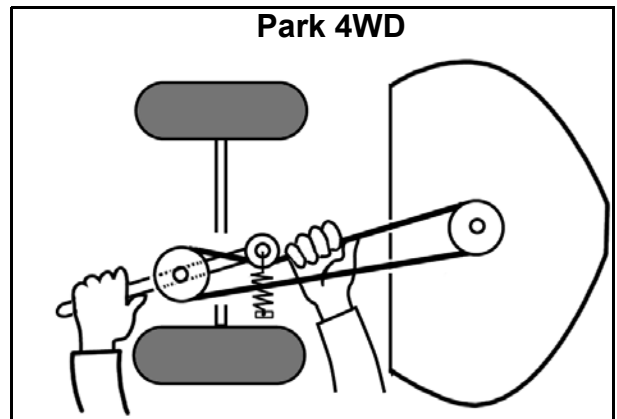
- Remove the belt cover (H) by loosening the screws (I).
- Loosen the belt guide screws (K) a couple of turns.



- Release the belt tension as follows.

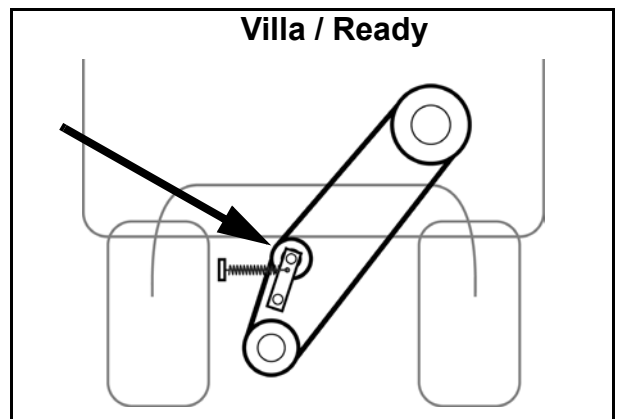
Park 4WD:

Grip the belt tensioner's lever with your left hand. Pull the lever and remove the tensioner with your right hand.



Villa, Ready:

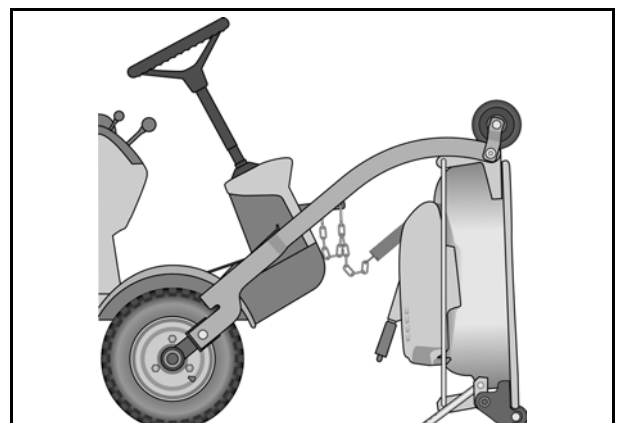
Remove the tensioner from the belt.



- Force the belt off the deck's pulley.

- Grip the front edge of the deck and lift up. Lift until the deck is completely vertical and rest the rear edge on the ground.

Reset the deck according to the actual previous described assembly instruction.

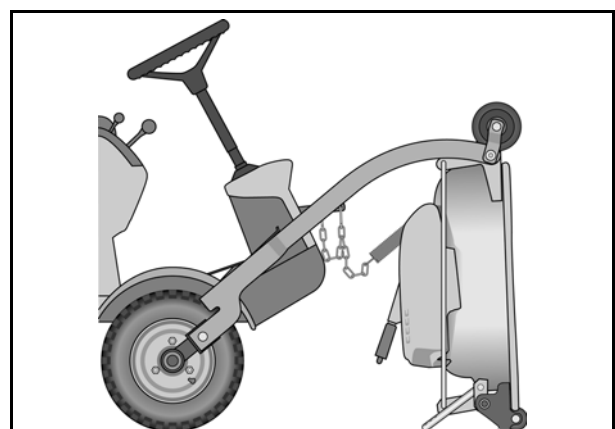
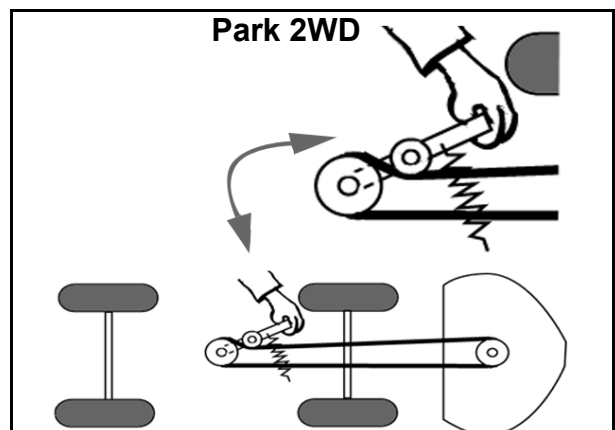
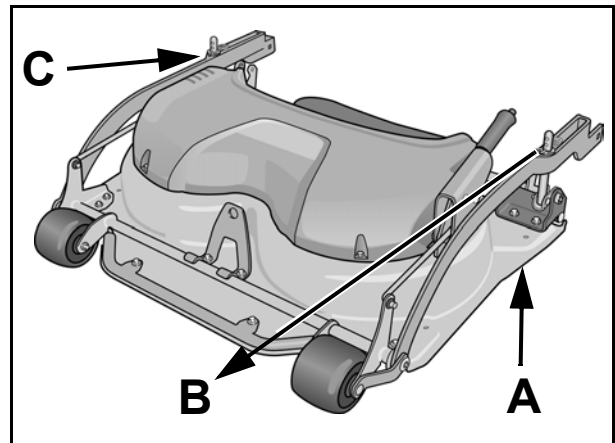


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Park 2WD with fixed deck connections

1. Activate the parking brake.
2. If the deck has electrical cutting height adjustment, disconnect the cable from the machine.
3. Set the maximum cutting height.
4. Detach the rear section of the deck on the right and left-hand side as follows:
 - A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washer.
 - C. Remove the right-hand cotter pin and washer in the same way.
5. Release the belt tension by removing the belt tensioner.
6. Force the belt off the machines's pulley.
7. Grip the front edge of the deck and lift up. Lift until the deck is completely vertical and rest the rear edge on the ground.

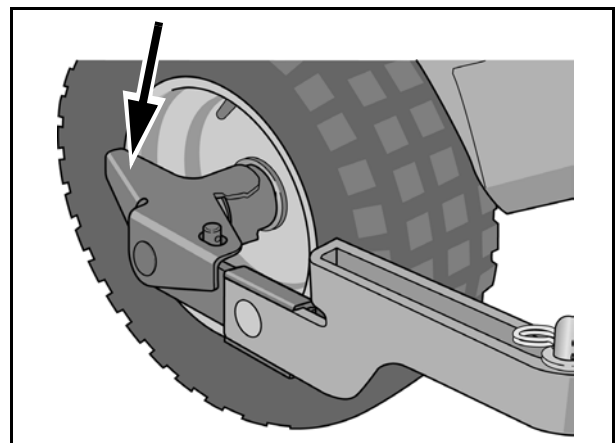
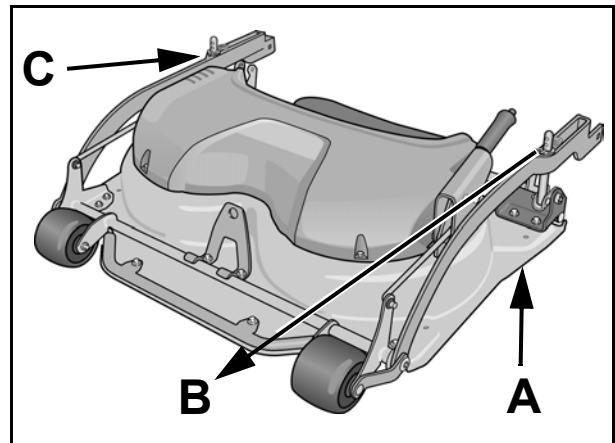
Reset the deck according to the actual previous described assembly instruction.



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Machines with quick connections

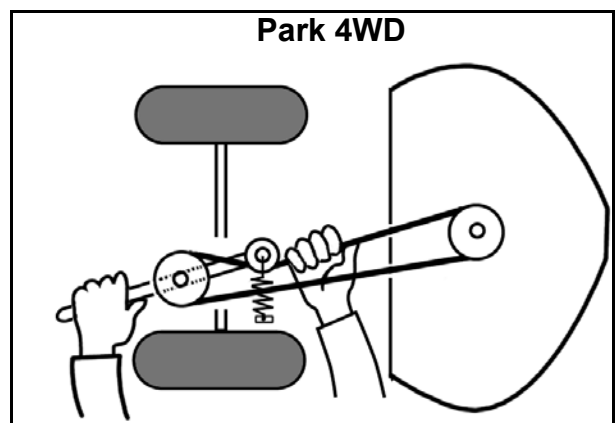
1. Activate the parking brake.
2. If the deck has electrical cutting height adjustment, disconnect the cable from the machine.
3. Set the maximum cutting height.
4. Detach the rear section of the deck on the right and left-hand side as follows:
 - A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washer.
 - C. Remove the right-hand cotter pin and washer in the same way.
5. Set the quick connections in their rear positions.



6. Release the belt tension as follows.

Park 4WD:

Grip the belt tensioner's lever with your left hand. Pull the lever and remove the tensioner with your right hand.

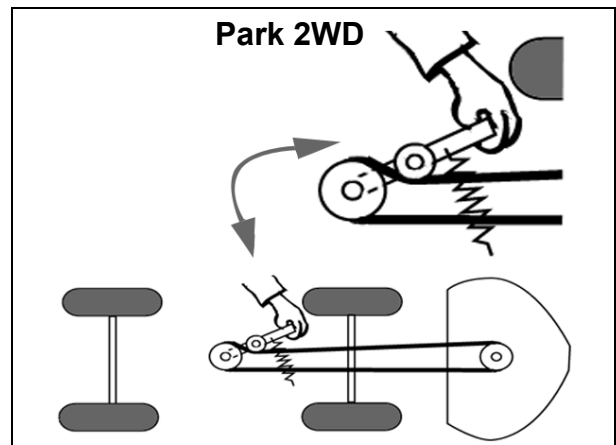


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Park 2WD:

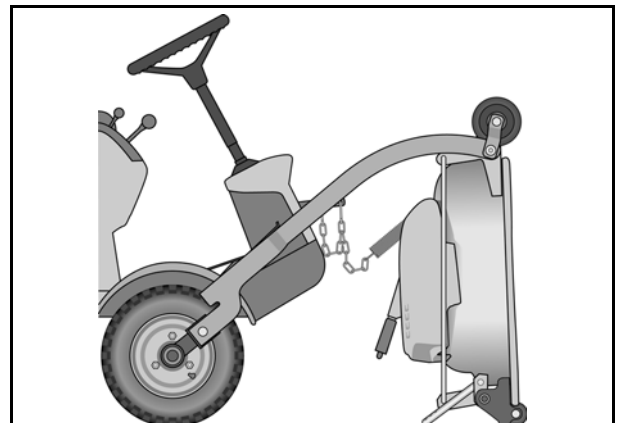
Remove the tensioner from the belt.

7. Force the belt off the deck's pulley.



8. Grip the front edge of the deck and lift up. Lift until the deck is completely vertical and rest the rear edge on the ground.

Reset the deck according to the actual previous described assembly instruction.



3.7 Safety

To reduce the risk of accidental injury in the event of a collision and to protect important parts in the cutting deck, a force limiter is integrated as follows.

- Shear bolts between blades and blade bar.
- Torque limiting between gear wheels and blade shaft.
- Possibility of positive drive belt slipping on the plastic gear wheels.

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3.8 Replacement of blades



Warning!

The blades are sharp. Always wear gloves when working with the blades to avoid injury.

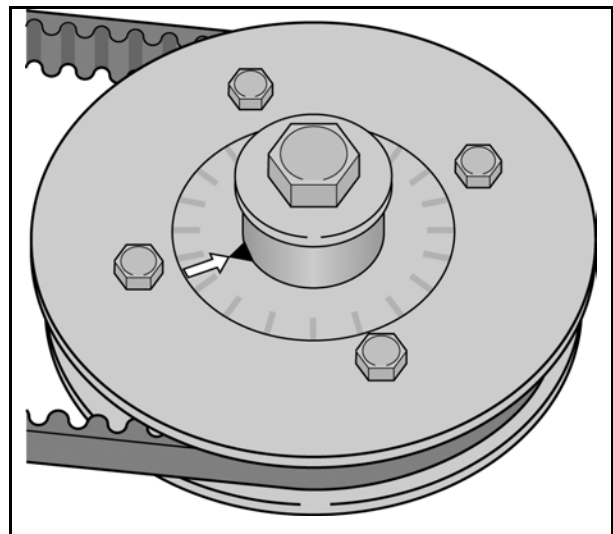
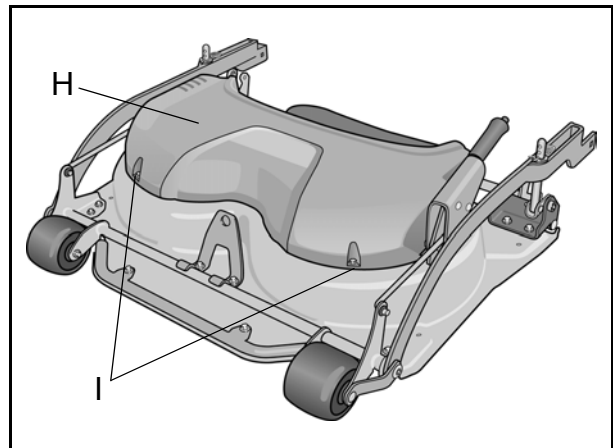


Warning!

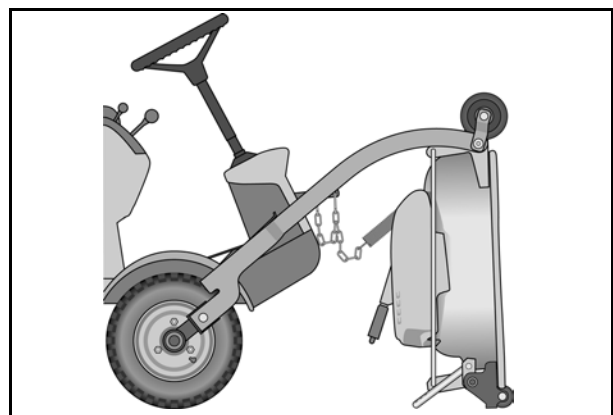
When replacing, both blades on the same blade bar must be replaced to avoid imbalance.

Disassembly

1. Remove the belt cover (H) by unscrewing the screws (I).
2. Check the torque limiting between gear wheels and blade shaft. The arrows in the figure must be opposite each other for an intact deck. When torque limiting has deployed, the arrows are **not** opposite each other.



1. Rise the deck to its service position. See "Service position" at page 10.
2. Release the screws that hold the blades, and remove the blades.
3. After removing the blades, check whether the shafts are damaged. This is best done by rotating the shafts to see if they are out of true.



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Assembly

1. Fit the blades according to the figure.
The sharpened surfaces of the blades shall face in the rotation direction which is left when the deck is raised.

Note the following when reassembling:

- The blades and blade bar must be installed as in the figure.
- The blades can be turned 1/3 of a turn in their mountings. Select positions so that the blades are offset 90° from each other. See "Synchronising, blades" at page 17.

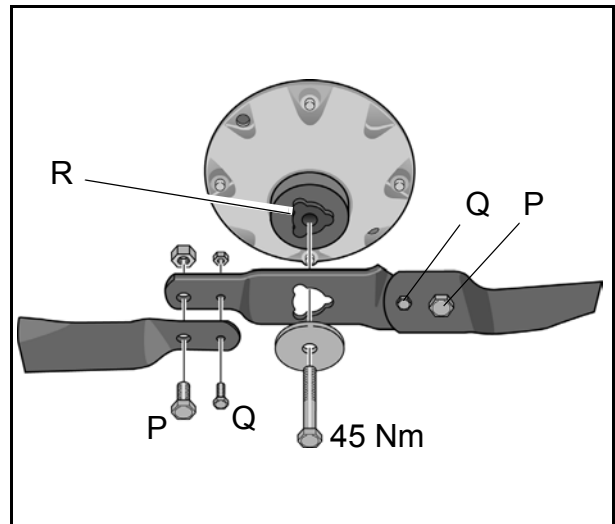
Tightening torque:

Screws (P) - 45 Nm

Shear bolts (Q) - 9.8 Nm

In the event of a collision, the shear bolts (Q) can break and the blades bend back. If this has happened, install genuine shear bolts and tighten as above.

2. Tighten all screws.



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Synchronising, blades

The deck has synchronised blades.

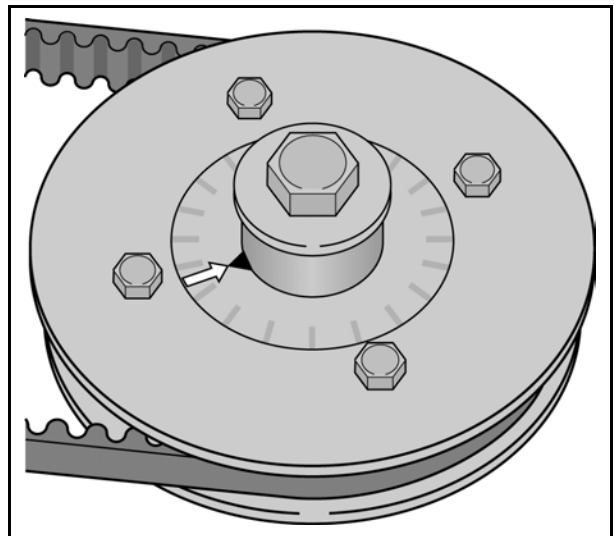
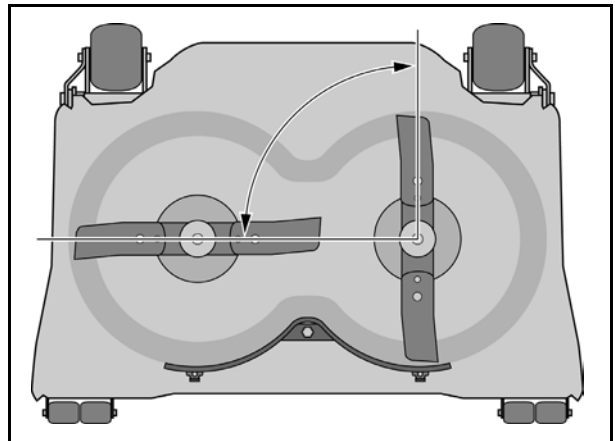
If one of the blades has struck a solid object (e.g. a stone), the synchronisation may be altered. This entails a risk of the blades colliding with each other.

Correctly synchronised blades must be offset 90° from each other. See the figure.

Always check synchronisation after a collision.

If the blades are not synchronised, one or more of the following faults may have occurred in the cutting deck:

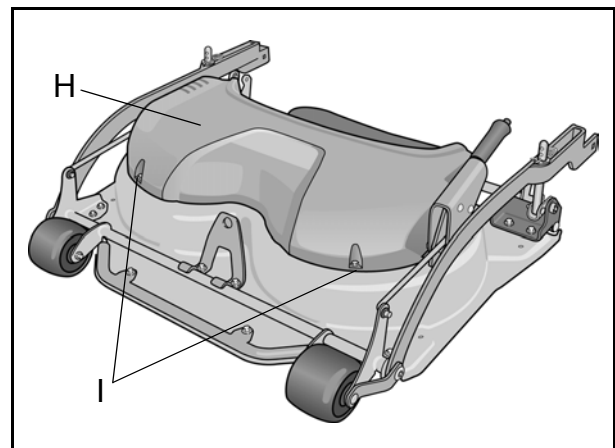
- The positive drive belt has slipped on the gear wheels.
- Torque limiting between gear wheels and blade shaft has deployed. The arrows in the figure must be opposite each other for an intact deck. When torque limiting has deployed, the arrows are **not** opposite each other.
- The blade member is incorrectly installed on the blade shaft. Can be installed in three different positions. See the previous page.



3.9 Replacement of belt, Villa/Ready-deck

Disassembly

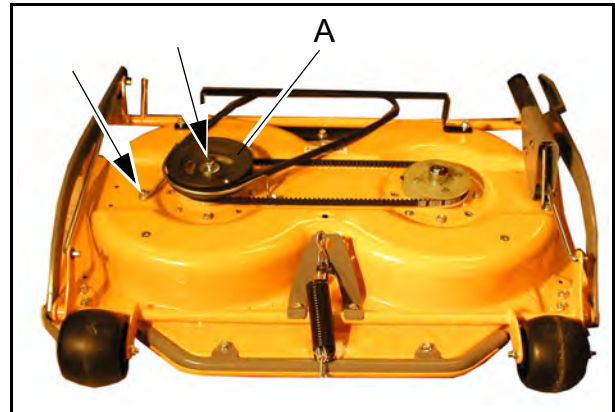
1. Remove the belt cover (H) by unscrewing the screws (I). Use a 12 mm box spanner.



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2. Remove the following:

- Belt guide with screws (13 mm key)
- Shaft screw with washer (19 mm key)
- Pull up the pulley (A).

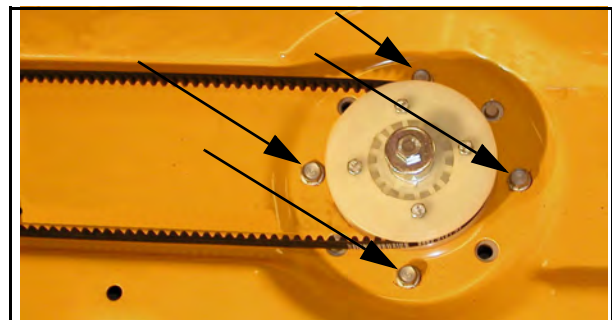


3. Loosen the four screws for the left bearing housing a couple of turns.

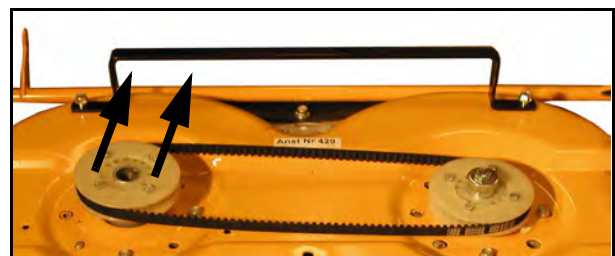


Note!

The left bearing housing is lateral adjustable to perform the timing belt adjustment.



4. Remove the key at the right shaft and lift the pulley together with the belt.



Checks

1. Check the torque limiting between gear wheels and blade shaft. See "Synchronising blades" at page 17.
2. Check the two blade shaft bearings as follows:
 - Grab the pulley and force it in the radial direction. No radial play shall be felt.
 - Grab the knife and force it in the radial direction. No radial play shall be felt.
 - Rotate the shaft. No abnormal bearing noise shall be heard.

The bearing housings are not divided in additional spare parts. If bearing failure is detected, replace the entire bearing housing.

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Assembly of belt, Villa/Ready-deck

Assemble the timing belt in the reverse order.

Correctly synchronised blades must be offset 90° from each other. See "Synchronising, blades" at page 17.

Before the the left bearing housing screws are tightened, the belt shall be adjusted.

Adjust as follows:

Alternative A

1. Stretch the belt by pulling the the left bearing housing with a force of 300 N (30 kg).
2. Tighten the four bearing housing screws.

Alternative B

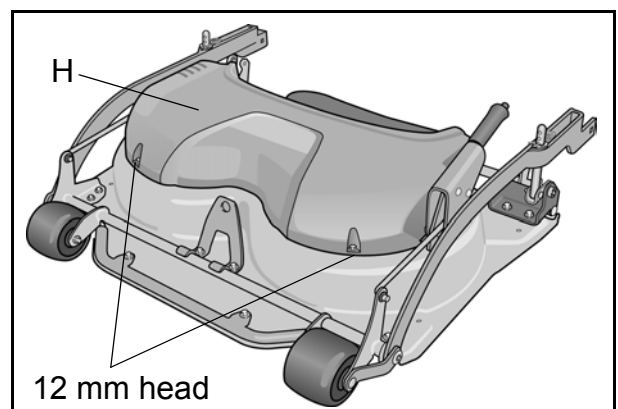
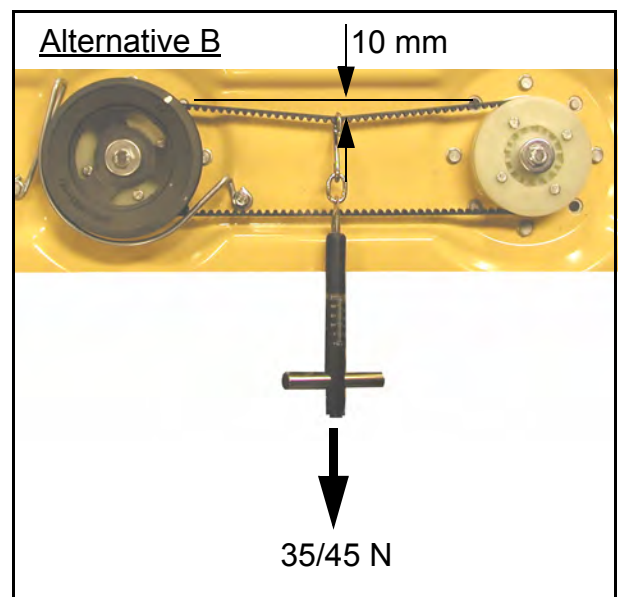
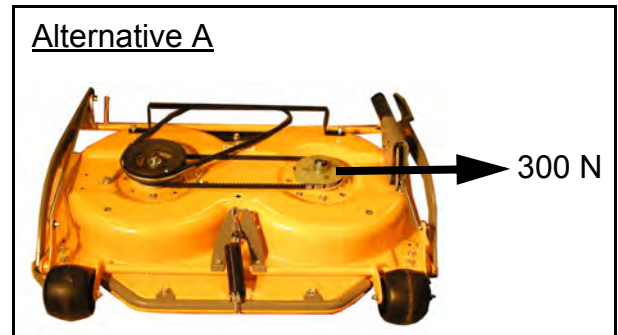
1. Stretch the belt by pulling the the left bearing housing.
2. Tighten the four bearing housing screws.
3. Apply a force as per the table below in the middle of the belt. The belt shall move 10 mm. If not, loosen the bearing housing and repeat step 1-2 above until the movement is OK.

Timing belt adjustments:

Deck	85 Combi 85 Villa	95 Combi 95 Villa
Force	45 N	35 N
Movement	10 mm	10 mm
Frequency	64 Hz ± 5%	64 Hz ± 5%

When assembling the belt cover (H) use the two M8-screws with 12 mm head.

The cover recesses have no place for a 13 mm spanner.

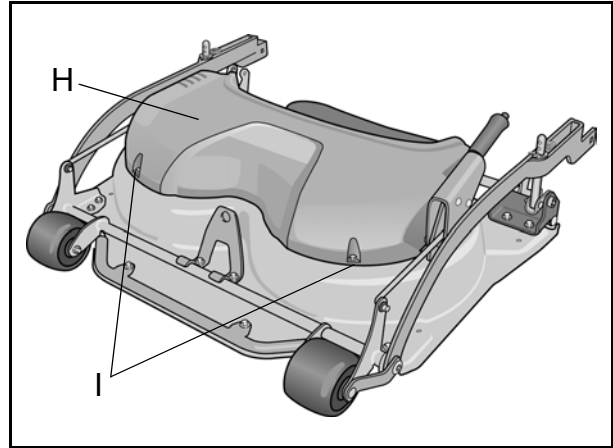


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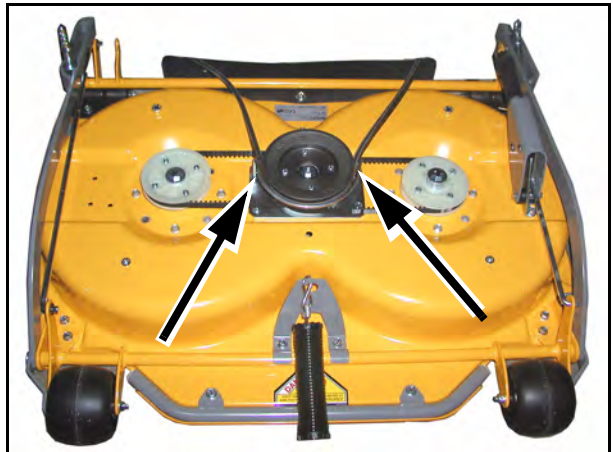
3.10 Replacement of belt, Park-deck

Disassembly

1. Remove the belt cover (H) by unscrewing the screws (I). Use a 12 mm box spanner.



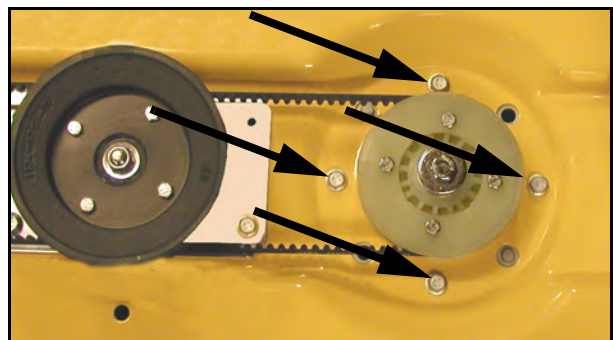
2. Remove the belt guide with screws (13 mm spanner).



3. Loosen the left and right bearing housing screws a couple of turns (8 screws).

! Note!
The bearing housings are lateral adjustable to perform the timing belt adjustments.

4. Work off the belts from the pulleys.



Checks

1. Check the torque limiting between gear wheels and blade shaft. See "Synchronising blades" at page 17.

2. Check the two blade shaft bearings as follows:

- Grab the pulley and force it in the radial direction. No radial play shall be felt.
- Grab the knife and force it in the radial direction. No radial play shall be felt.
- Rotate the shaft. No abnormal bearing noise shall be heard.

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The bearing housings are not divided in additional spare parts. If bearing failure is detected, replace the entire bearing housing.

3. Check the center pulley bearings as follows:
 - Grab the pulley and force it in the radial direction. No radial play shall be felt.
 - Rotate the pulley. No abnormal bearing noise shall be heard.

To replace bearings, see "Replacements of center pulley bearings" at page 22.

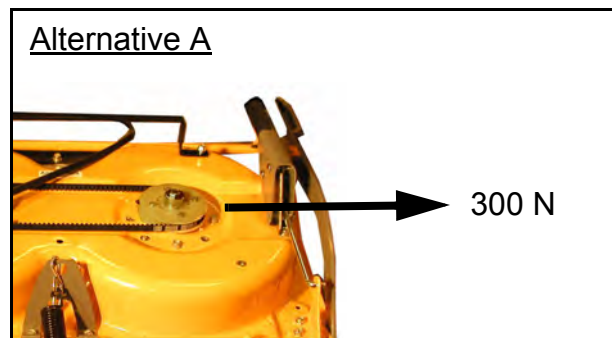
Assembly of belt, Park-deck

Assemble the timing belts in the reverse order. Before the the left and right bearing housing screws are tightened, the belts shall be adjusted.

Adjust as follows:

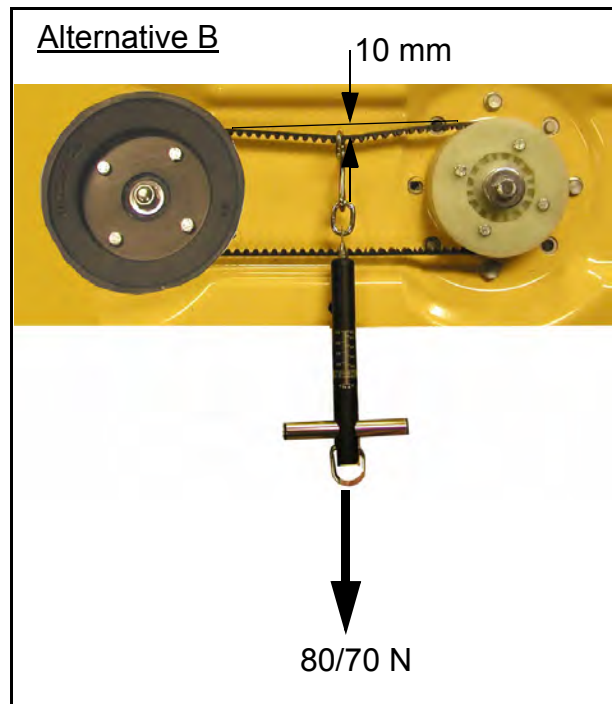
Alternative A

1. Stretch the belt by pulling the the bearing housings with a force of 300 N (30 kg).
2. Tighten the bearing housing screws.



Alternative B

1. Stretch the belt by pulling the the left bearing housing.
2. Tighten the four bearing housing screws.
3. Apply a force as per the table below in the middle of the belt. The belt shall move 10 mm. If not, loosen the bearing housing and repeat step 1-2 above until the movement is OK.



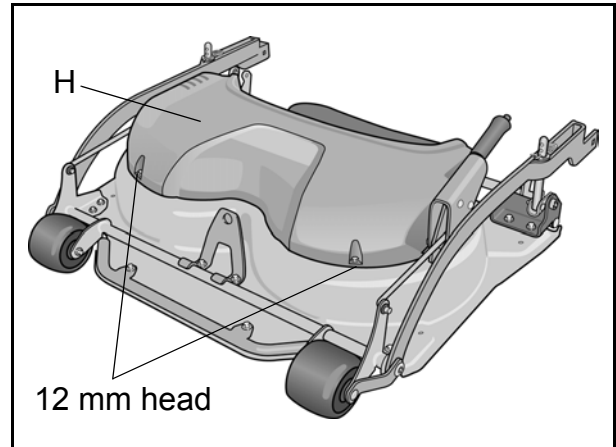
Timing belt adjustments:

Deck	95 Combi 95 Combi Park	105 Combi 105 Combi Park
Force	80 N	70 N
Movement	10 mm	10 mm
Frequency	128 Hz \pm 5%	122 Hz \pm 5%

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When assembling the belt cover (H) use the two M8-screws with 12 mm head.

The cover recesses have no place for a 13 mm spanner.

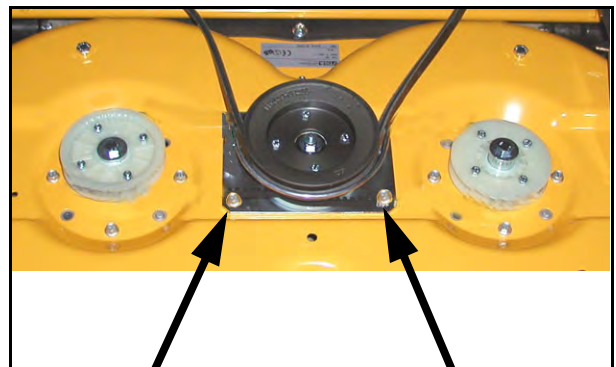


3.11 Replacements of center pulley bearings

To replace the center pulley bearings, first remove the timing belts. See "Replacement of belt, Park-deck" at page 20.

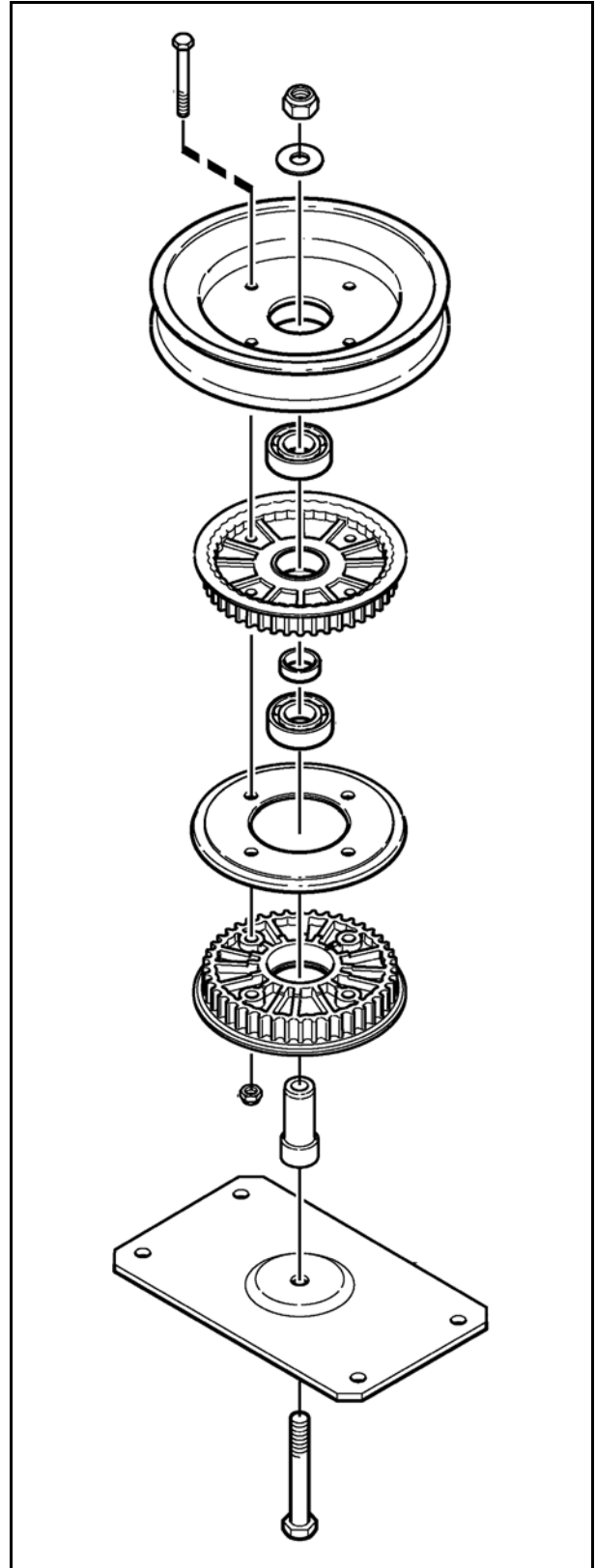
Proceed as follows:

1. Remove the pulley plate by unscrewing the two screws.
2. Set up the unit in a vise and disassemble it. Use two 17 mm spanners.



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3. Replace defective parts and assemble in the reverse order. According the parts location, see the figure.



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4 Mower deck 110 and 125 Combi Pro

4.1 Assembly on delivery

This instruction describes assembly with fixed deck connections. If quick connections shall be used, see "Quick connections" at page 45.

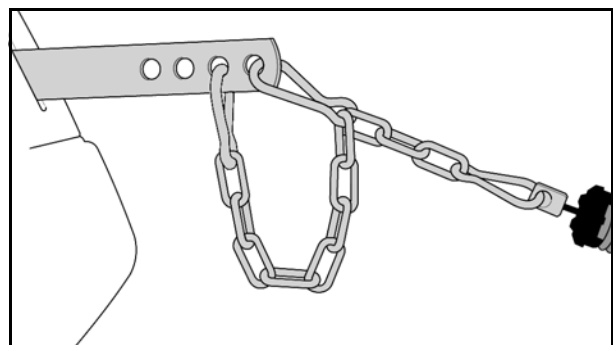
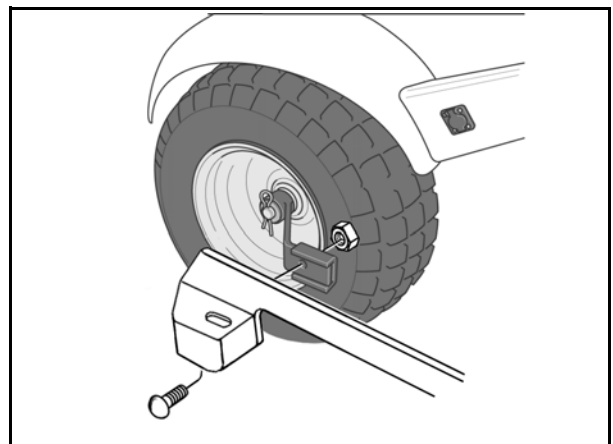
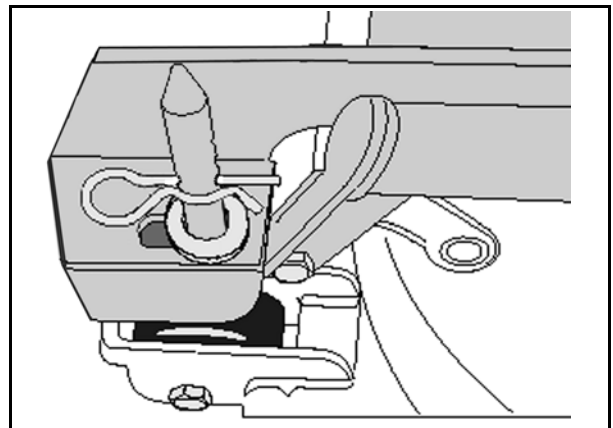
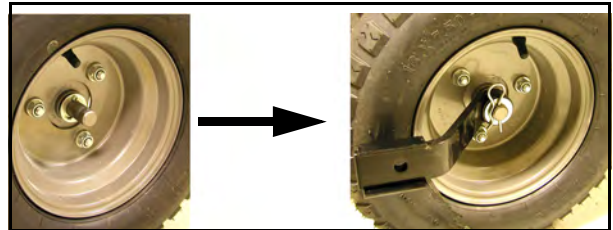
Mower deck

1. Take the deck out of the box.
2. Place the cutting deck in position in front of the machine.
3. Install the deck mounts on the front shafts.

! Note!
One flat washer shall be placed at each side of the deck arms onto the wheel shafts.

4. Remove the pins and the washers on both sides.
5. Screw the arms into each other.

6. Suspend the cutting deck in the implement lifter.



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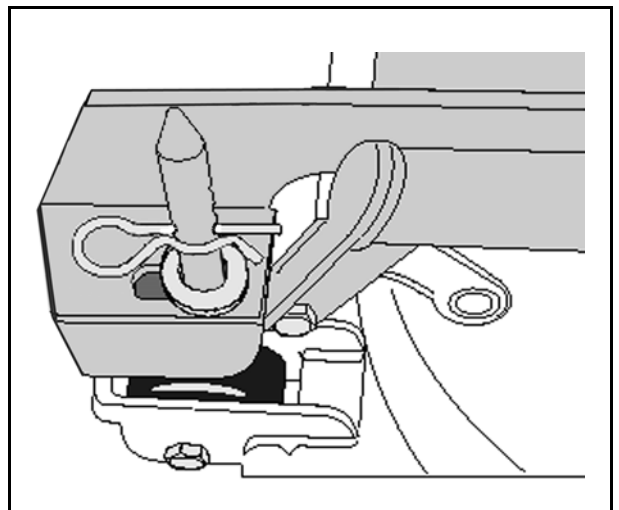
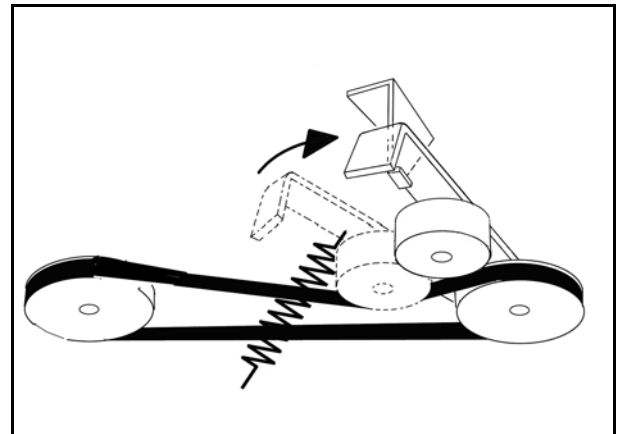
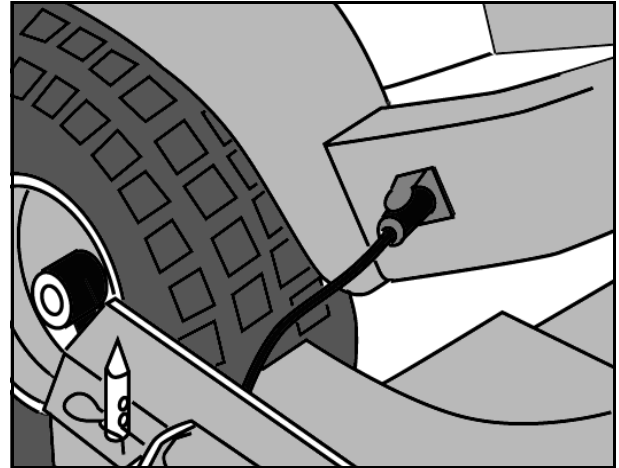
6. If the deck has electrical cutting height adjustment, connect the cable to the machine's front right socket.

Belt

The cutting deck's rear section should rest on the floor (it should not be lifted or secured).

Install the belt as follows:

1. Set the maximum cutting height.
2. Locate the belt around the machine's belt pulley (B).
3. Fit the V-belt to the articulation point pulley and tension the belt by hooking up the lever or the spring, depending on model.
4. Lift up and secure the rear section of the cutting deck.
On machines with 17" wheels: Install the washers and the pins in the top hole.
On machines with 16" wheels: Install the washers and the pins in the middle hole.



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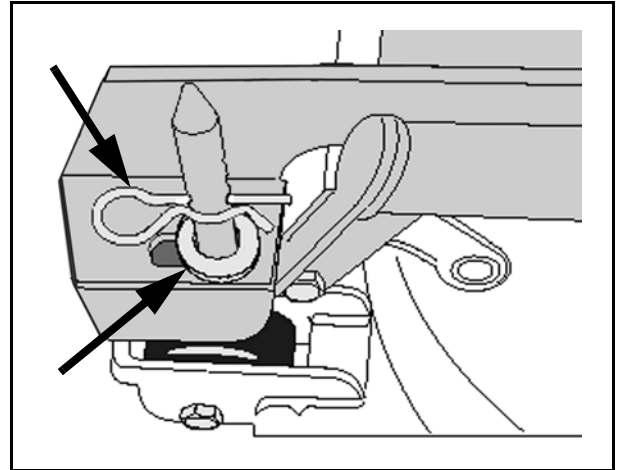
4.2 Raising the deck

The deck can be raised according to two procedures:

- 45° for washing and cleaning.
- 90° for service.

Washing position

1. Activate the parking brake.
2. Set the implement lifter in transport position.
3. Set the lowest cutting height.
4. Remove pins and washers.

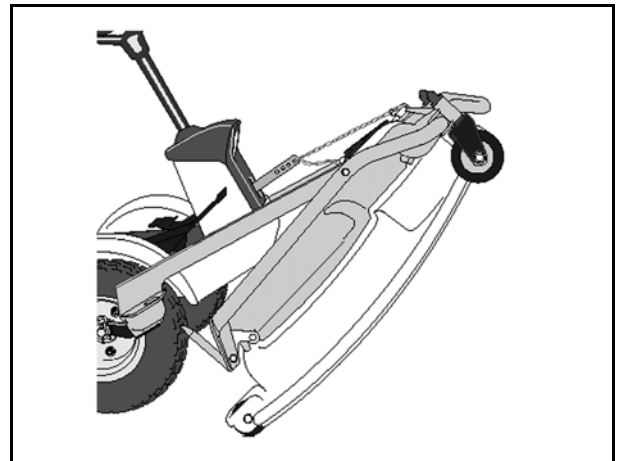


5. Grip the front edge of the deck and lift up. Hook on the chain so that the deck is pointing diagonally upwards.

It is absolutely forbidden to start the engine when the deck is in the washing position.

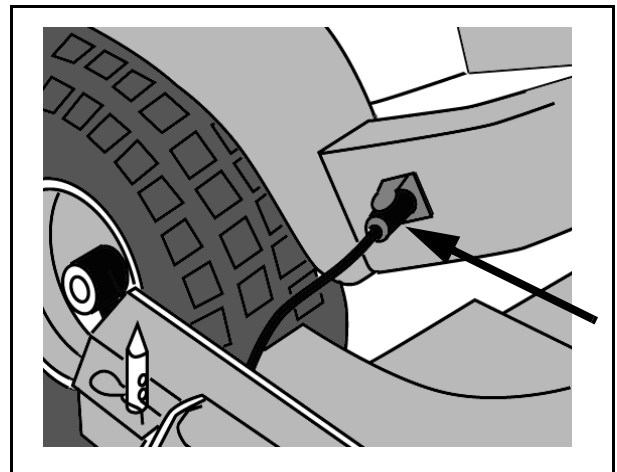
Reset washing position

1. Lower the deck.
2. Proceed according to position 4 at page 25.



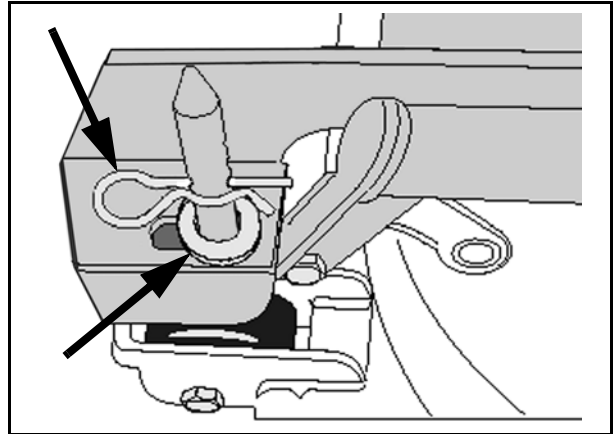
Service position

1. Activate the parking brake.
2. Set the implement lifter in transport position.
3. If the deck has electrical cutting height adjustment, disconnect the cable from the machine.
4. Set the highest cutting height.

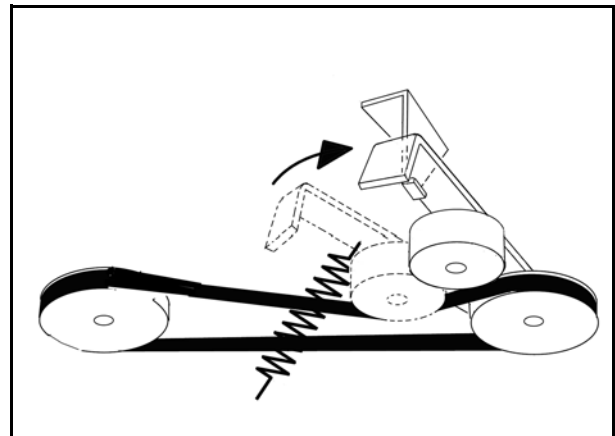


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5. Remove pins and washers.



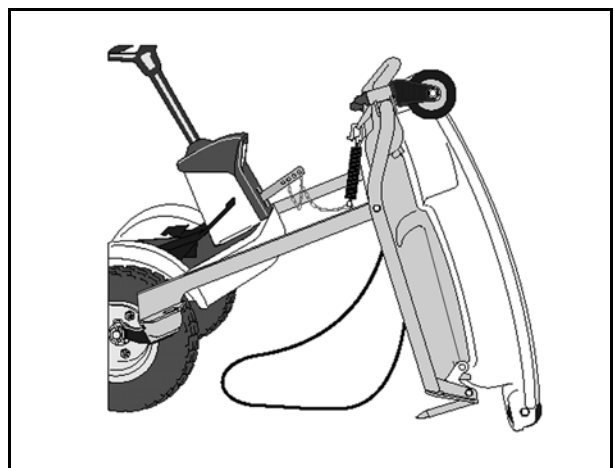
6. Slacken the belt by hooking off the lever or the spring, depending on model and remove the V-belt from the articulation point pulley.



8. Grip the front edge of the deck and lift up. Lift until the deck is completely vertical and rest the rear edge on the floor.

Reset service position

1. Lower the deck.
2. Proceed according to "Assembly on delivery" at page 24, position 6 and further.



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4.3 Replacement of blades



Warning!

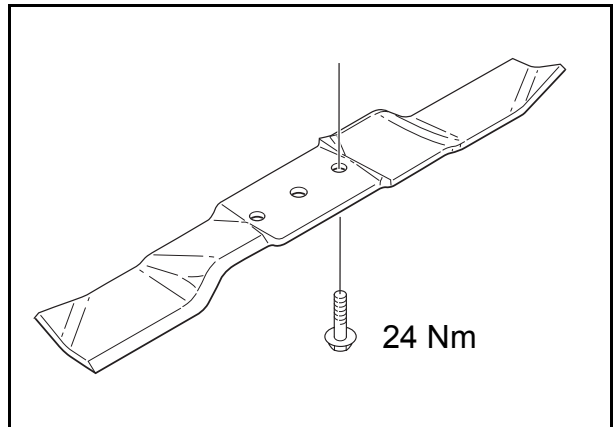
The blades are sharp. Always wear gloves when working with the blades to avoid injury.

1. Rise the deck to its service position. See “Service position” at page 26.
2. Release the screws that hold the blades, and remove the blades.
After removing the blades, check whether the shafts are damaged. This is best done by rotating the shafts to see if they are out of true.
3. Fit the blades with the raised edge towards the blade attachment.
The sharpened surfaces of the blades shall face in the rotation direction which is left when the deck is raised.
3. Tighten the screws.



Note!

The blades shall be tightened to 24 Nm.



4.4 Replacement of belt

To replace the internal belt, follow the steps below:

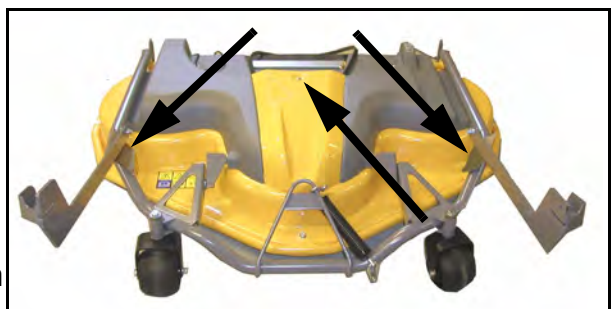
1. Rise the two attachment arms and let them rest against the frame tubes.



Note!

To avoid laquer damages, place protection plates under the arms.

2. If necessary, remove the top cover.



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3. Set the cutting height to max. If the deck is provided with electrical height adjustment, connect the cable either to a machine and use the machine switch or to a separate battery.

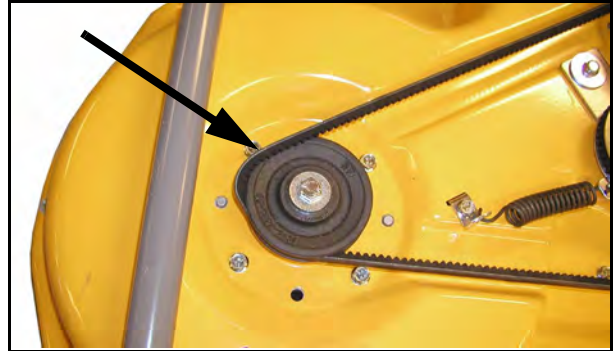


4. Remove the deck cover by loosening the two rear screws and if necessary the belt guide with its two screws.



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5. Force the belt over a suitable pulley and remove the belt. The tensioning roller will follow automatic.
 6. Check the three knife shaft bearings as follows:
 - Grab the pulley and force it in the radial direction. No radial play shall be felt.
 - Grab the knife and force it in the radial direction. No radial play shall be felt.
 - Rotate the shaft. No abnormal bearing noise shall be heard.
 7. Check the linkage for play and other damages.
 8. If bearing faults are determined, proceed with "Replacements of pulleys, shafts and bearings" at page 31" below.
If the linkage needs repair, proceed with "Linkage" at page 33".
Otherwise mount the new belt in the reverse order.
- !** Note!
Always use original spare belts from the retail dealer.



4.5 Adjustment of the belt

The internal belt is automatic adjusted by the roller, fitted on the spring forced lever, and does not need any further adjustment.

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4.6 Replacements of pulleys, shafts and bearings

To replace the pulleys, shafts and bearings, first remove the internal belt as described previously.

Below is described the disassembly/assembly of the center shaft unit. To repair the other units, use the applicable instructions described below.

Blade shaft pulley and blade shaft



Warning!

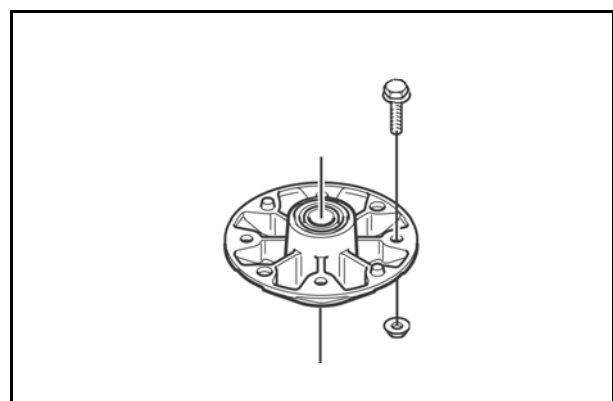
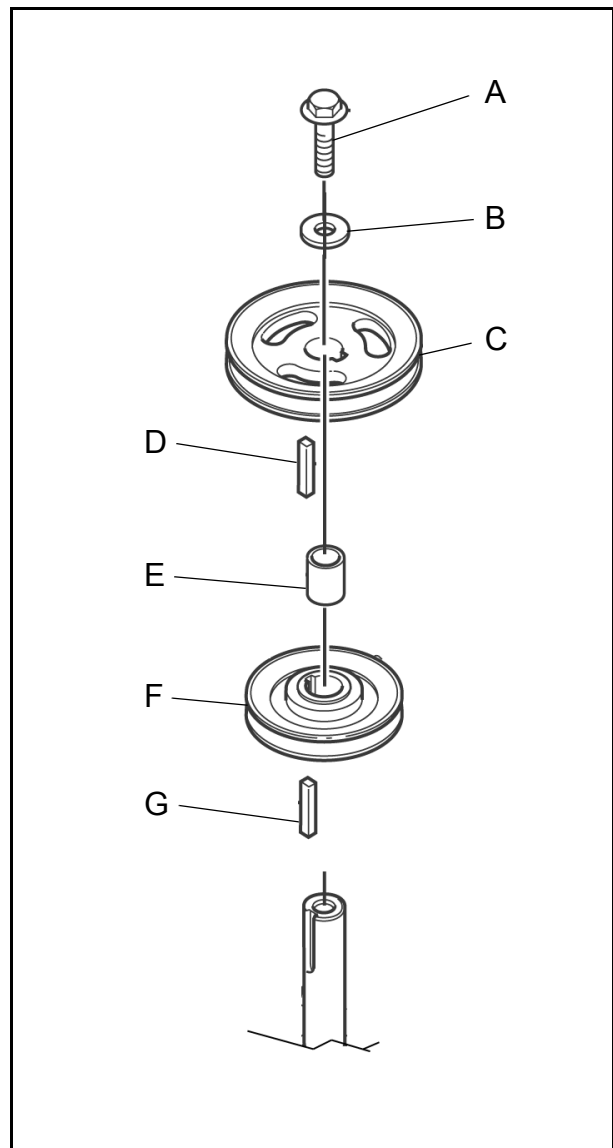
The blades are sharp. Always wear gloves when working with the blades to avoid injury.

1. Hold the blades under the deck by hand and remove the pulley nut (A) with washer (B). Use a 17 mm ring spanner.
2. Support the shaft unit against the floor with a wood piece or similar and remove the following parts:
 - Upper pulley (C)
 - Key (D)
 - Distance sleeve (E)
 - Lower pulley (F)
 - Key (G)
3. Lift the deck carefully at the front and pull out the shaft unit downwards.

If the bearings shall be replaced, proceed with "Bearings" below. Otherwise proceed with "Assembly".

Blade shaft bearings

1. Remove the four screws, holding the bearing housing. Use two 13 mm spanners.
2. Take out the bearing housing.
3. Replace the bearings as described in position 3-7 at page 32.



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Assembly

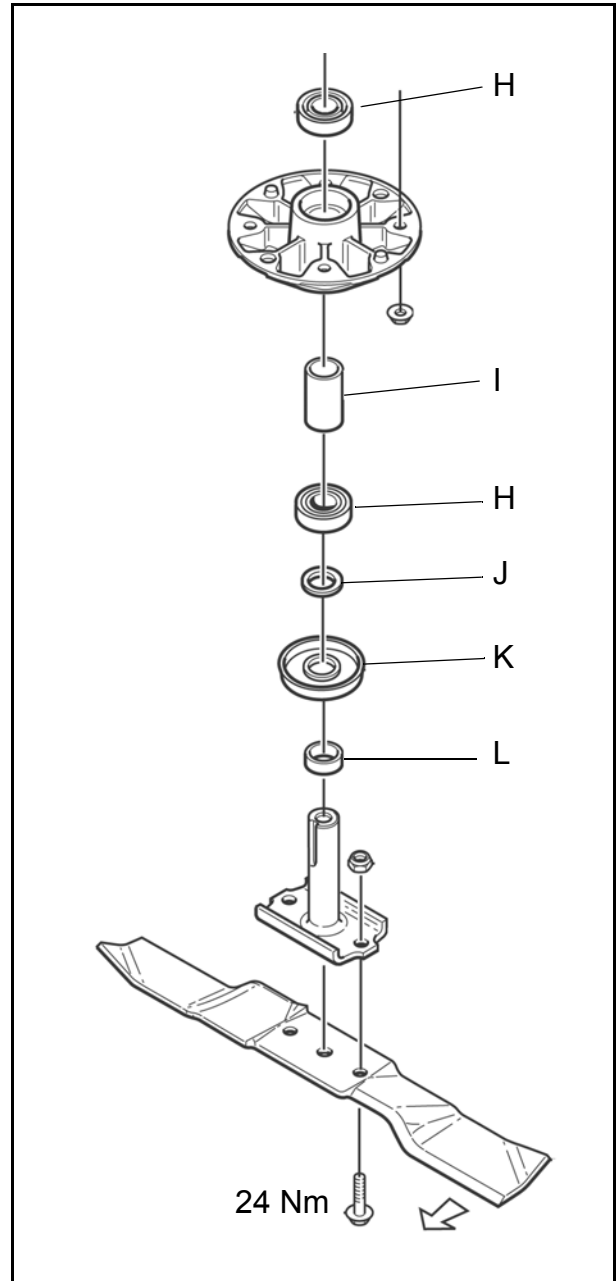
- ! Note!
According the blades, see "Replacement of blades" at page 28.

Assemble the shaft unit in the reverse order.

1. The bearings (H) and sleeve (I) shall be mounted in the bearing housing.
2. Fit the bearing housing on the deck with the four screws and washers.
3. Mount the washers (J and K) and sleeve (L) on the shaft.
4. Push up the shaft through the bearings.
5. Assemble the upper parts as described at the previous page.

- ! Note!
The pulleys (F) shall be turned with the mark (UP) faced upwards.

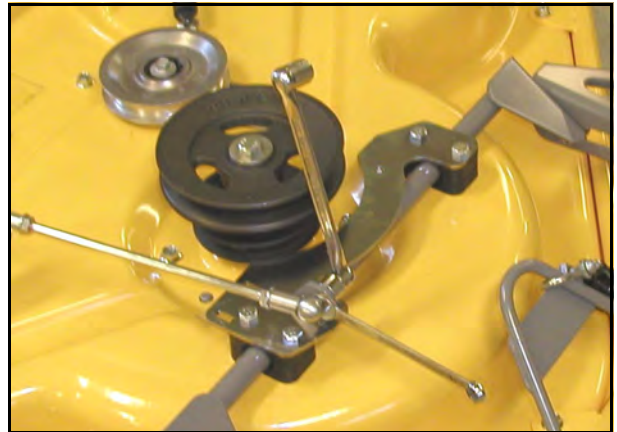
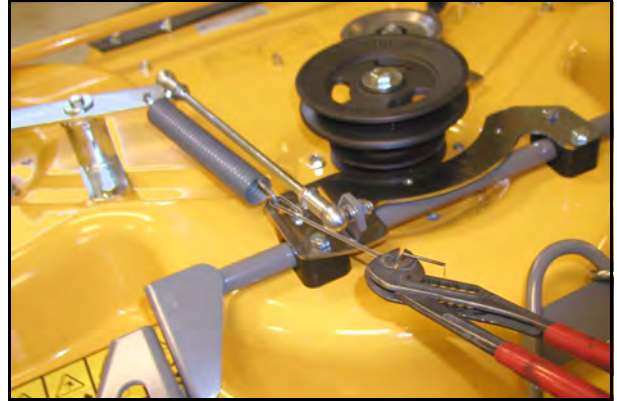
- ! Note!
The blades shall be tightened to 24 Nm.



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4.7 Linkage

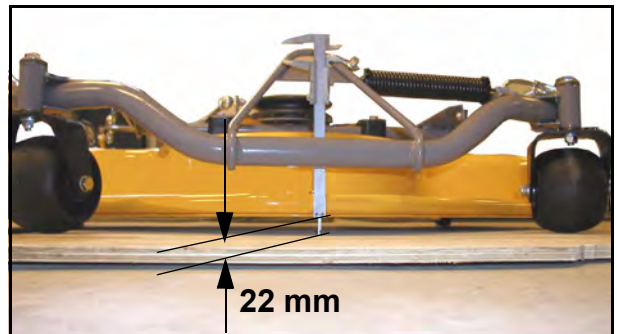
1. Remove the covers as described in "Replacement of belt" at page 28.
2. The cutting height shall remain in the upper position. In this position, the spring has a minimum of tension.
3. Bend a 1 mm steel wire to form a narrow hook, fit it to the spring loop and pull off the spring.
4. Remove the elbow links. Use a 13 spanner and hold with a 11 mm U-spanner.
5. Replace defective parts and assemble in the reverse order.



Adjustment of linkage

The deck linkage desires the difference between the ground height at the rear and front part of the deck. To achieve correct basic setting of the deck, perform the inclination adjustment as follows:

1. Place a plane-parallel plank under the wheels.
2. Adjust the linkage until the deck front edge is 22 mm from the plank.
3. Refit and lock the linkage adjustments.



Assembly

Assemble all parts in the reverse order.

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5 Mower deck 100 Combi 3

5.1 Assembly on delivery

This instruction describes assembly with fixed deck connections. If quick connections shall be used, see "Quick connections" at page 45.

Example of fixed deck connections, see C and G.

1. Place the deck in position in front of the machine.
2. Check that the deck mounts are installed on the machine as follows.

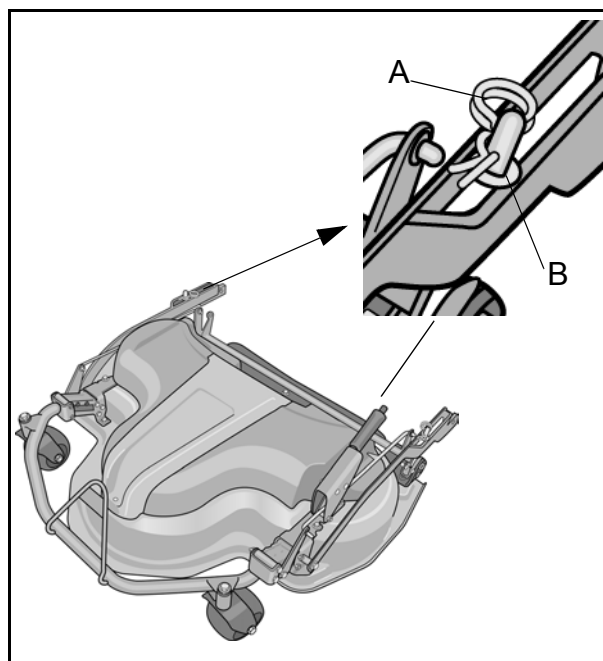
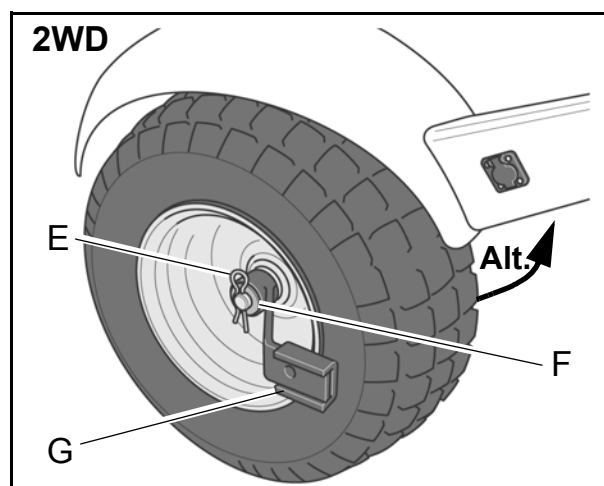
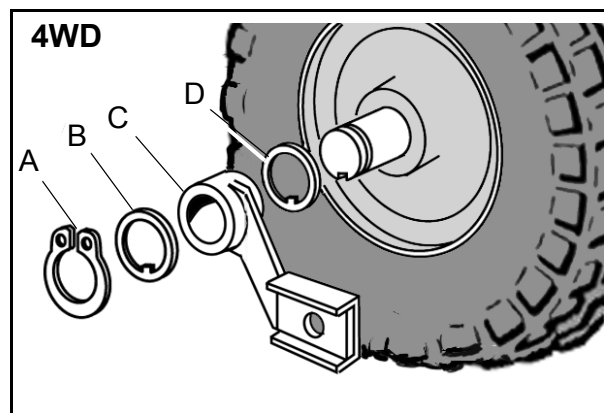
Park 2WD:

- Deck mount (G).
- Washer (F).
- Lock pin (E).

Park 4WD:

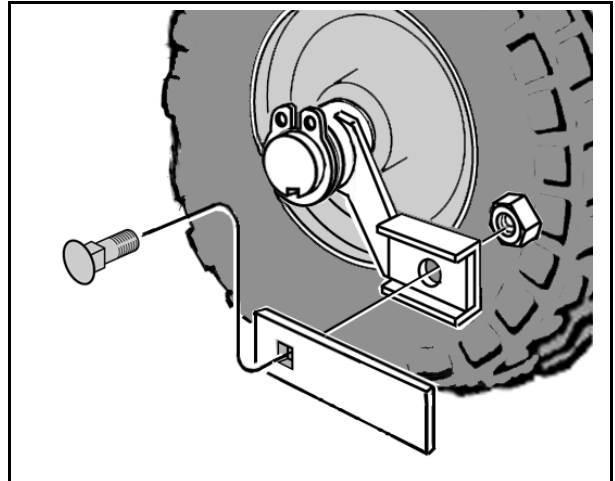
- Washer (D). Only machines up to and including 2006.
- Deck mount (C).
- Washer (B).
- Circlip (A).

3. Remove pins and washer (A, B).



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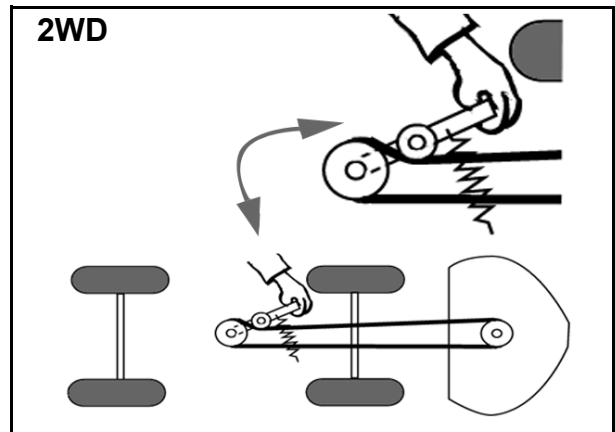
4. Screw the arms into each other.
5. Set the maximum cutting height.
6. Fit the belt on to the machine pulley.
7. Perform the cutting deck basic setting. See "Basic setting" at page 40.



8. Tension the belt as follows.

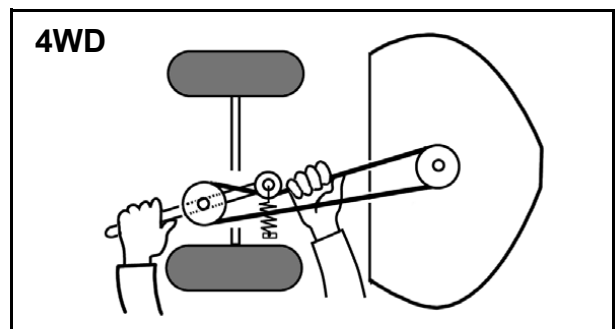
Park 2WD:

Tension the belt with the belt idler. The belt idler should be on the left side of the belt viewed from the driver's position.

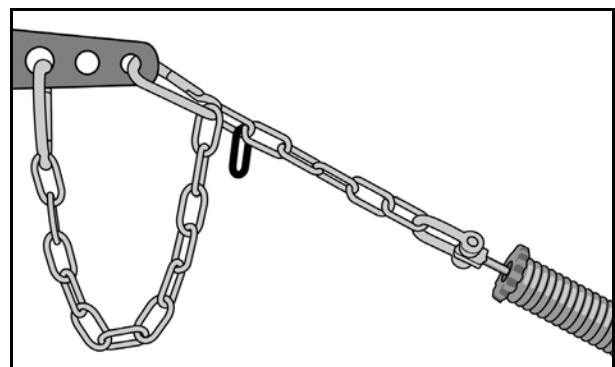


Park 4WD:

Grip the belt tensioner's lever with your left hand. Pull the lever and apply the tensioner to the outside of the belt with your right hand.



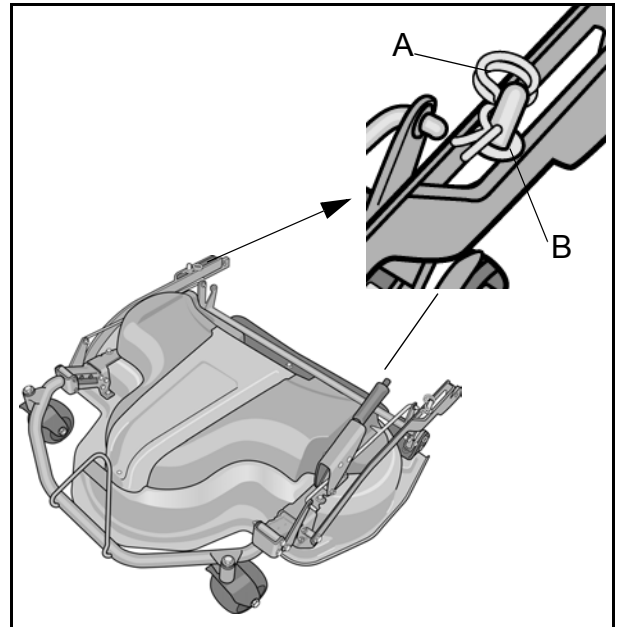
9. Suspend the unit in the implement lifter.
10. If the deck has electrical cutting height adjustment, connect the cable to the machine's front right socket.



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5.2 Washing position

1. Activate the parking brake.
2. Set the implement lifter in transport position.
3. Set the highest cutting height.
4. Detach the rear section of the deck on the right and left-hand side as follows:
 - A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washer.
 - C. Remove the right-hand cotter pin and washer in the same way.

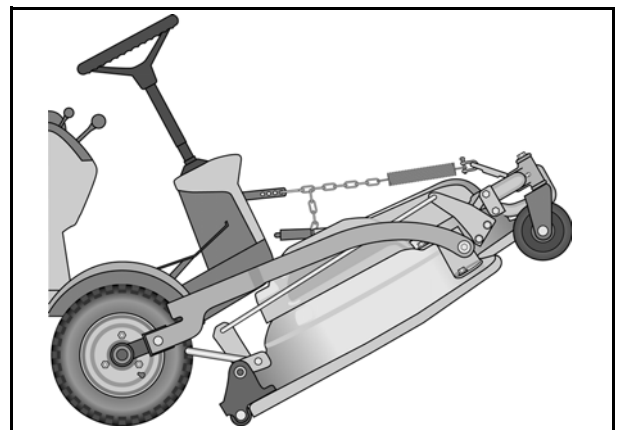


5. Grip the front edge of the deck and lift up. Hook on the chain so that the deck is pointing diagonally upwards.



It is absolutely forbidden to start the engine when the deck is in the washing position.

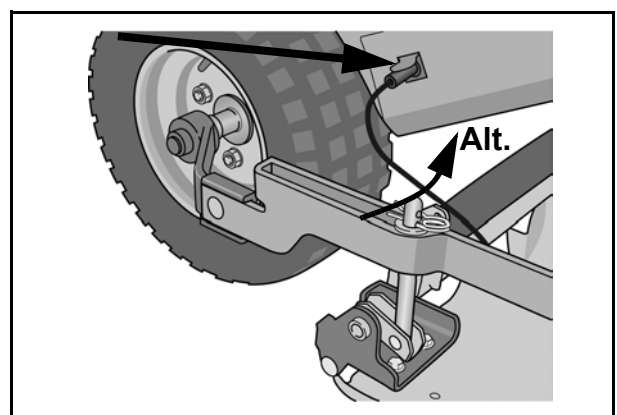
6. Lower the deck to the ground in reverse order after the corrective actions have been carried out. Reset the deck according to "Basic setting" at page 40.



5.3 Service position

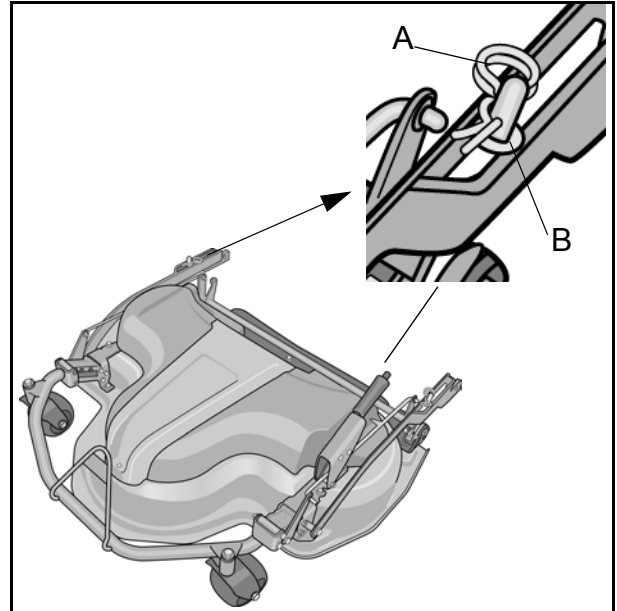
Machines with fixed deck connections

1. Activate the parking brake.
2. If the deck has electrical cutting height adjustment, disconnect the cable from the machine.
3. Set the maximum cutting height.



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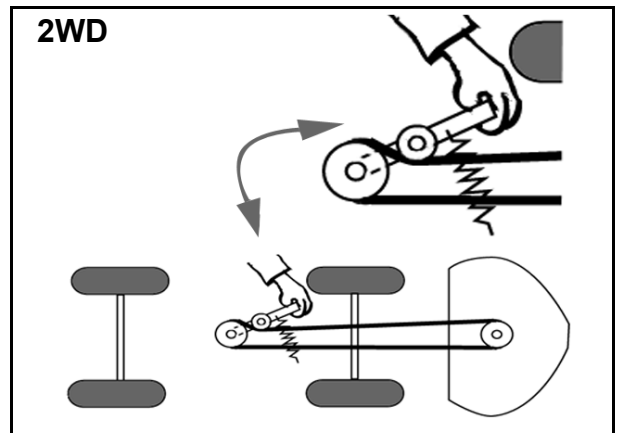
4. Detach the rear section of the deck on the right and left-hand side as follows:
- A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washer.
 - C. Remove the right-hand cotter pin and washer in the same way.



5. Release the belt tension as follows:

Park 2WD:

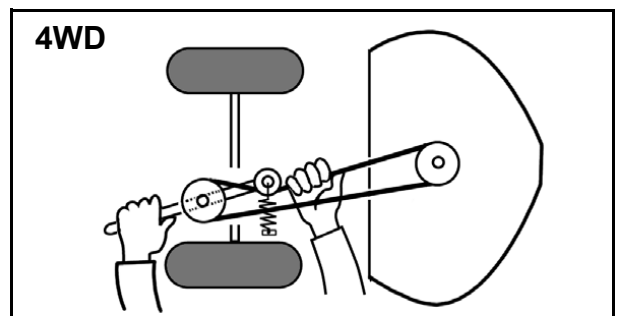
Remove the tensioner from the belt.



Park 4WD:

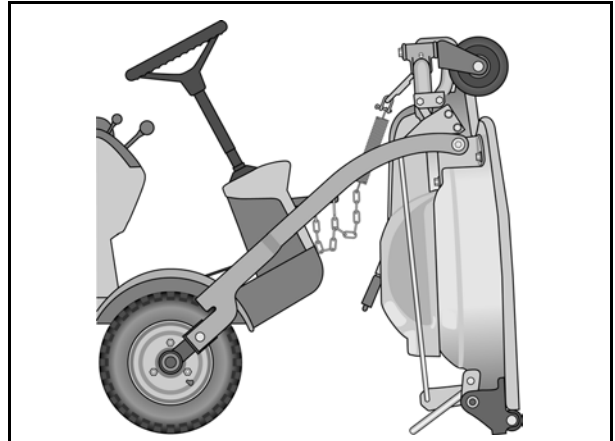
Grip the belt tensioner's lever with your left hand. Pull the lever and remove the tensioner with your right hand.

6. Force the belt off the machines's pulley.



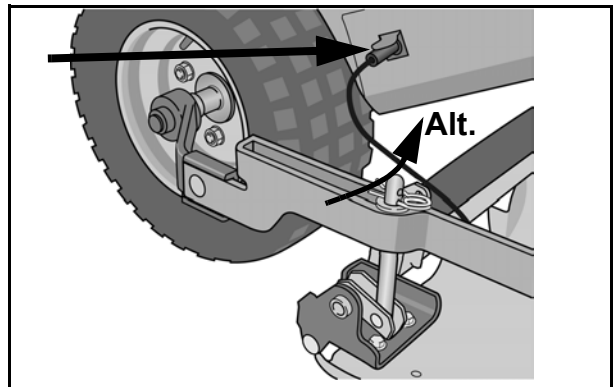
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7. Grip the front edge of the deck and lift up. Lift until the deck is completely vertical and rest the rear edge on the ground.
8. Lower the deck to the ground in reverse order after the corrective actions have been carried out. Reset the deck according to "Basic setting" at page 40.

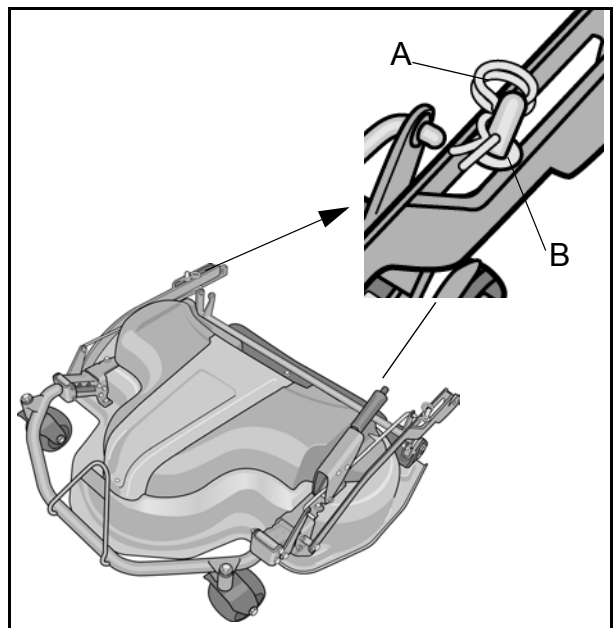


Machines with quick connections

1. Activate the parking brake.
2. Set the maximum cutting height.
3. If the deck has electrical cutting height adjustment, disconnect the cable from the machine.



4. Detach the rear section of the deck on the right and left-hand side as follows:
 - A. Lift up the left-hand rear section of the deck slightly to reduce the load from the cotter pin.
 - B. Remove pins and washer.
 - C. Remove the right-hand cotter pin and washer in the same way.
5. Set the quick connections in their rear positions. See their supplied separate instruction.

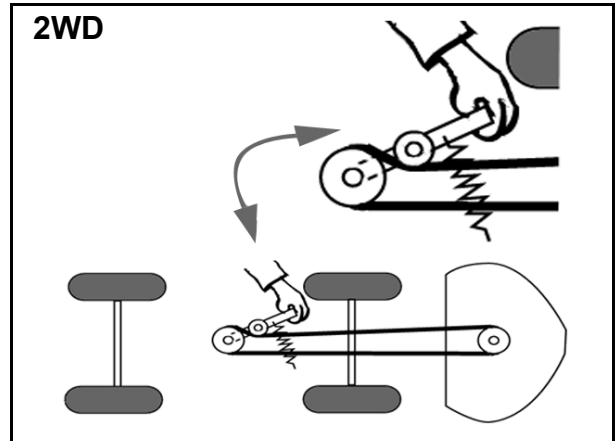


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6. Release the belt tension as follows.

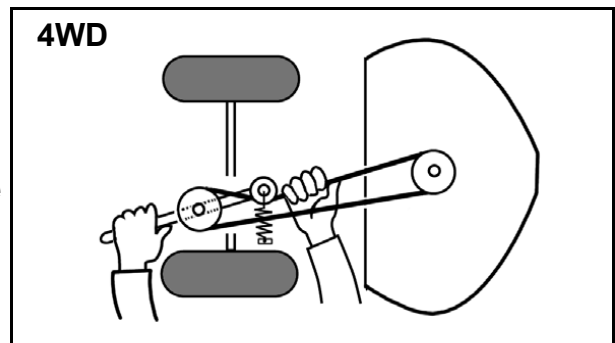
Park 2WD:

Remove the tensioner from the belt.



Park 4WD:

Grip the belt tensioner's lever with your left hand. Pull the lever and remove the tensioner with your right hand.



7. Force the belt off the deck's pulley.

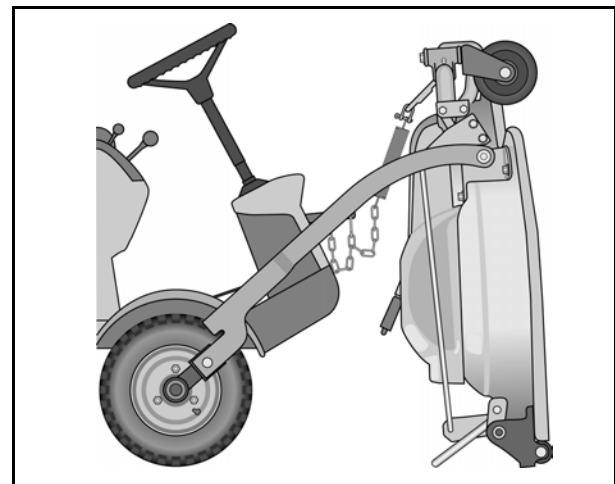


Check that the quick connections are in their front positions before raising the deck. Otherwise there is a risk of crushing injuries.

8. Set the quick connections to their front positions, see separate instructions.

9. Grip the front edge of the deck and lift up. Lift until the deck is completely vertical and rest the rear edge on the ground.

10. Lower the deck to the ground in reverse order after the corrective actions have been carried out. Reset the deck according to "Basic setting" at page 40.



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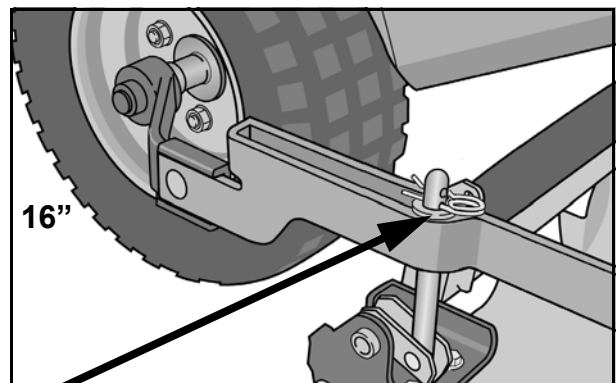
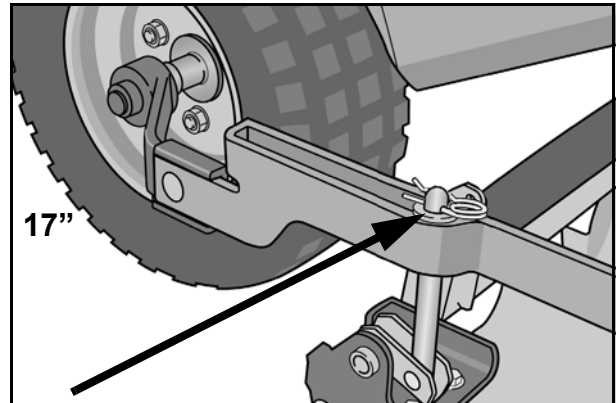
5.4 Basic setting

In order for the cutting deck to cut optimally, the correct basic setting is required. The deck is in the basic setting when its rear edge is 5 mm above its front edge. This means that the deck is inclined forwards.

Move the deck to the basic setting by lifting and securing as follows.

On machines with 17" wheels: Install the washers and the pins in the top hole.

On machines with 16" wheels: Install the washers and the pins in the middle hole.



5.5 Replacing blades



Wear protective gloves when changing blade(s) to avoid cutting yourself.

Check that the blades are always sharp. This produces the best cutting results.

Always check the blade(s) after a collision. If the blade system has been damaged, defective parts should be replaced.

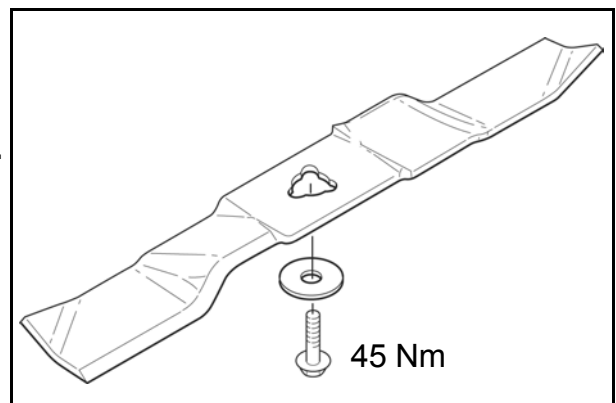


Always use genuine spare parts. Non-genuine spare parts can entail a risk of injury, even if they fit the machine.

The full blade is replaced when the edges are worn.

Install the new blade with the punched text facing down.

Tightening torque: 45 Nm.



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5.6 Replacement of belts

The cutting deck is provided with 2 belts:

- One external belt which pick up the power from the machine.
- One internal belt, connecting the knife shafts.

External belt

The external belt can be replaced with the deck mounted to the machine or not. Replace the external belt as follows:

1. Remove the yellow belt cover by unscrewing the front screw and hooking up the rear part of the cover. Use a T20 torx wrench.
2. Remove the belt guide by unscrewing the two screws. Use a T20 torx wrench.
3. Replace the belt and assemble the parts in the reverse order.

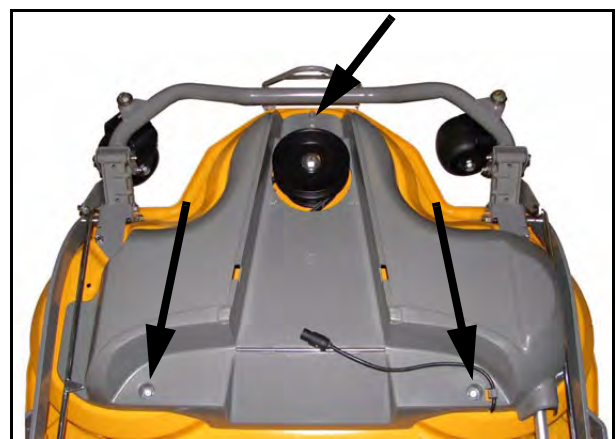
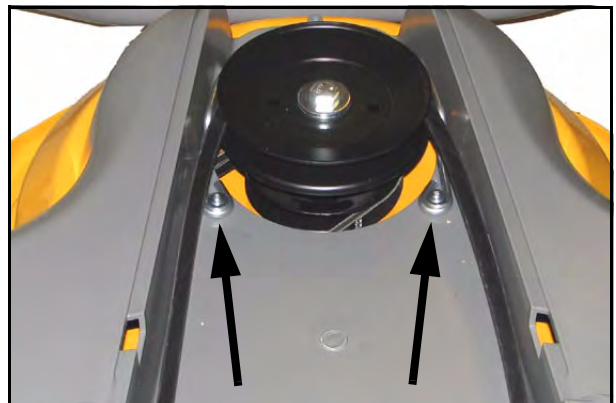
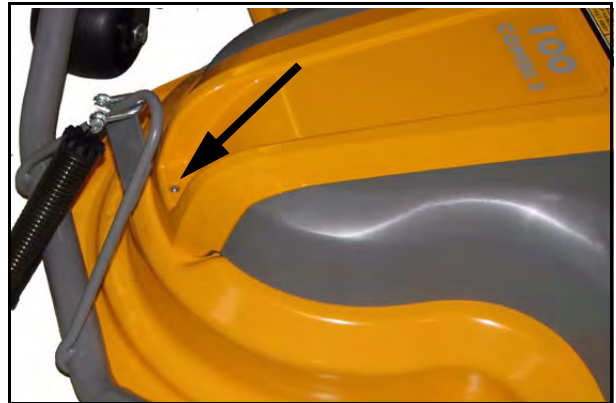


Do not overtighten the screws, this will damage the threads in the plastic material.

Internal belt

To replace the internal belt, follow the steps below:

1. Remove the cutting deck from the machine.
2. Remove the external belt as described above.
3. If the deck has electric cutting height adjustment, unhook the cable from the deck cover.
4. Remove the deck cover by loosening the three screws. Use a 13 mm spanner.



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5. Force the belt over a suitable pulley and remove the belt. The tensioning roller will follow automatic.
6. If the deck has electric cutting height adjustment, loosen the motor attachment at one end to get space for the belt.
7. Remove the belt.
8. Check the three knife shaft bearings as follows:
 - Grab the pulley and force it in the radial direction. No radial play shall be felt.
 - Grab the knife and force it in the radial direction. No radial play shall be felt.
 - Rotate the shaft. No abnormal bearing noise shall be heard.
9. Check the linkage for play and other damages.
10. If bearing faults are determined, proceed with "7.8" below.
If the linkage needs repair, proceed with "7.9".
Otherwise mount the new belt in the reverse order.



- ! Note!
Always use original spare belts from the retail dealer.
- ! Note!
If the deck has electric cutting height adjustment, always fit its attachments with new circlips.

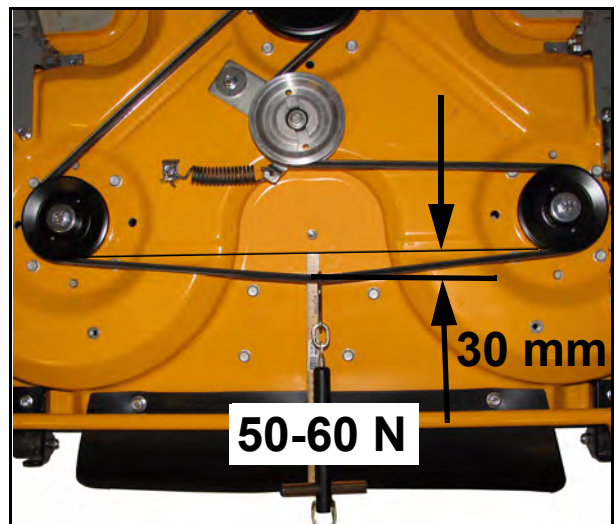
5.7 Adjustment and verifying the belt

The internal belt is automatic adjusted by the roller, fitted on the spring forced lever, and does not need any further adjustment.

However, the spring tension and the belt can be verified by measuring the belt tension/bending as follows:

Apply a force of 50-60 N in the middle of the belt. The belt shall move 30 mm.

If not, replace the spring or the belt and repeat the verifying.



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5.8 Replacements of pulleys and bearing housings

To replace the pulleys and bearing housings, first remove the internal belt as described previously.

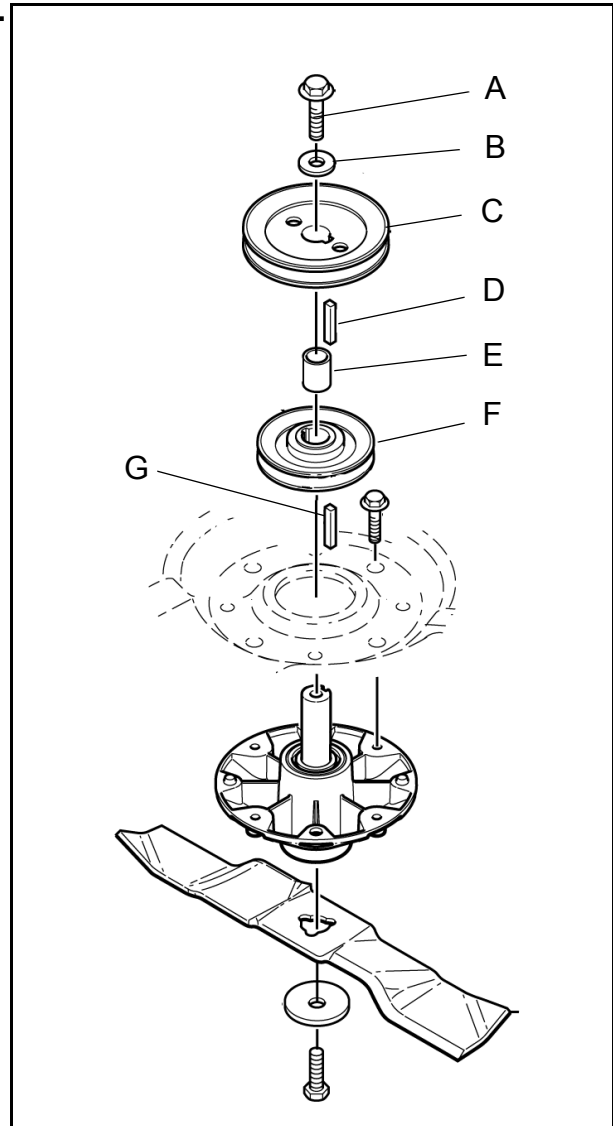
Below is described the disassembly/assembly of the center shaft unit. To repair the other units, use the applicable instructions described below.



Warning!

The blades are sharp. Always wear gloves when working with the blades to avoid injury.

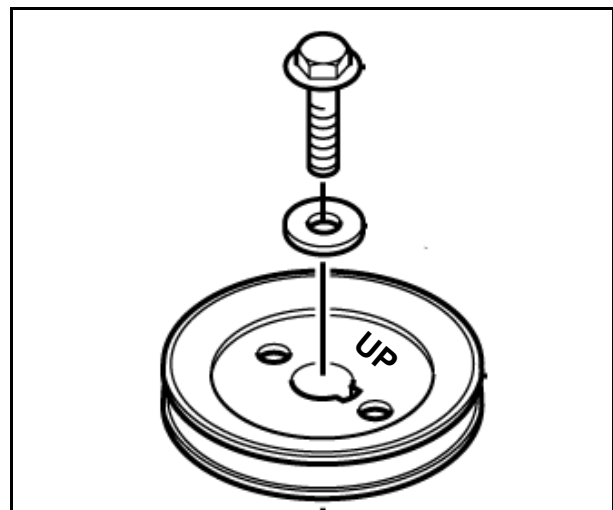
1. Hold the actual blade under the deck by hand and remove the pulley screw (A) with washer (B). Use a 17 mm ring spanner.
2. Remove the following parts:
 - Upper pulley (C)
 - Key (D)
 - Distance sleeve (E)
 - Lower pulley (F)
 - Key (G)
3. Remove the four screws, holding the bearing housing. Use a 13 mm spanner.
4. Take out the bearing housing.
5. Remove the blade, see "Replacing blades" at page 40.



Assembly

Assemble the bearing housing in the reverse order.

- ! Note!
According to the blades, see "Replacing blades" at page 40.
- ! Note!
The pulley (C) shall be turned with the mark (UP) faced upwards.
- ! Note!
The blades shall be tightened to 24 Nm.



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5.9 Linkage

The linkage has no adjustment points and is therefore easy to disassemble/assemble.

To get access to the linkage, disassemble the deck cover. See "Internal belt" at page 41.

When assembling the linkage, always use new circlips.

Disassembly the parallel links

After a long time of use, the bushings for the parallel links, can be worn out. To replace these, follow the instructions below:

1. Disassemble the four parallel links (A) from the deck by unscrewing the two arms (C) and the four screws (B) with nuts.
2. Push out the sleeves (D) and the bushings (E).

If the sleeves are difficult to slide out, set up the link in a vise, and use a hammer and a drift punch.

Assembly the parallel links

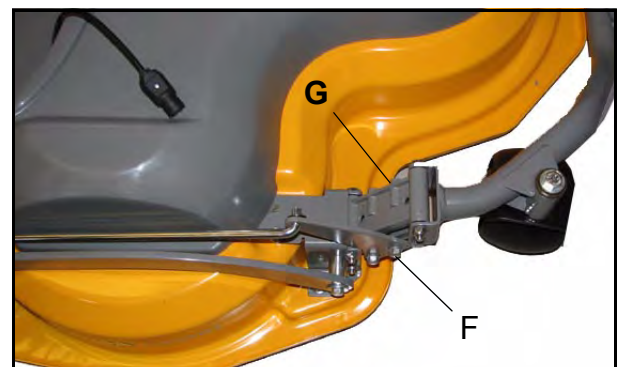
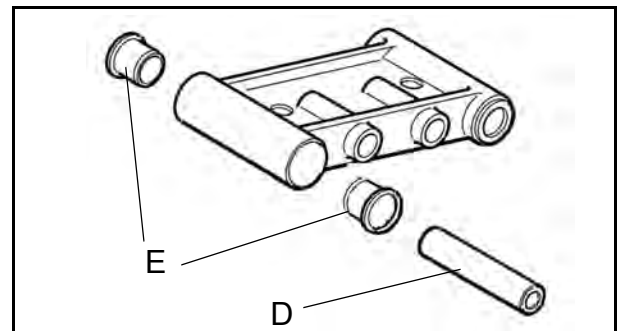
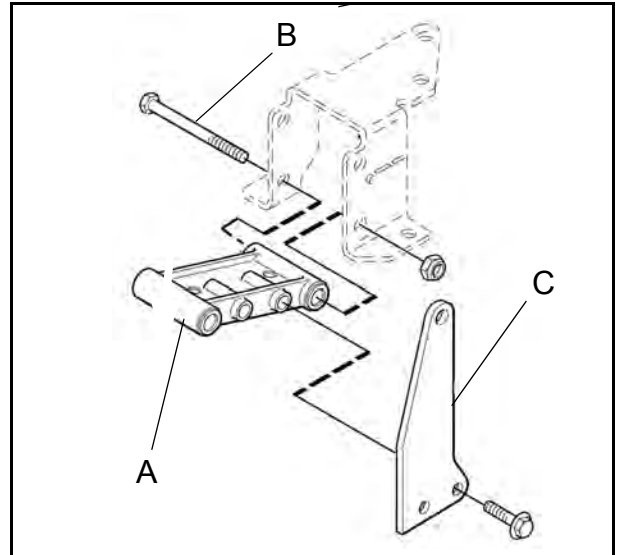
Assemble the parallel links in the reverse order.

- Note!**

The links with the threaded holes (F) for the arms (C) shall be placed at the bottom and with the threaded holes outwards.

- Note!**

The links without threads in the holes (G) shall be placed at the top and with the holes inwards.



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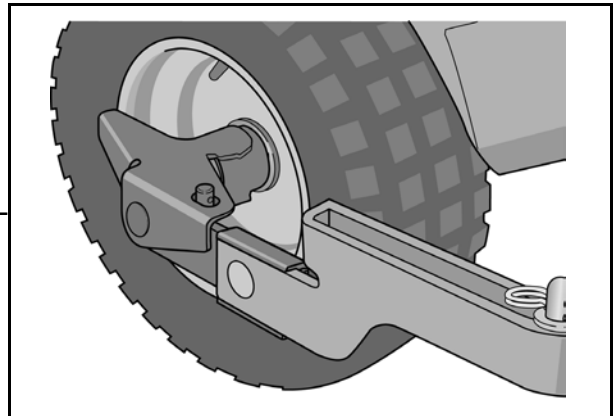
6 Quick connections

6.1 Description

The quick-release mountings are intended for use on Stiga's Park machines, 2WD and 4WD. The quick-release mountings allow the deck to be moved easily between the two positions:

- Normal position with fully tensioned belt.
- 4 cm behind the normal position with slackened belt.

As the belt idler is released from the belt, the quick-release mountings simplify belt and deck replacement, and also make shifting to the washing position and service positions easier.



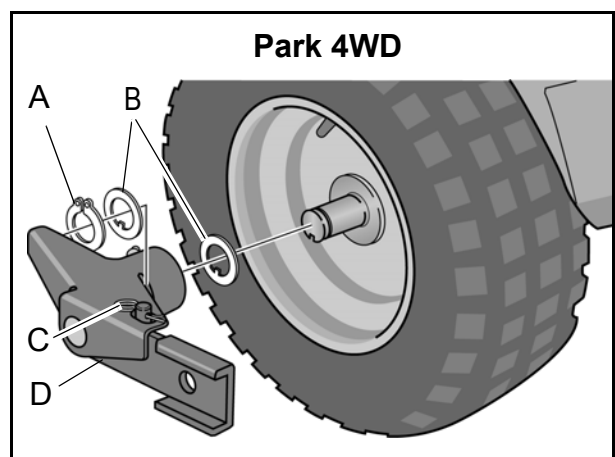
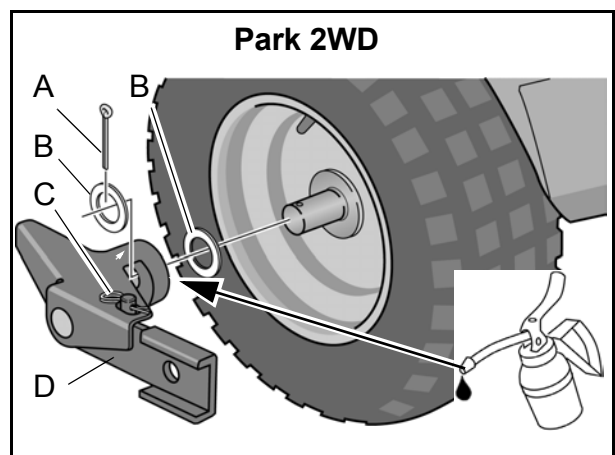
6.2 Assembly

The delivery consists of the following components. The figures only display the right-hand side, but the numbers below refer to both sides.

Position	2WD	4WD
A	2 cotter pins	2 locking rings
B	4 washers	4 washers
C	2 locking pins	2 locking pins
D	Quick-release mounting, right and left	Quick-release mounting, right and left
E	2 screws	2 screws
F	2 nuts	2 nuts

Install the quick-release mountings according to the instructions below.

1. Only applies to 2WD machines; Lubricate the shaft ends of the machine and the quick-release mounting's bearing surface with oil before installation.
2. Install the quick-release mountings to the machine according to the figures.



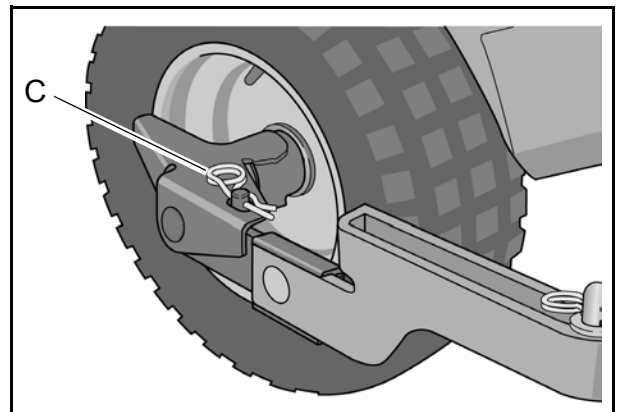
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- Only applies to 2WD machines; Bend out the cotter pin's (A) leg along the periphery of the shaft in order to secure it in the shaft.
- Only applies to 4WD machines; Lubricate the lubricating cup for the quick-release mounting using a grease gun until grease penetrates along the shaft sides.

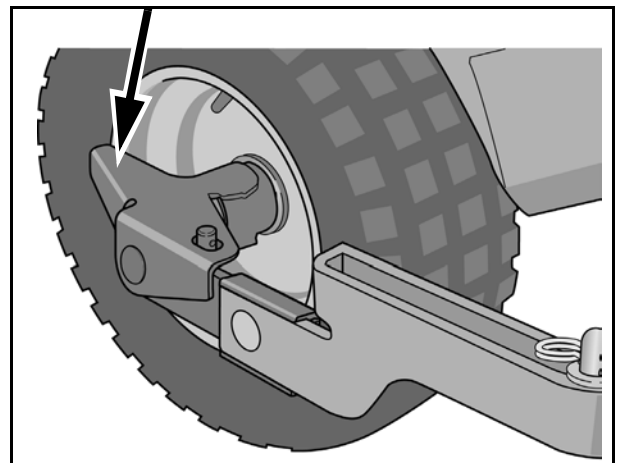
6.3 Using the quick connections

Releasing the belt tension

- Remove the locking pins (C) from both sides.



- Press down the rear section of the quick-release mountings with your heel.
- Carry out necessary corrective action, e.g. setting the deck to the service position.



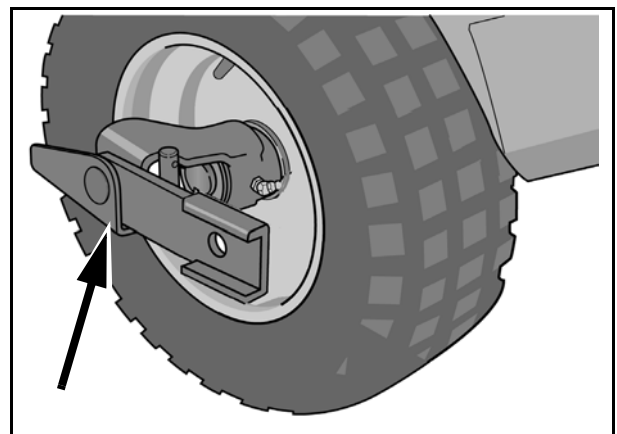
Tensioning the belt

First tension one side and then the other according to the instructions below.



Use protective gloves when handling the lever. Risk of crushing injuries.

- Firmly grasp the lever (5:G) in front of the centre of the shaft and carefully turn 180° forwards.
- Install the locking pin (C).
- Carry out the above on the other side.





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